ISSN 1538-2834

JOURNAL OF NORTHWEST ANTHROPOLOGY

Spring 2011 **Vol. 45, No. 1**

JOURNAL OF NORTHWEST ANTHROPOLOGY

FORMERLY NORTHWEST ANTHROPOLOGICAL RESEARCH NOTES

Composed by South Fork Press, Moscow; Printed by Copy Court, Moscow; Bound by Arts & Crafts, Oakesdale. Missing issue claim limit 18 months. For back issues and catalogue of prices contact Coyote Press, P O Box 3377, Salinas, CA 93912. <http://www.californiaprehistory.com>.

POLICY

Journal of Northwest Anthropology, published semiannually by NARN, Inc. a non-profit organization in Richland, Washington, is a refereed journal and welcomes contributions of professional quality dealing with anthropological research in northwestern North America. Regular issues are published semiannually with additional memoirs issued as funds are available. Theoretical and interpretive studies and bibliographic works are preferred, although highly descriptive studies will be considered if they are theoretically significant. The primary criterion guiding selection of papers will be how much new research they can be expected to stimulate or facilitate.

SUBSCRIPTIONS

The subscription price is $40.00 U.S. per annum for individuals and small firms, payable in advance, $60.00 for institutional subscriptions, and $30.00 for students with proof of student status. Remittance should be made payable to ***JONA***. Subscriptions, manuscripts, change of address, and all other correspondence should be addressed to:

Darby C. Stapp
J O N A
P.O. Box 1721
Richland, WA 99352-1721

telephone (509) 554-0441
e-mail dstapp@pocketinet.com
website www.journalnw.org

MANUSCRIPTS

Manuscripts can be submitted in double-spaced typescript on 8½ x 11 in. paper, and an electronic file in Microsoft Word sent via e-mail or on a CD is preferred. An abstract will accompany each manuscript. Footnotes will be avoided and if used at all will be assembled at the end of the text. Questions of reference and style can be answered by referring to the style guide found on the website or to ***Journal of Northwest Anthropology***, 37(1):101-130. Other problems of style can be normally solved through reference to *The Manual of Style,* University of Chicago Press, 14th edition (1993). All illustrative materials (drawings, maps, diagrams, charts, and plates) will be designated "Figures" in a single, numbered series and will not exceed 6 x 9 inches. All tabular material will be part of a separately numbered series of "Tables." Authors will receive one free reprint of articles, Memoirs, or full-issue monographs. Additional reprints may be produced by the author, however they must be exact duplicates of the original and are not to be sold for profit.

The paper used in this publication meets the minimum requirements of the American National Standard for Information Sciences–Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984

JOURNAL OF NORTHWEST ANTHROPOLOGY

VOLUME 45 SPRING 2011 NUMBER 1

THE GEOGRAPHY OF PLACE AND LANDSCAPE FORMATION: HIGH BAR, HELLS CANYON, IDAHO

Morris L. Uebelacker

ABSTRACT

High Bar, a place at the north end of the deepest canyon bottom landscape in North America, Hells Canyon, uniquely combines a dynamically formed and evolving physical structure with cultural patterns and processes. The physical forms and processes have been mapped, described and analyzed in a relationship to known, and newly discovered, cultural forms and process. This place-scale analysis is arrayed and evaluated in the context of the larger canyon bottom landscape, revealing thereby the distinctiveness of High Bar as a cultural place. Importantly, physical structure and process forms the spatial and analytical basis for the creation, persistence, and interpretation of High Bar. It serves as one possible example of how place-scale analysis contributes to the understanding of patterns of human activity in Hells Canyon: from prehistoric Clovis people to the present day occupants.

Introduction

The way the land is shaped conditions human possibilities for life and use. Land-shaping processes interact with functional human life patterns, simply through the positioning of structural landscape factors. High Bar, as a coherent place, demonstrates this determining process through a pattern of human places situated and structured within and by the deepest canyon in North America, Hells Canyon (Fig. 1).

Gravity plays large in Hells Canyon. Ancient rocks of Triassic and Permian age, steep slopes, landslides, rock fall, aeolian sands and sediments, tectonic movements, and volcanic ash falls all combine with steep river and stream gradients to produce a spectacularly incised river canyon landscape. Falling from over a 9,000 ft. elevation in the Seven Devils to 1,250 ft. at High Bar in under 4 mi., is the very definition of "rugged" for mountain landscapes in North America. Flat ground is rare. When it does occur on an alluvial fan, on an old terrace, under the toe of a house-sized boulder, on a ridge crest, or in fragments of horizontal proclivity, animals gather and pause as if stunned by the sudden change in orientation. It stands to reason that as topographic relief and roughness increase, human and animal mobility patterns become more structurally and functionally specific. In Hells Canyon, the physical constraints on human mobility are among the

most challenging in the world. When snow, wind, water, and heat are considered in this deeply v-shaped canyon, it is clear that the cultural ecology of people is spatially and temporally constrained.

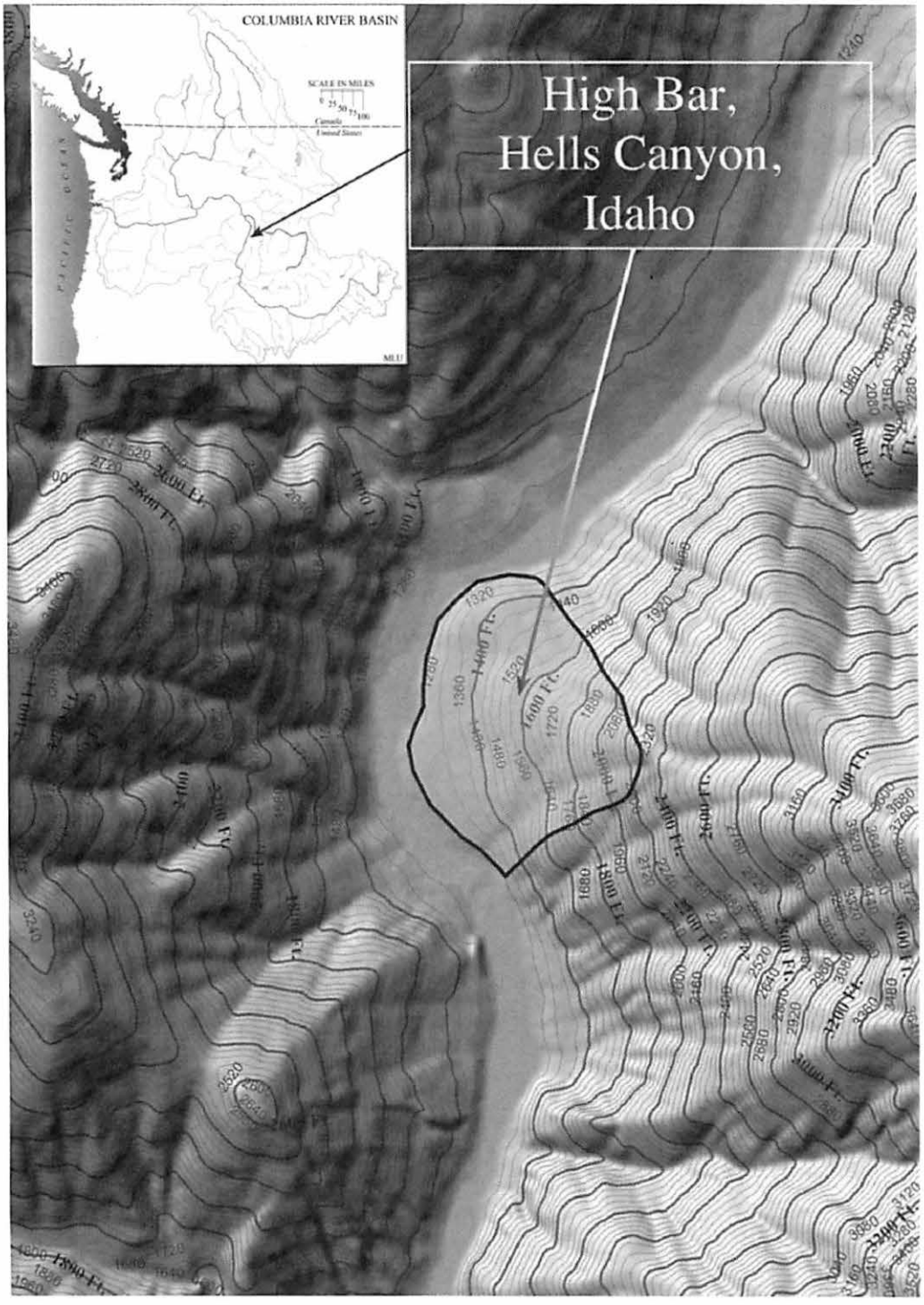

Fig. 1. The location of High Bar, Hells Canyon, Idaho.

Humans have found and used all the flat spots. Most of them contain evidence of spatial positioning through artifacts and features. High Bar is no exception. This elevated bar was derived in part from Bonneville Flood processes 14,500 years ago. It is not isolated from other structural elements and processes. High Bar, at the place-scale, includes eight analytical units (Fig. 2):

Rock Slide/Rock Fall
Bonneville Flood Bar
Post-Bonneville Alluvial Fans
River Impingements
Talus Slopes
Post-Bonneville Aeolian Dunes and Terraces
River and Floodplain
Post-Bonneville Complex Slope Deposits.

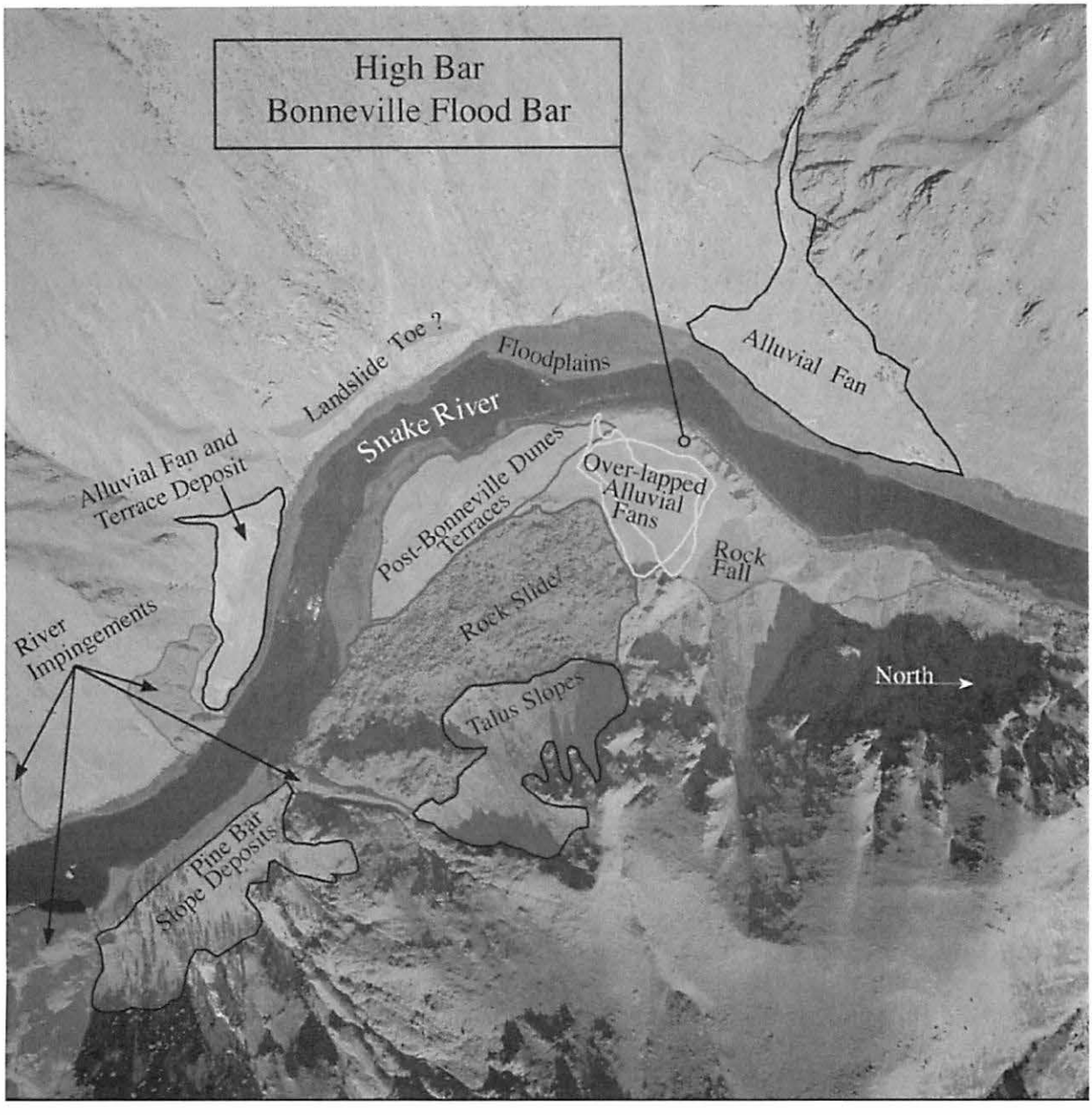

Fig. 2. High Bar, Bonneville flood Bar, and key landscape elements.

The spatial and temporal dynamics of these interactive analytical units and those processes that create, maintain, and change them links High Bar, as a place, to the canyon bottom landscape and the larger region. These units are expressed in many other places in the canyon, but not in the same structural, functional, and temporal array. This unique diversity, of physical structure and evolving ecological function explains, in part, the variations in formation of places and landscapes by various cultural ecologies that imbricate High Bar through time.

Of particular relevance is the fact that rock fall, a mass wasting process, plays a major role in structuring High Bar at the place scale and associates High Bar with other mass wasting events and processes at the landscape scale in Hells Canyon and the larger region. Such events, triggered by a complex mosaic of interactive geological and geomorphic structures and processes, occur throughout the Columbia River Basin and are common in canyon, gorge, ridge and mountain settings at various spatial and temporal scales. They are often significant in explaining the details of place, landscape, and regional cultural ecologies. For example Davis (2007) demonstrates the profound effect that mass wasting processes have on anadromous fish ecology in the Salmon River Basin, and convincingly establishes linkages with threshold changes in human adaptive patterns in that river basin. The Bonneville landslide on the lower Columbia is another example where a place-scale mass wasting event triggered by regional tectonics dramatically changed place, landscape, and regional patterns of human adaptation, perception, and explanation (O'Conner 2004).

When trying to understand the variability of human adaptation represented by a complex archaeological record it is critical that explanations be synchronized with the spatial scales of place, landscape, and region and with the archaeological details. Physical processes frequently give rise to threshold changes in human possibilities; to how human systems capture, process, and utilize energy; and to their embedded cultural connections to places, landscapes, and regions.

High Bar: Physical Structure and Process

The boulders are huge: some 2 to 5 meters diameters in size, some house-sized, some rounded and some angular (Figs. 3, 4, and 5); they lie below a rapidly eroding scarp separated by a very unstable and active talus field. Tracy Vallier described this area thusly:

> A rock slide changed the course of the river just north of Pine Bar. This ancient rock slide forms the south end of High Bar. The high flat terrace on the north side of High Bar probably resulted from the deposition of Bonneville Flood gravels behind the landslide and subsequent smoothing by waters of that flood. Hence, the slide occurred before the Bonneville Flood. The flat top [terrace], more easily observed from the north side of High Bar, is long enough to land small airplanes (Vallier 1998:66).

Rock slides and rock fall are common in Hells Canyon. These mast-wasting processes are not random but rather show a close association with the controlling geological structure. The High Bar rock slide is derived from the Wild Sheep Formation: highly crushed, shattered, and faulted rocks of Triassic age 240 million years ago. It is important to know that these rocks have been altered in places and along beds by geothermal processes creating gossan deposits containing concentrated minerals that are softer and erode more quickly than surrounding rock

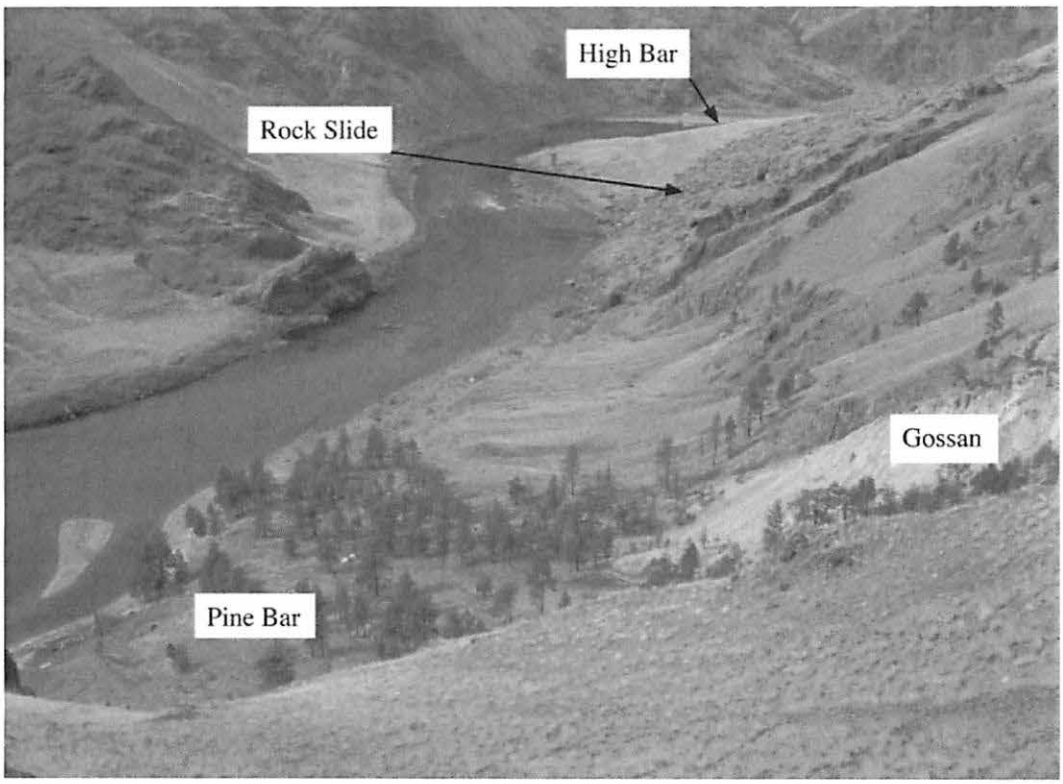

Fig. 3. High Bar looking north down the Snake River, showing the location of High Bar, Pine Bar, and the Gossan.

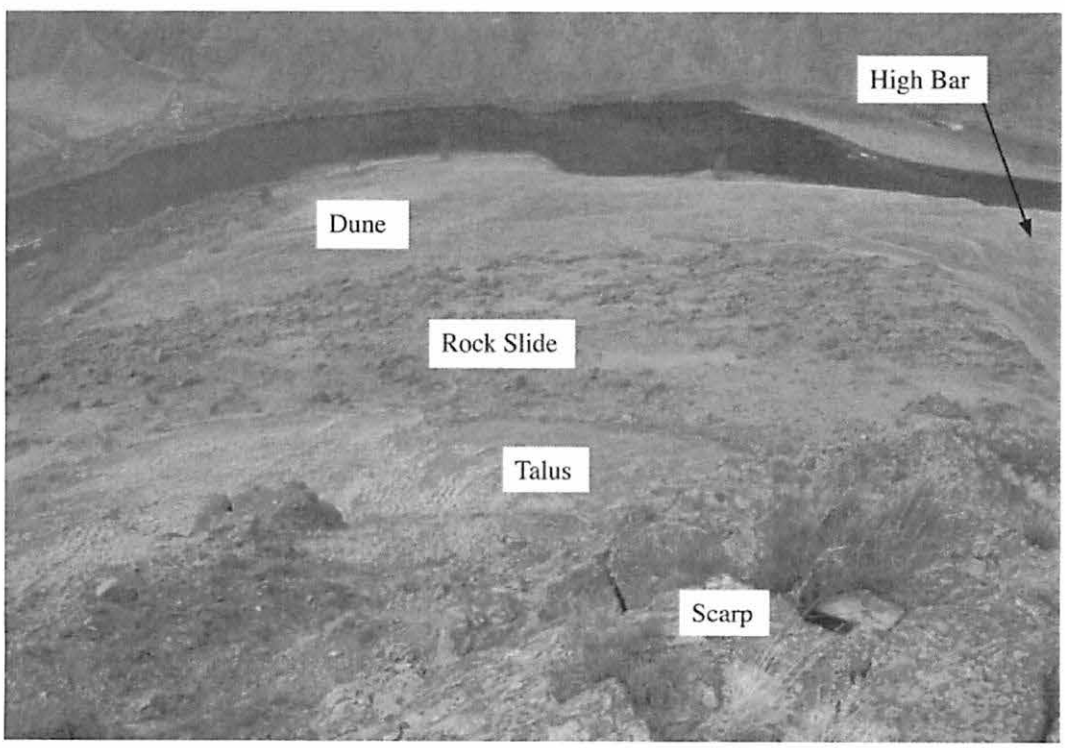

Fig. 4. View down from the mass-wasting scarp across the north edge of the talus slope, rock slide slope, and dune field to the Snake River.

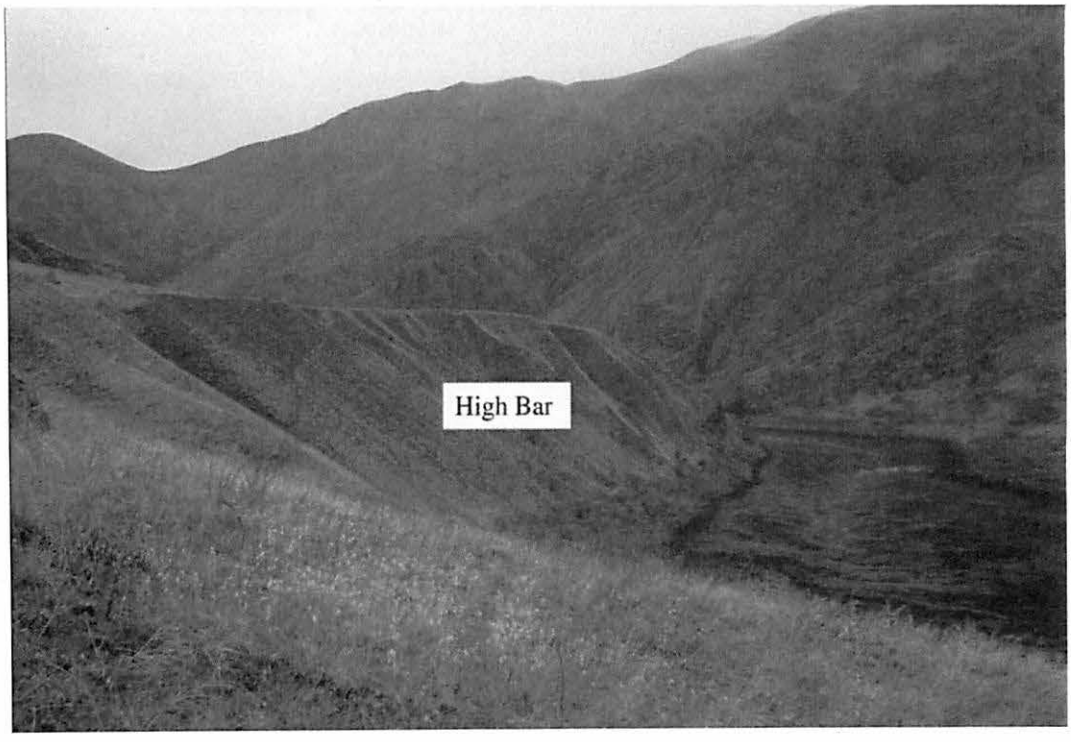

Fig. 5. View of High Bar from the north.

widening of the canyon walls related to units. Gossan beds are prone to sliding and in most places cause a slight widening of canyon walls related to weathering, mass-wasting, and erosional processes (Vallier 1998:63–67). The gossan at Pine Bar clearly shows these patterns as does the bed that runs down river, rising at about 26°, and is visible as orange/yellow/white on both sides of the river for several miles. Most of the gossan deposits are occupied by patches of Ponderosa pine, likely related to water retention by the heavy clays, produced through geothermal alteration and weathering. The 26° angle is not consistent with the gossan beds running down-canyon. The beds, and hence the angle of rise, are disrupted by crushed and up-thrown blocks and layers over the course of several miles, originally forced by the collision of this exotic terrain with the North American plate. The angle is an important clue that partially explains the rock slide as primarily a surface deposit, a fact that is not readily apparent.

The rock slide itself lies on a rock bed that tilts up-slope and north at 26°. This sloped unit is also tilted 34° up-slope to the east. The unit extends from the water's edge at the south end of High Bar, up-slope to the north and east where it underlies the rock slide. In places on the surface of the rock slide the unit is Bonneville Flood-rounded and subsequently weathered hummocks form up and down slope, perpendicular to the flow of the flood. This pattern and the associated boulders together form ripple marks, indicating the presence of high velocity rapids during the Bonneville Flood. The tilted bedrock unit also underlies the steep talus slope, emerging on the hill slope in the scarp and then appearing as a hill slope above the scarp. The rock unit that failed, forming the rock slide slope, was faceted to an underlying unit tilted above the angle of repose towards the river (Fig. 6).

This underlying bed has been eroded away downstream and on the north edge of High Bar where hydraulic erosion has cut 120 meters below the unit. The orientation of this unit has forced the river to the west and in this sense High Bar is a structurally controlled bar and not a classically formed point bar typically found on alluvial floodplains and deposition zones in

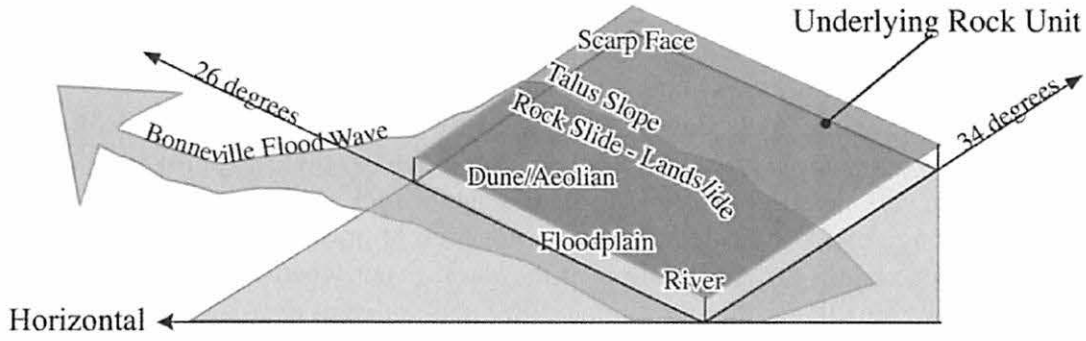

Fig. 6. Rock unit underlies the rock slide. It travels from the river's edge up-slope to the north at 26° and tilts up-slope to the east at 34°.

canyon settings. The orientation of the unit essentially ramped Bonneville flood water up-slope and over the north edge of High Bar, forming a head cut on the north edge of the underling rock unit. With the addition of large rock slide boulders on this surface, a huge, high velocity rapid developed and created an enormous scour zone that is now occupied by the Snake River and the post-Bonneville alluvial fan on the Oregon shore. Consequently, this tilted ramp forced the flood energy towards the steeper west bank (Oregon side), where the tilt of the structural units, up to the east, make hill slopes less prone to mass-wasting through landslides and lateral hydraulic erosion than at High Bar (Idaho side).

Field observations indicate that the rock slide was not a single event but a process beginning prior to or coincident with the Bonneville Flood, that continues to the present time. Systematic field survey of the rock slide led to the following observations:

- The line of boulders on the western shore of the Snake River could indicate that the rock slide crossed the Snake River Canyon and reached an elevation above 1,400 ft. However, the evidence is not compelling without measured field data, and the cliffs above this feature have obviously contributed rock fall boulders.
- Large rounded boulders lie in the river and are exposed in the sediments on both banks of the river. In addition, the tops of a few large rounded boulders are exposed in the loess/sand sediments between the river edge and the toe of the rock slide. These patterns indicate that rock slide material underlies and extends from the river edge under the dune field and rises to the visible toe of the rock slide.
- The northern edge of the rock slide is marked by a sharp drop in elevation, indicating water dropped from the tilted rock surface and began head-cutting back (south) into the rock unit covered with rock slide material.
- The tilted ramp surface is exposed on the north and mid portions of the rock slide surface. Many of these exposures are steeper on the downstream side (north) with ripple marks that indicate plunging hydraulic action and shaping.
- Larger, sub-rounded and angular boulders are on top of Bonneville-derived boulders on the northwest quarter of the rock slide, indicating either rock slide boulder movement during the flood and/or rock slide movement after the flood. Given the sub-rounded to angular shape of many rock slide boulders and the orientation of the tilted long axis, it is

probable that some of the rock slide boulders where moved onto smaller Bonneville bed load boulders by the force of the flood.

- Micro bars composed of smaller Bonneville bedload cobbles exist behind (downstream) some of the large rock slide boulders in the mid portion of the rock slide, indicating this portion of the rock slide was in place during the Bonneville flood.
- The south end of the rock slide is dominated by a huge transitional slideblock fronted down slope by a complex jumble of house-sized boulders that range from very angular to sub-rounded. Its position and the talus and angular rock slide debris pushed down slope by this massive block indicates that it was not present prior to the flood, and that it post-dates or occurred on the falling limb of the flood event when flow volume and velocity where lower. It is likely that the Bonneville flood undercut and destabilized this massive slide block. The slide block is impinged by a dyke-like rock structure controlling the southern end of High Bar.
- The rock slide surface lacks small bedload and rock shatter commonly associated with rock slides, indicating that these sediments were in large part removed from the surface and carried downstream by the Bonneville flood. Small (10 to 15 cm on the long axis) lenticular river cobbles are rare, but present, in the rock slide (less that 20 observed). This indicates an energy threshold where both larger diameter material and small round material (sands) were carried away by the flood waters, leaving these flat small rocks occasionally deposited.
- The flood height exceeded 518 m (1,700 ft.) elevation across the rock slide as evidenced by small lenticular cobles and rounded boulders, faint shorelines, and angular boulders near this elevation.
- Sub-rounded boulders are present in the southwest corner of the rock slide and decrease in density moving up slope and are rare half way up the rock slide and absent at 518 m. This indicates flow velocity decreased upslope. Angular boulders dominate the area below the transitional slide block.
- Measured boulders along a north to south traverse through the rock slide at 457 m (1500 ft.) elevation indicates the sub-rounded to angular boulders are consistently inclined (tipped) downstream and that the boulders on this rock slide are slightly larger than the transported boulders on Temperance Creek bar downstream. Further bedrock surfaces are scalloped and steeper on the upstream side, indicating flow velocity was significant at this elevation across the rock slide.

The flood was over 175 m (574 ft.) deep at Johnson Bar 4 km (2.5 mi.) upstream from High Bar, and it lasted at variable and decreasing depths for as many as 300 days, by some estimations (O'Conner 1993:39). The peak discharge appears, from various models, to have been over the duration of a few weeks to slightly longer depending on upstream storage and discharge from backwater environments. Enormous reaches of backwater storage lie upstream of the southern end of Hells Canyon above Farewell Bend and water from these impoundments poured through the steeper and confined canyon with complex volume and velocity surges related to structural features internal to the canyon landscape. High Bar is an excellent example of place-scale canyon structures interacting with huge volumes of water, almost twice the volume of a single Missoula flood event. It flowed at modeled velocities up to 570,000 cubic meters per second (O'Conner 1993).

The flood forms and structures at High Bar include not only the modification of the rock slide structure up to 518 m (1,700 ft.) but also include a massive pendant bar form, 120 meters high. It is this feature that gives High Bar its name (Figs. 4, 5, and 7). This Bonneville-derived

bar lies immediately downstream (north) of the rock slide structure that overlies the underlying tilted rock unit and was deposited downstream of these structural features. The bar deposit grades in size from rock slide-size boulders at the water's edge on the southwest, to melon-size boulders just as the river turns to the northeast and then grades to gravels and sand. Clearly, the western bedload edge of High Bar was shaped by enormous stream power that moved rock slide-sized boulders as almost 2 mi. downstream to the Temperance Creek bar. Flow velocity decreased and reversed direction along the east bank and downriver at High Bar, indicating the presence of a large recalculating back eddy on the east bank during the flood. The surfaces of these deposits are sloughing, and internal stratigraphy is difficult to detect without physically exposing them. The surface of the bar deposit is capped by primary Mazama ash deposition overlain by loess/sand sediments less than a meter thick and only a thin organic horizon (6 cm) is present.

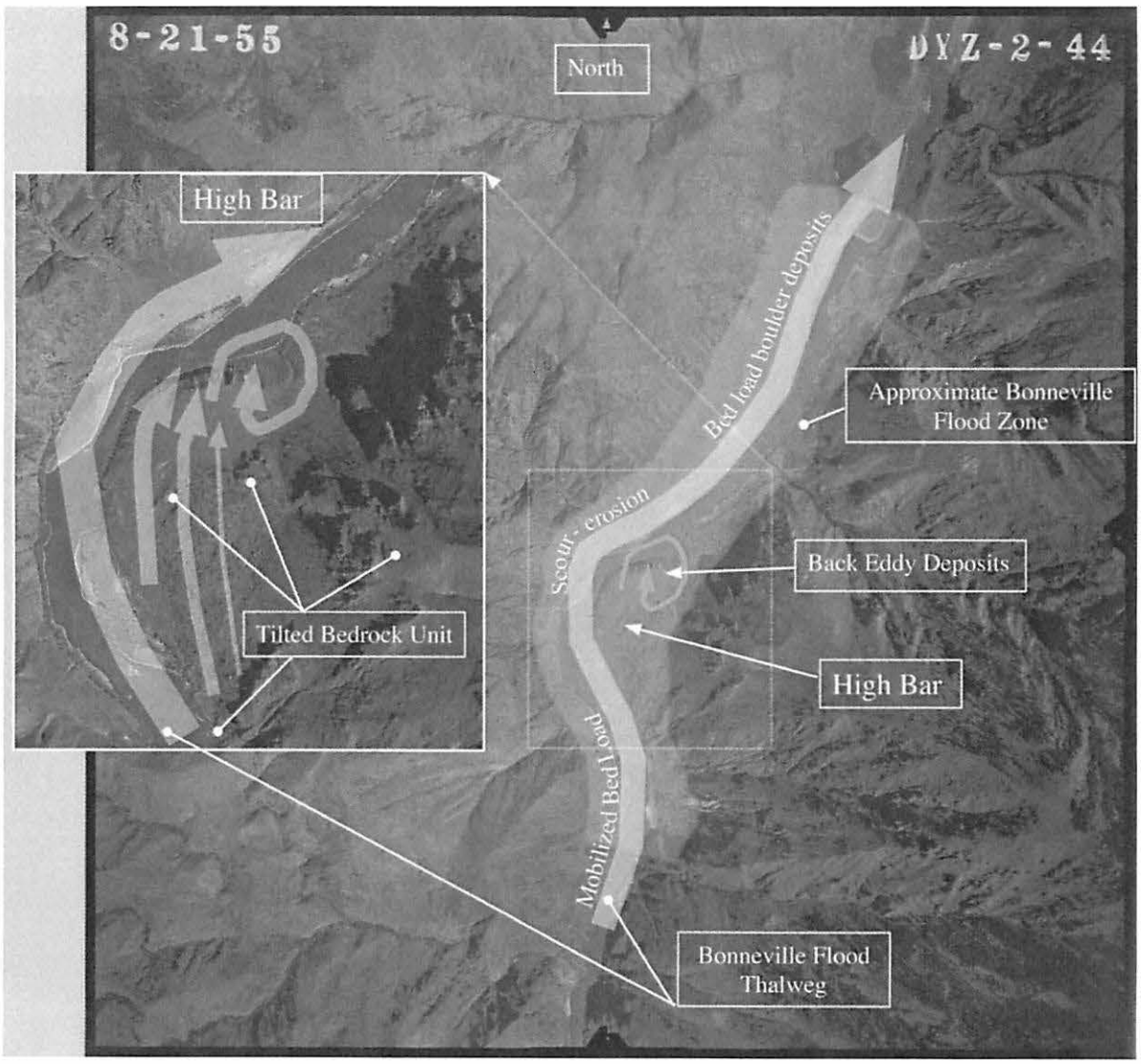

Fig. 7. High Bar flood patterns. Approximate area flooded by the Bonneville flood including the thalweg and minor flood paths over the tilted bedrock unit. The back eddy deposits on the north end of High Bar are illustrated.

The deposition of Mazama ash is informative. The deposit appears to have fallen directly on bare cobble and back eddy deposits that had not undergone major soil development between deposition of the Bonneville bar and eddy forms about 14,500 years ago and the primary Mazama ash fall (7,627 cal yr.). Approximately 7,000 years passed between these two threshold events. Is it possible for the Bonneville deposits to lie bare for that long, or did paleo-soils develop and then erode away prior to the Mazama deposition? The ash clearly filters down into the Bonneville flood cobbles and no evidence of earlier soils was found. Detailed soil pits and exposure of the bar face would add important information about early Holocene landscapes in Hells Canyon.

The bar deposits (Fig. 8) transition abruptly into the gravel and sand deposits (Fig. 9), marking a distinct velocity and directional threshold. Mazama deposition is present east of the gravel and sand deposit on the bar edge. The edge of the eddy deposit is impacted by rock fall from the high cliffs to the east, numerous craters from falling and tumbling rock pock mark the edge of the bar, amplifying the continuation of rock fall from the cliffs above.

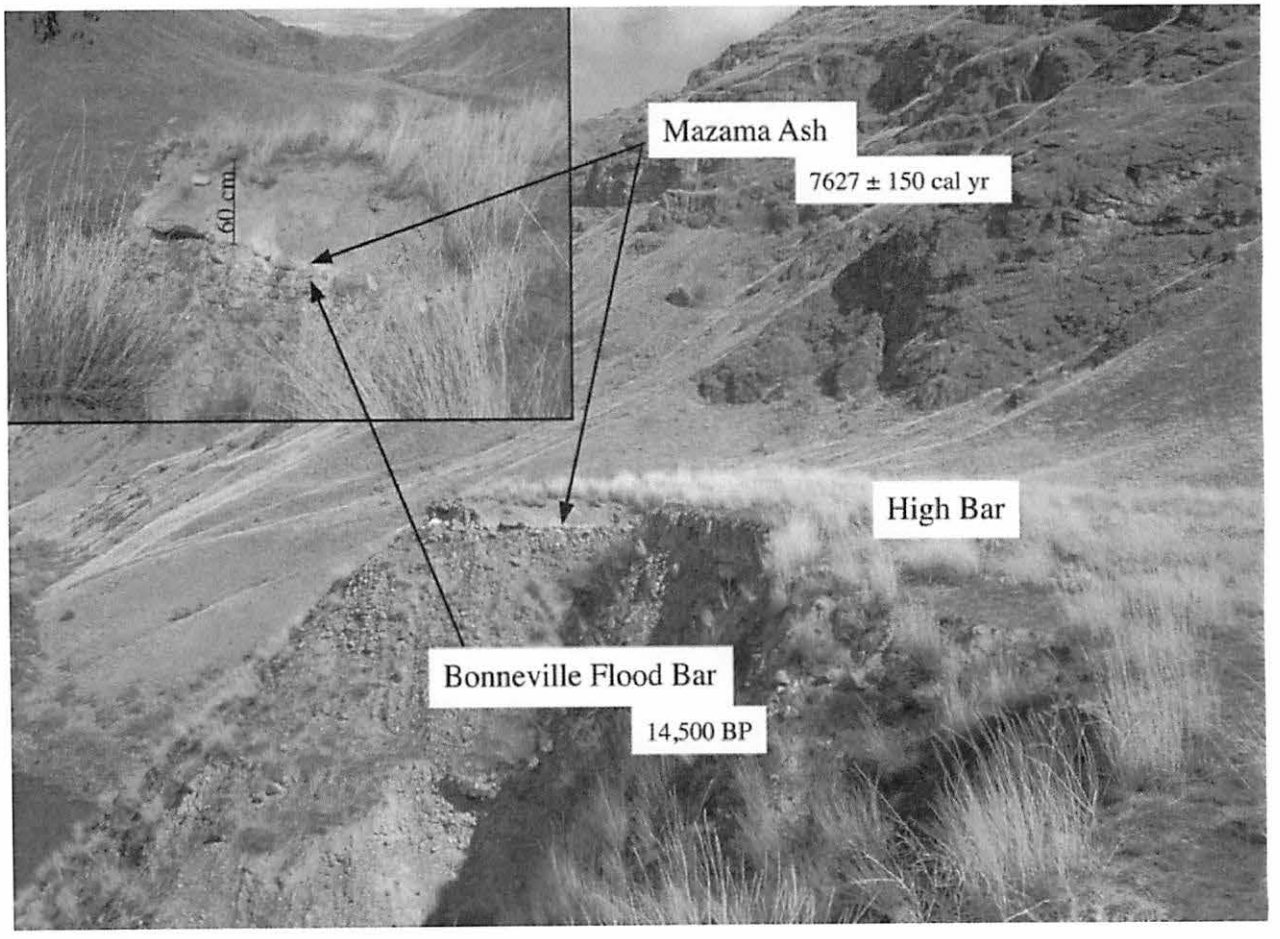

Fig. 8. High Bar looking north down the Snake River. Shows Mazama ash deposit directly on top of Bonneville flood bar. Note the aeolian sand and loess unit on top of Mazama Ash deposit.

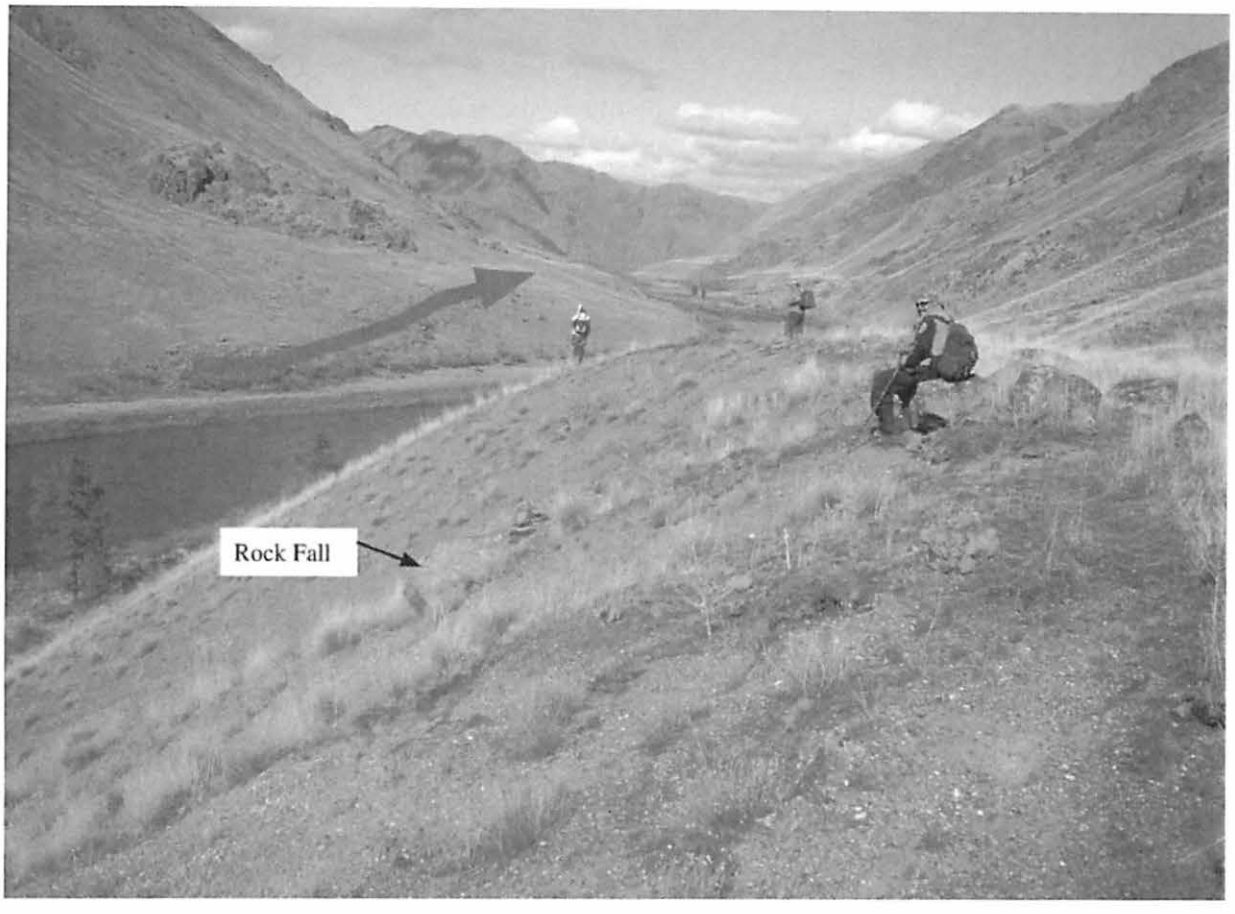

Fig. 9. High Bar looking north down the Snake River. Shows gravel and sand deposit derived from the recirculating back eddy. Note the large angular rock fall in the right center and the beginning of large boulder deposition on the Oregon side of the river (shown by arrow). This line of boulders is the southern end of the 2 mi. long Bonneville flood terrace that terminates at Temperance Creek.

Two alluvial fans cap the top of the Bonneville flood deposit and they overlie one another (Fig. 2). The drainage supplying the two fans appears to have been cut off or captured upslope from collapsing rock units. These fans appear to overlie the Mazama ash fall, but without excavation this could not be determined with certainty. Obviously, the fans are post-Bonneville in age. Surface channeling indicates multiple large runoff events have moved melon-sized angular rock to the western edge of the bar. These storm events are most likely thunderstorm-related cloud bursts—legendary in this reach of the canyon for activating fans and slopes. In examining the topography on maps and in the field, it appears the fans have filled and overtopped the concave backslope common on many bar deposits. The catchment for these fans is very small and parts have fallen away, the result of relatively recent rock fall events. Closer field examination of the upper catchment combined with fan stratigraphy is required to understand these sediments and their relationship to the bar, to Mazama ash, and to the rock slide process.

West of the rock slide toe lies a zone of active sand dunes (Fig. 10), active on the southern or upstream edge and more vegetated on the north end of High Bar. This dune system is tilted up to the north, rising 15 m. Its underlying structure appears to be rock slide and river bedload deposits at the southern end and Bonneville flood bar deposits at the north end. Clearly the structure relates to the surging thalweg of the Bonneville flood and the subsequent falling limb of the flood combined with the subsequent flooding and down-cutting of the Snake River during the Holocene period. From above, in the rock slide area, the active dune systems appears to mantel alluvial terrace structures that step down to the active floodplain of the contemporary river bed (Fig. 11). How much, and what specific parts of this underlying structure are related to the Bonneville Flood, versus the last 14,000 years of river processes, is not known in detail.

