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MANUSCRIPTS

Manuscripts can be submitted in an electronic file in Microsoft Word sent via e-mail or on a CD to the Richland, WA office. An abstract must accompany each manuscript. Footnotes and endnotes are discouraged. Questions of reference and style can be answered by referring to the style guide found on the website or to *Journal of Northwest Anthropology*, 47(1):109–118. Other problems of style can be normally solved through reference to *The Manual of Style*, University of Chicago Press. 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.”

Editorial

Darby C. Stapp

Julie and I just returned from Boise, where we attended the 71st Northwest Anthropological Conference (NWAC; March 28–31). This was our tenth year sitting at the *Journal of Northwest Anthropology* (JONA) table in the NWAC Exhibitors' room, where Rick and Linda Sprague had been a fixture for decades until 2007. NWAC is our major outreach effort each year, providing us an opportunity to promote the journal, meet prospective authors, show off the newest issue, sell JONA memoirs, and renew subscriptions. This year we tried something new. We offered a free digital subscription to JONA, volume 52, for all those attending the conference in an attempt to increase awareness about and readership of JONA.

NWAC plays a significant role in creating and maintaining the Northwest anthropological community. For professionals conducting research in the Pacific Northwest—academic, private sector, government, and Tribal—NWAC is the place where those pursuing similar topics can meet, renew acquaintances, share ideas, develop research agendas, etc. For anthropology students—undergraduate and graduate—NWAC is often the forum where they present their first professional paper and attend their first professional conference.

JONA has a longstanding relationship with NWAC, dating back to 1968 when *Northwest Anthropological Research Notes* (NARN), the predecessor to JONA, published the abstracts from the 21st NWAC held in Portland, Oregon. Associate Editor Roderick Sprague explained the rationale behind publishing the conference abstracts:

The dissemination of information concerning unpublished research continues to be one of the primary concerns of the editors of NARN. One major source of such information can be found in the papers presented at the annual meeting of the Northwest Anthropological Conference. After twenty-one years of existence, this annual conference still remains as an informal, non-dues-collecting association—a structural feature that has been overwhelmingly reaffirmed by the membership on several occasions. This informal structure represents the strength of the organization but also produces its major weakness—the lack of a uniform system for the reproduction of the annual sets of abstracts. The annual publication of the abstracts in NARN, as already arranged for the 1968 meeting, will give wider distribution to these abstracts without formalizing the structure of the conference itself. (Sprague 1968:123)

In addition to publishing abstracts, JONA agrees to publish the winning manuscripts from the NWAC student paper competitions. Abstracts and student papers, along with an analysis of NWACs and the papers presented can all be found

in *JONA Memoir* 13 (Walker, Stapp, and Cervantes 2017), which also includes all 50 volumes of *NARN/JONA*, and *Memoirs* 1 through 7.

All of us at *JONA* continue to look for new ways to promote and disseminate anthropological research in the Northwest. As the Pacific Northwest's only four-field peer-reviewed anthropology journal, it has been the go-to journal for publishing regional research for 52 years. Likewise, the *JONA Memoir Series* provides an outlet for special publications that are important intellectually for the region, but perhaps are not economically viable for the larger publishing houses. We have recently revised and expanded our website (www.northwestanthropology.com); regional events, job opportunities, and items of anthropological interest will be updated regularly. Please take a look and send us material to post.

We are pleased to present *JONA* Volume 52, Number 1. The articles in this issue reflect several of *JONA*'s current thrusts. In our first article, *JONA* Associate Editor Rudy Reimer presents an alternative concept to explain the occurrence of obsidian recovered from archaeological sites in the Salish Sea, emphasizing the spiritual importance of a mountain, and by extension, the obsidian artifacts that represent "pieces of place." Dr. Reimer's contribution reflects *JONA*'s commitment to Indigenous scholars and audiences to use the pages of *JONA* to help them share their message.

The article by Nathan Reynolds and Christine Dupres highlights a little-known resource—the crabapple—and its current contribution to cultural renaissance efforts among the Cowlitz Tribe in Washington. The crabapple article reflects our continuing commitment to publish research concerning traditional tribal resources and their evolving role among today's peoples. The protection of places and resources, the access to places and resources, and the preservation of knowledge are important issues that *JONA* will continue to highlight.

The article by Rick Minor and Curt D. Peterson on Willamette Falls reflects our commitment to publish material on important places across the Northwest. Beyond reminding us of the history of this important place, their research is significant for its documentation of intact pre-contact resources found within the heavily impacted industrial area. Anyone in cultural resource management who hears the words "there's nothing there; it's all disturbed," should take pause.

The multi-authored commentaries concerning *JONA* Associate Editor Rodney Frey's recent book, *Carry Forth the Stories: An Ethnographer's Journey into Native Oral Tradition*, reflects our interest in providing in-depth analysis of important publications of interest to Northwest anthropologists and communities. *Carry Forth the Stories* fits both of these bills. The central role of storytelling in Indigenous cultures of the Northwest requires serious understanding by those of us working with Tribal communities in the Northwest, as our collection of commentaries will make clear. *JONA* has never published book reviews per se, though this is our second multi-author treatment (the John Ross *Spokan Indians* in Volume 47 being the first). We plan to continue publishing multi-author reviews and commentaries of books important to the Northwest and invite our readers to suggest appropriate candidates.

The collection of papers concerning Reed College (Portland, Oregon) are part of our developing interest in recovering/documenting/remembers Northwest anthropological history. Starting with an article by Robert Moore that appeared in *Reed Magazine* in 2010, we worked with Moore, former Reed Anthropology Professor Robert Brightman, and Gene Hunn, to develop a more complete overview of the

history of anthropology at Reed College beginning in 1919 and of David French and his Warm Springs Project. We will continue to solicit contributions concerning academic departments, institutions, projects, and people who have played a role in the development of anthropology in the Northwest.

And finally, the closing article contributed by our “in-house” translator Richard Bland concerning a collection of artifacts from the Bering Strait continues our tradition of publishing foreign language material of interest to Northwest researchers. This article is Richard’s ninth contribution.

In closing, Deward and I want to acknowledge and thank our institutional and individual subscribers for their ongoing support. We continue to add Tribal governments to our institutional subscriber base, a reflection of our openness to Tribes and their scholarship. *JONA* is committed to a diverse regional narrative and we welcome Tribal authors in adding to this narrative as well as critiquing it. We also look to strengthen our relationships with Anthropology Departments across the region. *JONA* actively supports these departments, their faculty, and their students; with more support and involvement, we could do more.

Publishing *JONA* twice a year along with a *Memoir* or two is a major effort. While the editors and peer reviewers contribute their time, we rely on a number of paid support staff to move manuscripts through the publication process. From the time we receive a manuscript, until it arrives in your mailbox, each will typically go through eight steps: 1) the initial review, 2) preparation for peer review, 3) the peer review, 4) the return to author with peer review comments, 5) review of author revision, 6) preparation of proof for publication, 7) the return to author for approval, 8) the preparation of the final draft. With the additional costs associated with computer hardware and software, ink, paper, and annual NWAC registration, the cost of the *JONA* operation is significant and only partially defrayed by subscription revenue. Without your support, we would not be able to keep *JONA* alive.

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1968 *Papers Presented at the First Twenty Annual Meetings of The Northwest Anthropological Conference, 1948-1967*. Northwest Anthropological Research Notes, 2(1):123–139.

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The Social Importance of Volcanic Peaks for the Indigenous Peoples of British Columbia

Rudy Reimer/Yumks

Abstract *The Indigenous peoples of the Pacific Northwest have close ties with the landscapes of their respective territories. Marked with names that have specific meanings, important places relate to oral histories and traditions that have been passed down for multiple generations. Prime examples are large volcanic peaks that are the home of powerful beings and unique materials such as obsidian. The oral history and place names of these volcanoes reflect social relations with these places across the Pacific Northwest. Based on these factors, the argument is made that researchers and others should use the native names when referring to these places. One volcanic peak, Nch'kay (Mount Garibaldi), is examined to see if these associations relate to the distribution of obsidian from this source. Using X-ray Fluorescence (XRF), artifacts from sites around the Salish Sea were obtained and identified as being from this source. These materials are first analyzed to determine the effect of distance on the distribution, showing as supply zone near the source and redistribution along the Fraser River and declining with increasing distance away from the source. The Nch'kay artifact distribution was then compared to the Squamish social-marriage network, which confirmed a strong association. In acknowledging the goals of Indigenous Archaeology, researchers should consider these meanings when interpreting the regions inhabited by Indigenous cultures, their histories, and the materials they used for thousands of years. By acknowledging Indigenous perspectives, we can gain a richer picture into ancient social landscapes and the ways individual groups related to each other. Research in this article combines documented Coast Salish social networks with archaeological data of obsidian collected throughout the region, with an emphasis on Mount Garibaldi or, more appropriately, Nch'kay.*

Introduction

Mountains occur on a global scale from ocean bottoms, rising out of the depths into the sky across every continent of the planet. Mountains are diverse in shape and form, age, and location, but most importantly they offer much of the world a source of fresh water and a rich range of resources. As centers of biodiversity, mountains have played a key role in how climate changes over time and how humans have responded in their use of land and resources. Our understanding of how the Indigenous peoples of the Pacific Northwest use their territory and resources requires a broader understanding than we have today of these features and how people used materials from them in the past. This article is about the social relations that the Indigenous peoples of the Pacific Northwest have with mountains, and particularly with volcanoes that exist in their respective territories.

The Pacific Northwest of North America is part of the Pacific Ring of Fire, which produced several large mountains, geologically referred to as stratovolcanoes. These

THE SOCIAL IMPORTANCE OF VOLCANIC PEAKS

large and intimidating peaks play an integral role in regional geology, environment, and culture. Volcanoes are unique as they stand out from regional mountain dynamics because of the way they originate, grow, and shape in dramatic ways that differ from surrounding terrain. They also form over long and diverse conditions. Created in a variety of ways, including converging or transverse plate tectonic activity and hotspot eruptions, the result is the formation of some stunning locations. In British Columbia, Canada, several volcanoes are known to local and regional Indigenous cultures for a variety of purposes other than their eruptive nature. As such, volcanoes are well known to the region's Indigenous peoples and have been for a long time. Volcanoes continue to shape the land in a variety of environmental and cultural ways.

The volcanoes of British Columbia provided, and to this day still provide, materials for the beneficial cultural use of Indigenous cultures. These peaks also play important roles regarding cultural identity, language, and history. The emphasis of this article is on the Indigenous place names of these peaks and the need to acknowledge that “pieces of these places” carry meaning tied to their original location. Throughout this article, I use the term “pieces of places” as a reference to important locations that are embedded in Indigenous history and cultural knowledge to stress their importance. In this scenario “pieces of places” refers to the local First Nation's name for volcanic peaks, their associated history, and importance (Bradley 2000; Reimer 2012). Thus, a piece of material from a volcanic peak found in an archaeological site far away from its source carries with it that cultural importance. The intent here is to demonstrate that these places are significant parts of nature that are not separate from Indigenous cultures; they are respected and feared and offer physical, spiritual, and emotional strength for those who know them. From north to south, the discussion focuses on Mount Edziza, *Bes But'a* (Anahim Peak), *Illgachuz*, *Tsitsutl* (Mackenzie Pass), *Ha-Iltzuk* (Kingcome), and *Nch'kay* (Mount Garibaldi), to which specific attention is given (Figure 1). Each of these peaks resides in various Indigenous First Nations territories,



Figure 1. Locations of volcanoes in British Columbia with known obsidian source material often found at archaeological sites located throughout the region.

and for each volcanic peak, discussion centers on their respective place name, details found in ethnographic accounts, and the role of distinct materials acquired from them, particularly obsidian.

Obsidian is a unique material, a naturally occurring glass that results from the fast cooling of volcanic lava flows. Because it cools so quickly, there is no time for the material to form a crystalline structure. When the Indigenous peoples of the region worked this material in the past, it provided edges that are often many times sharper than modern-day surgical steel (Buck 1982; Scott and Scott, Jr. 1982). Few other materials in the natural world offer this quality. As archaeologists have noted in the past, these and other characteristics made obsidian especially desirable to Indigenous peoples. However, the relationship between Indigenous peoples in the Northwest and obsidian is far more complex than has been typically recognized by archaeologists.

The main argument I make in this article is that these peaks, flows, and locations are important places and that “pieces of those places” carry a social meaning associated with their source (Bradley 2000; Reimer 2012). Because of these associations, these locations are more than places of nature. They deserve our attention in modern-day because they still provide strength to Indigenous cultures and their landscapes. There is a need to consider the importance of cultural meanings to a place’s name, the associated protocols regarding those places—and the ancestral rights to them—to fully understand that the location where obsidian occurs can play an integral role in regional cultures (Figure 2).



Figure 2. Example of obsidian from *Nch'kay*.

In the first part of this article I present an overview of the role of mountain peaks in respective First Nations territories. For each mountain, its geological, archaeological, and cultural information is detailed. Following the examination of these rugged mountaintops, the focus sharpens by concentrating on the largest volcano in Squamish Nation territory, Mount Garibaldi, or as we in the Squamish Nation know it—*Nch'kay*. Out of respect for the importance that these mountain peaks have to

Indigenous peoples, I suggest we need to use and acknowledge the Indigenous names of these places. In the second part of this article I will see if the social importance of *Nch'kay* is reflected in its spatial distribution along the Salish Sea. To do this I will look at the obsidian distribution from a distance-decay economic perspective, commonly used in archaeology, and compare those patterns with another perspective, one that considers ethnohistorical data of social spheres of influence among Coast Salish groups.

Volcanoes and Obsidian in British Columbia

Edziza

Central in the Stikine volcanic belt and covering over 1000 km² is the Mount Edziza volcanic complex (Wood and Kienle 1990:124–126). The complex is made up of basaltic shields, felsic stratovolcanoes, domes, and small calderas created from 7.5 Ma to as recent as 1,300 yr. BP (Souther et al. 1984). The primary source of obsidian in the complex is on the southern slopes of Mount Edziza proper (Fladmark 1984; Reimer 2015). As Canada's highest volcano at 2787 m, Edziza is also a stratovolcano and part of a large volcanic complex located at the headwaters of the Stikine River. Source area descriptions are found in Knut Fladmark's work (1984, 1986, 2009). Godfrey-Smith (1985) reported the elemental variation of ten obsidian flows, but only documented the use of three flows. Recent research on the complex found that six out of the ten flows occurred over the past 10,000+ years (Reimer 2015). Fladmark also discussed the origin and meaning of the Mount Edziza source (1985:41) by citing James Teit (1919). Teit's Tahltan informants referred to the mountain as *Atixxa*, roughly translated by a Tahltan band member as “ashes in the sand,” with links to western Sub-Arctic Athapaskan words featuring the suffix “*edx*” and potentially related to the word “*batx*” or “*atz*,” meaning black flakable rock. In the 2013 television documentary titled *Life from Ash Ice*, a contemporary Tahltan band member and anthropologist, Oscar Dennis, spoke of the meaning of *Atixxa*—the place to get the black rocks. Geologically these are the cones and eroded hollowed out caves on the high elevation slopes of the mountain. The term also refers to the sound one's footsteps make while traveling on the mountain. He also speaks of the importance of cultural protocols before going onto *Atixxa*. If someone wanted to go to *Atixxa*, one had to go through eight months of ritual, celibacy, and cleansing. Also, Dennis mentions that “one had to sleep on one side of your body for four months and then the other side of your body for four months.” When nearing the location of obsidian flows, Indigenous peoples thought that the mountain was alive, and when moving into an area that had obsidian, one would have to approach from downwind; only then could obsidian be collected and shaped.

Bes But'a, Illgachuz, and Tsitsutl

South of Mount Edziza are the hotspot volcanoes, Anahim Peak, *Illgachuz*, and the Rainbow Range, located on the western Chilcotin Plateau of central British Columbia (Wood and Kienle 1990:131–134). Reaching an elevation of 1897 meters, Anahim Peak is one of three prominent volcanic cones created by the North American plate moving across a hot spot. All three obsidian sources are part of a larger late-Miocene (8.7–6.7 Ma) shield volcano that lies on an east to west trend in west-central

British Columbia (Bevier et al. 1979:389–392; Bevier 1981:225–251). An original archaeological survey by Nelson and Will (1976:151–154) nicknamed Anahim Peak “Obsidian Creek” due to the large quantities of material available in the creek beds that drain off the peak.

West of Anahim peak is another volcanic cone located on the Chilcotin Plateau of central British Columbia, which is located high in the Rainbow Mountain range and called Mackenzie Pass. Larger pieces are more suitable for tool manufacture located at higher elevations when compared to those found at lower elevations (Nelson and Will 1976:151–154). The Carrier and Chilcotin peoples identify the Anahim Peak source as a sentinel that overlooks their territory. In the local Carrier/Dakelh language, Anahim Peak is known as *Bes But’a* and translates as “obsidian peak,” a much more distinct name and precise meaning of this source (Nelson and Will 1976). Local oral history tells of many battles fought over the obsidian deposits, and that trade routes came to *Bes But’a* from all directions (Birchwater 1991a and b). A former Carrier/Dakelh chief Vivian Cahoose mentioned that the mountain was sacred and “Traditionally people must introduce themselves to the mountains. People had to pay particular respect to *Bes But’a*” (Birchwater 1991a and b).

To the west of *Bes But’a* is another obsidian source, commonly known as Mackenzie Pass, in tribute to Alexander Mackenzie (a European explorer), who traversed this route with local Southern Carrier First Nations people. The volcano and source also bear the Ulkatcho name *Tsitsutl*, which translates to the English name for this area, “Rainbow Mountains” (Apland 1976; Nelson and Will 1976; Birchwater 1991a and b). To the east of *Bes But’a* is the *Ilgachuz* source, for which the meaning or translation is currently unknown (Nelson and Will 1976; Tobey 1981; Birchwater 1991a and b). Collectively, *Bes But’a*, *Tsitsutl*, and *Ilgachuz* were meeting places for groups of the Central Northwest Coast and the Plateau, resulting in the mixing of cultures and people (Birchwater 1991a and b). A result is the formation and maintenance of extensive trail networks often referred to as “grease trails,” with eulachon grease moving inland from the coast and likely obsidian and other materials moving the other direction through kinship ties (Tobey 1981; Birchwater 1991a and b).

Ha-Iltzuk

The Kingcome source is part of the 20 km² Mount Silverthorne volcanic complex in the central British Columbia Coast Mountains (Wood and Kienle 1990:138–139). The complex of rhyolite domes, breccia, and flows date to the past 0.75–0.4 Ma up until 1000 yr. BP (Green et al. 1988:563–579). Recent archaeological reconnaissance by the Tsawataineuk First Nation and Cultural Resource Management archaeologists located this source high in the coast mountain range in alpine locations at the head of Kingcome Inlet (Stafford et al. 2013). On the central coast of British Columbia, the period from 5000–2000 BP is known as the Obsidian culture type because material from the Kingcome source dominates local assemblages (Mitchell 1990). Archaeologically, most of the material was used to produce flakes through bipolar percussion (Mitchell 1990). The more appropriate names for this source would be the local Tsawataineuk (*Kwakwaka’wakw*) place name for the peak and nearby glacier, *Ha-Iltzuk* (Boas 1909, 1966, and 1969; Stafford and Christensen 2004). Further cultural knowledge about Mount Silverthorne and Kingcome or Tsawataineuk obsidian is not published but likely exists within local First Nations communities.

Nch'kay

In the Coast Range of British Columbia in Squamish Nation territory is *Nch'kay* (commonly known as Mount Garibaldi) reaching an elevation of 2678 meters (Mathews 1952:81–103; Reimer 2000, 2003). The largest of many volcanic cones in the Garibaldi volcanic belt, its primary eruptive sequence occurred between 0.26 and 0.22 Ma (Green et al. 1988:563–579). Its most recent eruption took place between 10,700–9300 years BP (Brooks and Friele 1992). Out of all these large-scale eruptions, only a series of small lava flows produced an outcrop of obsidian. This recently found outcrop, located at the headwaters of Ring Creek on the southeastern flanks of *Nch'kay*, is only accessible in summer months. Previous research found that glacial and fluvial erosion has limited or completely cut off access to this source between 3500–1900 years ago (Reimer 2000, 2003, 2014).

Nch'kay is the Squamish Nation place name that applies to Mount Garibaldi and the Cheekeye River (Bouchard and Kennedy 1986). Its literal translation into English is “dirty,” which is a reference to the glacial sediment in the waters that flow off this large peak. Old-time Squamish Nation elders mentioned that *Nch'kay* always covered its face with clouds, and was a predictor of weather (Figure 3). More importantly, *Nch'kay* is the place where Squamish Nation people anchored their canoes during the early Holocene, the period known culturally as the “Great Flood.” The oral history of this event, told by Louis Miranda, a respected elder of the Squamish Nation, conveys its role at this critical moment:

Long, long ago, when the Squamish Indians were first created, they were given three special helpers. These were: the Indian doctor or *Swo ohm tun*; the medicine man or ritualist or *Qua tsay its*; and the prophet or *Us yoh*. The Indian doctor had trained and fasted for many years until he had found the power of his spirit. He could help anyone who was sick, and that person would immediately become well again.

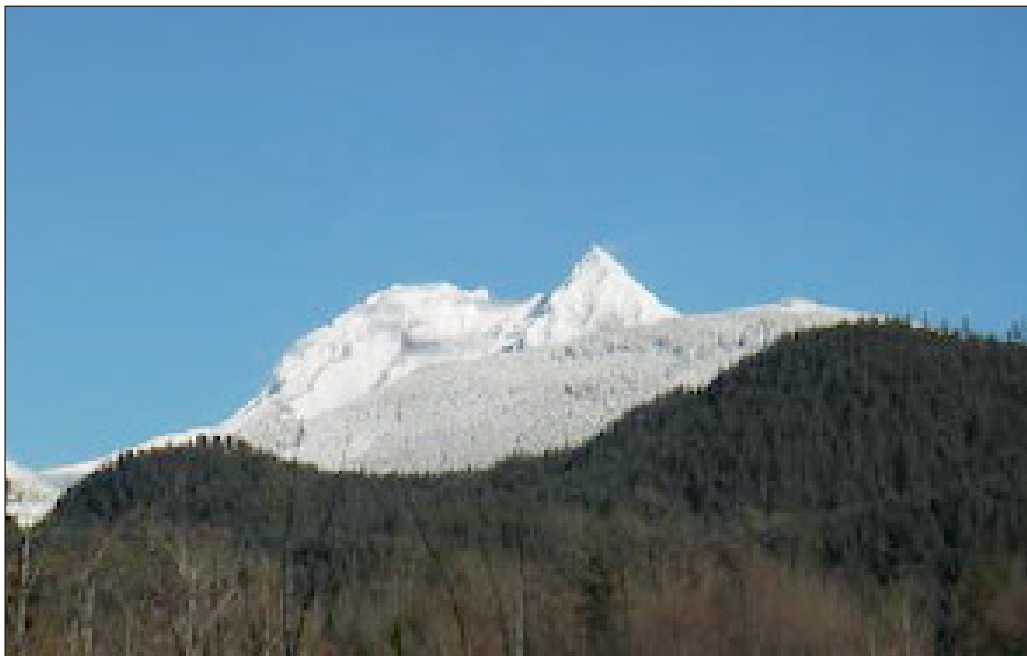


Figure 3. *Nch'kay* (Mount Garibaldi) as viewed from Squamish, British Columbia.

An Indian medicine man could also help a sick person if the Indian doctor weren't around. He didn't have the power of the doctor, but had learned certain magical chants and words, and knew the secret ways to use Indian paint on the sick person's body to heal him. The medicine man was also said to be able to cast evil spells as well as good.

The prophet didn't have the power to heal, or special words or paint. What he did have was the gift to see into the future, and predict what would happen to a person.

Well, in the early days, the old people gave the younger one's good advice on how to live and behave, such as, how to be humble and kind. The young people followed this advice, and also learned to help anyone who was in trouble or need. They shared their food with one another, and everyone was happy. There was always plenty to eat; deer, bear, and berries. When the fish were running, the rivers were full.

If anyone became sick, they called the Indian doctor, who healed him. As time passed, however, the people began to forget the old ways. They didn't listen to the good advice of the old people. They didn't share their food; they didn't help those in need.

One day a prophet stood up in front of the people and said, "My friends, I have been told to warn YOU!" "Your way of life is not right. You do not help one another as the people used to do when they were first created. I am warning you, you must change your ways."

He sat down, and the people were silent. Then an old man stood up and thanked the prophet. "Listen to the words of the prophet." He knows what will happen if you do not change."

After the prophet finished speaking, he looked around to see what the people would do. Some of them laughed and others made fun of him. "Listen to that gloomy old man! What does he know?" "Why should we listen to what these old people say?" "We'll live our own ways. Nobody can tell us what to do!"

Sadly the prophet and the old people watched as they saw their words go unheeded. Everyone behaved as he pleased. No one helped his neighbor; none were humble and kind.

Then all the game on this land began to disappear; deer, bear, all land animals. The people weren't able to hunt, and they became hungry. Again, the prophet stood up. "You have received one of your punishments. Listen now, and return to the right ways, or something even more terrible will happen."

Still the young turned aside and went their selfish ways. Soon the fish began to disappear from all the little streams and creeks. When the berry season came, no berries could be found. The people grew hungrier

and began to fight and quarrel among themselves.

Once more the prophet stood up and said "this is the last time that I can warn you. Now you have received this severe punishment. Oh, change your ways now, for if you will not, a punishment so strong, I cannot speak of it, will happen!"

The old people, as well, pleaded with the others, tried to get them to listen. But the people seemed to have become deaf to good advice. Now they were growing worse; fighting, quarreling. No one was happy, no one listened.

Then, one day it began to rain. The river started to rise. The Indian doctor seemed to lose his power. He could no longer cure the sick, and his patients died. The medicine man also lost his power. His special words and paints no longer worked.

The rain continued and the river rose higher. The medicine man used to be able to control the flooding of a heavy rain by taking a cedar stick, painting it, and chanting his words of power over it. Then he would place the stick on the river bank. When the rising river reached the stick, the waters would stop. This time, though, the water wouldn't stop. The river kept rising higher and higher.

When the water was about to come over the river banks, those people who had canoes put their families in them and rose up with the water. The others went into their houses with their families and animals. Gradually the water rose until it covered the houses and those inside all drowned. The people in canoes headed for the highest group to camp, and they had to go higher still.

Finally, all the land was covered and only the mountain tops were still showing. They floated to the highest peak in Squamish and anchored their canoes there. Day after day, the medicine man continued to write on the side of the mountain to try to stop the flood waters. Day after day, the waters rose, until, when they looked around, all that could be seen above the water was the peak of Mt. Garibaldi, and another peak further south down river.

The people headed their canoes for Garibaldi. The river was running very swiftly now, and after the canoes were anchored, some of them broke loose. The water was too swift to be able to paddle back, so some people from that group headed for the other mountain down river. Those still anchored to Garibaldi stayed there.

Then the water started to go down. At first very quickly, then it slowed down until a large lake was formed. The people from Squamish went back to their old home site. Others, from further up the Squamish River, stayed there, and still others stayed at Cheakamus.

Those who survived were happy to be alive and back home, but they remembered with sadness their friends who had drowned. At last, the Squamish people did return to their senses. When the old people spoke, everyone listened. People helped one another and everyone was happy again. The Indian doctor and medicine man were powerful once more. The animals which the people used for food returned to the land. The creeks were once again filled with fish and there was an abundance of berries. Everyone remembered to be humble and kind.

NEVER again would the Squamish people suffer this terrible punishment. NEVER again would the flood cover the land. It has been said that the medicine-man's paint can still be seen on the face of the mountain that some of the people were anchored to. The Squamish word for this mountain is *S halts ko* meaning "painted face." The mountain peak away to the south of the Squamish River, where some of the people landed is called Mt. Baker, (*sxwts'ak*), in Washington State, in the U.S.A. (Bouchard and Kennedy 1986)

After the Great Flood, the people of the Squamish Nation could establish settlements across their territory, though this was difficult. Chief August Jack Kahatshalano and Dominic Charlie mentioned an account of a young man wandering the land after the Great Flood who was helped by the Thunderbird (Bouchard and Kennedy 1986). After walking for a long time, the young man wanted to lay down and die, but the Thunderbird suggested to him that he should live and gave him three things essential to life: a salmon fish trap basket, a salmon, and a wife. This man and woman became the people to the Cheakamus village, where the traditional name of this settlement is *Chi'yakmesh* or "place of fish traps" (Bouchard and Kennedy 1986). This is one location to where my Squamish Nation ancestral name, *Yumks*, originates.

Related to *Nch'kay* are two other mountains (Figure 4). They link people and places across Squamish Nation territory and are called *T'ak't'ak'muyin t'la in7inyaxa7en* or "the landing place of the Thunderbird." This peak is now known as Black Tusk mountain and *Sxel'tskwu7* or "marked rock" or "hit against," now known as Ice Cap

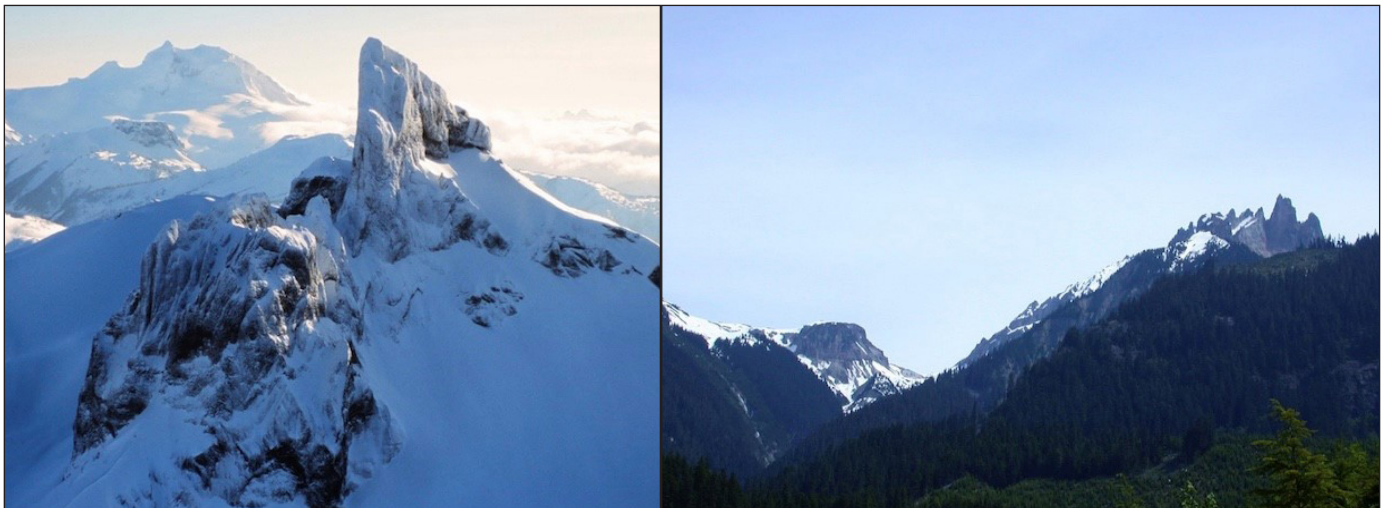


Figure 4. *T'ak't'ak'muyin t'la in7inyaxa7en* (Black Tusk, left) and *Sxel'tskwu7* (Mount Cayley, right).

THE SOCIAL IMPORTANCE OF VOLCANIC PEAKS

Peak and Mount Cayley (Bouchard and Kennedy 1986). *T'ak't'ak'muyin t'la in7inyaxa7en* is related to *Nch'kay* as it is the perch of the Thunderbird that helped the Squamish Nation people after the Great Flood; it also was responsible for creating obsidian. In an oral history relayed to me by my grandfather Joseph Moody when I asked about *Nch'kay*, he said it

is where the Thunderbird helped us Squamish people by fighting the evil being that was trying to harm our ancestors. During these battles, the Thunderbird used its powers of flapping its wings to create powerful winds and thunder but also shot lightning from its eyes. Where the lightning struck, the ground is where a black rock formed—obsidian on the lower flanks of *Nch'kay* in what is now known as the upper reaches of Ring Creek.

In the Squamish language, the place name *Sxel'tskwu7*, refers to two mountains. These two peaks in the upper Squamish River Valley are places where the Squamish medicine men used “*tumbth*” or red ochre (as referred to the Great Flood Story mentioned above) to paint on the sides of these mountains in attempts to stop the rising flood waters. Archaeological survey and excavation near these two peaks have located rock shelter sites with pictographs illustrating history related to these events (Vellikey and Reimer 2013). At one site near Ice Cap Peak is a series of pictographs related to protecting hunting and gathering places in the vicinity. At the northwest base of Mount Cayley is an impressive panel of pictographs related to Thunderbird, shooting lightning from its eyes and hitting the ground, creating obsidian (Figure 5). The oral history and traditions related to these three peaks offer interesting ways to link “pieces of places” and the ways they reflect how Indigenous peoples connect to their territories.



Figure 5. Pictograph of *In7inyaxa7en* or Thunderbird on the lower slopes of *Sxel'tskwu7* (Mount Cayley) in the upper Squamish river valley.

Cultural Importance of Volcanoes and Obsidian Sources

The above examples show why it is important to consider Indigenous cultural knowledge that comes both directly from Indigenous peoples and from ethnohistorical sources as it pertains to named place names of lithic sources, especially obsidian. From these examples, we can see that many of the lithic sources have the following characteristics:

1. The Indigenous names carry significant social and spiritual meaning(s).
2. The Indigenous names carry more than single meaning or literal translations linked to many events in Indigenous history.
3. The names of these peaks give reference to important times within each community's history.
4. The mere mention of these names implies cultural protocols, ritual, and ceremonial prerogatives regarding who could access these locations.
5. Access to these places varied as some required spiritual and physical training, while others did not.

Because of the cultural importance of these places, I believe researchers should recognize and use Indigenous names so that their meaning and history can be conveyed appropriately in local-to-regional interpretations. While anthropologists/archaeologists are often aware of these Indigenous names, they are rarely applied, relying instead on the Euro-American/Canadian names typically given to archaeological sites, towns and cities, lakes and rivers, and prominent mountain peaks. Establishing the Indigenous importance of mountains and volcanoes across the Pacific Northwest of North America will make it clear that the Indigenous peoples of this region were part of the region's nature (Reimer 2012). Interaction with these peaks has a history that extends deep into time. These peaks and other landforms still offer many forms of knowledge and shared history that links different communities together (Cruikshank 1998; Reimer 2012).

Explaining the Archaeological Occurrence of *Nch'kay* Obsidian

I now turn to questions concerning the occurrence of obsidian materials recovered from archaeological sites in the region. In this section I first present several lines of analysis and data to demonstrate where *Nch'kay* obsidian occurs using X-ray Fluorescence (XRF). Next is a discussion of XRF results through the construction of a distance-decay model for this material in the Salish Sea. Lastly, I will explore if the concept of "pieces of places," as discussed earlier, can make a case for archaeologists to consider in the explanation of the distribution of lithic materials in this region.