The sand supply for this system is directly attributable to alluvial sand moved downstream by the Snake River, followed by aeolian movement of sand upslope onto the bar and terraces and into the rock slide. Significant changes to the sand budget along the river shorelines and bar forms are readily apparent when contrasting pre-Hells Canyon Dam aerial photography with more recent photography. A report detailing sand bar erosion at selected sites in Hells Canyon from 1990–1998 (Grams and Schmidt 1999b) demonstrated a reworking of the sand bars during floods, a net decrease in the volume of sand in the bars, and the erosion of high terraces along active cutbanks. This work followed and supported the work of Grams (1991) and Grams and Schmidt (1999a), and culminates in a determination that the sand bars and terraces eroded quickly following the flow regulation of the Snake River in the late 1960s, and that by the mid-1990s the deposition and erosion rates slowed due to a loss of sand in the Hells Canyon reach of the Snake River.

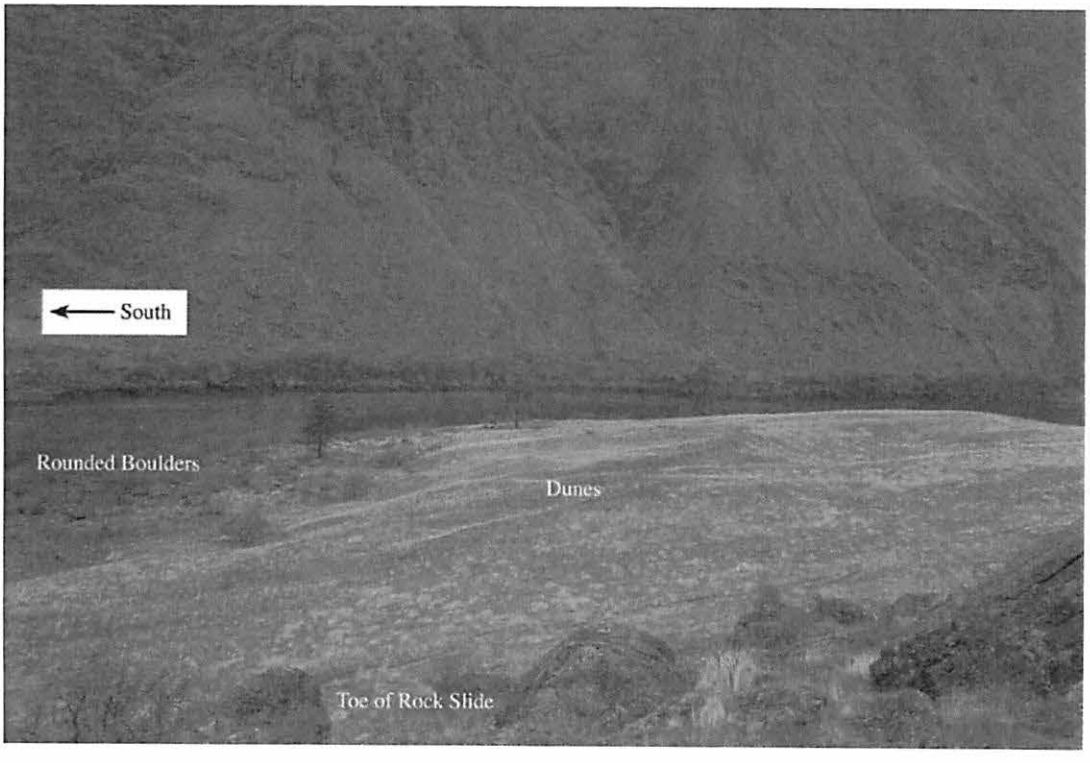

Fig. 10. High Bar dunes. Looking west to the west side of the Snake River. Note the large rounded boulders in the floodplain, the intervening dune field, and the toe of the rock slide.

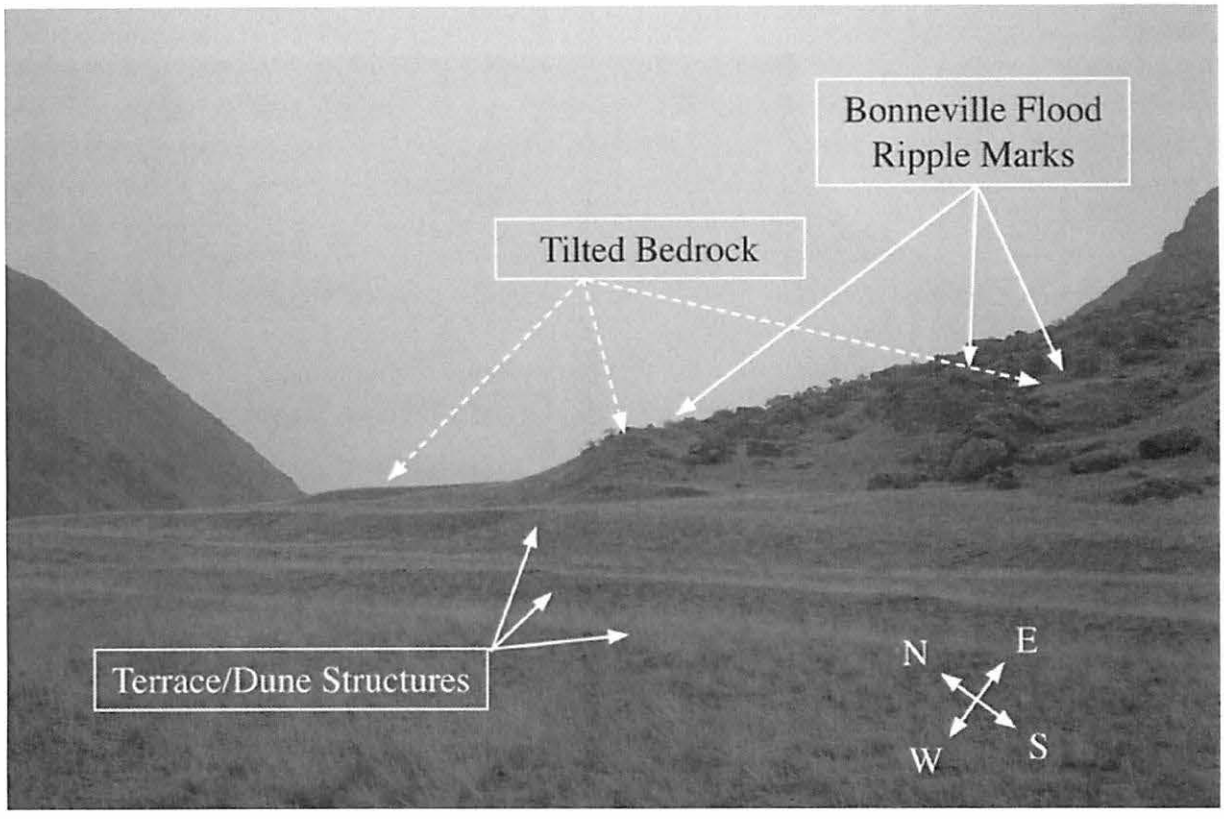

Fig. 11. High Bar dunes and terrace structures looking across the northwest corner of the rock slide.

Upslope sand deposition, storage, and erosion areas are not considered in these studies, reflecting an obvious riverine environment bias by current land management systems that minimize the area of potential effects from flow regulation. Decreasing river sand supplies affect up-slope environments, but the nature, rate, and extent of alterations are not known. Baseline studies are needed to understand the alteration of the sand system and its effect upslope of the riverine zone. Field observations from Cougar Bar to Hells Canyon Dam indicate that sand is an active component 300 vertical meters above the river surface and, depending on topography and local surface conditions, its varied effects can extend well above this elevation. The High Bar dune systems and the rock slide, like many areas in the Canyon, offers an excellent place to begin the process of understanding these changes. To this end, baseline topographic mapping of the dune system was undertaken in March 2009 (Fig. 12).

The dune system at High Bar is dominated by interlocking parabolic dunes. Since dune systems are dynamic expressions sensitive to changes in wind direction and velocity, sand supply, moisture, temperature, vegetation, and human use, they are tricky landscape features to use for isolating ultimate causal changes to their structural form. The sand supply has been reduced since the late 1960s and domestic stock grazing has a more than 200-year history on High Bar. These two factors alone can alter dune structures in significant ways, not to mention real climatic variations and fire events. Tree cores from the Ponderosa pines on High Bar show a major drought cycle in the early 1930s, correlated with the spatially greater climatic pattern related to the Dust Bowl era. Given that domestic stock use has been minimized (minimal evidence of cattle use from the fall, 2008, was observed), and that wind and temperature data are

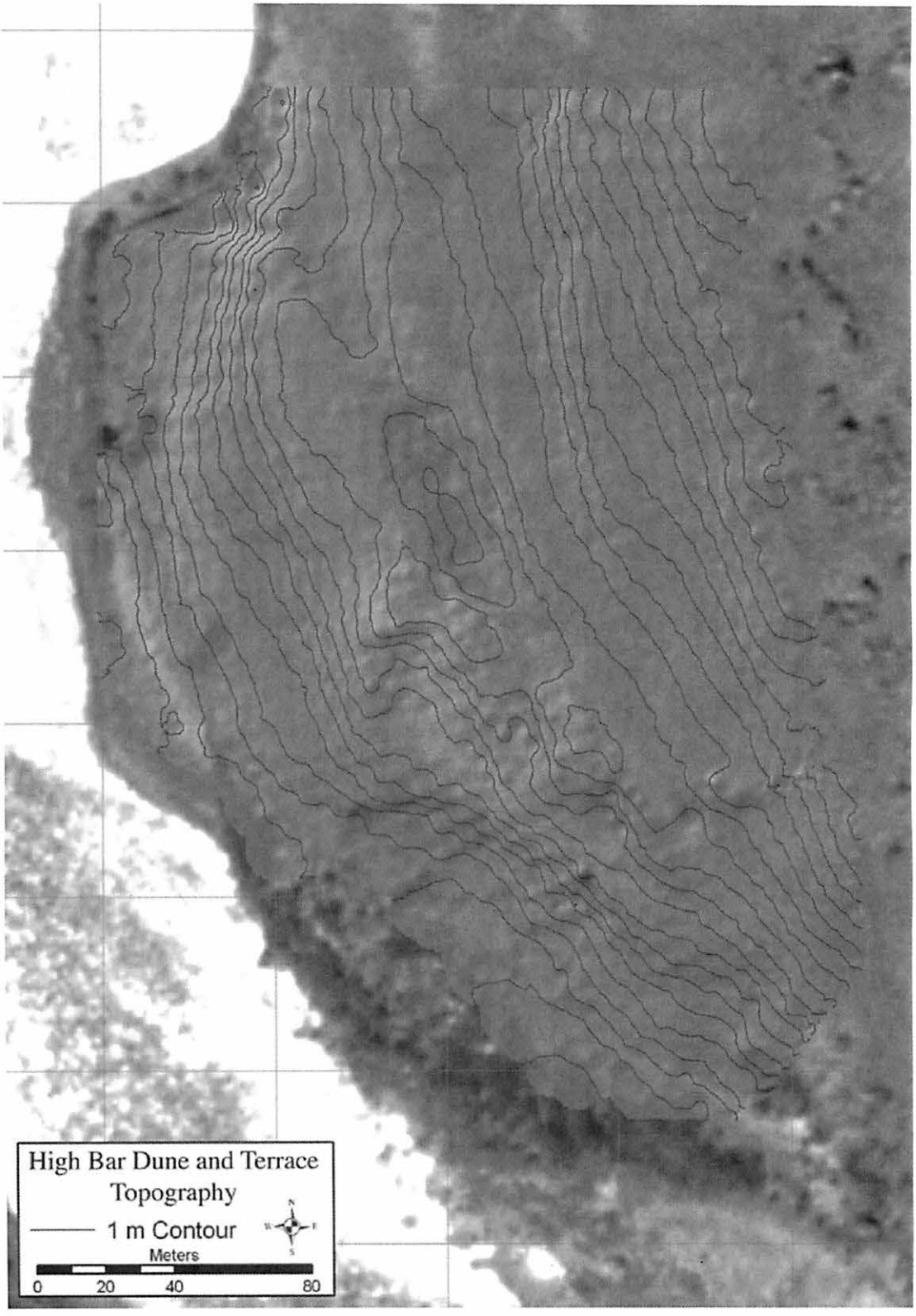

Fig. 12. High Bar Dune and Terrace topography. South end of High Bar.

recorded at Hells Canyon Dam and Kirby Creek, it is possible to use the High Bar dune structure to monitor the effects of a greatly altered sand supply system. Existing LIDAR data sets and laser scanning (Singleton 2009) by Idaho Power, also provide this potential as does repeat aerial photography planned by the USFS (Keith Miller, personal communication). Field explorations related to human land use in the canyon indicate, through stratigraphy, that the sand landscape is not now, and never has been confined to the river and its active edges. How much sand lies upslope? What parts of the sand in Hells Canyon is in motion and within what time scales? There is a pulsing river of sand flooding through the canyon bottom landscape, a river whose source has effectively been dammed. The place, landscape, and regional consequences are far from clear evidence of cattle use from the fall, 2008, was observed), and that wind and temperature data are recorded at Hells Canyon Dam and Kirby Creek, it is possible to use the High Bar dune structure to monitor the effects of a greatly altered sand supply system. Existing LIDAR data sets and laser scanning (Singleton 2009) by Idaho Power, also provide this potential as does repeat aerial photography planned by the USFS (Keith Miller, personal communication). Field explorations related to human land use in the canyon indicate, through stratigraphy, that the sand landscape is not now, and never has been confined to the river and its active edges. How much sand lies upslope? What parts of the sand in Hells Canyon is in motion and within what time scales? There is a pulsing river of sand flooding through the canyon bottom landscape, a river whose source has effectively been dammed. The place, landscape, and regional consequences are far from clear.

Both river corridor and its active floodplain lack the sand and small cobbles that were very apparent thirty years ago (personal observation). Dune systems, bars and terraces have been modified by altered flow dynamics and sediment inputs (Grams and Schmidt 1999a). Yet these modifications are minor in comparison to the structural elements established by the Bonneville Flood, and by the subsequent modifications of landscape scale processes throughout the Holocene.

The terraces that underlie the dune system represent river incision following the Bonneville Flood, indicating that a huge amount of bedload was removed over the Holocene as the river worked down and to the west bank. Given the underlying tilt of the geologic structure, the dominance of the large size and volume of rock slide boulders that remained and continued to fall after Bonneville flows subsided, and of the huge transitional slide block that slid and shattered along the southern margin of High Bar, the position of the river was truly moved and positioned by the rock slide. Vallier (1998) was correct in his assertion that the rock slide forced the river west, as it continues to do so today. Large rounded boulders dominate the southern shore of High Bar forcing and holding the river west. Rapids fall to deep pools along a narrow floodplain as the river moves around High Bar, a competent river even at moderate flows and with very little floodplain deposition.

Few rivers receive the volume of sediments from hillslope processes that the Snake does in Hells Canyon. Almost all hillslopes have undergone some form of mass wasting. Complex colluvial slopes merge with Bonneville terraces, rock cliffs, river bedload and alluvial fans driven by storm activated channels on intermittent, ephemeral and perennial streams. Other than the overlapping fans on the north end of High Bar, the distributaries on the Idaho side of the river are ephemeral immediately south and north of High Bar. Streams activated by rain storm and snowmelt work across complex colluvial slopes south of High Bar and through Pine Bar. These slopes are complex associations of angular slope sediments with a rounded bedload terminating at the river's edge with large, rounded boulders. The slopes above Pine Bar are soft, eroding gossan deposits that formed a complex colluvial slope deposited after the Bonneville Flood scoured the area. Bonneville Flood deposits certainly underlie the lower gossan slopes. Today

the toe of the debris slope appears as river terraces over 20 meters high where Holocene floods have cut and filled. Pine Bar, abutting and west of the complex colluvial slope, is a pendant bar formed behind a major rock impingement, that was much larger and a prominent landscape feature prior to flow regulation. Although the pendant bar is still present as zone of small cobble deposition, the former sand-dominated form has effectively been removed (Singleton 2009).

It takes only a minor rainstorm to activate the channels on the toe slope of the gossan. A half-day moderate rain in March 2009 activated all the channels, which then ran white to the river. Several of the smaller channels pushed sediments out and over their natural levee structures. This kind of flow, with the capacity to modify channel form, is easily achieved and often exceeded by summer thunderstorm events. Winter snowmelt and moderate rain indicate stream competency that is at least an annually-crossed threshold.

High Bar lies within a uniquely patterned reach of Hells Canyon, a landscape marked by enormous flood bars extending from above Johnson Bar below Hells Canyon Dam to Dug Bar, about 10 km above the confluence of the Snake and Salmon rivers. These Bonneville flood-derived bars are enormous, and often over 100 meters above the present-day river levels. Some bars, such as Johnson, Big, Pittsburg, and Dug, are well over 2.5 km in length, while others are smaller. Maps of the bar pattern indicate that most formed in areas where the flood waters pooled in response to downstream channel confinement reaches (Vallier 1998) (Fig. 13). Subsequent incision by the Snake River through and around these bar deposits, throughout the Holocene, created what at first glance appear to be river terraces. They are not classic river terraces formed by cut-and-fill processes of a seasonally flooding river. The size and composition of the bedload they contain sets them apart from the classically formed flood terraces at places like the Tin Shed that contain sequences of Holocene river erosion and deposition (Rhodes 2001, Grams, P.E. and Schmidt, J.C. 1999b, Root et al. 1998). The Bonneville flood bars are often paired or offset from one side of the river to the other.

Above the large landslide slump at Marks Creek and below this probable Bonneville-induced mass wasting process, the Snake River is tightly constrained by rock walls opened by steep tributary stream canyons. These streams typically terminate across alluvial fans exiting from deep canyons having steep gradients. Bonneville flood deposits occur up-canyon in the tributaries, thereby establishing the Bonneville flood depth at over 100 m, and reflecting flow vortex erosion and deposition at these structural drainage nodes. Rapids are common features directly associated with tributary streams. Rush Creek Rapids results from both tributary-delivered sediments and a large rock avalanche that occurred after the Bonneville flood. Immediately downstream lies Johnson Bar, the first large Bonneville flood bar encountered in this reach of the canyon. Over two km in length, it is paired with a bar on the Oregon side of the river. Both bars were deposited in slowing water that formed as the river entered a long and confined reach (4 km). Johnson Bar is interrupted on the upstream end by another enormous post-Bonneville landslide.

High Bar is small, compared to the upstream landslides and upstream and downstream bar forms. The rock slide is pre-Bonneville, and High Bar proper is a pendant bar formed under different conditions from Johnson Bar upstream and Big Bar downstream. These enormous bars formed through canyon constrictions, pooling, and deposition. Big Bar and its associated bar, upstream from Temperance Creek, formed in the pooling waters backed up behind Suicide Point, a major structural control.

Within this larger landscape of Bonneville Flood bars, mass wasting processes and river constrictions, High Bar is a unique combination of rock fall, flood bar, sand dunes, terraces and the river into a small physical space.

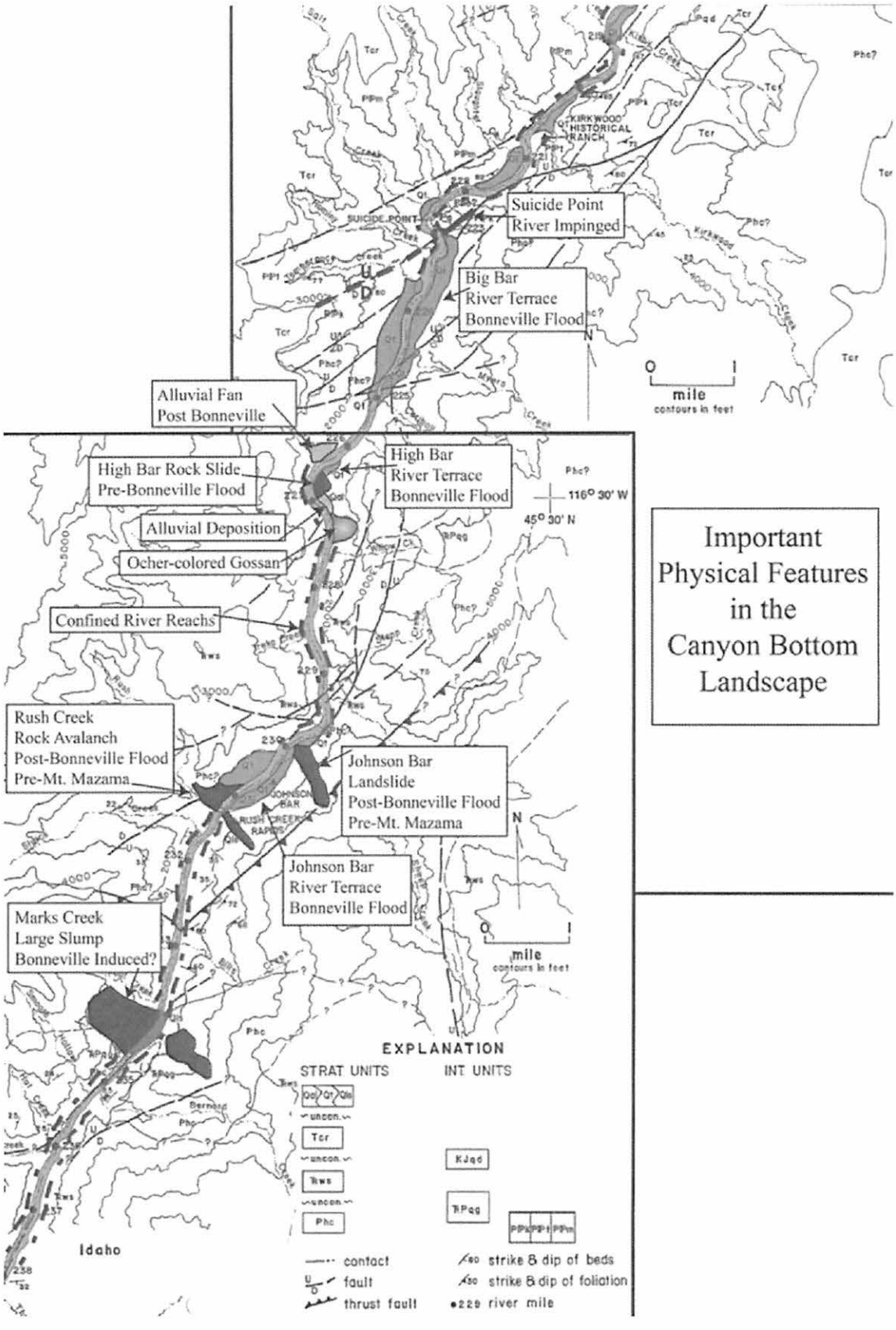

Fig. 13. Features of the canyon bottom landscape. Modified from Vallier (1998).

High Bar: A Place in the Canyon Bottom Landscape

Without people there are no places. Places arise from human perception and use, and are unique combinations of both natural and cultural processes in time and space. Always, places exist within a larger cultural landscape: unique combinations of forms and processes both natural and cultural (Sauer 1925). High Bar is a place now named for the steep vertical face of the Bonneville Flood terrace that dominates its north end. This most recent name is the latest in a series of names this place carried through the Holocene, but the old names are forgotten, erased with the cultures that assigned meaning to place. There is no way to know the past meaning that cultures assigned to this place in any exact way, yet not all the clues to use and meaning are gone. In this ground, in this place, artifacts and features occur in a spatial and temporal matrix that is far from random. These patterns are connected to the real patterns of necessity, structural and functional knowledge, contained in the collective minds of past landscape occupants and are unavoidably represented by the artifacts and features at High Bar. Many of these are ambiguous clues, but they are clues that can structure a contemporary cultural understanding of past cultural patterns and knowledge.

Winters—severe winters, came to these mountain/canyon landscapes and drove grazing animals to the bottom of the canyon. Winds tore through the canyon gorge, cold air fell as katabatic winds from the highlands, forcing animals down in elevation and out of the snow and wind to protected and sheltered places. This physical geography predates the human construct of place and landscape, but it is a reality for all peoples who have entered the canyon through time. No matter the prevailing climate, seasons condition life in middle and upper latitudes, world-wide. In Hells Canyon, the deepest in North America, people, animals, and plants have lived in seasonal energy cycles: moving up and down slope, in and out of the canyon, grading places and landscapes into living reality. Importantly, artifacts and features give broad outline to these past and present cultural systems.

The outline of human structural and functional use have been laid into the physical forms of alluvial fans, canyon mouths, active floodplains, river terraces, flood bar, sand dunes, colluvial slopes, landslides, rock slides, cliffs, talus slopes, and boulders (Fig. 14). Past archaeological surveys of the canyon bottom landscape, including High Bar, concentrated on a 100-meter swath along the river's edge. The findings from these surveys are detailed in a technical report (Appendix E 4-1) supporting the licensing of the Hells Canyon Complex (FERC No. 1971). This multi-authored and edited report addresses archaeological patterning from Hells Canyon Dam on the Snake River to the Snake and Salmon River confluence (Root and Reid 2001; Reid 2002). Landscape-scale patterns were derived from these technical reports, and the artifacts and features these surveys recorded are part of the place-scale patterns storied here (Fig. 14).

Internal to this rugged reach of the canyon at Kirkwood Bar, downstream 6 mi., and Bernard Creek, upstream 8 mi. from High Bar, human occupation and use have been dated at 6,800 and 7,200 ^{14}C yrs. B.P. respectively (Chatters 2001; Root and Reid 2001; Root 2002). The presence of Clovis cultural material at Copper Creek, fifteen mi. upstream from High Bar, extends the archaeological chronology in Hells Canyon by approximately 3,000 years (Reid, Root, and Hughes 2008). No Clovis artifacts have yet been found at High Bar, but Clovis people lived in and around Hells Canyon. A Clovis place lies in Hells Canyon underwater at Copper Creek. They lie to the west from the eastern edge of the Blue Mountains and across the pluvial lakes and grasslands of Eastern Oregon, to the east along the headwaters of the Salmon River and south and east into the Snake River Plain, and finally north in Washington in the middle

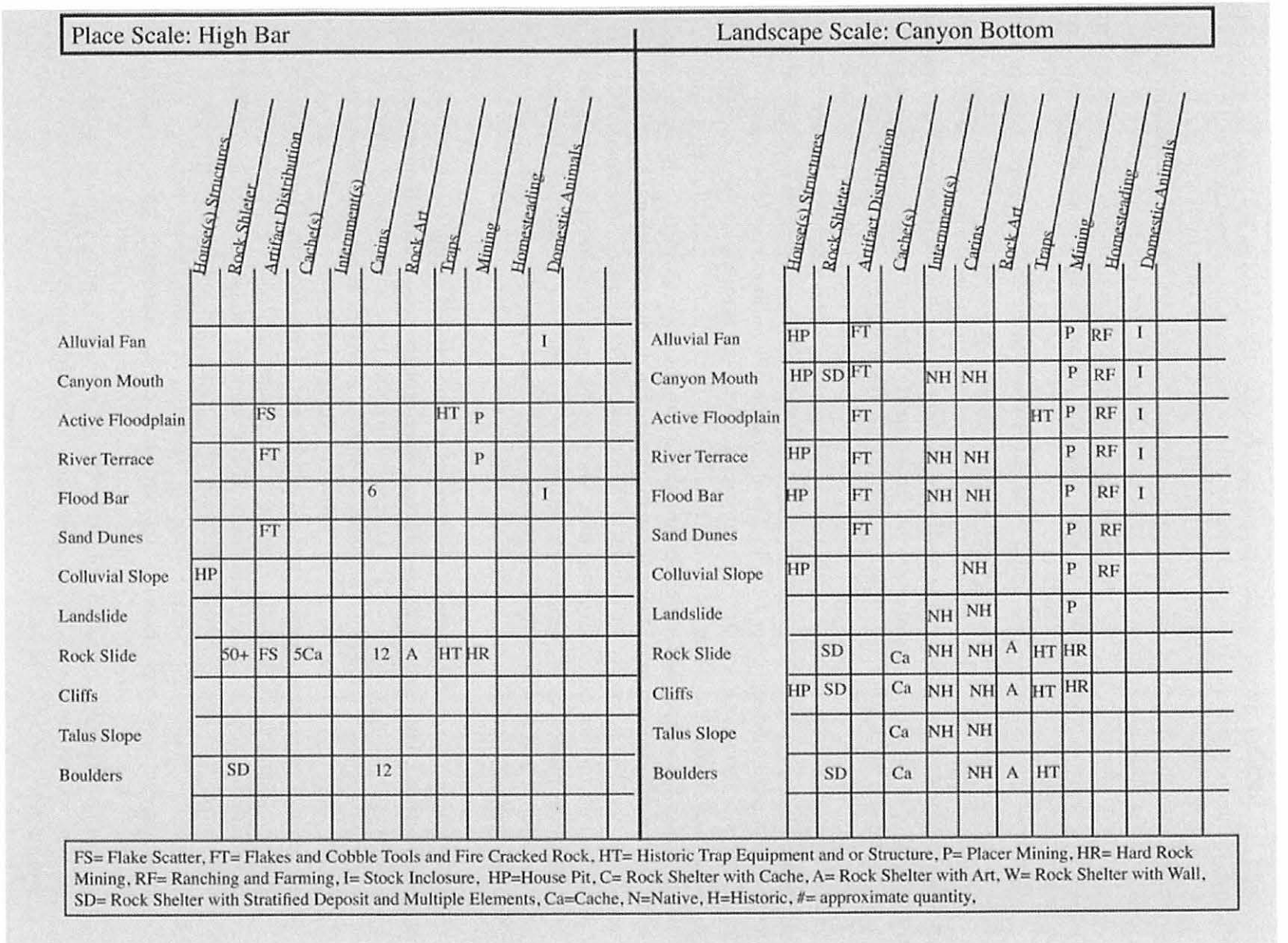

Fig. 14. Comparison of cultural patterning with physical patterning at the Place and Landscape scale.

Columbia. All of these people spoke languages that were tuned to the meaning of places and landscape, the deepest canyon in North America did not escaped Clovis cognition and use. From at least that time until the present, High Bar and the canyon bottom landscape have been incorporated into the structural and functional cultural patterns of human occupation and use (Reid (2002) for chronological review). Although the specific temporal patterns of human use are not yet known for High Bar, the structural patterning of these activities is accumulating from survey observations at High Bar and, in some cases can be established as expectations inferred from known patterns in the larger landscape.

The rocks in the rock slide grade from most rounded on the northwest edge to more angular and less rounded upslope, a pattern attributable to the character of flood energy across the slide surface (Fig. 15). They grade from most rounded in the north to most angular in the south because most of the rocks in the southwest portion of the slide are derived from the large transitional block that moved down slope and broke apart, littering this portion of the rock slide with large angular rock after the primary Bonneville flood wave. This patterning creates a landscape filled with over 50 rock shelters that vary in size from mere overhangs to house-sized rocks resting on and in other house-sized rocks. The southern and western edge of the rock slide is dominated by these megaliths creating a unique structural surface. The human response to this structural space is immediately apparent in a proliferation of symbols created primarily from red ochre. Generally termed "Rock Art" by many researchers, the meaning of these symbols to the people who made them, and when they were made, is far from clear. These clustered symbols do not occur across the entire rock slide, but are almost completely confined to the larger angular rocks in the southwest portion of the slide immediately below the transitional slide block. This pattern is not accidental, and is attributable to the character of surfaces, interstices, and size of the rocks unique to this portion of the rock slide. The pattern is directly attributed to the different physical processes of formation relative to other portions of the rock slide and to the cultural knowledge and practices that created this place. Reid describes the pattern of rock art in this reach of Hell's Canyon:

> observation Survey data suggest the rock art is concentrated on the east side of the Snake River. Prehistoric hunter-gatherers were probably concentrated on the east side because it is generally better watered with more productive riparian strips in the side canyons. There is probably a simple correlation between where the people were and where the art is. However, survey data also suggests that rock art reaches its greatest density in the reach between Hells Canyon Dam and Pine Bar [south end of High Bar]. If most of the imagery reflects not hunting magic but shamanic activity, as current research convincingly suggests (Whitley 2000), there appears to be a correlation between pictographs and highly dramatic vistas, distinctive landforms, severe rapids, rushing or thundering noises, and innumerable overhangs, holes, kolks, crevices, cliffs, declivities, etc. It seems plausible that this stretch of Hells Canyon is the surviving remnant of a longer reach that originally extended at least as far upstream as Kinney Rapids, and that it was perceived as a place [landscape] where supernatural power was concentrated (Reid 2002:101).

High Bar is the northern end of a dense concentration of paintings extending south through the most rugged and narrow portion of Hells Canyon. This landscape is rugged and isolated by steep rock slopes and vertical cliffs. The angular rock slide on the south end of High Bar is structurally unique. Dominated by huge boulders broken from the face of the enormous

transitional slide block, it has created boulder-formed caves and overhangs below a massive rock face. The river located at the toe of this rock fall fills the slope with sound reverberating off the vertical face of the transitional slide block. The huge boulders break the wind, rain, and sun into sheltered spaces turned to every angle of the compass. Located in this physical matrix are ochre markings "painted with the tips of fingers and stylistically defined as Hells Canyon Painted" (Leen 1988). Sarah Moore's measured field drawings, show a sample of these symbols (Figs. 16 and 17).

This area contains over 13 locations that demonstrate Native American connections to the physical structure of the rock slide. The majority of these locations are impressive pictograph arrays and, in combination with caches and rock walls, define an area of concentrated and functionally specific activities (Keyser and Whitley 2006). The caches are subtle, tucked under boulders and into crevices which are very hard to notice. One cache is expressed by small (20 to 30 cm) rocks tucked into a crevice under a 15 m boulder. It is obviously a cache, as

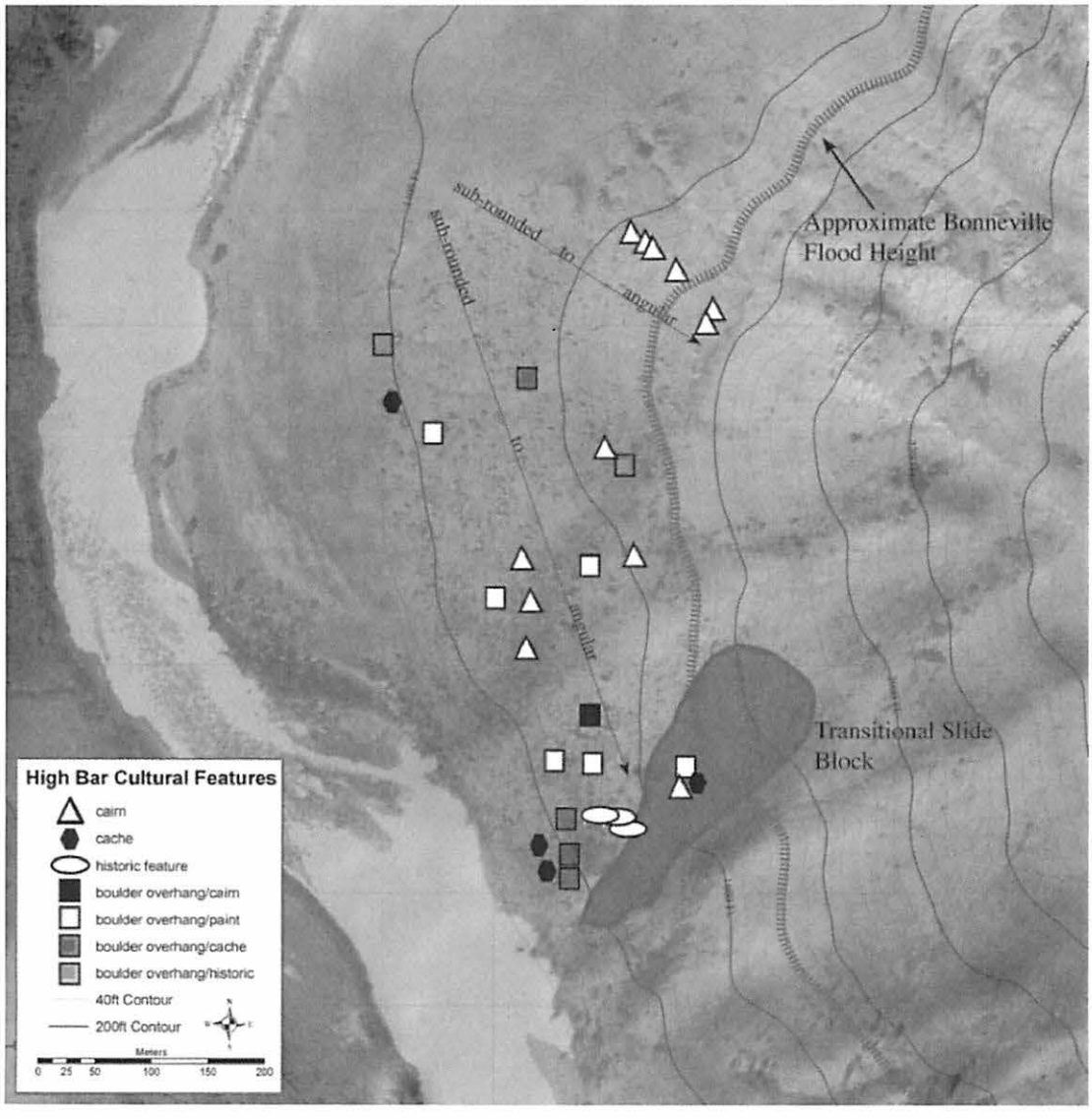

Fig. 15. Cultural features located in the spring of 2009 survey of the rock slide. Feature locations are purposefully skewed to protect locations.

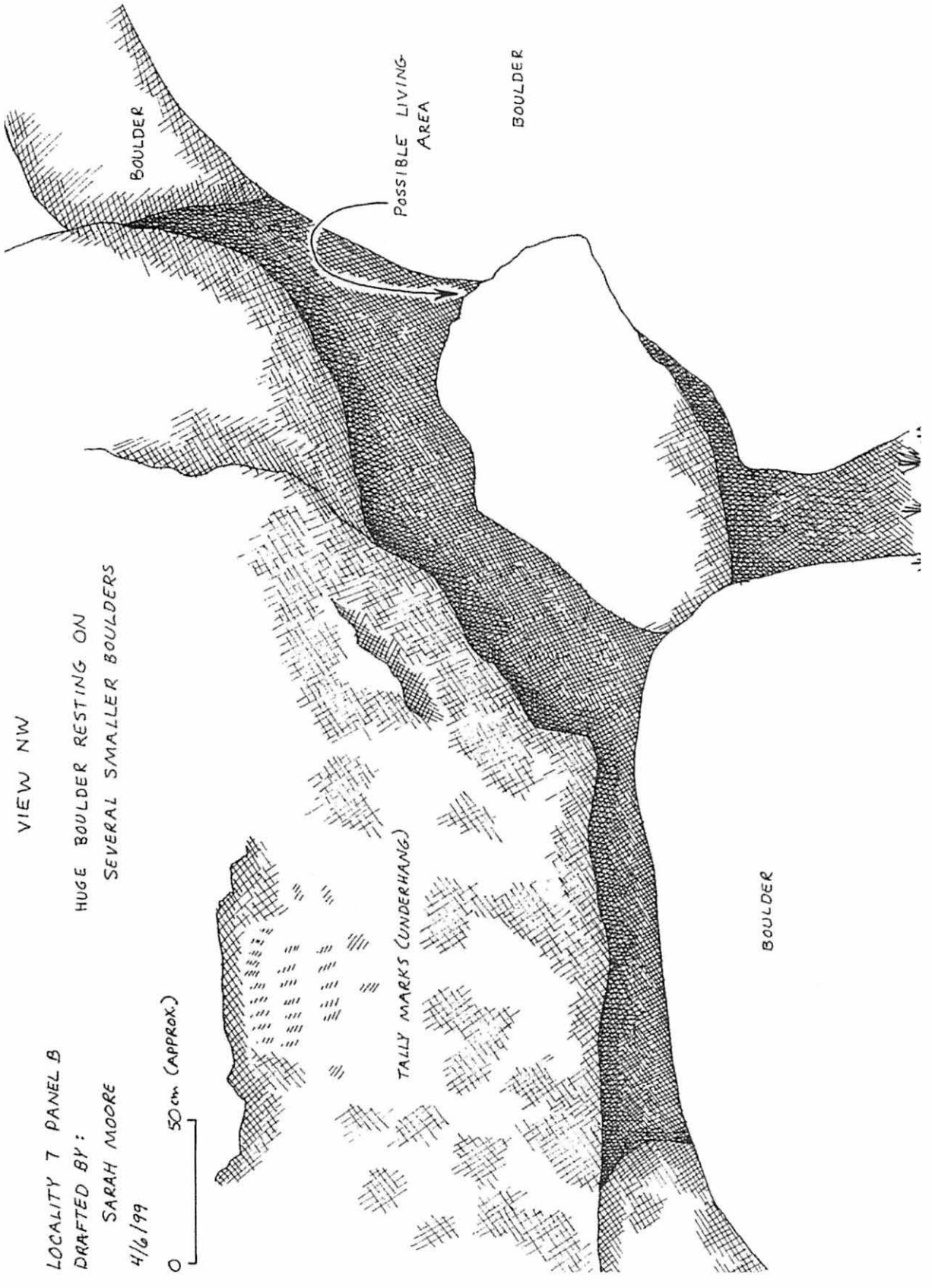

Fig. 16. "Tally Marks" on boulder overhang, southwest portion of the rock slide.

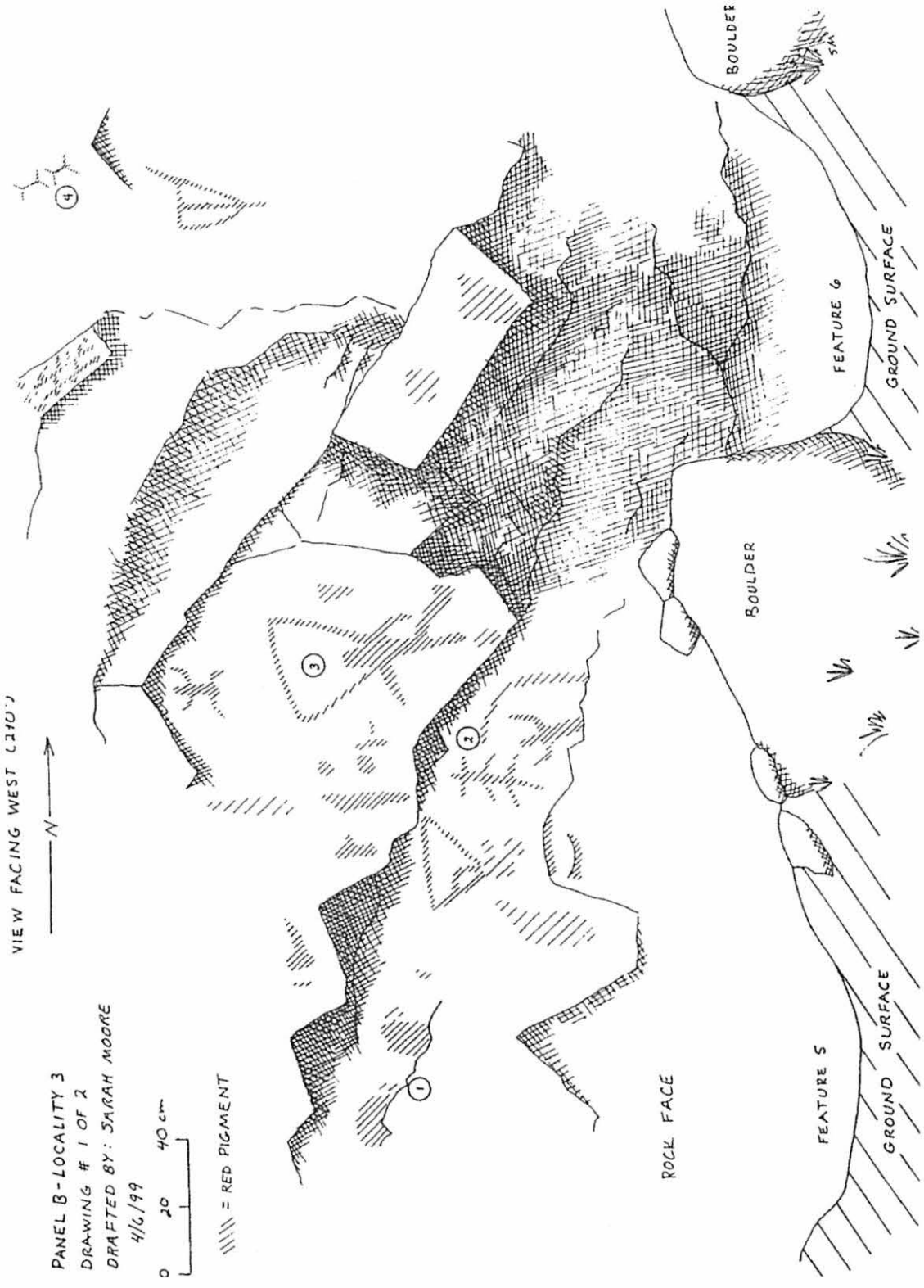

Fig. 17. Feature drawing of symbols on boulder overhang, southwest portion of the rock slide.

purposefully-laid grass matting protrudes under one edge of the piled rocks. What this cache and the others recorded in the larger rock slide contain is not known. Several cache-sized pits and associated rock piles, presumably emptied caches, lie in the rock slide directly associated with boulder-formed shelters. Many more lie undiscovered, shrouded in subtleties that escape observation.

The pictographs are primarily bright red and are expressed through different levels of fading and weathering. It is tempting to suggest that this fading pattern indicates temporal ordering in the pictographs, yet without systematic examination and dating such ideas remain speculation. The ocher probably comes from the south end of Pine Bar a few hundred meters upriver from the rock slide, where the geothermal processes associated with gossan formation modified the base rock, forming bright red through white and yellow heavily weathered rock nodules and sediment. As an ocher source it is high quality, having an abundance and variety of color available. Some of the white-through-yellow symbols, rare compared to the bright red, are probably from the same source. Ochre sources of this magnitude are not regionally common, yet ochre is a very important resource directly associated with early burial patterns and apparently symbolically used and traded throughout the Holocene (Erlandson, Roberson, and Descantes 1999).

The gossan deposits run down canyon from the south end of Pine Bar, rising upslope at 26°, and are visible upslope on both the Oregon and Idaho sides of the canyon. Upthrown and downthrown blocks alter this angle through this highly deformed portion of Hells Canyon. Clearly, ochre is abundant and available at the north end of the canyon bottom landscape,

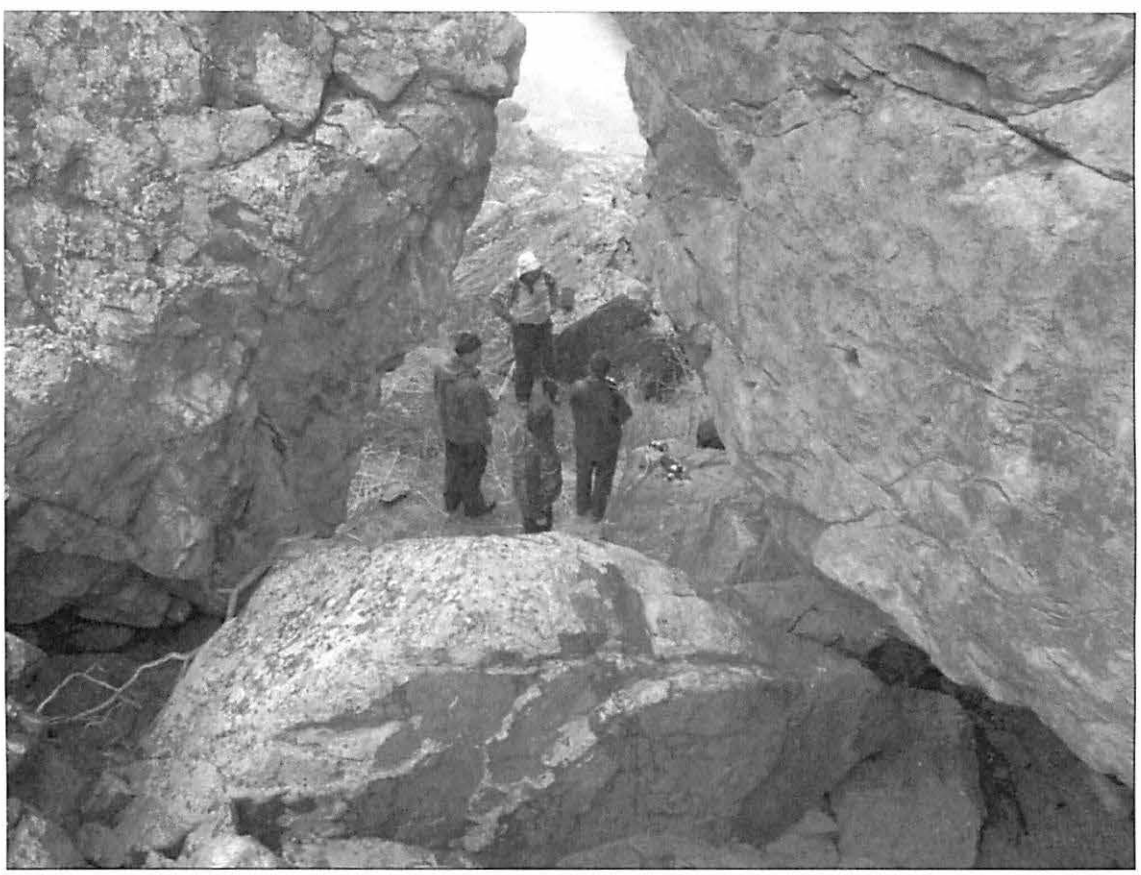

Fig. 18. Survey conditions in the angular boulders on the south end of High Bar rock slide.

marked by intensive pictographic activity. Geochemical analysis of this and other ochre deposits in the region is necessary to understand the functional relationship of ochre to place, landscape, and regional scales of human interaction and knowledge. The geochemical signature of this ochre deposit should be distinguishable from the sources located between laminar basalt flows at higher elevations in the Canyon, in the Blue Mountains and the Columbia Plateau.

One of the more subtle signs of human integration with High Bar and the rock slide are purposely placed rocks. These occur as single place rocks and multiple rock stacks, cairns, and are not always easily noted when scrambling over, under, and around house-sized boulders (Fig. 18). Twelve of these features were noted in the rock slide and another eleven to the north in the rock fall on top of High Bar flood terrace (Figs. 2 and 15).

Rock cairns (multiple rocks) are common in Hells Canyon and have been associated with human burials on the large Bonneville flood bars both up and downstream of High Bar. High Bar proper does not contain "cairn fields" like those on the larger flood bars but that does not mean that burials are not present. The rock slide is uniquely structured and human association with the place should also be. The cairns-stacked and placed rocks—may well reference burials, caches, landmarks, pathways, personal and collective space, or possibly nothing that can now be perceived, let alone verified (Fig. 19, 20, and 21). The linear features along the northern edge of

Fig. 19. Rock Cairn on the north end of High Bar. Part of a cluster of cairns and single stacked rocks along the northern edge of the rock slide.

Fig. 20. Three stacked rocks in the mid portion of the rock slide.

Fig. 21. Single placed rock on top of angular boulder near the upper elevation of the Bonneville Flood. Placed rock has a 30-centimeter diameter.

the rock slide are primarily placed along the slope break, where the land falls to the alluvial fans that overlying the pendant bar. This is one of the best routes up from the river through the rock slide, leading directly into the cliffs above. In climbing this route I generally follow these cairns and head for a large cairn in the cliffs above. This cliff cairn marks the easiest ascent out of the canyon from High Bar, and deer and elk follow the same route today. The route avoids the talus and does not terminate in impassable cliff faces. In no way do I think that the mystery is solved. Does the alignment of the cairns indicate a pathway, or are the cairns even associated with one another by the people who placed them here? Over what time period were the cairns placed? Visible directly below, there lies another curious pattern in the rock fall (Fig. 22).

These rock features are attributed to Native American connections to place, based on lichen growth on and around the rock features. All of them are purposeful structures constructed on top of large boulders, in the same fashion as those directly upslope on the northern edge of the rock slide and generally aligned at 40° N. The function of these marked locations is not known, their cultural meaning obscured not only by the unknown artifacts and features that lie buried proximate to them, but also by unknowable cultural constructions of people now past. What is clear is the pattern of placing rocks on top of boulders both in the rock slide and in the rock fall areas. Why are the cairns on top of boulders and no place else in these two structural landscape units? Perhaps, like billboards, they stand out and communicate meaningful conjunctions in past cultural systems. The canyon bottom landscape in many ways, resembles a modern roadway of information conducting knowledge through culturally specific direction and location to places, events, and processes that were meaningfully contained in the individual and collective minds of past people.

Fenced corrals and modern fire hearths (Fig. 22) are also meaningful, directly indicating mid-19th century sheep ranching and modern recreational functions, respectively. The corrals are tucked below the northern edge of the rock slide which today breaks the strong down canyon winds. This place was primarily formed by the Bonneville Flood as water surged over the rock slide and created the pendant bar and back eddy deposits the corrals are sited on. The confining slope rising to the south, once a steep water fall, presents a landscape that is conducive to handling sheep, restricting their movement upslope, while the vertical north face of High Bar and the steep confining slope of the Snake River canyon restricts movement north. In this way, the physical structure of the landscape was conducive to herding. The herders recognized its potential and placed and structured their operations to fit the situation. The structures, and their functions fit a grazing and herding landscape adaptation and are understandable in ways that the rock cairns are not. It is possible the confining land structure also relates the cairns to Native American hunting and the manipulation of animal movement during hunting. The modern hearths are also understandable, as their location on the edge of High Bar affords access to a rare commodity to campers in Hells Canyon: dramatic canyon and river vistas and soft flat ground free of rattlesnakes, poison ivy, black widows and cactus. Deeper examination of the artifacts in and around these modern hearths would allow more specific structural and functional statements regarding the occupation of these two places.

Located in and on the terraces cut into High Bar west of the toe of the rock slide are three rock features. One is a cairn of unknown age; it might mark a grave as do other cairns on large Bonneville Flood terraces, or it may be connected to the cairns discussed above, or it may not relate to them at all. It is constructed on a boulder like others at High Bar. It is a place marked by unknown people. A second cairn is thought to mark a property boundary related to historic settlement and use, and is located near the shoreline (informant, archaeological site form, USFS). A third feature (Fig. 23) is a stone cross purposefully laid and constructed and thought to be historic. This temporal assessment is based on the freshness of the rock, its lack of lichen

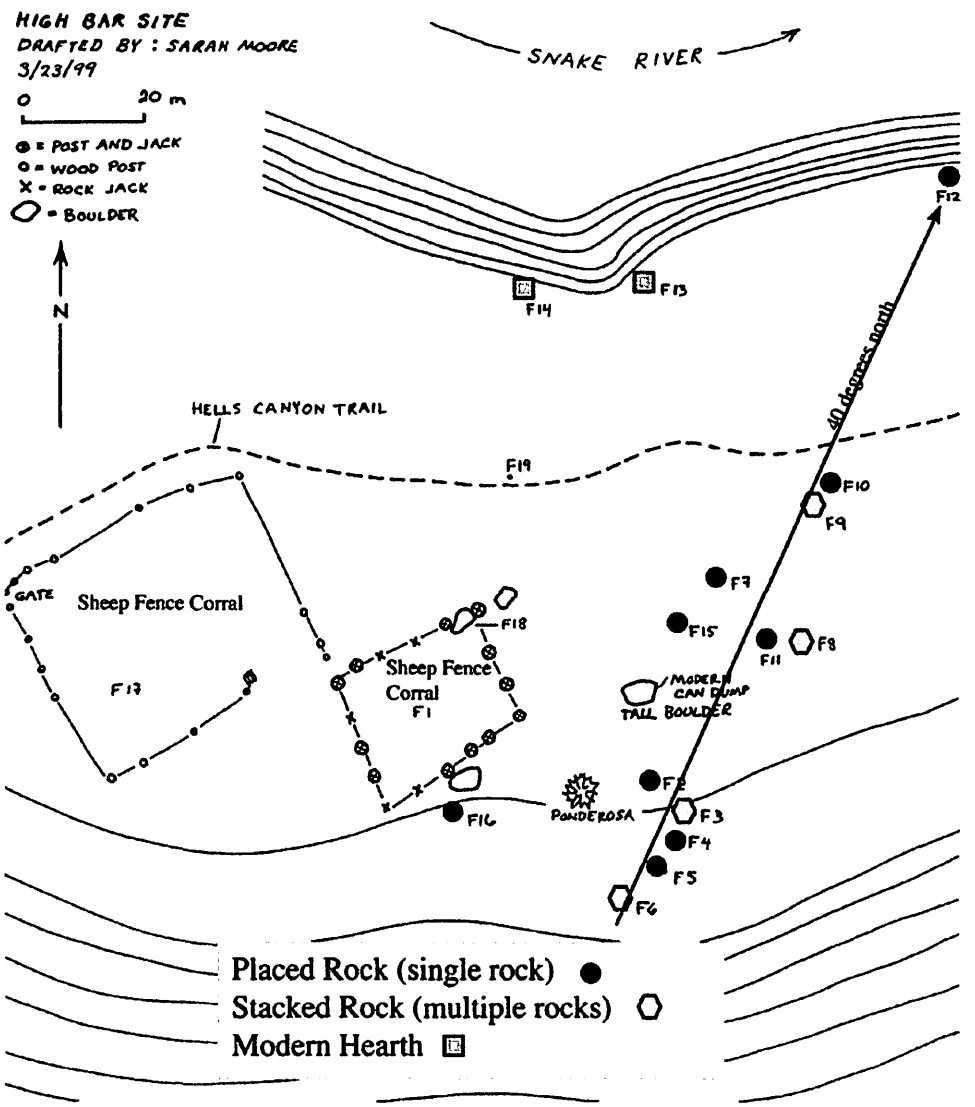

Fig. 22. Rock features located in the rock fall area of High Bar.

cover, and also its shape. Cross shapes are significant to historic and current occupants. Does this stone feature also mark a grave, or was it built as a symbol of Christian belief that connected the builder(s) to the place and their spiritual world? Maybe they too connected to a "power of place and landscape." When I first saw the cross I concluded it was an early aerial photo survey point, for its size and shape were like targets I had seen and built. However, the more I examined it the less I thought that was its function, for it would be hard to see on an aerial photographs and the rocks would have covered any reflective material allowing detection. There is no visible evidence of paint on the rocks. I do not know how early aerial photograph targets were constructed or whether any of the dozen or more railroad, river, and property surveyors who passed through this location may have built it. It does not lie on a section corner, but it is in the kind of location a surveyor would pick as a control or turning point. There is a second cross, almost an identical feature, located 400 m (1,320 ft.) south. Could these be boundary markers of an imagined mining claim never filed, never formally recorded? Clearly X marks the spot in the functional landscape of someone's cognitive map of what is now called High Bar.

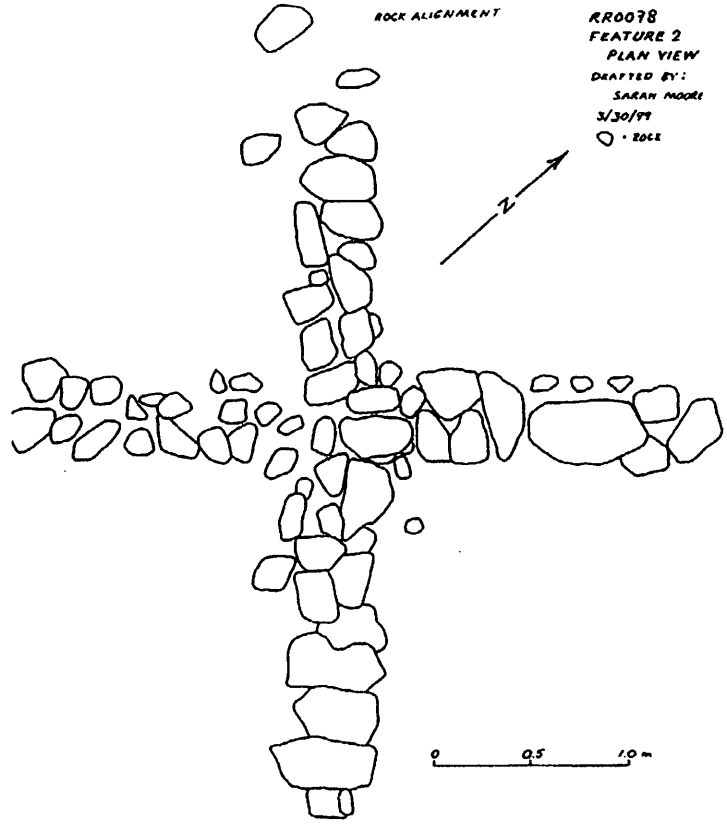

Fig. 23. Cross shaped rock alignment on the terraces of High Bar.

Structures related to functionally different mining strategies are evident in two locations at High Bar. One is located directly west of the center of the rock slide at the water's edge and represents placer mining activity through a series of three stacked rows of placer tailings three meters long, by two meters wide, by one meter high. Spatially associated with the tailings is a collapsed cairn that probably marked the claim and may be related to the cross features. Given the relative positions of the collapsed cairn and cross features to each other and the river, dune and terrace landforms, and given that placer mine claims typically follow meets and bounds with marked turning point layouts, and that claims are formally restricted to 20 acres, it would seem the crosses and this cairn are likely related to placer gold dreams. The area marked by these features approximates 20 acres. Very recent holes or pits related to recreational activity, probably pits for toilets, are also located here. Several modern recreational hearths are located south along the shoreline, temporally marked by plastic, beer bottle glass, pull tabs, and bent aluminum tent pegs. A low density scatter of lithic flakes indicates Native American use of the same shoreline. The second mining area, a functionally discrete hard rock mining activity, lies just below and under the western edge of the transitional slide block. Here, three adits and their associated mine tailings combine with two small open pits (Fig. 15). These functionally discrete structures tie High Bar into larger landscape and regional settlement and land use patterns.

Along the Snake River canyon bottom landscape, placer tailings extend from the mouth to the headwaters crossing portions of the states of Oregon, Washington, and Idaho. Placer mining began in Hells Canyon in the early 1860s and was quickly followed by hard rock or lode mining. Both these trends are tied to larger regional patterns extending from Mexico to Alaska and beyond (Meinig 1968; Ferguson 2003). The intensity of placer mining activity in Hells Canyon marks the shorelines and lines the banks where the river-deposited gold could be found

and processed. Since most of the gold was derived internal to the canyon from tributary streams, the placer miners focused on the alluvial fans and downstream deposition zones. High Bar, on the Idaho side, collects annual flood deposits just below the large rocks that line the bank below the southern end of the rock slide. Functionally, the placer structures are exactly where they should be, spatially tuned to this narrow deposition structure. The placer mining structures here are minor when compared to other placer mining complexes in the canyon, and directly reflect the limited depositional environment of High Bar shorelines. This pattern indicates that placer mining in Hells Canyon was intense enough to exploit even minor depositional environments, and further indicates that all depositional environments accessible and proximate to the river's edge were explored.

Temporally this activity began in the 1860s, expanded in the 1870s when the Chinese often purchased or used abandoned claims of white miners, and waned in the early 1890s. Chinese placer miners were massacred at Deep Creek in 1887, 30 mi. downstream of High Bar. Placer mining again surged during the Great Depression (1930s), primarily working over older deposits and collecting gold that had been deposited along the shorelines since the previous wave of miners passed. When the structured placer features at High Bar were created, how often they were worked and by whom is not known; that the place is tied to larger landscape patterns and processes is obviously expressed.

Similarly, the hard rock or lode mining attempts at High Bar are constructions of unknown people. Lode mining and lode explorations are a threshold beyond placer mining with respect to equipment, capital, effort, transport, and ore processing. The development of major lode mines in the vicinity of Temperance Creek, and on the slopes above Big Bar two mi. downstream centers the lode mining in this portion of Hells Canyon. Temporally, lode mining begins in this reach in the 1890s and by 1915 most of the copper occurrences are claimed (Ferguson 2003). Copper, gold, and silver were all exported from these mines. Exploration was more spatially extensive than the patented claims would indicate, and the juncture of the large transitional slide block with the underlying rock unit was clearly targeted by smaller enterprises, probably exploratory. Nothing is known about who placed these adits or what was recovered. These structures, like the placers, stone crosses, and cairns all indicate people lived and worked here for days and weeks. Clearly the adits require a camp, and likely locations include upstream at Pine Bar or along the river's edge in the dunes and terraces below the rock slide. Possibly the few solder-top cans, the occasional piece of glass, wire and metal fragments between the dunes and the river edge indicate former mining camp(s). This is a windy place, but it has water, driftwood for fuel, and the terraces and dunes can support livestock. If the camp was below the high watermark, most of the artifacts may have been washed downstream by the large floods that structured these shorelines prior to flow regulation. The camp itself may be buried under dune and wind-blown sediments that mantle much of the area between the rock slide and the active shoreline.

Artifacts, prehistoric and historic, are exposed in the deflating southern reach of the dune field (Fig. 10). Thermally altered rocks, a few small chert flakes, flake tools and cores made from river cobbles mark this location, along with four hopper mortar bases, representing a common food processing activity. The associated thermally altered rock support this functional connection to the place. These kinds of deposits are common to terraces and fans proximate to the river's edge. Further, the aquatic/terrestrial transition zone commonly holds functional artifacts at varying densities all along the Snake River. Often, as is the case at High Bar, surfaces are covered with vegetation precluding discovery and analysis. This fact was realized when surveying Cougar Bar shorelines fifty miles downstream on two separate occasions. Few artifacts, even in the proximity of known prehistoric house structures, were visible on the first

survey. When a massive fire cleared this vegetation in the late summer of 2007, scores of artifacts were revealed on a surface where the previous year none had been observed. High Bar shorelines, and upslope landforms contain far more surface artifacts and structures than are currently visible; the presence of subsurface artifacts and features is a certainty.

No depressions indicative of prehistoric houses have been located on High Bar. It is possible that there are buried house features in the dune and terrace areas but this is a very exposed surface. One structural feature, located less than a km upstream from High Bar (Fig. 24), illustrates the surface depression form known to be associated with prehistoric houses. Nothing is known about this structure other than its location, and the fact that it has been partially dug into; tools and diagnostic forms indicative of the age and functionality of this place lie in a shoebox, forgotten in the basement of human experience in the Canyon. House depressions lie two km downstream and upstream of High Bar, occurring in small clusters (Fig. 25) and associated with side canyon tributaries. Functionally, these represent small bands ranging in size from single families to no more than three or four families. This is the typical site and situation pattern for village places in this reach of Hells Canyon.

Physical and Cultural Conjunctions

The water's edge in arid landscapes is always a pathway of animal activity. This zone, the aquatic/terrestrial transition zone, is well recognized as critical habitat for animal and plant interactions, and is an obvious corridor of resource focus for human inhabitants. Globally, positioning near water is a long standing pattern of human land use. The canyon bottom landscape of the Snake River Canyon conjoins marine, freshwater, and terrestrial food energy spatially, but not always temporally. Seasons when fish are in the river do not always align with seasons when large mammals are pushed and concentrated in the canyon bottom landscape by winter snow. This is one of many examples where resource patterning forces human occupants toward seasonal mobility. This forcing pattern continues today, albeit the rate of movement is much higher, expressed by cultural practices such as "Cast and Blast," fishing, hunting, antler collecting, rafting, marathon running, and other seasonally and spatially constrained use patterns.

It is a fact that the spatial and temporal patterning of energy and material resources necessary for human life in Hells Canyon require a cultural conjunction of places in a seasonally varied landscape extending up and out of the Canyon Bottom. This means that most of the places people have created and named where not occupied for long durations—probably a matter of days and weeks. With the exception of some winter village locations, mining areas and ranches, this pattern holds throughout human occupation in the canyon. Reid and Chatters (1997:6.2) calculate territorial ranges for middle Holocene occupants of the canyon bottom landscape to spatial territories approximating 3,000 square km (1,158 square mi.). They base their calculations, in part, from archaeological data derived from Kirkwood Bar, a situation biophysically and culturally comparable to High Bar (with the exception of a perennial stream) and located 9.6 km (6 mi.) downstream. Thus the modern fire hearths perched on the north end of High Bar (Fig. 22) become part of an expected pattern of older and buried hearths and resource activity areas extending through the sediments from below the rock slide to the water's edge, reflecting a pattern of short term occupation and use of resources available proximate to and from the terrestrial/aquatic transition zone. The artifacts visible in the deflating dune field

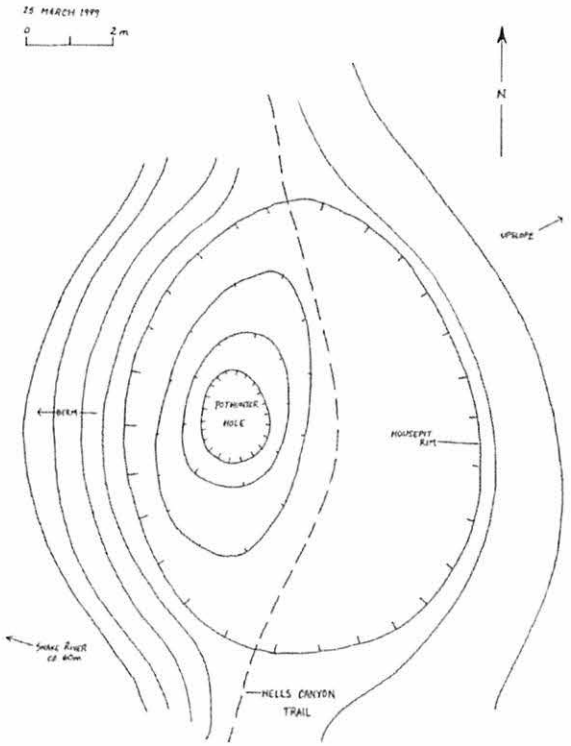

Fig. 24. Prehistoric house structure between High Bar and Pine Bar, built into colluvial slope.

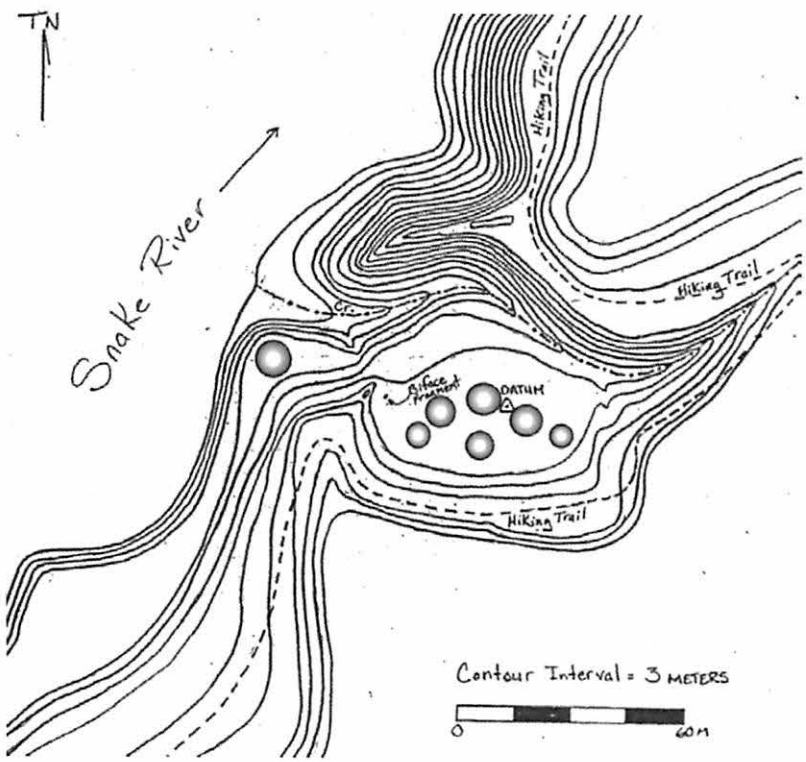

Fig. 25. House depressions downstream of High Bar. Illustrates typical size, arrangement, and situation of villages in this reach of Hells Canyon.

are part of a larger mosaic of artifacts and features distributed through these sediments. Based on patterns derived from Kirkwood Bar, Deep Gully, Bernard Creek, Copper Creek and other places known in Hells Canyon, the buried artifacts and features at High Bar likely span the Holocene temporally and show structural and functional variation related to changing carrying capacity, knowledge, and social dynamics.

Specifically, place and landscape evolution occurring in Hells Canyon was dynamically driven by the interaction of changing biophysical and cultural systems. One landscape threshold was crossed when human occupants of the surrounding region began to show systemic changes in social and economic organization 5,000 years ago (Ames and Marshall 1981). This threshold is marked by structures and functions attributable to the emergence of a more settled residency pattern that has been associated with logistically organized corporate groups. In many ways, critical resource and living places within the seasonal round became more controlled and intensively used as population size increased. The causes of this change have been primarily attributed to climate change that increased productivity of aquatic and terrestrial resources on a regional scale (Chatters 1995, 1998). Indeed, villages become the center of peoples lives, and proliferate in a pattern that is directly associated with availability of high return for low effort resources that can be processed, stored, transported, traded, and consumed. This pattern is timed differently across the region and, as Davis (2007) has demonstrated, relates to the structural and functional dynamics of ecosystems at the watershed scale. It did not happen everywhere and in some cases was delayed by millennia. What happens in a place like High Bar when energy thresholds are crossed and re-crossed over 5,000 years?

High Bar has not been the center of high value resources likely to attract the attention of large, logistically organized groups for long periods of time. Its physical structure and ecological functionality does not suggest it stood apart or ranked high, relative to other places in the canyon bottom landscape, with respect to resource productivity or access. The rocks and rapids at the south end of High Bar, below the transitional slide block, likely were named fishing locations, not unlike hundreds of other places in the Canyon. No side-stream canyon opens clear access to the highlands to offer increased diversity or abundance of resources as Kirkwood Bar and Bernard Creek do. The dunes, terraces, and a good portion of the flood bar are exposed to strong winds, and cold winds during winter. However, this portion of High Bar does receive several hours of sunlight at winter solstice while much of the canyon bottom landscape does not.

The physical structure of the High Bar rock slide is unique, offering countless small sheltered spaces. The rock slide is clearly functional as a cache area, was used in this way by prehistoric occupants, and still functions this way today. One boulder shelter contains horse or mule pack bundles cached for an anticipated return that never happened, as are the still filled prehistoric caches. It clearly has a symbolic function indicated by the structured development of "rock art" panels that are tied through form and function to the canyon bottom landscape and the larger region. Cairns mark pathways, nodes, and landmarks: all of them ambiguous cultural conjunctions of physical space and cultural cognition.

High Bar did offer gold and grass to historic occupants. Horses, sheep, and cattle all have transformed grass into human mobility and economy over the last 200 years here and structural features, both physical and cultural, positioned the sheep corral systems on the north end of High Bar. The gold and mineral structures located the functionally segregated mining patterns at High Bar, and determined their marginality relative to the canyon bottom landscape.

Recent recreational hearths, tent areas, toilet pits, and associated artifacts mark the shoreline where the current slows and deposits what few fine sediments remain in the rivers load and where a power boat or raft can land. The trail across High Bar, the latest structural variation

of a pathway that extends thousands of years into the past, is now mile-posted and mapped as infrastructure in the emergent Hells Canyon National Recreation Area.

High Bar is beautifully laced with artifacts and features that demonstrate the conjunction of physical and cultural processes. This visible fabric, mysteriously frayed and folded, offers warmth and promise as a place to "beholding eyes" (Meinig 1979). It is now a place where wolves again hunt and howl.

ACKNOWLEDGEMENTS

I thank over 150 undergraduate and graduate students, and the four faculty members, particularly Craig Revels and Marc Fairbanks, who have accompanied me in the Canyon over the last five years, for their tolerance and ideas. They have earned my respect. Ken Reid, Skip (Keith) Miller for their insight and support and Matthew Root, Daryl Ferguson, and Sara Moore for their excellent survey and reporting of this reach of the canyon. I thank Joan M. Para, my wife, for her support and encouragement of my need to be in the canyon.

REFERENCES CITED

Ames, Kenneth M., and Alan G. Marshal
1981 Villages, Demography, and Subsistence Intensification on the Southern Columbia Plateau. *North American Archaeologist,* 2(1):25–52.

Chatters, James C.
1995 Population Growth, Climatic cooling, and the Development of Collector Strategies on the Southern Plateau, Western North America. *Journal of World Prehistory*, 9(3):341–400.

1998 Environment. In *Handbook of North American Indians*, Vol. 12: *Plateau*, Deward E. Walker, Jr., editor, pp. 73–80. Smithsonian Institution, Washington DC.

2001 *From Hells Canyon Dam to the Salmon River: Archaeological Survey of Hells Canyon. Volume 3: Descriptive Report of the Applied Paleoscience Team.* Applied Paleoscience. Submitted to Idaho Power Company. Technical Appendix E.4 for New License Application, Hells Canyon Complex, *FERC Project*, No. 1971.

Davis, Loren G.
2007 Paleoseismicity, Ecological Change and Prehistoric Exploitation of Anadromous Fishes in the Salmon River Basin, Western Idaho, USA. *North American Archaeologist*, 28(3):233–263.

Erlandson, Jon M., J David Robertson, and Christophe Descantes
1999 Geochemical Analysis of Eight Red Ochres from Western North America. *American Antiquity*, 64(3):517–526.

Ferguson, Daryl E.
2003 Lode Mining In Hells Canyon National Recreation Area: Historical and Archeological Perspectives, Volume 1. *Rain Shadow Research Project Report* 59. Pullman, WA.

Grams, Paul E.
1991 *Degradation of Alluvial Sand Bars Along the Snake River Below Hells Canyon Dam, Hells Canyon National Recreation Area*, Idaho. Department of Geology, Middlebury College. Middlebury, VT.

Grams, Paul E., and John C. Schmidt
1999a Sand Bar and Terrace Erosion between 1964 and 1996 at the Tin Shed and Camp Creek Cultural Resource Sites on the Snake River in Hells Canyon. Department of Geography and Earth Resources, Utah State University. Logan, UT.

1999b Sand Bar Erosion and Deposition on the Snake River in Hells Canyon Between 1990 and 1998. Draft Final Report. Department of Geography and Earth Resources, Utah State University, Logan.

Keyser, James D., and David S. Whitley
2006 Sympathetic Magic in Western North American Rock Art. *American Antiquity*, 71(1):3–26.

Leen, Daniel
1988 An Inventory of Hells Canyon Rock Art. Hells Canyon National Recreation Area, Wallowa-Whitman National Forest. Enterprise, OR.

Meinig, Donald W.
1968 *The Great Columbia Plain: A Historical Geography 1805–1910.* University of Washington Press, Seattle.

1979 The Beholding Eye. In *The Interpretation of Ordinary Landscapes*, D.W. Meinig, editor. Oxford University Press, Oxford, England.

O'Conner, James .E.
2004 The Evolving Landscape of the Columbia River Gorge, Lewis and Clark and Cataclysms on the Columbia. *Oregon Historical Quarterly*, 105(3):390–421.

1993 Hydrology, Hydraulics and Geomorphology of the Bonneville Flood. *Special paper, Geological Society of American*, 274.

Reid, Kenneth C.
2002 Background for the Hells Canyon Archaeological Survey, Vol. 1, Ch. 3, pp. 10–102; Rain Shadow Research Survey Results, Vol. 2, co-editor with Matthew J. Root and contributor with Matthew J. Root, Daryl E. Ferguson, and David A. Harder. In, *From Hells Canyon to the Salmon River: Archaeological Survey of Hells Canyon*, Mark Druss and Lorraine Gross, editors. Draft Technical Report Appendix E.4-1. New License Application for Hells Canyon, FERC Project No. 1971. Idaho Power Company, Boise. ID.

Reid, Kenneth C., and James C. Chatters
1997 Kirkwood Bar: Passports in Time Excavations at 10IH699 in the Hells Canyon National Recreation Area, Wallowa-Whitman National Forest. *Rainshadow Research Project Report*, No. 28 and *Applied Paleoscience Project Report*, No. F-6.

Reid, Kenneth C., Matthew J. Root, and Richard E. Hughs
2008 The Copper Creek Clovis Point from Hells Canyon, Northeastern Oregon. *Journal of California and Great Basin Anthropology*, 28(1):75–84.

Rhodes, Gwendolyn B.
2001 A Small Look at the Big Picture: Paleofloods on the Snake River as Indicators of Holocene Climate in the Northwest United States. Master's thesis, Central Washington University, Ellensburg, WA

Root, Matthew J., editor
2003 Archaeological Survey in Hells Canyon National Recreation Area: Cook Creek to the State Line. *Rain Shadow Research Project Report* 62, Pullman, WA. Submitted to Wallowa-Whitman National Forest, Baker City, Oregon, Contract No. 53-04M3-2-0040.

Root, Matthew J., James C. Chatters, Daryl E. Ferguson, and Kenneth C. Reid
1998 Test Excavations at the Tin Shed Site, Hells Canyon National Recreation Area. *Rain Shadow Research Project Report*, No. 42. Pullman, WA.

Root, Matthew J. and Kenneth C. Reid, editor
2001 From Hells Canyon Dam to the Salmon River: Archaeological Survey of Hells Canyon. Volume 2: Rain Shadow Research Survey Results, Final Report. *Rain Shadow Research Inc., Project Report*, 51, Pullman, WA.

Sauer, Carl O.
1925 The Morphology of Landscape. *University of California Publications in Geography*, 2:19–54.

Singleton, Eron
2009 High Tech in the Canyon. *Professional Surveyor Magazine*. February..

Vallier, Tracy
1998 *Islands and Rapids, A Geologic Story of Hells Canyon*. Confluence Press, Lewiston, ID.

Whitley, David
2000 *The Art of the Shaman: Rock Art of California.* University of Utah Press, Salt Lake City.

Morris L. Uebelacker
Department of Geography
Central Washington University
Ellensburg, Washington

morris@cwu.edu

Journal of Northwest Anthropology, 45(1):37–56 2011

FOODWAYS AT FORT YAMHILL, 1856–1866: AN ARCHAEOLOGICAL AND ARCHIVAL PERSPECTIVE

First Prize Archaeology Student Paper
63rd Northwest Anthropological Conference
Ellensburg, Washington, 24–27 March 2010

Justin E. Eichelberger

ABSTRACT

Fort Yamhill, a frontier U.S. military post, was positioned at the end of a long supply train stretching from the shipping ports of the eastern seaboard to the small post on the Yamhill River in western Oregon. This distance created numerous supply problems including the shortage of food that often resulted in subsistence stores that were meager or spoiled. To address these difficulties, archaeological and archival evidence suggests that the soldiers serving at this post were supplementing the Commissary issued ration with subsistence hunting and gathering, produce from the post garden, purchases from the post sutler and goods contracted from local farmers. The commissary issues and faunal remains demonstrate striking differences in the types of foods being consumed between the commissioned officers and the enlisted men, differences that may be attributed to socio-economic status differentials.

Introduction

Located on the south fork of the Yamhill River, Fort Yamhill was established as part of a three fort system with Fort Hoskins and Fort Umpqua to guard the newly created Coast Reservation in March 1856 (Fig. 1). The post was constructed on a high hill that over looked the Yamhill River and the Grand Ronde Indian Agency and allowed the military to monitor and control traffic on and off the Reservation along the Old Killamuck Trail and the road to Tillamook. During the American Civil War the fort played an important role in keeping the State of Oregon "loyal" to the Union by controlling and discouraging local secessionist movements in the Willamette Valley (Brauner and Stricker 2006:41). With the close of the war and with the dissolution of the secessionist movement in Oregon the post was no longer necessary and was closed in July of 1866 (Adams 1991:30). The fort was composed of twenty-four buildings including six officers houses (#2–3), blockhouse (4), adjutant's office (5), guardhouse (6), commissary and quartermaster warehouse (7), company barracks (8), mess hall (9), company kitchen (10), hospital (11), five laundress quarters (12), post bakery (13), stables (14), blacksmith shop (15), carpenter shop (16), and sutler store (17) (Fig. 2).

During the Regular Army Period, from 1856 to 1861, the post was garrisoned by companies of the 9th Oregon Mounted Volunteers, 4th U.S. Infantry, 1st U.S. Dragoons and 9th U.S. Infantry. During the Volunteer Army Period, from 1861 to 1866, the post was garrisoned

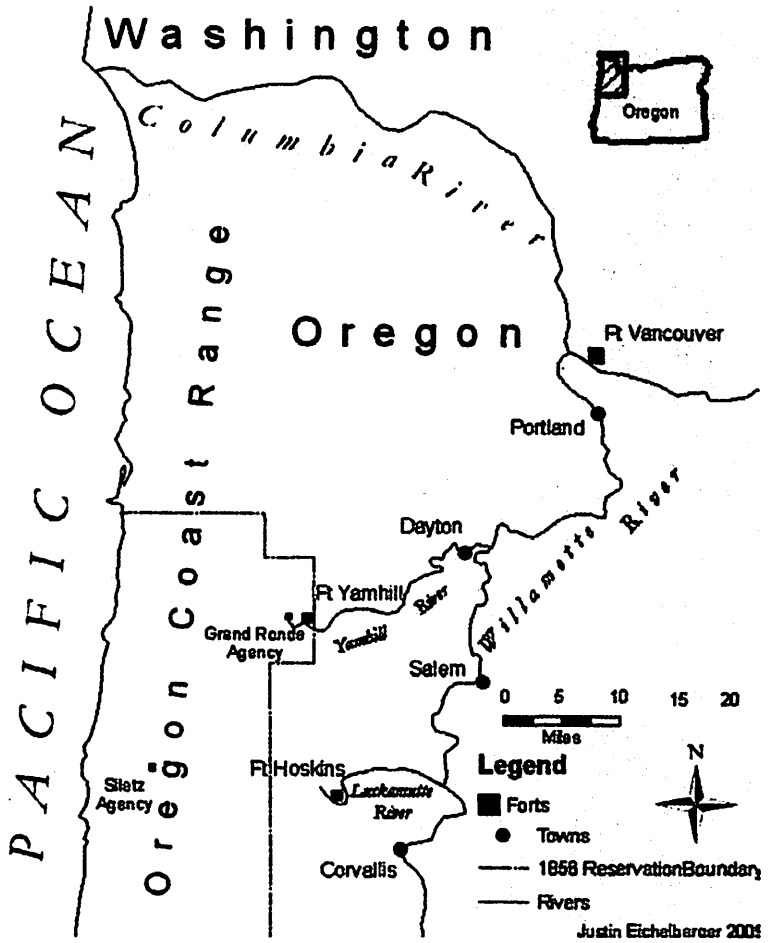

Fig. 1. Map showing location of Fort Yamhill in northwest Oregon.

by companies of the 4th California Volunteer Infantry, 1st Washington Territorial Volunteer Infantry, and 1st Oregon Volunteer Infantry. The size of the garrison at Fort Yamhill ranged from a low as nine men in June 1861 to as high as 156 men in September 1856, but usually averaged around seventy-one men (Adams 1991:19–20).

Methods

Archaeological investigations began at Fort Yamhill in the summer of 2004 and continued through the summer of 2009. Archaeological data used in this paper was recovered from Officer's Row (Houses 1 and 2), the Company Kitchen, and the Post Bakery during these years of excavation (Brauner, Eichelberger and Boulware 2009, Brauner and Eichelberger 2009 and Eichelberger 2010). Excavations were conducted in the block excavation style in 1x1 m units each excavated in arbitrary 10 cm levels. All archaeological materials recovered were mapped in situ, catalogued and packaged for shipment to Oregon State University where the artifacts were cleaned, stabilized and analyzed. All artifact identification and analysis was conducted by the author while attending Oregon State University, including the faunal remains which were analyzed with the use of the faunal comparative collection in the Department of Anthropology at Oregon State University.

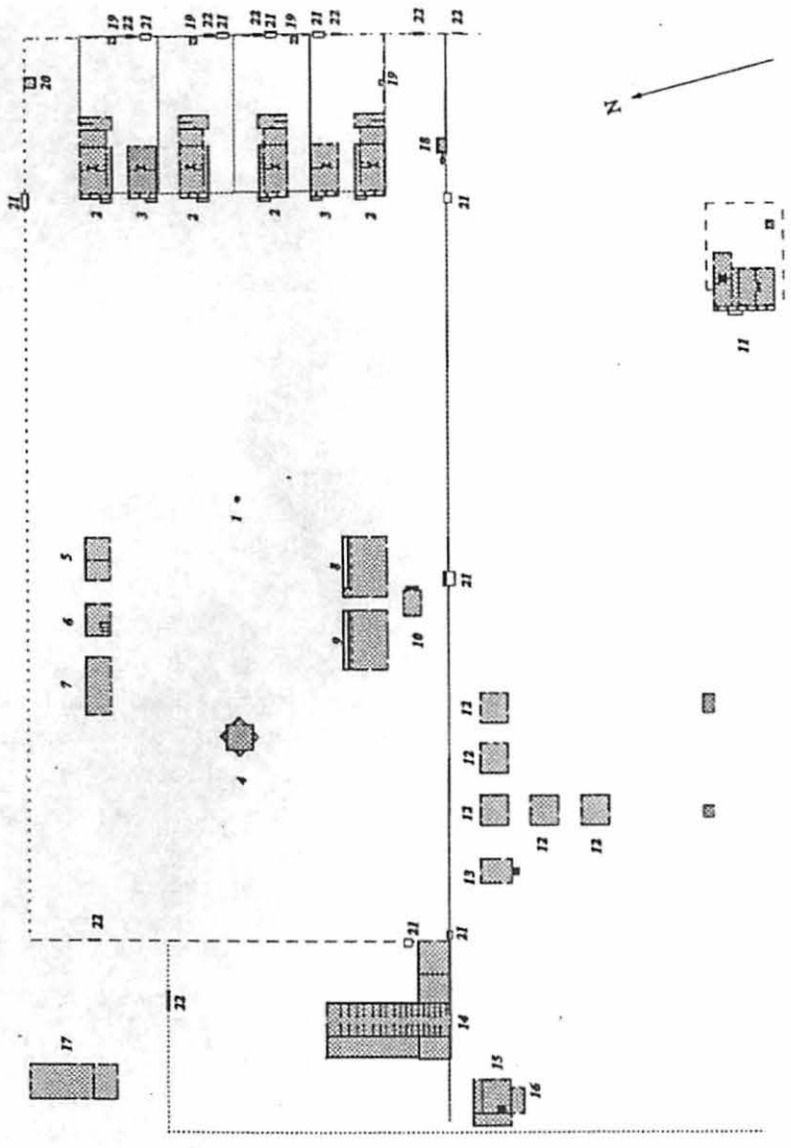

Fig. 2. Davison map of Fort Yamhill, ca. 1864 (Adams 1991:51).

Archival data was recovered during several visits to the Benton County Historical Museum, the Knight Library at the University of Oregon, the Oregon Historical Society, and from documents in the possession of the Anthropology Department at Oregon State University. Historical documents located and utilized in this paper include the Fort Yamhill Commissary Book, 1856–1862 (FYCB), Fort Yamhill Council of Administration Book, 1859–1866 (FYCAB), Fort Yamhill Letter Book, 1856–1866 (FYLB), and the Fort Yamhill Order Book, 1856–1866 (FYOB). Two previously published documents were also used, the journal of Corporal Royal A. Bensell (Barth 1959) and a report on preliminary historical archaeological research at Fort Yamhill (Adams 1991). These documents were used in conjunction with several period sources published by the United States War Department [USWD] (1825, 1855, 1857, 1861a, 1861b, 1863, 1864, 1879, and 1901).

Results

Subsistence supplies for the garrison were procured from five major sources: the Commissary of Subsistence stationed at Fort Vancouver, by subsistence contract made with local farmers and merchants, from produce and livestock raised by soldiers of the garrison in post gardens and pastures, foraging produce and hunting game from the local environment, and purchasing subsistence articles from the sutler's store. The Commissary at Fort Yamhill was charged with requisitioning subsistence supplies from the Commissary of Subsistence at Fort Vancouver, W.T. As supplies ran low, the Commissary would submit a request for the necessary supplies to be shipped from Fort Vancouver via steamboat down the Willamette River to Dayton, Oregon. At Dayton the subsistence articles were off-loaded onto wagons detailed from the Quartermaster Department and transported the remaining thirty miles over land to Fort Yamhill. Between September 1856 and March 1862 these shipments occurred on a frequency of about one shipment every 2.23 months (FYCB 1856). The subsistence articles that were procured exclusively from the Commissary of Subsistence at Fort Vancouver included beans, hard bread, adamantine candles, coffee, corn meal, hams, dehydrated mixed vegetables, dried peaches, pickles, dehydrated potatoes, sour kraut, crushed sugar, powdered sugar, tea, and whiskey. Other subsistence articles that were procured from Fort Vancouver, but were also procured through local contracts with farmers and merchants in the vicinity of Fort Yamhill, included dried apples, sperm candles, flour, molasses, onions, salt pork, potatoes, rice, salt, soap, brown sugar, and vinegar. Subsistence items procured in this way tended to be those items that could be preserved against spoilage and could be transported easily over long distances (Table 1).