XRF of Nch'kay Obsidian

To identify the source of obsidian and other materials, XRF is often used as it is relatively quick to perform the analysis and is non-destructive. XRF has a long history of use in Pacific Northwest (Nelson et al. 1975; Godfrey-Smith 1985; Carlson 1994; Reimer 2000, 2003, 2014, 2015, 2018) and is used in this analysis to achieve the objectives of this research. The instrument used in this lab and analysis is a Bruker AXS Tracer III-V+ portable energy dispersive X-ray fluorescence (EDXRF) spectrometer. In the field and lab, the instrument is mounted on a solid stand that allows for easy maintenance of a secure position. It is equipped with a rhodium (Rh) tube that emits X-rays and a peltier

cooled silicon PIN diode detector operating at 40 kV and 15 μ A from an external power source. Samples ran for 200 live seconds with a filter comprised of 6mm Cu (copper), 1mm Ti (titanium), and 12 mm Al (aluminum). This arrangement allows for the analysis of elements from manganese (Mg) to molybdenum (Mo) of the periodic table of elements—specifically where iron (Fe), rubidium (Rb), strontium (Sr), yttrium (Y), zirconium (Zr), and niobium (Nb) occur. This suite of elements is well suited to archaeological obsidian characterization (Ferguson 2012). The instrument produces an X-ray beam at a 45° angle from the center of the analyzer window that measures 4 mm across. No weathered artifacts were included in this analysis. In the lab, any dirty samples were cleaned in an ultrasonic wash to remove any attached sediments. In all cases, careful placement of each sample with a clean and flat surface ensured the maximum exposure to X-rays, allowing for an optimal count rate and minimizes X-ray scatter. X-ray counts processed through the S1PXRF computer program developed by Bruker enable the user to examine spectra live time during analysis or review afterward. Results converted to parts per million (ppm) through another Bruker program S1CalProcess use the rhodium Compton backscatter and a database of 45 previously known and established values for obsidian sources around the world as determined by the University of Missouri Nuclear Reactor (Speakman 2012). This database quantitatively calibrates the instrument by comparing expected values with those produced by the instrument for the following elements manganese (Mn), iron (Fe), zinc (Zn), gallium (Ga), thorium (Th), rubidium (Rb), strontium (Sr), yttrium (Y), zirconium (Zr), and niobium (Nb). These values allow for comparison of pXRF results to previous research and lab dedicated instruments (Ferguson 2012; Speakman 2012). Previous tests of instrument stability used the NIST 278 (obsidian powder) was consecutively run for 180 seconds over ten hours, totaling 200 readings (Reimer 2015) and are compared to earlier tests (Speakman 2012) with no noticeable differences (Table 1).

Results of XRF analysis demonstrate that *Nch'kay* and other obsidian sources in British Columbia have differences in their elemental chemistry (Figure 6). In the Salish Sea published articles and cultural resource management (CRM) reports, a total of the occurrence of *Nch'kay* obsidian is currently at 72 sites (Table 2). This information provides a broad pattern of use of the *Nch'kay* source for the past 7500+ years across the Salish Sea region (Tables 2 and 3). It also is a preliminary model as the overall occurrence of *Nch'kay* obsidian derives from a wide range of sites examined under different circumstances. Some sites are large, while others are mid to small. Some sites have been formally excavated, while others have had minimal subsurface testing, only been surface collected, or are represented by small or isolated finds. Site types also range from villages, seasonal camps, burials, and temporary camps.

Table 1. Average and Standard Deviation Elemental Values for 40 *Nch'kay* Obsidian Samples [all values in parts per million (ppm)]

Mn	Fe	Zn	Ga	Th	Rb	Sr	Y	Zr	Nb
380 \pm 75	7102 \pm 547	36 \pm 6	15 \pm 1	1 \pm 1	36 \pm 2	381 \pm 30	10 \pm 1	106 \pm 9	4 \pm 1

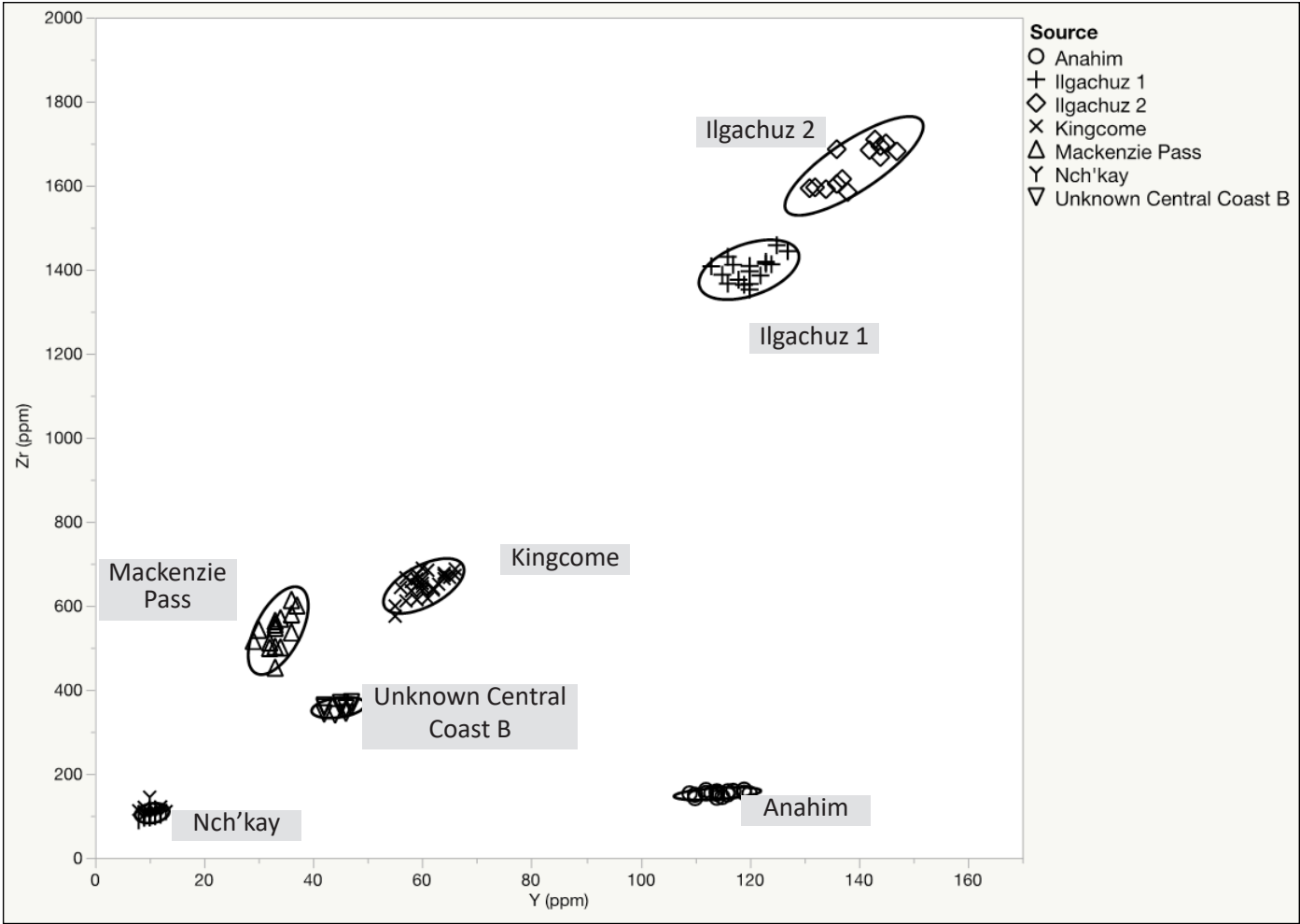


Figure 6. Biplot of Zirconium (Zr) and Yttrium (Y) for *Nch'kay* and selected British Columbia obsidian sources. All values in parts per million (ppm).

Table 2. Archaeological Contexts of *Nch'kay* in the Salish Sea

Site	Percent in Assemblage	Distance from source (km)	Area	14C Dates or Age Estimate	References
DkRr 1	100	7	Source	2840±40BP	ARCAS 1999; Reimer 2000, 2003, 2012, 2014
DkRr 2	100	7	Source	2500–1000BP	ARCAS 1999; Reimer 2000, 2003, 2012, 2014
DkRr 3	100	6	Source	2500–1000BP	ARCAS 1999; Reimer 2000, 2003, 2012, 2014
DkRr 4	100	6	Source	7140±40BP	ARCAS 1999; Reimer 2000, 2003, 2012, 2014
DkRr 5	100	6	Source	7,500–3,500BP	Reimer 2000, 2003, 2012, 2014
DkRr 6	100	6	Source	7,500–500BP	Reimer 2000, 2003, 2012, 2014
DkRr 7	100	6	Source	7,500–3,500BP	Reimer 2000, 2003, 2012, 2014
DkRr 8	100	6	Source	7,500–3,500BP	Reimer 2000, 2003, 2012, 2014
DkRr 9	100	7	Source	7,500–3,500BP	Reimer 2000, 2003, 2012, 2014
DlRs 4	100	12	Source	7,500–3,500BP	Reimer 2000, 2003, 2012, 2014

Table 2. Archaeological Contexts of *Nch'kay* in the Salish Sea (cont.)

Site	Percent in Assemblage	Distance from source (km)	Area	14C Dates or Age Estimate	References
DIRs 5	100	12	Source	7,500–3,500BP	Reimer 2000, 2003, 2012, 2014
DkRs 6	1	20	Squamish Valley	4000±60 to 240±90 BP	ARCAS 1999
EaRt 1	50	30	Squamish Valley	5500–3500BP	ARCAS 1999
EaRt 2	7	30	Squamish Valley	5500–3500BP	ARCAS 1999
EaRt 10	100	25	Squamish Valley	6900±40BP	Reimer 2012, 2014
EaRt 11	75	25	Squamish Valley	7000–5000BP	Reimer 2012, 2014
EaRu 5	11	40	Squamish Valley	1210±35 to 75±35BP	ARCAS 2001; Reimer 2012, 2014
DIRt 9	1	25	Squamish Valley	1390±40–30±40BP	Reimer 2012, 2014
DiRt 11	1	50	Howe Sound	1190±120BP	ARCAS 1999
DiRu 60	1	60	Howe Sound	2500–1000BP	ARCAS 1999
DiRu 56	4	61	Howe Sound	2500–1000BP	ARCAS 1999
DiRu 4	17	61	Howe Sound	2500–1000BP	ARCAS 1999
DiRu 19	1	62	Howe Sound	2050±70BP	ARCAS 1999
DhRr 2	41	60	Burrard Inlet	1000–500BP	Charlton 1971, 1980; Lepofsky et al. 2007
DhRr 6	4	59	Burrard Inlet	1620±90 to 1070±90 BP	Charlton 1971, 1980; Lepofsky et al. 2007
DhRr 8	5	60	Burrard Inlet	2500–500 BP	Charlton 1971, 1980; Lepofsky et al. 2007
DhRr 18	2	58	Burrard Inlet	1000–500BP	Charlton 1971, 1980; Lepofsky et al. 2007
DhRt 6	1	66	Burrard Inlet	3280±70 to 1630±80 BP	Williams 2013
DhRs 663	50	62	Burrard Inlet	2500–1000BP	Golder 2007
DhRs 1	67	72	Fraser River	2900±170 to 1950±90 BP	Burley 1980, 1981
DgRr 1	1	90	Fraser River	3500–1500BP	Matson 2010
DgRr 2	1	75	Fraser River	4375±105 to 3000±60 BP	Ham et al. 1984
DgRr 6	58	75	Fraser River	5500–3500BP	Stantec 2015
DgRs 1	1	90	Fraser River	5500–1500BP	ARCAS 1996
DhRs 8	17	71	Fraser River	5500–3500BP	ARCAS 1994
DhRq 22	10	74	Fraser River	4,170±120 to 300±50 BP	I.R. Wilson 2009; Spurgeon 1992, 1994
DhRp 17	3	76	Fraser River	2500–1000BP	Rousseau et al. 2003
DiRq 2	1	52	Fraser River	10000–5000BP	Brown and Oakes 2008
DiRq 5	1	52	Fraser River	840±40BP	Brown and Oakes 2008; Wright 1996
DiRq 14	3	52	Fraser River	10000–5000BP	Brown and Oakes 2008
DiRq 21	42	52	Fraser River	10000–5000BP	Brown and Oakes 2008
DiRq 24	25	52	Fraser River	10000–5000BP	Brown and Oakes 2008
DiRq 27	14	53	Fraser River	10000–5000BP	Brown and Oakes 2008
DiRq 34	25	53	Fraser River	10000–5000BP	Brown and Oakes 2008

Table 2. Archaeological Contexts of *Nch'kay* in the Salish Sea (cont.)

Site	Percent in Assemblage	Distance from source (km)	Area	14C Dates or Age Estimate	References
DhRl 16	1	100	Fraser River	5500–3500BP	Millennia 1998a, b, c
DhRo 17	25	75	Fraser River	5500–3500BP	Millennia 1998a, b, c
DhRo 26	100	75	Fraser River	5500–3500BP	Millennia 1998a, b, c
DhRn 14	2	75	Fraser River	5500–3500BP	Millennia 1998a, b, c
DhRn 17	9	75	Fraser River	5500–3500BP	Millennia 1998a, b, c
DiRn 1	33	75	Fraser River	5500–3500BP	Millennia 1998a, b, c
DiRn 2	50	75	Fraser River	5500–3500BP	Millennia 1998a, b, c
DiRn 17	43	75	Fraser River	5500–3500BP	Millennia 1998a, b, c
DhRk 8	50	75	Fraser River	5500–3500BP	LeClair 1976; Schaepe 1998
DkRl 1	2	90	Fraser River	5500–3500BP	Golder 2008
DgRw 199	9	96	Gulf Islands	2460±60 to 1720±60 BP	Curtin 1998; Hickok et al. 2010; Reimer 2003, 2014
DgRw 204	2	96	Gulf Islands	2320±70 to 2150±70 BP	Curtin 1998; Hickok et al. 2010; Reimer 2003, 2014
DhRw 4	1	98	Gulf Islands	1710±90 BP	Burley 1989; Curtin 1998; Hickok et al 2010; Reimer 2003, 2014
DgRv 3	1	102	Gulf Islands	1770±70 to 1570±70 BP	Grier 2003
DkRu 8	1	67	Gulf Islands	4000–3000BP	Carlson 1970
EaRk 3	13	110	Upper Fraser	3000–1000BP	Arrowstone 2008
DkRn 1	1	120	Upper Fraser	3000–1000BP	AMEC 2011
EcRq 1	76	56	Upper Fraser	3000–1000BP	Witt 2000
DgRx 5	8	100	Vancouver Island	4130±120 to 680±90BP	Murray 1982
DhRx 16	8	101	Vancouver Island	2130±30 to 1330±80 BP	ARCAS 1994
DcRw 38	10	173	Vancouver Island	3000–1000BP	I.R. Wilson 2002
EaSe 5	8	123	Sunshine Coast	3000–1000BP	Chris Springer per comm. 2017
EaSe 18	1	124	Sunshine Coast	3000–1000BP	Chris Springer per comm. 2017
DkSc 15	1	125	Sunshine Coast	3000–1000BP	Chris Springer per comm. 2017
EaSe 76	1	125	Sunshine Coast	3000–1000BP	Chris Springer per comm. 2017
DjSb 3	8	126	Sunshine Coast	3000–1000BP	I.R. Wilson 2002

Table 3. Recent Elemental Values for Samples Sourced to *Nch'kay* from the Simon Fraser University Department of Archaeology XRF Lab

Site	Mn	Fe	Zn	Ga	Th	Rb	Sr	Y	Zr	Nb
DlRt 9	403	7647	43	15	2	36	328	11	105	5
DlRt 9	953	18087	69	16	7	44	470	14	121	5
DlRt 9	881	8579	75	18	4	45	440	14	126	4
DlRt 9	878	11435	68	17	7	44	451	13	123	7
EaRt 5	870	10565	54	17	8	46	441	13	143	4
DhRt 6	868	7634	61	17	4	46	449	12	124	3
DhRt 6	890	8339	62	17	6	48	457	13	136	6
DhRt 6	768	7778	79	19	5	41	444	10	112	5
DkRr 1	353	6888	25	14	1	35	413	10	112	5
DkRr 1	459	8618	37	15	0	31	354	9	108	4
DkRr 1	396	6387	29	14	0	33	352	9	97	2
DkRr 1	448	6904	36	16	0	36	370	12	153	6
DkRr 1	356	6554	39	15	0	34	341	8	100	5
DkRr 1	412	6569	33	16	4	35	386	8	102	3
DkRr 1	391	6920	20	15	1	35	366	9	101	4
DkRr 1	385	6585	32	15	0	36	377	11	103	4
DkRr 1	329	7058	37	14	3	38	382	10	113	5
DkRr 1	269	6923	32	13	0	33	370	10	97	5
DkRr 1	298	7851	33	15	3	35	405	13	113	2
DkRr 1	472	7554	43	15	0	34	366	11	109	6
DkRr 1	195	7059	36	15	0	37	391	10	100	5
DkRr 1	475	6760	37	14	1	39	352	9	105	5
DkRr 1	418	6871	39	16	0	38	369	10	100	5
DkRr 1	349	6736	23	13	0	36	348	10	101	4
DkRr 1	374	6471	33	15	0	34	330	8	112	5
DkRr 1	284	7307	32	13	0	36	398	9	103	5
DkRr 1	481	7457	34	14	2	38	437	12	113	5
DkRr 1	352	6827	34	15	4	34	366	11	105	5
DkRs 6	416	7759	47	15	0	35	362	11	108	4
DkRs 6	302	6959	17	15	1	34	359	9	95	5
DkRs 6	254	6545	37	16	1	36	377	11	100	4
DkRs 6	394	6695	25	14	0	35	417	9	108	4
DkRs 6	418	7823	45	15	0	41	384	11	112	5
DkRs 6	454	7142	45	16	1	38	427	10	145	4
DkRs 6	298	6894	37	15	3	36	352	12	121	6
DkRs 6	456	7276	34	15	3	36	426	10	101	5
DkRs 6	313	7085	38	14	0	38	370	9	110	4
DkRs 6	383	6774	29	15	4	34	399	10	96	6
DkRs 6	456	6784	35	16	0	37	359	10	107	4

**Table 3. Recent Elemental Values for Samples Sourced to *Nch'kay* from the
Simon Fraser University Department of Archaeology XRF Lab (cont.)**

Site	Mn	Fe	Zn	Ga	Th	Rb	Sr	Y	Zr	Nb
DkRs 6	340	6891	36	13	0	36	367	12	120	3
DkRs 6	379	8184	39	14	0	33	344	9	97	4
DkRs 6	333	7450	38	13	1	35	384	9	96	4
DkRs 6	301	6574	31	11	0	29	394	8	89	3
DkRs 6	375	6686	37	14	0	35	415	10	107	4
DkRs 6	222	6220	38	14	0	33	358	10	96	5
DkRs 6	468	7143	31	15	0	34	378	11	99	5
DkRs 6	284	8597	35	14	0	38	357	11	101	5
DkRr 2	475	7058	33	15	3	38	379	12	108	5
DkRr 2	380	6875	37	14	0	35	372	13	110	3
DkRr 2	300	6868	37	16	2	34	371	12	102	4
DkRr 2	468	6462	36	15	0	35	364	10	101	5
DkRr 2	484	7801	42	16	1	42	388	9	120	5
DkRr 2	345	6865	48	16	0	34	350	10	102	2
DkRr 2	427	7096	37	15	1	36	462	11	106	3
DkRr 2	452	7042	50	16	0	36	367	10	110	4
DkRr 2	282	7116	35	15	4	41	426	10	116	3
DkRr 3	393	6773	36	15	1	39	371	10	98	7
DkRr 3	414	6583	42	14	1	37	359	10	100	5
DkRr 3	399	6350	25	13	0	31	338	11	96	3
DkRr 4	335	9771	29	14	0	37	392	10	107	5
DkRr 4	424	6949	29	15	1	35	371	10	101	4
DkRr 4	451	6764	35	16	0	36	353	9	104	3
DkRr 4	417	5387	30	15	1	29	321	10	92	3
DkRr 4	497	7465	45	16	2	41	380	8	100	6
DkRr 4	455	6811	35	15	2	34	450	10	145	4
DkRr 4	385	6987	30	16	1	37	353	9	109	5
DkRr 4	439	6356	35	14	2	34	357	11	100	4
DkRr 4	487	7184	39	16	0	37	384	9	115	4
DkRr 4	439	6664	32	15	0	34	392	9	99	5
DkRr 4	404	7032	39	14	0	38	372	8	100	4
DkRr 4	404	13018	35	13	0	35	354	10	106	5
DkRr 4	367	6864	34	14	0	34	397	10	106	3
DkRr 4	294	8249	38	15	0	36	373	9	109	5
DkRr 4	485	6371	36	13	2	36	397	9	110	6
DkRr 4	322	6830	39	14	0	33	347	12	109	3
DkRr 4	452	6936	39	16	1	41	388	9	107	4
DkRr 4	439	7205	34	13	0	37	391	11	103	5
DkRr 5	502	6910	38	16	0	37	384	10	105	3

Table 3. Recent Elemental Values for Samples Sourced to *Nch'kay* from the Simon Fraser University Department of Archaeology XRF Lab (cont.)

Site	Mn	Fe	Zn	Ga	Th	Rb	Sr	Y	Zr	Nb
DkRr 5	404	13110	16	13	1	37	365	9	108	6
DkRr 5	394	6898	27	15	0	39	371	11	115	6
DkRr 5	419	7333	30	14	0	34	358	10	105	4
DkRr 5	363	7272	37	14	1	33	363	11	103	5
DkRr 7	296	7009	41	14	0	33	391	10	105	3
DkRr 7	364	6508	27	13	0	35	355	7	100	4
DkRr 8	394	7309	43	14	0	32	358	9	99	4
DkRr 8	352	7338	30	15	0	39	407	11	121	4
DkRr 8	325	7056	33	14	0	39	370	9	98	3
DkRr 8	385	7016	39	14	0	38	367	10	103	4
DkRr 9	333	7285	38	15	0	36	386	11	113	5
DkRr 9	370	7236	25	14	0	40	375	8	105	6
DiRu 19	475	7058	33	15	3	38	379	12	108	5
DiRu 56	380	6875	37	14	0	35	372	13	110	3
DiRu 60	300	6868	37	16	2	34	371	12	102	4

Economic Distance-Decay Model in Archaeology

To examine the spatial and temporal distribution of material from this source, a distance-decay model is constructed for evaluation. While commonly used in archaeology, distance-decay models were initially borrowed from geography (Olsson 1965; Claeson 1968). Yet, they have a long history of use in archaeology (Renfrew et al. 1969, Renfrew 1977; Hodder and Orton 1976; Earle and Ericson 1977; Ericson and Earle 1982; Torrence 1986; Reimer 2000, 2003) as they spatially demonstrate the use and exchange of material. The original research on distance-decay models held a basic assumption of basic fall-off curves away from a source that represented the rate of use and interaction of a material declining away from a source. As more research occurred, different forms of exchange and movement of materials were discussed. Different forms of linear regression lines occurring in distance-decay graphs presented the opportunity to determine variable types of ancient exchange. Figure 7 provides illustrative examples of the varying lines of regression then represent different exchange systems in ancient times (Torrence 1986; Kooyman 2000). For example, different curves could represent:

1. Populations that had direct access to a source, where a high quantity of material occurs in a source zone and is followed by sharp declines further from the source.
2. A form of prestige exchange between different groups, where the fall off from the source zone is not as sharp as a direct access curve, indicating groups around the source held each other in high social status.
3. A trading fall-off curve that indicates a source zone, followed by a mid-distance zone away from the source with a slight decrease till a distance away from source where trading partners decline.

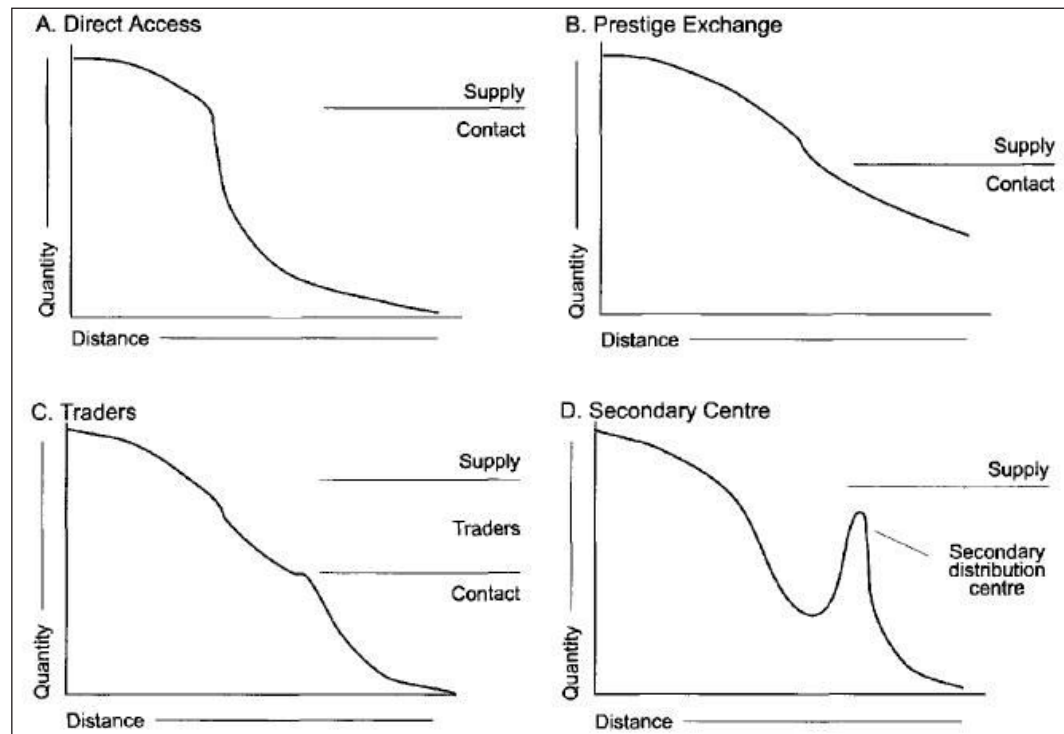


Figure 7. Examples of distance-decay models from Kooyman 2000.

4. A secondary supply center showing a high occurrence of materials in the source zone, followed by a sharp fall off away from the source, then an increase in frequency outside of the source zone, ending with a gradual decline (Torrence 1986; Kooyman 2000).

To create a distance-decay model for *Nch'kay* obsidian, this research utilizes two approaches to the mapping of its spatial and temporal occurrence. First we searched archaeological publications, BC Archaeology Branch site forms, and site report records (Table 2 and references therein). Second, we consolidated data gathered in recent years by the XRF lab in the Department of Archaeology at Simon Fraser University with previously published research (Nelson et al. 1975; Carlson 1994; James et al. 1996) (Table 3).

Results

These data were used to construct a distance-decay model for *Nch'kay* obsidian across the Salish Sea. To achieve this, several factors were considered, including the linear distance from source, and physiographic variables such as the high elevation context of the source, travel routes on land or water, and the types of sites where *Nch'kay* obsidian occurs (Figure 8). Examination of data in Figure 8 and Table 2 indicates a high occurrence of material in high elevation alpine areas at and near the source, labeled here as at the supply zone. In the supply zone, material from the source was quarried in rough nodules in the upper reaches of Ring Creek, then brought to nearby workshops in the sub-alpine and village contexts (Reimer 2000, 2003, 2012, 2014). From here materials were moved out of the supply zone, with decreasing frequency and increasing distance. These materials occur as prepared nodules and bifaces for use throughout

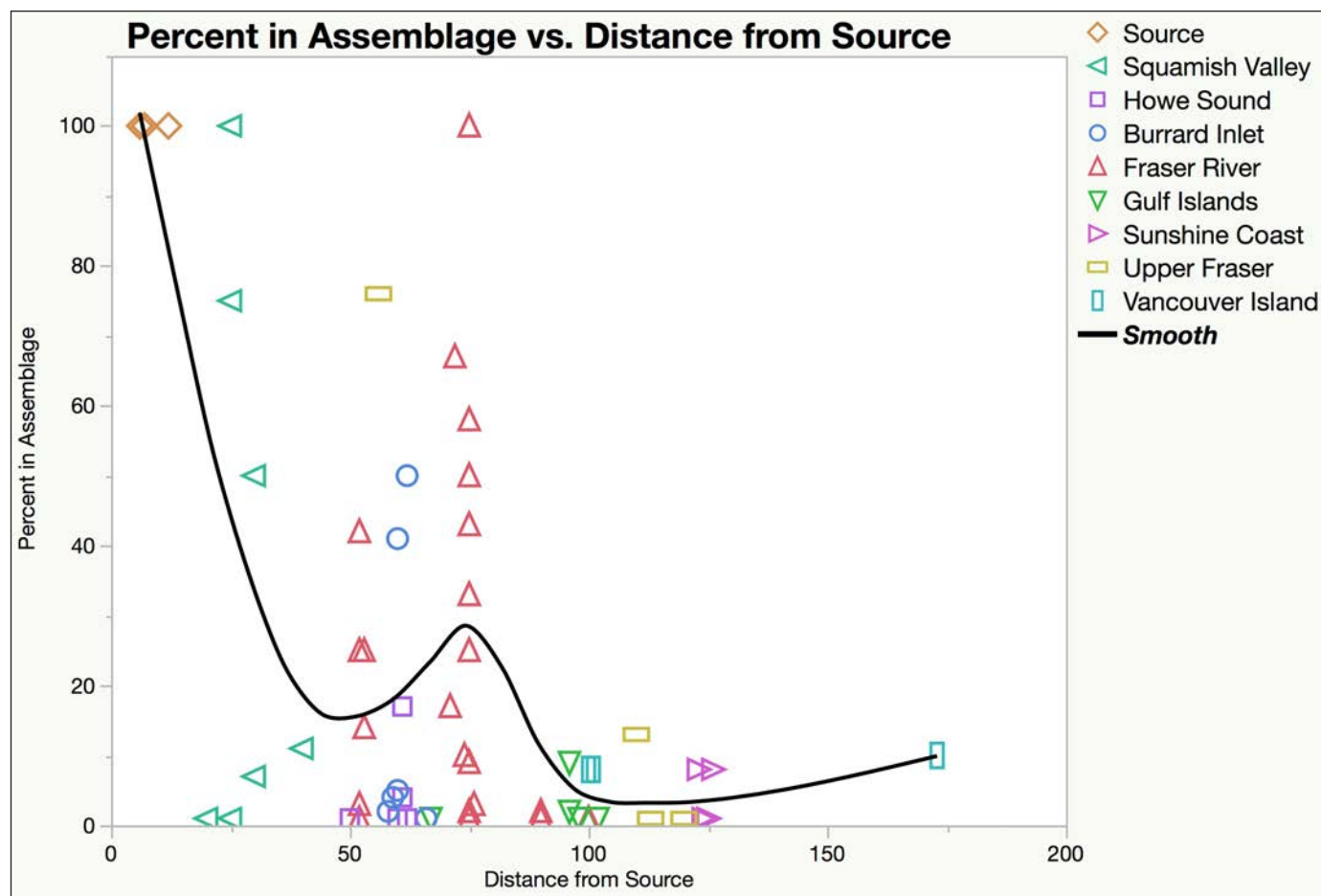


Figure 8. Distance-decay model for *Nch'kay* obsidian in the Salish Sea.

Squamish Nation territory or to be exchanged to other groups in Burrard Inlet or along the Fraser River (Figure 8, Table 2). Next the occurrence of *Nch'kay* obsidian declines when moving further away from the source in the Squamish River Valley, Howe Sound, Burrard Inlet, and along the Fraser River. In total the regression line displayed in the distance-decay model indicates a redistribution of *Nch'kay* obsidian at sites in Burrard Inlet and the mouth of the Fraser River (Figure 8). Beyond this the occurrence of *Nch'kay* obsidian is further exchanged as trade down the line (minimal frequencies with increasing distance) that extends as far north to *Tla'amin* territory, south to the Gulf Islands and east to the Fraser River canyon (Figure 8, Table 2).

Pieces of a Place—Nch'kay as a Cultural Marker in the Salish Sea

I now turn to questions concerning the occurrence of obsidian materials recovered from archaeological sites in the region and consider ethnohistoric research of Coast Salish social networks as determined by intermarriage and kinship. Cultural anthropologists have examined Coast Salish social structure in a variety of ways but few have attempted to map out the spatial extent of select groups links and influence in the region. For example, the classic model presented by Wayne Suttles argues that Coast Salish families protected themselves from periodic resource shortages by forming social networks where those in need could rely on those with plenty (Suttles

1960, 1963, 1968, 1987). These systems were established by a shared ideology and acknowledgment of protocols to resources, usually through marriage and kinship ties. Therefore, it was prevalent for Coast Salish people to marry outside their village and group to have access to places and resources, but also to inherit both physical and cultural property. Fortunately for this research, the previous examination of historical and ethnographic records identified the nature and extent of selected Coast Salish First Nations inter-marriage. Dorothy Kennedy's research helps to define the scope of social networks before AD 1880, with a focus on the Squamish Nation (Kennedy 2000, 2007). While her research was not able to go into deep time, it is useful in estimating the extent of Coast Salish social networks into the past. Her research was the first to statistically test the Coast Salish social structure model as presented by Suttles. Using data of marriages between Coast Salish groups that spans a few generations, Kennedy could draw a spatial distribution map that illustrated which communities tended to relate and interact the most. Her map of select Coast Salish intermarriage patterns shows a different way of envisioning Coast Salish territories and influences in and between people and places when compared to conventional anthropological territorial maps, influenced by modern legal and political cases (Figure 9). This map provides a possible alternative way to examine the distribution of materials in the archaeological record that can be traced back to a place with significant history.