What could not be procured from the Commissary of Subsistence at Fort Vancouver, because of shortages in supplies or the inability to transport these goods, was obtained through contract with local farmers and merchants within the vicinity of Fort Yamhill. The Commissary at Fort Yamhill procured subsistence stores from several local farmers and merchants in the towns of Sheridan, Willamina, Salem, and Portland and from the neighboring King's Valley (Table 2).

TABLE 1. ARTICLES PROCURED FROM THE COMMISSARY OF SUBSISTENCE AT FORT VANCOUVER (FYCB 1856)

Adamantine Candles	Dehydrated Potatoes	Onions	Soap
Beans	Dried Apples	Pickles	Sour Kraut
Brown Sugar	Dried Peaches	Potatoes	Sperm Candles
Corn Meal	Flour	Powdered Sugar	Tea
Coffee	Ham	Rice	Whiskey
Crushed Sugar	Hard Bread	Salt	
Dehydrated Mixed Vegetables	Molasses	Salt Pork	

TABLE 2. CIVILIAN CONTRACTORS, THEIR LOCATION AND THE ARTICLES PROVIDED (BARTH 1959, FYCAB 1859, FYCB 1856 AND FYOB 1856)

Civilian Contractor	Location	Subsistence Articles
Bell & Brown	Salem	Potatoes and Bakery Equipment
William or Levi Burden	Willamina	N/A
Rowland Chambers	King's Valley	Flour
Moses Eades	Willamina	Apples
Nathan Hussey	Willamina	N/A
William Ladds, aka W.S. Ladd & Co.	Portland	Hops
Jeramiah Lamson	Sheridan	Beef
Litchfield & Co.	N/A	Hops, Saleratus and Bakery Equipment
J.N.L. Miller	N/A	Beef, Butter, Milk and Eggs
William Savage	Sheridan	Beef
Benjamin Simpson	N/A	Beef and Flour
A. Weil	Sheridan	Tobacco and Whiskey
Franklin Yocum	Sheridan	Apples

The estates of civilian contractors of William or Levi Burden, Moses Eades, Nathan Hussey, Jeramiah Lamson, William Savage and John Wallace, who supplied Fort Yamhill, can be seen on the General Land Office Map of 1863 (Fig. 3). Subsistence articles procured through contract with local farmers and merchants tended to be items that were fresh and difficult to transport over long distances and included bacon, fresh beef, beets, butter, cabbage, chickens, eggs, lamb, milk, mutton, oysters, pepper, squash, turkey, and venison. When the Commissary of Subsistence at Fort Vancouver could not supply the items needed, the Commissary at Fort Yamhill procured those necessary such as dried apples, sperm candles, flour, molasses, onions, pork, potatoes, rice, salt, soap, brown sugar, and vinegar also through local contract (Table 3).

In 1851, as an economic measure to reduce the cost of supplying frontier posts, Secretary of War Charles M. Conrad ordered that frontier post commanders plant vegetable gardens (Utley 1967:36). It was thought that frontier posts might be made self-sufficient by producing their own articles of subsistence. Although Fort Yamhill propagated a post garden, its exact location remains unknown. One source stated 2nd Lt. Phil Sheridan (1856–1861), who owned the Wallace Estate due south of the post (Fig. 2), enlisted men stationed at the fort to tend the post garden and to produce vegetables for the fort (Adams 1991:73). A later source places the post garden on the property of Rogue River Indian chief Tyee-John, who was settled on the Reservation west of the fort (Barth 1959:84). In any case soldiers were detailed to produce "garden sass" (Barth 1959:111), a nineteenth century term for garden sauce or garden vegetables (McDonald 1971:12). The soldiers garrisoned at Fort Yamhill also appear to have tended a small herd of beef cattle. By Post Order No. 3 of 1861, cattle were to be procured and arrangements made for the pasture and forage for the following year (FYOB 1856). Soldiers may also have been breeding beef cattle as several entries in the Fort Yamhill Commissary Book list beef being added to the commissary stores as "gained [born] in spring" (FYCB 1856).

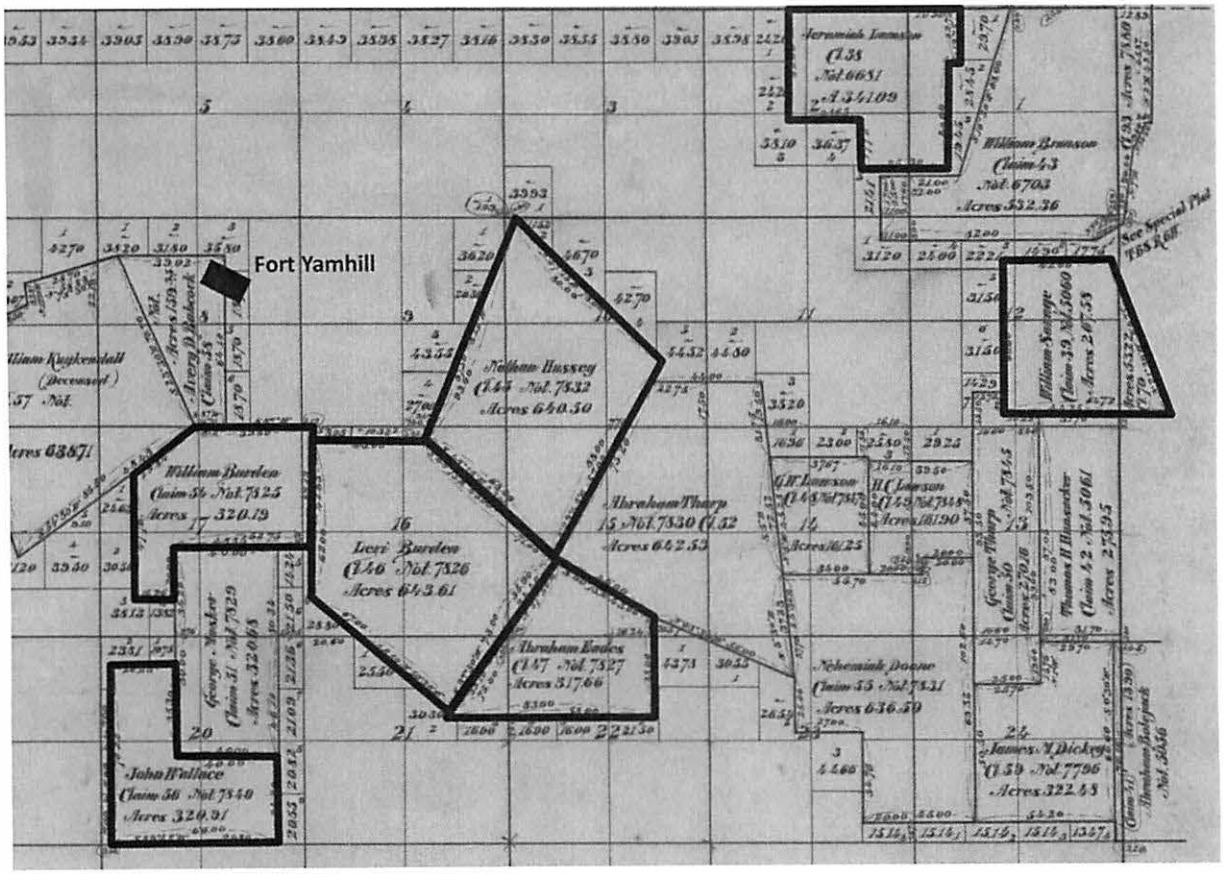

Fig. 3. General Land Office (1863) map showing the estates of several civilian contractors.

TABLE 3: SUBSISTENCE ARTICLES PROCURED THROUGH LOCAL CONTRACT (BARTH 1959, FYCAB 1859, FYCB 1856 ND FYOB 1856)

Bacon	Chickens	Lamb	Oysters	Salt Pork	Venison
Beets	Dried Apples	Milk	Pepper	Soap	Vinegar
Brown Sugar	Eggs	Molasses	Potatoes	Sperm Candles	
Butter	Flour	Mutton	Rice	Squash	
Cabbage	Fresh Beef	Onions	Salt	Turkey	

The 19th century U.S. Army tended to operate on the theory of efficiency. This often meant that soldiers were encouraged to provide for themselves by foraging for subsistence through hunting and gathering (Davis 2003:5). Hunting and gathering for subsistence stores at Fort Yamhill appears to be a common occurrence. The journal of Corporal Royal A. Bensell, who served at the fort as part of Co. D, 4th California Volunteer Infantry from March 20, 1862 to July 6, 1864, recorded many occasions of dinning on local game and produce.

Corporal Bensell and his fellow soldiers dined on white-tailed deer (*Odocoileus virginianus*), western gray squirrel (*Sciurus griseus*), rabbit (*Leporidae* sp.), quail (*Odontophoridae* sp.), grouse (*Tetraoninae* sp.), trout (*Oncorhynchus* sp., *Salmo* sp. or *Salvelinus* sp.), salmon (*Salmonidae* sp.), seal (*Pinnipedia* sp.), oysters (*Ostreidae* sp.) and mussels (*Mytilidae* sp.). They also harvested strawberries (*Fragaria virginiana*), blackberries/dewberry (*Rubis* sp.), huckleberries (*Vaccinium* sp.), salmonberries (*Rubus spectabilis*), sallalberries (*Gaultheria shallon*), cherries (*Prunus serotina*), and various types of "nuts" (Barth 1959).

The last source of subsistence stores, and the most costly for the soldier's pocket book, was the sutler's store. The sutler was a licensed merchant who was appointed or approved by the Secretary of War to operate a general store on or near a military post for the purpose of providing for sale to the troops articles that were necessary but not provided for by the Army (USWD 1825:par. 339). Fort Yamhill witnessed the service of several post sutlers; Mr. Taylor (1856), Benjamin Simpson (1862–1863) and Gilbert Litchfield (1863–1864). For the benefit of controlling a monopoly on non-military goods, the sutler was required to pay a monthly tax and was obligated to stock certain items to be determined by the commander of the post. Although no records are known to indicate what was sold at the Fort Yamhill sutler's store, a document titled *Articles to be Kept in Sutlers Store* from Fort Simcoe, W.T., dated October 1856 can provide a general idea. Among the list of required goods were knives and forks, spoons, tin plates, tin cups, chewing and smoking tobacco, pipes and cigars, mustard, pepper, saleratus, yeast powders, syrup, pickles, preserved meats, fruits, oysters and vegetables, dried apples and peaches, and assorted catsups (Fort Simcoe Council of Administration Book 1856). At Fort Yamhill Corporal Bensell does mention consuming chicken, mutton, eggs, turkey, shortcakes, cake, milk, butter, beer, whiskey, cider, and tobacco that were not issued as part of the ration and therefore were probably purchased from the post sutler (Barth 1959:12, 20, 26, 31, 43, 46, 58, 76, 111, 144, 164).

Professional cooks and bakers were, for the most part, non-existent in the U.S. Army of the 19th century. Most company cooks and post bakers were enlisted men detailed from the line for service in the post kitchen or bakery for period of about ten days. Depending on the size of the company, a soldier could expect to serve as company cook or post baker once every few years (Davis 2003:4). Because of the infrequent detail as company cooks and bakers, soldiers developed little if any culinary skill and the rest of the company suffered for it. Commanding officers in the Army observed this fact, but the War Department did little to remedy the situation and did not publish a manual for army cooks until 1879 (USWD 1879), and the first schools designed to train cooks and bakers were not established until 1905 (Risch 1962:507). In the field and on the march rations were usually prepared in inadequate field kitchens or by the individual soldier, but at more permanent posts the rations were prepared in company kitchens and post bakeries. The meals of the commissioned officers were prepared by their wives or enlisted men detailed from the line in private kitchens located at the rear of the officer's house. Both enlisted men and commissioned officers consumed bread produced at the post bakery, and it is possible that some roasted meats baked in the bakery were intended for consumption by enlisted men as well as the commissioned officers.

The company kitchen at Fort Yamhill was a 16 by 20 ft. structure built centered and south of the mess hall and company quarters (Fig. 2). The kitchen was equipped with a large hearth and chimney on the east end, with three doors, one each on the south, west and north side of the building, and with one window on the north side of the structure. All the buildings at the post were constructed of pine, frame and weather boarded vertically with projecting roofs, cottage style (Adams 1991:41). Archaeological investigations of the company kitchen in

2006–2008 revealed a structure measuring 16 ft. 4 in. by 20 ft. 7 in. ft. with a brick hearth and fire box measuring 3 ft. deep by 8 ft. wide and extending into the kitchen proper 4 ft. 5 in. as a working surface and precaution against fire. A porch measuring 6 ft. wide and 20 ft. long ran along the north side of the structure and can be seen outlined by the absence of river cobbles that were used to pave the interstices between the barracks, mess hall and kitchen. A single sandstone support represents a small porch on the south side of the building indicating the location of a door. The door on the west side of the structure led to a paved and covered work area measuring approximately 16x20 feet on this side of the structure evidenced by the presence of an artificially flattened surface, river cobble, a post support and concentrations of faunal remains suggesting this was a food processing area (Figs. 4 and 5).

The post bakery at Fort Yamhill was located south-west of the company kitchen, between the laundress quarters and the stables just outside the post perimeter fence (Fig. 2). The post bakery was composed of two structures, the bake house and the bake oven. The bake house was a 16 x 20 ft. structure with the bakery oven constructed on its south side (Adams 1991:66). Similar to the other structures at the post, the bake house was constructed of pine, frame and weather boarded vertically with a projecting roof in the cottage style. The building had one door that opened toward the parade ground and the perimeter road and had two windows, one each on the east and west walls for light and ventilation (Fig. 6). Archaeological investigations of the post bakery in 2007–2009 did not recover any evidence of the bake house but did uncover the bake oven.

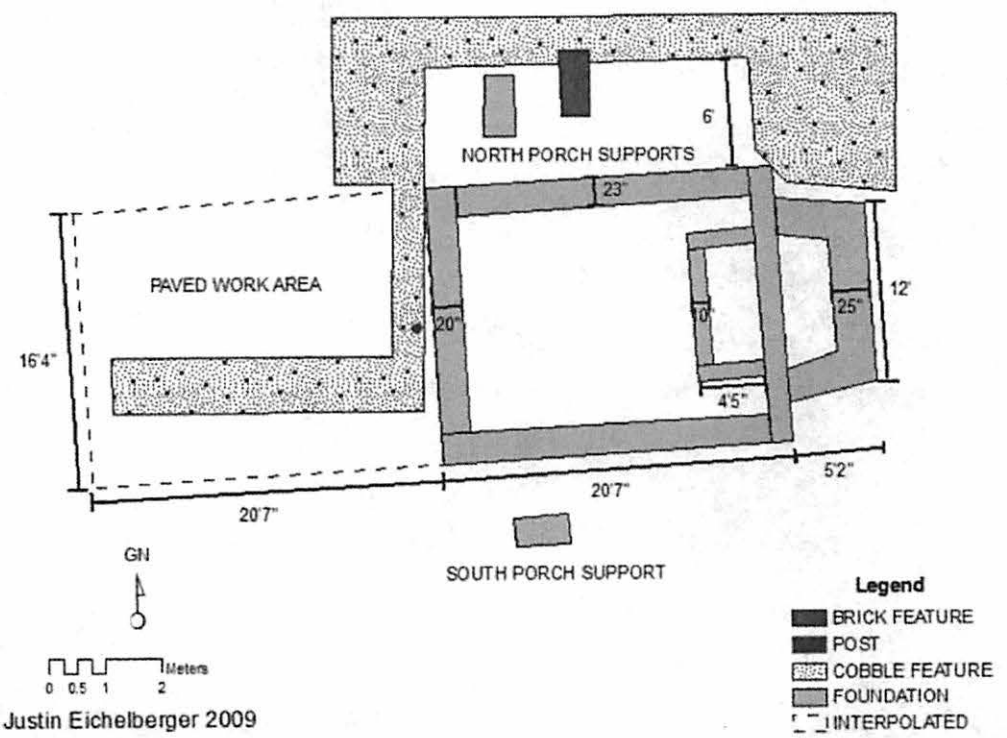

Fig. 4. Schematic map of kitchen feature at Fort Yamhill.

Fig. 5. Overview of the kitchen feature looking east with the hearth in the background.

The exterior dimensions of the bake oven measured 10 ft. 2 in. by 11 ft. 4 in. and the structure was constructed of locally quarried sandstone. The baking chamber was considerably smaller measuring only 2 ft. 4 in. by 4 ft. 4 in. and constructed from locally procured brick. The opening for the bake oven door measured 17 in. wide. The typical baking pan of the period measured 17 in. by 22 in. by 3 in. and could hold fifteen rations (USWD 1864:38). Based on these measurements, the oven at Fort Yamhill could accommodate two baking pans at a time and could therefore produce 30 rations of bread per bake. Assuming the oven at Fort Yamhill was a typical bakery of the period it would produce three batches of bread per day for a total of about 90 rations.

By the 1850s the U.S. Army ration consisted of fresh beef, salt beef, pork or bacon; flour, soft bread, hard bread or cornmeal; beans, peas or rice; roasted coffee and sugar; vinegar and salt; and soap and candles (USWD 1855:par. 17). With the outbreak of the American Civil War in 1861, peas were eliminated from the ration; desiccated vegetables, tea and adamantine candles were added and the ration of roasted coffee and sugar were increased (USWD 1861:par. 1191). As the War of the Rebellion raged in the east, Congress determined that certain articles of the ration should be increased in the hopes that this would promote the health and spirit of the Union soldier. In 1863, Congress increased the rations of flour, bread and hard bread; reinstated the

ration of peas; introduced a ration of hominy, potatoes and desiccated potatoes, green coffee, molasses and pepper; and reduced the ration of roasted coffee (USWD 1863:par. 15). This increase in rations was intended to be temporary, for in the same legislation, Congress stated that after the end of the insurrection, the ration provided by law and regulation would revert back to its pre-war levels (USWD 1863). Although the American Civil War did not end until April 1865, Congress reduced the Union ration in June 1864 to the same kind and amount as those prescribed in July 1861 (Table 4).

The Subsistence Department at Fort Yamhill provided three distinct rations to each of the different populations at the post (Table 5). The standard U.S. Army ration was issued to the enlisted men of the company with the occasional addition of dried apples, sour kraut, dried peaches, onions, and whiskey to men who served on extra-duty. Commissioned officers purchased some of the same subsistence stores that were issued to the enlisted men, but they also had the Commissary procure several articles specifically for purchase by the officers of the company. These items procured for the commissioned officers tended to be of the same type as those procured for the enlisted men, the difference between the two was that the commissioned officers procured and purchased subsistence articles of a higher quality. The third ration was that issued to the sick and injured in the post hospital. The hospital diet was composed of many of the same articles of the standard ration but was composed with fresher ingredients.

Archaeological investigations conducted on the Fort Yamhill officer's quarters, the company kitchen and the post bakery produced over 1158 bone and teeth fragments (Tables 6, 7 and 8). These fragments were identified by class and further categorized by element and lower level taxa (genus and species), if possible (Eichelberger 2010:188, 224 and 233). Historic meat cuts were identified based on bone element, butcher marks and comparison to diagrams in period butcher manuals and previous research projects (Abell 1852, Eakins 1924, Ewart 1878, Green 1837, Lyman 1977, Somerville 1862 and USWD 1901).

Of the 1158 bone fragments recovered, 1138 were positively identified as mammal, 16 as avian and 4 were unidentifiable. The mammalian class was further subdivided into three categories based on animal size: large mammals (cow, horse and elk), medium mammals (pig, sheep and deer) and small mammals (rabbit, hare and squirrel).

A total of 130 bone fragments were classified by animal size, including 70 large mammals, 57 medium mammals and 3 small mammals. The fragmentary nature of most of the bone allowed for the genus to be identified for only 62 of the mammal bone and teeth fragments and 10 of the avian bone fragments. The largest taxa represented by total number of identified bone fragments was the domestic cow (*Bos taurus,* N = 48), followed by the domestic chicken (*Gallus gallus domesticus,* N = 10), the domestic pig (*Sus scrofa domesticus,* N = 9), and the whitetail deer (*Odocoileus virginianus,* N = 5).

Seventy-two historic meat cuts were identified by the faunal remains recovered at the officer's quarters (N = 40), company kitchen (N = 19), and the post bakery (N = 13). Sixty-two of these remains were of large and medium mammals including cow (*Bos* sp.), pig (*Sus* sp.) and deer (*Odocoileus* sp.) and could be classified by section as either forequarters or hindquarters (Table 6). In beef, the cut of division between the fore and hind quarters is at the tenth rib (to be included in the fore quarter) and to follow the direction of such rib to the posterior end of the sternum (Ewart 1878:136–137). For pork, the cut of division between the fore and the hind quarters is at the ninth rib (to be included in the forequarter) and to follow the direction of the rib to the posterior end of the sternum (Ewart 1878:141–142). And for deer, the cut of division between the fore and hind quarters is at the eleventh rib (to be included in the forequarter) and to follow the direction of the rib to the posterior end of the sternum (Green 1837:201).

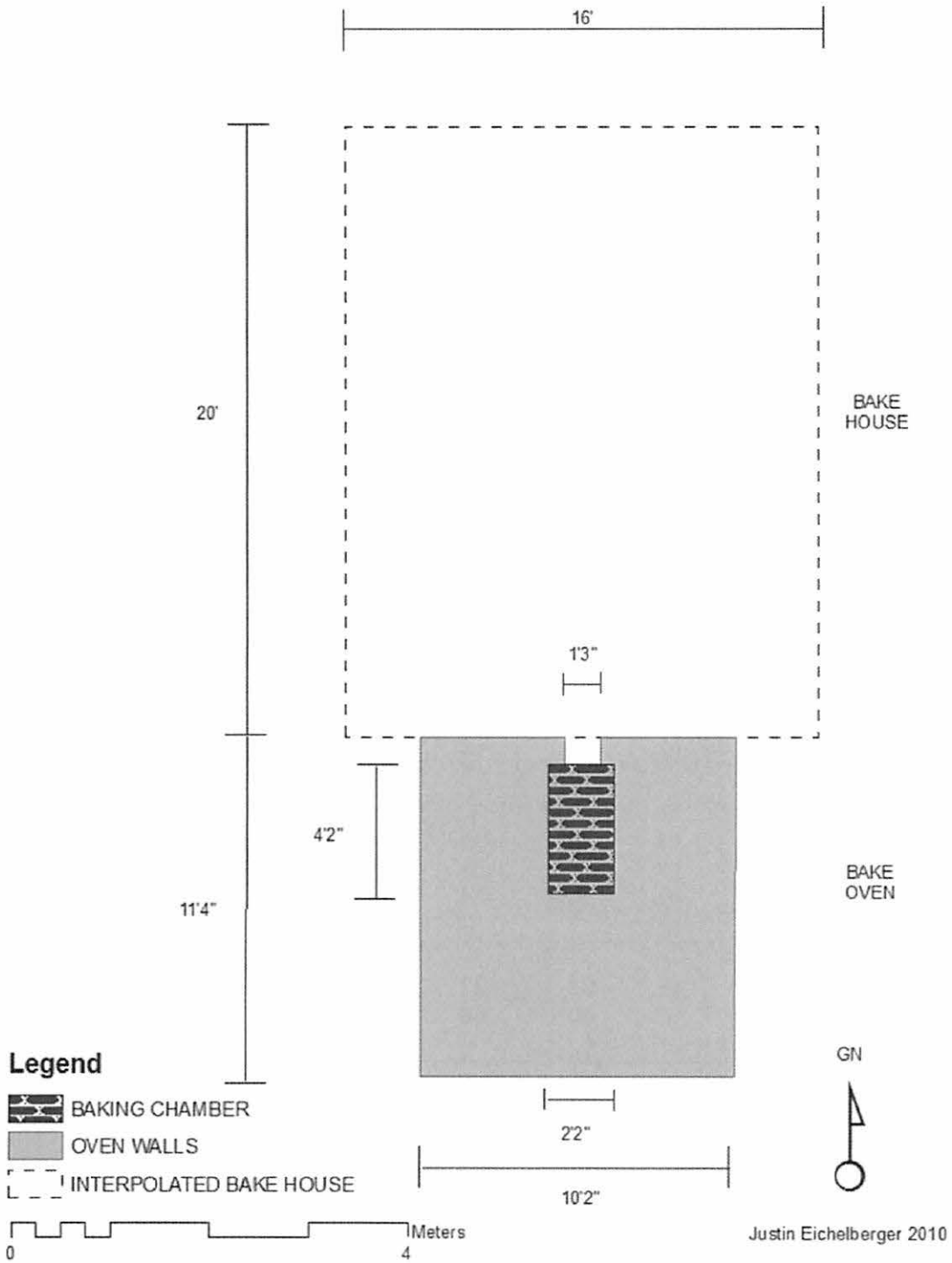

Fig. 6. Schematic map of the bakery oven at Fort Yamhill.

TABLE 4. COMPARISON OF THE U.S. ARMY RATION FROM 1855 TO 1864 (USWD 1855, 1861B, 1863 AND 1864)

Ration Article	Unit	1855	Jul. 1861	Aug. 1863	Jun. 1864	1865
MEAT	-	-	-	-	-	-
Fresh beef	oz.	20	20	20	20	20
Or, salt beef	oz.	20	20	20	20	20
Or, salt pork	oz.	12	12	12	12	12
Or, bacon	oz.	12	12	12	12	12
BREAD	-	-	-	-	-	-
Flour	oz.	18	18	18	18	18
Or, soft bread	oz.	18	18	18	18	18
Or, hard bread	oz.	12	12	16	12	12
Or, corn meal	oz.	20	20	20	20	20
VEGETABLE	-	-	-	-	-	-
Beans	qt.	.08	.08	.08	.08	.08
Or, peas	qt.	.08		.08		.08
Or, rice	oz.	1.6	1.6	1.6	1.6	1.0
Or, hominy	oz.			1.6		1.6
Or, desiccated vegetables	oz.		1	1	1	
Or, desiccated potatoes	oz.			1.5		
Or, potatoes	oz.			4.8		
COFFEE AND SUGAR	-	-	-	-	-	-
Green coffee	oz.			1.6		1.6
Or, roasted	oz.	.96	1.6	1.28	1.6	1.6
Or, tea	oz.		.24	.24	.24	.24
Sugar	oz.	1.92	2.4	2.4	2.4	2.4
Or, molasses	qt.				.01	
SEASONING	-	-	-	-	-	-
Vinegar	gi.	.32	.32	.32	.32	.32
Salt	qt.	.60	.60	.60	.60	.60
Pepper	oz.			.04		
NON-CONSUMABLE	-	-	-	-	-	-
Soap	oz.	.64	.64	.64	.64	.64
Sperm Candle	oz.	.16	.16	.16	.16	.16
Adamantine Candle	oz.		.20	.20	.20	.20
Tallow Candle	oz.	.24	.24	.24	.24	.24
INDULGENCE	-	-	-	-	-	-
Tobacco	oz.					.53

TABLE 5. ISSUES OF COMMISSARY STORES, 1856–1862 (EICHELBERGER 2010:99)

Enlisted Men	**Enlisted Men Extra Issues**	**Commissioned Officers**	**Hospital Diet**
Fresh Beef		Fresh Beef	Fresh Beef
Pork		Pork	Pork
Bacon		Bacon	Bacon
		Ham	
			Chicken
			Eggs
			Lamb
			Mutton
			Oysters
			Turkey
			Venison
Flour		Flour	Flour
Hard Bread		Hard Bread	
Beans		Beans	Beans
Rice		Rice	Rice
Potatoes		Potatoes	Potatoes
			Cabbage
	Onions	Onions	Onions
			Squash
	Dried Apples	Dried Apples	Dried Apples
	Dried Peaches	Dried Peaches	
		Pickles	Pickles
	Sour Kraut	Sour Kraut	
		Milk	Milk
			Butter
		Costa Rica Coffee	
		Java Coffee	
Rio Coffee			Rio Coffee
Tea		Tea	
	Common Whiskey	Common Whiskey	
		Superior Whiskey	
Brown Sugar		Brown Sugar	Brown Sugar
		Crushed Sugar	Crushed Sugar
		Molasses	Molasses
Vinegar		Vinegar	Vinegar
Salt	Salt	Salt	Salt
			Pepper
Soap	Soap	Soap	Soap
Sperm Candles	Sperm Candles	Sperm Candles	Sperm Candles
Adamantine Candles	Adamantine Candles	Adamantine Candles	Adamantine Candles

Fig. 7. Bake oven feature looking south with the baking chamber in the foreground.

TABLE 6: BEEF, PORK AND VENISON MEAT CUTS BY SECTION, TOTAL AND PERCENTAGES BY FEATURE

Taxa	Section of Animal	Officer's Houses	Company Kitchen	Post Bakery	All Features
Beef (*Bos* sp.)	Forequarters	13 / 59%	7 / 50%	5 / 41.6%	25 / 52%
	Hindquarters	9 / 41%	7 / 50%	7 / 58.3%	23 / 47.9%
Total		**22 / 100%**	**14 / 100%**	**12 / 99.9%**	**48 / 99.9%**
Pig (*Sus* sp.)	Forequarters	4 / 100%	4 / 100%	1 / 100%	9 / 100%
Total		**4 / 100%**	**4 / 100%**	**1 / 100%**	**9 / 100%**
Deer (*Odocoileus* sp.)	Hindquarters	5 / 100%	-	-	5 / 100%
Total		**5 / 100%**	-	-	**5 / 100%**

Historically, the fore and hindquarter sections were further divided by joint. In beef, the fore quarter contained eight joints, including the cheek, shin, neck/sticking piece, clod, brisket, shoulder, chuck rib and middle rib. The hind quarter contained ten joints, including the sirloin, rump, edge-bone, buttock, mouse-buttock, veiny piece, thick flank, thin flank, leg, and fore rib (Holland 1837:107). In pork, the fore quarter contained three joints, including the head, spare rib and hand, and the hind quarter contained four joints, including the fore loin, hind loin, leg and belly (Holland 1837:107). In deer, the fore quarters contained three joints the neck, scrag, shoulder and breast, and the hind quarter contained only one joint, the haunch (Green 1837:201).

The recovered faunal remains indicate that the commissioned officers were consuming fresh beef, pork, chicken, and whitetail deer (Table 7). Beef was processed into eight different meat cuts, one of which (the shin) was found exclusively at the officer's quarters. Beef cuts found at the officer's quarters, listed in order of abundance, include the clod, rump, rib, thick flank, sirloin, neck/sticking piece, buttock, and shin. Pork was processed into loin/hand cuts and was the only pork meat cut present in the officer's assemblage, and chicken was represented by wings, legs, thighs, and a single cranial bone. Officers were also hunting wild game, namely whitetail deer, represented by haunch cuts that were probably processed into rump roasts. The officer assemblage also contained two cross cuts, one fore shank crosscut of a large mammal probably a cow, and one hand shank crosscut from a medium-sized mammal probably a pig.

In the company kitchen cooks were processing and cooking fresh beef, pork and chicken (Table 7). Beef was processed into seven different meat cuts, none of which were found exclusively at the company kitchen. Beef cuts found at the company kitchen, listed in order of abundance, include the buttock, clod, rib, neck/sticking piece, rump, sirloin and thick flank. Pork was processed into the head and loin or hand cuts, and chicken was represented by a single thigh cut.

In the post bakery enlisted men were baking fresh beef and pork (Table 7). Beef was processed into six different meat cuts, one of which (the leg) was found exclusively at the post bakery. Beef cuts found at the post bakery, listed in order of abundance, include the neck/sticking piece, rump, thick flank, sirloin, rib and leg, and pork was processed into loin or hand cuts.

Discussion and Conclusion

The Commissary at Fort Yamhill procured subsistence stores in the usual manner for the U.S. Army during the middle of the 19th Century. The post relied primarily on the regular shipments of subsistence stores from the Commissary of Subsistence at Fort Vancouver. When these shipments failed to arrive or were inadequate, the Commissary at Fort Yamhill procured subsistence stores by entering into contracts for supplies with local farmers and merchants. To supplement what the Commissary was able to procure through contract, soldiers at the post also propagated a post garden and produced fresh vegetables for the company that would have added much needed variety to their diet. Whenever possible soldiers of the garrison supplemented their rations with wild game and produce or with articles purchased from the sutler's store.

The socio-economic status differences found in the civilian sector of 19th century America was also present in the military sub-culture. The entire military system was predicated and designed to function by exploiting differences in social status. At Fort Hoskins, a fort regionally and temporally contemporaneous to Fort Yamhill, these status differences were expressed in the material culture of the soldiers stationed there (Bowyer 1992 and Eichelberger 2010). These status differences can also be seen in the foodways of the commissioned officers

TABLE 7. MEAT CUTS REPRESENTED AT FORT YAMHILL (EICHELBERGER 2010:224)

Taxa	Historic Meat Cut	Officer's Houses	Company Kitchen	Post Bakery
Beef (*Bos* sp.)	Neck/Sticking Piece	1 / 4.5%	1 / 7.1%	4 / 33.3%
	Buttock	1 / 4.5%	4 / 28.6%	-
	Clod	8 / 36.4%	3 / 21.4%	-
	Rump	3 / 13.6%	1 / 7.1%	3 / 25%
	Sirloin	2 / 9%	1 / 7.1%	1 / 8.3%
	Shin	1 / 4.5%	-	-
	Rib	3 / 13.6%	3 / 21.4%	1 / 8.3%
	Thick Flank	3 / 13.6%	1 / 7.1%	2 / 16.7%
	Leg	-	-	1 / 8.3%
Total		**22 / 99.7%**	**14 / 99.8%**	**12 / 99.9%**
Pig (*Sus* sp.)	Loin	4 / 100%	2 / 50%	1 / 100%
	Head	-	2 / 50%	-
Total		**4 / 100%**	**4 / 100%**	**1 / 100%**
Chicken (*Gallus* sp.)	Head	1 / 11.1%	-	-
	Wing	4 / 44.4%	-	-
	Thigh	3 / 33.3%	-	-
	Leg	1 / 11.1%	1 / 100%	-
Total		**9 / 99.9 %**	**1 / 100%**	-
Deer (*Odocoileus* sp.)	Haunch	5 / 100%	-	-
Total		**5 / 100%**	-	-

and their enlisted men at Fort Yamhill. Enlisted men were only entitled to rations of fresh beef, pork, bacon, flour, hard bread, bean, rice, potatoes, Rio coffee, tea, brown sugar, vinegar, salt, soap, sperm candles, and adamantine candles. Commissioned officers of the company, although not issued rations, could purchase articles of the standard ration and also had access to subsistence stores specifically procured and shipped to posts for their consumption. In addition to some articles of the standard rations, commissioned officers consumed rations of ham, corn meal, onions, dried apples, dried peaches, pickles, sour kraut, milk, Costa Rica coffee, Java coffee, common whiskey, superior whiskey, crushed sugar and molasses. These were all articles that were more costly and sometimes more perishable than the standard rations issued to the enlisted men (Eichelberger 2010:256). Enlisted men did have limited access to some of these articles, namely onions, dried apples, dried peaches, sour kraut, and common whiskey but could only be issued these articles if employed in fatigue and extra duty.

While the faunal assemblage is small and the results preliminary, the faunal remains recovered from the fort do show some differences between the commissioned officers and enlisted men. In many cases the commissioned officers consumed the same types of meat as the enlisted men, such as beef, pork and chicken. The one exception is the presence of whitetail deer in the officer's quarters and no evidence of the same in the company kitchen or post bakery. This may indicate that because of his rank the commissioned officer was more likely to procure subsistence stores from hunting than his enlisted counterpart. Commissioned officers and

enlisted men consumed many of the same cuts of meat, but there were some differences. Although chicken bones were recovered from both the company kitchen and the officers' quarters, only one femur fragment was found in the kitchen whereas nine fragments representing four different cuts of meat were recovered from the officers' quarters. Chicken was not part of the U.S. ration and would have only been made available to soldiers of enlisted and commissioned rank through purchase at the sutler's store or to the infirm at the hospital. The disparity in the chicken remains recovered from the officers' quarters and those of the enlisted men may be explained by their relative inequalities in socio-economic status. Although the consumption of pork is relatively the same between enlisted men and commissioned officers, the presence of the head at the company kitchen and no such evidence from the officers' quarters may suggest that enlisted men utilized all parts of the animal (probably in soups) where as the commissioned officers did not.

The largest difference between enlisted men and commissioned officers in the consumption of meat at Fort Yamhill is evidenced in the contrast observed in the cuts of beef consumed by each of these populations. Although both enlisted men and commissioned officers consumed the same cuts of meat, it is the quantity of these cuts that each consumed that is different. Commissioned officers tended to consume cuts made from the forequarters (59%) over the hind quarters (41%), whereas the enlisted men tended to consume cuts from both sections evenly. The remains recovered from the post bakery tended to favor hind quarter cuts (58.3%) but might have more to do with the method of food preparation than with social or economic status. Differences are also observed in the type of specific beef cuts (joints) consumed at the officer's quarters and the company kitchen. Officers tended to consume the clod (36.4%), rump (13.6%), rib (13.6%), and thick flank (13.6%) cuts whereas the enlisted men consumed the buttock (28.6%), clod (21.4%), and rib (21.4%) cuts. At the post bakery, the neck/sticking piece (33.3%) and the rump (25%) were the most common cut of meat, but again this probably has to do with the method of food preparation because it is not known if the consumers of the meat produced at the post bakery were enlisted men and/or commissioned officers. While not conclusive, the differences in meat cuts present at these officer's quarters, company kitchen and post bakery at Fort Yamhill may reflect differences in socio-economic status or, in the case of commissioned officers, maybe even personal preference.

Although stationed on a remote frontier, the soldiers at Fort Yamhill were able to procure adequate amounts of subsistence stores by diversifying their procurement strategies and adapting to the local natural and cultural environments. It is also clear that the economic and status differences that have traditionally been observed in the material culture of archaeological sites can also be found in the archival record and faunal remains. The kitchen and bakery features at Fort Yamhill are the only known fully excavated features of this type and date known to the author. These features at Fort Yamhill give only a small glimpse into how the U.S. Subsistence Department functioned during the 19th century and the material culture associated with their functions. More work is needed to be done at sites with similar dates and historical and environmental conditions so that comparisons can be made and broader analyses synthesized.

REFERENCES CITED

Abell, L. G.
1852 *The Skillful Housewife's Book: or Complete Guide to Domestic Cookery, Taste, Comfort and Economy*. R. T. Young, New York.

Adams, William Hampton (Editor)
1991 *Fort Yamhill: Preliminary Historical Archaeological Research Concerning the 1856–1866 Military Post*. Department of Anthropology, Oregon State University, Corvallis.

Barth, Gunter (Editor)
1959 All *Quite on the Yamhill: Journal of Corporal Royal A. Bensell, Company D, 4th California Volunteers*. University of Oregon Press, Eugene.

Bowyer, Gary
1992 *Archaeological Symbols of Status and Authority: Fort Hoskins, Oregon, 1856–1865*. Master's thesis, Oregon State University, Corvallis.

Brauner, David, and Justin Eichelberger
2009 *Archaeological Investigations at the Fort Yamhill Site, 35PO75, Fort Yamhill State Heritage Area, Polk County, Oregon: 2008 Field Season*. Report on File, Department of Anthropology, Oregon State University, Corvallis.

Brauner, David, Justin Eichelberger, and Brooke Boulware
2009 *Archaeological Investigations at the Fort Yamhill Site, 35PO75, Fort Yamhill State Heritage Area, Polk County, Oregon: 2007 Field Season*. Report on File, Department of Anthropology, Oregon State University, Corvallis.

Brauner, David, and Nahani Stricker
2006 *Fort Hoskins Illustrated: An Archaeologist Reflects*. Benton County Historical Society and Museum, Philomath, OR.

Davis, William C.
2003 *A Taste for War: The Culinary History of the Blue and Gray*. Stackpole Books, Mechanicsburg, PA.

Eakins, H. S.
1924 *Military Meat and Dietary Hygiene*. Williams and Wilkins Co., Baltimore.

Eichelberger, Justin E.
2010 *Foodways at Fort Yamhill, 1856–1866: An Archaeological and Archival Perspective*. Master's thesis, Oregon State University, Corvallis.

Ewart, John
1878 *Meat Production, a Manual for Producers, Distributors, etc.* Crosby Lockwood & Co., London., England.

Fort Yamhill Commissary Book [FYCB]
1856 *Fort Yamhill Commissary Book, 1856–1862.* Oregon Historical Society, Portland, OR.

Fort Yamhill Council of Administration Book [FYCAB]
1859 *Fort Yamhill Council of Administration Book, 1859–1866.* Oregon Historical Society, Portland, OR.

Fort Yamhill Letter Book [FYLB]
1856 *Fort Yamhill Letter Book, 1856–1866.* Oregon Collection, Knight Library, University of Oregon, Eugene.

Fort Yamhill Order Book [FYOB]
1856 *Fort Yamhill Post Orders, 1856–1866.* Oregon Historical Society, Portland, OR.

Fort Yamhill Post Returns [FYPR]
1856 *Fort Yamhill Post Returns, 1856–1866.* Preston Onstad Collection, Benton County Historical Museum, Philomath, OR

Fort Simcoe Council of Administration Book [FSCAB]
1856 *Fort Simcoe Council of Administration Book.* Oregon Historical Society, Portland, OR.

General Land Office [GLO]
1863 *General Land Office Map: Township 6 South Range 7 West, Willamette Meridian.* Drawn on 31 October 1863. University of Oregon Libraries, University of Oregon, Eugene.

Getty, Robert
1975 *Sisson and Grossman's The Anatomy of the Domestic Animals.* 5th Ed. Volumes 1 and 2. W.B. Saunders Company, Philadelphia, PA.

Glisan, Rodney
1874 *Journal of Army Life.* A.L. Bancroft & Co., San Francisco, CA

Green, Frances Harriet
1837 *The Housekeeper's Book.* William Marshall & Co., Philadelphia, PA.

Hillson, Simon
1996 *Mammal Bones and Teeth: An Introductory Guide to Methods of Identification.* Institute of Archaeology, University College, London, England.

Holland, Mary
1837 *The Economical Cook and Frugal Housewife.* Thomas Tegg & Son, London, England.

Lyman, R. Lee
1977 Analysis of Historical Faunal Remains. *Historical Archaeology*,11:67–73.

McDonald, Lucille Saunders
1971 *Garden Sass: The Story of Vegetables.* Penguin Group Incorporated, London, England.

Risch, Erna
1962 *Quartermaster Support of the Army: A History of the Corps, 1775–1939.* Quartermaster Historians Office, Office of the Quartermaster General, Washington, DC.

Schmid, Elisabeth
1972 *Atlas of Animal Bones: For Prehistorians, Archaeologists and Quarternary Geologists.* Elsevier Publishing Company, New York, NY.

Somerville, Mary
1862 *Cookery and Domestic Economy.* George Watson, Glasgow, England.

United States War Department
1825 *General Regulations for the Army; or, Military Institutes.* Davis and Force, Washington, DC.

1855 *Regulations of the Subsistence Department, 1855.* A.O.P. Nicholson, Washington, DC.

1857 *Regulations for the Army of the United States, 1857.* Harper and Bros., NY.

1861a *Regulations Concerning Barracks and Quarters for the Army of the United States, 1860.* George W. Bowman, Washington, DC.

1861b *Revised United States Army Regulations, 1861.* U.S. Army, Washington, DC.

1863 *Regulations for the Subsistence Department of the Army of the United States, 1863.* U.S. Army, Washington, DC.

1864 *Bread and Breadmaking.* U.S. Army, Washington, DC.

1879 *Manual for Army Cooks.* U.S. Army, Washington, DC.

1901 *How to Feed an Army* [compilation of responses to circular issued by Commissary General dated 1 June 1865]. U.S. Army, Washington, DC.

Utley, Robert M.
1967 *Frontiersmen in Blue: the United States Army and the Indian, 1848-1865.* Macmillan, NY.

Justin E. Eichelberger
238 Waldo Hall
Oregon State University
Corvallis, Oregon 97333

justineichelberger@yahoo.com

Journal of Northwest Anthropology, 45(1):57–70 2011

THE SOCIAL SIGNIFICANCE OF THE WATSON STORE TO THE COMMUNITY OF SPALDING, IDAHO

Sarah Heffner

ABSTRACT

Sociologist Ray Oldenburg described a "third place" as "a generic designation for a great variety of public places that host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work" (1997:16). One such place, the Watson Store, a general store located in Spalding, Idaho, served the community for over 50 years (1911–1964). The store was a third place in the sense that it brought the community together in a friendly and social environment where everyone was treated equally, regardless of race or socioeconomic status. Using a variety of sources, including interviews, information gathered from Nez Perce National Historical Park archives, and analyses of artifacts from the Park's Watson Store Collection, I illustrate the importance of the Watson Store as a third place to the community of Spalding, Idaho.

Introduction

The country general store was a prominent fixture in many rural American communities. It was the center of commerce and trade in the community and a place where locals could buy everything they needed without having to venture a great distance from their homes. The general store served as a social gathering place, bringing the community together in a friendly and hospitable environment where everyone, regardless of race or socioeconomic status, would feel welcome. In a 1953 meeting of retail merchants, President Eisenhower discussed the importance of country stores to our American past, stating that "They were the social centers of our time. . . . Our memories today. . . . center around that time, that place, those connections, those contacts" (Eisenhower 1953).

According to Sociologist Ray Oldenburg, the country store served as a "third place," an informal public place that hosted the "regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work" (1997:16). Third places are beneficial to the community in that they help to unite the community and can serve as staging areas for people to come together during a crisis. In addition, third places help strengthen and renew family ties and bring young and old together in a friendly environment. Third places provide entertainment and good conversation and are a home-away-from-home where one feels welcome, regardless of their position in society. Oldenburg also discusses how forces such as suburbanization and the automobile have contributed to the decline of these "third places."

The Watson Store, a general store in Spalding, Idaho, was very much a third place for the residents of Spalding. It operated for over fifty years (1911–1964) and served both the Nez Perce and white community. It provided residents with a convenient and affordable place to shop and served as a place for "good conversation, getting mail, and meeting friends and neighbors. . . ." (Kopczynski 1987:15). The Watson Store is now part of the Nez Perce National Historical Park and is owned by the National Park Service.

Research Methods and Procedures

The majority of the research was conducted at the Nez Perce National Historical Park Research Library, where the Watson Store Papers are held. All available documents (including letters, interviews, journal articles, etc.) on the Watsons, their store, and their customers were examined with the assistance of Archivist Robert Applegate. The collection covers a period from 1910–1969 and includes 15 linear ft. of documents, along with 6 oversize pieces and 49 photographs. These materials are organized into eight series that cover topics such as "History and Background of Watson's Store" and "Watson Store Financial Records." These papers hold a wealth of information.

Also examined at the Nez Perce National Historic Park was the Watson Store Collection to gain a better understanding of some of the items that the Watsons stocked in their store. Linda Paisano, curator of the Park's collections, facilitated access to the collection, which contains more than 1,000 objects, all of which are original items from the store's inventory. The objects have been catalogued by the Park Service and entered into a database, which makes it possible to organize them into various categories based on their use, including clothing, sewing accessories, personal grooming items, store hardware, household items, lighting fixtures, tools/hardware, and medicine.

To complement the documentary and artifact analyses, interviews were conducted with long-time residents of the area. Interviews were conducted with whites and Nez Perce who frequented the Watson store when they were younger in order to gain a better understanding of the personalities of Mr. and Mrs. Watson and the attitudes of the customers towards the store. Interviews also explored the significance of the store to the community at large. The interviews were conducted in 2006 and 2007. To find potential interviewees, local nursing homes were contacted, along with Park employees and members of the Nez Perce Tribe who knew individuals who had lived close to the Watson Store. All interviews were taped and transcribed, and copies of the transcriptions were given to interviewees and interested friends or relatives.

Approval to conduct the interviews was obtained from the Human Assurances Committee at the University of Idaho. Informed consent forms were utilized and all foreseeable ethical issues were addressed prior to conducting the interviews. To conduct research with Nez Perce tribal members, Vera Sonneck, Director of the Cultural Resources Office for the Tribe was contacted. A research permit form was filled out and permission was granted from the Tribe's Natural Resources subcommittee and the Nez Perce Tribal Executive Committee in June 2006.

The Watson Store

The Watson Store in Spalding, designed and constructed by Lewis and Margaret Watson, opened for business on 17 May 1911(Glasby 1978:1). The couple had met in the mining community of Burke, Idaho in 1908, married in Spokane, and soon moved to Stites, Idaho, where

Lewis worked at H. C. Oliver's store. Two years later they moved to Spalding, Idaho, and opened "the last of a series of trading posts or stores extending back to the [Indian] agency's earliest days" (Shawley 1978:9). After ill health and the sudden death of their daughter forced closure of the store in 1964, the Watsons retired to Salt Lake City, Utah.

Lewis and Margaret Watson

Lewis Caples Watson (known as "Lou") was born in Sacramento, California, on 10 March 1877, and was the eldest son of Mr. and Mrs. J. B. Watson. The family moved to the Northwest a year after Lewis was born, taking an ocean steamer from San Francisco to Oregon, and moving to Cascade Locks near The Dalles, where Mr. J. B. Watson operated a store (Shawley 1978:1). In 1885, the family moved to Lewiston, Idaho, and later moved to Colton, Washington, where the J. B. Watson opened and operated a red front store until 1895 (Shawley 1978:17). Lewis Watson and his younger brother, Jay Watson, helped their father with running the store.

At the age of 18, Lewis Watson left home to seek his fortune in the gold rush of the Buffalo Hump and Hoodoo Mountains of Northern Idaho. In 1898, he moved to Lewiston, Idaho, and worked as a clothing clerk for the Grostein-Binnard Store for about one-and-a-half years. In 1900, he did some prospecting for Bert R. Young and later worked at the mill in Potlatch, Idaho. After working at Potlatch, Lewis moved to the Burke-Mullan area of Idaho where he met his wife, Margaret Josephine Murphy (Applegate nd:3). Lewis Watson died on 10 February 1966, in Salt Lake City, Utah.

Margaret Josephine Murphy (known as Josephine or "Jo" to her close friends) was born in Candelaria, Nevada, on 27 May 1883. Her father, John Murphy, was a miner but after a mining accident, he decided to take up homesteading and the family journeyed to Oregon and then from there, Rockford, Washington (Shawley 1978:18). John later decided he did not like being a "sod buster" and took the family to the nearby silver boom town of Burke, Idaho. Here, Margaret developed into womanhood and ran a millinery store. She married a mining foreman, who was Canadian, and had a daughter named Genevieve. He later died of "miner's consumption" in Needles, California, where they had moved for his health. She then moved back to Burke, Idaho, where she later met Lewis. Margaret Watson died on 14 July 1965, in Salt Lake City, Utah.

The Building

The original building is still standing and located on the grounds of Nez Perce National Historical Park. The building retains generally the same appearance as when it first opened, with a false front of drop siding, painted red with white lettering saying, "L. C. Watson & Co. General Merchandise" (Fig. 1). To each side of the front door are two large store-front windows where sale items were displayed. The store measures 53 ft. wide by 52 ft. deep. The "center store portion has a 22 ft. high gable roof and is flanked by two slightly asymmetrical shad roof elements containing a storeroom in the northeast portion and living quarters in the southeast portion" (Shawley 1978:10). The store was built in a grove of locust trees and faced the main road thoroughfare of the town. In front of the store, there is an old wooden hitching post where customers tied up their horses. An irrigation ditch ran back and around the store, and Mrs. Watson had a garden off to the side of the store. The store also had a number of adjoining outbuildings and sheds where extra supplies were stored.

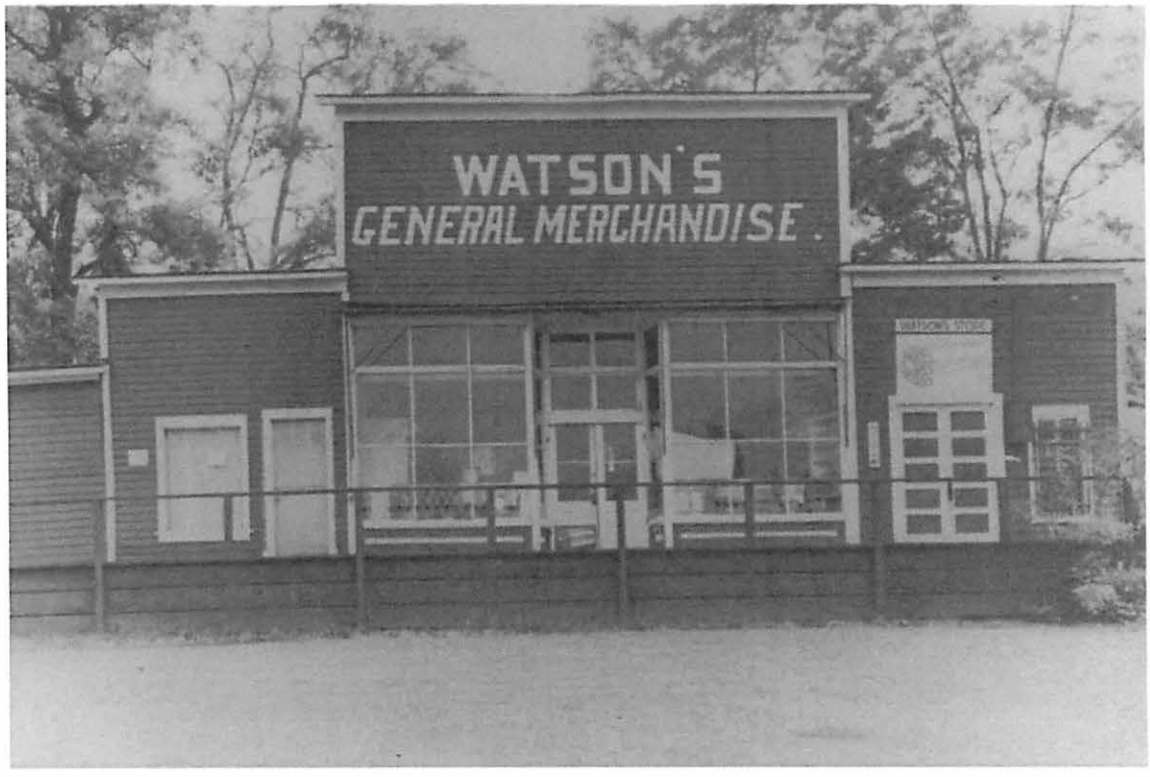

Fig. 1. Watson Store (Watson Store Photograph Collection: NEPE-HI-0172)

Store Operation

The Watsons were dedicated to their store and kept it up and running, rarely leaving town for extended periods. The store was always open by 8:30 AM for the early morning mail, and closed by about 5:30 PM after the last mail was sorted (Anderson 1977; Kopczynski 1987:14). The store also handled the *Lewiston-Clarkston Morning Tribune*. There was a telephone and a small library available in the living quarters for customers to use. The Watson Store was open seven days a week. On Sunday, it opened for only a few hours early in the morning in order for people to purchase newspapers and necessities. If a customer wanted to buy an item, they would simply go in and ask the Watsons for that particular item. The Watsons would search for the item and if it was not what the customer was looking for, they could simply leave it on the front counter.

Store Layout

The interior of the store had a nostalgic appearance and entering the store was described by many as being like "stepping back in time." Glass display cases held items such as candy, glass seed beads, and sewing supplies, while wooden shelves held bulkier items, such as canned goods (Broncheau 2006; Elbin 2006; Glasby 1977; Glasby 2006; Seth 2006). Produce was stored in large bins on the floor. The front counter had a display case full of penny candy, and a scale to weigh meat and cheese (Fig. 2). A large old-fashioned cash register also sat on the counter. When the post office was moved into the store in 1922, a row of mailboxes was kept near the front of the store. In the center of the store stood a coal-burning stove where customers

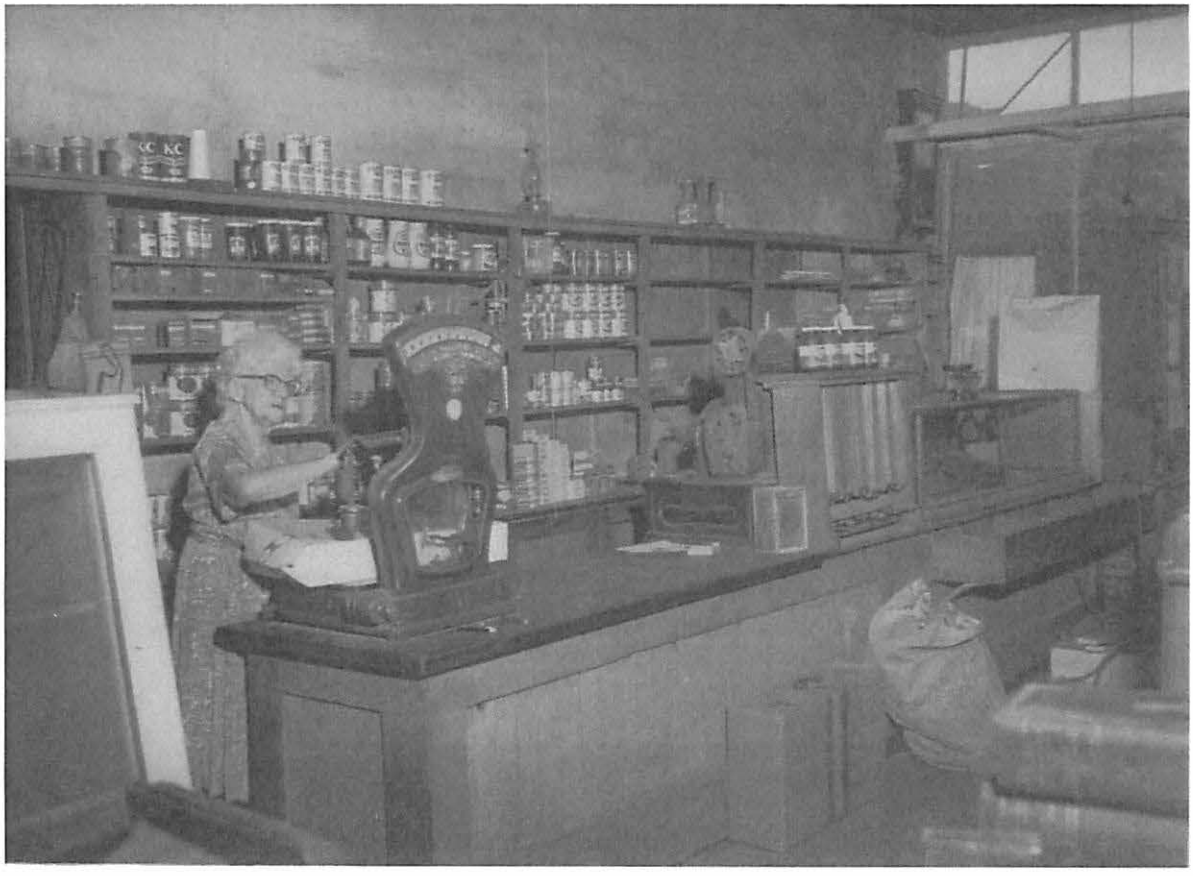

Fig. 2. Mrs. Watson behind the counter ca. 1960 (Watson Store Photograph Collection: NEPE-HI-1316).

would gather around to chat and get warm (Fig. 3). A door in the middle of the South Wall led to the living quarters. There was a storage room that contained bulk items such as flour and sugar and a shed in the back where kerosene and gas could be purchased.

Items Sold

Evidence indicates that the Watson Store was no different from other stores of the time in that it carried almost everything the people of Spalding needed or wanted (Watson's Store n.d.). This included food, clothing, hardware, housewares, and medicines. The store was unique because over half of its customers (55%) were Nez Perce (Applegate 2002:165). The Watsons paid particular attention to the needs of the Nez Perce, and they stocked items such as glass beads, shawls, hosiery, moccasins, and rubbers to wear over moccasins.

Mr. Watson was known by many as being quite conservative and a bit old-fashioned, and he often carried items that were outdated or rarely used. For example, chimneys and wicks for kerosene lamps and lanterns or fancy lace-up boots. The Watsons also stocked rare and hard-to-find items such as stove polish, even though these items may not have sold very well (Anderson 1977). For the children, the Watsons sold penny candy and pop. Clothing, fabric, and sewing supplies were also sold. The Watsons' goal was to fill the store with a large variety of items so that a customer could always find what he or she needed.

Customers

During the first few decades of the store's operation, business was good for the Watsons. Customers would come in to pick up their mail, catch up on local news, or purchase necessities. Children would go over after school and purchase candy at the store. Many of the customers were farmers who had their own livestock or produce and therefore would not need to purchase meat, cheese, or vegetables, but instead might buy canned goods or bread. There were also customers who worked in the nearby lumber mills. The store was important to these customers because it saved them from having to travel to the city of Lewiston, Idaho. Many of them did not have cars and liked the convenience of being able to walk over to the Watson Store and purchase whatever goods they needed.

In later years, as more people had automobiles and the cities and towns of Lewiston and Lapwai expanded, fewer people shopped at the store. The Watsons' failing health meant that they could not properly keep up with the store inventory, and they simply went through only the most basic motions of running a store. Some customers came back to visit 30 years later, simply because the store had a nostalgic atmosphere. According to Lockwood Haight, the grandson of Mr. and Mrs. Watson, "the store was turning into a museum while the Watson's [sic] were still running it" (1980:2).

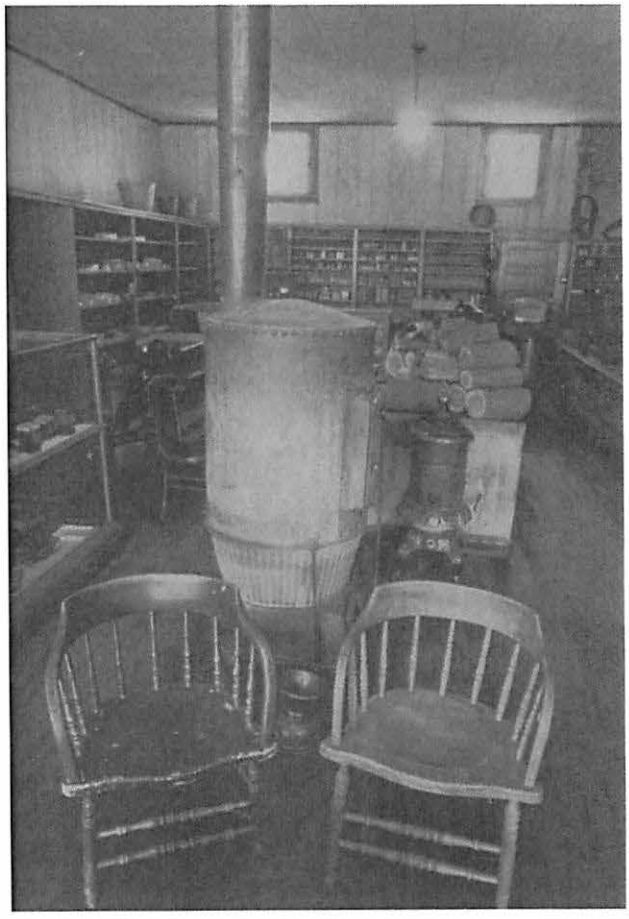

Fig. 3. Stove in center of store (Watson Store Photograph Collection: NEPE-HI-3470).

Watson Store as a Third Place

A "Home Away from Home"

This section addresses the social function of the Watson Store and how it served as a third place. Sociologist Ray Oldenburg introduces the idea of a third place, or a "home away from home" where friends and family are brought together in a warm, friendly, and familiar environment (1997). Third places are like second homes, and people who frequently visit them may develop a sense of possession or control over that place, and treat it like their own special hangout. Regular visitors are often extended special privileges and proprietary rights denied casual or transient customers (Oldenburg 1997:40). As in the case of the Watson Store, only those who were really trusted by the Watson's were allowed behind the counter. A third place is often more homelike than home because "many family nests are brutish places where intimacy exists without even a smattering of civility" (Oldenburg 1997:39).

The Watson Store was one of the coziest places to be, especially in the wintertime when the large pot-bellied stove warmed up the entire store. People would gather around the stove or sit on the counters while waiting for Mr. and Mrs. Watson to distribute the mail. The old men would often sit around the stove, eating peanuts or chewing tobacco, or they would stand around smoking their cigars or cigarettes (Broncheau 2006). Older Nez Perce women would "be standing around in their shawls and they'd have their moccasins with the rubber over the top of their moccasins" (Broncheau 2006). Children would take naps on the counter while waiting for their parents.

In the springtime and summertime, people would sit in the shade of the locust trees on the steps of the front platform to visit or read the mail (Glasby 1978:2). Kids would come over after school or from playing at Spalding Park and would purchase candy, pop, or a bag of sunflower seeds. According to one interviewee, "all the kids used to go to Watsons; we'd all get our money together—all those kids—go to Watsons, pitch in and get our candy and stuff and then we'd go back down to the park and play baseball or we would swim" (Broncheau 2006). Some of the more daring individuals spent their summer days jumping off a bridge that used to run from the park to the other side of the highway.

Both of the Watsons, especially Mrs. Watson, helped to make customers feel right at home. Despite Mr. Watson's oftentimes unfriendly appearance, he had a good heart. He was a devoted father and grandfather and was known as "Grandpa Watson" to neighboring children (Shawley 1978:20). In contrast to Mr. Watson, Mrs. Watson was a very pleasant woman who was very talkative and always willing to lend a kind ear. Known as "Grandma" Watson by the local children, Mrs. Watson had a fondness for kids and would often given them candy and cookies (Anderson 1977; Broncheau 2006; Glasby 1977; Glasby 2006). Mrs. Watson was a "real" lady who "could walk with kings but not lose the common touch" (Glasby 1977). She was friends with the very wealthy but was also quite ready to help out those less fortunate than her who came to the store needing her advice.

Young and Old Together

Another aspect of the third place is that it brings young and old together in a comfortable and friendly environment. Oldenburg laments the loss of parental guidance in the lives of children today and states that "the rampant hostility and misunderstanding between generations, adult estrangement from and fear of youth, the increasing violence among youth—these and youth-related problems all have a common genesis and it is the increasing segregation of youth

from adults in American society" (1997:xx). Places like the Watson Store met the needs of both the young and the old and allowed younger generations to seek the advice and wisdom of the older generations.

Going to the Watson Store was a "family affair"—an activity that involved parents, children, uncles and aunts, and grandparents. One interviewee chose to walk with his blind grandfather to the Watson Store—instead of riding in the car with his dad and uncle (Broncheau 2006). For him, accompanying his grandfather to the Watson Store was a treat and his fondest memories are from those times spent with his grandfather. He recalls passing time at the Watson Store with his grandmothers, waiting for the train to come that would take them into Lewiston. As mentioned earlier, many people thought of Mr. and Mrs. Watson as their "grandpa and grandma" and came to them for advice. Mrs. Watson was especially fond of kids and would sometimes have neighborhood kids over for dinner, or to sample some of the vegetables from her garden (Seth 2006). Many of the elderly individuals liked to tease or intimidate the younger ones, and vice versa. One woman recalls how an elderly Nez Perce woman named Mollie Pliter liked to tap her daughter Caroline on the head with her cane which terrified Caroline but amused her mother (Anderson 1977). Another woman remembers how she and a friend got up into Mollie's apple tree and how "she came out with a butcher knife and we just fell out of that tree and I can remember her laughing as we ran away" (Elbin 2006). But as she got older, she and Mollie Pliter became good friends.

Place of Good Conversation

The main activity in third places is socializing and conversing in a manner that is "lively, scintillating, colorful, and engaging" (Oldenburg 1997:26). Conversation at third places often ranges from discussions of politics, religion, and local news and events to storytelling, and in the case of the Watson Store, poetry reading. Since the Watsons were actively involved with the school and local Presbyterian Church, many discussions at the Watson Store revolved around what should be done at school and church-related programs, picnics, and holidays.

While both the Watsons loved to chat, Mrs. Watson was more of a listener while Mr. Watson was extremely talkative and a vociferous debater. Mr. Watson was very conservative, a "red-blooded" Republican and a Protestant (Glasby 1977; Glasby 2006). He loved to air his political views to anyone who would listen, and at "times—maybe when he was looking for a debater—he hung a flag in the window" which had forty-eight stars (Steber 1982:17). Contrastingly, Mrs. Watson never voiced her opinion on politics, preferring to keep her views to herself. According to one individual, "The air could turn a little blue at times, during election times. People were quite loudly loyal to their political leanings and the language and debates were hot, heavy and not fit for <u>little ears</u>!" (Calkins 2006). Some debates—especially those that centered on religion and politics—could become downright ugly with the arguers resorting to throwing punches at one another. Lockwood Haight, grandson of Mr. and Mrs. Watson recalls the following incidents:

> Once a year a Catholic priest would come give a guest sermon at the Spalding Presbyterian Church across the road. After church, every year, he would come up to the store to talk to Lew. Pretty soon talking would turn to arguing and then arguing would turn to fist fighting of sorts. Every year, that's as far as the episode would go because Margaret would soon break things up by tossing a bucket of water on the stubborn arguers (Haight 1980).

In addition to his inherent argumentativeness, Mr. Watson was also a wonderful storyteller and was well-known for his stories about the old days and old timers. His stories were funny and amusing, and many of them were true. He would often reminisce about his mining days. Both of the Watsons enjoyed telling stories about local people or "colorful characters" who used to visit the store or about past, humorous incidents that had occurred at the store. One such example is the story of the "Crippled Cat" which had gone missing for about four or five days (the Watsons kept a lot of pets around the store). Mrs. Watson searched all over for the cat and finally found it curled up inside one of the drawers in the back of the store which held her linens (Glasby 1977).

Mr. Watson also had a fondness for writing poetry and he enjoyed reciting his poems to local customers. His poetry reflected the love he had for the local people and the land. His favorite poem to recite was called "The Old Hitching Rack" and was, not surprisingly, about the hitching post that sat in front of the Watson Store. Other poems reflected his love of mining, such as "A Prospector's Prayer" (Watson Store Papers: Box 19). When Mr. Watson lost his voice as a result of a stroke when he was older, it was the worst thing in the world for him because he just loved to talk.

As a Leveler

Oldenburg discusses the role of the third place as a leveler, a place where "worldly status claims must be checked at the door in order that all within may be equals" (1997:25). In third places, people are judged by the character of their temperament and personality, not their race or economic status. Troublemakers, brooders, and those with nothing to say are not welcome in third places, as the mood in these places tends to be upbeat and cheerful. Third places such as the Watson Store are accessible to the general public and do not set formal criteria of membership and exclusion. In addition, "third places counter the tendency to be restrictive in the enjoyment of others by being open to all and by laying emphasis on qualities not confined to status distinctions current in the society" (Oldenburg 1997:24).

Prior to, and during the operation of the Watson Store, two attitudes were common among whites and the U.S. government towards Indians. According to Dippie, "one school of thought, romantic, backward-looking, and nostalgic, saw the Indian as a vanishing race and lamented his demise; the other, pragmatic, forward-looking, and unsentimental, saw the American Indian becoming the Indian American and hailed his transformation" (1982:273–4). Whites lamented the decline of the "noble Indian" and the "Indian" ways of life were romanticized in poems, paintings, and movies. Artwork commonly depicted Indians in despair or slumped over their horses because they had reached "The End of the Trail" (Dippie 1982:216). Despite these sentimental feelings, there was still a push by the U.S. government to assimilate the Indians into white society and to make them more "civilized." On 2 June 1924, President Calvin Coolidge signed into law an act making Indians U.S. citizens (Dippie 1982:195). This act was a high point for assimilationists, who felt that by making all Indians U.S. citizens, they would feel compelled to dress and act like the majority.

The Watson Store is unique in that its owners defied traditional stereotypes (such as those mentioned above) towards Indians. The store was a leveler because both white and Nez Perce customers were treated equally and fairly. As mentioned earlier, more than half (55%) of the customers at the Watson Store were Nez Perce (Applegate 2002:165). Given the location of the Watson Store on the Nez Perce Reservation and the large number of Nez Perce customers that frequented the store, one could argue that it would be in their favor for the Watsons to be friendly to the Nez Perce because if they were not they would lose a large customer base. But,

from interviews with Nez Perce individuals who frequented the store, it is clear that the Watsons truly cared about and respected the Nez Perce.

The Nez Perce were welcome at the Watson store and received the same treatment that white customers did. Mr. Watson "always expressed his concern about the local people, Indian and white, and was very loyal to them" (Shawley 1978:21). His limited knowledge of the Nez Perce language and ability to count change in Nez Perce amused the Indians. Mrs. Watson was particularly adept at knowing what the Nez Perce needed and "was held in high esteem by the Indians because of the generosity and sympathy she displayed to them" (Glasby 1978). She was also close friends with a number of elderly Indian women who were about her age. These individuals include Delia Davis, Sophie Broncheau, and Mollie Pliter (Anderson 1977).

Closing of the Store

There are a number of factors that contributed to the closing of the Watson Store. The main reason is that the Watsons were simply getting too old. In the 1960s, the Watsons were in their 80s, and although they tried their best to keep the store up and running, it was just too much work. Mrs. Watson had had a stroke and sufferred from partial paralysis. She had cataracts in both her eyes and had to wear thick glasses. Mr. Watson had also had a stroke (after Mrs. Watson), which left him unable to speak. Both of the Watsons had trouble hearing.

Another factor was the creation of the Nez Perce National Historical Park in 1965, which forced many people in the Spalding community to give up their homes. Also, the construction of the Arrow Bridge across the Clearwater River in the 1970s resulted in all traffic on U.S. 12 bypassing Spalding on the opposite side of the River (Nez Perce National Historical Park Administrative History 2000). The power of eminent domain resulted in the destruction of even more homes, in addition to the ones that were taken out for the Park. Carol Elbin recalls how, "There was a lot of little homes. There was no highway here it was a beautiful little area. There were several homes, probably four homes right here that were taken out, you know where the highway was" (2006). The removal of homes for the highway and the Nez Perce National Historical Park left Spalding without much of a community and contributed to a decline in business at the Watson Store.

What ultimately precipitated the sudden closure of the Watson Store in 1964 was the untimely death of the Watsons' daughter Genevieve. Genevieve came from Santa Barbara to visit her parents every summer and would help them with various chores and with running the store. In the summer of 1964 she came to visit and stayed at her uncle Jay Watson's house in Lewiston, instead of staying with her parents at their store, which is what she usually did. On 27 July 1964, she decided to phone her mother and taking the wrong door to reach the phone, she fell to her death down a flight of steps (Leonard et al. n.d).

In the End

When the Watson Store closed in 1964, it was declared to be the longest operated store in Idaho under its original management (Glasby 1978:1). Beginning in 1966, the Watson's living quarters served as park headquarters for several years. After the Park Service had purchased the store, they realized its potential as a living history museum. The exterior of the store was rehabilitated and restored to its original 1911 appearance. In order to illustrate "the mode and means of American commerce upon the Nez Perce and their country" a furnishing plan was drafted by the Park's then-curator, Steve Shawley (1978:1). The store was renovated and stocked with "period" merchandise and on 15 June 1978, it was opened for visitors. Sadly

though, the store did not remain open for long due to its out-of-way location and the high costs of maintaining it as a tourist attraction. While the store maintains the same look as it had when it was first built, except for the added staircase, it remains a shell of its former self, serving only as a storage place for Park Service items.

Conclusion

Importance of Store to the Watsons

The Watsons called their store, "God's half-acre," for it was their life and they were dedicated to maintaining it (Anderson 1977). Even in ill health, they managed to keep the store open because it meant so much to them and "they talked like they would never retire, their life was wrapped in that old store and they thought they'd live forever and have good health. . . ." (Anderson 1977). The Watson's rarely left the store, only occasionally going into Lewiston when they needed supplies. Mr. Watson's "whole life was centered around the store; it gave him something to do and look forward to day-by-day" and "he was also dedicated to the local people and region, frequently expressing his love in his conversation and business dealings" (Shawley 1978:21). Mrs. Watson was also very devoted to the store and the local people. She was adept at knowing what people needed and did her best to accommodate them. Even in her older years when her health was failing her, she would help out in every way she could in the store. She continued to operate the post office with the assistance of a magnifying glass and took "telephone messages for people in the community as a neighborly gesture" (1978:23).

Importance of Store to the Community

The Watson Store was important to the Spalding community for several reasons. It provided residents with needed goods and services at fair prices. Many people did not own automobiles and would have to take the train to get into Lewiston. The Watson Store was a convenient alternative to traveling to Lewiston; it was within walking distance and carried a variety of everyday goods. The Watson Store was also a "third place," a place where community members could go to shop, socialize, and read their mail in a friendly and home-like environment. The Watson's were well-liked and respected by the community because of their kindness and fair treatment of customers, both white and Nez Perce. Local children could go to the Watson Store and buy candy, pop, or Kool-Aid while Nez Perce could purchase specialty items such as glass beads and moccasins. Both white and Nez Perce purchased grocery items, hardware, and tobacco. The Watson Store was also a source of employment for members of the community, as the Watsons would hire individuals to help with the store or to do yard work.

When the Watson Store closed down there was a deep sense of loss in the Spalding community because it "left the town without a store and much of its identity" (Calkins 2006). Gaylen Broncheau remembers how, "When the store closed, it was sad because it was a place where everybody went you know, when the Park bought everybody out, and the Watsons, they were getting pretty old and they closed up the store, it was like a whole big thing was gone out of Spalding" (2006). Donna Calkins stated that, "Looking back—It was kind of fun to go to the store. You didn't help yourself you had to ask for what you needed and they would hunt it up and get it ready for you to take" (2006).

Future Research on the Third Place

Future research on the role of general stores as third places in communities would involve comparisons of other general stores to the Watson Store. There were two other stores that operated in the Spalding area at the same time the Watson's were operating their store. Coky's sold hamburgers, pop, and beer and had a small casino with slot machines. Joe Evans had a gas station and garage and a little shop where he sold candy, pop, etc. (Seth 2006). These businesses no doubt served as gathering places for the community of Spalding and nearby Lapwai. In order to compare the Watson Store to other general stores, local history organizations and cultural resource management groups would be contacted in order to identify general stores to study. Existing studies on general stores would be consulted to see if these places functioned as third places in their communities.

One such study was conducted by Dr. Frank C. Leonhardy and William H. Adams of Washington State University in the 1970s on the town of Silcott, Washington (Adams 1973:335). Silcott is located in southeastern Washington along the Snake River, about eight miles downstream from the Washington-Idaho border. Similar to Spalding, Silcott was a community where wheat farming and the care of fruit orchards were the main occupations and it is close to Lewiston and Clarkston (eight and ten miles, respectively). Excavations at Bill Wilson's General Store revealed that "for most of its existence it served primarily as the entertainment center for Silcott" as "most income was from selling liquor and gambling" (Adams 1973:339). Interviews with elderly individuals in the area confirm that Wilson's Store served mainly as a place of entertainment where drinking, gambling, and dancing occurred (Adams 1973:343). Although gambling, drinking, and dancing did not occur at the Watson Store (Mr. Watson was much too conservative to allow those sorts of activities), both the Watson Store and Bill Wilson's General Store were third places in their communities.

Another study, entitled *Whither the Country Store?* by Richard W. Stoffle, examined country stores that operated in the late-19th to early-20th century in Fescue County, Kentucky. According to Stoffle, the general store had three basic functions: "1) Acquiring and redistributing general foodstuffs and basic material items; 2) providing credit; and 3) providing a place for social gatherings" (Stoffle 1972:65). Stoffle discussed how general stores were gathering spots for individual recreation and communal activities. Like the Watson Store, community members would go to the store to meet friends and socialize around a large stove in the center of the store and "this was especially true of the men who had little to occupy their time during the post-harvest winter months" (Stoffle 1972:66). This is yet another example of country stores serving as third places in rural communities.

ACKNOWLEDGEMENTS

I would like to thank Dr. Mark Warner, Professor of Anthropology at the University of Idaho for giving me constant support and encouragement. In addition, I must thank the John Calhoun Smith Memorial Fund for helping fund my research. I am indebted to Robert Applegate, Linda Paisano, and Jason Lyon at the Nez Perce National Historical Park for allowing me to study the Watson Store and in helping me with researching the Store. Special thanks to Vera Sonneck and Ann McCormack of the Nez Perce Tribe for helping me with tribal procedures and getting me in touch with tribal members to interview. Finally, I would not have been able to write this article if it were not for the members of the Spalding and Lapwai community whom provided me with invaluable information on the Watsons' and their store. I would like to wish all my interviewees an enormous thank you.

REFERENCES CITED

Adams, William H.
1973 An Ethnoarchaeological Study of a Rural American Community: Silcott, Washington, 1900–1930. *Ethnohistory,* 20 (4):335–346.

Anderson, Mrs.
1977 Interview by Steve Shawley, 5 August. Nez Perce National Historical Park Research Center, Spalding, ID.

Applegate, Robert
2002 Who's Minding the Store. *Pacific Northwest Quarterly,* 93(3):164–165. Nez Perce National Historical Park Research Center, Spalding, ID.

Applegate, Robert, and Gwen Pattison
n.d. *The Watson Store Papers. 1910–1969.* Nez Perce National Historical Park Research Center, Spalding, ID.

Broncheau, Gaylen
2006 Interview by Sarah Heffner, 9 November.

Calkins, Donna
2006 Personal Correspondence, 18 August.

Dippie, Brian W.
1982 *The Vanishing American. White Attitudes and U.S. Indian Policy.* Wesleyan University Press, Middletown, Connecticut.

Eisenhower, Dwight D.
1953 Text of the remarks made by President Dwight D. Eisenhower to the American Retail Federation at the Statler Hotel, Washington, D.C., 5 March 1953. Quoted in Gerald Carson, *The Old Country Store*, xi. Oxford University Press, Inc., New York, 1954.

Elbin, Carol
2006 Interview by Sarah Heffner, 7 September.

Glasby, Clara
1977 Interview by Steve Shawley, 28 July. Nez Perce National Historical Park Research Center, Spalding, ID.

1978 *Watson Store.* The Watson Store Papers, Box 1, Folder 1. Nez Perce National Historical Park Archives, Spalding, ID.

2006 Interview by Sarah Heffner, 5 October.

Haight, Lockwood
1980 *Comments—Stories about Watson's Store as Told to Sherilyn Garrett by Lockwood Haight Grandson of Lewis and Margaret Watson.* The Watson Store Papers, Box 1, Folder 1. Nez Perce National Historical Park Research Archives, Spalding, ID.

Kopczynski, Susan A.
1987 Watson's Store and the Nez Perce. Paper for History 501 at the University of Idaho, Moscow, Spring 1987. The Watson Store Papers. Nez Perce National Historical Park Research Center Library, Spalding, ID.

Leonard, Edith, Robert Webb, and Lawrence Wilson
n.d. Biography Files. Nez Perce National Historical Park Research Center, Spalding, ID.

National Park Service
2000 Nez Perce National Historical Park Administrative History. Chapter Three: Land Acquisition and Protection. Electronic document, http://www.nps.gov/nepe/adhi3a.htm, Accessed 8 April 2007.

Oldenburg, Ray
1997 *The Great Good Place. Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How they get you Through the Day.* Marlowe and Company, New York.

Photographs and Graphics
1922 The Watson Store Papers, Box 29, Folder 22. Nez Perce National Historical Park 1955 Archives, Spalding, ID.

Seth, Leroy
2006 Interview by Sarah Heffner, 31 August 2006.

Shawley, Stephen D.
1978 *Furnishing Plan for Watson's Store.* The Watson Store Papers, Box 1, Folder 1. Nez Perce National Historical Park Archives, Spalding, ID.

Steber, Rick, and Kristi Steber
1982 Time Machine. *Ruralite*, Clearwater Power, 16–17 July. On file, Nez Perce County Historical Society, Lewiston, ID.

Stoffle, Richard W.
1972 Whither the Country Store? *Ethnohistory*, 19 (1):63-72.

Watson, Lewis C.
n.d. Poems: "The Old Hitching Rack", "Lewiston", and "A Prospector's Prayer". The Watson Store Papers, Box 19, Folder 14. Nez Perce National Historical Park Archives, Spalding, ID.

Watson Store Collection. Nez Perce National Historical Park, Spalding, ID.

Watson Store
n.d. The Watson Store Papers, Box 1, Folder 1. Nez Perce National Historical Park Archives, Spalding, ID.

Watson Store Photograph Collection.
n.d. NEPE-HI-1316. Nez Perce National Historical Park Archives, Spalding, ID.

Sarah Heffner
Graduate Student
Department of Anthropology
University of Nevada, Reno

E-mail: sheffner@unr.edu

Journal of Northwest Anthropology, 45(1):71-87 2011

FIRST NATIONS FORTS, REFUGES, AND WAR LORD CHAMPIONS AROUND THE SALISH SEA

Jay Miller

ABSTRACT

Prehistoric and early historic fortifications "manned" by feared war-lord-type individuals dot the Salish Sea, as well as extend from the present-day Oregon Coast to the central reaches of the British Columbia Coast. Combating the current politically correct suppression of military aspects of Coast Salish traditions, this article summarizes ethnographic and ethnohistoric information, especially for Puget Sound Lushootseeds, to supplement the mute archaeological inventory of such sites in hopes of later filling in blanks. A list provides comparative material, integrating existing information such as location, size, place name, engineered features, and associated historical events. While archaeologists have long been listing and debating such sites, the all-important mobilization by a named leader or champion ("war lord") is ethnographically highlighted here for the first time.

Introduction

Military aspects of the Coast Salish have long been disparaged and are currently being suppressed in public contexts. Often viewed as marginal victims and unprepared fighters, Coast Salish instead relied on famous warriors (war lords) and their forts to provide safety from raids and slaving. On occasion, a charismatic war lord forged an inter-Salish alliance to attack enemy positions, often in what became coastal British Columbia. Today, the Canadian side of the Salish Sea is receiving more scholarly attention, so this article will add materials from Lushootseeds of Puget Sound where some families retain knowledge of martial ancestors, though they are less likely to have shared subsequent fates, which often ended with the head of the war lord carried off by gloating enemies. Chief Seattle is one of the few known war lords to die peacefully in old age.

Careful to note the official endorsement of the Sto:lō Nation and their elders for this sensitive topic, David Schaepe (2006:674, 701) documents a complex of stone "fortifications" (from the Latin "make strong")—including freestanding walls, terrace faces, platforms, and boulder alignments—with line-of-sight defense for the entire Fraser Canyon. Arguing that such coordinated effort must have relied on the corporate family group, rather than individual headmen, he notes, "Fortifications of this scale act as overt signs of power, prestige, and authority.[1] They are of an inherently political nature. They serve multiple purposes beyond defense, acting constantly to define territory, ownership and rights." Citing Wayne Suttles' concern with researching traditional Salish concepts with authority and conflict (Suttles 1989:251), he concludes, "I would argue for the extension of this claim to the broader Northwest Coast. Data and hypotheses derived from this study permit the introduction of archaeology as a

discipline, however cautiously, to the ongoing inter-disciplinary debate over traditional Coast Salish political organization" (Schaepe 2006:701). Of consequence, however, while he mentions the hereditary names of five local leaders, he makes no attempt to link them with these forts. Such a bond is vital to understanding the situation in Puget Sound, where important names are still placed on the land and identified with specific forts.

William Angelbeck (2007:264, 2009) has generalized materials from archaeology, ethnohistory, and ethnography to reconsider Coast Salish warfare, duly noting the importance of professional warriors and fortifications, including distinctive Gulf of Georgia trench embankment and Fraser Canyon rock-walled longhouses. While Angelbeck recognized the tactically role of surprise, he overlooked significant diachronic aspects and limiting factors of ownership:

> "Fear of a well-armed enemy is warranted. Prior to contact, the weapons of war— stone and wooden clubs, spears, stone knives, bows and arrows—would have been equally available to all groups. Hence the importance of the element of surprise in Northwest Coast tactics, with raids occurring during the night and early morning" (Angelbeck 2007:269).

In short, unlike prior scholars, he does not correlate the spread of forts with the adoption of bow and arrow, nor does he specify that few men owned the characteristic clubs and spears because their ownership depended on sanction from 'mean' spirits.

For the Northwest Coast as a whole, Angelbeck named famous warriors such as Tsimshians Tsibasaa and Nekt, but not Salishan Leschi, young Si'alth (Seattle), and Kitsap. Instead he mentions a raid by Old Snatlem (2007:276), without following up with the importance of this Sneatlum trading family from Whidbey Island. In Puget Sound, warrior bravado was also enhanced by initiation into the Growlers, when bystanders often floated in canoes offshore to watch the proceedings out of harms way from a "berserk" member.

Like Camelot and Arthur, Salish forts were associated with named warriors, though only a few instances of this link have been preserved, mostly in native communities where these names are still passed on during ceremonies with speeches that trace their history, pedigree, and locale. Instead, we are mostly left with the mute archaeological record, provided here in a list with the hope that a few more empty cells can be filled in while attention can still return to this military institution (Table 1). Comparative data from neighboring tribes is also introduced to round out contexts. In China and elsewhere, such war lords were stages in the formation of the state, but for Salish these champions were more independent and family-based to facilitate trade and diplomacy rather than outright political expansion.

Around the Salish Sea, native communities were composed of class-ranked societies with specialist leadership roles that included that of a haughty warrior with a fortified settlement.[2] George Gibbs, the nineteenth century lawyer and ever-keen observer, indicated that Indian forts were generally known to early settlers and politicians for western Washington State, Tualatin Plains of the Willamette River in Oregon, and the Sacramento River (Gibbs 1877).[3] Over a century ago, many regarded them in terms of the international interest in the Moundbuilders, whose enormous earthworks along the Ohio River had gained intellectual and popular interest in the nineteenth century. Gibbs added his own general observation:

> Near the house of Mr. Cameron, at [Dunn's Nook] Esquimalt, Vancouver Island, I noticed a trench, cutting off a small point of rock near the shore, which seems to have been about six feet deep and eight wide. Governor Douglas informed me that these are not unfrequent on the island; that they generally surrounded some

> defensible place; and that often an escarpment was constructed facing the sea, but that the earth was thrown indiscriminately on either side of the ditch (Gibbs 1877:223).

The documentary record, supported by new information collected about the war lords associated with different forts, confirms that Coast Salish peoples built a variety of such defensive works for centuries.[4] Dwellings along the saltwater were often clustered together within a palisade for defense, while inland towns were scattered along a waterway with neighborhoods composed of one or more houses. A few locations represent specialized concerns with suspicious visitors. Natives (probably Nooksacks) around Bellingham Bay under assault by Straits Salish, who absorbed them through intermarriage, are now only known by the term Stockaders. The Swinomish fort hidden within Sullivan Slough did not withstand a smallpox epidemic which only Lahelbid, a prophet, and his family survived by his spiritual protections. The Upper Skagit town upriver at modern Concrete, Washington, was palisaded because these people had frequent downriver contacts as a result of their making and selling of saltwater canoes carved from huge local trees. As holdouts from United States policy, the late 1800s Samish house on Guemes Island had defenses.

Overviews of such fortifications include Ames and Maschner (1999), Moss and Erlandson (1992), Thompson (1990), Carlson (1997, 2001:52), and, especially, Keddie (2006), who found 19 defensive sites among 100 shoreline shell middens around Victoria, BC. While it is clear that these forts spread successively southward with the adoption of the bow during the warmer "medieval climatic optimum," Keddie[5] also suggests the localized defense of emerging reef netting locations. Others have placed forts to defend intertribal boundaries. The spread of potlatching, with increased slavery to add to production, is also implicated. These forts discouraged slaving along the coast, forcing such raids to advance upriver into the less defended interior.

The oldest forts began over 1500 years ago as bow-and-arrow technology spread south along the Pacific Coast (Ames and Maschner 1999:210–18).[6] The arrow's lethal, long-range capabilities and ready availability encouraged such protections. War leaders, especially before AD 1800, often with the haughty arrogance of Chinese war lords,[7] organized the building, stocking, and "manning" of these structures. The earliest forms appear archaeologically as semicircular trenches atop steep bluffs overlooking beaches. These occur at strategically defensive points along the borders of tribal territories, but their importance increased dramatically in the aftermath of epidemics, dislocations, and slave raiding. More exposed but delimited locations, such as peninsulas, were heavily fortified. A drawing of a fortifying palisade seen in 1841 on Whidbey Island is provided in Fig. 1.

In sum, the purpose of this article is to assemble the existing information about known fortifications and supplement the record with new information about known "named" leaders collected from ethnohistoric sources and interviews with descendents.[8] The article starts with a discussion of Salish leadership to provide insight into the types of individuals who managed the forts and other strategic settlements. Coast Salish did not usually fight as soldiers or armies but rather as champions, which has confused many scholars, especially materialist archaeologists. Examples of known forts in various regions around the Salish Sea are then presented to document fortified locales, relying on early work that aggregated these sites. While there has been subsequent work at various of these sites, their precedent was set by surveys done decades ago. Table 1, describing these known fortified settlements, is provided at the end of the article, listing information about the associated named warrior, location, size, place name, engineered features, and historical events.