Next, I wish to determine if the ethnographically recorded social network for the Squamish Nation presented by Kennedy extends into antiquity. To demonstrate this, I overlay the occurrence of *Nch'kay* obsidian at sites in the Salish Sea and their associated 14C dates (Table 2). Since artifacts of *Nch'kay* obsidian are significant "pieces of a place," their spatial and social distribution can give insight into the antiquity of the Squamish Nation social sphere of influence and how far back it extends into the past. In other words, does the archaeological occurrence of *Nch'kay* obsidian match with the extent of the Squamish Nation social network as suggested by Kennedy? To study this, focus here shifts to the spatial and temporal distribution of materials—notably obsidian from *Nch'kay* and how this related to social and family relationships from recent history as seen in historical and ethnographic records into the deep past through the lens of archaeology. *Nch'kay* is chosen as I have a long history of archaeological research and cultural ties to this place, and it is the only source of obsidian in the Salish Sea (Reimer 2000, 2003, 2012, 2014). When this spatial distribution of obsidian from *Nch'kay* plots over Kennedy's social relations map, it provides interesting results (Figure 10). In other Coast Salish villages and camps *Nch'kay* obsidian occurs in lower frequencies and declines sharply towards the edges of the ethnographically described limits of the Squamish Nation social interaction sphere. With only one exception, the spatial distribution of *Nch'kay* obsidian does not extend beyond the Squamish Nation social sphere of social relations. In the future, there may be exceptions to this, but this pattern has held from many years of research (Reimer 2000, 2003, 2012, 2014). This result provides an intriguing line of evidence that Coast Salish seasonal movement throughout mutual territories and well developed social networks has a long temporal span (Figure 10).

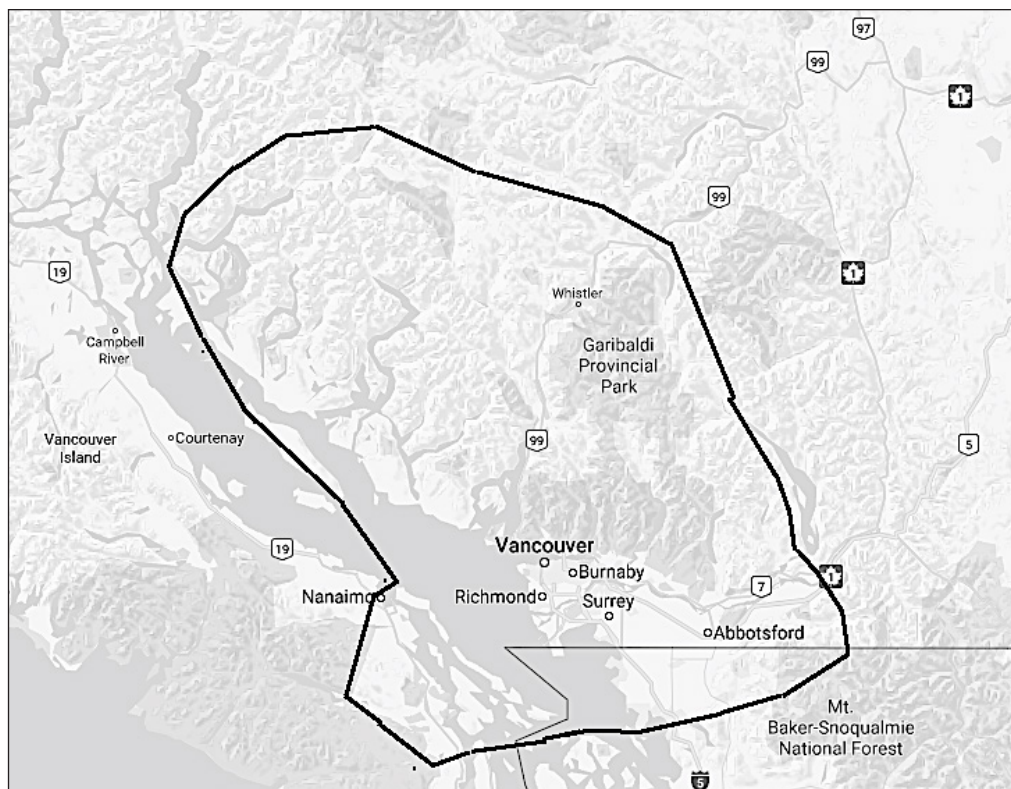


Figure 9. Social spheres for the Squamish Nation and other Coast Salish groups (redrawn from Kennedy 2007).

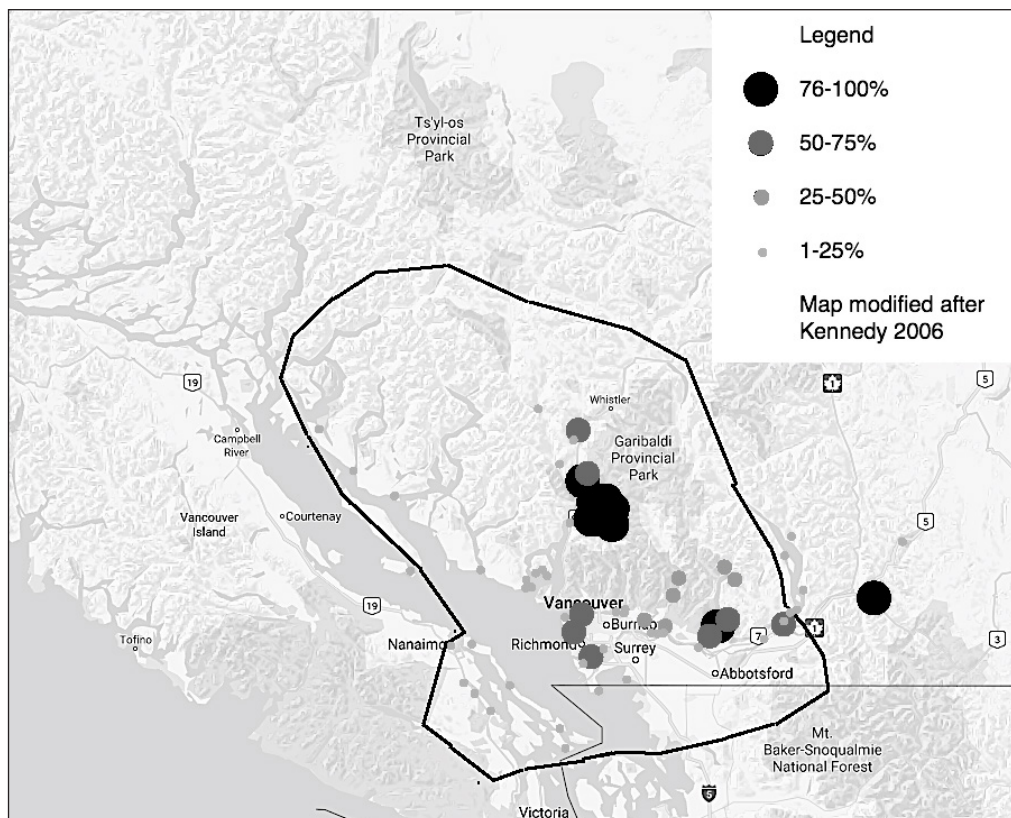


Figure 10. The spatial and social distribution of *Nch'kay* obsidian.

Conclusion

This research demonstrates that Coast Salish peoples with ancestral ties to places enabled them to access obsidian from *Nch'kay*. In Squamish Nation territory, it is a prominent peak, associated with numerous important cultural events and the Thunderbird. By having family links through marriage and extended family, other cultural groups would be able to obtain valuable materials, including obsidian from *Nch'kay*. Without the ties of social standing, status, and relationship, access directly to the source or through exchange would be either off limits or outright forbidden. In the language of the Squamish Nation, this term is *Nema'* (Squamish Nation Dictionary 2011:263). This is evident with the highest occurrence of *Nch'kay* obsidian closest to the source in the supply zone, followed by its use along sites in Burrard Inlet and the mouth of the Fraser River in a redistribution area. Away from these locations the use and occurrence of *Nch'kay* obsidian declines significantly (Figures 8 and 10). Considering obsidian sources to the south, recent examination by Connolly et al. (2015:180–192) for the Obsidian Cliff and Newberry Crater sources show a similar distance-decay contour density distribution away from each of these sources. Both Obsidian Cliff and Newberry Crater have mutual distributions in Washington and Oregon, but decline rapidly as those materials approach the study area presented in this research. It is likely the distributions of materials from those sources also followed social networks that determined their occurrence.

Additionally, this research illustrates the utility of combining scientific models derived from archaeological data as they relate to ethnography and First Nations cultural knowledge that pertain to lithic sources. The approach taken here is meant to provide new considerations for researchers in the region to carefully examine the relationships between cultural knowledge, anthropology, and the science of archaeology. While other models pertaining to the use and distribution of lithic materials contribute interesting ways to understand regional patterns in the past, this research presents a unique perspective related to observed human behaviors as a window into the past. Human choices of marriage are long-term investments linked to ties with close and distant groups. While the dramatic changes of colonization, population loss via disease, imposed legal and political legislation was and still is detrimental to Indigenous peoples, this research demonstrates that Squamish Nation/Coast Salish communities were invested in maintaining long-term relations. These were created in the distant past and their resilience persevered to survive in the conditions of the late 1800s. While some researchers on the Northwest Coast may not agree with the evidence of the continuity of social relations between Coast Salish communities, I encourage them to partake and witness the links between communities as expressed in many forms including winter dances, naming ceremonies, traditional songs and dances, and environmental activism. Witnessing Indigenous culture first hand is an enriching experience compared to reading ethnographic accounts. It also allows a researcher to obtain a sense of cultural perspective to place, as it might pertain to archaeological sites, lithic sources, and of course, prominent mountain peaks and volcanoes. The research presented in this article offers new insight into how we can envision the distribution of important “pieces of places” and their roles in ancient cultural day-to-day life. The combination of these lines of evidence offers new ways that archaeologists can view the landscape, through a social lens that includes the per-

spectives of the places that the Indigenous peoples of the region were part of nature, not separate from it or each other. These people had long-standing social ties and a shared sense of identity and history expressed through the maintenance of links to the deep past and important places. While I focused mainly on *Nch'kay* in this article, it is likely that other Indigenous groups with similarly important places can tell their own story about their history with similar results.

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The Pacific Crabapple (*Malus fusca*) and Cowlitz Cultural Resurgence

Nathaniel D. Reynolds and Christine Dupres

Abstract In the Pacific Northwest region of North America, Pacific crabapples (*Malus fusca*) are a culturally-important Indigenous food resource. Although the ethnoecology of crabapple harvest is not commonly known, and the resource is not a major nutritional component of Indigenous diet, recent ethnographic work across the region has verified Traditional Ecological Knowledge (TEK) about crabapples persists; the resource was formerly an important winter ceremonial food. We explored crabapple ethnoecology for the Cowlitz Indian Tribe, and in October 2016, organized a harvest of 10 gallons of crabapples from 30 trees on a Cowlitz-owned prairie preserve. The Cowlitz were recently federally-recognized in 2000, and Cowlitz citizens are undergoing a burgeoning cultural resurgence. This harvest, the first of its kind for the Cowlitz People, was a purposeful act of cultural resurgence intended to promote group social identity, traditions of reciprocity, and enhance spiritual connection to their aboriginal landscape.

Introduction

The Pacific crabapple, *Malus fusca* (Raf.) C.K. Schneid., also commonly called the Oregon crabapple or Western crabapple, typically grows as a large deciduous shrub or small tree of 2–12 m in height. It branches frequently and branches may bear sharp thorn-like spurs. Leaves are bright green and about 10 cm long, with serrated edges; irregular lobes are common. Flowers are recognizable as apple blossoms, are white or light pink, 2 cm across, and borne in small clusters of 5–12. Fruits develop into small tart apples that mature from green to yellow to reddish (Figure 1). Scottish naturalist and preservationist John Muir colorfully described the species:

The wild apple [...] is a fine, hearty, handsome little tree that grows well in rich, cool soil along streams and on the edges of beaver meadows from California through Oregon and Washington to southeastern Alaska. In Oregon it forms dense, tangled thickets, some of them almost impenetrable. The largest trunks are nearly a foot in diameter. When in bloom it makes a fine show with its abundant clusters of flowers, which are white and fragrant. The fruit is very small and savagely acid. It is wholesome, however, and is eaten by birds, bears, Indians, and many other adventurers, great and small. (Muir 1918)



Figure 1. A closeup photograph of the picking of a crabapple cluster.

The botanical type specimen for Pacific crabapple¹ was originally collected by another Scot, Archibald Menzies, who was surgeon/naturalist on the HMS *Prince of Wales* captained by James Colnett (Galois 2011). In 1787, the vessel stopped at Nootka Sound on the west coast of Vancouver Island and Menzies spent the month-long visit botanizing the region and interacting with First Nation communities there. He annotated the collection as *Pyrus* sp. The species was collected by many other PNW botanists and has a long taxonomic synonymy, including *Pyrus rivularis* Dougl., before being standardized as *Malus fusca*.

Domesticated apples do not grow true from seed, and commonly require grafting or budding for propagation of preferred fruits. Trees arising from escaped domestic seeds are known as wildlings, and often produce small and sour fruit. These feral apples are also commonly called crabapples, but are different than the native Pacific crabapple species.

Indigenous Ethnoecology of Pacific Crabapple

Despite Menzies' initial collection for western science, the species had of course long been known to Indigenous peoples of the northwest coast of North America. Indeed, although the plant's modern genus is *Malus*, which globally includes all wild and domestic cultivars of apple, this species is distinctly unrelated to any of the three other indigenous species of crabapple in North America. Rather, it groups genetically with Asian wild apples. Because of morphological differences (Van Eseltine 1933), separation in isozymes (Dickson et al. 1991), the aligned distribution of certain chemical compounds (Williams 1982), recent analyses showing little geographic variation or local derivation in North America (Routson et al. 2012) and cladistic differentiation within the genus *Malus* (Nikifora et al. 2013), the species is hypothesized to be a recent migrant across the Bering Strait, likely brought by humans to North America after the last glacial maximum of 12,500 BCE. Some Indigenous communities, however, do not agree with this immigration hypothesis, as their origin stories describe how the People were created in place.

¹ Missouri Botanical Garden, <http://www.tropicos.org/Specimen/1833408>

Early anthropological inquiry across the Pacific Northwest region rarely details Indigenous use of plant resources, concentrating instead on hunting and fishing activities (per Deur and Turner 2005:13, for the lower Columbia River). Even ethnoecological analyses that do include plant resources typically only examine plants that are major components of diet (Norton et al. 1984; Boyd and Hadja 1987).

Wyllie de Echevarria's (2010) thesis offers a deeper look at *moolks* (Pacific crabapple) use in the Gitga'at First Nation in Central British Columbia, and also notes crabapple use by at least 33 Indigenous groups across the entire Pacific Northwest coast. She observed most groups had similar methods of harvest: as the fruit ripened in autumn, typically during September and October (depending on seasonal, latitudinal, and local variations), crabapples were picked as entire clusters. Both ethnographic and modern reporting (Deur 2014:90–91) reveal unripe fruits as being woody and strongly sour, then sweetening as the fruit ripens through autumn, turning brown and soft after the first freeze of winter. Variability in harvest timing may therefore affect both how ripe the fruit is, and how much preservation processing is necessary. Crabapples were typically picked in clusters and subsequently de-stemmed (sometimes lightly boiled to facilitate de-stemming), though they can be de-stemmed either directly after harvest or shortly before consuming. Wyllie de Echevarria's analysis (2010) shows that crabapples are an important ceremonial food resource, both intensively within the Gitga'at community and extensively across the region, even if they were not a major component of diet and nutrition of Indigenous communities in the pre-contact era.

Briefly reviewing processing techniques from north to south, Pacific crabapples in northernmost latitudes were reportedly stored in seal (*Phocidae* or *Otariidae*) grease (Wennekens 1985), while further to the south, crabapple storage in eulachon (*Thaleichthys pacificus*) grease is reported for the Haida (Blackman 1990). Along the southern Alaska coast and in coastal northern British Columbia to the Nuxalk (Bella Coola) and Heiltsuk (Bella Bella) region, crabapples were similarly stored in a frothy mixture of rendered eulachon grease:

Several kinds of berries, chief of which were crabapples, were preserved in this manner. A small amount of olachon [sic] grease was mixed with cold water and whipped to a froth, "just like soapsuds." The berries were cooked a little, allowed to cool, then stirred into a box full of this whipped grease. They could be kept a long time. Informants say that grease a year or two old was best for this. (Drucker 1950:176, 247)

Drucker's Tlingit informant described an alternative method of preserving berries "...much used by his people. The berries were cooked and pulverized, mixed with pulverized fresh salmon roe, and re-cooked until stiff (apparently the albumen of the roe caused them to 'jell')" (Drucker 1950). Drucker presented this information in the crabapple section of his report but does not clarify if crabapples were processed that way by the Tlingit.

Further south, in the central part of their range, crabapples were commonly reported to be stored in water (Drucker 1950) rather than a eulachon grease emulsion. Curtis provides a comprehensive description of the Kwakiutl (*Kwakwaka'wakw*) crabapple harvest and processing in the central British Columbia coast:

Some of the mainland tribes, notably those on Kingcome inlet, harvest considerable quantities of crabapples, which they sell as a rare, but to a high-born man necessary, delicacy. The green fruit is picked in bunches with the two accompanying leaves attached. The spruce-root baskets are emptied into the waiting canoe, and when the craft is laden the party returns home, the apples are carried into the house and poured on a mat, and the entire family pluck them from the stems, each worker with a basket at his side. Then a cooking chest is partially filled with water enough barely to cover the apples, and a loosely woven basket is set in to receive the heated stones. When the water boils violently, the basket with its stones is lifted out, and the apples are poured in rapidly, so that all may be immersed an equal length of time and be equally cooked. The addition of the apples stops the boiling, but there is just sufficient heat left to cook the apples without breaking the skin. A grill of cedar sticks, just large enough to fit inside the box, is laid on top of the fruit and weighted down, so as to keep immersed those which, being unsound, would otherwise float. In this condition the box remains until winter festivities. Every box of food prepared for the winter feasting is added at the end of its row of predecessors. Sometimes as many as five boxes of crabapples are gathered by one family, each containing about twenty-five gallons. The apple harvest is finished at a time when all the sockeye salmon have gone up the rivers, that is, approximately the first of August. (Curtis 1915)

Even further south, Brown reports,

The fruit of the crab apple (*Pyrus rivularis*, Dougl.) is prepared for food by being wrapt in leaves and preserved in bags all winter. When the apples have become sweet, they are cooked by digging a hole in the ground, covering it over thickly with green leaves and a layer of earth or sand, and then kindling a fire above them. (Brown 1868)

Brown's report broadly covers "Northwest America" but it is not possible to identify any specific region from his reporting, other than that he is reported to have botanized the region from San Francisco, CA to Victoria BC in 1865–1866 (Sadler 1868).

Gunther (1973) interviewed Indian elders across western Washington State, assembling ethnobotanical information from several tribal and cultural sources. Regarding Pacific crabapple, she reported the Swinomish, Samish, and Quileute "eat the fruit raw, while the Makah, Quinault, Lower Chinook and Cowlitz all soften the fruit by storing it in baskets. The Cowlitz cook the fruit a little first, before storing it." Swan (1857), near Willapa Bay, similarly reported, "The wild crab-apple also grows in abundance, and is eaten by the Indians after being simply boiled."

In Oregon State, Dickson says a Calapooya Indian informant [who is not identified but suspected by Zenk (1976) to be John Hudson],

...picked the crabapple green and saved the fruit until it turned red. Then, they ate the fruit as you eat an apple today but only a few could

be eaten because they were very sour and hurt the mouth. Some of the crabapples were put away in oil for winter use (Dickson 1946:129).

In California, Wickson reported:

On the banks of streams from Sonoma County northward, beyond the boundaries of the State, is found the "Oregon crab-apple" described as a shrub or small tree, but which in favorable situations, attains good size. Such trees are reported from the neighborhood of Crescent City, Del Norte County, with bodies one foot in diameter, with spreading tops, loaded with small oval fruits, of a golden color when ripe. This fruit is eaten by the Indians, and was used in early times for jelly making by the white settlers. (Wickson 1889)

Finally, in addition to the Indigenous food-use of crabapples, the tree has other properties that made it valuable to Indians living in the range of the species during the precontact era. Lewis and Clark (1806) recorded observations of the tree during their stay at Fort Clatsop in the winter of 1806–1807. Although they noted, "The fruit is exceedingly acid and resembles the flavor of the wild Crab," Clark (January 28, 1806) also reported:

The wood of this tree is excessively hard when Seasoned. The natives make great use of it to form their wedges of which they Split their boards of Pine for the purpose of building houses. those wedges they employ in common with those formed of the Elks horn, in Splitting their fire wood and in hollowing out their Canoes. I have Seen the natives drive the wedges of this wood into a solid dry pine which it cleft without fractureing injuring the wedge in the Smallest degree. we have also found this wood usefull to us for ax handles, as well as glutt or wedges. The bark of this tree is chewed by our party in place of tobacco. (Clark 1806)

Additional evidence (Gunther 1973; Turner 1979; Deur and Turner 2005) reports Indigenous knowledge that the wood is strong and has desirable qualities for use as tools, wedges, and pegs. The bark was known to have medicinal properties (Gunther 1973; Deur and Turner 2005 [the active compound is the toxin *amygdalin*, which metabolizes into cyanide when ingested (Moerman 1989)], and was a source for brown dye for baskets (Curtis 1913), making crabapple trees a culturally-important regional resource in at least four realms: food, tools, medicine, and dye.

Cowlitz Use of Crabapple

Circa 1942, Harrington interviewed Lower Cowlitz Indian Joe Peter, and recorded "Knows the crabapple. The bush is awful thorny + the berries $\frac{3}{4}$ diam. grow in bunches + are bitter, oh, my! Yak + UC [Yakima and Upper Cowlitz] *kuml*. But forgets L.C. [Lower Cowlitz]" (Harrington 1943, roll 18, 31). Harrington also interviewed Emma Luscier, and recorded from her the Chehalis word for crabapple as *sts'u'm* (Harrington 1943, roll 17, 137). Upper Chehalis and Lower Cowlitz are both Coast Salish dialects separated only by a change from *k* to *tc*, as discussed by Boas and Haeberlin (1927, but

see Kinkade 1973). The Salish word for crabapple fruit is similarly given as /*cuma*?; *tsu'ma* in Cowlitz (Kinkade 2004 and *s/cum'* in Chehalis (Kinkade 1991); the tree in Chehalis is given as *tsoo-mûn*¹¹ or *s/c'um=nl* (Kinkade 1991).

Gunther's report (1973) that the Cowlitz were among Washington tribes who "soften the fruit by storing it in baskets" and also "cook the fruit a little first, before storing it," documents crabapple processing, not just use of raw fruit, within the Cowlitz community. This brief information about Cowlitz crabapple processing was obtained from Taytnapam elder Mary Kiona, whom Gunther described as:

...a delightful old woman of about 70, referred to by her uncle, Jim Yoke, from his heights of about 95 years, as 'that young lady'. The two live together and both speak poor English but there was no interpreter available except a giggling grandniece in her teens. It was more satisfactory to work without her. They live near Randle and had spent their lives in the Big Bottom country, knowing its outlet toward eastern Washington and the slopes of Mount Rainier rather than toward the Lower Cowlitz country. They are both Upper Cowlitz with some Yakima admixture. (Gunther 1973)

Kiona reported to Gunther that the name of the plant was *kumt'las*, and the fruit was called *kumt* (Gunther 1973). The Taytnapam [Upper Cowlitz] speak a dialect of the Sahaptin language, but the species is not named in the recent Ichiskiin dictionary (Beavert and Hargus 2009). As the distribution of Pacific crabapple principally lies in along the Pacific Coast and on the western slope of the Cascade Mountains, neither the plant nor the fruit was likely in common use on the eastern slope of the Cascade Mountains.

The Cowlitz People

The people of the modern Cowlitz Tribe, located in southwest Washington State, USA, are principally comprised of two lines of cultural heritage. One group spoke a distinct Salish dialect, and lived in villages along the lower reaches of the Cowlitz River and tributaries. Now referred to as the Lower Cowlitz, these people are known among themselves as the *šł'púlmx*² or *L'apu-l'emux*³ (translating roughly as "the people below," or "people of the lower river"). They lived in a manner that was rather river-oriented, with fishing providing more than half of their protein diet. They typically lived in larger communal plankhouses and relied more prominently on shovelnose dugout canoes for travel and trade on shallow rivers.

The second group spoke a Sahaptin dialect, and lived in the upper valleys of the Cowlitz, Kalama, and Lewis Rivers, including around the base of Mount St. Helens. They called themselves the *Taytnapam*⁴ (including both Cowlitz River *Taytnapam* and Lewis River *Taytnapam*). White settlers commonly referred to this group and the closely allied *Xwálxwaypam* as Klickitat. The *Taytnapam* came to be known as Upper Cowlitz, as Mary Kiona and Jim Yoke identified to Gunther. They lived in a manner that was slightly more upland-oriented than the Lower Cowlitz, and fish

² Per Kinkade (2004); multiple spellings exist.

³ Spelling adapted from Adamson (1934: xxxii, Introduction).

⁴ Spelling after Beavert and Hargus (2009); other spellings exist: *Taitnapam*, *Taidnapam*.

and hunted game were equal parts of their protein diet. Individual extended families typically shared small plankhouses, and they traveled overland by foot, and later by horse, more than they used canoes.

During the 1854–1856 treaty era in the Washington Territory, neither group signed a treaty, instead remaining on their Indigenous landscapes. Some individuals from both groups did relocate, however, and it is common for Lower Cowlitz to have extended family members who are citizens in other Western Washington Tribes. Many Upper Cowlitz have extended family members who are citizens of the Confederated Tribes of the Yakama Nation.

In the latter half of the 1800s, the Upper and Lower Cowlitz who remained on their aboriginal lands were administratively grouped by the Bureau of Indian Affairs (BIA) as “unenrolled Cowlitz Indians” for delivery of certain governmental services, such as Indian allotment and homestead lands, Indian schooling, and heirship of Indian estates. During this amalgamation, intermarriage, visiting, and trade between the two groups continued as it always had. The two groups existed in a reciprocal relationship where they were distinct, but complementary and interdependent (Fitzpatrick 1986).

In 1863, further and more drastic alienation of the Cowlitz from their ancestral lands occurred when President Lincoln signed an expansion of the Homestead Act, opening Cowlitz land to settlement by non-Natives, despite the fact that Cowlitz lands had never ceded or sold their lands to the federal government (Indian Claims Commission 1971). Leaders within Cowlitz communities began to strongly advocate for compensation for the unjust taking of their lands and there was general recognition within the region that the issue of Indian title was not resolved. In 1910, the Cowlitz reorganized into a constitutional-style government and elected chairmen and officers, and continued to vigorously pursue their claim for compensation for their land. The case was eventually transferred to the Indian Claims Commission (ICC) as Docket 218. After decades of hearings, the ICC decided in favor of the Cowlitz (Indian Claims Commission 1971), but it was not until 1973 that a compromise settlement was agreed upon by both parties (Indian Claims Commission 1973). Distribution of the final award was withheld, however, as the Cowlitz was not a federally recognized tribe. Despite having standing under the law for the purpose of litigating the land claim in the ICC, under USA law there was no sovereign successor to the Cowlitz plaintiffs of 1863. Since the Cowlitz was not a federally-recognized tribe, distribution of the final monetary award was withheld by the U.S. Federal Government. It was not until 2000 that the tribe achieved federal recognition, but an appeal by another Tribe delayed final federal acknowledgment until 2002 (Federal Register 2000, 2002). In 2004, the Cowlitz was finally able to begin disbursing some of its land claim award.

Throughout that lengthy political history, the Cowlitz maintained their community, pursued common interests, and preserved a coherent sense of tribal identity. Although some families intermarried and many moved away from the traditional territory, a significant tribal nexus and identity remained in the region (Fitzpatrick 1986). During that era, the central identity of the Cowlitz People was that they had been de-landed. One history of the Cowlitz Tribe from contact through 1900 (Irwin 1988, 1994, 2014) took its title, “The Dispossessed” from the status of the Cowlitz. The Tribe’s lack of access to their ancestral lands became a principal feature of cultural identity; tied to place but simultaneously separated from access to it (Carins and Roe 2003; Wiggins 2007; Dupres 2010, 2014).

Prairie Habitats and Cowlitz Indigenous Land Management Strategies

In the contact and exploration era in the Pacific Northwest, prairies were highly desirable places on the landscape for both British and American colonial development. Significant infrastructure and other improvements were established on prairies near the Columbia River, while others further away from the river were used for grazing and farming. Cooper correctly identified the Indigenous origin of these original prairies, reporting:

A few remarks are necessary upon the origin of the dry prairies so singularly scattered through the forest region. Their most striking feature is the abruptness of the forests which surround them, giving them the appearance of stands which have been cleared and cultivated for hundreds of years. From various facts observed I conclude that they are the remains of much more extensive prairies, which, within a comparatively recent period, occupied all the lower and dryer parts of the valleys, and which the forests have been gradually spreading over in their downward progress from the mountains. The Indians, in order to preserve their open grounds for game, and for the production of their important root, the camas, soon found the advantage of burning, and when they began this it was only those trees already large enough that could withstand the fires. (Cooper 1860)

Cooper's principal misunderstanding was that forest expansion was not recent; Storm and Shebitz (2006) summarize several lines of evidence to infer that climate change and downslope expansion of western Cascade Mountain conifer forests occurred some 6000 to 5000 years ago, rather than within a "comparatively recent period." Millennia ago, Cowlitz People adapted to forest expansion by purposefully burning to maintain oak woodland and prairie habitats. Prairies contained important root and seed food resources such as camas, sunflower, and tarweed; prairie fringes contained acorns and hazelnuts and were good ungulate habitat, supporting large populations of elk and deer. Wetter portion of these prairies contained crabapple. Thus, living on and managing prairie landscapes were crucial aspects of traditional Cowlitz cultural identity (Reynolds 2007).

Nevertheless, purposeful Indian burning of prairie lands was commonly prevented by colonial interests and settlers once infrastructure of buildings, plowed fields, and fences were established in these sites. Moreover, during the same era, several waves of disease severely reduced Indian populations in what would become southwest Washington State. By 1850, Indian populations were diminished by more than 95% their value at contact (Boyd 1999a). This cataclysm quite likely reduced the inter-generational transmission of cultural knowledge, including traditions and ceremonies associated with the rights to burn these prairies. Cooper (1860) observed landscape effects due to the cessation of regular burning, reporting, "On some prairies near Vancouver and Nisqually, where this burning has been prevented for twenty years past, young spruces are found to be growing up rapidly, and Indians have told me that they can remember when some other prairies were much larger than at present." Cooper (1860) correctly notes the association of anthropogenic prairie

habitats and both game animals and camas root, but analysis (Norton 1979; Norton, Boyd, and Hunn 1999) also shows association between prairie habitats and 46 plants known as food resources, and an additional 17 plants that may have been used as food, medicine, or material culture resources. Norton's extensive review surprisingly does not mention crabapples, but the species is included in a similar list reported in Storm and Shebitz (2006).

In later decades of the 1800s, the idea of Indigenous land management was overlooked or downplayed as it conflicted with the American narrative of Manifest Destiny, and was not recognized as "agriculture" in the orderly colonial sense. The dual forces of Preservation *à la* John Muir, and Conservation *à la* Gifford Pinchot, both addressed the American landscape as absent Indigenous people and their effects (Spence 1999). In the mid-1900s, Preservation in North America came to be embodied in the Wilderness Act, in the sense that wilderness were places entirely absent of humans (per Nash 1967). This ideal has since been broadly discredited (Cronon 1995; Spence 1999), and recent scholarship demonstrates that Indigenous prairie management was widespread in the Pacific Northwest (Boyd 1999b; Leopold and Boyd 1999; Storm and Shebitz 2006). In contemporary prairie restoration ecology, there has been a push to return anthropogenic burning to these landscapes, but fire control, fragmented ownership, and invasive species limit its widespread application in the modern era.

Cowlitz Prairie

For the Cowlitz, Coyote sang the Indigenous landscape into existence. A Lower Cowlitz version of this creation story was related by Minnie Case in 1926, who used the Salish name of *Xwa'ni* for Coyote. In this myth, titled "*Xwa'ni Travels*" Coyote creates all the features of the landscape, first singing into existence the mountains, then making the rivers between and the waterfalls. Then he makes the people, the Upper Cowlitz and the Lower. He next creates the land, the prairies where foods are to be gathered, stocks the land with game for the hunt, then finally stocks the rivers with fish before completing the Cowlitz landscape and travelling on down the Columbia River to the Chinook country. Case specifically relates:

He put in all the plants that people would eat—the Indian carrot, lacama, tigerlily, button lacama, and a plant resembling the Indian carrot. He made little hills nearby and put in many different kinds of berry bushes—blackberries, black caps, red huckleberries, gooseberries, salmon berries, strawberries, June berries and *wild crab apples*. All these things grow on Cowlitz Prairie." (Emphasis added, Adamson 1934:259)

Hence Cowlitz Prairie is a cultural nexus for the Cowlitz People and a place of powerful emotional and spiritual community identity. Lying on a terrace just above the Cowlitz River, the prairie runs about five miles east-to-west and is one mile north-to-south, encompassing roughly 3000 acres of fertile ground (Figure 2). In the long-term prairie management framework derived by Storm and Shebitz, Cowlitz Prairie has likely been maintained as open land by the Cowlitz People for over 5000 years, as a location for root and berry gathering, with hunting around the edges, and fish runs close by in the Cowlitz River. It was a focal point of Indigenous economic advantage, where several vital ecological resources overlapped in time and space. These advantages also

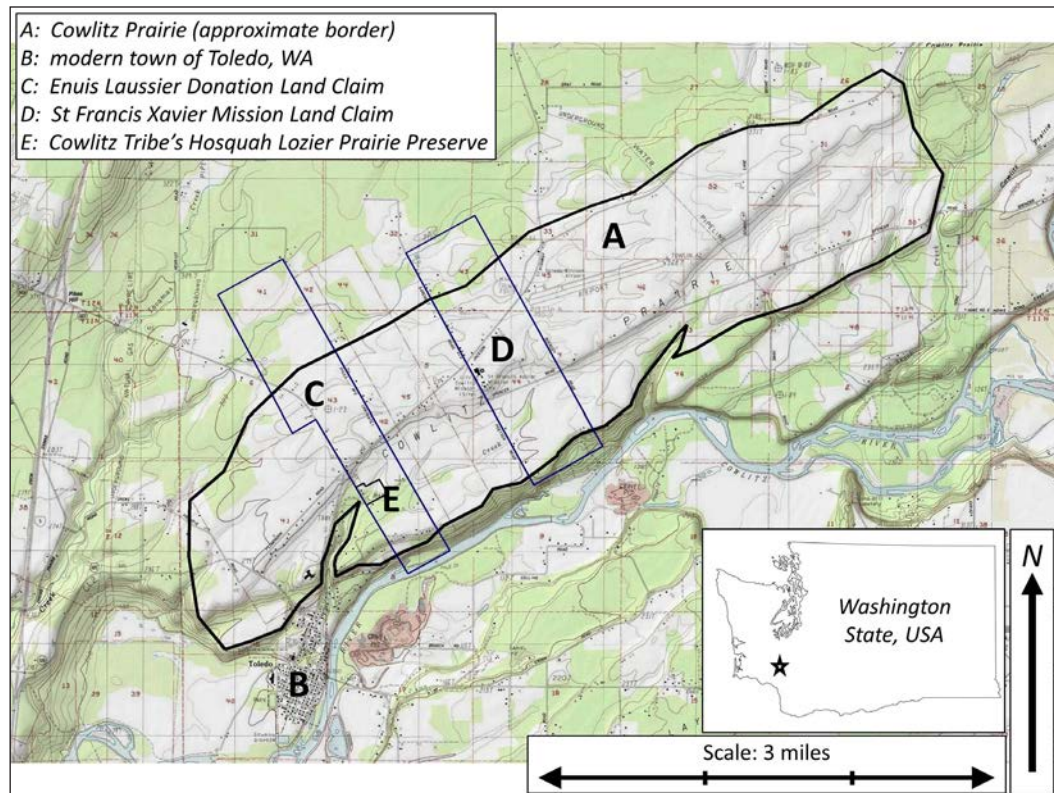


Figure 2. Area Map of Cowlitz Prairie.

made the site attractive to economic interests of the non-Native colonizing powers.