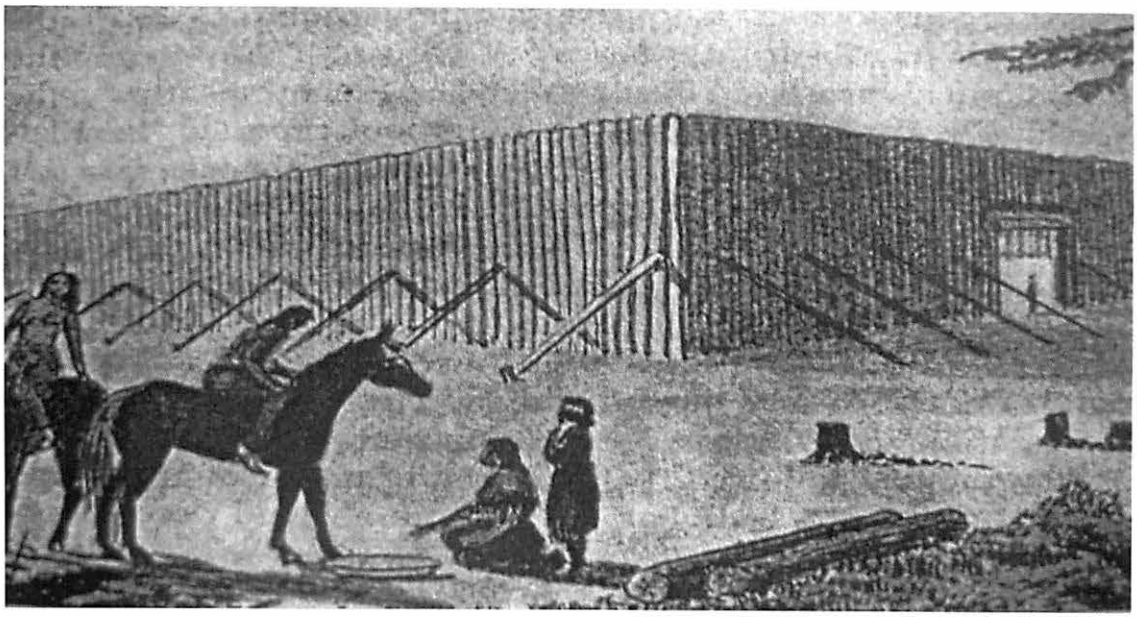

Fig. 1. Fortification on Whidbey Island drawn in 1841 by Joseph Drayton of the Wilkes Expedition (see endnote 8).

Protective Warrior, Champion, and War Lord

A decade ago, I carefully summarized relevant past and present Coast Salish ethnography, but now take the opportunity to ground its abstractions on the land (Miller 1999:29, 58, 84, 85, 94, 120). Every Salish village had a headman, ideally from the same family "blood line" over generations. The headman was typically male, but occasionally female. The headman had first say on everything, but, afterward, all could speak their mind. During warfare, the headman decided which warrior would lead in battle. Sexual continence or chastity was required for hunters before a hunt, shamans before a cure, and warriors before a battle. While the husband was engaged in this task, the wife prayed and sang to help him, as did his sisters, lying inert to similarly incapacitate the prey.

Saltwater villages were the only communities expected to include a resident with warrior powers and also to receive frequent unknown visitors. A few men from these downriver areas might marry into upriver settlements, but they were seldom called upon to defend their in-laws. Spirit powers gifted to warriors include monsters, Loon, a man covered in red paint, and a birdman who gifted fierce men and strong women; warriors also cured their own wounds with the aid of Raccoon, Grizzly, Black Bear, Cougar, and Wild Cat. Warrior spirit power itself was known by a term that means "manliness."

A warrior flaunted a hot temper, stamina, indifference to physical risk, and a willingness to be mean by inflicting pain. His dagger and club were so closely associated with the killing of men that displaying such unsheathed weapons at a public event was tantamount to a declaration of war. A warrior was forceful and aggressive, dominant, imperious, quick-tempered, implacable, and tended toward the despotic. Puget tribes engaged in four kinds of warfare, including an organized offense during battle, raids to take booty and slaves, assaults to settle a grievance, and attacks to take revenge.

In a few cases, a war lord led several communities. All Suquamish, for example, were under a single war lord in times of trouble. Before Chief Seattle, there was Kitsap, a man famous for his bravery powers. Seattle himself was chief of both the Suquamish and the Duwamish because these were the tribes of his father and of his mother. He was a great war captain in his youth, but, in maturity, he became a kind and generous chief and diplomat.

At Quartermaster Harbor, a fortified village was built by Sadoəhebix (brother of gəlai'a [Goliah at Penn Cove on Whidbey Island[9]]), who married wives from neighboring groups, especially from Puyallup. At least one of the villagers later brought in a Skagit wife. Because of his slaving activities against the Duwamish, they were in constant danger of retaliation and, consequently, when Sadoəhebix became too old, this village was moved to Gig Harbor, just before the 1855 treaty (Marian Smith 1940:11; fieldnotes, House p. 26). A named Suquamish warrior (sx^{w}əlax^{w}təd) married to a Duhlelap Twana woman had a palisaded home on the south arm of Hood Canal in the present (ironically named) Robin Hood Cove (Elmendorf 1960:169).

In Oregon, a well-described, comparable instance involved Chinooks:

> One of their [Clatsop] chiefs, kati•di, was a particular offender and much disliked. He was constantly sending one or another of his ten sons (agents were always used in property appropriations) to seize goods from some commoner, the penalty of resistance being death. The Chinook on the opposite side of the river became incensed at the treatment their relatives were receiving and met together at the instance of their chief to decide upon a plan of action. The Clatsop chief was in constant fear of his life and seldom left his barricaded semi-underground house They laid siege for 5 days but he never came out so they left [Ray 1938:56].

Documented Fortifications along the Salish Sea

Prehistoric and early historic settlements characterized as defensive-type fortifications are found throughout the Salish Sea, mostly in the mute archaeological record. Classic fortifications include lookouts at high points and peninsular settlements with palisades, moats, sharpened stakes, and secret or trick entrances. Settlements with escape tunnels, treasure vaults, and underground hideouts have also been identified as refuges, which were secluded and protected, but not bolstered by defensive features.

In terms of geographic distribution, Donald and Mitchell indicate that

> fortified sites . . . are located in the area of Coast Salish/Wakashan boundaries, while there are very few in the central [Salishan] area. . . . On the other hand, in Southern Kwakiutl territory defensive sites are distributed throughout the area (Donald and Mitchell 1974:342).

Fortifications were typically placed in areas that limited or complicated access. Some fortified settlements have been documented on rocky headlands impregnable on three sides and protected on the fourth by a ditch and an artificial rampart of earth. Archibald Menzies, who sailed with Captain Vancouver in the 1790s, described a fortified Coast Salish village near Homfray Channel, on the mainland side of the Strait of Georgia near Toba Inlet, as follows:

> At the farther end of these Islands we came to a small cove in the bottom of which the picturesque ruins of a deserted village placed on the summit of an elevated projecting Rock excited our curiosity and induce us to land close to it to view the structure.

> This Rock was inaccessible on every side except a narrow pass from the Land by means of steps that admitted only one person to ascend at a time and which seemed to be well guarded in case of an attack, for right over it a large maple tree diffused its spreading branches in such an advantageous manner as to afford an easy and ready access from the summit of the Rock to a concealed place amongst its branches, where a small party could watch unobserved and defend the Pass with great ease. We found the top of the Rock nearly level and wholly occupied with the skeletons of Houses—irregularly arranged and very crouded [crowded]; in some places the space was enlarged by strong scaffolds projecting over the Rock and supporting Houses apparently well secured. These also acted as a defence [defense] by increasing the natural strength of the place and rendering it still more secure and inaccessible (1923:66).

Many fortified settlements were distinguished by palisades. For neighboring Makah, in 1850 at Neah Bay, for example, George Gibbs noted that "One of the [town] blocks is partly surrounded with a stockade of puncheons twelve or fifteen feet high, strengthened by very large posts, into which a tie-beam is mortised" (Gibbs 1877:174–175). Gibbs added that palisades could be as tall as 20–30 ft. high.

Some settlements featured a rampart, defined as a broad elevation or mound of earth raised as a fortification around a place and usually capped with a stone or earth parapet. Traces of such ramparts, originally surmounted by wooden palisades, are still visible in certain places, including Beacon Hill within the city limits of Victoria. Most ramparts date from prehistoric times, but one at Khenipsom, near Duncan, was constructed as late as the middle of the 19th century in the face of Kwakiutlan advances (Keddie 2006).

Another description of a fortification comes from the Klallam, Straits Salish. The nineteenth-century artist Paul Kane visited a fort with a named leader on 9 May 1847, writing

> . . . evening reached I-eh-nus, a Clallum village or fort . . . composed of a double row of strong pickets, the outer ones about twenty ft. high, and the inner row about five feet, enclosing a space of 150 ft. square. The whole of this inner space is roofed in, and divided into small compartments, or pens, for the use of each separate family. There were 200 of the tribe in the fort at the time of my arrival. Their chief, Yates-sut-soot, received me with great cordiality" (Harper 1971:104).

Klallam forts were also known to guard their colonies (and potato patches) at Sehome and Toanichum (Ebey's Prairie),[10] as well as home turf at Dungeness.

At Hadlock Bay, fed by Chimacum Creek, on the western side of the Quimper Peninsula, neighboring Chemakum (a language isolate which called themselves axoqulo) occupied a palisaded village (called ċiċabus) above the mouth of Hood Canal. Located in the rain shadow of the Olympics, their territory was more arid than surrounding areas, which accounts for their local persistence. Known as belligerent and likely slavers, they were attacked by Snoqualmies and later "some seven years since [1855] were attacked and their fort destroyed by the Sukwamish [Suquamish], under Seahtl [Seattle]," who lost a son in this battle (Gibbs 1877:191).

The most detailed descriptions of occupied Salish forts are from notes by Nils Bruseth (1977:11-12) and Marian Smith in the early twentieth century from the Stillaguamish and Puyallup areas. In northern Puget Sound, the Stillaguamish Treasure (or Strong) House southeast of Stanwood was constructed of "big logs set on end, a roof of heavy cedar slabs." A deep trench (moat) filled with sharp stakes surrounded the house, covered by thin branches and turf. A hidden route over solid ground led inside. Any attackers would fall into the ditch and be impaled. Both sturdy and safe, the house provided many Stillaguamish families with haven and

storage for their most prized items. For many years, the keeper of this fortification was Tsalbi-t, until he grew too old and he and his wife retired to Warm Beach. Another huge house, at Trafton, welcomed guests to potlatches and other events. The inside was decorated with carved and painted wood panels, while long fires ran down the middle for heat and cooking feast foods (Bruseth 1977).

Conclusion

Coast Salish combat relied not on soldiers nor armies but rather on champions who took on war lord status when they mobilized labor to build and maintain fortified locations or forts to protect their community. Following the adoption of the available and accessible bow and lethal, long-range arrow, the oldest forts on the Pacific Coast began over 1500 years ago. War leaders (especially before AD 1800), often as arrogant champions, organized the building, stocking, and "manning" of these structures. They early appear archaeologically as semicircular trenches atop steep bluffs overlooking beaches. Often they are located at strategically defensive points along the borders of tribal territories, but conflict there increased dramatically in the aftermath of epidemics, dislocations, and slave raiding a few hundred years ago. More defendable locations, such as peninsulas, were heavily fortified.

In sum, relying on the precedent sources assembling sites by early surveys, we have assembled data about known fortifications and, more to the point, supplemented this record with new information about "named" champions collected from ethnohistoric sources and interviews with descendents. Fort examples in various regions around the Salish Sea are provided in Table 1, with cells for the associated named warrior, location, size, place name, engineered features, and historical events. These examples document fortified locales, relying on scholarly aggregation of these sites, setting precedent. Subsequent work has been piecemeal and the recent public climate has downplayed, ignored, or misrepresented Coast Salish militarism. Yet among important families of Coast Salish communities, honored names continue to be passed on, confirmed by stories of personal reckless bravery and military strategy long an aspect of the human condition, replete with cruelty, torture, and savagery that many would prefer forgotten, except that these deeds have left marks on the land that still stir emotions in terms of family and historical drama and heroism.

Listing of Fortifications

A detailed though incomplete listing of many of fortification locations is presented in Table 1, arranged roughly north to south along the Salish Sea (Fig. 2). Sites follow their Smithsonian designations (by county, hyphen, and number, such as IS-16), following the serial order in which they was recorded on official forms. Unless otherwise attributed, fortifications are cited in Bryan (1963), abbreviated as B63 and page number. Some ethnographic information and champion ("war lord") names have been provided by local elders, who, because of family ownerships and sensitivities, prefer to remain anonymous. Lushootseed, in contrast to Straits (Lummi, Samish, Klallam), underwent systematic sound shifts from M to B and N to D so personal names and places have been recorded in both forms (such as Sneatlum in Straits, Sdeetlub in Lushootseed, Angelbeck's Old Snatlem).

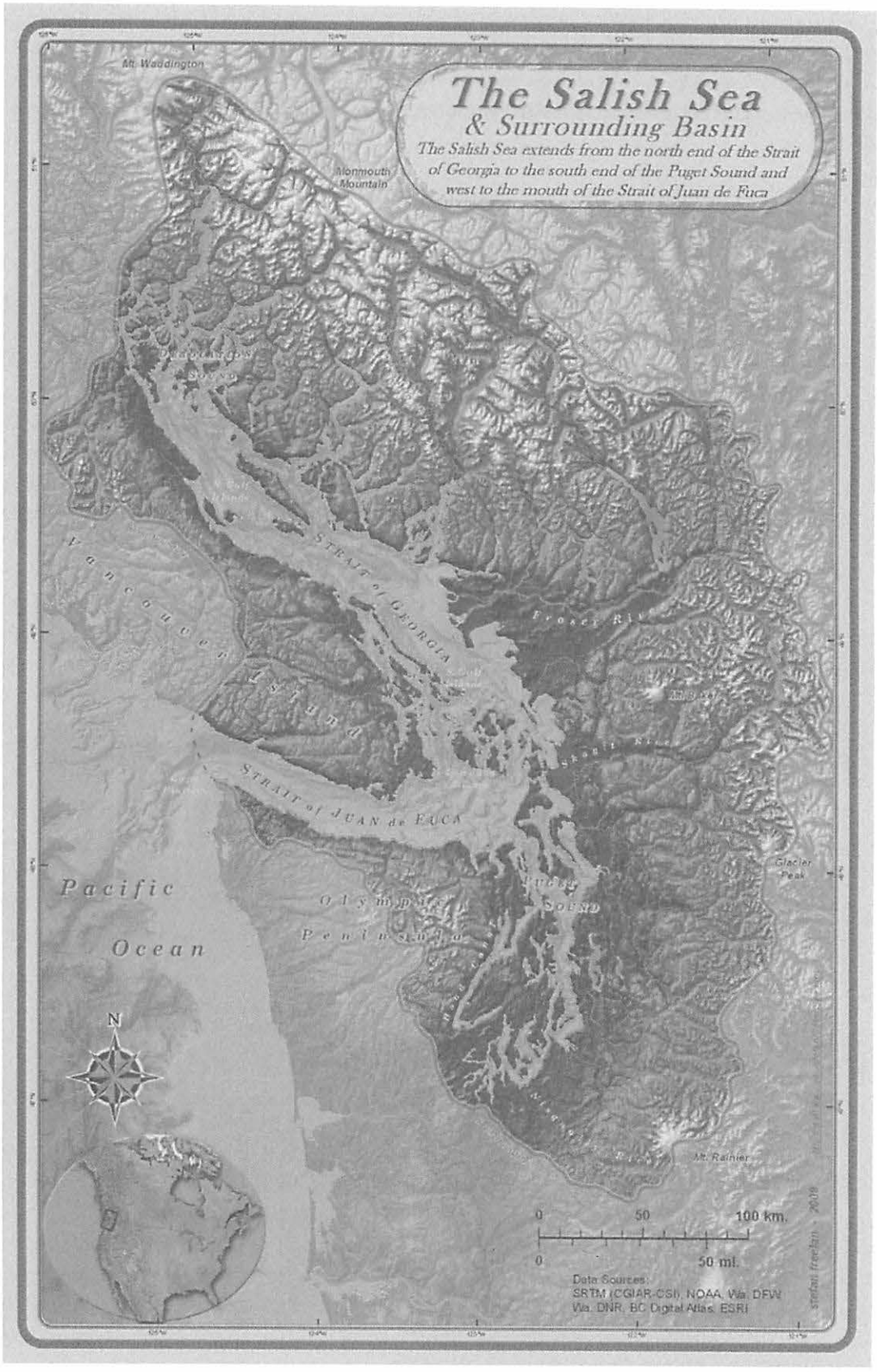

Fig. 2. Map of the Salish Sea, with Columbia River at bottom of map (Freelan 2009).

TABLE 1. FORTIFICATIONS DOCUMENTED IN THE SALISH SEA AND COLUMBIA RIVER.

Puget Sound

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Gooseberry Point (Lummi) Blaine (Semiahmoo) Guemes (Samish)	SK-13		Samish one had poisoned stakes	all 3 built by same Lummi man	Suttles 1951:322
Marietta 4D			mouth of Nooksack River		B63:74
Samish River			mouth near Edison, Butler Hill at a bend	čadəskadəb = Duxwaha form ~ Samish form = čanəskadəm	Sampson 1972
Pleasant Ridge			reached by a meandering slough that made access difficult		Sampson 1972
Sullivan Slough			family of lone survivors of smallpox	Lahelbid, a prophet	Sampson 1972
Quilceda Creek mouth			"at the old Snohomish fort on Kwultsehda Creek, they made external ditches, which were filled with pointed stakes and covered over." Name refers to sturgeon in this slough.		George Gibbs 1877, 223
East Stanwood	SN-1		at Trafton	Tsalbilht	Bruseth 1977
Kitsap peninsula, hočbale	#46		in marsh, fir pole palisade with peepholes cutout, mat houses inside (west of Point Bolin)		Warren Snyder 1968
Battery Pt, kextu	#76		Bainbridge Island, stockade with mat houses; kaχtyo = shell midden, graves, fort		Johnny Adams (Suquamish Docket # 133, 96, B-4 fort; Warren Snyder 1952:76, 1968:135)
Quartermaster Harbor			Maury Island	Sadoəhebix (brother was gəlai'a ~ Goliah) from Penn Cove on Whidbey Island	Marian Smith 1940:11
Snag Point	#2		palisaded house near Colby	Seattle's son Sakwalth	Warren Snyder 1952, 1968:130
Arrow Fort			Renton	Kwiashten	Tollefson 1992:226
Sand Hill			Carnation (formerly Tolt)	Patkanim	Tollefson 1996

TABLE 1 (cont'd) FORTIFICATIONS DOCUMENTED IN THE SALISH SEA AND COLUMBIA RIVER.

Whidbey Island, east side, sheltered

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Greenbank	IS-16	85 x 10 x 3	West Holmes Harbor, across from Rocky Point		B63:73
Blower's Bluff	IS-47	120 x 6 x 3	Goliah's famous potlatch		B63:73
Penn Cove Manor	IS-52	145 x 9 x 1½			B63:73
Fort Nugent Lookout	IS-03				B63:73
Snatelum Point	IS-13		Trench lined with 4 ft. stakes	Sneatlum ~ Sdeetlub	B63:73,76
Rocky Point			Holmes Harbor, facing Hackney (Baby) Island & Greenbank		B63:73

Whidbey Island, west side, exposed

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Fort Nugent	IS-93				B63:73
Ebey's Landing	IS-88		Toanichum Klallam fort painted by Paul Kane 1845-1848	Lok-hi-num	Harper 1971:106, 250
Double Bluff	IS-25	270 x 8 x 4			B63:73

Camano Island

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Madrona Beach	IS-10	230 x 15 x 3			B63:73

Olympic Peninsula

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Hadlock Bay			Palisaded village		Gibbs 1877:191
Sequim Bay, I-eh-nus			Painted by Paul Kane 1845-8 showing it under attack	Yates-sut-soot	Harper 1971:250
Neah Bay			Palisaded block of houses		Gibbs 1877:174
Cannonball Island			Near Ozette, dated 200 BC–AD 200		Ames and Maschner 1999:211
James Island			Off Quileute River Mouth		B63:77

TABLE 1 (cont'd) FORTIFICATIONS DOCUMENTED IN THE SALISH SEA AND COLUMBIA RIVER.

Columbia River

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Clatsop			Barricaded semi-underground house	kati•di	Ray 1938:56

Gulf Islands

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Lopez Island	SJ-215	90 x 12 x 3½ with rock wall	3 trenches = Hunter's Bay		B63:74
Mackaye Harbor	SJ-205	70 yrds x 12 x 4			B63:74
facing Cattle Pt		100 yrds x 6 x 3			B63:74
Garrison Bay			San Juan Island		B63:74

Vancouver Island

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Beacon Hill		100 high, 300 ft. projecting trench = 6D			James Deans in Keddie 2006
		12 x 15	Oval b/t Esquimault & Victoria		Keddie 2006
Esquimault		? x 8 x 6			Gibbs 1877:22; 1855:409
Cadboro Bay			trench around houses		Keddie 2006
Baines Sound Deep Bay		two - 20D, 10D	enclosing thick shells heaps, mounds, depressions		Keddie 2006
Comox			double arc enclosing 2 houses		Keddie 2006

TABLE 1 (cont'd) FORTIFICATIONS DOCUMENTED IN THE SALISH SEA AND COLUMBIA RIVER.

Hideouts on BC Mainland

FORTIFICATION	ID[1]	SIZE[2]	DETAILS	WARRIOR LORD	CITATION[3]
Burrardview				Wac'aqw, with Orca power	Kennedy 2000:142
Klahuse			Toba Inlet		Kennedy & Bouchard 1983:70, 158
Sliamun			Powell River		Same

[1] Washington State counties included here are Island (IS), San Juan (SJ), Skagit (SK), Snohomish (SN).
[2] Wherever possible dimensions are given after an equal sign (=) separated (by x) for L(ength) x W(idth) x D(epth) or H(eight).
[3] Unless otherwise attributed, fortifications are cited in Bryan (1963), abbreviated as B63 and page number.

ENDNOTES

[1] Symbolically, the fort also serves to contain the dangerous power of the champion, further protecting his community and motivating its contributing labor. Keith Carlson is currently pursuing these more complex aspects of Sto:lō forts.

[2] Ron Hilbert Coy, Lushootseed artist and son of Vi Hilbert, held the name of the warrior associated with the fort on Granny's (Butler) Hill overlooking the bend of the Samish River (Sampson 1938, 1972). I made the connection between the name and fort because I already was aware of the impressive reengineered hilltop fort (named Ta'awdzep) at Kitwanga on the Skeena River associated with Nekt, a berserker lord whose Raven~Frog mother escaped from a forced Haida marriage, while her son kept quiet in the canoe bow by sucking on the tongue protruding from his father's severed head (MacDonald 1984). Fearsome intimidation, recklessness, and fierce command increased as he aged until he controlled upriver trade and social networks from his fort.

[3] A few small mounds were noted as "camas ovens," and Gibbs mentioned the likelihood that the Sacramento River mounds were built to raise native houses above flood stages. Today, British Columbia cairn and mound burials are gaining new attention among Northwest scholars as novel expressions of social ranking (Mathews 2006).

For the Plateau, Gibbs (1855, 409) remarked on "a couple of modern fortifications erected by the Yakimas upon the Simkwe [Simcoe] fork" led by "Skloo" in 1847 as defense against Cayuses. Skloom was a brother of Kamaiakin, Yakama war leader. At the forks, on a ridge "some two hundred yards long, and thirty feet in height, and . . . about twenty-five yards apart" were a thirty-foot square with rounded corners "formed by an [three-foot high] earthen embankment capped with stones, the interstices between which serve for loop-holes. . . .The other is built of adobes in the form of a rectangle, twenty by thirty-four feet, the walls three feet high and twelve to eighteen inches thick, with loop-holes six feet apart. . . . We did not learn whether they were successfully maintained, accounts varying greatly on this subject."

[4] Comparatively, these fortified dwellings are associated with expansion into new territory, as well as defense of a homeland. Among Celts, a fortified place is a *dunon*, appearing as *dun* in place names (such as Brigadoon), which "made its way through the Germanic languages and arrived in English as the word town" (Ellis 1990:42). In the Northwest, rock enclosures, smaller in size, marked questing sites and other religious uses (Thompson 1990). Among Coast Tsimshian, lineage-owned volcanic cones (t'oo'tsip) served as forts that later included bountiful potato gardens in this rich soil (Miller 1997:135).

[5] Sites around Victoria studied and dated by Grant Keddie include Pender Bay (DcRu 1, AD 400), Finlayson Point (DcRu 23, AD 800), Lime Bay Peninsula Defensive Site (DcRu 123, AD 800), and Flemming Beach, near Esquimalt (DcRu 20, DcRu 21, AD 800 to 1000), though the huge shell midden between these defensives has a basal date of over 4,000 years ago (Ames and Maschner 1999:211).

[6] Russians conquered Siberia by building ostrogs (forts) at each secured riverbank, administrating control via taxes and converting though Orthodox missionaries, then advancing onward to build the next ostrog. The Normans advanced through England as nobles built keeps in their newly-acquired fiefdom. The land-based fur trade in North America advanced by fortified posts, and the US army marched west building their own forts.

[7] From BCE 632 to 226, warring states fought for supremacy over the heartland of China. From fortified positions, each lord (pa) struggled to become a king (wang) and ultimately the singular

Son of Heaven (t'ien-tzu or Ti). Commoners served the purposes of noble factions, locked in strife until the militaristic Ch'in triumphed over what had begun as two dozen small states (Harrison 1972:48).

[8] In Lushootseed, the language of Puget Sound, two terms applying to such barriers vary in meanings. One is ƛ̓əlaχad, which derives from ƛ̓əl, meaning "silent, still, stop, avoid," emphasizing its ability to block, bar, or stop. With the prefix s- added, it means a trap for game animals. The other word is qəlaχad, where the suffix -aχad refers to "edge, side, perimeter, edging." It is related to the word qəltəd (with the implement suffix -təd, meaning something used to do something with, as a tool or instrument) translating into "clout, diaper, sanitary napkin [tampon]," with the implication that the root qəl means "blockage." A related and fascinating derivation is a term for a variety of lichen that means "frog diaper" (Bates, Hess, Hilbert 1994:153, 183, 311; Gibbs 1970).

[9] Joseph Drayton on the circumnavigating Wilkes US expedition sketched a "Sachel fort" on Whidbey Island (Fig. 1). This was most likely the Skagit community at Penn Cove Manor (IS-52) on Table 1.

[10] Kane (1925:158) made a sketch of this Toanichum fort (Easton and Urbanek 1995:106; Harper 1971:250), where Lok-hi-num was chief, after their landing party dodged warning shots. Two days later, 9 May 1847, they crossed to I-eh-nus on Dungeness Spit, where the leader was Yates-sut-soot.

REFERENCES CITED

Ames, Kenneth, and Herbert Maschner
1999 *Peoples of the Northwest Coast: Their Archaeology and Prehistory.* Thames and Hudson, London.

Angelbeck, William
2007 Conceptions of Coast Salish Warfare, or Coast Salish Pacifism Reconsidered: Archaeology, Ethnohistory, and Ethnography. In *Be of Good Mind. Essays on the Coast Salish*, Bruce Granville Miller, editor, pp. 260–283, UBC Press, Vancouver, BC.

2009 "They Recognize No Superior Chief": Power, Practice, Anarchism and Warfare in the Coast Salish Past. Doctoral dissertation, Anthropology, University of British Columbia.

Bates, Dawn, Thom Hess, and Vi Hilbert
1994 *Lushootseed Dictionary.* University of Washington Press, Seattle.

Bruseth, Nels
1977 *Indian Stories and Legends of the Stillaguamish, Sauks, and Allied Tribes.* Arlington Times Press, Arlington, WA. Originally published 1926.

Bryan, Alan
1963 An Archaeological Survey of Northern Puget Sound. *Occasional Papers of the Idaho State University Museum*, No. 11. Pocatello, ID.

Carlson, Keith Thor, editor
1997 *You are Asked to Witness: The Sto:lō in Canada's Pacific Coast History.* Sto:lo Heritage Trust, Chilliwack, BC.

2001 *A Sto:lō and Coast Salish Historical Atlas.* Douglas and McIntyre, Vancouver, BC.

Donald, Leland, and Donald Mitchell
1974 Some Correlates of Local Group Rank among the Southern Kwakiutl. *Ethnology,* 14 (4):325–346.

Eaton, Diane, and Sheila Urbanek
1995 *Paul Kane's Great Nor-West.* University of British Columbia Press, Vancouver, BC.

Ellis, Peter Berresford
1990 *The Celtic Empire: The First Millennium of Celtic History, 1000 BC–51 AD.* Carolina Academic Press, Durham, NC.

Elmendorf, William
1960 *The Structure of Twana Culture, With Comparative Notes on the Structure of Yurok Culture.* Washington State University Press, Pullman.

Freelan, Stephan
2009 *The Salish Sea Map.* Map of the Salish Sea (Mer des Salish) & Surrounding Basin Website, http://staff.wwu.edu/stefan/SalishSea.htm, accessed February 11, 2011. Western Washington University.

Gibbs, George
1855 Report . . . to Captain Mc'Clellan on the Indian Tribes of the Territory of Washington. Pacific Railroad Report 1:402–436. 33rd Congress, 2nd Session, *Senate Executive Document*, 78 (Series # 758). [Reprinted Ye Galleon Press, Fairfield, WA, 1972].

1877 Tribes of Western Washington and Northwestern Oregon. Department of the Interior, United States Geographical and Geological Survey of the Rocky Mountain Region, Part II:157–241, Washington. [Reprinted Northwest Anthropological Research Notes, 31:95-188. 1997].

1970 "Dictionary of the Niskwalli (Nisqually) Indian Language—Western Washington." Extract from 1877 *Contributions to North American Ethnology*, 1:285–361. The Shorey Book Store Facsimile Reproduction, Seattle, WA.

Harper, J. Russell, ed.
1971 *Paul Kane's Frontier.* University of Texas Press, Austin.

Harrison, John
1972 *The Chinese Empire: A Short History of China from Neolithic Times to the End of the Eighteenth Century.* A Harvest/HBJ Book, New York, NY.

Hilbert, Vi, Jay Miller, and Zalmai Zahir
2001 *Puget Sound Geography sda?da g"əɬ dibəɬ əšucid ?acaciɬtalbix": A Draft Study of the Thomas Talbot Waterman Place Name Manuscript and Other Sources,* edited with additional material. Lushootseed Press, Seattle, WA.

Kane, Paul
1925 *Wanderings of an Artists among the Indians of North America, from Canada to Vancouver's Island and Oregon through the Hudson's Bay Company's Territory, and Back Again.* The Radisson Society of Canada, Toronto. [1858].

Keddie, Grant
2006 *Aboriginal Defensive Sites: Part 1: Settlements for Unsettling Times, Part 2: Amateur Archaeology Begins, Part 3: Modern Archaeologists Collect Evidence, Part 4: Local Sites are Dated; Final Conclusions.* http://www.royalbcmuseum.bc.ca/Content_Files/Files/AboriginalDefensiveSites articleOct2006.pdf. Accessed February 2011.

Kennedy, Dorothy, and Randy Bouchard
1983 *Sliamon Life, Sliamon Lands.* Talon Books, Vancouver, BC.

Kennedy, Dorothy
2000 *Treads to the Past: The Construction and Transformation of Kinship in the Coast Salish Social Network.* Doctoral dissertation, Oxford University, Exeter College. University Microfilms International, Ann Arbor, MI.

MacDonald, George
1984 The Epic of Nekt: The Archaeology of Metaphor. In *The Tsimshian: Images of the Past: Views for the Present*, Margaret Sequin, editor. UBC Press, Vancouver, BC.

Mathews, Darcy
2006 Burial Cairn Taxonomy and the Mortuary Landscape of Rocky Point, BC. Master's Thesis, University of Victoria, Victoria, BC.

Menzies, Archibald
1923 Menzies' Journal of Vancouver's Voyage, April to October, 1792. C. F. Newcombe, editor. *Archives of British Columbia, Memoirs* No. 5. Victoria, BC.

Miller, Jay
1997 *Tsimshian Culture: A Light Through The Ages.* University Of Nebraska Press, Lincoln.

1999 *Lushootseed Culture and the Shamanic Odyssey: An Anchored Radiance.* University of Nebraska Press, Lincoln.

Moss, Madonna, and Jon Erlandson
1992 Forts, Refuge Rocks, and Defensive Sites: The Antiquity of Warfare along the North Pacific Coast of North America. *Arctic Anthropology*, 29 (2):73–90.

Ray, Verne F.
1938 Lower Chinook Ethnographic Notes. *University of Washington Publications in Anthropology*, 7 (2):29–165, Seattle.

Sampson, Chief Martin
1938 *The Swinomish Totem Pole, Tribal Legends: Told to Rosalie Whitney*. Union Printing Company, Bellingham, WA.

1972 Indians of Skagit County. *Skagit County Historical Society Historical Series* 2, 26, La Conner, WA.

Schaepe, David
2006 Rock Fortifications: Archaeological Insights Into Precontact Warfare And Socio-Political Organization Among The Stó:lō Of The Lower Fraser River Canyon, B.C. *American Antiquity*, 71(4), 671–705.

Smith, Marian
1935–1936 Fieldnotes, Royal Anthropological Institute, London.

1940 The Puyallup-Nisqually. *Columbia University Contributions to Anthropology*, 32.

Snyder, Warren
1952 U.S. National Archives, Record Group 279, Suquamish, Docket No. 133 (June).

1968 Southern Puget Sound Salish: Texts, Place Names, and Dictionary. *Sacramento Anthropological Society*, Paper 9. Sacramento, CA.

Suttles, Wayne
1951 Economic Life of the Coast Salish of Haro and Rosario Straits. Doctoral dissertation, University of Washington, Seattle. University Microfilms International, Ann Arbor, MI.

1989 They Recognize No Superior Chief: The Strait of Juan de Fuca in the 1790s. In *Cultures de la Costa Noroesta de Americ*a, Jose Luis Peset, editor, pp 251-264. Turner, Madrid.

Thompson, Judy
1990 *An Ethnographic, Historic, and Archaeological Study of Prehistorically Built Rock Structures Using the Columbia Plateau of Washington State as a Test Case*. Bureau of Land Management, Spokane, WA.

Tollefson, Kenneth
1992 The Political Survival of Landless Puget Sound Indians. *American Indian Quarterly,* Spring:213–235.

1996 In Defense of a Snoqualmie Political Chiefdom Model. *Ethnohistory,* 43(1):145–171.

Jay Miller
Mound Bayou, MS

jaymiller4@juno.com

Journal of Northwest Anthropology, 45(1):89–110 2011

INDIGENOUS DIGITAL MEDIA AND THE HISTORY OF THE INTERNET ON THE COLUMBIA PLATEAU

Adam Fish

ABSTRACT

Native American communities historically indigenous to the Columbia Plateau in Washington, Oregon, and Idaho use the internet in acts of historical representation. The internet provides to tribal people a medium through which to accurately represent issues of place, time, and performance. The internet, however, is changing, challenging some tribal representational practices. Participation with the internet is divided into two historical, technical, and cultural phases: Web 1.0 (1994–2004) and Web 2.0 (2005–today). The Web 1.0 sites discussed in this article include the Lifelong Learning modules of the Schitsu'umsh (Coeur d'Alene), the Confederated Tribes of the Umatilla Reservation (CTUIR), and the Nimíipuu (Nez Perce Tribe). Explored are ways Web 1.0 features gave tribal people control over their official historiography, while new forms of collective or Web 2.0 internet authorship may be endangering officially sanctioned tribal histories. An example of Web 2.0, the Colville tribal social media site *One Heart for the People* is briefly mobilized to illustrate how Web 1.0 tribal historiography opposes theories of culture.

Introduction

Native American communities historically indigenous to the Columbia Plateau in Washington, Oregon, and Idaho use the internet in acts of historical representation. The internet provides to tribal people a medium through which to accurately represent issues of place, time, and performance. The internet, however, is changing, challenging some tribal representational practices.

Participation with the internet is divided into two historical, technical, and cultural phases: Web 1.0 (1994–2004) and Web 2.0 (2005–today). The Web 1.0 sites discussed in this article include the Lifelong Learning modules of the Schitsu'umsh (Coeur d'Alene), the Confederated Tribes of the Umatilla Reservation (CTUIR), and the Nimíipuu (Nez Perce Tribe). Explored are ways Web 1.0 features give tribal people control over their official historiography, while new forms of collective or Web 2.0 internet authorship may be endangering officially sanctioned tribal histories. An example of Web 2.0, the Colville tribal social media site *One Heart for the People* (Colville Confederated Tribes n.d.), heareafter referred to as *One Heart*, is briefly mobilized to illustrate how Web 1.0 tribal historiography opposes theories of culture.[1]

Ethnopoetics and the Internet

The narrator of a Web 1.0 Schitsu'umsh Lifelong Learning Module asks, "Why do the oral traditions offer you an indispensable and unique pathway into the lives and culture of the Schitsu'umsh people?" (Coeur d'Alene 2002a). Consider for a moment that these "oral traditions" are being translated via publically networked multimedia websites. Websites are not substitutes for physical human interaction, and visuality and hearing are different forms of phenomenological reception, but in some ways the experience of viewing these Web 1.0 websites is analogous to participation in oral traditions. Oral histories can be "effectively, appropriately, and authentically told using the Internet" (Frey 2001:1) for three reasons: 1) Digital multimedia is aural and visual; 2) through linking from page to page, the viewer creates non-sequential and personalized pathways through stories, and; 3) like archaeological sites in traditional territories, the intellectual information remains the product and property of the Schitsu'umsh, Nimíipuu, and the CTUIR (Confederated Tribes of the Umatilla Indian Reservation 2003).

In what ways are Web 1.0 websites designed with Native Americans useful for acts of cultural representation? In what ways do they misrepresent how culture changes through time? Oral traditions do not mirror new media practices but rather enable the performative aspects of tribal communication. My approach is what Tedlock defines as ethnopoetics: "a decentered poetics, an attempt to hear and read the poetries of distant others, outside the Western tradition as we know it now" (Tedlock n.d.). Ethnopoetics focuses on the contemporary interpretations of the present and the past and is a useful theoretical tool with which to view Native American websites. These sites represent ethnopoetics refracted through the affordances of write-only Web 1.0 communication technologies. At the same time that these websites offer tools that fit with traditional concepts and narrative strategies, these websites do not allow for audience participation, and therefore do not fully represent how culture is a processual and participatory project. They might not intend to be participatory but for whatever reason the absence of interactivity results in a misrepresentation the dynamic relationship between narrative and culture. From an official tribal perspective, the internet modules are excellent ways of representing officially sanctioned perspectives on space, time, and performance. The new forms of internet authorship, called Web 2.0, emerging not from individuals officially charged to tell history but from the voluntary collaborations of many individuals, may be threatening to tribal historians hoping to secure an official account.

Lifelong Learning Online Project

The Schitsu'umsh (Coeur d'Alene), the Confederated Tribes of the Umatilla Reservation (CTUIR), and the Nimíipuu (Nez Perce Tribe) are represented on Web 1.0 multimedia modules (Coeur d'Alene 2002a, 2002b, 2002c, 2002d, 2002e, 2002f, 2002g, 2002h; Confederated Tribes of the Umatilla Reservation 2003; Nez Perce Tribe 2001a, 2001b, 2001c, 2001d, 2001e). From 2001-2003, the modules were conceived, written, designed, and created by a committee of elders, tribal members, technology experts, and anthropologists under the aegis of the Lifelong Learning Online Project Committee. The modules are the intellectual and physical property of the Coeur d'Alene Tribe[2] (Coeur d'Alene Tribe 2002f). Projects similar to the Schitsu'umsh module exist for the Nimíipuu[3] (Nez Perce Tribe 2001a). These video websites or modules were created to have the Tribes present their own take on post-colonial history.

Within the tribal internet modules, historical storytelling and a visually affirmative performance are present. Traditionally dances, stories, dramas, and visual representations are mobilized in graphic modes of pedagogy. While these forms of storytelling and teaching have been happening since time immemorial, this is one of the first tribal multimedia websites attempting to merge traditional forms and contemporary information technology. Web 1.0 is but one method amongst many to teach about traditional culture. On the reservation in-body forms of teaching continue. Externally, however, representation of traditional culture is quickly leaving the jurisdiction of traditional elders. Traditional forms of privacy, secrecy, and revelation can no longer keep private the representation of tribal knowledge. In order to provide accurate representation of themselves, these Columbia Plateau tribes made these websites in collaboration with a team of technologists and scholars (Fig. 1).

In Web 1.0 fashion, these sites do not allow visitors to upload or comment and so the site has no present public participation. As such, these static web pages have solidified an official history and achieved the goal of educating non-Natives about Native history. My argument is that while these websites offer acceptable representations of space, movement, and performance, their stationary historiography works against the transitional qualities of culture. [4]

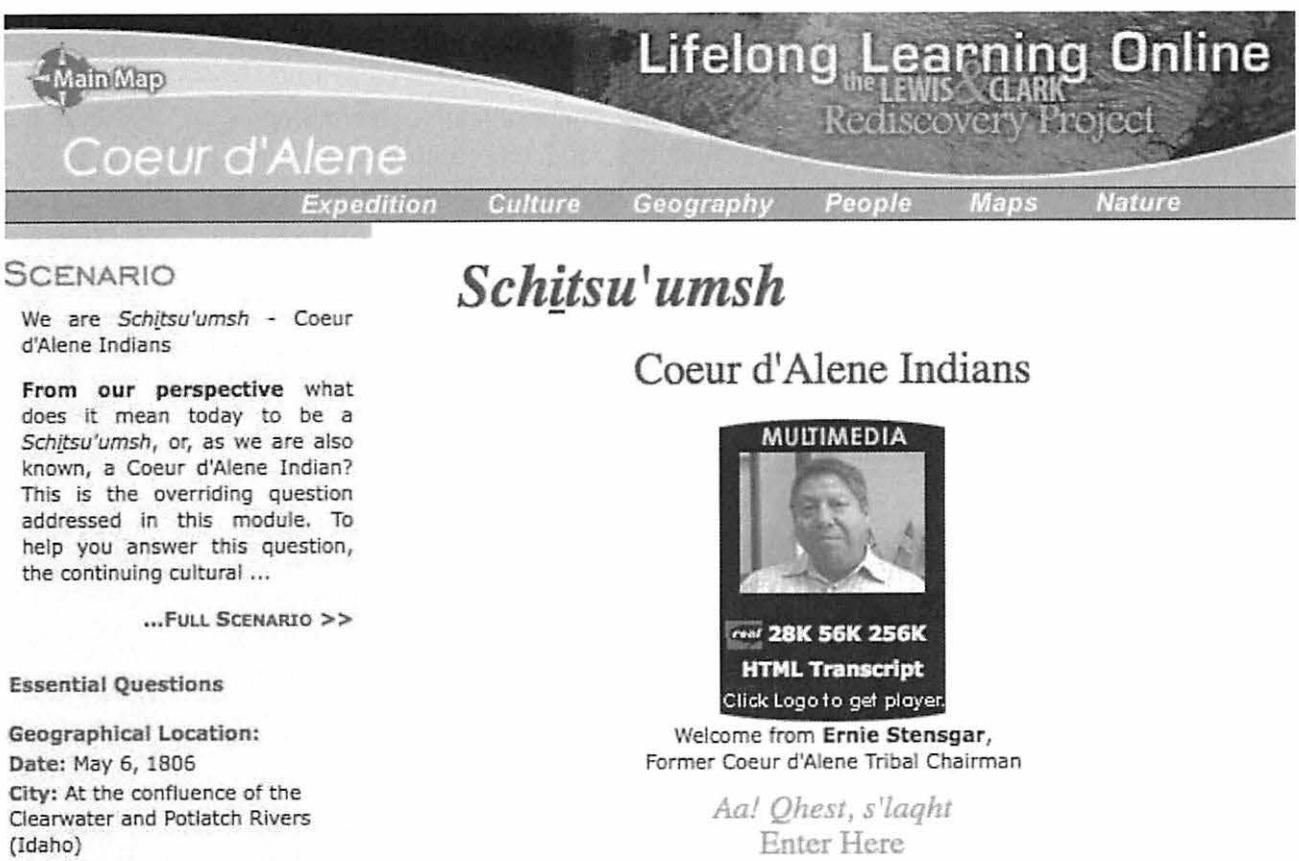

Fig. 1. Opening frame of the Coeur d'Alene Lifelong Learning Module.

Tribalism and Indigenous Digital Media

These Web 1.0 modules are forms of representation rooted in a type of tribalism. Tribalism is a contemporary cultural consolidation rooted in indigeneity. As social praxis, tribalism is a renaissance; an empowerment that emerges from perceived loss of traditional knowledge in the wake of colonization and modernity. In so many ways, tribalism is a reaction to the cultural dislocations and forced confederations incurred by nineteenth and twentieth century modernism (McNickle 1973). Unlike nationalism, tribalism has observable origins in geographically extant cultural traditions. A "tribe" is a colonial construct. "Tribalism" is rooted in tradition while affirming contemporary tribal identity (Mafeje 1971; Southall 1970). Thus, the internet is seen as a place to decolonize through accurate representations. Indigenous digital media is conceived by tribal members as a vehicle for twenty-first century tribalism.

Indigenous digital media (IDM) is the traditionally inflected digital content made by indigenous people. In this phrase, "indigenous" refers to the pre-colonial first inhabitants of a geography, in this case the Columbia Plateau. IDM offers new modes of historiography, biography, and archaeography in endeavors of tribalism. IDM presents, preserves, and projects traditional cultural values across the internet. Tribalism is about resiliency and resurgence. IDM and tribalism conflate into an adaptive and resistant form of "innovative traditionalism" (Ginsberg 2002:54). As tradition mixes with new media, new narratives and performances follow. Several twenty-first century tribal projects are supported by IDM, including: claiming, storytelling, celebrating survivance, "indigenizing," intervening, revitalizing, networking, representing, envisioning, reframing, naming, creating, and sharing (Smith 2001:143–157).

Indigenous people embrace and exploit new communicative technologies to legislate for sovereignty in the control of their identities, histories, and representations. Throughout the world, indigenous peoples use videography to personalize, magnify, and vitalize the politics of survivance (Ginsberg, Abu-Lughod, and Larkin 2002). Indigenous people around the world

> typically employ modern visual media to further public awareness of treaty rights, land claims, hunting and fishing rights, religious freedom, language preservation, repatriation of artifacts, and reburial of ancestral remains (Prims 2002:62-64).

Indigenous people use video cameras and computers in

> documenting traditional activities with elders; creating works to teach young people literacy in their own languages; engaging with dominant circuits of mass media and projecting political struggles through mainstream as well as alternative arenas; communicating among dispersed kin and communities on a range of issues; using video as legal documents in negotiating with states; presenting videos on state television to assert their presence televisually within national imaginaries; and creating award winning films (Ginsberg, Abu-Lughod, and Larkin 2002:10).