In December 1838, the Catholic Church established St. Francis Xavier Mission in the middle of Cowlitz Prairie. This was the first mission of the new archdiocese, and became the first Catholic Church in the Pacific Northwest. The Bishop of Juliopolis had proposed establishing a mission on French Prairie in the Willamette Valley, but Governor Simpson of the Hudson's Bay Company (HBC) reported to the Bishop that the Committee of the HBC in London objected, as the sovereignty of that region was still undecided. If a mission was established on Cowlitz Prairie, however, Simpson would afford passage and facilities for two priests (Blanchet 1878).

In 1839, as a result of an agreement between the Russian American Company (RAC) and HBC governing fur trade relations in the Pacific Northwest, the HBC was tasked with providing 14,000 *poods* of wheat (229,320 kg) and other provisions to the RAC station in Sitka, Alaska (Novo-Arkangelsk) (Tikhmenev 1978). HBC founded a subsidiary, called the Puget Sound Agricultural Company (PSAC) and established the "Cowlitz Farm" on Cowlitz Prairie. This farm primarily produced grains. Another PSAC enterprise, the Nisqually Farm on the southern end of Puget Sound, made cheese and other animal products under the agreement. Cowlitz Farm operated for several years during the joint occupancy of the Oregon Country by Britain and the United States, at its busiest cultivating some 1400 acres of land in wheat, oats, barley, peas, and potatoes (Roberts 1962). When the region came under the jurisdiction of the United States (after the Oregon Treaty of 1846), settlers took competitive land claims, reducing PSAC lands and sparking conflict. In 1848, Indian laborers fell ill with measles and the HBC was not able to produce enough to meet its obligations to the RAC. The following year, the California gold rush drew many essential workers

away from the farm. George Roberts, who worked as a clerk for the PSAC after 1846, eventually took a 160-acre land claim for the PSAC, and maintained the buildings until all PSAC holdings were finally sold to the United States in 1869 (Gray 1930). Much of the rest of Cowlitz Prairie was settled by retirees of the HBC, who marked off their claims and began personal farming as operations of the PSAC wound down.

These intrusive activities on Cowlitz Prairie dramatically affected the lifeways and culture of the Cowlitz People residing in the area. In short order they were exposed to both trade goods and waves of disease, proselytized, some of the women taken in marriage, the men hired as farmers to plow and plant entirely different foodways, and eventually forced off their own land—to which they *still held* Indian title—by the fences and furrows of settler's claims.

The Hosquah Lozier Prairie Preserve of the Cowlitz Indian Tribe

On the edge of Cowlitz Prairie is a 12.57-acre parcel of land, named the Hosquah Lozier Prairie Preserve, jointly conserved in 2010 by the U.S. Fish and Wildlife Service, the Washington State Department of Natural Resources, and the Cowlitz Indian Tribe. The conservation purpose is to protect and restore a population of Endangered Species Act-listed Kincaid's lupine, remnant native prairie habitat, and white oak forest. The preserve was acquired under the U.S. Fish and Wildlife Service's Cooperative Endangered Species Conservation Fund, via an award from the Recovery Land Acquisition Grant Program to the State of Washington, and a sub-grant to the Cowlitz Indian Tribe.

The preserve is a small part of the approximately 640-acre Enuis Laussier Donation Land Claim, variably spelled as "Ignace Lozier," "Losiere," or "Lucier" in historical records. Ignace was an HBC laborer from Three Rivers, Quebec. Hosquah Lozier, also known as "Julia," was his Cowlitz Indian wife. Ignace and Hosquah married on 20 November 1843 (Warner and Munnick 1972); in 1848, Ignace was working at the PSAC Cowlitz Farm, "hauling lumber from the mill to the edge of the woods" (Roberts 1962). The name Lozier remains on the landscape as "Laussier Road," running east and west some 1000 feet north of the parcel.

About one-third of the Preserve, or 4.5 acres, is remnant native prairie, and this area is the highest priority for restoration management of the site by the Cowlitz Indian Tribe's Natural Resources Department (CIT-NRD). When first acquired, the remnant prairie was being invaded by trees, including Oregon ash (*Fraxinus latifolia*), Douglas fir (*Pseudotsuga menziesii*), Pacific crabapple (*Malus fusca*), Lodgepole pine (*Pinus contorta*), and shrubs including native rose (*Rosa* spp.), Snowberry (*Symphoricarpos albus*), and non-native invasive Scot's broom (*Cytisus scoparius*). One of the first restoration actions undertaken by the CIT-NRD on the prairie was removing invading trees and shrubs. Removal was selective, however, and a small orchard of Pacific crabapples was purposefully left intact (Arnett et al. 2012) because they were known to be a culturally-relevant resource, do not grow large enough to substantially alter the prairie conditions, provide good wildlife habitat, and do not prolifically spread.

The CIT-NRD uses several different adaptive management methods to enhance crabapple productivity. Basic maintenance of open prairie keeps out invading trees that would overtop crabapples and reduce productivity. In the pre-contact era, this would have been accomplished with burning, but can be done with mechanical means on

the Lozier Preserve. The absence of fire, however, means there is not the fertilizing flush of nutrients that would have been available from ash. Crabapple trees can be individually managed as well. Fruit-picking from mature trees is not detrimental and future crabapple harvest could be skipped in years of poor production. Although vigorous harvest may break branches, strategic pruning may also stimulate production of flower/fruit buds. Since the Cowlitz acquisition of the Preserve, trees in this orchard have been cleared around, mowed under, and lightly pruned. Some trees within the orchard have been selectively removed.

Post-Recognition/Initial Reservation Cultural Resurgence

Fitzpatrick (1986) discusses the importance of knowing one's history and connections to the land as a mark of prestige among the Cowlitz; in Coast Salish tradition, high rank is assigned to those who have been taught well by their elders, and so have counsel, or "advice," for the people because they "know their history and culture." According to the late Judith Irwin, an avocational historian who worked on behalf of the Cowlitz for some thirty years, the core of Salish and Cowlitz identity is related to their long-standing residence on the land in southwestern Washington. Irwin states, "where one was born, grew up, married, has chosen to live" matters more than "blood quantum, language or cultural mores" to Cowlitz identity (Irwin 1994). Irwin, echoing Fitzpatrick, says that "loyalty to the Cowlitz country, the land or ancestral area," is a key means by which Cowlitz people claim their sense of group identity and emplacement (1994). Despite the formal dispossessing of Cowlitz from land, Roe (1996) observed, "One dominant expression of Cowlitz ethnic identity is their intimate and personal relationship with Cowlitz Prairie and Cowlitz River, where many continue to honor the spirits of their ancestors."

Another way Cowlitz people define and continue their identity is through relationships and familial ties. Such interconnection allows the Cowlitz to teach each other informally about the importance of the natural environment, right use of the resources upon it, and right living (Wiggins 2007; Dupres 2010, 2014).

The Cowlitz Tribe's decades-long pursuit of the Docket 218 land claim imposed a huge economic and emotional burden, as did the subsequent demanding path to federal recognition. Cowlitz leadership was keenly focused on meeting the stringent administrative requirements and legal details of recognition, requiring sacrifices of both scarce money and time (Dupres 2014). Despite Cowlitz efforts at maintaining cultural continuity during these tasks, the process took a toll. Families dispersed across western Washington and northern Oregon counties and beyond. There was no reservation. Cultural activities, healing ceremonies, and the common family acts that build community diminished as emphasis shifted to funding leaders' trips to Washington, D.C., for lobbying and making a case that the Tribe yet persisted.

While some Cowlitz people continued to live on or close to traditional lands, and worked in fisheries and forestry, it was difficult to practice culture in a traditional manner—hunting and fishing were constrained by various non-tribal entities, and animistic religious practices were looked down upon, and disrespected, if not actively discouraged. Traditional languages faded as children were sent away to boarding schools and later, to public elementary schools. Roe (1996) reported:

The Cowlitz experience of acculturation over the last 150 years has been one of “cultural pluralism.” That is, they have been forced to live and work in white society, and yet they have not relinquished their ethnic identity or community.

Some Cowlitz relocated to the treaty-established reservations of other tribes and enrolled there, to be with extended family and freely participate in traditional cultural activities and events.

With federal recognition achieved in 2000, and especially in the few years since the Cowlitz Tribe finally had its initial reservation brought into trust for its benefit (Walker 2015), there is a sense that the tide is turning, and that a battle has been won. Where once there was scarcity, there is time and space for new and important work to be done (Wiggins 2007). First and foremost, that work is to ensure tribal citizens have access to much-needed basic resources. Second is an upwelling of cultural resurgence. Cowlitz people are returning to their ancestral landscape, literally and figuratively, and many now make time to learn and perform the cultural practices of old. These are, as mentioned, inextricably tied to the landscape (Dupres 2014). In most cases, key resources still await in the prairies, the rivers, and the mountains. Practices of hunting, fishing, and gathering remain within many families, as do stories and memories of community gatherings, which yield a commonly felt sense of what it means to be Cowlitz. Acquiring places to practice culture, places to do the performative acts of community is especially important, including parcels and places like the Hosquah Lozier Prairie Preserve, that are in fee-simple ownership.

For the Cowlitz, impacts of history and policy and the colonial push towards assimilation corroded traditional cultural knowledge. Yet this knowledge is not altogether lost. Fragments of early written history and Indian family oral histories provide glimpses of the rich pre-contact Cowlitz culture. The knowledge is waiting to be uncovered and woven anew into contemporary Cowlitz lives.

Contemporary Crabapple Harvest on Cowlitz Prairie

So it came to pass, that on a drizzly gray morning in October 2016, a small group of Cowlitz gathered at the Tribe’s Hosquah Lozier Prairie Preserve with plastic buckets and ladders. In 1945, Upper Cowlitz elder Mary Kiona confirmed that the Cowlitz harvested crabapples, and 70 years later, the Cowlitz again came to Cowlitz Prairie, where *Xwa’ni* specifically put fruit for people to eat. They arrived to harvest crabapples and give thanks. This was the first crabapple harvest to occur within their memory. Raw crabapples were sampled and it was laughingly agreed they were indeed acidly sour, woody, and seedy. The group began the work with a blessing, stories about the cultural heritage Cowlitz Prairie and the Hosquah Lozier Preserve, then instructions about how to select and pick ripe clusters of fruit.

In 1945, Mary Kiona said the Cowlitz would “cook the fruit a little first,” before storing it. In 2016, harvesters talk while they pick, making plans to turn the sour fruits into sweet crabapple jelly, and to put it up in small jars to hand out at the upcoming Cowlitz general council meeting in November. Cultural adaptation is part of the process; like the ladders and buckets, food preservation techniques have come a long way since the pre-contact era. Jelly and jam-making is familiar, though commonly

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done with Thinleaf Huckleberry (*Vaccinium membranaceum*) that many Cowlitz families still gather from the Cascade Mountains every summer (Reynolds 2007). During the crabapple harvest, Reynolds recorded brief semi-directed interviews (per Huntington 1998; Reynolds and Romano 2013) with willing participants.

A few hours later, the group left the Preserve with 10 gallons of hand-picked crabapple clusters (Figure 3). In between these bookends, they talked Tribal politics and culture, told stories, sang songs, laughed, grumbled, and some smoked cigarettes.



Figure 3. Melody Pfeiffer, with a bucket of crabapples.

Deliberate Steps toward Cultural Resurgence

Among the harvesters was Tribal elder Melody Pfeiffer, the youth program coordinator for the Cowlitz. Melody, one hand reaching up to pull down a branch while the other twisted off clusters, spoke of the importance of crabapples to the recent cultural resurgence, and the possibilities therein, saying “...young people very much want to bring culture and traditions back. We are in a position where we gather more, people moving back here ... wanting to get back to Cowlitz Tribal way of living” (Pfeiffer 2016).

Memory of cultural traditions and processes, both for the group and the person, is crucial for the survival of a culture. This memory can be held in individually creative ways and through group consensus, which makes the nature of remembering

negotiable. In Cruikshank's (1998) account of women who "assert [tribal cultural distinctions] to make [historical interpretive] reconciliations," she points out that tribal "concepts and categories" of group provide a sense of collective identity despite individual differences. The prairie constitutes such a concept and category. Fitzpatrick (1986) notes that the Cowlitz see their ancestral lands as crucial to their sense of identity, the long history of their habitation on these lands that were once theirs, and their dispossession from those lands, is a necessary component of their concepts and categories of understanding themselves.

For the Cowlitz Tribe, the concept of land and the themes of cultural survival are, in Cruikshank's words, "central to contemporary public discussion of culture and expression of belonging." In the dispersed Cowlitz community, the meaning and function of these critical ideas might change from member to member, but they remain a common link among active Cowlitz members and Tribal leadership (see Fitzpatrick 1986; Dupres 2014).

Cowlitz Tribal Carver Robert Harju harvested crabapples that day, too. He also serves as caretaker of the Lozier Preserve. Harju talked about how landscape and heritage are inextricably intertwined for him as an individual Cowlitz member, noting,

Culture matters.... It's much like a history.... Like a living history and history is important. To study our culture tells us values, tells us basically [about a] way of life that isn't mainstream or colonized.... In a Tribal sense, the more you know about culture, the more you'll know your history. You'll know your descendancy, you'll know the old ways.

Harju continues, emphasizing that living on the land's bounty is important, but the old ways are vital: "You've got to know them, to document them, to make the history. You can bookmark these things, but if you're out participating then the cultural history connection is ... is ..." Harju's words trail off. Words could no longer convey the strength of his idea. For Harju, talking about what picking meant could not adequately capture the importance of the act of picking.

A social transformation and restoration of any sort requires there be a conscious moment, in which the person or group decides to do something differently and to do it deliberately. In some instances, purposeful transformation may feel awkward or forced, but eventually, such activities cease to be new; they become the common fabric, the norm, the typical thing that is done. Alone and together, participants reproduce the conditions of their group or village. Through their actions and movement, they also—whether intentionally or unwittingly—create possibilities for new understanding, expansion and change. Pfeiffer speaks heartfully of learning through this process, "I've never picked crabapples before ... I love it because it builds me connection to our culture and our tribal land." Alluding to the themes of continuity, survival, and learning from the ancestors, she says that the picking was "What our ancestors were doing this time of year, what they did for their survival" (Pfeiffer 2016).

For the crabapple harvesters, purposely setting out to gather the fruit is an activity laden with intense meaning and duality: simultaneously unknown for the individual participants who have never personally done it (as crabapple harvest is older than any living Cowlitz can remember), yet known in the sense that attendees are intensely aware that this harvest is what generations of ancestors did in this very spot. The duality of known/unknown, strange/familiar, or exciting/scary thrills

attendees and makes them somewhat nervous. Their showing up and participation today is a conscious, purposeful, performative act of cultural resurgence, weaving old knowledge and new experience into a deeper understanding of what it means to be Cowlitz on the Cowlitz landscape, for all involved: the individual, the group, the trees, and the land itself.

Traditional Cowlitz Culture is Based on Reciprocity

Wiggins remarks (2007:47) that traditional Cowlitz culture is based on a deep sense of reciprocity, beginning with “a sense of awe and respect for the natural world and the importance it has for human survival.” He suggests that an inquisitive look at Indigenous social structures and techniques of community-building may be helpful “in establishing the kind of deportment that enabled tribal people to live with unanimity for centuries on this continent.”

Wiggins compares Indigenous cultural constructs fostering reciprocity with western colonial ideals:

... one example of achieving this kind of unity is the Indian peoples' custom of sharing with others....With the emphasis on sharing, some differences as to the importance wealth plays in traditional cultures and that of modern western societies can be seen. The modern progressive societies tend to emphasize ... wealth accomplishment for personal security. On the other hand, traditional Indian cultures did not consider their prosperity to be expressed in accumulation of material good for personal gain, and they place a high value on what each person could contribute to the tribe. (Wiggins 2007:47)

Wiggins confirms this perspective exists within the contemporary Cowlitz Tribe, noting “The Cowlitz like other tribal groups, affirmed their tribe’s cohesion by resting on traditional community-building practices like generosity.” Pfeiffer offers similar observations:

Now I know these trees were here when our grandparents were here. Here’s what they ate in the winter to sustain them. On the ground to use, take, utilize. NOT TO WASTE. We should only take what we can use. It’s important that people know that. Take only what we need. (Pfeiffer 2016)

For Pfeiffer, sustainable harvest of crabapples led to sustaining her ancestors, and of the Cowlitz people more widely. It is a respectful way of using what is given, but taking no more than is necessary. It is generous to leave for others what is not needed by you.

Harju expands this reciprocity circle, saying,

We are one people. We are here to understand each other. Our tribal hearts grow deep. Our roots are very deep ... you can’t keep what you don’t give away—I see that process working in real life. You can’t keep what you’re not willing to give away. Gifting is ultra-important in Native American community. That’s the whole idea of abundance. You’re not giving away something you cannot replace ... it’s manifold. (Harju 2016)

Wiggins notes the accumulated ethnoecological wisdom of the Tribe about the reciprocity required to live wisely in the physical world also needs to be passed onto following generations as a means of cultural survival. This necessitates the ability to speak wisely, not only to the next generation, but to many generations beyond (2007:46). Wiggins is a Cowlitz Elder, and though not personally present on harvest day, is implicit in the cultural act and generational transaction of the harvest, as he is a great-grandson of Ignace and Hosquah Lozier themselves, and therefore has direct familial historical connections to the place of harvest woven in with his deep Indigenous cultural connections.

In the orchard, Harju also speaks of generational knowledge and the traditions of giving:

We need to get back to ... we are one people. We need to live among each other. If we don't it will only get worse. The youth are teaching us. We are getting lifted up. They are tired of being set aside. They want to teach and learn themselves. We need to nourish that. (Harju 2016)

Harju also mentions the recent experiences of the Cowlitz Elders: "To see Melody and her group here doing this is awesome. I deal with the Elders at St. Mary's⁵ and they're just having the time of their lives." Harju is describing how Cowlitz Elders are finally able to set aside the longstanding focus on performatively meeting the western and colonial frames of identity, and are re-focusing on cultural actions that are Cowlitz frames of identity; Cowlitz ways of being.

Indigenous reciprocity is not only the personal relationship between harvester and harvested, but it integrates the experiences of the Elders, and how those can inform the youth. The reciprocal relationship extends to both the responsibility to "listen to your elders," and the responsibility to teach the youth as well.

Living in a Traditional Reciprocal Way Leads to a Spiritual Awakening

In the human experience, actions have repercussions. Wiggins (2007) notes the traditional Cowlitz way of life was a long history of establishing communal wisdom from the experiences of what works and what does not (2007:46). While this cultural view may be rooted in the experiences and interactions of pre-contact Indians with the physical world, such as the long-standing traditions of prairie burning, this framework also served the Cowlitz community well during their tortuous legal and administrative pathway through their land claim compensation and federal recognition processes. When Cowlitz leaders saw that one method did not work, they adaptively and persistently tried other options until they succeeded. Traditional cultural-thought frameworks allowed the Cowlitz to function well, providing stability and guidance to the people as they encountered new challenges.

The return to the landscape, however, specifically reinvigorates Tribal identity. For example, on the morning of the crabapple harvest, Pfeiffer related that she felt cultural resurgence was a spiritual awakening, and that crabapple picking and gifting "... builds connection. When you walk with the people you can feel it all around you. It's very awakening ... it brings us closer to our people. It's very important."

⁵ "St. Mary's" is the Cowlitz Tribe's elders housing complex, in a former Catholic school adjoining the St. Xavier Catholic mission/church property on Cowlitz Prairie

For the Cowlitz, there is a sense of “right use” that is spiritual in an animist sense. In the experience of the Cowlitz, the land itself has memory and agency (per Basso 1996). The land must be treated well or else the land will not provide. Across the region, all living things that gathered to dance in the seasonal round of resource acquisition were conscious spirits who voluntarily made themselves available to the People. Charles Hill-Tout, although describing interior Indians from the Lillooet, BC area, compellingly wrote,

Nothing the Indian of this region eats is regarded by him as mere food and nothing more. Not a single plant, animals or fish, or other object upon which he feeds, is looked upon in this light, or as something he has secured for himself by his own wit or skill. He regards it as something which has voluntarily and compassionately placed in his hands by the good will and consent of the object itself, or by the intercession and magic of his culture heroes, to be retained and used by him only upon the fulfillment of certain conditions. (Hill-Tout, in Stewart 1977)

Hence the crabapple harvest is not a simple cultural practice, it embodies a deep appreciation for the spirits of the crabapple trees that have been *waiting* on Cowlitz Prairie for the Cowlitz People to return—been waiting for the Cowlitz People to bend their branches, pick their clustered gifts. Their sour fruit were only offered in exchange, however, after the Cowlitz People cleared away overtopping trees invading the prairie and shading out fruit production. Reciprocity, yes, but more—a chance to meet Elder spirits in the misty land, face-to-face, outstretched limb-to-outstretched limb, and to thank them for their gifts. For Harju, gratitude extends even to the spirits of weather; though harvest day was foggy and cold, Harju noted its beauty, exclaiming, “What a perfect day!”

The harvesters intended to make the crabapples into jelly, to be gifted to elders at the November General Council, the largest annual meeting of Cowlitz people. Pfeiffer, when asked how it felt to be creating such a gift for the people, acknowledged reciprocal responsibility to share and spread the news of the resurgent relationship between people, tree and land, implying that the jelly itself is spiritually-powerful:

“it’s a sense of pride, ownership. Since we are able to bring traditional foods to our people that they have no knowledge of, it awakens them. These fruits we still have today; we are waking up the knowledge. It still lives. It’s still on the landscape. You have to reach out and tap into it. It’s here all over.”

Conclusion

The October 2016 crabapple harvest conducted by a small group of Cowlitz People was only possible via an integration of TEK from several sources. TEK is typically qualitative information and can be challenging for biologists to acquire, as it often requires ethnographic research or social science methods that are qualitative rather than quantitative. It may also take years of working within a community to develop trusting relationships with individuals who hold knowledge.

In 1945, Upper Cowlitz Elder Mary Kiona verified that the Cowlitz collected crabapples and processed them (Gunther 1973). Traditional crabapple processing

techniques reported from other Indigenous communities verified the techniques were fairly uniform across the Pacific Northwest and were primarily intended to sweeten the sour fruit. Ethnographic information further verified that prairies were important places in the Indigenous landscape, and were purposefully managed by fire for thousands of years to ensure the persistence of critical food and material cultural resources found only in those habitats.

In this instance, staff in the CIT-NRD sought to conserve land on Cowlitz Prairie, a very important place on the traditional landscape where creator/transformer *X̣wa'ni* put crabapples in the Myth Age for the People to use. They managed prairie habitat not with fire, but using modern tools to restore and open the prairie from invading forest. They additionally preserved and managed the crabapple orchard on the Lozier Preserve in a manner that facilitated the opportunity for the Cowlitz People to conduct a crabapple harvest.

Finally, semi-directed interviews conducted during the crabapple harvest revealed and confirmed that picking the fruit, in this time, at that place, created an opportunity for a complex web of personal identity, community identity, and generational relationships to land to arise and be expressed.

Despite colonial-era transformation of both land and people on Cowlitz Prairie by the imposition of PSAC farming and Catholic Church spiritual practices (circa 1838), in 2016 the Cowlitz people were finally able to shift the Tribe's focus away from vexing interactions with the federal government, to recovering traditional cultural practices. Among other effects, the Cowlitz Tribe is experiencing a significant cultural resurgence, which is connecting the community to a traditional understanding and practice of reciprocity. This reclamation extends to relationships with physical resources and landscapes but also includes generational knowledge, fluidly forward and backward in time. Exposure to these landscape-level connections can lead individual Cowlitz to spiritual awakenings, and reconsiderations of their human role in the vast community of ethnoecological animist and ancestral spirits found within the traditional Cowlitz landscape.

Recipe for Pacific Crabapple Jelly

Select Ripe Fruit

In autumn, possibly after the first frost, pick crabapples that are slightly soft and dark brown or reddish on the sun-exposed side. Avoid very hard fruit and very soft fruit. Pick whole clusters by twisting at the stem attachment point (Figure 1). Collect clusters in a bucket and keep picked fruit cool until processing.

Destemming

Rinse clusters in a colander, removing leaves, twigs and other debris. Place rinsed clusters in a large pot and cover with water. Bring water to a slow boil over high heat. Reduce heat and let the clusters simmer for 20 minutes until the apples become slightly softer. Drain clusters through a colander and transfer them to a large glass (not metal) bowl. Set out a second glass bowl. Grab a cluster of crabapples and examine the flower ends of each fruit; remove and discard any remnant flower parts. Destem apples from the stem cluster using your fingers in a pinching motion. Transfer fruit to second bowl and discard stems. This will take some time!

Juicing

Return destemmed crabapples to a large pot and add water to cover. (At this point you can enhance the flavor if desired by adding cinnamon sticks or a diced quince). Bring fruit to a boil then reduce heat and simmer for another 15 minutes. Using a potato masher, mash all fruit into a pulp then continue simmering for 15 more minutes. Transfer pulp to a cheesecloth strainer or large jelly bag and let juice drain overnight into a glass bowl. For clear juice, do not press or twist cheesecloth or jellybag. In the morning, you should have 5–6 cups of juice. Discard pulp.

Jelly-Making

Measure how many cups of juice you have obtained. NO additional pectin is needed for crabapple jelly, however, successful jelly recipes require a 1:1 ratio of juice to sugar, so begin slowly heating the measured juice on the stove and stirring in the matching number of cups of white sugar. For flavor enhancement you may use a small proportion of brown sugar for a molasses taste but no more than a quarter of the total sugar. Stir in sugar until it is completely dissolved. Continue cooking at a low boil, skimming off any foam that comes to the top, until the jelly temperature reaches 220° to 222°F (108°–110°C) on a candy/jelly thermometer. Remove from heat and pour the hot jelly into sterilized hot canning jars, leaving ¼" headspace at the top; process 5 minutes in boiling water in a large cooking pot or canner to seal.

Tasting Notes and Recipe Suggestions

Pacific crabapple jelly is initially sweet, then sour, with a tannic finish. It goes well with savory fish or meat dishes:

1. Alder-smoked Coho Salmon and crabapple jelly appetizers
2. Serve your Thanksgiving turkey with crabapple jelly instead of cranberry sauce (for authenticity, cook a Sooty grouse *Dendragapus fuliginosus* instead!)
3. Venison (elk or deer) medallions with crabapple jelly glaze
4. Spinach salad with fresh Dungeness crab, chopped hazelnuts and crabapple jelly vinaigrette

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Enduring Legacy: Geoarchaeological Evidence of Prehistoric Native American Activity in the Post-Industrial Landscape at Willamette Falls, Oregon

Rick Minor and Curt D. Peterson

Abstract *Intensive industrial development has destroyed or obscured almost all archaeological evidence of the Native American fishery and regional trade center at Willamette Falls. Geoarchaeological investigations in the ruins of the historic Oregon City Woolen Mill in 2015 recovered stone tools and debitage from (1) sand fill introduced to create an artificial landform on which to construct buildings, and (2) below a fragipan in intact native sediments overlying basalt bedrock. Artifacts associated with a charcoal-derived AMS radiocarbon date of 1430 ± 30 BP (1310–1410 cal RCYBP) from below the fragipan demonstrate the enduring legacy of prehistoric Native Americans at Willamette Falls, even in the heavily modified environment of a post-industrial landscape.*

Coyote, observing that the people were unhappy because of the absence of a good place to catch fish, created Willamette Falls where salmon would collect and be easily captured.

—Reminiscences of Louis Labonte by H. S. Lyman (1900, page 83)

Introduction

Willamette Falls, the largest waterfall (by volume) in the Pacific Northwest and the third largest falls (measured by width) in North America, is about 25 river miles (42 km) upstream from the confluence of the Willamette and Columbia rivers in northwest Oregon. At Willamette Falls, the river drops about 30 feet, but the height of the falls varies seasonally, so that in late summer when river levels are low the falls may be as much as 45 feet high. The earliest description of Willamette Falls was recorded in 1811 by fur trader Alexander Ross:

Here the navigation is interrupted by a ledge of rocks running across the river from side to side, in the form of an irregular horse-shoe, over which the whole body of water falls at one leap down a precipice of about forty feet, called the Falls. To this place, and no farther, the salmon ascend, and during the summer months they are caught in great quantities. At this place, therefore, all the Indians throughout the surrounding country assemble, gamble, and gormandize for months together. (Ross 1904:235)

Ross, as well as other early Euro-Americans (e.g., Alexander Henry in 1814), were wrong that the falls were a barrier to salmon, as after concentrating in the quiet water below, summer and spring migrations of salmon were able to swim up fissures in the bedrock to ascend the falls. The falls provided an ideal dip-netting and spearing fishery, which, as indicated by Ross, attracted native peoples from throughout the region, with Willamette Falls serving as a center for regional trade second only to that at The Dalles of the Columbia River (Hajda et al. 2004:40–41).

In the historic period, the river banks below Willamette Falls were expropriated by Euro-Americans intent on converting the water flow to power various industries. The potential use of water power for industrial development at the falls was first recognized by John McLoughlin, Chief Factor of the Hudson's Bay Company (HBC) at Fort Vancouver. Under McLoughlin's authority, in 1829 the HBC commenced settlement and development immediately below the falls on the east side of the Willamette River. In 1844, Oregon City became the first incorporated city west of the Rocky Mountains, serving as the capital of Oregon Territory from 1848 to 1851. Over the years, various industries sprang up on both sides of the Willamette River below the falls, with more recent developments involving industrial building on a massive scale (Figure 1). These developments have destroyed or obscured virtually all evidence of Native American activity at Willamette Falls.

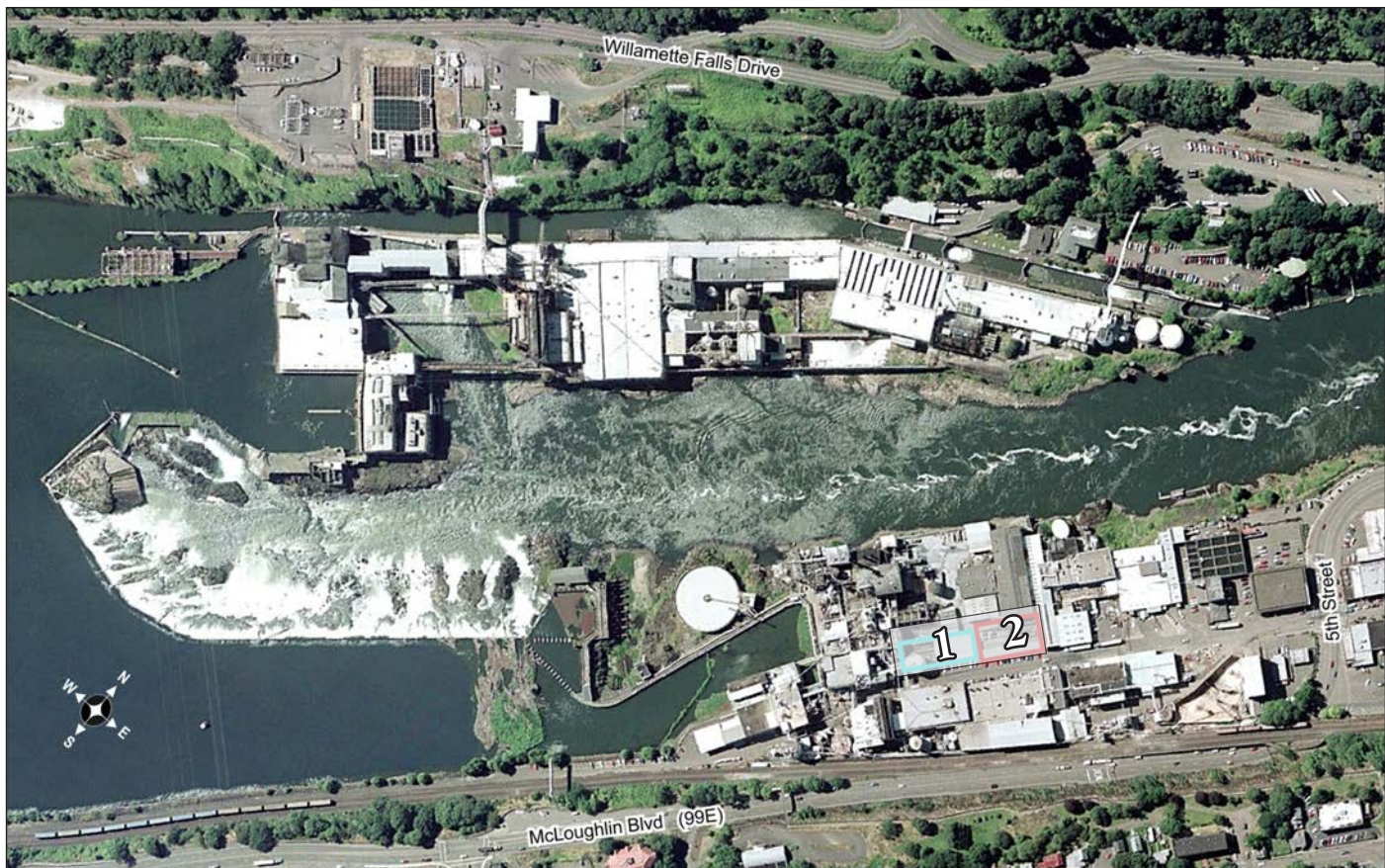


Figure 1. Industrial development around Willamette Falls (on left). The former Blue Heron Paper Mill is on the east bank of the river below the falls in the oldest part of Oregon City. The foundations of the 1865/1872 woolen mill (1) and 1890 north addition (2) are situated within the former paper mill building complex.