The internet modules or videos created by the Schitsu'umsh (Coeur d'Alene Tribe) illustrate the most salient uses of IDM. The Schitsu'umsh are a Columbia Plateau Native American tribe whose traditional territories are in eastern Washington, north central Idaho, and western Montana. None of the other tribe to my knowledge within or outside of the Columbia Plateau had incorporated video and maps together to create traditionally inflected online stories. Who exactly uses these sites or how

many people view them are private issues only the web administers know. Reception, circulation, and use of the websites are not the subject of this article.

The Schitsu'umsh and Nimíipuu modules employ a wide range of media, including video interviews, traditional songs, tribal dances[5], oral mythologies, language lessons[6], linguistic translations, and interactive maps. The Schitsu'umsh, offering almost six hours of digital video, capitalize on the hypermedium to express their stories, histories, dances, perspectives, and arts in culturally specific ways. The Schitsu'umsh narrator's "sincere desire" is to impart "Hnkhwelkhwlnet . . . our way of life in the world" to the participants so they may "better appreciate the world as if through Schitsu'umsh eyes" (Coeur d'Alene Tribe 2002h). The narrator evidently believes that video can communicate some nuances of Schitsu'umsh culture and he is willing to share this lifeway with anyone with a dial-up modem and a computer. This is distinct to the privacy and selectivity with which most tribes view teachings of their lifeways. It is important to note that the Schitsu'umsh content was thoroughly reviewed for their appropriateness and authenticity by the elders of the Tribe, the Cultural Committee, and Tribal Council, before publication; there was much they considered not appropriate for public dissemination.

Teachings of both traditional lifeways and contemporary politics appear throughout the Schitsu'umsh module. Viewers can learn about traditional gathering practices, spiritual concepts, and dancing forms. They can also see and hear the Schitsu'umsh Tribal Chairman meditate on the responsibility of the Schitsu'umsh to educate future generations. Figuring prominently are indigenous perspectives on tribal sovereignty including reflections on Manifest Destiny, missionaries, allotments, wars, the establishment of the Reservation, cultural resource management, and future challenges. Use of the internet and the associated hardware needed to engage it empowers reflection on cultural preservation. In the act of viewing and listening, important definitions of what is Native American are being enacted publically.

On the Columbia Plateau, no historical analysis of the major brand of anthropological media that preceded IDM—the documentary ethnographic film—has ever been conducted. The ethnographic films depicting Columbia Plateau culture likely follow the trend exhibited on the Northwest Coast. That is, the tribal people are supporting characters as opposed to technologists and producers (Morris 1994). They are the objects, not the subjects, of the films. On the contrary, the modules created by the Schitsu'umsh and Nimíipuu tribes represent the first emergence of indigenous moving-picture historiography on the Columbia Plateau.

Performance

The multimedia environment may be more conducive to traditional storytelling than print. This is not a comparison between print and orality in traditional society, but rather a discussion of the technological affordances of the internet. What can the internet do that print cannot and how would those affordances be used by traditional storytellers? Tribal history is "grounded in two interrelated systems of communication that predate the written word: drawing and speaking" (Howe 2003:162). Vizenor agrees, "tribal narratives are heard and remembered in *pictofictions* and *pictomyths* without closure" (1994:100). Traditional modes of communication were never textual. They were performative and oratory. Symbolic and iconographic drawing, painting, and etching were authoritative means of communication. The relationship between performer and participating audience was heavily emphasized by pictographic and performative modes. The hypermedia and emergent post-textuality of the internet enables communications that are analogous to these traditional forms.

The internet is a place for performance. This characteristic bodes well for Native Americans, whose traditional form of historiography is performative. In the Native American past, major forms of communication were audio, haptical, visual, and performative. A non-textual people collectively remember historical events and origin narratives in oral traditions, landscapes, and embodied movements. Oral traditions and the internet conflate the aural, visual, spatial, and corporeal.

Traditionally,

> performances exploited place, time, and other elements such as feasting, music, drumming, dancing and smoking to produce a multisensorial environment in which participants could experience with all their senses the historical moment. Conflating all trajectories containing sacred information and sensuality was intended to deeply encode traditional knowledge through the memory-etching powers of profound sensuality into the participants (Howe 2003:166–167).

On the Columbia Plateau, raconteurs use multisensual tactics and the spectators are participants:

> During the narrative performance, listeners periodically respond by saying aloud, i•••! [ee!] 'yes' (Jacobs 1934–1937, 1:x; Teit 1912a:349) or as among the Pend d'Oreille, giving the hand sign of hooking the index finger and drawing it toward you as a sign for 'getting it' (Clarence Woodcock, personal communication 1991) (Frey and Hymes 1998:587).

The raconteur is dramatic, compelling, playful, and animate with intonation, pauses, gesture, rhythms, and references in a ritual performance (Frey and Hymes 1998: 594, 595, 598). An audience member saying i•••! would not be considered interruptive. It was not an iterative process in the same way Web 2.0 databases build upon each other; rather it was a supportive gesture. Likewise, in digital representations of archaeological projects there are entrances, exits, dead-ends, thresholds, crises, incidents, interruptions, repetitions, discontinuities, incoherence, and integrations (Pearson and Shanks 2001:125). Howe continues,

> Histories from an indigenous tribal perspective must be presented in a format that can accommodate *multimedia* data and structure it in a *nonsequential* order (Howe 2003:167, emphasis added).

Capable of being both multisensual and nonsequential, digital multimedia is a suitable form for a graphic and oratorical history (Howe 2003:167). The internet is one representational mode that has the capacity to transcend textuality and move towards an iconographic, speaking, and performative historiography. However, these Web 1.0 modules only go so far. As Frey and Hymes (1998) argue, participation is important in Native orality and a more collaborative participation comes with Web 2.0. The capacities to leave comments, tags, and videoblogs were not yet fully utilized in this Web 1.0 era of internet authorship. This is not to suggest the elder storytellers would in any way welcome Web 2.0 capabilities for leaving comments, tags, and videoblogs. For example, others would not be encouraged to comment in the midst of an elder's story. Traditionally, individuals have the right to re-tell the oral traditions or be granted that right by others so that they can share those stories at the appropriate time.

According to elders, these traditions are timeless, created in a time before the coming of Human Peoples and handed down from generation to generation fundamentally with their "bones"

intact. No bones are added or deleted, while at the same time still allowing the storyteller or singer to add his or her own outer clothing to the story or song, giving it a unique personality. The basic structure of the story and song, however, has remarkable continuity, remaining fundamentally unchanged. In the Nimíipuu module there are songs recorded between 1897 and 1909 that have a continuity today. Whether the story was recorded in 1900 or 2000, there should be little change in the underlying structure of the story. Historical continuity, that is, reoccurring formats, content, and performances styles in the storytelling, is retained in these Web 1.0 sites.

The question remains, however, in what ways can participatory media best address the needs of tribal storytellers? Secondly, would tribes use such Web 2.0 technology today given that elected tribal officials and historians would lose their authorial power to produce official history?

Performers of tribal histories often depart from standard scripts—spontaneously fortifying their performances with anecdotes, asides, and commentary. More than whimsical digressions, these tangents modernize the traditional history by making it pertinent to contemporary people and the issues they face. A political problem, insight, passing raven, or wind gust may trigger the raconteur. A fugue results, integrating the traditional wisdom into the social present for the participating people. In this way, the story is publicly modified. This integrates the past with the present, making new the traditional wisdom. As Vizenor explains,

> In the oral tradition, the mythic origins of tribal people are creative expressions, original eruptions in time, not a mere recitation or a recorded narrative in grammatical time. The teller of stories is an artist, a person of wit and imagination, who relumes the diverse memories of the visual past into the expressions and metaphors of the present (Vizenor 1994:113).

The interpretive archaeologist is also a raconteur making "juxtapositions and interpenetrations of the historical and the contemporary, the political and the poetic, the factual and the fictional, the discursive and the sensual" (Pearson and Shanks 2001:159). It could be argued that performativity, subject to adaptation in the present, is akin to the non-sequential digressions that are available to internet participants as they navigate from site to site, reading text then watching video.

While only a text resource at its inception in 1994, the internet became a host for multimedia "drawing and speaking" by 2002, when the modules were produced. In this move towards pictorial and performative media, the internet, like tribal histories, is grounded in "drawing and speaking" (Howe 2003:162). Frey states that, "Should the *ee*'s cease, so too the story" (Frey 2001:6). He correlates the vocal gesture "ee!" [i•••!] with the "clicking of the mouse to assure interactivity" (Frey 2001:9). While the 'click' is more authoritarian, a new engagement emerges as the participant works with the raconteur through the non-human technological world (Haraway 1991, 1997). The IDM modules exhibit how traditional oral and performative tactics are made new.

The internet offers tribal designers of digital histories a forum where ancestral communicative tactics can be curated and created. The internet allows traditional historians to foray into the "dot-commons." While losing much semiotic or persuasive integrity in the shift from personal interaction to web-based spectatorship the links between personal performance and multimedia spectatorship are nearer than performance and textuality. Tribes with a multimedia web presence are creating histories more akin to traditional forms than histories written in books.

Storyscapes and Digital Ecologies

Travel is a recurring metaphor for both storytelling and cyberculture. Columbia Plateau Native Americans speak of "traveling the trails and exploring a territory" and of "paddling a canoe on the rivers of the myth world" (Frey 2001:6). Back when we called it cyberspace we used to *surf the 'net*. In both situations, "the human is enveloped within a dynamic and on-going text, a text in process, and thus within a world that is emerging, that is being brought forth, that is in the making" (Frey 2001:6; see also Latour 1993).

While traveling, the approach and vision of the viewer is of supreme concern to the Schitsu'umsh. They state that "how" one learns from a foreign culture is as important as "what" one learns (Coeur d'Alene 2002b). Schitsu'umsh capitalize on the different worldviews, effectively contrasted in the multimedia medium, between indigenous creator and participating viewer. They invite the participant to travel and make choices from an embodiment of *hnkhwelkhwlnet*, the Schitsu'umsh "way of life in the world." This interaction between self-examination and action creates the ecology for plurality, reflexivity, and the opportunity to travel on the First Peoples path.

According to Columbia Plateau history, the First Peoples lived before human people but prepared the world for the human people. A challenge of the Schitsu'umsh module is to "stay on the trails established by the First Peoples" (Coeur d'Alene 2002b). The narrator warns that the viewer's perspective may make it difficult to follow the First People. The narrator asks the viewer, "before you take a look at us take a closer look at yourself" (Coeur d'Alene 2002b). So, while the environment of the internet encourages visitors to exercise their discretion and liberty, the participant is challenged to follow the faint but extant trail of the First Peoples in the module. "Heart knowledge" as opposed to head knowledge, as Schitsu'umsh spiritual leader Cliff SiJohn articulates in three video clips, will help the viewer navigate the First Peoples' trails (Coeur d'Alene 2002a). All of this reflexivity and introspection is designed to invite the viewer to be a participant in the Schitsu'umsh culture.

Traditional and digital communications share the metaphor of travel. The term "tamastslikt" means "interpretation" in the Umatilla's Sahaptin dialectic. In a video clip, Martha Franklin uses the term tamastslikt to describe the journeyer's path through the Umatilla module. Franklin says, "tamastslikt, the word in itself, is an Indian word and it's a full word, it doesn't mean just to tell you what happened. . . . So you need to come in here and to examine, to look to turn, to examine. And then the word becomes full" (Confederated Tribes of the Umatilla Indian Reservation 2003). The word tamastslikt poses an open-ended and engaged hermeneutical method for approaching the Umatilla module. The multiple choices possible as one navigates the internet help make the word and praxis of *tamastslikt* possible (Confederated Tribes of the Umatilla Indian Reservation 2003).

In a video clip from the Schitsu'umsh module, Cliff SiJohn, sitting near a sacred sweat lodge, instructs the viewer to disengage and empathically observe, "We have no books to give you, we have no pencils to hand out. What I want you to do is to sit back and open your heart" (Coeur d'Alene 2002a). Franklin of the Umatilla and SiJohn of the Schitsu'umsh, and raconteurs in general, request that the participant be available and curious. This request is particularly possible to reply to on internet modules that enable visitors to explore diverse, multisensual paths with personalized, multilinear connections. At the same time, the request coordinates well with Web 1.0 passivity. Web 1.0 websites like this require empathic observation, not co-production of content—this was only possible with Web 2.0, as described next.

Sacred Times and Places in Cyberspace

The Schitsu'umsh narrator states, "In the act of storytelling the creation time is re-witnessed and re-traveled, and brought forth into this time. The stories that occurred in a distant past are continued into the present" (Coeur d'Alene 2002a). The Nimíipuu narrator states, "In the act of re-telling these ancient accounts, and especially when told in the Nimíipuu language, the listeners are made participants of the unfolding events" (Nez Perce Tribe 2001d). Cliff SiJohn says to the viewer, "it is time for you to listen, sit back, prepare yourself, for you are going to take a walk with the Coeur d'Alene Indian people through the real world of the Indian people" (Coeur d'Alene 2002a). Clearly the tribal spokespeople were idealistic about the transference of empathy, identification, and participation via the internet. If the internet can coax visitors to re-witness the "creation time . . . through the real world of the Indian people" what can the internet do to bring the viewer to the specific places and times so important in Columbia Plateau oral traditions?

The Schitsu'umsh explain the relationship between stories and actual landscapes: "the accounts of Coyote and all the meanings and significances, all the teachings, are thus embedded in the river beds and mountain ridges" (Coeur d'Alene Tribe 2002e). Native American history is not a portable paper book that can be read or experienced anywhere. Columbia Plateau Native American histories consist of inter-personal engagements with landscapes mediated by story. Tribal histories are told in specific places and times and utilize particular environmental elements to enhance the transmission and retention of cultural information. If it is true that culturally significant physical landscapes perform an indispensable communicative function, it would be safe to assume that internet modules fail in some way to facilitate the crucial conditions under which cultural information is transmitted.

The concept of place constitutes the primary difference between the tribal and the digital actual and virtual histories. The internet may oppose the topocentrism of traditional performance. The internet has no allegiance to certain places or times; the same content can be viewed anywhere in the world at all hours. Where available through internet cafes or private networks, the internet is everywhere and nowhere. Sophisticated technologies, network access, and technical skills are required to access the internet. When these elements converge, the internet is a portal to see and hear information that would be displaced from a traditional viewpoint. On the Columbia Plateau, sacred space and time emerge from the careful mix of sophisticated body and speech technologies, producing "portals to the sacred" (Walker 1991). The raconteur is the internet connection, as it were, to a story told without the necessary ecological context.

Can these modules, as the narrators say, provide the transportational infrastructure necessary for tribal storytelling? This problem of sacred place in the internet can be triangulated through an alternative reading of Schitsu'umsh time and spatiality. The Schitsu'umsh narrator states, "the way the Schitsu'umsh relate to "'time' and 'space' and 'causation' differs considerably" (Coeur d'Alene 2002b). Native American autobiographical narratives focus on a "communal or relational identity and tend to be cyclical rather than lineal" (Vizenor 1994:100). The distracted experience of using the internet: reading, then viewing video, then backtracking, reading again, and then going in another direction, etc., creates an experience where time, space, and causation are convoluted and inverted. Web links afford opportunities to transcend the rigid order of place and time. Circular phenomenologies of time are available in internet journeys and by traditional Columbia Plateau peoples. The multimedia and hypertextuality of the internet creates an environment in which tribal historiographies can adapt to the changing communicative modalities of today and in the future. Essentially, "mythology is passing from a ritual act . . . —from a mythology traveled, within oneself and one's world, to a mythology viewed, in speech on the page" (Frey and Hymes 1998:598).

Thus while it is not the same as being in physical proximity to an elder in a traditional location, the Schitsu'umsh believe that the module viewer travels, if they so choose, with elder Lawrence Aripa to the era when the First People were creating the canyons, waterfalls, outcrops, and mountains of the Columbia Plateau. The things that might be mentioned in the story—Beaver's tail, Raven's talons, and Bluejay's beak—are sacrosanct and remade in ritual performance and something transfers to the viewer. Native American storytellers and their audiences utilize, and in the ideal, overcome the gross boundaries of time, place, and convention. The amount of empathy needed to commune is large and is more immense as more layers of mediation distance the viewer from the raconteur but, it seems, with Web 1.0 technologies, these tribal members are hopeful.

Hypertext Cartographies

IDM might someday be one of the tools the Schitsu'umsh use to solve problems of linking stories to spaces. Using Geospatial Information Systems (GIS), the Schitsu'umsh create hypertext cartographies consisting of audio, video, and photographic data connected to interactive digital maps (Coeur d'Alene 2002c). As of 2005, the Kootenai-Salish, neighbors to the Schitsu'umsh, had a similar cartographic program (John Sirois, personal communication 2004). While working at the Colville Confederated Tribes (2003–2005), we were developing media production programs that were geospatially specific, but we did not fully integrate GIS software and video utilities. As of 2010, GPS enablement has become an integral component of most smart phones, encouraging in its users geographical awareness.

By hypertext cartography I refer to that interface that consists of a map with possible links to other materials. Hypertext cartographies appear interactive and three dimensional on the monitor. As the viewer clicks on a particular location on the map, information about a gathering place visited as a youth, for example, or a prehistoric harpooning station "drops down [with] up to three or four perspectives that might include a story told by an elder in both Coeur d'Alene and English, a history, as well as the site's videos and slides" (Coeur d'Alene Tribe 2002c).

Schitsu'umsh elder Felix Aripa, of a handful of speakers the most knowledgeable of Schitsu'umsh language, is optimistic about hypertext cartography and IDM. Linking indigenous language to sacred and gathering localities with digital technology fuses language and landscape, to the best of Web 1.0's technical abilities. In their endeavors in hypertext cartography, the Schitsu'umsh have gathered 35 hours of video, 30 hours of audio, and 1500 photographs from fieldwork at 130 traditional cultural properties (TCPs). Other tribal bodies, particularly the Yakama and Colville, have now produced similarly sized databases. Partially because of the money earned in the course of contract work with the federal hydroelectric dam managers, these tribes have funded some of the most comprehensive IDM projects in Native American country.

This is a description of the most complex form of interactivity possible in indigenous hypertext cartography and a most sophisticated use of IDM in the service of tribalism in the Web 1.0 era. Certainly a "deep map" (McLucas 2004), this technology represents a place's presence on all fronts, personally and positively, accurately and detailed. IDM is an adjunct to attempts to challenge the hegemony of descriptive archaeological and TCP reporting. But it also creates its own dominant regime of use. In typical Web 1.0 fashion, the list of possible links are static and not augmentable by the online audience who cannot leave comments or add their own narratives of memory to the database. The audience is not a participant but an engaged listener, not a writer but a reader of this traditional information.

Web 2.0 and *One Heart for the People*

As discussed above, Web 1.0 sites agree with some aspects of traditional culture. To better understand the contradictions Web 1.0 sites pose to traditional histories and anthropological notions of culture, consider for a moment how Web 2.0 sites are created and the intent behind their creation. Web 2.0 sites (2005–today) are socially as opposed to institutionally created, and capable of displaying multimedia. One Web 2.0 site, *One Heart for the People*, a Colville tribal social media site, is described as such:

> "One Heart for the People is a social network of enrolled members of the Colville Confederated Tribes, friends, and extended family. All are welcome here on this digital reservation. We are a forum designed for positive change, dedicated to the protection of our children, elders . . . and our sovereignty" (Colville Confederated Tribes n.d.).

Issues discussed above such as ethnopoetics, performance, storyscapes, and sacred time are not explicitly discussed on *One Heart*. The goal of this article is not to compare how these traditional notions are represented in two different eras of internet authorship. These Web 2.0 sites offer less an official history and more a real-time reflection of culture in process and dialogue. With the exception of the software platform itself, the Web 2.0 is made entirely by indigenous people. It is not content filtered through tribal business councils or anthropologists. On *One Heart*, the content emerges from volunteered and digitalized tribal social life. The site was created for different reasons and with different technologies, but a brief analysis of *One Heart* opens up a discussion of what Web 1.0 sites lack for future iterations of IDM.

One Heart began in December 2007 in the Web 2.0 model. It is an interactive social media site networking together tribal individuals. Tribal members can upload blogs, write in forums, start groups, leave comments, post videos and photographs. People can 'friend' and 'follow' each others' activities online. Tribal members use the site to reconnect with off-reservation friends, stay connected with local family, argue politics and environmental policy, sell things, plan events, and much more. In these capacities, *One Heart* is a social networking site like Facebook, which began roughly at the same time.

One Heart is on the Ning platform, a social media template for networking together a community. Anyone can start a Ning network by simply registering on the ning.com and encouraging people to create profiles on the specifically themed Ning group. Every Ning network includes the capacity to create the overall site design, unique member profiles, community invitations, activity feeds, RSS feeds, photos and video, chat functions, groups, forums, blogs, event posts, and mobile Ning applications. The network originator has specific rights such as the capacity to moderate discussion, set privacy functions, and access analytical data. By mid-2009, there were over one million Ning networks. Ning was invented by Marc Andreessen the inventor of the first web graphic web-browser, Mosaic (later Netscape Navigator). Andreessen is an advocate of free and open source software and social media and advises or invests in the major social networking sites driving the Web 2.0 world: Twitter, Ebay, Digg, and Facebook.

As of the start of 2010, *One Heart* had 1440 members out of approximately 8700 Colville tribal members and descendents. If all 1440 members of *One Heart* are members and descendents, then the social site represents a significant 16% of the Colville population. The sites founder Ben Alex Dupris says it is for everyone (McNeel 2008) but it is strongly geared towards Colville tribal members. Non-tribal members can work around this register by showing some knowledge of the 12 bands of the

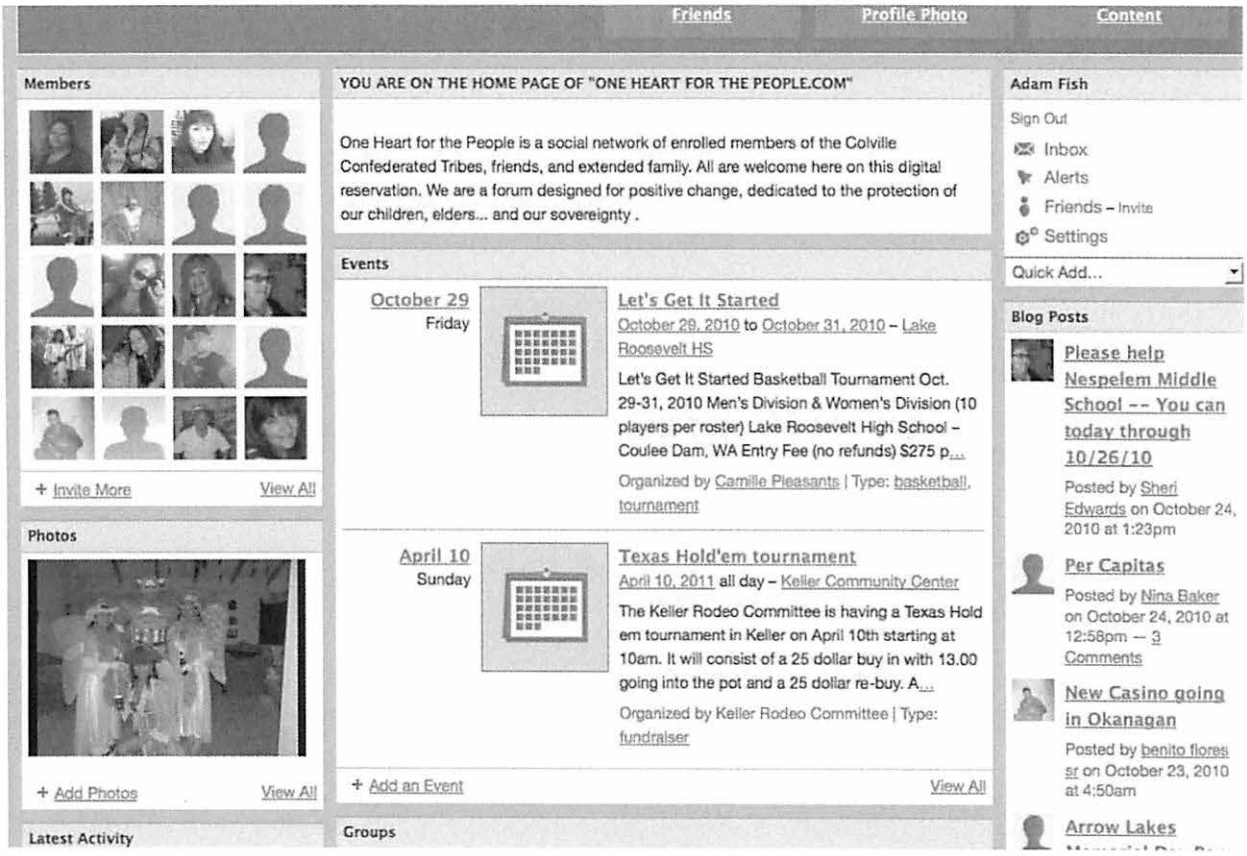

Fig. 2. Opening page of *One Heart for the People* website (Colville Confederated Tribes n.d.).

Colville Tribe. When one registers, the only required questions are your full name, your Colville tribal band affiliation, and information about yourself. The screening question is to name one of the bands of the Colville Tribe. Thus, with tribal membership or tribal knowledge of the bands, one can join the network.

Dupris said, "The idea was freedom of the press and transparency of government and accountability, all the issues the general membership is concerned about when it comes to tribal politics, language preservation and community" (McNeel 2008). According to Dupris, extant tribal resources and political structures were not achieving tribal transparency. He said one goal was to encourage political discussion. "It's very important to have that dialogue, and allow people to say what they have to say, instead of waiting for a district meeting, once every four months. You have instant feedback. It expedites the process of political discussion" (Mehaffey 2008). According to Dupris, Web 2.0 systems need to be used to achieve a dialogic environment. In contrast to other top-down systems of post-colonial development, Dupris devised *One Heart* to tap both a need and an internal capacity, "It's not just the young hotshot kids who know about technology, but it's also the councilmen, our elders, people who say they've felt disconnected from the tribe for years" (McNeel 2008). With Dupris's stated focus on impacting tribal politics, it is important to look closer at that arena.

One Heart is not an operation officially sanctioned by the business council of the Colville Confederated Tribes, which attempted to shut down use of the site on tribal government servers, according to Dupris. The Colville Confederated Tribes has media producing capacity within the History and Archaeology (H/A) Program, where I once worked. In order to understand the possibilities and threats posed by IDM Web 2.0 sites such as *One Heart*, contrast the proprietary strategy for the production of passive viewing tribal 'cinema' versus the non-proprietary and dynamic Web 2.0 environment of *One Heart*. At the H/A Program, we produced several films about lost fishing grounds. Each of these films was for internal or promotional use, was not uploaded to the public internet, given to schools, or shown at film festivals. Instead, they were kept in private and in password protected databases that only the head of H/A could access.

The Colville Confederated Tribes H/A department has invested in digital video production since 2003. In 2005, I was hired by the Colville Confederated Tribes H/A and saw the production of several videos funded by the U.S. Army Corps of Engineers about TCPs in the area of river wide dams. These videos were shown in acts of advocacy for their historical causes and to provide to the federal government evidence about how the tribe was spending its money. The Colville Confederated Tribes, as a tribal government, is very private and proprietary about their cultural property and representation. So as not to disturb the rights to privacy of its traditional customs, history, and pictures, the Colville Confederated Tribes government restricts access to these videos and their source materials. Thus, while in-house proprietary video production is supported by the tribal government and privately held, a relatively open social media site like *One Heart* did not find support. On the one hand, the uncontrollability of Web 2.0 social production challenges the proprietary culture of indigenous sovereignty. On the other hand, tribal groups using platforms such as Ning, like *One Heart*, may escape tribal government's oversight but in the process become dependent upon the platforms of profit-driven digital media firms.

Scholarship on Web 2.0 has been less than critical of Web 2.0 and tends to celebrate these tools, the corporations that make them, and what they provide to publics. Benkler (2006) argues that this is the advent of a new economics of collaborative and beneficial "peer production." Kelty (2008) suggests this is the rise of "recursive publics" or technologically mediated public spheres. Jenkins (2006) claims that this online "participatory culture" is transforming the consumer into a producer. Howe (2008) elaborates on the term "crowdsourcing" to explain how anonymous publics are working together to complete large-scale projects. Shirky (2008) explains that loose aggregates of participants constitute production cultures capable of transforming industries. The technologies of Web 2.0 increase virtual connectivity and democratize cultural production for the user, but Web 2.0 platforms such as Ning, on which *One Heart* exists, is owned and operated by a group of Silicon Valley elites who have the capacity to shut it down or change the terms of service at their discretion. Thus tribal groups using such systems are at the whim of individuals without explicit concern for Native American identity. While the Web 1.0 sites give official tribal historians more control over representation, Web 1.0 also has a tendency to represent culture as statically frozen in time.

Conclusion: Web 2.0 versus Official Tribal Histories

Prims accurately frames the tensions between the idealism and actuality of Web 1.0 tribal representation when he says:

> The current relief from visual imperialism afforded to indigenous peoples by the web may be phantasmagoric, and the "virtual performative" alone will not overturn their subaltern positions in the political arena (Prims 2002:72).

The Web 1.0 tribal modules show how narrative histories vie with dominant historiographies (Bakhtin 1981) and use extant communication systems to undermine non-tribal forms of representation and content. Tribes are long experienced in resisting the control of their cultural images and likely see the internet as an open space in which to grow and affirm their tribalism. The post-textual tribalist methodology is to

> undermine and surmount, with imagination and the performance of new stories, the manifest manners of scriptural simulations and "authentic" representations of the tribes in the literature of dominance (Visenor 1994:17).

Prims's taunt (2002) is noteworthy. The IDM approach will not "overturn" the marginalization of Native Americans but, like the advent of tribal newspapers, radio, television, and film, it is a crucial advancement of tribal media sovereignty. The IDM modules attempt to claim ownership over indigenous representation and thereby "undermine" false "authenticity" by presenting tribally governed public histories. The value of media sovereignty increases as social engagement becomes more informational. The challenge for tribes engaging with public IDM projects is to use the emergent technologies to overcome the tendency towards representation of a frozen digital 'ethnographic present.' Culture is in process and history is in motion. Tribes are not stuck in a timeless order. The Web 1.0 pages I have discussed above, however, are now dated and have not been updated since 2005. The modules were designed to be regularly updated by the tribal administrators but not by the user. Tribal concerns over representation and the difficulty of achieving consensus with tribal business councils encourages tribes to produce an "official" version of their history. Web 2.0 systems, on the other hand, pose new possibilities and challenges to tribal historiography. Web 2.0 forms of site interactivity and mutability threaten formal official history while modeling the accurately dynamic and processual nature of culture as unfolding throughout time and in social dialogue.

Web 1.0 and Web 2.0 refer to distinct eras and practices of Internet technology. Web 1.0 technology is not solely relegated to a period (1994–2004) that was replaced by Web 2.0 technologies (2005–today). Rather, they are tools with distinct possibilities as well as dangers. Web 2.0 includes and adds upon Web 1.0 technologies. For a particular purpose, by a particular segment of the Tribe, for a particular audience, these Columbia Plateau people used these Web 1.0 tools. The Colville Confederated Tribes, also a Columbia Plateau tribe, for a particular purpose, by a particular segment of the Tribe, for a particular type of contributor, used the Web 2.0 tools. Both types of technology and their accompanying applications in the Lifelong Learning modules and *One Heart* projects have different functions and purposes. The different applications of the technologies show how cultural concerns mediate technological deployments. The examples show the different ways differing segments of these communities communicate and share information, in their own terms, for different goals.

The Lifelong Learning modules were designed and function to help provide Tribally-endorsed and elder approved information for educational purposes on a full range of topics to the general, non-Indian population. This is why they needed cultural property rights agreements and extensive content review by the Tribal elders and cultural committees. This is why they focused on Lewis and Clark and "setting the record straight" by providing a Native perspective on sovereignty, governance, health, economic development, natural resources, etc. This is why they included curriculum and teaching

modules to effectively use this material in a classroom setting. In this process they anchored the projects in the history, culture, and sovereignty programs of the tribes through tribally sanctioned processes. For the reasons that Web 1.0 provides a way of formally framing traditional views, the tribes would likely still rely upon Web 1.0 technology as the primary means of framing and disseminating this type of information and cultural sensitive material.

With their Web 1.0 modules Shitsu'umsh were extremely proprietary about representations of their cultural heritage. The internet poses new challenges for indigenous intellectual property rights. Information can be distributed, reinterpreted, and exploited out of context on the internet. The Schitsu'umsh drafted an intellectual property rights agreement giving them complete control over the module, its direction, and existence, now and into the future (Coeur d'Alene 2002g). It is technically impossible to copy either text or pictures from the module. The production of IDM, in consortium with elders and new media producers, while working under comprehensive intellectual property rights agreements, strikes a balance for indigenous people who claim a place in the dot-commons. The modules claim and defend indigenous identities in cyberspace while freezing that identity in a specific technological and political history.

Consider for a moment the Columbia Plateau colonial historiography. For over a century, Anglo-American anthropologists, archaeologists, and historians have mediated Columbia Plateau Native American cultural content with direct funding from the U.S. federal government (Fish 2005). This work, usually salvage archaeology and salvage ethnography, done to standards of the day, have profound political implications today, as witnessed by the power of the Indians Claims Commission, by setting restrictive trends in methodology, content, form, temporal depth, and geospatial breadth. Traditional people are offended by the publicizing of incorrect, sacred, and private content in these technical reports, interpretive ethnographies, and romanticized films. Bureaucratic, militaristic, legal, and scientific historiography informed Native American archaeology through the 19th and 20th centuries (Kehoe 1998, Patterson 1995). On the Columbia Plateau in the 20th century, from 1933–1975, 'science' excavated village and burial grounds before the floods of reservoirs from electricity producing dams seriously disturbed tribal subsistence and identity (Anonymous circa 1939; Collier, Hudson, and Ford 1942; Crane 2002; Dickson 1998; Fielder 1979; Fryxell and Keel 1969; Hicks 2004; Krieger 1927; Nez Perce Tribe 1998; Perry 1939; Robert 1948; Sprague and Birkby 1970).

Considering the colonial tenor of this historiography such projects of self-determined representation are certainly improvements. And yet, the ease of becoming an internet author will make control over official tribal histories difficult. The Web 1.0 sites originated out of elders' desires to tell their stories correctly. The tribal government approved the content and the format and the modules were released. On Web 2.0 platforms a greater diversity of opinions from a tribal perspective can be distributed. While more individuals can express themselves, the tribe loses control over some of its collective authorial power. Increasing interactivity in the Web 2.0 era may contribute to greater freedom of expression for tribal members, but also increases the threat of "unofficial" tribal information escaping the control of tribal governments.

ACKNOWLEDGEMENTS

The author must thank Ian Harris, Sven Ouzman, Stanley Krippner, Rodney Frey, and Bradley Garrett for their edits and contributions. Michael Shanks supplied a reference.

ENDNOTES

[1] This text represents only the interpretations and observations of its author. This article has not been reviewed or endorsed by any of the exampled tribes.

[2] The Schitsu'umsh are politically and legally known as the Coeur d'Alene Tribe.

[3] In 2011 individuals are no longer updating the Lifelong Learning sites. These are static web sites, not because of neglect but because of a technical problem. It was clearly understood by all, expressed in the design of the modules and in the Cultural Property Rights agreements, that the modules would be continually updated. The consulting anthropologist would travel to the reservations and videotaping interviews with tribal, edit the films, and upload them as new streams in the modules. That would have continued after 2005 and into today, but unfortunately the University of Idaho server housing all the Lifelong Learning modules was corrupted by a virus. All Schitsu'umsh, Nimíipuu and Warm Springs module pages were only retrieved after a year-long technical process that resulted in "static" copy of the original modules. Today, February 3, 2011, they are not viewable on the internet at all. So with the Web 1.0 technology and the design of the modules and with the Agreements, the modules would be ideally updateable and dynamic--though not in the same way as Web 2.0 websites.

[4] In 2011 individuals are no longer updating the Lifelong Learning sites. These are static web sites, not because of neglect but because of a technical problem. It was clearly understood by all, expressed in the design of the modules and in the Cultural Property Rights agreements, that the modules would be continually updated. The consulting anthropologist would travel to the reservations and videotaping interviews with tribal, edit the films, and upload them as new streams in the modules. That would have continued after 2005 and into today, but unfortunately the University of Idaho server housing all the Lifelong Learning modules was corrupted by a virus. All Schitsu'umsh, Nimíipuu and Warm Springs module pages were only retrieved after a year-long technical process that resulted in "static" copy of the original modules. Today, February 3, 2011, they are not viewable on the internet at all. So with the Web 1.0 technology and the design of the modules and with the Agreements, the modules would be ideally updateable and dynamic--though not in the same way as Web 2.0 websites.

[5] Technicalities are considered from the viewer's perspective. In the ten videos depicting powwow dancing, the slower 28k connection is not offered so as not to distort the dancing, instead a 512k connection is offered so the viewer can acquire a more accurate experience (Nez Perce Tribe of Idaho 2001e).

[6] With the ease of a click, it is possible to hear the pronunciation of major consonants, vowels, and phrases. With the advent of broadband across the Coeur d'Alene reservation this will give, to anyone interested, access to traditional language instruction. Schitsu'umsh living off the Reservation can access the website, hear the native language and the traditional teachings. For the advanced student there exist ample possibilities to practice with Felix Aripa as he talks in Schitsu'umsh about Coyote and his friends. On a video clip on the Nimíipuu module, Horace Axtell, in Nimíipuutimptneewit, the Nez Perce Sahaptian dialect, tells of an account of the origin of Hells Canyon and Seven Devils mountains in the Snake River of Idaho (Nez Perce Tribe 2001).

REFERENCES CITED

Ames, Kenneth M.
1985 Hierarchies, Stress and Logistical Strategies among Hunter-Gatherers in Northwestern North America. In *Prehistoric Hunter-gatherers: The Emergence of Cultural Complexity*, T. D. Price and J. D. Brown, editors. Academic Press, New York, NY

Anonymous
1939 *Rising Waters Will Ruin Cemeteries—Columbia River Areas to be Submerged Are Being Cleared and New Sites are Located.* Newspaper clipping on file at the Spokane Public Library, Northwest Room, Spokane, WA.

Bakhtin, M. M.
1981 *The Dialogic Imagination: Four Essays by Mikhail Bakhtin*, Michael Holoquist, editor. University of Texas Press, Austin.

Benkler, Y.
2006 The *Wealth of Networks: How Social Production Transforms Markets and Freedom.* Yale University Press, New Haven, CT.

Bense, Judith A.
1972 *The Cascade Phase: A Study in the Effect of the Altithermal on a Cultural System.* Doctoral dissertation, Washington State University, Pullman. University Microfilms International, Ann Arbor, MI.

Boellstorff, Tom
2008 *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human.* Princeton University Press, Princeton, NJ.

Butler, B. Robert
1965 The Structure and Function of the Old Cordilleran Culture Concept. *American Anthropologist*, 67(5):1120–1131.

Carey, Frank
1948 'Pick and Shovel Brigade' Digs into Basin Areas and U.S. Past. *Wenatchee Daily World* 30 September 1948. Wenatchee, WA.

Chatters, James C.
1989 Resource Intensification and Sedentism on the Southern Plateau. *Archaeology in Washington*, 1:3–19.

Coeur d'Alene Tribe
2002a Approaching the Oral Traditions: Preparations. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=50&ObjectID=172, accessed on 12 November 2004.

2002b Approaching this Module: Pedagogy. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=50&ObjectID=719, accessed on 4 November 2004.

2002c Cultural Preservation: GIS Names-Place Project. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=50&ObjectID=784, accessed on 25 October 2004.

2002d Cultural Preservation: Language Program. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=50&ObjectID=760, accessed on 15 November 2004.

2002e Heart Knowledge: Listening to the Ancestors. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=50&ObjectID=592, accessed on 25 October 2004.

2002f Setting the Stage: Acknowledgements and Review Process. Electronic document http://www.l3-lewisandclark.com/ShowOneObject.asp?SiteID=50&ObjectID=714, accessed on 15 November 2004.

2002g Setting the Stage: Cultural Property Rights Agreement. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=50&ObjectID=712, accessed on 11 November 2004.

2002h Welcome to Schitsu'umsh Country. Electronic document http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=50&ObjectID=713&ExpeditionID=, accessed on 14 November 2004.

Collier, Donald, Alfred E. Hudson, and Arlo Ford
1942 Archaeology of the Upper Columbia Region. *University of Washington Publications in Anthropology*, 9(1). Seattle.

Confederated Salish and Kootenai Tribes
2004 Available Publications. Electronic document, http://www.cskt.org/hc/salish-publications.html, accessed on 7 December 2004.

Colville Confederated Tribes
n.d. *One Heart for the People*. Electronic document, www.oneheartforthepeople.com, accessed October 24, 2010.

2004 Thirty Years of Cultural Resources Management with the Confederated Colville Tribes with Camille Pleasants, Tilley George, Barbara Aripa, Mary Marchand, Adam Fish, Guy Moura, Consuelo Johnston, Sean Hess, Elizabeth Ezell, and Donald Shannon. Symposia presented at Honoring the Heritage of the Plateau Peoples: Past, Present, & Future, Washington State University, Pullman, WA. 29–30 September.

Confederated Tribes of the Umatilla Reservation
2003 The Umatilla, Walla Walla, & Cayuse. http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=33&ObjectID=363&ExpeditionID, accessed on 12 November 2004.

Crane, Jeff
2002 Protesting Monuments to Progress: A Comparative Study of Protests against Four Dams, 1838–1955. *Oregon Historical Quarterly*, 103(3):295–219.

Cruikshank, Julie
2002 Oral History, Narrative Strategies, and Native American Historiography: Perspectives from the Yukon Territory, Canada. In *Clearing a Path: Theorizing the Past in Native American Studies*, Nancy Shoemaker, editor. Routledge Press, London, England.

Dickson, Catherine

1998 Cultural Resource Protection Associated with Lower Snake Drawdown. Confederated Tribes of the Umatilla Indian Reservation. Document submitted to the Columbia River Inter-Tribal Fish Commission, Portland, OR.

Fielder, George F., Jr.

1979 Palus Material Technology: A Technical Analysis of the Palus Burial Assemblage from 45FR36B. Master's thesis, University of Idaho, Moscow.

Fish, Adam

2005 History of Anthropological and Archaeological Research on the Southern Plateau. In *Social Archaeologies, Ethnographies, and Histories of the Lower Snake River: Cultural Overviews of the Lower Monumental Reservoir*. Prepared by the History/Archaeology Program, Confederated Colville Tribes for the Walla Walla Corps of Engineers, Walla Walla District, Walla Walla, WA.

Frey, Rodney

2001 Digitized Coyote's Landscape: Traversing American Indian Internet Epistemologies. Paper presented at the Annual Meeting of the Northwest Anthropological Conference, Moscow, Idaho, 22 March 2001.

Frey, Rodney, and Dell Hymes

1998 Mythology. In *Plateau*, Deward. E. Walker, Jr., editor, pp. 584–599. Handbook of North American Indians, 12, Smithsonian Institution, Washington, DC.

Fryxell, R., and B. Keel

1969 Emergency Salvage Excavations for the Recovery of Early Human Remains and Related Scientific Material from the Marmes Rockshelter Archaeological Site, Southeastern Washington, May 3–December 15, 1968. Laboratory of Anthropology, Washington State University, Pullman.

Gould, J.

2004 Opinion and Order for Robson Bonnichsen et al. v. United States of America et al.

Ginsberg, Faye D.

2002 Screen Memories: Resignifying the Traditional in Indigenous Claims. In *Media Worlds: Anthropology on New Terrain*, Faye D. Ginsberg, Lila Abu-Lughod, and Brian Larkin, editors. University of California Press, Berkeley.

Ginsberg, Faye D., Lila Abu-Lughod, and Brian Larkin

2002 Introduction. In *Media Worlds: Anthropology on New Terrain*, Faye D. Ginsberg, Lila Abu-Lughod, and Brian Larkin, ediors. University of California Press, Berkeley.

Haraway, Donna J.

1991 Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. In *Simians, Cyborgs and Women: the Reinvention of Nature*, Donna J. Haraway, editor, pp. 183–201. Routledge, London.

1997 Space and Time. In *Modest_Witness@Second_Millenium.FemaleMan_Meets_OncoMouse: Feminism and Technoscience*, Donna J. Haraway, editor, pp. 11–14. Routledge, NY.

Howe, Craig
2003 Keep Your Thoughts Above the Trees: Ideas on Developing and Presenting Tribal Histories. In *Clearing a Path: Theorizing the Past in Native American Studies*, Nancy Shoemaker, editor. Routledge Press, London.

Howe, Jeff
2008 *Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business.* Random House, NY.

Hicks, Brent (editor)
2004 *Marmes Rockshelter: A Final Report on 11,000 Years of Cultural Use.* Washington State University Press, Pullman.

Jelderks, J.
2002 Opinion and Order for Robson Bonnichsen et al. v. United States of America et al. Civil No. 96-1481-JE.

Jenkins, Henry
2006 *Convergence Culture: Where Old and New Media Collide.* NYU Press, New York, NY.

Kehoe, Alice
1998 *The Land of Prehistory: A Critical History of North American Archaeology.* Routledge, NY.

Kelty, Christopher M.
2008 *Two Bits: the Cultural Significance of Free Software.* Duke University Press, Durham, NC.

Krieger, Herbert W.
1927 Archeological Excavations in the Columbia River Valley. *Smithsonian Institution Miscellaneous Collections*, 78(7):187–200.

Latour, Bruno
1993 *We Have Never Been Modern.* Harvester Wheatsheaf, London.

Mafeje, Archie
1971 The Ideology of Tribalism. *The Journal of Modern African Studies*, 9(2):253–61.

McLucas, Cliff
2004 Traumwerk, Michael Shanks: Deep Mapping. Electronic document, http://metamedia.stanford.edu/~mshanks/projects/deep-mapping.html, accessed 7 December 2004.

McNickle, D'Arcy
1973 *Native American Tribalism.* Oxford University Press, London, England.

Morris, Rosalind C.
1994 *New World from Fragments: Film, Ethnography, and the Representation of Northwest Coast Cultures.* Westview Press, Boulder, CO

Nez Perce Tribe
1998 Cultural Resource Protection for Dam Removal or Breaching on the Lower Snake River. Prepared by Nez Perce Tribe, Cultural Resource Program. For the Columbia River Inter-Tribal Fish Commission, Portland, OR.

2001a Cultural Resource Program. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=34&ObjectID=89, accessed on 11 November 2004.

2001b Geography. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=34&ObjectID=152&ExpeditionID, accessed on 4 November 2004.

2001c Language Program and Some Lessons. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=34&ObjectID=87, accessed on 8 November 2004.

2001d Oral traditions along the Clearwater and Snake Rivers. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=34&ObjectID=93, accessed on 8 November 2004.