The closure of the Blue Heron Paper Mill in Oregon City in 2011 opened up an opportunity to conduct archaeological investigations on the east bank of the Willamette River below the falls for the first time. Within this post-industrial landscape, the site of the North Addition to the Oregon City Woolen Mill was selected for archaeological testing, in part because the interior of the mill foundation held promise as a location where sediments potentially containing archaeological remains might be accessible. The ruins of the woolen mill constitute the oldest structural remains standing above the surface in the 23-acre Blue Heron Paper Mill building complex. Excavations there thus held the promise of recovering evidence relating to one of the earliest industries at Oregon City. The results of these excavations, which recovered more than 7700 historical artifacts, have been presented in a preliminary form (Minor 2016, 2017) and will be reported in more detail in a separate publication.

At the same time, a primary goal of the archaeological investigations was to test deeply to determine if archaeological evidence could be found of earlier Native American settlement at Willamette Falls. As reported here, a geoarchaeological approach including ground-penetrating radar and coring was employed to establish the nature and depth of sediments overlying bedrock within the foundation of the North Addition to the Oregon City Woolen Mill. These limited investigations established the presence of a sequence of deposits containing (1) Native American stone artifacts in fill material introduced during historic-period construction, overlying (2) a culturally sterile fragipan, overlying (3) intact prehistoric deposits. The results of the limited investigations in the ruins of the historic woolen mill at Willamette Falls provide an important case study demonstrating the enduring legacy of prehistoric Native Americans, even in the heavily modified environment of a post-industrial landscape.

Native Americans at Willamette Falls

Archaeological evidence of Native Americans at Willamette Falls was reviewed by the late John A. Woodward in his Ph.D. dissertation, *Salmon, Slaves, and Grizzly Bears: The Prehistoric Antecedents and Ethnohistory of Clackamas Indian Culture* (Woodward 1974). Woodward made a distinction between prehistoric and historic Native American archaeological sites. According to Woodward, “evidence exists that once important prehistoric sites were located on the eastern bank of the Willamette River between the falls of the Willamette and the Clackamas River” (Woodward 1974:23). Numerous discoveries of Native American graves were reported in early newspaper stories, and “the lack of trade items among the ‘many relics’ found in several of these graves seems to place them in the prehistoric period” (Woodward 1974:23). Woodward went on to note that many nipple-topped mauls and mortars of several sizes, some with side grooves, were among the “relics” found “below Oregon City falls on the Willamette” shown in a newspaper account in the *Oregon City Enterprise* on 11 November 1915, and the collections of the Oregon Historical Society include “carved fishing weights labeled from Oregon City” (Woodward 1974:24). The collection of large numbers of banded and perforated net weights ranging from a few ounces to 40 lbs. along the Willamette River in the Oregon City area (Sweet and Sweet 1973:2–3) suggests a long tradition of using set nets for fishing in the quiet section of the Willamette River downstream from the falls.

Activity by prehistoric Native Americans is also reflected in the presence of petroglyphs at Willamette Falls (Hill and Hill 1974:246–247). A petroglyph with a human face “salvaged” before construction in 1966 “shows a stylized human face motif carved on three sides of a basalt boulder” (Woodward 1974:24; Loring and Loring 1982:156–157). Below the falls on the east side of the river are three groups of petroglyphs on three large boulders visible at normal high-water level. They have been described as “mostly circles with inner patterns of pits and crosses. One picture appears to be a face with ears. The carvings are clear, but some are very weathered” (Loring and Loring 1982:156–157). The petroglyphs at Willamette Falls are similar to others characterized by concentric circles and by simple pits found along the Lower Columbia River that have been referred to as the “Down River Style” to distinguish them from the more elaborate rock art in The Dalles area (Hill and Hill 1974:240–242).

In comparison with the prehistoric archaeological record, Woodward found much less evidence of historic Indian occupation in the Oregon City area. He noted that:

... glass beads and other European trade artifacts have been found from time to time at several locations within the city limits of Oregon City, apparently associated with graves, but collections or useful descriptions of these finds have not been located by the writer. It is believed that all known historic native sites in the West Linn–Oregon City area have been destroyed or looted during the last hundred years. (Woodward 1974:28)

In 1805–1806, Lewis and Clark recorded the name of the people living at Willamette Falls as Cashooks or Cushooks, but these explorers did not visit the falls themselves (Mouton 1990:478, 486; 1991:54–55, 66, 82–83, 86). In 1814, Alexander Henry referred to the people living below the falls as the “Clow e walla, Indians” (Gough 1992:657). He described a village “on the south side of the River” as consisting of six houses “apparently running on a parallel with the River” over a distance of “at least 300 feet in length” (Gough 1992:657–659, 664). Henry’s placement of this village “on the south side of the River” is confusing, as this stretch of the Willamette River flows in a southwest to northeast direction. While camped “opposite” this village, Henry’s party traded with the inhabitants for firewood, dogs, dried salmon, hazelnuts, and smelt (Gough 1992:657).

As noted by Alexander Ross and Alexander Henry, the falls posed an obstacle to canoe travel up and down the Willamette River, forcing travelers to portage watercraft and/or goods up steep cliffs to circumvent this barrier. The falls also served as a linguistic boundary, with the Chinookan-speaking Clowewalla controlling the flow of goods to the Kalapuyan-speaking peoples of the interior Willamette Valley. Like the native groups at The Dalles and at the Cascades of the Columbia River, the Clowewalla attempted to exact tribute from early fur trappers before allowing them passage around the falls. In a confrontation with fur trappers during the winter of 1816–1817 a local chief was killed, but after negotiations led by Peter Skene Ogden, fur trapping parties were allowed to pass around the falls to hunt beaver in the Willamette Valley (Ross 1956:72–77).

The Clowewalla were among other native peoples in the Pacific Northwest who were devastated by diseases introduced by Euro-Americans, beginning with smallpox

epidemics in the 1770s, 1801–1802, and 1824–1825, and continuing with the malaria epidemic of the early 1830s, which reduced the native population by 90% or more (Boyd 1999:147). It has been estimated that by the 1850s the entire population of Chinookan peoples in the interior Lower Columbia Valley, including the Clowewalla at Willamette Falls, was only 300 (Boyd 1999:Table 3).

In 1841, Charles Wilkes estimated the number of Indians fishing at Willamette Falls at about 70, “including all ages and sexes” (Wilkes 1845:346). Wilkes added that including others who visited the falls in canoes to fish would raise the number to about 100. Accompanying Wilkes was Joseph Drayton, who drew a sketch of Indians fishing at the falls (Figure 2). In addition to salmon, Pacific lampreys, often misidentified as eels, were another fishery resource exploited by Indians at the falls (Thornton 1864:389; Townsend 1978:219). References to Native Americans at Willamette Falls in the historical literature generally declined over the nineteenth century, as the terraces below the falls at Oregon City became the focus of urban and industrial development by Euro-Americans (Hajda et al. 2004:31ff).

In her *Historical Sketch of Oregon City*, Eva Emery Dye noted that “Indian burial places overlooked the falls on both sides,” and that “as settlers advanced, the Indians moved their camps to the first bench, the second, and finally to the third” (Dye 1911:672). Dye noted several places between 5th and 11th streets where evidence of Indian camps and graves had been found. Any such evidence south of 5th Street would have been covered by the earliest developments in Oregon City decades before her arrival in 1890. Today, Native peoples still harvest Pacific lamprey at Willamette



Figure 2. Sketch by Joseph Drayton of Indians dip netting from platforms at Willamette Falls circa 1841 (Oregon Historical Society Negative No. bb008331).

Falls (Hajda et al. 2004). At the present time, however, the most tangible remaining evidence of activity from the prehistoric past is a solitary petroglyph carved in the bedrock at the base of the falls (Loring and Loring 1982:156).

Geomorphic Setting

The shores of the Willamette River above and below Willamette Falls consist of terraces cut into basalt bedrock by the Missoula Floods (Trimble 1963; Beeson et al. 1991). The last of the Missoula Floods occurred by 13,000 years ago (Benito and O'Connor 2003; Hanson et al. 2012; Peterson et al. 2013:1205). Subsequent floods over the falls during the Holocene could have either scoured or deposited sediments on the terraces depending on local hydrological conditions. Remnant sediments deposited on the terraces have the potential to contain archaeological evidence of Native Americans spanning many thousands of years. The scabland topographic surface is irregular (3–13 m vertical relief over 200 m distance) where exposed along the present river bank cut. The terraces step upward from 3 m to 24 m with distance (~200 m) from the present river bank to the southeast cataclysmic flood riser at the Highway 99 road cut (Figure 3).

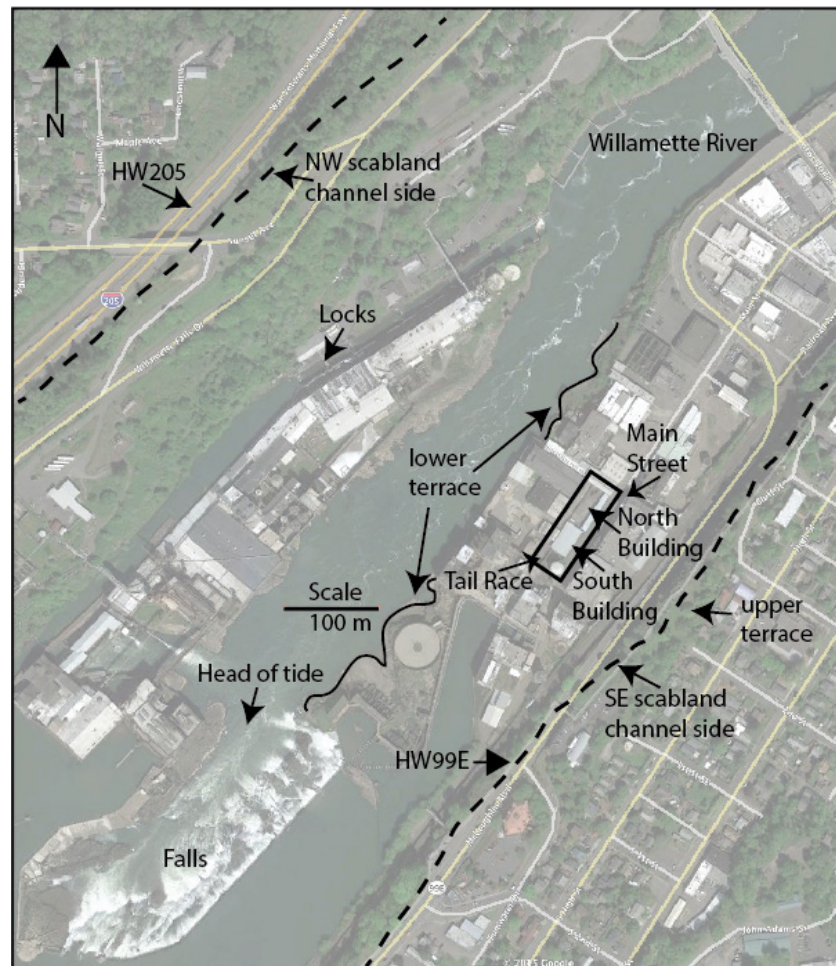


Figure 3. Location map of Oregon City Woolen Mill site including North Building, South Building, Tail Race, Main Street, upper and lower bedrock “strath” surfaces and Missoula Flood scabland channel sides. River flow is to the north. Head of tide occurs at the falls. Background image data are from Google Earth (2015).

The Oregon City street grid was established quite early, and the woolen mill was constructed in 1865 on the northwest side of the intersection of Main Street and 2nd Street. An HBC storehouse protected by a stockade of hewed logs, where wheat and Indian goods that were used in buying skins and salmon were stored, previously stood “about where the Oregon City woolen mill is now” (Dye 1911:652, 671). This storehouse was later “developed into a Hudson’s Bay store for the convenience of incoming settlers” (Dye 1911:652). After John McLoughlin left HBC service in 1845, he built a home across from the storehouse. McLoughlin’s house stood across Main Street from the woolen mill until it was moved for preservation purposes to the upper terrace in Oregon City in 1909.

The woolen mill was situated along the edge of the middle terrace, a setting that facilitated incorporation of a deep (23 foot) basement below the ground floor of the building (Figure 4). Historical photographs show several wood-frame structures standing on level ground immediately north of the mill. In view of the downward sloping nature of the scabland topography, these structures were apparently standing on an artificial landform created by importation of fill material behind some sort of retaining wall. References to an earlier Hudson’s Bay Company (HBC) storehouse standing in this area, and the apparent presence of the northernmost wood frame structure in a 1840s painting of Oregon City by John Mix Stanley, suggest that this artificial landform may have been constructed as early as the 1840s.

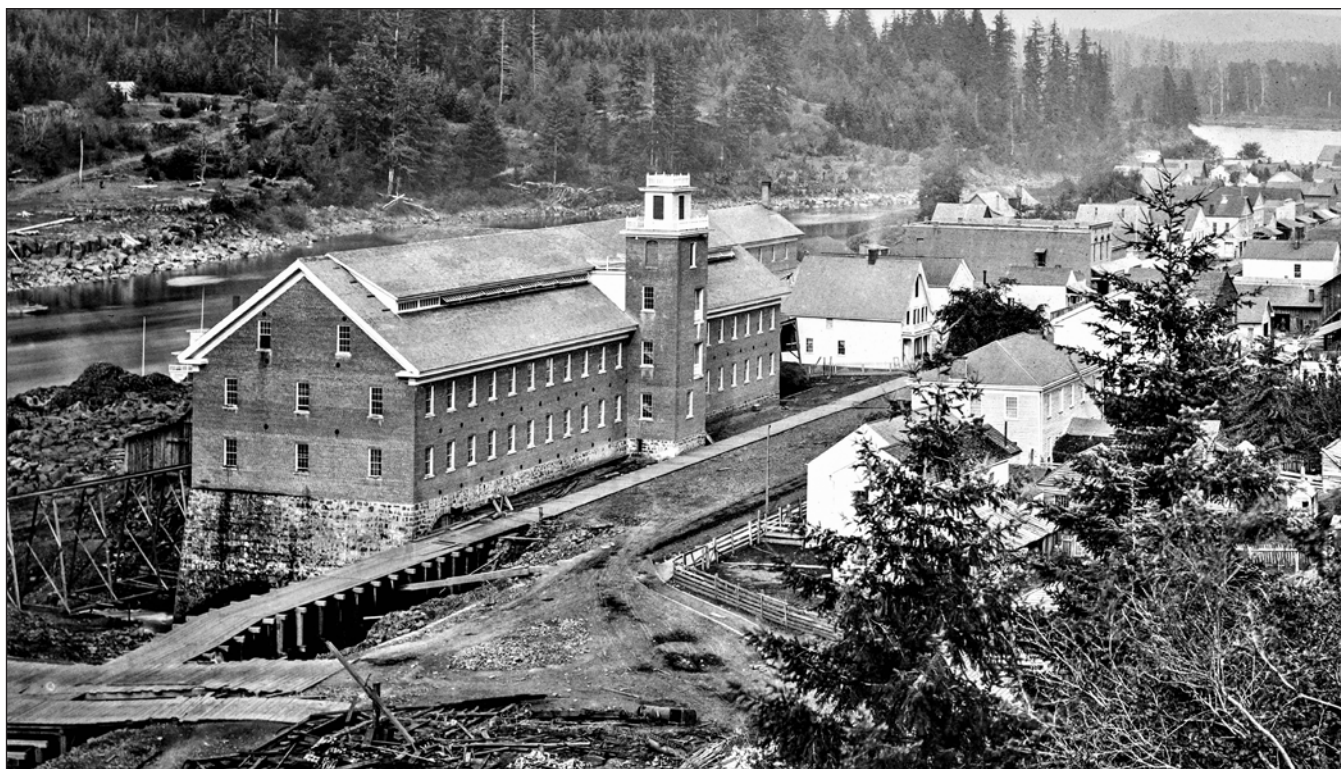


Figure 4. Woolen Mill, Oregon City, 1867. “The superstructure of brick rested on a heavy foundation of hewn stone to insure it against the flood waters of the Willamette” (Lomax 1931:245) (cropped from Oregon Historical Society Negative No. bb016571).

Wood frame structures continued to stand on this artificial landform after a fire at the mill in 1872 destroyed everything but the masonry foundation walls; the mill was quickly rebuilt as three stories the same year (Figure 5). On the 1884 Sanborn fire insurance map, these wood frame buildings were identified as, from south to north, a saloon, an undeveloped lot, a grocery, the Barlow House (hotel), and the W. Fish Grocery and Hardware. The epic flood of 1890 resulted in substantial damage to the mill property. Afterwards, the adjacent ground was purchased, the wood frame buildings were demolished, and an addition was constructed on the north side of the original woolen mill.

The Oregon City Woolen Mill continued in operation into the 1950s. In 1954, the woolen mill property, buildings, and water rights were sold to Publisher's Paper Company, and the mill buildings were later incorporated into the Blue Heron Paper Mill complex. At some point after acquisition by Publisher's Paper, the original wood plank floors were replaced by concrete floors poured within the mill foundations. The upper brick stories of the two woolen mill buildings were demolished in 1980, leaving only the masonry foundation walls. The foundation of the original mill was covered with a metal-framed roof and used as storage. The area within the North Addition foundation was used as an open parking area. In 2015, geoarchaeological investigations were focused within the foundation of the North Addition, where the wood frame buildings had stood in the later decades of the nineteenth century.



Figure 5. The Oregon City Woolen Mill in 1875, rebuilt as three stories after a fire in 1872. In 1890, the wood frame structures to the north were demolished and the North Addition was constructed on this site (cropped from Oregon Historical Society Negative No. bb016569).

Geoarchaeological Investigations

Research in the North Addition to the Oregon City Woolen Mill in 2015 might best be described as a reconnaissance. Funds from multiple sources were made available to take an initial look below the surface, with a small work force of volunteers made available to assist in manual excavations for artifact recovery. The results will inform future compliance-driven archaeological investigations in advance of redevelopment of the former Blue Heron Paper Mill property. The challenge during this exploration was to first locate, and then document, a geomorphic context where manual excavations could be productively conducted.

Toward this end, geoarchaeological investigations were undertaken in 2015 to test for (1) the depth of artificial fill below pavement/concrete floor and above Willamette River terrace “bedrock” surfaces; (2) the presence of shallow subsurface cavity fills or feature anomalies in the fill unit(s); and (3) presence or absence of undisturbed prehistoric soils between the artificial fill and bedrock surfaces. These objectives were addressed through a ground-penetrating radar (GPR) survey, followed by groundtruthing of the GPR profiles by means of a trench excavation and auger testing. Following two days of GPR surveys, the groundtruthing relied primarily on excavations over a 10-day period by volunteers from the Oregon Archaeological Society.

GPR transmits a short pulse of high frequency electromagnetic (EM) energy into the ground, generating a wave front that propagates downward. The pulse is then reflected back to the surface where it is monitored by a receiver. The subsurface stratigraphy can be inferred from the character of the radar return signals (Davis and Annan 1989). The resulting GPR profiles demonstrate the extent, continuity, slope, and cross-cutting relations of sediment layers that differ in electrical conductivity. A Sensors and Software Pulse Ekko Pro™ system (180v) was used for the survey (Sensors and Software 2015). GPR surveys were conducted within the foundations of both the original woolen mill (south building) and the 1890 mill addition (north building). This article focuses on the results of the GPR surveys in the North Addition.

Test GPR surveys (15 m NE–SW profile) in the North Addition were conducted in profile mode at 0.05 m step spacing (500 MHz transducer) in Line 01 and at 0.1 m step spacing (250 MHz transducer) in Line 02. Digital staking of 4 records per step was used for both test profiles. Using an assumed signal velocity of 0.1 m/ns-1, a signal reflection depth of ~1 m (constant gain 400x) was obtained with the 500 MHz transducer, and a signal reflection depth of ~4.3 m (constant gain 400x) was obtained with the 250 MHz transducer. Groundwave couplets (no signal resolution) occur to a depth of about 0.2 m in the 500 MHz GPR profile and to about 0.5 m depth in the 250 MHz antennae. The base of a chaotic reflector package (target fill layer) was observed to reach ~2–3 m depth subsurface in test Line 02, so the deeper-penetrating 250 MHz transducer, with a 100 ns time window (~5 m reflection depth) was utilized for all remaining profiling and grid surveying to ensure that potential deeper cavities (2–4 m depth subsurface) would be captured in the GPR profiles. The shallower stratigraphic horizons (<0.5 m depth subsurface) are not recovered with the 250 MHz antennae, but could be imaged with the 500 MHz antennae if needed in future surveys.

A total of 15 GPR profiles were collected within and adjacent to the North Addition foundations (Figure 6). The GPR data was processed with EkoViewDelux™ software, using a default signal velocity of 0.1 m/ns-1, as suggested for dry resistant

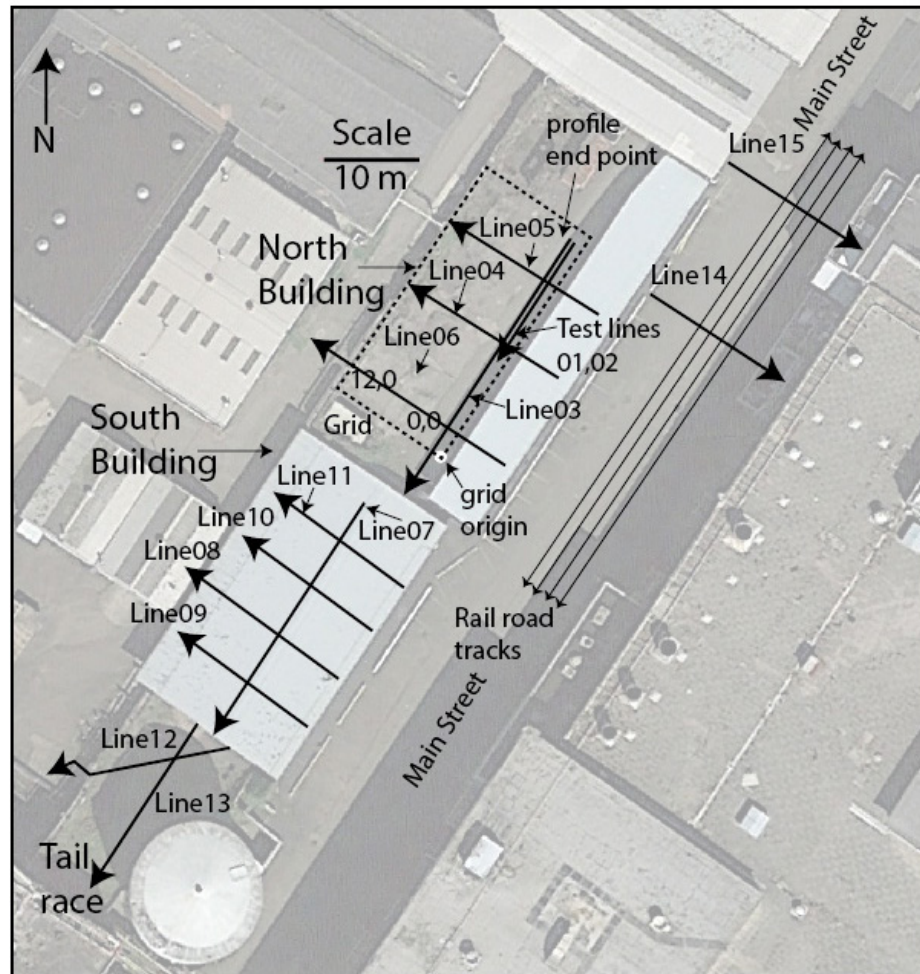


Figure 6. Locations of GPR profile lines (numbered) and amplitude depth slice grid (dotted outline). Arrows show direction of line data collection. Line 03 starts at the bottom of a ramp at the northeast ends of the North Building. Test line end points and the grid origin (0,0) are geo-referenced by GPS. Background image data are from Google Earth (2015).

concrete-gravel-sand fill (Minor and Peterson 2013:2–12). Line 03 provides a north to south profile 32.8 m in length along the long axis of the rectilinear floor plan, about 8 m west of the east wall of the foundation. This profile demonstrates a high-amplitude continuous reflection at 2.2–2.4 m estimated depth (Figure 7). This reflection separates a chaotic reflection package above and a sub-horizontal low-amplitude reflection below. This very high amplitude reflection along the full length of the Line 03 profile is interpreted to be the contact between overlying fill and underlying bedrock. Cut-and-fill features occur in the chaotic fill reflector package at 10–15 m profile distance and 26–31 m profile distance. A sharp-peaked parabolic anomaly at 24 m profile position reaches the groundwave “surface” and is attributed to metal wire debris in the concrete floor.

Line 06 provided an orthogonal profile ~26 m in length collected across the short axis near the south end of the rectilinear floor plan. This profile passes through a doorway in the west wall of the foundation at position 21 m and out into the alley. A high amplitude reflection drops from 1.6 m estimated depth at the east end to 4.0 m

depth at 14 m to the west, a 14% downward slope (Figure 8). Deeper inclined reflections occur to estimated depths of 4.4 m in the southeast portion (0–9 m position) of Line 06. The package of continuous sub-horizontal reflections is in contrast with the overlying chaotic reflection package. The surface of the inclined reflection package appears to represent a bench in the bedrock terrace. A second orthogonal profile in Line 05 near the north end of the rectilinear floor plan (not shown here) displays a similar west-dipping continuous reflection package from a depth of 1.6 m at the east end to 2.8 m at 11 m position, an 11% downward slope.

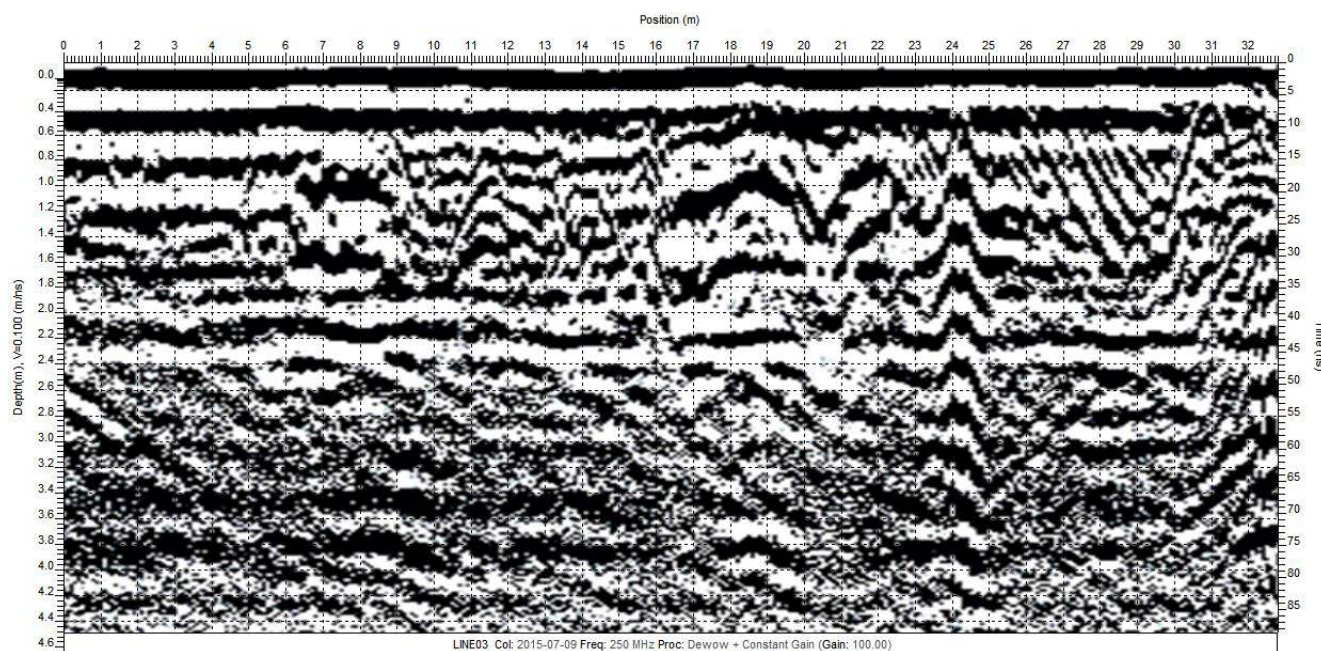


Figure 7. GPR profile (Line 03) from the long axis of the North Building (Figure 6). The orientation of Line 03 (32.8 m length) is from northeast to southwest.

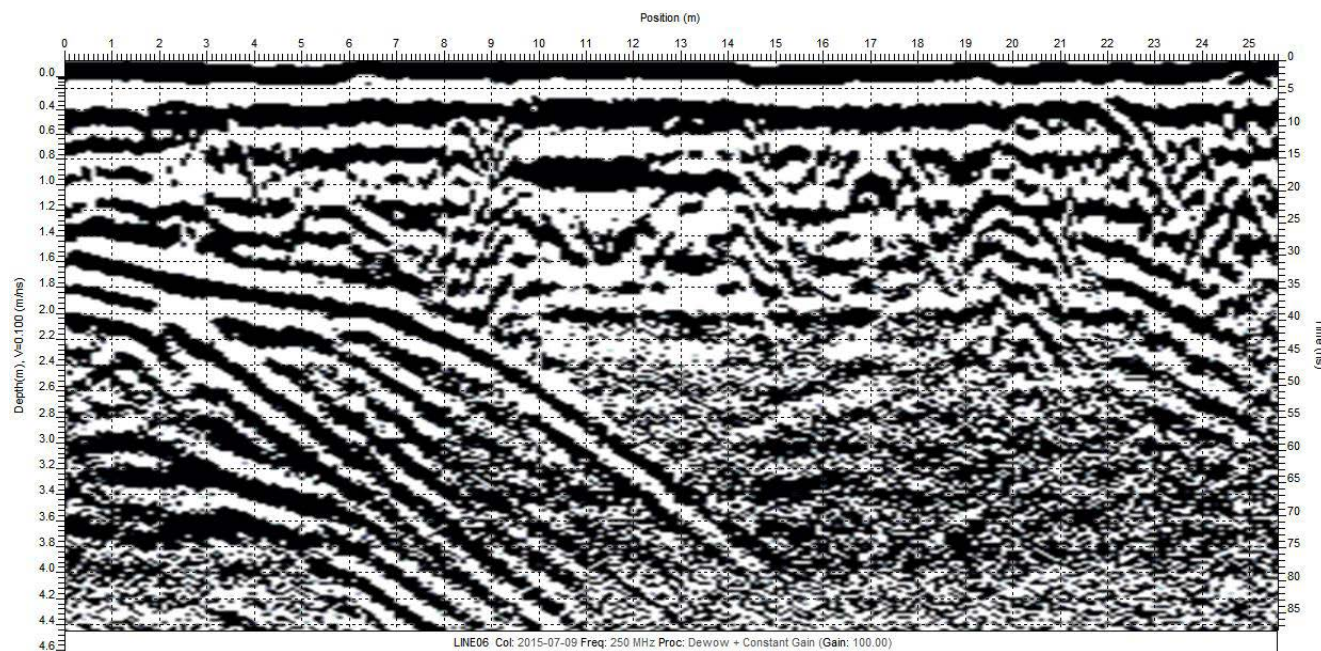


Figure 8. GPR profile (Line 06) from the short axis of the rectangular floor plan in the southeast end of the North Building (Figure 6). The orientation of Line 06 (25.6 m length) is southeast to northwest and it passes through a doorway in the northwest wall of the building at the 21 m position.

GPR Groundtruthing

Groundtruthing of the GPR north-to-south profile began with excavation of a 32-m-long trench situated immediately east of GPR Line 03. After cutting through and removing the overlying concrete, this trench was hand excavated following standard archaeological procedures, with the trench subdivided into 1 x 1 m units, with sediments removed in 10 cm levels and screened through 1/8 in. mesh (Figure 9). These units were excavated into brown sand fill to varying depths, with several extending to 0.5–1.0 m depth subsurface, particularly when cultural features were present. Over 7,700 historical artifacts were recovered from the sand fill, most of which were associated with the earlier wood frame structures and later woolen mill operation (to be reported in a separate publication). Somewhat surprisingly, a substantial number of Native American stone artifacts also were recovered during excavation of the trench units.

The southernmost Unit A4 was hand dug past the initial depth of refusal, where angular rock fragments interpreted as detritus from construction of the mill foundation were buried in the fill at about 1.1–1.3 m. Deeper fill levels in Unit A4

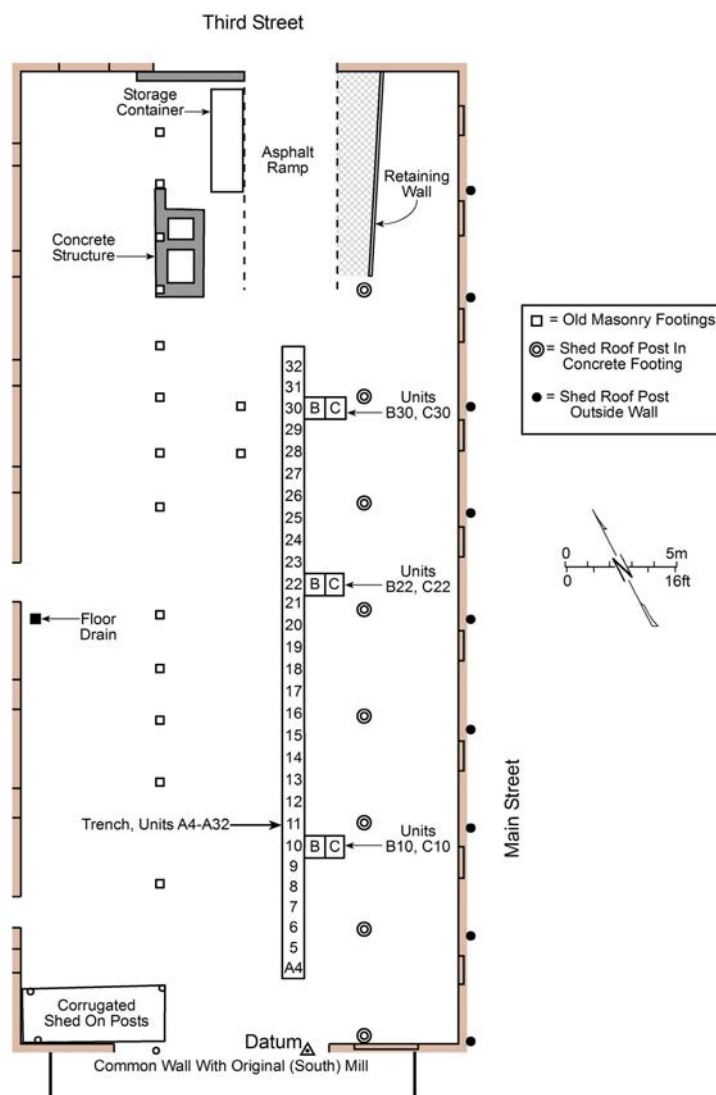


Figure 9. Plan map of trench excavation units in the foundation of the North Addition to the Oregon City Woolen Mill.

were excavated to a compacted sandy silt fragipan layer from 1.47 to 1.70 m depth subsurface. A fragipan “is a slowly permeable subsurface horizon that is brittle and rigid when moist (hard to very hard when dry)” that “is most common in loamy materials (till, loess, lake, alluvial, and colluvial deposits), in climates characterized by water moving through the soil at some time of the year...” (Birkeland 1999:121). This description is consistent with the geomorphic setting. In addition to seasonal rainfall, the terrace on which the woolen mill was constructed is known to have been inundated by historic floods (e.g., 1861, 1867, 1891), with floods of similar magnitude undoubtedly occurring many times in the prehistoric past.