2001e To Sing and Dance in the Present. Electronic document, http://l3.ed.uidaho.edu/ShowOneObject.asp?SiteID=34&ObjectID=306, accessed on 5 November 2004.

2003 Understanding the Present, Honoring the Past. *Proceedings of the 32nd Annual Charcoal Conference*, Trevor Peck, Evilly Siegfried, and Gerald A. Oetelaar, editors. Archaeological Association of the University of Calgary. Canada.

2004 A Necessary Tension: Integrating Processual, Postprocessual, and Other Approaches to the Past. In *Indigenous Peoples and Archaeology*, T. Peck and E. Siefried and G. Oetelaar, editors, pp. 114–129. University of Calgary Archaeological Association, Calgary.

Patterson, Thomas
1995 *Toward a Social History of Archaeology in the United States*. Harcourt Brace College Publishers, New York.

Pearson, Mike, and Michael Shanks
2001 *Theatre/Archaeology*. Routledge, London.

Perry, Jay
1939 Notes on the Type of Indian Burial Found in the Mid-Columbia River District of Central Washington. *New Mexico Anthropologist*, 3(5): 80–82.

Pitzer, Paul C.
1994 *Grand Coulee Harnessing a Dream*. Washington State University Press, Pullman, WA.

Phinney, Archie
1934 Nez Perce Texts. *Columbia University Contributions to Anthropology*, 25. New York. [Reprinted: AMS Press, New York, 1969].

Prims, Harald E. L.
2002 Visual Media and the Primitivist Perplex: Colonial Fantasies, Indigenous Imagination, and Advocacy in North American. In *Media Worlds: Anthropology on New Terrain*, Faye D. Ginsberg, Lila Abu-Lughod, and Brian Larkin,editors. University of California Press, Berkeley.

Reid, Kenneth C.
1991a Late Holocene Environmental and Cultural Change along the Lower Snake River. In *Prehistory and Paleoenvironments at Pittsburg Landing: Data Recovery and Test Excavations at Six Sites in the Hells Canyon Recreation Area, West Central Idaho*, Vol. I, K.C. Reid, editor, pp.12–53. Project Report No. 15, Center for Northwest Anthropology, Washington State University, Pullman.

1991b An Overview of Cultural Resources in the Snake River Basin: Prehistory and Paleoenvironments. Project Report No. 13. *Center for Northwest Anthropology Project Report*, No. 13. Washington State University, Pullman.

Roberts, Frank
1948 A Crisis in U.S. Archaeology. *Scientific American*, 179(6):12–17.

Sappington, Robert Lee
1994 The Prehistory of the Clearwater River Region, North Central Idaho. *University of Anthropological Reports*, No. 95. Alfred W. Bowers Laboratory of Anthropology, University of Idaho, Moscow.

Shirky, Clay
2008 *Here Comes Everybody: The Power of Organizing Without Organization*. Penguin Press, London, England.

Sirois, John
2004 Personal Communication. 14 August 2004. Brewster, WA.

Smith, Linda
2001 *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books, London, England.

Southall, Aidan
1970 The Illusion of Tribe. In *The Passing of Tribal Man in Africa*, Peter Gutkin, editor, pp. 28–51. Brill, Leiden, Netherlands.

Sprague, Roderick, and Walter H. Birkby
1970 Miscellaneous Columbia Plateau Burials. *Tebiwa*, 13(1):1–32.

Swanson, Earl H. Jr.
1962 The Emergence of Plateau Culture. *Occasional Papers of the Idaho State University Museum*, No. 8, Pocatello.

Tedlock, Dennis
n.d. Ubuweb Ethnopoetics: Discourse. Electronic document, http://www.ubu.com/ethno/discourses/tedlock_ethno.html, accessed on 24 October 2010.

Visenor, Gerald
1994 *Manifest Manners: Narrative on Postindian Survivance*. University of Nebraska Press, Lincoln.

Walker, Deward E., Jr.
1991 Protection of American Indian Sacred Geography. In *Handbook of American Indian Religious Freedom*, Christopher Vecsey, editor, pp. 100–115. Crossroad Publishing Company, New York, NY.

Adam Fish
25005 Glen Ivy Rd
Corona, CA 92883

rawbird@gmail.com

Journal of Northwest Anthropology, 45(1):111-122 2011

THE BOLDT DECISION: A ROUNDTABLE DISCUSSION

Vine Deloria, Jr., Billy Frank, Vernon Lane, Dick Poole, Al Ziontz

ABSTRACT

In July 2005, a roundtable discussion on the Boldt Decision took place at the Robert K. Thomas Symposium held at Northwest Indian College, Lummi Indian Reservation. In 1974, Judge George Boldt issued a decision that affirmed the right of Indian tribes in Washington State to continue to harvest salmon (*United States v. Washington*, 384 F. Supp. 312). The discussion occurred among five men who were directly involved in the events leading up to and following the decision. The transcript is presented here to make it available to a wide audience.

Billy Frank—Northwest Indian Fish Commission

Thank you Darrell and thank you Northwest College for inviting us all up and getting us all here. I see a lot of our friends here and it is really good to be here. I want to first say about the Lummi Tribe, I have been part of the Lummi Tribe thanks to all of Lummi Tribal people and the culture that has grown right here and taught right here on this reservation. Russell Jim here from Yakama remembers the World's Fair in 1964 in Seattle. This was the Fair that came to Seattle and Indians would have to take part in them days and the Lummi people stepped up to the plate at that particular time and brought their culture and their carving and everything there . . . and I remember that. I just thought that is just a great example of who we are . . . all of us . . . our Yakama's come over . . . all of our tribes . . . all of our country came up. The culture's still in place and we got to make damn sure it is going to be here . . . being an Indian is the most important thing on our agenda. Our culture and our way of life . . . I see our children now and I am proud of them. The younger people and whether the highest educational people are going to be doctors, we have got a basketball team that one Indian's going to be a doctor playing basketball, another Indian that is already lawyer playing basketball on our team. Remember our teams . . . we had the scrub teams and everything else. We all pulled together and played basketball. Now, look at our kids now, the younger generation and these kids . . . I look at them and the first thing I say, "You better know who you are; you better know how to translate that education, that higher education to where we are right here . . . in our backyards, how it is."

The Boldt decision is one of the greatest decisions that ever happened for us . . . Indian people. Sure, it is 50% but what it did for us throughout the world, not only for us 20 tribes that took part in it . . . our Yakama people, but for all of us on this side of the mountain and our Yakama people on the other side and for the world they took that example of that Boldt decision and they practice it throughout Australia-New Zealand, wherever the Aboriginal people are on the islands out there. They want to bring that forward . . . about who they are and their culture and their way of life. You heard the example of our people testifying in the Boldt decision . . . boy there was some good stories and some great stories about who we were and Judge Boldt listened to that. He listened to our people. He listened to the stories. He listened to our

grandmas, our grandpas, our uncles, our aunts, our cousins . . . he listened to all of them and he wrote it down very carefully and that was the decision that was made in 1974 . . . February . . . standing room only. The . . . people were in there so thick, they would not let us in. We had to fight our way into our own courtroom. When that decision was made, they could not believe that the Judge, conservative Judge, would make a decision like that . . . for us. He listened to our people and there are so many legal principles come out of that decision . . . legal principles who come out of that decision that we carried on. We carry them, when you got a decision that comes out, if it is negative or positive, take it and advance it in our country.

There was a decision yesterday that just was handed down against the Skokomish tribe in Federal Court, and they were fighting Point no Point and the Skokomish people down at the end of the line down there and they lost that decision, but that is yesterday. We cannot go in front of these courts and argue between us, our fighting each other. They will take away, they will take our bread away and they are doing it right as we speak. We got the Makah people, we are going to whale. The Makah people are going to whale, we are not going to not whale, that is in our treaty, that is in our Makah treaty and we are going to whale. When they get ready they are going to whale and we are going to be there for them and with them . . . us tribes . . . all of us tribes . . . throughout all of our country plus the people . . . the neighbors that on our side . . . the people that support us out there and there is a lot of them. We are going to do what we have got to do. These people are not going to close us down, yeah, we got endangered species on the list and they are threatening us right now to close us down. You will not have a harvest, you Indians on the Columbia River, on the Snake River, and throughout our Puget Sound, you will not have a harvest. Not unless you put a plan together and then we got to agree with the plan, the National Marine Fisheries. We are going to fish. We do not give a damn about your plan, we are going to fish. We got ceremony and subsistence fishery that we have to take. We have to can our fish, we have to put them up, we got smoke house, we are teaching our children how to care for that salmon and we are going to have to have that salmon right here. That is what we are telling them. We want them people to come out here to Lummi tribe, to this college and have a hearing . . . right here.

This is a hearing right here. Listen to our people . . . listen to us, listen to our children, talk about who we are and why we need funds for this college. Senator . . . always said, "We have to have our University or our colleges," well here we are . . . right here. We have it. We just do not have the funds to get to where the level we should be. But, it is growing. Look at this beautiful building we are sitting in right now. We used to be on the river banks in meetings like this, all of us. We never had warm places to meet. We got from there to where we are today. The Boldt decision gave us strength for number one, it gave us unity . . . all of us, it brought us together. Slade Gorton was an enemy. We have to have enemies, and we got a big one right now, he is the President of The United States . . . damn him. We need enemies, damn right we need enemies, we do not need to fight each other, but we need them guys . . . we got to have an enemy because we have got to target that guy. We have got to look right at him every day, we got to say, "We are stronger than that guy, we can overcome anything," and Axel right there, my friend from Nez Perce . . . my great friend just said they throw everything at us. You always hear they are throwing the kitchen sink at us, well they have thrown everything at us Indian people and we are still here. They have thrown everything at us but we are still here. We are going to be here.

Look at the strength that we have in our children, the strength that we have in our neighbors, the strength that we have in our teachers . . . all of the people that are forming this infrastructure of Indian tribes throughout the Northwest here and throughout our region, around to Northern California and down into California and the Klamath River and the Snake River and

the Columbia River, and clean up into Canada. Look at the strength we got . . . powerful strength in our Southwest people. We talk to each other, we have leadership meetings like Darrell's talking about. We have these gatherings between us and we talk to one another. And why we come together is because that is strength, that is to tell each other who we are and that we are still here, we are still here. I do not care whether you got grey hair, or black hair, or what . . . you are still here . . . look at Vine Deloria. He is walking and talking . . . Look at Al. God damn Al, I remember when he was flying an airplane up the Makah . . . this is a long time ago. . . his hair was not then, we used to fly the Makah all over and Vernon, my partner, he was there . . . right there. We had get gas money to go down that way or this way or whatever. Now you cannot even travel on the highway, if you got gas money. And the gas is too high anyhow.

I come up with Steve, my partner there and he has got a little eco-car, one of those little things. When we buzzed up here, we do not burn gas . . . electric car. Maybe we all need those . . . I do not know. We are talking about it right here. I am so glad to . . . talk about the eco-system and about what we have to change . . . we have to change everybody.

We are managers now, we are managers and we have a responsibility out of that Boldt decision. We are managers for the State of Washington; we are managers with the governor of the State of Washington. We have a responsibility to manage these watersheds, these bays, everything, all of our natural world out here . . . protect our animals out here and that is where we come from . . . always . . . us Indian tribes. We tell that story out there . . . we got a great story . . . we got a great story to tell and we tell it everyday . . . everyday of our life. Indian tribes are on every one of these watersheds, working 24 hours a day on every one of these watersheds . . . your Nooksack watershed, the Nisqually watershed, Clearwater up in our great Nez Perce country, our Yakima River, they are there and our tribes are there. The State of Washington . . . they are not there. The Federal Government . . . they are not there. Our tribes are there now, our tribes are there making sure that the data's taken and everything and the recovery is going on . . . whatever the recovery is in that watershed. These are very important things that we are doing throughout our country.

When Willie was a young man . . . you arer vice chairman now, they sent Willie to school. We sent one of my kids to school . . . same age as Willie . . . and we sent some kids from Nez Perce, we sent some kids from Warm Springs, from Yakama, we chose a whole bunch of our young people to go to the Universities and become biologists and the Boldt decision started and then they did.

So, I am in jail in Olympia, I wanted to be fishing. God damn, here is Billy Frank in jail and a trustee. They come and they knock on the window and they say "Hey Billy you got all your tribes out there laying in the drunk tank." I said, "Oh Jesus, now what?" You got to get up and get them corn flakes and you gotta give them toast and coffee and I looked in there and said these guys are all my young boys laying in this drunk tank, about 25 of them. That night they were at Evergreen Ballroom, just out of Lacey there at Olympia on old 99 . . . it used to be the only place in town that you could dance. They got into a big fight and they all . . . no white guys were there it was all Indians . . . they throw all our guys in jail. Well, I come in there with toast and I come in there with coffee and corn flakes and I got my white uniform on and they all looked at me "Uncle what are you doing here?" Yeah, we gotta get out of here.

This is an example of where we were going and where we are. All them boys are educated [now]. That was way back, they all went to college, they all went and got degrees at Universities and they still are here today . . . Darrell's one of them and all of our four kids . . . I am proud of them. And the people before us, you heard Vernon talk about people, our people that are gone. They painted the way for us. We are still following their tracks, we are still following where we are going and you hear "Where are we going?" We know where in the hell

we are going, they do not know where we are going and we are not telling them because if we tell them then they will know where in the hell we are going. We are underground and we run silent and we run deep. . . . "Where is them Indians at today . . . God damn it?" We are very effective at what we do, we talk as one. That is why The Northwest Indian Fish Commission was formed. We talk as one, Lummi, Makah's, Tulalip, Swinomish, Nisqually, . . . , and Quinault, all of our tribes . . . we talk as one. We go to Washington; we make our testimony as one.

That is why we are effective, that is exactly why we are effective because we talk as one, we do not talk one tribe or the other tribe, we talk as one when it comes to fishery management, natural resource management . . . that is how we talk. We support each other. Water is going to be our big fight, the biggest fight that we ever saw in our Northwest right here. People are moving in here by the train loads and water is going to be our battle right here on our reservation as well as throughout all of our land . . . this I-5 corridor is just chuck full of problems with water. They are still digging these big giant wells and municipalities and so on, throughout all of our country. We have got start stopping that. How are we going to stop it? We know how we will stop it, but we have got to make a decision together how we are going to treat that with water and the politics and everything in our economy . . . what we have going. We do not just jump into anything right now and start doing what we have to do to destroy our community. We have got to really think these things out about our communities and how our economy's going and how our education and all four children are going to be treated out there in that world out there. When we have opportunities we take advantage of them. We take advantage of that Boldt decision and you learned here today the Boldt decision will never be over. . . . It will never be over. The recovery of salmon will never be over. We have to be there pushing the handle all the time to make sure that we have the habitat out there . . . make sure that the trees are still there and they are being harvested.

We are Indian people . . . we do harvest everything . . . we gather our medicines, we harvest out here. The natural world knows, the bears know, the deer and the elk and everything knows, the eagles know that we need them. These are used in our ceremonies and our culture and our way of life. Our prayers . . . that we have the first fish ceremonies. Where is my partner? This other Lane back there, Freddy, Freddy just told me . . . he said, "Are you going to be here when the canoes get here, they are going to be here at 5 o'clock?" I said, "Freddy, I was here a couple years ago waiting for them same canoes," now Freddy said, "They are four miles out," and I said, "Exactly this time they said they were four miles out . . . 3 o'clock in the morning, we have got a fire on the beach, they are still not here. Right here at . . . they are here, though, they are coming." And our boys . . . I am so proud of them.

This come out of the Boldt decision, this all come out of the Boldt decision. We started our canoe journeys, we started our culture, we started our ceremonies, a lot of our tribes had them already, but all of us are involved in this and that is what makes us powerful. That is what makes us strong and we are strong, do not let anybody ever tell us we are not. I will tell them who we are. Slade Gorton's still out there. He just testified against the Mississippi Choctaws, they wanted a Ford garage . . . the Ford garage . . . however you get a Ford garage . . . you sell Ford cars . . . he testified . . . he did not want them Choctaws to be able to sell Ford garages because they would undercut the next Ford garage wherever it is at, so he is still out there fighting us. That is all right. We can fight that, we beat this guy. We can beat them guys, Choctaws beat them . . . they got a Ford garage now. They have got a franchise with Ford, whether it is good or whether it is bad. He can testify . . . come on . . . come on in here, you guys want to fight us we got to know who are enemies are. It is nothing to look out there and see who our enemies are and it is nothing to look out there and who are friends are, and we have them.

We have a lot of friends. That is what is going to make this country go back into the natural world. We have got to pull back . . . Darrell is always up there talking about, we have got to get our natural resources back in order and that means everything from our salmon to our geoducks, our clams, our oysters, our aqua programs . . . everything that we are doing in our communities and our education is one of the biggest, our health problems.

All of the problems that we have got . . . we have got everything like anybody else out there. We need medic one, we need hospitals, we need all of these things. We need doctors, we need lawyers, we need Indians, we need a lot of Indians to get up here and talk. We need them, we cannot shoot each other anymore because we do not have enough of us Indian people to get up and talk and take the message out there. I just thank you for inviting me up here and taking a little time with my partners and this guy right here, we do a lot of things together around the country in forums we talk about the stars, we talk about the bears, we talk about everything. Get Indians together, Axtell's one of them . . . always. We talk about story telling. So, thank you for inviting in . . . and Darrell, hang in there partner.

Wallace Heath – Lummi Aquaculture Project

Well, looking at the Boldt decision from another point of view . . . I look at it as a dose of reality. It is what us Indians have to do to fight for their treaty rights. You then look at your treaty and say, "I have several options" and they were given to me by the treaty and those included education. They included resources and they included a health benefit and all of those things are still viable. When we started the aquaculture project and fighting the state and fighting issues, the first word out of peoples' mouths usually was fish. You go to a meeting and you got served salmon, clams . . . oysters and so there was a lot of emphasis on natural products.

As time went on and we got more involved in the Boldt issue, we got factories built and all those things and they started meshing and we got people who are graduating. Then the Boldt decision came down and all of a sudden people said, "I am going fishing," and they did. A lot of people who had gone through the colleges literally stopped their education and relying on the fish that were in the water . . . the fish that were promised by the treaties. Pretty soon another dash of cold water comes down, and that dash of cold water was that they ran out of fish. Now, where are you?

The Boldt decision provided two parts; one was half the harvest and the other was half the men. The management at that time was left essentially to non-Indian biologists who were hired by the tribes. The Boldt decision said in order to be harvesting you had to have a management position and that was provided by bodies such as the Northwest Indian Fish Commission and then we got into issues such as clean water, we got into endangered species . . . all these other aspects which required educated biologists.

The problem, of course, is not having enough native scientists. In the early parts of that, the tribe could only turn to the non-Indian biologists. But in the late 1990s, the need for native scientists suddenly became new aspects of funding with executive orders and things like that said, "We have a clear lack of Indian scientists and we need to do something about it" and so Dick here of the National Indian Center for Marine Environmental Research concept was developed. It was developed from that need to provide the native scientists.

The treaties make the Indians very large stakeholders in natural resources and if you look back at the education history that is provided by the treaties and where that led, that this was not adequate to meet those needs. The thing about the management issues that we see as the . . . partly brought up by Roberto and Mimi in terms of eco-system based management. We have

changed the concept that originally . . . I said that the first word that came out of peoples [mouth], salmon . . . it was fish. The emphasis was on salmon and fish but today, because of the interrelationship of all of those things, we cannot take fish without looking at what food do they eat, what are their physical requirements, what temperature, what is climate doing to our fish, and what sort of changes are happening as the result of development and all of the pressures that come on to the fish.

In 1974 we had a hatchery based salmon run. 60%, 70% of the salmon came from hatcheries so natives got the hatchery fish and wild fish and unfortunately the pressures, again, on those things took a serious toll. Peoples' attitudes changed, we could have all wild fish but wild fish required forest on the hills, it requires non-polluted bodies and all that sort of thing. Making decisions based on the things that are here and now is another dash of cold water . . . that we have to face reality . . . where are we? Where we going? What are we going to do? If we look at developments . . . this is the new ocean policy . . . look at that thing. This is the policy that is being developed by the Bush administration, that started in . . . it includes all the uses of the ocean . . . all the uses of water. There were 16 commissioners; I think 8 or 9 of them had wild backgrounds. It is an interesting change . . . they say, "Well, we have got to do all these things to do that," there is going to be about 5 billion dollars worth of funding. It is coming from oil revenues . . . who is going to get it? . . . .the states that produce oil.

We still are faced with a lot of battles. Looking at how to solve those battles and solve those issues, my solution is education and it is got to be a very common goal of all the tribes. We have so many different small tribes and so on but if we add up the number of biologists needed and the number of tribes that need them and so on, again, we are looking at a significant deed. Looking at what is going on here today and the think tank that we see assembled here. I see in the future that Northwest Indian College could be a very significant place that we can develop an Indian think tank that could be talking about these issues and doing them. How do we do that? We have to build relationships with other institutions such as UW and WSU and so on. We need to take the collective knowledge of people that are here and provide a Native American advisory board for Northwest Indian College program development and support the educational needs for tribes.

It takes three prongs of extension, research and education. The education aspects are, of course, being able to provide everything from baccalaureate to PhDs, we have a number of Indian PhDs here, which is significant having to draw them from the large pool. Extension is being able to provide the communities with resources that allow them to do everything from helping family issues to helping fishermen. Research is needed to provide native communities with background for which they can base them. We need the education so more Native Americans can be entrepreneurial and undertake businesses that require a science background and so on. By manning all of these things and looking at what our expected outcomes would be looking here and then saying, "There is a masters degree, there is bachelor's degree, there is a PhD degree." . . . That is where we need more native input and being able to bring things into a perspective for Native Americans.

The Boldt decision is not done and there is going to be a continuing interpretation of all the things that are going on in order to make the informed and proper decisions requiring a good educational background and in the 21st century we need to insure that we have the educational opportunities that are necessary. We do that, we can build such institutions as Northwest Indian College with better staff, better facilities, better research, and all that in support of tribal things. We have a new . . . EDU program, Research Experience, for undergraduates and we have a number of students that are starting in on that, and that is really taking off and doing very well.

Overall, if we look at the history of treaties and the pre-treaty, resources were abundant and the first resource management was, of course, was simply "how do I most efficiently harvest these fish?" . . . . I got lots of fish, what kind of net, what kind of traps, what kind of gear do I need to take advantage of these?" . . . .and it took its toll on the fish, factories sprung up to replace fish that were caught and not replaced so that by the time that Boldt and . . . , incidentally, was same as Boldt on the shellfish issue . . . that Boldt gave us the salmon and 50% . . . carried into the shellfish 50%, just confirming that across the lines of natural resources. Now we are faced with endangered species, . . . pressures and fishing pressures and fishermen that are distressed by these changes and what do the fishermen do now that we are down with fish.

I think that falling back to some of the management issues provides a good potential job opportunity because there is a 120 million dollar salmon plan on the books, how much of that is going to go to the native salmon biologists, a lot of it will go to the tribe, but again, it is back to the trickledown effect of the . . . I think . . . was the first example of trickle down economy, go to the . . . and see how much of it got down to the community. I think that is what we are kind of looking at here in terms of getting natives more involved in the actual biological research managing. Darrell says I am out of time.

Al Ziontz—Attorney (Retired)

Well, I want to start by saying I consider myself a very lucky man because I happened to be in the right place at the right time at the start of one of the most important eras in modern Indian history and it was begun right here in the Pacific Northwest by some young Indians who said, "Enough is enough, and we are going to stand up for our rights," and the rest is a historic story. It is very easy to think of the Boldt case as a happy story with a happy ending but I want to point out that some of things that are, perhaps, not so positive about the Boldt situation. I particularly have in mind the remark that Billy made about friends and enemies.

I would like to begin by reminding some of the young people and I am sure the older people here will remember this, before Boldt . . . before 1974, how were the Indian people regarded here in the State of Washington . . . how were they treated? What was the situation of the tribes? The older people will remember this, Vernon will remember this, there was subtle and sometimes not so subtle racism in this state. The Indian people were regarded as a curiosity. The tribes were not regarded as governments, they were regarded as colorful remnants of the past.

When Indians were exercising their treaty rights they were routinely arrested, many of them ended up in jail with their boats confiscated and their nets confiscated and when they tried to argue in the courts of the State of Washington that they had a treaty right that was routinely overruled. The courts came up with a variety of reasons, and when the newspaper reported it, as they sometimes did, you would read about it only on the sports pages. It was regarded as a poaching case, "Indian arrested for poaching" and when they reported the treaty argument they would say, "The Indian claiming some old treaty, claimed he had a right to fish." The treaties were treated, routinely, by the press as some kind of yellow old document that somebody found in a trunk somewhere; it did not have any vitality . . . no relevance to modem life.

If you want to look at the Boldt case you have to look at where things were and what an enormous difference that decision made. As Dick points out, following Boldt the tribes began to act like and be treated like governments. It was not easy but it has finally come to the point that the State of Washington and some other states, not all, are willing to deal with tribal

governments on a government to government basis. That did not come easy. A lot of people were very opposed to that and they still are.

I want to put Boldt in a political context. You have to remember that the case was brought, at first, by The United States Government Department of Justice. It is a very powerful thing to be going into court with the United States on your side. Can you imagine the Justice Department today under John Ashcroft or Albert Gonzales taking such a case? I do not think so. Look at the Supreme Court that affirmed this decision in 1979. The opinion was written by Justice John Paul Stevens who is the only member of the Court that is still sitting there, not the only member . . . the only member of the majority that is still sitting there. It was a six to three decision.

And who were the three that were opposed to the Boldt decision? Chief Justice William Rehnquist, he is still sitting there. Now this court issue is right in front our face today and it is going to be for awhile because I am confident that Mr. Rehnquist going to leave the court very soon and we are going to be faced with another Justice. This is the political ocean that we are trying to swim in. It is a hostile environment and so when Billy talks about enemies, you do not have to look too far, they are out there.

There are some very important gains that I have seen and I am happy to report on them. One of the greatest defenses that the tribes have today is their strength . . . the strength of tribal government. It has grown from a hollow shell in the 1930s and 1940s to governmental bodies that are respected and treated with respect, at least in our state. They are partners and equals in all of the discussions about natural resource allocation and regulation.

That is a long way from the way things were 40 years ago. The state would never dream of consulting with tribes, they violently opposed sharing management with tribes because they claimed that the resource could only be managed by a single agency and that the resource would be destroyed if they had to share that power with the tribes. It turned out they were dead wrong because the tribes brought to the resource management data, information, skills, and perspectives that the state never would have had without it.

I regard Boldt as something more than a fishing rights case, it is an Indian survival case, it is a case that gave the tribes the standing, the power to sit down at the table with other governments as equals and to look a the position of tribes in America today. I like to think of them as members of a family of governments. This is a Federal Government system we have. Yes, there is a Federal Government, yes there are state governments, yeah there are county governments but they are subordinate to the state. There are tribal governments, they are part of the United States. You cannot ignore the political climate out there. Law, lawyers, courts can protect you only up to a point. The tribes have for the past 15 years, very wisely, stayed away from the Supreme Court . . . it is a dangerous place for Indian rights. If you cannot rely on the courts and you do not want to go there, what are your protections . . . your own strengths as tribal governments that commands respect from the people of the country.

I am happy to see that tribal governments have grown, have become much more confident in their ability to function in every area that government is needed. If you look at the federal system of laws, you would go to the index to the United States Code and look up "Indians" and you would find Indians listed under 400 different categories. Why . . . because now tribes are recognized by the Congress as important delivery systems for all kinds of services. The Indians are now embedded in the federal legal system. Not too easy to eradicate anymore because it has been developed because of performance by tribes, showing that they are the governments that are closest to their own people and the United State Congress . . . if it wants to deal with these subjects, must recognize tribes. I see Boldt as a very happy event but one that has warning signs for us . . . I do not think we could win Boldt today. I do not think that we

would get a Boldt decision today. There are limits in this system of ours but on the whole I think Boldt gave the tribes a boost . . . a big leg up and today I am happy to see tribes functioning as healthy members of the family of governments in the United States, thank you.

Vine Deloria Jr.—University of Colorado (Retired)

I have not had any luck at all in recent years, they are always putting me right after good speakers and now look what I am after. I got caught a couple years ago right between Bill Tawful and this guy. I was tongue tied for a week. I am glad to be here and would like to make just a couple scholarly remarks and then discuss Boldt.

I have been teaching a graduate course down at the University of Arizona the first five weeks of each year and I spend about three weeks, and this about three hours every other day during those three weeks. I use the Boldt decision to teach the students that if you are going to do litigation, you have got to learn to read and you have got to learn to read the law, the treaties, the statutes, the law reviews, all of these things and give the material you are reading a thorough quiz on what the person or people who wrote that document intended to convey. I use Northwest fishing rights as a major stream of interpretation. What I try and stress is that you go back to two years after Washington set up as a territory and there is maybe a conflict right there and then in almost 20 year periods, you have to go through the same arguments and they are always bickering about grounds and stations, what does that mean, usual and accustomed . . . what does that mean. Then, when we get to the Boldt decision just on a purely intellectual basis, that thing goes tribe by tribe, fish by fish, word by word. And you say, "Why at some previous time did all that cultural information and biological information . . . why was not that put into court?" Like the Wiemens case of the Severt brothers . . . any of those cases . . . why did the lawyers for Indians allow all this dancing on a pin instead of basing the thing . . . here is two different societies . . . they look at this resource two different ways and we would like to present the whole story of their position on things.

I think you could use the Boldt decision as a document in half a dozen entirely different college courses. You can use this anthropology, you could use it in history, you could certainly use it in politics, and you can use it at the law school level. When you see the questions that went through that judges mind and how he then asked for material on things that . . . set down a large enough cultural context that he got interested in it and would ask more questions. You would get a couple of wonderful points in there about how Indians had conservation practices. You cannot find those in any other literature anywhere. If you attending Northwest College here, I would devote a whole semester to that . . . just reading that case and discussing it. Every day I would bring in some elder to comment on some of these things. I forget which tribe it is . . . a tribe that does not think their harvest is good enough, they built a log barrier so that the fish have to jump up in the air . . . and that is pretty damn good. Those were my scholarly comments.

Use the thing. When I taught here at Western . . . for two years, 1970–1972, it really broke my heart to see so many Indian kids sign up for the course and then never come. Yvonne would know the names of these Culprits, I even told them one time "so now we are going to go through the Medicine Creek treaty this next class" and one of them had to play basketball and one of them had to . . . and I was hot under the collar and I said, "I work with your grandparents all the time, they do not know much about this treaty but they never had a chance to learn and I am sitting here trying to teach you about this treaty". . . .Yvonne picked it up but hardly any of the others. I said, "I am trying to teach you, there is no excuse for your generation not to know this better than your grandfathers and your fathers because they are learning the hard way . . .

Billy Frank's [was] getting beat up every Friday night, sometimes for sardines not for salmon." I eventually moved back and . . . it was really disappointing to me that the treaty was not, somehow, the center of either community passing on information or the next generation wondering why do my relatives keep getting their nets cut and canoes smashed and all this. I think you should look very seriously at making a required course in college and start to push it in high school. If you do not force people to remember, you are going to have to repeat whatever you accomplish. You have got to throw it at them every single time. In our tribe it is really a disgrace to talk about anything you did and I was only part of this . . . sure it was the United States [that sued] the State of Washington.

I moved here in early August of 1970. I went over to Spokane; they were having some sort of meeting. I was over in Spokane . . . the Tacoma bust . . . cops came into Tacoma and the beat the hell out of people and somehow this guy Hank Adams had pictures of this. They smuggled that film out of jail, you know we are in jail. Right . . . two weeks later I had to go to New York and I got what was going to be eight minutes on Dick Cavett's evening show and that was a Monday night . . . this guy tracks me down in New York and says we have got these films coming we want you to show them on television . . . I said, "They are not going to be showing stuff like this" . . . so I ran these pictures up to the Cavett show and I said "God, I do not know whether to go on or not because I am getting a lot of pressure" talk about pressure . . . it got me in more trouble in my life than anyone I know. I had all these pictures and they had one spectacular one of that sniper guy . . . he was zeroed in on you or Meso, one of the two . . . one white guy on the bridge in uniform and so I talked to the staff and I said "I do not dare go home if you are not going to show these pictures". . . and Cavett thought about it for a minute . . . he gave me 20 minutes and they showed all of those pictures . . . that was a Monday night. When I got back to Bellingham, some kind of police car followed me right up to my gate on Marine Drive . . . if you do not think that is a tense two and a half hour drive . . . I thought I am in one of the rivers for sure and, by God, Friday morning they filed the USB Washington. It was not that Nixon was so generous or any of those guys . . . these guys paid in blood in Tacoma to get those pictures and I was just transmitting on their behalf. When I went to BIA, "You son of a bitch, what have you done now." Hell, I was with Billy Frank. . . .

I want to emphasize to you the duty this Indian generation has to its past and to its descendents and that is that you have to fight the same battle that the generation before fought and the generation following. Now you are at Custer's protest book 1969, it sells twice as many copies now . . . it is 36 years old . . . because there is another generation of whites that do not understand the generation of Indians that are taking everything for granted. There is a lot of them out there that think the good times we are having now, building buildings like this, that that is the way it has always been. If you have people with that attitude you are going to lose everything again. It is very discouraging . . . well, that book will solve that we will get on to other things. No, that just keeps coming around.

Just look at struggles the way, I think, Billy and I have and some other, Hank and the others, I would go rough house with you guys anytime, you may beat us, we will come right back and we will beat you next time and we will have fun, alright. You get almost light headed waiting for one of these guys to make a mistake so you can really go in and nail them. It is not anything to be afraid of and Billy here with almost white hair, we need ten Billy Franks in this next generation to step forward or you are not going to have anything . . . this is going to be a golf course for white guys . . . this building right here. We need people to step forward now . . . young guys. Sure people might hear you get beat up or whatever but I think us elders here sit here with satisfaction . . . we did not win them all, but we won enough of them so we changed some things and we are hoping that younger generation would come in and say, "Well, by God

we will take it up and we will fight it out too." I want to get down and see those canoes. I understand you have a surprise of some cigarettes for me. Someday we may get a smaller trap, Billy and I will go through when I sold the Mafia his fish, now we all want to get down and see those canoes and by the way, I have passed the word with my Ivy league friends that they should send a collegian crew out here and try and race the Lummi's on their Lummi course. Those collegian things only go about a mile and a quarter, you guys go about seven and a half miles. I thought, we will get them to bet a lot of money, kind of like the end of MASH. Darrell, if you get some challenge from some smartass guys in the east, drag them out and run them through it. So, I just have one question for Dick Poole . . . if that is a George Bush product, where are the crayons?

Vine Deloria, Jr., University of Colorado (1933-2005)
Billy Frank, Northwest Indian Fish Commission
Vernon Lane, Chairman, Lummi Nation (Retired)
Dick Poole, Northwest Indian College
Al Ziontz, Attorney (Retired)

This transcript was reprinted with permission from Steve Pavlik, Northwest Indian College. The material first appeared in the Robert K. Thomas Symposium, Conference Proceedings, Northwest Indian College, July 2005, pp. 16-26. As the transcript shows, it was difficult to decipher some of the discussion. In the interest of accuracy, only minor changes have been made to improve readability.

> "Robert K. Thomas (1925–1991) was a Cherokee nationalist, social scientist, anthropologist, philosopher, teacher, activist, and spiritual leader."

Quoted from back cover of:

Pavlik, Steve (editor)
1998 *A Good Cherokee, A Good Anthropologist: Papers in Honor of Robert K. Thomas.* UCLA American Indian Studies Center, Los Angeles.

ROBERT K. THOMAS SYMPOSIUM

Sponsored by the Center for Indian Scholars
Hosted by NORTHWEST INDIAN COLLEGE
& THE LUMMI NATION

The purpose of this symposium is to bring together Native scholars, elders, and other individuals interested in discussing topics that are of importance to Indian Country and which honor the life and work of the professor Robert K. Thomas. The symposium will be organized as a series of panels that address related issues or themes.

July 21 – 23, 2005

Journal of Northwest Anthropology, 45(1):123–127 2011

THE DAUGHERTY 1947 WASHINGTON COAST SITE LIST

Gary C. Wessen

ABSTRACT

The recent publication of materials generated as a part of Richard Daugherty's archaeological survey of the Washington Coast in 1947 offers valuable insights into this important early study. The published account includes a list of the sites Daugherty recorded using his original designations for them. Nearly all of these sites are in the Washington Department of Archaeology and Historic Preservation database, but most of them are now identified with different numbers. The following discussion identifies the current site numbers for all of these sites and offers possible explanations for how and why many of the changes occurred.

The most recent *Journal of Northwest Anthropology* (JONA) presented Jay Miller's efforts to bring two important early works by Richard "Doc" Daugherty to a wider audience (Miller 2010). Both Daugherty's 1947 archaeological survey of the Washington Coast and his 1949 ethnographic work with members of the Hoh Indian Tribe have been long known of, but the details of each have rarely been seen prior to their recent appearance in JONA.

Daugherty's 1947 survey of the Washington Coast is correctly described by Miller as "foundational" (2010:265). Daugherty, however, was not the first person to describe archaeological sites on the Washington Coast. James Swan (1857:211–212)—in what is probably the earliest reference to archaeological resources anywhere in Washington State—noted the presence of shell middens and other types of sites on Willapa Bay. Somewhat later in the early 20th Century, Albert Reagan (1917 and 1928) briefly described shell middens and grave sites at various points along the western edge of the Olympic Peninsula between the Queets River and Cape Flattery. While all of the latter are of historical interest, Daugherty's survey was the first systematic effort to investigate and document archaeological sites in this region. He recorded at least 54 sites and provided a database that has formed the foundation for most of the subsequent research efforts here. For example, a number of the large-scale excavations that have been conducted on the Washington Coast have focused on sites that were originally identified by Daugherty (e.g., 45-PC-7, 45-GH-15, and 45-CA-24).

The notes and associated materials provided by Miller offer many important insights into Daugherty's survey, although some aspects of that effort still remain unclear. One item presented by Miller (2010:262–263) is a list of the sites Doc identified. The list was prepared by Daugherty shortly after his fieldwork and Miller presents it as it appears in Daugherty's notes. While the list provides a clear view of the scope of his effort, there are a number of problems with it. In this discussion, I clarify several of these problems, although I acknowledge that some details remain a mystery.

The first point to be noted is that the list is not complete. This list contains 51 sites. In fact, Daugherty recorded at least 54 sites during his survey. Two sites he recorded in Jefferson County (45-JE-4 and 45-JE-5) and one site in Clallam County (45-CA-24) do not appear on the list. The reason for this absence is not known.

Daugherty's list provides a partial Smithsonian Trinomial Number for each site. The initial "45" prefix (indicating the State of Washington) is not shown; each site being identified by only a two letter county designation and then a number for the site. While the list shows the number that Daugherty originally assigned to it, almost all of these sites now appear in the Washington Department of Archaeology and Historic Preservation (DAHP) records with somewhat, to very, different numbers. Differences are apparent in both some of the county designations and many of the numbers for the sites. A summary of the site numbers as they appear in Daugherty's list, and how they currently appear in DAHP records, is presented in Table 1.

The Daugherty list uses the letters "PA" to indicate Pacific County, "GH" to indicate Gray's Harbor County, "JE" to indicate Jefferson County, and "CL" to indicate Clallam County. The county designations for Gray's Harbor and Jefferson Counties are correct. The designations for Pacific and Clallam Counties are not. The current designation for Pacific County is "PC." The current designation for Clallam County is "CA." While the use of "PA" in the Daugherty list is unlikely to lead to confusion, the "CL" may. "CL" is currently used in DAHP records to indicate Clark County.

The numbers used to identify individual sites also vary considerably for some counties, and this variation parallels the situation just noted for the counties. The numbers identifying individual sites in Gray's Harbor and Jefferson Counties, in Daugherty's list, are the same as in the DAHP records. In contrast, the numbers identifying individual sites in Pacific and Clallam Counties, in Daugherty's list, are consistently different in the DAHP records. The reason for the changed site numbers for Pacific and Clallam Counties is not certain. I am confident that these changes were made after Doc completed his survey, and it is likely that they are related to conflicts with site numbers assigned by other early researchers in Pacific and Clallam Counties.

Daugherty's list for Pacific County uses the numbers PA1 through PA16. Nearly all of these sites now appear in the DAHP records as 45-PC-5 through 45-PC-20. 45-PC-1 through 45-PC-4 in the DAHP records are sites that were recorded by Robert Hudziack and Clarence Smith in 1948. A similar situation is apparent in the Clallam County records. Daugherty's list for Clallam County uses the numbers CL1 through CL4, but most of these sites now appear in the DAHP records with numbers in the 20s. Almost all of the first 20 site records for Clallam County are for sites recorded by Fred Pennoyer in 1949 or 1950.

All four of these researchers were students at the University of Washington at the time. While I am confident that they all knew each other, it appears that their efforts were not well coordinated and duplicate number assignments occurred. I have no specific information about how any of these site forms were processed by the University of Washington, but it seems likely that those prepared by Hudziack and Smith and by Pennoyer were actually filed before those of Daugherty. Daugherty's original numbers would then have been changed to the next available numbers for each county.

A final detail that should be addressed concerns duplicate numbers within Daugherty's list. Two sites in Daugherty's Pacific County list show the number PA9. His Gray's Harbor County list shows two sites identified as GH15 and GH15a. One of the two PA9 sites (the shell midden on the Mill Ranch) now appears in the DAHP records as 45-PC-12. The other PA9 site (the CMTs near BB Saunders home) now appears in the DAHP records as 45-PC-43. Since the immediately preceding site numbers for Pacific County were recorded in the mid-1960s, it appears that this duplicate number problem was not corrected for at least 20 years. The explanation of the duplicate numbers for Gray's Harbor County is somewhat less clear. In the first place, it can be argued that this really is not a duplicate number. Daugherty's list shows them as GH15 and GH15a, and the latter includes the comment "ridge nearby." Thus, it is

apparent that he was referring to two closely spaced locations. The DAHP records for Gray's Harbor County, however, do not show a second site anywhere near 45-GH-15.

It should be noted that the 45-GH-15 site record on file with the DAHP is a typed document while the site records that Miller's recent account addresses are all hand written. In fact, all of the Daugherty site records on file with the DAHP are typed documents. I have been unable to determine when the typed versions of his hand written originals were prepared, or who prepared them. The typed site record for 45GH-15 describes a very large site area (the area of occupation is given as "intermittently for ½ mi"), and it makes no mention of a second nearby site. It is therefore possible that the location referred to as GH15a in Daugherty's list was later incorporated into the 45-GH-15 site area.

TABLE 1. A SUMMARY OF RICHARD DAUGHERTY'S ORIGINAL SITE NUMBERS FOR HIS 1947 SURVEY OF THE WASHINGTON COAST AND HOW THOSE NUMBERS CURRENTLY APPEAR IN THE WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION RECORDS

Daugherty's 1947 Site Number	DAHP's Site Number
Clallam County	
CL 1	45CA 23
CL 2	45CA 25
CL 3	45CA 26
CL 4	45CA 1
	45CA 24
Gray's Harbor County	
GH 1	45GH 1
GH 2	45GH 2
GH 3	45GH 3
GH 4	45GH 4
GH 5	45GH 5
GH 6	45GH 6
GH 7	45GH 7
GH 8	45GH 8
GH 9	45GH 9
GH 10	45GH 10
GH 11	45GH 11
GH 12	45GH 12

(CONTINUED)

TABLE 1. (CONT'D)

Daugherty's 1947 Site Number	DAHP's Site Number
GH 13	45GH 13
GH 14	45GH 14
GH 15	45GH 15
GH 15a	45GH 15?
GH 16	45GH 16
GH 17	45GH 17
GH 18	45GH 18
GH 19	45GH 19
GH 20	45GH 20
GH 21	45GH 21
GH 23	45GH 23
GH 24	45GH 24
GH 25	45GH 25
GH 26	45GH 26
Jefferson County	
JE 1	45JE 1
JE 2	45JE 2
JE 3	45JE 3
	45JE 4
	45JE 5
Pacific County	
PA 6	45PC 9
PA 7	45PC 10
PA 8	45PC 11
PA 9	45PC 43
PA 9	45PC 12
PA 10	45PC 13
PA 11	45PC 14
PA 12	45PC 15

(CONTINUED)

TABLE 1. (CONT'D)

Daugherty's 1947 Site Number	DAHP's Site Number
Pacific County	
PA 13	45PC 16
PA 14	45PC 17
PA 15	45PC 18
PA 16	45PC 19

ACKNOWLEDGEMENTS

This paper was prepared at the suggestion of Jay Miller and has benefited from a conversation on its subject with Richard Daugherty.

REFERENCES CITED

Miller, Jay
2010 Startup: Richard "Doc" Daugherty's 1947 Archaeological Survey of the Washington Coast. *Journal of Northwest Anthropology,* 44(2):257–265.

Reagan, Albert
1917 Archaeological Notes on Western Washington and Adjacent British Columbia. *Proceedings of the California Academy of Sciences, Fourth Series*, 7(1):1–37.

1928 Ancient Sites and Burial Grounds in the Vicinity of Queets, Washington. *El Palacio,* 25:296–299.

Swan, James G.
1857 *The Northwest Coast, or Three Years Residence in Washington Territory.* Harper & Brothers, New York, NY.

Gary C. Wessen
Wessen & Associates, Inc.
15028 24th Avenue SW
Burien, WA 98166

GWessen@aol.com

Traditional Foods Summit

Society for Applied Anthropology Annual Meeting

March 29 and 30, 2011

Grand Hyatt, Seattle, Washington

Indigenous groups from near and far are gathering at the Grand Hyatt in Seattle, Washington, to work collaboratively with land managers and applied social scientists to improve access and use of traditional foods. Key goals of the Summit are to highlight innovative approaches to natural and cultural resource management through a traditional foods framework, foster dialogue, share experiences, build collaborative networks, and develop policy recommendations. Through this collaboration, Tribes, natural and cultural resource managing agencies, and applied social scientists will better understand and manage for the needs and rights of tribal and aboriginal communities.

The agenda of the Traditional Food Summit is nearing completion. Highlights include the following:

- 20 presentations by individuals from more than 30 tribes, universities, agencies, and companies, with topics including access, use, nutrition, preservation, protection, oral history, and regulation. The foods discussed are from the Northwest Coast, Alaska, the Southwest, and Hawaii.
- 10 roundtables, designed to allow in depth discussion on specific topics in a small group sessions, have been developed and are available by reservation on a first-come, first serve basis.
- 30 tables have been made available in the ballroom for individuals and organizations to exhibit traditional food-related displays, posters and demonstrations; tables are available by reservation on a first-come, first serve basis.

To view the preliminary agenda for the Traditional Foods Summit, please go to
http://www.sfaa.net/sfaa2011/2011foodsummit.html