In Unit A4, where hand excavation ended at the fragipan, an Australian Doormer sand auger (8-cm-diameter) was employed to test more deeply (Figure 10). The first auger hole (A4-1) in the bottom of the unit was completed through silty sand paleosol to refusal at an impenetrable rock surface at 2.35 m, interpreted to be the bedrock contact. A second auger hole (A4-2) drilled in the bottom of Unit A4 to confirm the depth of the bedrock contact was completed through the paleosol to refusal at 2.30 m. Soil samples recovered from these deep auger holes contained stone artifacts and debitage. No historical artifacts were present in soil samples recovered from below the fragipan horizon (~1.5–1.6 m depth).

Later, groundtruthing of the GPR profiles was extended northward through excavation of 35 auger holes drilled with the sand auger in unit intervals along the length of the trench to the depth of refusal. Brown sand fill, angular gravel, and brick

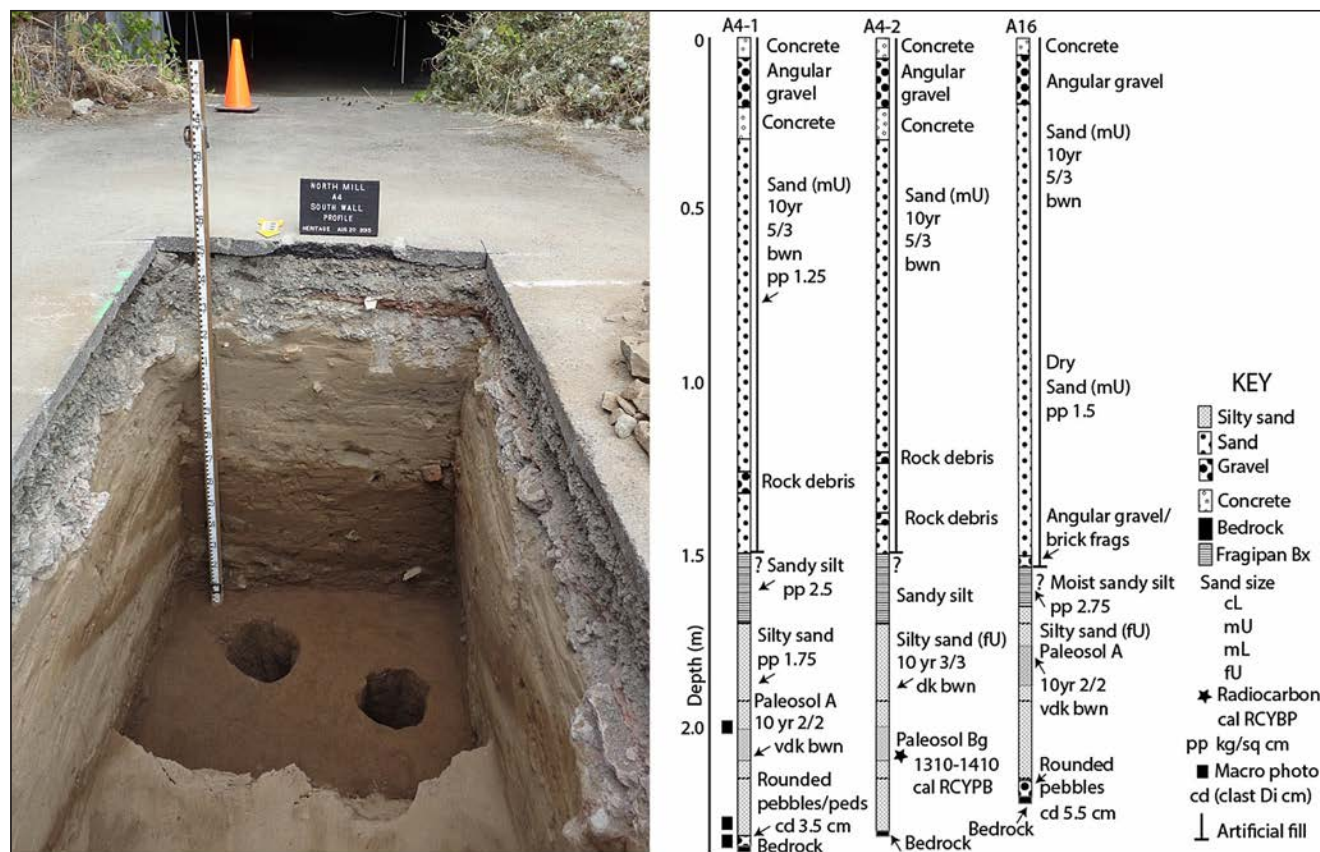


Figure 10. View to south of Unit A4 at south end of trench where auger holes extended through fragipan (147–170 cm) to sample native soil (170–235 cm). Stratigraphic profiles of deep auger holes on right. Charcoal from 190–200 cm in A4-2 produced an AMS radiocarbon date of 1310–1410 cal RCYBP.

fragments were present in all auger holes above 1.5 m depth subsurface. Refusal of hand auger penetration occurred in loose rock debris in the compacted-silt fragipan layer at ~1.5 m depth subsurface in the southern trench units (A4–A18). One additional auger hole in Unit A16 in the middle section of the trench penetrated through the fragipan horizon and silty sand paleosol to bedrock at 2.20 m depth subsurface.

Profiles of the three deep auger holes illustrate the stratigraphic relationships between (1) the sand fill, (2) the fragipan, and (3) the sandy silt paleosol resting on bedrock (see Figure 10). No deep auger holes were excavated in the northern half of the trench, where auger drilling refusal occurred in loose rock debris at variable depths (0.75–1.25 m depth subsurface). Large, angular rock debris is scattered along the full length of the trench, as shown by shallow auger refusal depths in most of the auger holes. The hand-auger method thus provides only minimum fill depths where large rock debris was encountered downhole. The rock debris is from the same lithic material used in the masonry foundations of the woolen mills, and is interpreted to be detritus from their construction.

Mixed Assemblage in the Fill Component

Evidence of Native American activity in the post-industrial landscape at Willamette Falls was first found when Native American artifacts were recovered while screening the introduced sand fill during the unit excavations in the trench. Excavation and screening of 12.8 m³ of sediment recovered 24 stone tools, 975 pieces of flaked stone debitage, 1 perforated pebble, and 1 small fragment of fired clay (Table 1). The Native American artifacts are mostly of flaked stone, and include 8 projectile points, 5 bifaces, 1 uniface, 2 scrapers, and 2 gravers. Cobble tools include 2 choppers, 3 hammerstones, and 1 core. Noticeably absent are artifact types noted among the “relics” collected from around the falls such as nipple-topped mauls, mortars, and banded and perforated net weights (Woodward 1974:24). These large artifacts would have been easily spotted and subject to collection during the moving of fill material from one area to another to create level surfaces suitable for historic building construction.

These Native American artifacts were found in the sand fill along with historical artifacts such as brick, mortar, nails, and ceramic and glass fragments. Historical artifacts in the fill that are temporally and/or functionally diagnostic may date as early as the HBC presence at Willamette Falls (as suggested by a gunflint), but appear to mostly relate to use of the early wood frame buildings or the later operation of the woolen mill. As previously noted, the introduction of this sand fill, used to form an artificial landform on which buildings could be constructed, may have occurred as early as the 1840s when the HBC storehouse was built. It is unlikely that sand fill would have been transported very far at this early time. This material likely originated from one of the locations nearby where excavations for early industrial buildings had been undertaken. The stone tools and debitage recovered from the sand fill were almost certainly from a Native American settlement at Willamette Falls.

Prehistoric Component

Native American artifacts also were recovered from the Australian Doormer sand auger excavations below the fragipan horizon (~1.5–1.7 m depth) in Unit A4 at

Table 1. Native American Artifacts by Material Type

Provenience/Artifact Type	Chert	Obsidian	Basalt	Quartzite	Ceramic	Totals
Fill Material						
Lithic Tools						
Projectile Points	5	3				8
Bifaces	4		1			5
Uniface	1					1
Scrapers	2					2
Gravers	2					2
Choppers			2			2
Core	1					1
Hammerstones			1	2		3
Perforated Pebble			1			1
Lithic Debitage						
Flakes	840	76	52	7		975
Split Pebble		1				1
Ceramic Item						
Fragment					1	1
Subtotal	855	80	57	9	1	1,002
Below Frigipan						
Lithic Tools						
Biface			1			1
Uniface	1					1
Graver	1					1
Lithic Debitage						
Flakes	12					12
Split Pebble	1					1
Subtotal	15		1			16
Totals	870	80	58	9	1	1,018

the south end of the trench. A sandy silt paleosol 60–65 cm thick is preserved under the fragipan in this unit. Careful screening of the small soil samples (0.0063 m³) retrieved from below the fragipan in the two auger holes in Unit A4 yielded three stone tools (one biface, one uniface, one graver), one split chert pebble, and eight pieces of chert debitage. No historical artifacts were present in soil samples recovered from the two auger holes excavated in Unit A4. No prehistoric or historical artifacts were recovered from the auger hole that penetrated below the fragipan in Unit A16.

The compact silt fragipan surface separated the overlying artificial fill (brown sand) from the underlying silty sand paleosol. Several other criteria indicate that deposits below ~1.5 m depth subsurface are intact native sediments. An A-horizon soil, dark in color and rich in decomposed organics (Birkeland 1999), appears in Auger Holes A4-1 and A4-2 at 2.0–2.1 m depth subsurface. In-situ plant macrofossils (vertical growth position) were recovered from the sand auger tip just above the A-horizon paleosol at 2.0 m depth subsurface in Auger Hole A4-1. The in-situ plant fossils include leaves, stems, and hair rootlets encased in the silty sand deposit. Rounded river pebbles (3.5–5.5 cm diameter) were recovered just above the bedrock contacts in

Auger Holes A4-1 and A16, respectively at 2.30 m and 2.20 m depth subsurface. The antiquity of these pebble deposits on the bedrock surface is indicated by the presence of soil peds intermixed with the pebbles. The ped concretions (crushed 5YR 3/4 dark red brown) indicate subaerial soil alteration for a prolonged period (Birkeland 1999).

To determine the age of the sediments below the fragipan, charcoal from 190–200 cm below surface in Auger Hole A4-2 was submitted for AMS radiocarbon dating. The prehistoric age of the deposit was confirmed by a date of 1430 ± 30 BP, which yields a calibrated age of 1310–1410 cal RCYBP (Beta-425581).

Geotechnical Testing

As documented during the geoarchaeological investigations in 2015, the large-scale movement of soil appears to have been a common practice dating to the early settlement and development on the basalt terraces on the east side of the river below Willamette Falls. Further evidence of extensive earthmoving was found in 2017. Four exploratory borings using a sonic coring rig, supplemented by 67 air-track borings, established the presence of extensive fill deposits in the area between the historic woolen mill foundations and the river bank (Northwest Geotech, Inc. 2017). Air-track borings determined that the bedrock immediately west of the North Addition ranged from 10 to 15 feet below the present ground surface, consistent with the estimated depths to bedrock derived from the GPR.

The “mass fill” between the woolen mill foundations and the river bank was estimated to have been “constructed in a single phase in the 1960s or early 1970s” (Northwest Geotech, Inc. 2017:3). This estimated date of deposition is contradicted by historical maps and photographs of Oregon City that show substantial earlier development in this area. A much more complicated depositional history is suggested by the encountering of bricks and other building demolition debris deep below the surface in two sonic cores, and machine-cut nails and a “3.5 to 4 feet thick remnant foundation as well [as] mortared basalt boulders” in another sonic core (Northwest Geotech, Inc. 2017). While not noted during geotechnical testing, the recovery of stone artifacts during the geoarchaeological investigations in the North Addition suggests a high potential for encountering additional evidence of Native American activity in fill deposits elsewhere on the former Blue Heron Paper Mill property at Oregon City.

Conclusions

The results of the geoarchaeological investigations in the ruins of the North Addition to the historic Oregon City woolen mill in 2015 provide an important first glimpse of the archaeological and natural deposits on the east bank of the Willamette River below Willamette Falls. Although limited in scope, these results are informative as to the subsurface contexts in which evidence of prehistoric and historic activity and occupation may be found elsewhere on the former Blue Heron Paper Mill property. The geoarchaeological investigations, as well as subsequent geotechnical testing, indicate that urban and industrial development in the early historic period involved considerable earthmoving and deposition of a considerable amount of fill material to compensate for the substantial decline in elevation from the middle to the lower basalt terraces on the river bank.

There is a tendency among archaeologists to discount fill deposits and their contents. However, as observed long ago by noted historical archaeologist James Deetz (1977:15), fill is an artifact itself, and intelligent study of it can be most instructive. This is particularly true in excavations carried out in high-density urban areas, where the same soil may have been removed, shifted, and redeposited many times.

Depending on its source, the fill on the former Blue Heron Paper Mill property may contain artifacts from prehistoric Native American occupation at Willamette Falls. In addition, as a result of large-scale earthmoving, the fill on the property is likely to contain artifacts associated with early activity by the Hudson's Bay Company, urban development in the oldest part of Oregon City, and early industries at Willamette Falls, including sawmills, flour mills, and woolen mills.

Yet with all the earthmoving and filling associated with urban and industrial construction that has occurred on the former Blue Heron Paper Mill property, evidence of the earlier presence of Native Americans endures in this post-industrial landscape. At least within the foundation of the North Addition, a fragipan devoid of cultural materials separates the introduced fill material from an intact paleosol containing evidence of prehistoric Native American activity. Charcoal from this context produced the first reported radiocarbon date (1310–1410 cal RCYBP) associated with prehistoric Native American activity at Willamette Falls. As the last of the Missoula Floods that created the scabland landscape occurred around 13,000 years ago, the potential exists for evidence of Native American occupation many thousands of years older to be preserved in the post-industrial landscape around Willamette Falls.

ACKNOWLEDGMENTS

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ABOUT THE AUTHORS

Rick Minor received his Ph.D. in Anthropology from the University of Oregon (UO) in 1983. He was a co-founder in 1980, along with Kathryn A. Toepel, of Heritage Research Associates in Eugene, Oregon, where he has been Senior Archaeologist since that time. From 2009–2017 he also served as an Instructor in the UO Historic Preservation Program and in 2018 in the UO Clark Honors College. His research interests span prehistoric and historical archaeology in the Pacific Northwest, with an emphasis in recent years on Industrial Archaeology.

Curt D. Peterson, Ph.D., is a geomorphologist and Professor Emeritus in the Department of Geology at Portland State University. He is well known for his many years of fieldwork-based studies of riverine processes in the Lower Columbia Valley and dune and loess formations along the Pacific Coast. His numerous studies of coastal tsunami deposits have made him a major contributor to the current understanding of the history of earthquakes in the Pacific Northwest.

JONA Book Review Series

A Multi-Authored Commentary on *Carry Forth the Stories: An Ethnographer's Journey into Native Oral Tradition* with a Response from the Author, Rodney Frey

Darby C. Stapp, Deward E. Walker, Jr., Caj and Kim Matheson, Tina Wynecoop, Suzanne Crawford O'Brien, Aaron Denham, and Rodney Frey

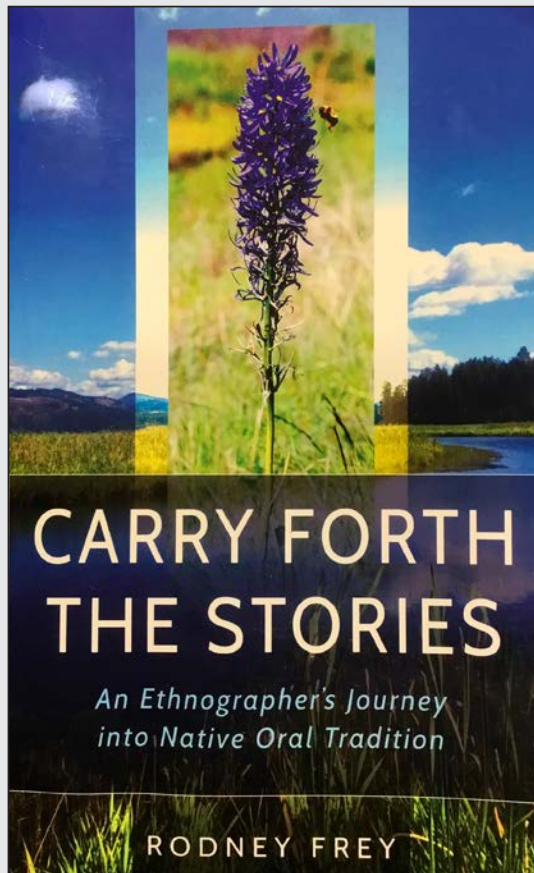
Abstract Five commentaries on the 2017 publication “*Carry Forth the Stories: An Ethnographer's Journey into Native Oral Tradition*” are presented. The book, by University of Idaho Professor Emeritus of Ethnography Rodney Frey, focuses on one important aspect of traditional and contemporary American Indian life—storytelling. Drawing upon four decades of ethnographic practice with indigenous groups, Frey offers personal and professional insights into the power and value of oral narratives and related topics such as research protocols and ethics, Indigenous knowing/doing, and the interface of the personal and the professional. The five commentaries were prepared by six professionals from diverse professional and cultural backgrounds, all of whom have worked professionally with Frey in the past. Following the commentaries, Frey responds to the critiques, questions, and additional insights provided by his colleagues. Collectively, the six contributions provide the reader with both a synopsis of “*Carry Forth the Stories*” and an overview of the anthropological and indigenous ethnographic contexts within which it was written.

Introduction

Darby C. Stapp

Dr. Rodney Frey, Professor Emeritus of Ethnography at the University of Idaho, has written a book—*Carry Forth the Stories: An Ethnographer's Journey into Native Oral Tradition*—that has widespread applicability to the readers of the *Journal of Northwest Anthropology* (JONA). In its essence, *Carry Forth the Stories* is a reflection on the power of story and storytelling, infused throughout with *snukwnkhwtskhwts'mi'ls*—empathy. The book chronicles how the Indigenous teachings of Apsáalooke (Crow), Schitsu'umsh (Coeur d'Alene), and Niimípuu (Nez Perce) elders, among others over a four-decade period, have become part of both Frey's professional and personal lives. Conveyed are teachings, the *miyp*, that transformed him as an ethnographer and as a human being.

Carry Forth the Stories was published by Washington State University Press in 2017, is 275 pages in length, and lists for \$29.95. A brief Foreword, really a prayer, was contributed by Retired Sundance Chief Leonard Bends (Crow). Eleven chapters follow, and are largely chronological to Frey's life, but each with a particular focus. “Intermingled throughout this personal essay are etched a series of stories, vignettes,



From the back cover:

Seasoned anthropologist/ethnographer Rodney Frey offers personal and professional insights into the power and value of storytelling gleaned from more than forty years of working successfully with Indigenous peoples. He frames his “ethnographic memoir” as “the quest of an ethnographer to learn from his hosts and engage in collaborative, applied, ethical-based research, writing, and classroom pedagogy.” He addresses cultural property rights, tribal review, and giving back to host communities, along with Indigenous learning styles, perspectives, and knowledge. His collaborative research projects with the Crow, Coeur d’Alene, Nez Perce, and Warm Springs tribes offer a model for others seeking to work with Native Communities. In *Carry Forth the Stories*, Frey intertwines stories gathered from interviews, oral histories, and elders. He also shares facets of his own cancer journey seeking therapy from both Native and Western healing traditions.

and narrative phrases, a montage of wondrous and often enigmatic stories and recounted transformative events” (Frey 2017:9). Acknowledgments, a pronunciation guide, an Indigenous term glossary, a bibliography, and an index complete the book. By reading the book, readers will have gained a new appreciation for the dynamics of storytelling and the role that oral tradition plays in perpetuating culture.

We chose *Carry Forth the Stories* for one of JONA’s multi-author review/commentary because it is sure to have meaning for many of our readers. Most of us working in anthropological settings in the Northwest have had considerable exposure to tribes and tribal members. Through our tribal experiences we have all heard stories; ancient coyote stories, legends about places, and historical accounts about people. It is almost impossible to be an anthropologist working in Indian Country and not hear stories about anthropologists, including ones about ourselves, often funny, often sad. But Indigenous storytelling for most of us is tangential to our lives as we are not paid to record the stories, we do not analyze them, nor teach about them. Those of us in this situation will gain much from reading *Carry Forth the Stories*.

For those readers whose lives are more directly tied to the method and theory of storytelling, and to our native readers for whom storytelling is a way of life, the multi-authored treatment will hopefully provide meaningful discussion on a variety of cultural and anthropological issues. Some issues may be familiar, but others may be new; if the commentaries give a reader just a little food for thought, our goal will be met.

We selected the following individuals to participate in our multi-authored commentary and provide anthropological and Indigenous perspectives on Frey and *Carry Forth the Stories* in particular, and ethnography and Native oral traditions in general:

- Deward E. Walker, Jr., Professor Emeritus, University of Colorado, and JONA founder and Co-Editor. Deward served as Rodney's major professor during his Ph.D. program and has known him well for nearly 50 years.
- Caj and Kim Matheson, Coeur d'Alene Tribe and Spokane Tribe. Former students of Rodney's, Caj and Kim are actively engaged in their Coeur d'Alene community, seeking to preserve and perpetuate their traditional culture and language. Caj is the Director of Natural Resources for the Tribe, while Kim is with the Tribe's Department of Education.
- Tina Wynecoop. Colbert, WA. Tina is a teacher/librarian and writer who worked for years with anthropologist John Ross. Tina married into a Spokane family several years ago and spends time with Indian women learning various traditional activities. Tina participated in our previous multi-authored effort, which focused on John Ross's 2011 ethnography, *The Spokane Indians* (JONA 47(1):71–90).
- Suzanne Crawford O'Brien. Chair, Department of Religion, Professor of Religion and Culture, Pacific Lutheran University, Tacoma, WA. Her research has enlightened the roles and importance played by religion and healing in the lives of Indigenous peoples of the Pacific Northwest. Suzanne is a strong advocate for ethical, collaborative research.
- Aaron Denham. Senior Lecturer, Dept. of Anthropology, Macquarie University, Sydney, Australia, a former student of Rodney's, Aaron is a medical and psychological anthropologist, particularly interested in how people experience, understand, and derive meaning from misfortune and illness. He has done extensive research with Indigenous peoples of West Africa and North America.

Following the commentaries, we provide space for the author, Rodney Frey, to respond generally and specifically to the commentaries.

Our hope is that after reading our commentaries, the reader will come away with a basic understanding of storytelling, protocols, and the nature of the Indigenous knowing/doing, their place in community, and their place in contemporary anthropological research. We further hope that the reader will think about these things in new ways, and will grow intellectually by becoming more aware of the complexities that surround them, especially as they relate to ethnography/anthropology. Mostly, we hope that our effort will lead you to get your own copy of *Carry Forth the Stories* and let it take you on your own journey through the memories of your own stories.

Rodney Frey

Deward E. Walker, Jr.

This multi-author review is focused on *Carry Forth the Stories* by Rodney Frey, but I will focus most of my comments on Rodney himself. By so doing, I hope to provide a deeper understanding of the comments of the other scholars who are participating in this review of *Carry Forth the Stories*.

Beginning in the early 1970s, I have had the privilege of knowing and working with Rodney Frey. I was introduced to Rodney by one of my closest early doctoral student faculty, John Schultz: "Jack" to his friends. When we first met, Jack was teaching at Colorado State University (CSU), where Rodney was pursuing a Master's degree, planning to apply to the University of Colorado (CU) where I had assumed a faculty position in the Department of Anthropology in 1969.

Rodney was accepted into CU's doctoral program, and one of his first classes was with me in theory. He came to CU with already developed interests in theory and American Indians, and he added much to the class from his developing interest in the Crow. He also became an excellent teaching assistant. By 1980, Rodney had begun in earnest his journey into Native oral tradition. Having interests in American Indian spirituality, he also gravitated to the Department of Religion where he met David Carrasco (later of Harvard) with whom he has had an enduring friendship. Another individual with whom Rodney had an enduring friendship was Dell Hymes, with whom he co-wrote the article on Plateau mythology for Volume 12 of the *Handbook of North American Indians*, published in 1998 by the Smithsonian Institution and edited by myself. Rodney's many intellectual gifts have been evident to his colleagues including Carrasco and Hymes. His exploration of Native worlds has also been evident to tribal storytellers among whom he is widely known.

Rodney's teaching has been acknowledged not only by his anthropological colleagues but by his many students who continue to praise him for his teaching and teaching innovations. His distinguished record of achievement in teaching has been recognized by both tribes and various institutions of higher education where he has taught so successfully.

Rodney believes, as I do, that one must explore various tribal traditions in order to understand one such tradition of storytelling. In keeping with this principal, Rodney has explored oral tradition in at least a dozen Native traditions, leading to his recent book, *Carry Forth the Stories*. In this ethnographic tour de force, Rodney Frey examines several fundamental aspects of the ethnographer's role in understanding Native oral tradition.

Rodney's observations penetrate to the very heart of Native storytelling and oral tradition. Perhaps first and most important is his examination of the place of the ethnographer in storytelling in which he and tribal storytellers are linked in complex ways. Perhaps illustrative of these linkages is Rodney's impressive recovery from cancer in which he employed both western scientific medicine and Native American spirituality.

Rodney's discipline, commitment, and dedication to the pursuit of Native storytelling can be seen in *Carry Forth the Stories*. All that I have just described of him, his achievements, and his deep understanding of Native spirituality are evident in this book. Truly it represents his journey into Native oral tradition. It is a book for all ethnographers to observe and for all people sympathetic to our first people to learn deep lessons about Native place.

Review of Carry Forth the Stories

Caj and Kim Matheson

Rodney's *Carry Forth the Stories* is a culmination of the life works of the Anthropologist revealed in an indigenous manner that seeks to remove the barriers between his professional and personal lives. It is refreshingly unique in its candor as Rodney shares his failures and shortcoming as well as his experiences that seem to, at least on the surface, escape rational explanation. As his friends for over 20 years, we are honored to provide this review.

Though Rodney touches on many subjects, there are three we would like to address. The first is his ability to articulate some of the more important aspects of the Coeur d'Alene oral tradition. The first of these is the relational aspect of storytelling. So often American indigenous cultures are decontextualized resulting in misrepresentation usually manifested as a dry, scientific analysis or overly romantic depiction. But the stories, as they are told and heard in our community are practical and highly personal.

The individualized experience of storytelling is embodied in a particular aspect of storytelling drawn out by Rodney that is also very dear to us. And that is the ability of a good storyteller to "remember" a story rather than "tell" it. As storytellers ourselves, this is a key feature we strive to emulate—and often fall short of. But, today, even as we watch videos of elders who have moved on, we smile as they seem to remember when Coyote made his failures.

It is also critical that Rodney acknowledges the importance of storytelling in carrying on the values of the community. Though he uses the word "*miyp*" as the object being conveyed, much of this knowledge is embodied as principles and values and still work to distinguish our communities from others in politics, natural resources management, and other arenas. Our beloved elder, Felix, used to tell us what he heard from his ancestors "when Coyote dies, the Indians will follow." Thus, the importance of these values living on through the stories.

The important subject of research protocol is addressed in this book as well as in Rodney's Research Method's course at the University of Idaho. This has become increasingly important to tribes across the United States as much damage has been, and continues to be, done to our Indian communities. Any individual wishing to work with tribes in any way (and remember, wherever you are in the Americas, you are standing in some tribe's aboriginal territory) needs to be aware of these emerging protocols. Especially as tribes have now gained their own capacities to conduct research and are able to effectively communicate on the scientific front.

Rodney identifies some important principles to adhere to when conducting research on Indian cultures, such as involving tribes from the beginning (it should be done prior to the formulation of the research question), acknowledging biases, acquiescing to the wishes of the tribes, the importance of relationships, the need to be diligent, and the need to acknowledge other forms of knowledge. Though this may seem easy, it is not. When done properly, these principles will likely lead both the researcher and institution to a state of vulnerability. In doing a training on Indigenous Research, for instance, one participant raised the specific dilemma of writing a grant for a research project prior to formulating the research question, which could result in an increased likelihood of funding denial.

It is also important to identify both successes and failures in the research process, and Rodney does a great job of this. We especially appreciate his recounting of an experience with the Coeur d'Alene Tribe where, after receiving early approval, was given an 11th hour denial. Relationships in the context of Indigenous Research are personal relationships and are just as complicated and unpredictable. Likewise, however, problems can be overcome with this in mind. His triumph over this situation by meeting one-on-one with this elder demonstrated the diligence he talked about. These rifts tear at us when they occur because of our relationships. They are equally rewarding when they are worked out. We were aware of this "bump in the road" when it occurred but was unaware of its resolution.

Rodney has always done a good job allowing the Coeur d'Alene tribe to speak for itself. He properly identified the L3 project as an example of such. More than that, however, he has always been a regular visitor to our community. Not only to maintain relationships, but he has also brought his students to us so they could hear directly from our hearts. From our perspective, he has directly connected those he has taught with our community more often than other scholars.

As a matter of relationship to Rodney, we do have an important concern about this book. It includes statements that we feel, based on our experiences with our elders, do not reflect the diversity of views and practices of the Coeur d'Alene people. For example, in the discussion of the image of Coyote in the oral literature, in quoting the Nimiipuu scholar Archie Phinney, "No clear image of Coyote is offered or needed" (p. 50). We hear storytellers provide great detail, down to the texture of the fur on Coyote's body. In another example, it is asserted that the storyteller would stop telling the story when the audience ceased to participate in the story, regardless if the story was completed or not (p. 52). This has not been our experience. Or the statement, "that the Animal First Peoples of the creation stories are the same as the Spirit Peoples who might visit you in a dream or on a hill top" (p. 149). This is an assertion we've not heard before. And finally, that within "the Tin Shed you don't have 'beliefs' about the Animal First Peoples" (p. 191). We have listened to elders as they tell us their beliefs about the Animal First Peoples. This is important to us because Rodney conveys in these statements things we don't agree with, even if they might have come from known community members. Ultimately, our concern is that these statements mix differences that exist within and between tribes in such a way that for the reader, unaware of these differences, can result in an understanding that over-generalizes the Coeur d'Alene culture. Even Rodney acknowledges that some of his informants had differing opinions.

This mixing, that may lead to misunderstanding, could be due to the vignette style of this personal essay where it is difficult to separate one statement from another. The individualized poetic accompaniment may also exacerbate the problem. In any case, we don't believe that Rodney does this intentionally. He provides soft language in many places allowing for diverse views. He even explicitly talks about the diversity among and within tribes when he acknowledges, in reference to storytelling during winter, that "in some traditions Coyote stories are only re-told during the winter," leaving the door open for differences (which, in this case, is needed). As active community members that have worked extensively with our elders, we are able to recognize when these differences occur and accurately attribute them to tribal, family, or individual differences. Other readers, however, may not be able to do so. Accordingly, we would

prefer the use of softer language more often. Most importantly, however, the reader should heed Rodney's advice to research those differences to determine what is appropriate.

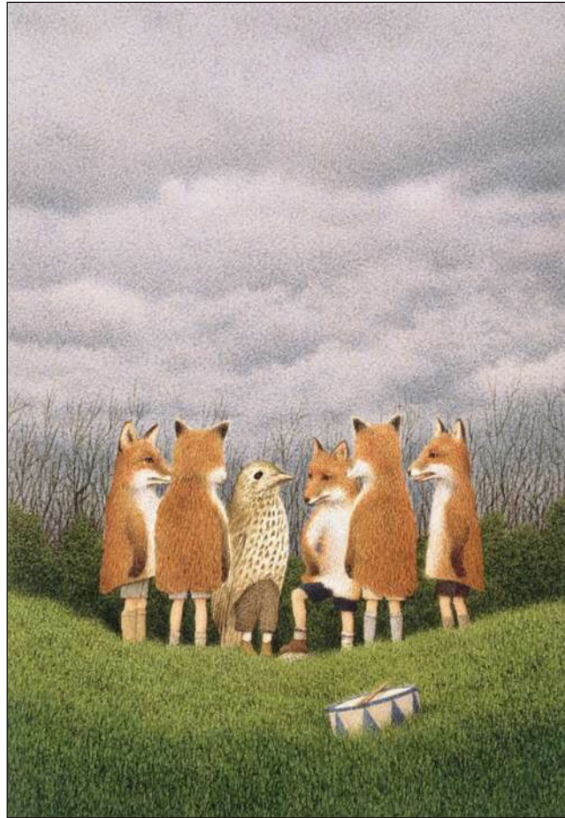
Finally, we would like to acknowledge Rodney's impact throughout his life and in this book. He adequately captures the important aspects of storytelling and key cultural components of our community. He has positively impacted many students that have gone through his classes. In fact, it is in one of his classes that we both met him and each recounted our first Coyote stories in front of others. It has spurred us on in this important activity in our personal and professional lives. We use these stories to carry on the values of our community and even to purport the sovereignty of the people who have claimed this territory since Coyote morphed us from the heart of the Gobbler Monster. And, we are forever grateful!

ABOUT THE AUTHORS

Caj and Kim are actively engaged in their Coeur d'Alene community, seeking to preserve and perpetuate their traditional culture and language. Caj works as the Director of Natural Resources for the Tribe, while Kim is with the Tribe's Department of Education.

Rodney Frey

Tina Wynecoop



Artist: Quint Buchholz

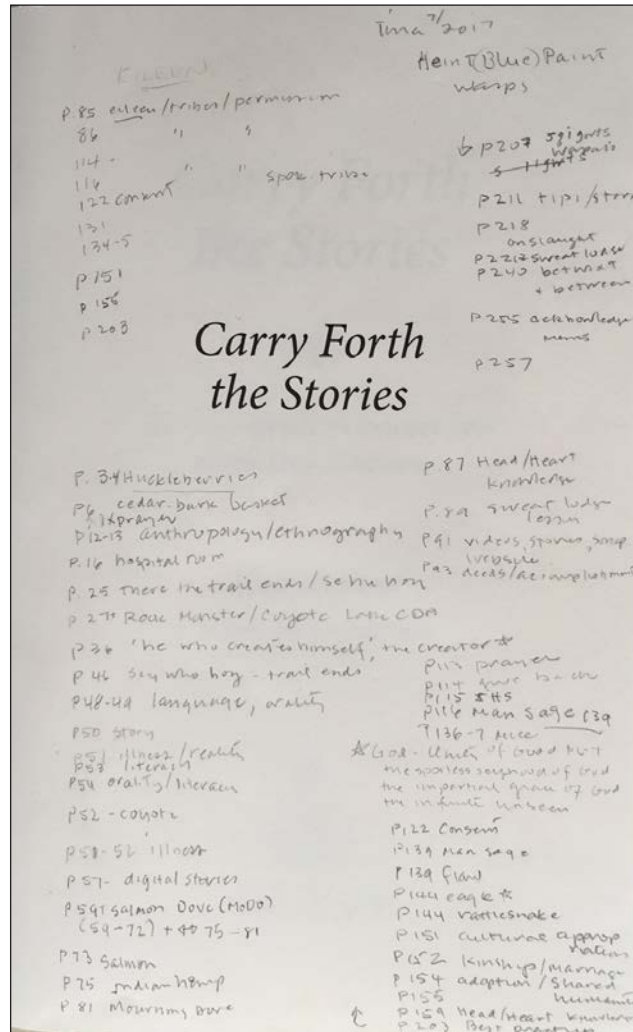
Notice Bird Boy centered in the drawing. To me he represents Rodney Frey. See how the other boys, dressed in their tribe's regalia, encircle him. This is a friendly gathering. They are his Native consultants, tutors, and mentors. Note too, Bird Boy's attentiveness. And look how they trust him: with their stories, their traditions, and their culture. Observe the drum in the foreground. Have they drummed and sang their honor song for him—to him? They have. I do.

Consider the gift of attentiveness ethnographers like Frey carry within themselves; witness their empathy that stirs such trust from Indigenous people whose trust is an invitation to know them more deeply and significantly. The invitation is proffered selectively to "outsiders" in self-preservation. They recognize Frey's gift of "being" that embraces indigenous cultures, and they have given him permission to learn, and permission to share with his readers. This interaction is something I admire very much. It is a quality worthy of emulation. It promotes understanding and forgiveness and healing. His book is an invitation to cultural appreciation.

Carry Forth the Stories resonates with me on so many levels. I hardly know where to begin. Seattle librarian Nancy Pearl notes, "We all read different versions of the same book. We all create the book we are reading." This is how I experienced reading *Carry Forth*. Professor Frey guides the reader to experience this interaction with his book:

No passive listening allowed, no viewing from afar. But everyone can also connect the dots a little differently, discovering this meaning or that

meaning, embedded within the richly layered story, relative to his or her own experiences and maturation level—lessons specific and relevant to him or her alone...a story is only whole when its participants are an integral part of it, integrated within a larger context of interpersonal relations and a particular landscape. (Frey 2017:50)



Notes to myself on the book's half-page of *Carry Forth the Stories*.

So, I brought my own "story" along as I read his book:

The Johnson family, which included my maternal grandmother, came by rail from Missouri to eastern Washington in the early 1900s, settling very near what is now the northeast boundary of Spokane International Airport. One event, or perhaps a series of events, shaped these interlopers' disdainful impression of the Indigenous people. The Johnson's oft-repeated story told of how their laundry, hung on lines out of doors and whipped dry by the ever-present prevailing winds, was stolen by Spokans, who passing through on horseback, helped themselves to the line-dried clothing before moving on. Grandmother, who was a little girl at the time, carried forth her bitter story for nine decades. She did not like Indians. At least one of her descendants shed the inherited mantle of judgment and loss when she made one of the most significant decisions of her life. I applied to be a summer field school student at the Fishtown (sk^{wik}wab) archaeological project (site number 45SK99) near

the mouth of north fork of the Skagit River. The study of anthropology had eluded me up to this point. The following year, packing a degree in education and library science, I moved to the Spokane Indian Reservation to teach school. There I found a life-long companion within the tribe's community. My own family, generalizing and viewing through the clouded lens of their culture, was appalled by my choices. At Wellpinit the old clothesline story lost its power. In 1973 I hung my first basket of laundry outdoors in the purifying sunshine. Our newborn son's cloth diapers were in plain sight for all to see. We lived next-door to the ever-busy store located near the only crossroad of the little town. When the diapers were dry, only the new mother removed them from the line. My grandmother's long-ago clothesline had become a circle quietly enfolding two cultures in mutual trust. Since moving to the reservation I sought and absorbed years of heart/head knowledge. My home library began to fill with the ethnographies of many fine anthropologists who helped me navigate my new culture. Rodney Frey's books are among them and for fifty years I have been observing, experiencing, listening, reading, writing, and sharing. Mentored by the ethnographers I admire, I have "learned from the people how to fit quietly into another culture, how to ask a useful question, when to remain silent, and how to yield control to circumstance and simply be there" (Rainier 1996).



The clothesline with laundry hanging in the sunlight.

The granddaughter is glad to mingle a few of her observations in the cedar basket used to *Carry Forth the Stories* with her focus on storytelling, medicine, and rattlesnakes:

With teaching and marriage I came to appreciate the value of the storyteller's oral tradition. I have experienced its rewards almost daily. I am married to a tribal member whose long interesting life serves as a repository for so many interesting stories. He tells them with such detail—it is as if he experienced them yesterday. Perhaps it is an event, a book, a schoolmate, an elder, a horse, a basketball game, or a special place that triggers a recollection—a story. I anticipate the moment and listen and marvel at what I am hearing. I encourage him to share the story again so I can write it down. And he repeats it for me. We pass along these collected stories to his extensive family lest some might want to know what it was like for a Native person growing up among elders and childhood companions, experiencing the Great Depression, WWII, hunting food for his family's table, farming, ranching, fishing, and, knowing the reservation's landscape as tho it were kin. (Wynecoop 2010)

I read *Carry Forth* last summer in waiting rooms at Sacred Heart hospital. I was grateful for Frey's description of his early work assisting Indian Health Service as IHS sought to improve healthcare delivery to tribal people. In humility the author stepped outside his inoculation in western medicine traditions and looked instead through the lens which Native Americans have viewed illness and the power of the spoken word. He learned from them that there is a time to share one's stories and a time when sharing is not conducive to healing. Frey, with his perspicacity as a gifted observer, wrote,

I was beginning to understand the power of the spoken word, of speaking something into existence ... I glimpsed for the first time a most remarkable attribute of the oral tradition—words spoken aloud have the potential to create reality ... people were reluctant to talk about an illness, for fear of bringing it about. (Frey 2017:51)

Frey understands the Native Americans propensity for viewing all cause and effect as mental, not physical. This is a cultural viewpoint overlooked by the doctors who serve them.

I appreciate how much space Frey devotes in his book to explaining “the Old Ways” or “Heart Knowledge” which he contrasts with “Head Knowledge”—the “scientific method” of study, observation and application of western medical practices. Frey navigates both ways and brings them into balance as he helps us understand the differences—differences so important to note when healing is the objective.

During the time I was reading *Carry Forth*, my own storyteller's follow-up from his hospital stay was given by a cardiologist who brusquely whisked my husband into her office, measured his pulse, blood pressure, temperature, listened to his lungs, weighed him, etc., and then hushed him when he tried to tell her, in his own deliberate, measured, timeless “oral story telling way” what had happened to his heart. “I only have time to see you for 30 minutes,” she snapped, “and you have already used up

32 minutes of it." The 80+ years-old Indian did not go back to her office. Her "Head Knowledge" thought it knew everything about the man. His "Heart Knowledge" realized her way was not his. The "specialist" didn't have the time or training to "listen" and to step out of the enclosure of her own culture. Her medical profession is, ironically, represented by the symbol of two snakes intertwined on the staff of Aesculapius!

It is not too much of a leap from doctoring to rattlesnakes, I think, by touching on Frey's inclusion in his book of an encounter with a snake: He relates an incident in the life of a Shoshone medicine man, John Trehero, who often stayed with Frey's mentors, Tom and Susie Yellowtail:

One day, "John took a walk...not far from the house...an old friend waited, resting his body on a large rock, warmed by the sun ... John raised his hand and offered a hello. He stopped at the rock, bent over and picked up his friend, Rattlesnake, and John was greeted with a hiss. They had a little visit that morning." (Frey 2017:144)

I continue to marvel at the not so subtle congruity of the Shoshone's friendship with the rattlesnake, and the depiction of the intertwined snake figures decorating the caduceus. Frey's work with western medical practitioners serves to bring to mind what has been overlooked, either through ignorance or a false sense of superiority. His teachings bring heart knowledge to balance medical practice!

In consonance with Frey and Trehero, author J. Allen Boone, shares stories of kinship with all living things including snakes. He writes,

There is great practical value in the art of carefully supervising one's thoughts and motives in contacts with other living things ... an old desert prospector, who had rattlesnakes as neighbors ... told me a surprising thing. He said that while rattlesnakes take special delight in sinking their fangs into a white man, they seldom harm an Indian. What the old prospector said was true. The rattlesnakes were indeed selective. There seemed to be a kind of gentlemen's agreement between them [the snake and the Indian]. (Boone 1976)

What Boone observed was "one's thinking, in all its nakedness, always precedes him and accurately proclaims his real nature and intention." He added,

The snakes were able to detect and correctly appraise the particular kind of thinking that was moving in their direction. Having done so, they were ready to deal either as friend or as foe with the approaching human body belonging to that thinking. (Boone 1976)

I have found evidence of that friendly 'thinking' throughout Rodney Frey's book.

In closing I confess my relief at having already read *Carry Forth the Stories before* being asked to contribute to JONA. My interaction with the book was primal and self-serving; I was free from burdening my reading experience with "what will I say?"—and even freer "to create the book" I was reading about Bird Boy. I felt a kinship with Rodney Frey—who former CD'A tribal chairman, Ernie Stensgar, praised: "his research has included the traditional study of a scholar and adopted the Native American tradition of listening and, therefore, learning" (Frey 2001:ix).

Our feathered ethnographer, encircled by the mentors and teachers depicted in the Buchholz painting is my mentor. I am remembering, as well the many ethnographies I have read over the years and being instructed by Kroeber, Jacobs, Gunther, Elmendorf, Teit, Ross, Thompson, O’Neill, Quintasket, Pearkes, Nisbet, and dozens of others. I thank these writers, who have covered me with feathers of understanding and given me wings to soar like a Bird Girl. I sing my honor song to them all—and, especially, I sing ʼ< ♪♪ to Rodney Frey whose writing has touched my heart.

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ABOUT THE AUTHOR

I was born into a culture that forgot how to tell its stories. I married into a culture that both remembers and shares its stories. Storytelling means so much to me. Growing up in western Washington I believed it was the most interesting place in the world until 1970 when I moved to teach school on the Spokane Indian Reservation. The People, their culture, the geography, history, and the flora and fauna of eastern Washington’s Columbia Plateau have become my cherished “home ground.”

Review Essay

Suzanne Crawford O'Brien

"What are you going to do with what you've been given?"

Early in his career, mentors and guides posed this question to Rodney Frey. They were not asking where his essays would be published, or what kind of conferences he planned to attend. They wanted to know if he was ready to enter into relationship—to become part of the family—with all the responsibilities and obligations that that entailed. In *Carry Forth the Stories*, Frey seeks to answer that question. The book is his gift, an offering for the generosity he has experienced throughout four decades of relationship.

Frey's mentor Cliff SiJohn tells stories of gathering berries with his elders, of the hard work and the incredible reward that comes from bringing that berry basket down from the mountain to share with others. This book is Frey's berry basket: a gathering of gifts, many hard-earned, others unlooked for and graciously received. Those gifts come with heavy responsibilities. Gifts of learning come with the responsibility to teach others, just as gifts of healing come with the calling to extend that renewal to others. As Frey soon comes to see, gifts are not meant to be treasured in solitude. They are meant to be passed along. Learning comes with the responsibility to *Basbaaliichiweé*: to tell one's own story. As Rodney says, "a gift received is a gift to be shared" (p.10).

This book is also a kind of medicine bundle. Among Native communities on the Columbia Plateau, medicine bundles (*suumesh* bundles) continue to hold a place of reverence in people's lives. They are the physical manifestation of spiritual experiences, of struggles overcome and pain endured. They are a tool for prayer, and a call to gratitude and humility. Like *suumesh* bundles, this book is a material manifestation of Frey's journey, through illness, confusion, and learning. Bundles are deeply private things—brought out only at particular times, and rarely shared with others. But at the same time, they are not ultimately solitary or individual. This is because each object in the bundle represents and makes present *relationships*—both human and more-than-human, both living and lost. As each token is taken out, considered, prayed through, the past becomes present, it breathes again through prayer and song. Frey's book functions in much the same way. Like a medicine bundle, it reminds him and us that ultimately these deeply personal experiences are not for the individual alone. They are meant to empower us to reach out to others, support them, and create ways to pass those lessons along. Each object in that medicine bundle is a story. And as each is prayed through, it is told again, gaining new life.

A Bundle of Stories

Much of Frey's work has focused on the oral traditions of Crow (Apsáalooke) and Coeur d'Alene (Schitsu'umsh) people, and he has faithfully worked to receive and reflect those stories he has been given permission to share. Because, as he reminds us, storytelling is powerful stuff. Stories, told well, bring spiritual realities of the past into the present experience. "Each time this story is told, coyote comes alive, swirls around you, talks to you," (p. 28). Telling a story isn't easy, and neither is listening to one. Stories are hard work. The moral of these stories doesn't come wrapped in a

neat little package. Stories demand that we travel the landscape in which they were born, that we take time to be in the places that gave birth to them. Not meant to be detached from place, they demand a radical reorientation in place. They demand that we travel through the seasons, the heat and cold, the bends of rivers, the view from the mountain. They demand a different kind of listening—a reverence. The *miyp*, the cultural teachings buried deep within them, preserve and inspire indigenous ways of being and living in the world. As living things, they are dynamic, speaking to each person in a different way, chastising and guiding, offering inspiration and caution. The lesson they bring can be a precious treasure—but the story never belongs to you. If anything, you're the one the teaching has taken possession of.

This notion of stories as living beings—as flesh and bone—is a key teaching that Frey returns to throughout this book. Each story, he tells us, is “like a person.” It has bones—the *miyp*—that are the foundation of the story. The bones have to be there. What covers them however, how strong the muscle, taut the sinew, or flabby the flesh, will vary by teller and hearer. As living things, stories are dynamic, adjusting to external and internal pressures, living in the present moment. And to really tell them, to really hear them, you have to go inside them. Become them. Live them.

Storytelling—particularly when it takes place in an Indigenous language—is ceremony. Like ceremony, it is transformative, and has the power to bring things into being. And like ceremony, it is a “ritual act of participating in the renewal of the world, in a shining through of the sacred” (p. 53). Frey reminds us that going inside and living a story moves us beyond the objective, detached, and dualistic worldview, instead demanding that we see the world as a living place, imbued with spirit. With ceremonial spaces, he tells us, “you don’t have ‘beliefs’ about the Animal First Peoples, rather you have direct experiences with them” (p. 191). Indigenous philosophy, he writes, bears an affinity with process theology, a way of thinking about the sacred that understands reality to be a process of change, a constant becoming, built upon interrelationships, and experiential knowledge of those relationships (p. 195).

Importantly, Frey’s stories are ultimately stories about healing. These are stories about his own healing journeys—when a terrifying illness strikes his infant son, and when as an adult Frey battles cancer. Here, the story of irradiation therapy to combat cancer cells becomes a ceremony, as we learn that his now-adult son and his adoptive Native families are holding a Sun Dance during the same four days that he undergoes treatment. Together, they all pass through a kind of death, and into a new life: transformation.

Much of his life’s work detailed in this book is about bearing witness to healing stories—the stories of the Schitsu’umsh and Crow people, as they heal from the soul wounds wrought by colonialism. Here, healing is a gift. Sometimes unlooked for, sometimes hard-fought, but a gift nonetheless. And like those other gifts, they come with a responsibility. As his mentor Cliff SiJohn tells him, the patient’s responsibility is to attend to his spiritual healing, not just the healing of his physical body. “Listen with your heart, be attentive. That’s your responsibility, something you can take charge of; not your doctors. Attend to both, equally” (p. 228).

Attending to Both, Equally

It is a precarious thing, this entering into the stories of others. Again, like a ceremony, stories are doorways into intimate spaces, sacred and personal and pro-

found. Learning about and writing about the sacred aspects of people's lives doesn't just require appropriate methodologies. It calls for reverence. This is where Frey's book gives us another gift: a map for others to follow who would work as allies and partners with Native communities.

Here are six signposts to look for on this map: Wait for an invitation. Recognize your host as your guide, and try to see from his or her perspective. Adapt your research design, methods, criteria, modes of publication and pedagogy to suit Indigenous styles, ethics, and demands. Seek empathy in everything. Don't take yourself too seriously. And, "always give back." Frey's work illumines the map. From the first, his work was done at the invitation of tribal communities, who controlled how that knowledge would be disseminated, and to whom. As he explains, this is fundamentally about recognizing one's hosts, and recognizing that the welcome, the authority, and the ownership of research belongs with them (p. 86).

Most anyone would agree that "bad" work on Native cultures would minimize Indigenous perspectives, would offer stereotypes, or a narrative stripped of cultural or historical context. Certainly, "good" work seeks to provide us with nuanced Indigenous perspectives, clearly located in culture and history. But Frey's mentors and guides demand that he—and we—go further. As he writes:

Allen and Cliff were asking if I'd be a good guest in their homes. Would I honor and respect the hospitality of my hosts... And had I even been granted permission to enter in the first place? ... They asked what I intended to do with that which was entrusted to me. And as a guest in the home of another, would I honor the wishes, the authority, and sovereignty of my host? [Would I] acknowledge and take responsibility for my Euro-American heritage and all of the privilege it garners relative to an indigenous community [and] act in a spirit of equitable collaboration and partnership with my host? (p. 85)

As his book goes on to explain, this kind of ethical responsibility requires a commitment to what his mentors define as heart knowledge. This is a positionality defined by sincerity, honesty, authenticity, with no hidden agendas or ulterior motives. Frey has sought to live this, within his personal relationships and his professional work, where elders and mentors are never "informants" but co-authors and collaborators, whose distinct voices shine through, even in written text.

Following this map to ethical relationships means that some things are going to be left out. It means respecting the sanctity of certain stories, knowledge and practices that are not meant to be shared outside of family or tribal community. It means sharing the stories of others only with their permission.

It's a complicated trail that takes you through another culture. And it's particularly complicated when that trail leads through sacred territory. Frey has not just written about Sun Dances and Sweat Lodges, he has participated in them. He does not just write about other people's spiritual experiences, he has had his own. And he courageously shares those here, knowing that his stories won't be understood or appreciated by everyone.

Spiritual appropriation is a very tricky issue, and as a teacher I am often warning my students about its dangers. But Frey's signposts work here as well: wait for an invitation, listen to your guides, adapt your expectations, seek empathy, give

back. And, know that traveling in sacred territory requires two very important things: kinship and reciprocity.

In Indian Country sacred traditions are often family traditions. They belong to families and communities and are an expression of their lived experience with a living landscape. They are not meant to be lifted out of place, or out of relationship. Adopted into these families, welcomed as life-long friend and kin, Frey has received a priceless and rare gift—an invitation into their homes, their lives, and their prayers. Being a part of those families has come with a responsibility—to give back “without expectation of anything in return, contributing without attribution, contributing in perpetuity” (p. 153). In his narrative, readers can start to see the distinction between “appropriation and inspiration, between taking from and learning from, between fruits confiscated and huckleberries revealed” (p. 151).

Spokes on the Wheel

There’s a depth of empathy required to do such work. And for Frey, this empathy requires something as well, a sense of shared humanity. To explain this, he draws on the wisdom of his mentor Tom Yellowtail. One of Frey’s (and Tom’s) most beloved stories is that of Burnt Face. Injured in a fire, a young boy leaves his community and ventures into the mountains to fast, pray, and seek healing. There, Burnt Face gathered stones and built the Medicine Wheel. It was here that Burnt Face was blessed with a vision of the Little People, and was healed. He returned to his community, bringing teachings of wisdom and renewal. The Medicine Wheel, Tom says, provides a way of understanding cultural and spiritual diversity.

The spokes of the Wagon Wheel, the Medicine Wheel ... are the various paths to the hub ... the different religions ... the different peoples of the world ... each with their own ways ... their own languages...their own traditions ... but each spoke is equally important ... the wheel just wouldn’t turn if some spokes were longer than others ... if some were taken out altogether ... all the spokes are needed if the wheel is gonna turn ... but all the spokes are linked to the same hub ... the same Creator ...” (pp. 18–19)

In this book, Frey maps a course for those who would “cross over,” moving from one spoke to the next, and back again. As he concludes, “the farther up the spokes of diversity we travel, the more we are fused with the hub of our shared humanity” (p. 250). It’s empathy that makes this possible, he says. It is empathy that teaches us how to visit others’ homes, how to be a good guest. And it is empathy that helps us find the center.

ABOUT THE AUTHOR

Suzanne Crawford O’Brien is professor of Religion and Culture and affiliate faculty in the Native American and Indigenous Studies Program at Pacific Lutheran University in Tacoma, Washington. She is the author of *Coming Full Circle: Spirituality and Wellness Among Native Communities in the Pacific Northwest* (2016) and *Religion and Healing in Native America: Pathways for Renewal* (2008).

Narrative Transformations: Reflections on *Carry Forth the Stories*

Aaron Denham

There is something very special about the act of telling these stories
(Cliff SiJohn in Frey 2017:55)

In 2001 I was new to anthropology. Rodney Frey, my mentor, suggested that I collaborate with Cliff SiJohn, a Coeur d'Alene elder, on my thesis. Cliff was an ideal person to introduce me to Coeur d'Alene culture, tutor me in the practicalities of ethnography from an Indigenous perspective, and, above all, direct me to slow down and pay attention. "I'll talk. You keep your mouth shut and listen," Cliff said during our first interview. "Later, when I am finished speaking, you can ask questions." Later ended up being months away, and when I finally had the opportunity to ask something I was at a loss for words.

Cliff began our early meetings by returning to the foundations of his oral history. He emphasized that if I was going to learn anything about his life, identity, and culture, I must first be grounded in the stories of his family, his community, and the First Peoples. When speaking of his earliest memories, he painted evocative images of himself peeking out from under the blankets at his grandmother's house and listening to the elders as the stories "swirled through the room" while he drifted off to sleep. "My grandmother's house was my first recollection," Cliff said.

There were people sitting all the way around in the room. They'd visit, tell stories, visit, tell stories. Everyone is sitting within a circle, like inside of a teepee. I'll always imagine it was that way one thousand years ago, all the people sleeping around a circle with the fire in the middle, because that is the way it was for me. The fire was crackling and my grandmother was talking, telling stories, laughing, and then another story will start over there and work all the way around. It all comes back to the crackling of the fire, the power of the fire, and the smell of the smoke. So, through that process, being both entertainment and socializing for the old people, was also a catalyst for learning for my brother and me. We learned our language, we learned stories about the coyote, the animal world, the spirit world, afterlife, we learned about death, we learned about life, we learned about living. We learned about how to take care of ourselves, take care of our family, and take care of our children, all from examples. Through the oration, through the oral history of our family. So, we are all in that room. We haven't left. And that for me is the catalyst that keeps things in balance. It circles.

It has been years since I last immersed myself in Cliff's stories. However, in Frey's new book *Carry Forth the Stories*, Cliff's voice and the voices of several other elders come alive again. Inside, Frey reflects on his more than 40 years of collaborative research with Native people by knitting together the teachings and oral histories important to them with the wisdom and stories that shaped him personally and professionally. From the sweathouse to the cancer clinic, Frey positions readers to glimpse his and his collaborators' lives from the inside out, as if you too were sitting with them as the fire

crackled and the stories came to life, circling around the room just as Cliff described.

Carry Forth the Stories is much more than an ethnographic memoir or an innovative work of creative non-fiction. The book is a perspective on applied anthropology, a statement on anthropological ethics and reciprocity, and a paradigm for ethnographic collaboration, methods, and teaching. Frey prioritizes the emic and the lived-experiences of others. I distinguish his approach as a variation of person-centered ethnography that is based not on clinical and psychological techniques and theories as it is typically understood (Levy and Hollan 1998). Rather, his focus is being fully in the presence of others, organically experiencing what it is like to be in their shoes, and collaborating with them over the long term. Frey demonstrates that one must listen deeply, participate, and empathize. When finished, the ethnographer has a responsibility to take what she has learned and use those gifts to help others. These principles are not necessarily foreign to anthropology. Nonetheless, Frey's applied and ethical focus, prioritization of his collaborators, and commitment to getting the story as close as possible to the inflection and texture of people's experience serves as an exemplar.

An ethnography can reveal much about its author. Yet how often have you finished reading and wanted to know more about the person and their motivations, methods, and principals? *Carry Forth the Stories* is, in part, the story behind the stories. Frey not only presents a range of experiences and oral histories that have shaped his life and perspective, he also shares the insights and principles that helped guide his ethnographic collaborations and his previous scholarship. Frey's former students will likely recognize several of the narratives and pedagogical tools within. Those who have not had the opportunity to take his classes can now sample many of the gifts he has shared in the classroom.

Like the most engaging ethnographies, Frey builds bridges that link people, places, stories, epistemologies, and cultures. But unlike a tangible bridge with a fixed path and destination, Frey, applying an oral history technique, packs your bag and points you in a general direction. He prepares you for a horizon of possibilities, rather than a fixed destination. He constructs a space that empowers readers to discover their own meanings and to make their own interpretations. In other words, Frey lets the story, presented as closely as possible to the style in which it was delivered, speak for itself. Much can happen in the spaces between the story, the storyteller, and the reader. It is in such intersubjective spaces where the story and its spirit, animal, human, and impersonal elements commingle with the perspectives that readers bring to the story at that particular time and place. Stories, experiences, and meanings do not exist unto themselves or unto an individual. Because our lives are an intersubjective project, stories merge and are generated in the spaces between people, beings, and objects (Jackson 1998). These "swirling" elements of stories, the storyteller, the context, and the inner world of the reader or listener coalesce, mutually bring the stories to life, and make them meaningful in both shared and idiosyncratic ways. Insights that a reader works for or discovers *de novo* are those that will have enduring significance. Frey's attention to this intersubjective nature of stories is an interpretive style that acknowledges aspects of our shared humanity while also maintaining a degree of multivocality that the more monolithic interpretive forms cannot equal. He is attentive to the risk that interpretation and theorization will reduce or rationalize people's experiences. Decontextualization, or the reduction of oral histories to words alone, has the power

to lose elements of “indigenous-based integrity and authenticity” and distance us from humanity (Frey 2017:96). Hence, Frey prioritizes the narrative context to avoid isolating the teachings and the speaker.

Empathy is one intersubjective process that is central in *Carry Forth the Stories*. Two variations of empathy emerged. Frey demonstrates the classic conception of empathy, wherein one puts themselves in another’s shoes. Such empathetic attunements, he describes, humanizes and enhances our connections to and understandings of others. Heinz Kohut described this form of relational empathy as being central to human survival, the oxygen in our interpersonal atmosphere (Kohut 2009:85). Frey posits that a second form of empathy was also vital to the survival of the Coeur d’Alene people. He describes the importance of “empathetic adaptability”—the capacity to think interactively, divergently, and convergently, and feel and communicate from the position of others that engages multiple ways of thinking and doing (Frey 2017:215). This sort of openness to others and change, Frey says, demonstrates how the Coeur d’Alene people engaged their landscape and came into new relationships with people, technologies, and political economies while maintaining a degree of sovereignty. This depiction of empathy is important because it closely resonates with how resilience—or the ability to remain flexible in face of adversity, adapt, and incorporate the new—is often conceived. I find that linking resilience to empathetic adaptability is an intriguing and useful way to move resilience research forward.

Stories, Frey says, make the world. They are central to what makes us human. When we look at the significance of stories and the metaphors within them, we see how they have the power to transform lives and restore order. His treatment of stories resonates with several perspectives from within medical anthropology. When considering healers or healing, at least from a biomedical perspective, we often fixate on the role that technology or material interventions play. The agent of change is the pill, the machine, or, in other healing traditions, the talisman or bath. The past century has seen dramatic changes in the efficacy of healing technologies and the techniques of the healers that we visit. Caught up within this technological focus, we forget how the principal role of healers, historically and across cultures, has been to provide supportive care. One of the primary ways of supporting a patient is to help the sufferer name, understand, organize, and emplot their illness experience. This involves using stories to mediate the disruptions to their life, to gain control, and to enable the individual to transform their suffering into forms of personal empowerment or social transformation. Stories, as Frey demonstrates, have the power to rebuild lifeworlds that were unmade by disturbance and disorder (see also Good 1994 and Hunt 2000). This element of the book presents a much-needed emphasis on the transformative and healing power of stories.

To present “things as they are” and as close as possible to the vicissitudes of human experience is central to the phenomenological approaches in anthropology. Frey’s work demonstrates this commitment and prioritizes the humanistic emphasis present in phenomenological and existential thought (Frey 2017:109). Readers familiar with these traditions and authors might see connections to Frey’s method and themes. For example, his emphasis on empathy and an ethics toward others demonstrates the relevance of Emmanuel Levinas. Present is the existential influence of Viktor Frankl and the importance of meaning (Frey 2017:12). The poetics and phenomenology of place connects with Yi-Fu Tuan and Edward Casey. Notably, without directly naming

it as such, Frey prioritizes the phenomenological “lifeworld” (dynamic, individual lived experiences) over the “worldview” (a larger model of reality for a society). He aptly describes this using the Coeur d’Alene term *hnkhwelkhwlnet*—“our ways of life in the world” (Frey 2017:181). In this lifeworld, Frey notes, people give primacy to the interactions, converging relations, and interdependency between all things. From within this perspective, humans, stories, places, the past and present, the First Peoples, and others cannot be analytically separated from each other and the world.

Since stories and other narratives play such a significant role in constituting worlds, it is essential that the stories themselves and their modes of emplotment be cultivated and protected. After reading Frey’s work, I reflected on how the loss of a story is the loss of not only knowledge about a place, person, transformation, or cultural practice, it can also be the loss of a world. For Indigenous people, the loss of stories, languages, songs, and traditional ecological knowledge are ongoing struggles that are ensnared in landscapes of racism, inequality, dispossession of land, and other forms of structural violence. When stories vanish and shared lifeworlds are erased, the tools, pathways to meaning, and the concepts that people use to understand themselves, according to Lear (2006), are also lost. Stories and the ways in which speakers recount them encode established social roles and understandings of what it means to be a moral person with that culture. When they disappear, the possibilities for becoming that person can be foreclosed (Lear 2006). This loss of meaning and the disappearance of entire ontological and epistemological systems are central to the challenges Indigenous people face globally. *Carry Forth the Stories* demonstrates the importance of living stories at the personal and community level. It offers collaborative, decolonized insights and methods that can be adapted across communities for ensuring that oral traditions continue to live.

In one of my last interviews with Cliff SiJohn, he talked about how each person has a circle waiting to be filled. “If you stand all those life experiences up it would be a tower of information,” Cliff said, “or it can just lay on its side forever. But, if you tip it up it can reach out far to another circle over here and you can use the stuff from that circle for yours and pass it on.” Stories, when stood up, are agents of change. And when we accumulate enough stories, we have the responsibility to share them. This ethic is fundamental to Frey’s teaching and scholarship, and it is central in *Carry Forth the Stories*. Frey’s book is a giveaway ceremony. It embodies many lifetimes of experience that are now guaranteed to live on and continue to reach others far into the future.

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A Response from the Author

Rodney Frey

I owe a sincere thank you to Deward Walker, Caj and Kim Matheson, Tina Wynecoop, Suzanne Crawford O'Brien, Aaron Denham, and Darby Stapp. Holding each in high esteem, it is truly an honor to participate with them in this forum and I am humbled by their generous and kind words. These are contributors that are all anchored in an advocacy of the Indigenous, scholars matured and maturing, embedded educators, and cultural preservers. As with any good storytelling, each contributor brought a little of him or herself into the story of *Carry Forth the Stories*, discussing the specific meanings revealed to each, as well as in his or her re-telling of this story, adding their own experiences to the mix, thus providing further insights and huckleberries. A special thank you to one of my dear mentors, Deward, and to the colleague who made this forum possible, to Darby.

As considered by each of the commentary authors, *Carry Forth the Stories* chronicles how the teachings from elders of the Apsáalooke (Crow), Schitsu'umsh (Coeur d'Alene) and Niimípuu (Nez Perce), among others, have over a four-decade expanse become part of my professional and personal life. Conveyed are essential and shared-in-common teachings of these elders, their *miyp* teachings, that have transformed me as an ethnographer and as a human being. These are *miyp* gifts received, now intended to be shared with you, the reader—native, non-native, student, professional, general public, and especially, future generations. *Carry Forth the Stories* is more an “ethnographic memoir,” rather than a typical ethnography. It is descriptive of one person's experiences with the Indigenous, of the primary teachings shared with me and through me, and how I have attempted to integrate them into my life, seeking to connect seemingly dissonant and divergent dots.

Among the essential and pivotal gifts conveyed in *Carry Forth the Stories* are reflections on the power of story and storytelling, on the supple “flesh” and the steadfast “bones” of the *me'y'mi'y'm* storytelling, something each of the authors identified. Delving deeper into the structure and dynamics of storytelling, revealed are the nature of Indigenous knowledge and practice itself, of the “transitory intersection of those participating”—of *hnkhwelkhwlnet* “our ways of life in the world,” and of traditionalism—*snukwnkhwtshwts'mi'ls t stsee'nidmsh* “empathetic adaptability.” Infused in each of the topics of the book, as discussed by Suzanne and Aaron, is the critical role played by *snukwnkhwtshwts'mi'ls*—empathy. Revealed is the world created through story, swirling with Salmon and Coyote, with Burnt Face and the Little People, and with a healing journey, while traveling the varied “spokes” of our human diversity and glimpsing the ubiquitous “hub” of our shared humanity. The power of story to heal was a topic noted and nicely discussed by Tina, Suzanne, and Aaron.

In my attempt to convey these essential Indigenous teachings, I sought a pedagogy affirming an unequivocal relationship between *what* is being conveyed (the content) and *how* it is conveyed (the means). Akin to storytelling, presented is a montage, a text rich with oral traditions, story vignettes, poetic formatting, snippets of descriptive experiences, of “thick descriptions,” what Suzanne refers to as “a bundle of stories.” The assemblage of individual texts, culminating in a singular book, is as a story—with the potentiality of a “living being,” with its outer supple “flesh,”

variable and idiosyncratic, and its inner anchoring “bones,” steadfast teachings, and ontological foundations. It is a storytelling that asks the reader to be attentive, going deep beneath the “flesh” of the story, “connecting the dots,” in a manner that renders the texts meaningful. The story’s underlying “bones,” the teachings, can be revealed to and discovered by each engaged participant. There are no Aesop-like “and this is the lesson from the story” declarations. *Carry Forth the Stories* does not offer overt explanatory conclusions, logical deductions, or empirical inductions—no Head Knowledge *means* for Heart Knowledge *content*. As Caj and Kim have identified, this is a pedagogy that can lead to misunderstandings and even overgeneralizations. It certainly offers an experience many readers will find unfamiliar, but hopefully, with patience and perseverance, rewarding. As noted by Suzanne, it is “hard work.”

I tell this story out of a sincere responsibility to share what has been shared with me. As Cliff SiJohn asserts, the huckleberry gifts received are now huckleberries to be gifted to others, a responsibility noted by Suzanne. It is a story of *basbaaliichiwe*, a re-telling of what has transformed me, and of *baaéechichiwaau*, a re-telling of what is cherished by others—so that others might be nourished, so others might gain a huckleberry. As Tom Yellowtail affirms, “if all these great stories were told, great stories will come!” Don’t we all seek to share and disseminate what has transformed and what is insightful, so that others might be informed, so that their lives might be enriched and improved?

The stories of my elders have all contributed to indigenizing my ethnographic research methods, my writing and publication, and my teaching. But as discussed by Suzanne, it was Alan Old Horn’s and Cliff SiJohn’s Tin Shed/Sweat House story that was most important. It offered a protocol, a six-point pathway for my indigenized ethnography. In collaboration, through ethical and tribally-sovereign governance, with participatory attentiveness, I sought an Indigenous perspective, to convey an Indigenous epistemology and ontology, resulting in “give back.” It is a professional pedagogy that also acknowledges the inheritance from my Boasian family, of the central mission to authentically and ethically re-tell the stories of others, seeking to benefit those we serve and to challenge the stereotypes, prejudices, and hegemonic forces that stifle the voices of the underrepresented and oppressed. To be an ally. Through me, my teachers invite you into their Tin Shed/Sweat House methodology, so that it can point the way into the hearts of those we serve. Can this methodology offer you an approach as you engage the many strangers in your life?

Best illustrated in my cancer healing journeys is a reflection on the interplay of diversity and the universal. It was a personal journey originating in the Sundance Lodge, stemming only after an invitation from my host, Tom Yellowtail, to enter, with prayers for my son’s health the motivation to do so. Then some 30 years later, I was struck with cancer. Tom Yellowtail’s stories of Burnt Face and the Rock Medicine Wheel helped navigate this new and challenging, potentially dark territory. As with Burnt Face so, too, with me, “a rite of passage” journey, with each bend, each fork in the path illuminated. And with the many spokes of the Medicine Wheel, a way to dissolve the seemingly “mutually exclusive” was offered, a journey involving the confluence of two worlds, of two spokes and a singular hub. It was a journey infused with both oncology and stem cell Head Knowledge and with Eagle-feather fans and Sundance prayer Heart Knowledge. At the height of the second of those journeys, I entered a time and place of the “betwixt and between,” the liminal, where the veil

of the superfluous was left behind, revealing glimpses of the ultimate, at the hub, revealing with such clarity—empathy and compassion. The healing journeys affirmed my unfolding identity, put to words spoken at the “giveaways,” at the *basbaaaliichiwe*, I held during the 2007 Schitsu’umsh Jump Dance and 2012 Apsáalooke Sundance, that sought to acknowledge and thank those who helped make the journeys—truly *healing journeys*. *Carry Forth the Stories* is a retelling of what has transformed me, gifts received, that now are gifted to the reader, with huckleberries that can nourish. Embracing diversity, seeking the ubiquitous, traveling the many spokes, glimpsing the universal hub, empathy greasing the turning wheel, ultimately a *Great Mystery*, isn’t all this at the core of our bones, what we in our humanity seek to do?

Speaking of differences, I am appreciative of Caj and Kim for identifying a critical aspect of Indigenous life. It is apropos that the examples they identified provide a segue for considering some of the differences in the traditions and practices cherished by elders. Significant inter-tribal differences, and within a tribe, intra-family distinctions, are to be acknowledged, that can result in disagreement. I know that there are elders in the communities I have worked and lived who, because of differing family traditions, would disparage some of the assertions made in *Carry Forth the Stories*. But that, in and of itself, should not throw doubt on the veracity of the claims held by some, nor the truth affirmed by their critics.

It should be considered that the purpose of *Carry Forth the Stories* is not that of a descriptive ethnography, as exemplified in *Landscape Traveled by Coyote and Crane: The World of the Schitsu’umsh* (Frey 2001), in which we identified a range of views and practices among Schitsu’umsh families. *Carry Forth the Stories* is more a personal and professional memoir of my journey, though my lenses, identifying the shared-in-common teachings of certain mentors and elders who guided my experiences. Nevertheless, in a work that attempts to distill over 40 years of learning and experiences, there are bound to be a few “overgeneralizations.”

Under consideration are: “The storyteller would stop telling the story when the audience ceased to participate in the story, regardless if the story was completed or not” (Frey 2017:52), “No clear image of Coyote is offered or needed” (p. 50), “Within the Tin Shed you don’t have ‘beliefs’ about the Animal First Peoples” (pp. 190–91), and “The Animal First Peoples of the creation stories are the same as the Spirit Peoples” (p. 149). Part of the diversity of views on these assertions can be attributed to differences in storytelling techniques used by recontours, a function of the supple “flesh” of the storytelling. A precise or vague image prescribed to Coyote is but one example. Lawrence Aripa, following the publication of our *Stories That Make the World* (Frey et al. 1995), even painted a very detailed watercolor description of Coyote, presenting it to me as a Christmas gift (Figure 1). Simply because it was a restless, distracted, unengaged group of fourth-graders, Lawrence would still complete his telling of the story.

I believe a critical divergence reflected in these examples is one in which the focus of storytelling is on “performance” and “pedagogy,” as distinct from a focus on “ceremony,” as mentioned by Suzanne, inclusive performance and pedagogy. It is a difference between storytelling that seeks to entertain and teach the *miyp*, or storytelling that provides laughter and educational lessons, as well as helps perpetuate reality itself. A difference between providing a completed, singular image of Coyote, for the six-year old and sixty-year old equally, or providing a vague imagery of the trickster,

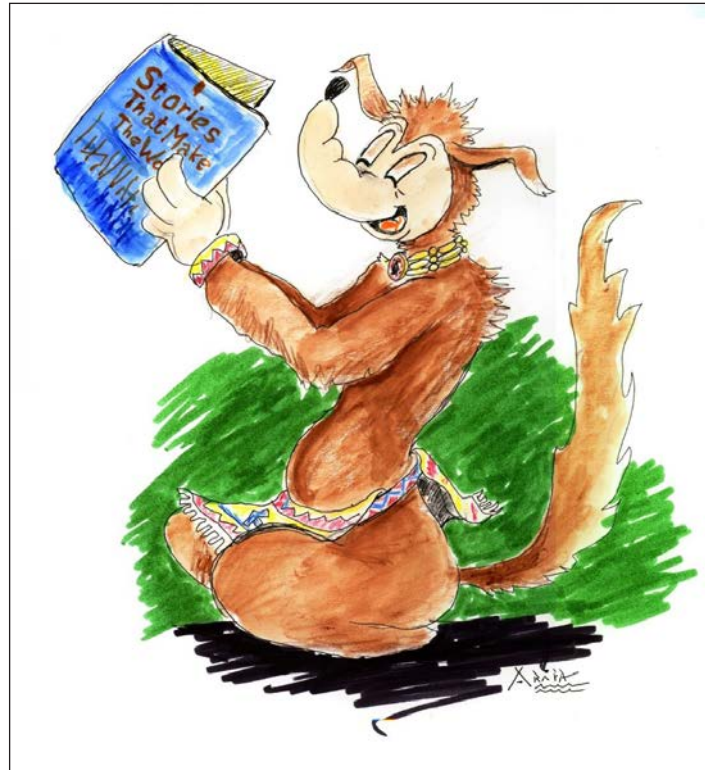


Figure 1. Coyote by Lawrence Aripa.

to facilitate the participatory experiences of a varied audience. Of continuing to tell the story, regardless of the participation of an audience, for the educational benefits it provides, or of stopping the story short when there is no longer the necessary participation of that audience to bring the story alive. A difference between storytelling done before fourth graders or at a public event among strangers, or a story told with intimacy among family members at a huckleberry gathering camp or in a living room of a home. A difference in experiencing the Animal First Peoples through an intermediary, systematic set of constructed concepts involving “beliefs about them,” or having direct experiences with the Animal First Peoples. Of telling a Coyote story that offers an explanation about the blue of a lake, or in speaking the words of that story the blue in the lake is brought forth. A difference between viewing the Animal First Peoples and Spirit Peoples as distinct from each other, part of a temporal dichotomy separating the creation time from the present, or as essentially one in the same, part of a temporal and spatial unity of reality. A difference between “suspending disbelief” about the Animal First Peoples and viewing their world as “once upon time tales,” or of “swirling” with the Animal First Peoples as reality is perpetuated. A difference between literacy and orality, between duality and monism. But most importantly, as spokes on the Wheel, storytelling as performance and pedagogy, and storytelling as ceremony are not mutually exclusive, but each an authentic and in their own way, critical expressions of indigeneity today.

As with my Apsáalooke and Niimiipuu elders, I was fortunate to have been tutored and inspired by so many Schitsu’umsh elders, including, through her stories, Dorothy Nicodemus, who in her mid-seventies had her stories recorded and transcribed from her native tongue in 1927 and 1929. With their help, they have instructed me and have guided my experiences, allowing me to travel deep within the

Tin Shed, literally swirling in stories brought to life with Coyote and Four Smokes, and swirling in the intense heat within a Sweat Lodge and in exhaustive dancing within the Jump Dance Longhouse, a swirling that transforms and brings forth the world.

Are we not all in some fashion ethnographers, seeking to understand those around us, to learn from the best of them and share their stories? Are we not in some significant way a deep reflection of our family, of our elders and teachers, and of the particular journey they have helped guide us along?

Have you, the reader, been able to gather a huckleberry or two? It is my hope that you have. A heartfelt *ahókaashiile*, *qe'ciyéw'yew*, *lim lemt.sh* for listening.

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JONA Presents
Recollections of Anthropology in the Pacific Northwest

A History of Anthropology at Reed College and the Warm Springs Project

Robert Moore, Robert Brightman, and Eugene Hunn

Abstract As part of the *Journal of Northwest Anthropology's* *Recollections of Anthropology in the Pacific Northwest*, a collection of articles was solicited concerning Reed College and the Warm Springs Project (1950–1956), a collaborative program of anthropological and other field research organized by David H. French (1918–1994). Robert Brightman introduces the Warm Springs Project and provides an overview of anthropology at Reed beginning with the first course offering in 1919. Robert Moore describes the Warm Springs Project; the contributions of David and Kathrine French, affiliated with Reed College from 1947–1988; and the students who participated in the field work. Eugene Hunn provides his remembrances of working with David French and the research they conducted together. A bibliography of selected publications by the Frenches is also provided. Over the decades that followed the Warm Springs Project, both David and Kathrine French were able to sustain relationships of mutual respect and reciprocity with tribal Elders and their descendants, and with people involved in culture and heritage activities on the Warm Springs Reservation.

Introducing “The Warm Springs Project”

Robert Brightman

Robert Moore's essay on the Warm Springs Project (1950–1956), published ten years ago in *Reed Magazine*, was an exceptional contribution to the history of anthropology. It is a pleasure now to see a substantially revised and augmented essay appear in the professional forum of the *Journal of Northwest Anthropology*. Moore here expertly and elegantly evokes the “invisible college[s]” and mid-century modernist surrounds connecting David and Kathrine (Kay) French with teachers like Morris Opler and Ruth Benedict, with such students as Gary Snyder, Dell Hymes, and others, and with Warm Springs participants Phillip Kahclamat and Hiram Smith.

The introduction to follow positions David and Kay French and the Warm Springs Project in the context of an existing tradition of (Franz) Boasian anthropology at Reed College, a legacy which the Frenches transformed into a department that enjoyed national and international prominence. It concludes with remarks on Eugene Hunn's autobiographical piece.

Anthropology at Reed College first becomes visible with introduction of a single course ("Anthropology") in 1919. The course description exemplifies the four-field scale (cultural anthropology, linguistics, physical anthropology, archaeology) established by Franz Boas at Columbia University at the beginning of the century.

Anthropology. Study of man: races, evolution, rise of arts, languages, influence of environment, distribution of races. [1920–21]

The instructor is unknown but the course was taught between 1921 and 1923 by Wilson D. Wallis (University of Pennsylvania '15); Wallis combined an earlier Oxford B.Sc. degree in anthropology with informal attachment to the Boasian orbit at Columbia. The anthropology course's transdisciplinary content prompted multiple and overlapping classifications. The College introduced a History and Social Science Division in 1920, and the course was initially filed there under Sociology while existing simultaneously as a component of Introductory Biology. In 1922–23 a *Department* of Anthropology and Sociology was introduced, and the introductory course was joined by "Social and Cultural Evolution," "Ethnology of the Old World," and "Ethnology of the New World" (all probably taught by Wallis). An additional course on "Anthropology and Psychology" (co-existing with "Social Psychology") was "closely integrated" with General Biology but apparently not offered that year. Between 1926 and 1932, the introductory course title became "Social Anthropology and Social Psychology," the phrase "social (vs. 'cultural') anthropology" suggesting British nomenclatural influence. The course description is less overtly "four-field" and more psychology-oriented:

Compares cultures of primitive and civilized peoples, principles of cultural diffusion, processes of social interaction by which individuals develop personality, and acquire sentiments, habits and techniques common to the group. [1930–1931]

Beginning in 1933 Reed anthropology was embodied in the person of Alexander Goldenweiser (Columbia '10) who combined the Boasian imprimatur—Native American ethnography, conjoined study of historical diffusion and configurational pattern, critiques of racialism and cultural evolution—with interdisciplinary orientations towards psychology, sociology, and history, and with professional accomplishments in classical piano and billiards. During the early 1930s, Goldenweiser taught "Introduction to Anthropology":

General survey of anthropology, animal descent of man, race, physical and psychological traits, representative cultures of primitive tribes, theory of social evolution and modern reconstruction. [1933–35]

This became "Introduction to Anthropology and Sociology" in 1935, described through 1946 as a year-long course with one-third allocated asymmetrically

to anthropology. Goldenweiser also taught “History of Sociological Theories” and “Contemporary Society.” Four-fields notwithstanding, Goldenweiser had little interest in linguistics, archaeology, or physical (biological) anthropology, and introduced no courses on these subfields.

During Goldenweiser’s visiting sojourn at the University of Wisconsin (Madison) in 1937–1938, Morris Opler (University of Chicago ’33) taught anthropology at Reed as a visitor. Goldenweiser returned to Reed again for one year in 1938–1939 before his death in 1940. Morris Opler seemingly handed off the visiting appointment to his brother Marvin Opler (Columbia ’38) who taught Reed anthropology as a visitor from 1938 through 1943. Following the World War, Robert F. Spencer (University of California [Berkeley] ’46) taught as a visitor in 1946.

David French apparently entered Reed College in 1935. He took courses with Goldenweiser and during his junior year in 1937–1938 worked closely with Morris Opler. When Opler moved to the Claremont Colleges in California in 1938–1939, French transferred to Pomona College, completing with Opler both his B.A. that year and an M.A. at Claremont Graduate School in 1940. At Pomona, French met Kathrine (Kay) Story, and the two were married in 1943 while pursuing doctoral degrees at Columbia University. French was present in the Columbia Anthropology Department office on December 21, 1942 when a distraught Ruth Benedict entered with the news of Franz Boas’ death.

French (Columbia ’49) returned to Reed College in 1947, occupying the first anthropology tenure-line position and presiding thereafter over Reed anthropology until his retirement in 1988. Having studied with Benedict in the Boasian milieu at Columbia, he continued the tradition at Reed, introducing courses on “Man and Culture,” “World Ethnology,” “Anthropological Theory,” and “American Indians.” Kay French (Columbia ’55), for her part, became an integral *de facto* member of the Department. Moore’s article cites a letter from French to Morris Opler that year, remarking on the (to French) exotic quality of local faculty culture: “Practically none of the present faculty do any research or writing, even in the summer time.” Anticipating later trends at Reed, the Frenches combined research and publishing with teaching, and the Warm Springs Project was a (or “the”) signature creation of this mixture (Figure 1). By the Frenches’ and others’ accounts, the Project had little significance or intelligibility for senior colleagues empowered to grant tenure, and a positive decision for David French in 1953 was secured largely through the expedient of hosting a successful party. The Project, however, has proven meaningful over the years to Warm Springs participants and their descendants. Shortly after David’s retirement in 1989, the Frenches were to be honored with a certificate of appreciation from the Confederated Tribes of Warm Springs, Oregon, one among multiple recognitions of their research by reservation groups and individuals. Neither were pedagogical benefits of the Project limited to student researchers. Moore provides us, for example, with Kay French’s epistolary recollection of a conversation in which the BIA superintendent of the reservation “learned, apparently for the first time, that Indians spoke different languages. So the light of learning spreads.” A significant aspect of the Project was as context for Kay French’s doctoral research, and not the least of this essay’s virtues is its attention to her Sahaptin scholarship, still awaiting publication.

Boasians other than Boas himself lacked Renaissance-like professional capacities in each of the four anthropological subfields. The Frenches’ specializations were in



Figure 1. Eva Winishut with David French at Warm Springs, 1952; Winishut, a Sahaptin, assisted the Frenches' anthropological research.

cultural anthropology and linguistics. In the early 1960s, two tenure-line positions were added, and French wrote job descriptions targeting archaeology and newer theoretical streams in cultural anthropology. Reed graduate Gail Kelly (University of Chicago '59), a veteran of the Warm Springs Project, was hired in 1960. Kelly, prototype of Reed anthropology's perduring incest-exogamy arrangement with the University of Chicago, added elements from the Chicago milieu of the 1950s: British social anthropology, classical sociologies, and the Parsons-derived "symbolic anthropology" of Clifford Geertz. Claude Vaucher (University of Washington '69), a scholar of great versatility, arrived in 1963 and introduced courses on "Comparative Prehistory of the Old and New World" and "Physical Anthropology." Until his retirement in 1994, Vaucher offered majors the opportunity to write archaeology theses. In 1964, Anthropology and Sociology became separate departments but a composite "Soc-Anth" introductory course continued until 1971. French, Kelly, and Vaucher all taught the introductory course, albeit with different syllabi and emphases. French had introduced the course "General Linguistics" in 1955, later adding "Advanced Linguistics." His long-standing wish to promote linguistics at Reed was achieved with appointment of linguistic anthropologist John Haviland (Harvard '71) in 1986 to a visiting and later tenure-line position in the newly formed Linguistics Program. Linguistics transited from program to full department in 2006.

I read Eugene Hunn's reflections with nostalgic recognition. As a French advisee in the early 1970s, I had been briefed by Jeff Zucker (Anthropology), Jim Eckenwalder (Biology), and other veterans on what to expect and so fairly quickly became accustomed to the Frenches' mixed nocturnal-diurnal cycle and to invitations to visit their home, conveniently sited across the street from the Reed Library, at "Oh . . . around 3:00 [AM]." Once installed in the storied basement and provisioned with dry roasted peanuts, many matters might successively arise to prolong conversation and defer departure. Hunn's accounts of having "arrived in Portland about noon that January day and left the French's at 2:30 AM the following day after a classic French marathon conversation" (1977) and of "an overnighter [on] January 18–19, 1978" will summon pleasant memories for other students and colleagues. Hunn has the distinction of being David French's most frequent co-author and modestly passes over here the substantial theoretical influence of their "Alternatives to Taxonomic Hierarchy: The Sahaptin Case" (1984) from *Journal of Ethnobiology*. I fully share his experience of connection to "an ancestral anthropological generation, not far removed from Sapir, Kroeber, Kluckhohn, Mead, and Benedict"—and from Boas himself. Hunn's piece also vividly evokes the extravagant value accorded in "the Great Basement" (as the Frenches nicknamed it) to exactitude and detail, to "a sample of a woody fungus (*Echinodontium tinctorium*) that was ground and mixed with deer fat and applied to the face to prevent chapping from the winter winds" or to "blueback salmon's eye" as among synonymous Sahaptin names for evening primrose. The plate of scrambled eggs sprinkled with dried and crushed leaves of *Lomatium grayi* is an exemplary case of French-inspired cultural hybridity.

Enough introduction and on to "The Warm Springs Project." Formally in place between 1950 and 1956, the Project enjoyed a vigorous lifespan thereafter. Anthropology theses on Warm Springs-related topics, sometimes involving on-site fieldwork, continued thereafter through the decades until the Frenches' retirement.

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Photographs from the original Warm Springs Project article published in *Reed Magazine* 2008



The Winishut family house on the Warm Springs Reservation.



Gary Snyder '51, Berkeley, California, 1955.



Anthropology Professor David French
'39 (1918–1994).



Figure 1. Hiram Smith and Dell Hymes, Warm Springs, Oregon, 11 August 1951 (Hymes at left, in reflection). Photograph by David or Kathrine French (University of Washington Library, Department of Special Collections, Papers of David H. and Kathrine S. French).

The Warm Springs Project*

Robert Moore

Introduction: The Invisible College

The decade or so immediately following World War II brought dramatic changes to the social, political, and cultural landscape of America. Reed College, despite its location in Portland, Oregon, far from the metropolitan centers of cultural production, was no exception. Partly because of its modest scale, the story of the Warm Springs Project—unfolding on an out-of-the-way Indian reservation and a small liberal arts campus in a Northwest timber town—allows an intimate glimpse of the forces that were reshaping American society at the time. In particular, it permits us to see how these forces played themselves out in a small local network of homegrown intellectuals, many of whom would go on to acquire international stature in academia and the arts: from sociolinguistics and ethnobotany, to poetry, experimental film, and AIDS research.

The Warm Springs Project was a multi-year collaborative program of anthropological and other field research organized by David H. French (1918–1994), who taught anthropology at Reed College from 1947 to 1988, and his colleague and wife Kathrine S. (“Kay”) French (1922–2006), also an anthropologist (both held a Columbia Ph.D.). Combining outside funding from the Social Science Research Council (SSRC) and the Wenner-Gren Foundation with support from the college, the Frenches brought a series of Reed students to live and work on the Warm Springs Indian Reservation in central Oregon (roughly 100 miles from Portland on the high Columbia River plateau east of Mount Hood) between 1950 and 1956—mostly in summer, with shorter trips during the academic year when possible.

Several of the students produced Reed B.A. theses (in a number of different departments) out of the research they did on the reservation; others who did fieldwork at Warm Springs wrote library theses on other topics. Some applied for and received direct support for their individual research projects from the SSRC, while others took jobs on the reservation fighting fires, or logging, or working in the schools. At least two then-recent Anthropology graduates (Dell Hymes (Figure 1) and Ed Harper) returned to Oregon to participate as first- or second-year graduate students, with support from their universities (Indiana and Cornell, respectively); others, no doubt, came and went.

Many had the crucial additional support of the G.I. Bill, a pension from military service, or the equivalent. Most grew up in the Pacific Northwest, often in families of modest means but serious political commitments; as “veterans” in one sense or another, many had recently seen much of the world, including the then “Far East.”

*An earlier version of this paper was published in 2008 under the title “The Warm Springs Project: Reed anthropology in the postwar moment” in *Reed Magazine* 87(1):12–17 (February 2008). I’m grateful to Michael Silverstein for his comments, and Mitchell Hartman, then-editor of *Reed Magazine*, for his editorial guidance, on that earlier version; and to Darby Stapp, Robert Brightman, and Eugene Hunn for their help with this revised version, which incorporates new material of substance as well as many small changes.

As a group, they were significantly older than today's undergraduates—many taking up or returning to college at age 25 or older. The dislocations of World War II (and soon, Korea) were experiences they shared in common with a cohort of newly-arrived younger faculty members at Reed (and elsewhere); the Frenches, after all, were scarcely a decade older than many of their early students. (For David French, the theme of a “return” after the dislocations of the war years must have operated on multiple levels: he'd attended Reed himself as an anthropology student in the mid-1930s, and both of his parents, and an aunt, had graduated from Reed with the class of 1915.)

In one sense the story of the Warm Springs Project reveals the emergence of a cosmopolitan intellectual elite in America's western periphery: people whose recognizably “modernist” sensibilities were reflected in their enthusiastic involvement in movements associated with abstract art, modern literature and/or the sciences, non-Western (e.g., Asian or indigenous) religions, and progressive (usually, Marxist) politics.

The importance of the G.I. Bill, and of this unique convergence of demographic and social forces in the postwar moment, cannot be overstated. The effects of similar large-scale forces were also felt in other out-of-the-way places, such as Black Mountain College in North Carolina, at exactly the same time; but they converged in particular ways in the Reed context, and in the Pacific Northwest more generally, to set the conditions under which this remarkable group emerged.

If the scale of the story is modest, the intellectual ambitions—and the subsequent accomplishments—of its several protagonists are decidedly not. One astonishing thing about the Warm Springs Project is not so much what the participants actually did during their (admittedly unusual) “summer vacations,” but what the project's various alumni/ae went on to do later.

One, Robert Ornduff (Reed class of '56) became the dean of California botanists and served for decades as the Curator of the UC-Berkeley Herbarium; another, Gary Snyder ('51) would shortly become the hero of Kerouac's *Dharma Bums* and would later earn a Pulitzer Prize in poetry, among other honors and distinctions; another, Harry Paget ('51) was already an accomplished documentary film-maker as an undergraduate; two—Edward B. Harper ('52) and Michael Mahar ('53)—became eminent social anthropologists of religion and village life (respectively) in India; another, Bruce Voeller ('56), became an eminent biochemist and an important early gay rights activist, and in the 1980s would coin the term ‘Acquired Immune Deficiency Syndrome’ (AIDS); yet another, Dell Hymes ('50) would become a prolific and paradigm-setting linguistic anthropologist, serving as the President of the American Anthropological Association, the Linguistic Society of America, and the American Folklore Society—and this is only a partial list.

Historians of academic disciplines sometimes work by tabulating scholars' citations of one another's work in published sources; more nuanced accounts sometimes trace the circulation of ideas and methods through what the sociologist Robert Merton called “invisible colleges.” Here we may be dealing with something even more evanescent. But thanks to the voluminous archive of correspondence, writings, ethnographic fieldnotes and photographs, and related material preserved by David and Kay French over sixty years—and deposited in the Special Collections Department of Suzzallo Library at the University of Washington and in the Archives of Reed College—this story can be told.

Planning

Apparently quite soon after their first trips to the Warm Springs Reservation in 1949, the Frenches glimpsed an opportunity for fieldwork. Having established good relationships with some key people in the community, the Frenches had enticed several Reed students to come to the reservation by 1950 and set about seeking support from the college and from outside sources, in effect to subsidize, formalize, and extend what they were already doing.

On June 26, 1950 David French wrote to Morris Edward Opler, who had been his anthropological mentor at Reed (and whom he followed in 1939 to Pomona College in California, where Opler introduced him to Kay Story, his future spouse). By this time Opler was at Cornell and well-positioned with respect to the Ford Foundation and other new funding sources for social science research. Both Frenches had kept in touch with Opler throughout the war years, and so the tone of French's letter is casual, even intimate:

Dear Morrie,

It's about time for a general recapitulation of news from Oregon. There haven't been too many dramatic events here. Mostly I have been teaching school, which at Reed somehow manages to be about all one does. I believe you got some writing done; practically none of the present faculty do any research or writing, even in the summer time.

Continuing in the same newsy vein, French describes his students, first mentioning Harry Paget, whose thesis film *Return to the River* chronicles the seasonal rhythms of Indian fishing on the Columbia River (Paget later filmed the fishing platforms and Indian villages around Celilo Falls in the moment of their inundation by waters from the Dalles Dam on March 10, 1957):

[...] I have a fairly large (in Reed terms), active group of students at present. Several have been and will continue to engage in limited field work projects in Eastern Oregon aimed toward their senior theses. One, who previously was a drama major, is doing a documentary movie, accompanied by a written text. He's actually at present an interdivisional major, as are a great many of my students. They tend to be well along in programs involving other fields, usually literature, at the time they discover anthropology. [...]

Here follows some discussion of French's efforts to funnel promising students Opler's way:

One June graduate in literature and anthropology was awarded a \$1500 ACLS fellowship. He plans to go to Indiana for a year, primarily for folklore and language and then on to some place like Columbia. His name is Dell Hymes and he's a smart fellow. Before he leaves town I'll suggest Cornell to him again as a possibility for his second year.

Hymes stayed at Indiana, earning a Ph.D. in 1955. In other recent news:

The school is nominating me as its candidate for a rather fancy SSRC fellowship. Perhaps you know about this plan. The fellow teaches half-time

and does research with the rest of his time, during a three-year period. Tentatively, Kay will do half the anthropology teaching during those years. She will, that is, if I get the award, which is not too likely, I'm afraid.

Some paragraphs later, French comes to his main point:

If I sound in places in this letter like a person applying for a job, mentioning my little successes, this is partly because I'm planning to submit your name in connection with the above fellowship ...

Several months later French wrote to Ralph Linton, under whom he had briefly studied at Columbia, covering many of the same points, albeit in a more formal tone. By now the occupant of an exalted post at Yale's Institute of Human Relations, Linton in a return letter signals his enthusiastic support.

Meanwhile, Dell Hymes had decamped to Bloomington, Indiana. On May 24, 1951, Hymes wrote to French that the summer fieldwork grant from ACLS had come through ("Amount is \$400, to which can be added the money I'll get through G.I. Bill for subsistence"). Hymes was also laying the groundwork for Gary Snyder to join him at Bloomington the following year, reporting that both the folklorist Stith Thompson and the linguist George Herzog (who had taught linguistics to both Frenches at Columbia) had been "alerted for Gary's arrival; [Carl] Voegelin"—Hymes's dissertation advisor—"though unpredictable and at times moody, will be receptive."

By mid-June 1951, Hymes was back in Oregon to begin linguistic work on Wasco (also known as Kiksht), one of three distinct languages spoken at Warm Springs (the others are Numu/Paiute and Ichishkiin/Sahaptin). The Frenches introduced Hymes to two Kiksht speakers who would become his most important Native interlocutors at Warm Springs: Philip Kahclamat and Hiram Smith (Figure 1). Kahclamat (enrolled as a 'Wishram' at Yakama) had spent 1932–33 at Yale serving as an informant in a course on field methods taught by the renowned linguist-anthropologist Edward Sapir (1884–1939); during that year he also became friends with Peter Buck (Te Rangi Hīroa), attended lectures by Malinowski, and befriended several of Sapir's students, including Mary Haas, Morris Swadesh, William Fenton, and Walter Dyk, whose own 1933 Yale Ph.D. dissertation was *A Grammar of Wishram* essentially from Kahclamat's lips, supplemented by one summer around the Dalles.¹ Kahclamat, who was killed in an altercation in 1958, seems to have been for Hymes a fleeting and mercurial presence.² Hiram Smith, a member of a large and prosperous Wasco family at Warm Springs (the Smiths could count a Chinese railroad worker and an itinerant Jewish peddler among their ancestors), on the other hand, became a steady presence in Hymes's life—as a linguistic informant, a friend, and perhaps a surrogate father—until his own death in 1989.

Hymes spent much of that first summer of fieldwork with Hiram Smith on the fishing scaffolds at Celilo Falls (flooded to create The Dalles Dam in 1957). Taking breaks from the strenuous work of dipnetting salmon, Smith narrated two brief texts in Wasco that formed the basis for Hymes's first academic publication (Hymes 1953).

¹ In later years Kahclamat visited Dyk during the latter's fieldwork with the Washo in northeastern California.

² Hymes would publish a poem in remembrance of Kahclamat 25 years later ["For Philip," in *In Vain I Tried to Tell You*] (University of Pennsylvania Press, 1981).

Back in Bloomington—now ensconced in an apartment located conveniently upstairs from a used bookstore with Gary Snyder and a cat named Sapir—Hymes wrote to Kay French on November 8, 1951. He starts by reflecting on the summer's experiences:

At Celilo I was very happy some of the time, mostly when Hiram, his partner and I were on the [fishing] scaffold. Tension seemed gone, for Hiram too. [...] We joked before you left Celilo concerning the vague status I had: when out on the fishing platform, who was I? Afterwards, I became wholly amorphous. One morning early I was wakened by a middle-aged Indian woman friend of the Smiths, who had met me once or twice. She urged me to go with her friends to buy them beer. When I was adamant, sleepily but surely, she grew indignant. After exhortations and cajolings, she turned and left with the parting denunciation, "A helluva fine Indian you are!"

Hymes also reports news from Bloomington, where both he and Snyder were participating in a year-long seminar led by the anthropologist and philosopher David Bidney ("the myth seminar has soared the last two weeks. A high-powered discussion of Plato's treatment of the poets, i.e., mythmakers, yesterday").

Gary is settled in till at least the end of the semester, perhaps for the entire year. Voegelin "intuited" Gary's discomfort with the Air Force [...] So, he arranged for Gary to work in preparing exhibits for the museum being established, incidentally at more money. Gary can now get his teeth fixed, repay Reed, and keep a comfortable conscience. Voegelin's comment when he asked me to relay the new job to Gary was, "Tell him he'll go to jail soon enough." (That is, no reason to drop out of school, therefore be forced to be a conscientious objector when summoned for draft, therefore go to jail since conscientious objectors now verboten.)

"Regards to the anthropologists at Reed, sapient and incipient," Hymes concludes, "any part of this letter is o.k. for public consumption." To Hymes' signature Snyder adds a "hello" in all capital letters, spelling the l's with Greek lambdas ("HEΛΛΟ!") and attaching his initials. Gary Snyder left Bloomington at the end of that first semester—about a month after the letter quoted above was written—heading to San Francisco to live with his Reed friend, the poet (and later Zen *roshi*) Philip Whalen. He studied "Oriental languages and cultures" at UC-Berkeley in 1953–1956, but never returned to academia. Hymes stayed on at Bloomington, and in 1955 submitted a Ph.D. dissertation (Hymes 1955) supervised by Voegelin that was a grammar of the Chinookan language Kathlamet, generated entirely from Boas's single volume of texts (Boas 1891).

Uncle Avex's House

By the summer of 1952 the SSRC Fellowship had also come through, and the Frenches were getting established at Warm Springs in a house on the banks of Shitike Creek not far from the Warm Springs Agency area that was formerly inhabited by Avex

Miller, the uncle of a local friend. Ed Harper—who'd gone to Cornell to study with Opler—had returned, and on August 25, 1952, wrote a letter to an unknown person (probably a Cornell friend) that is preserved among the Frenches' papers. "Greetings from the wilds of Oregon," Harper begins:

Field work continues at Warm Springs. Dave and Kay are hard at work on an ethnobotany, while sandwiching other kinds of work in between. Also Mike Mahar is working for the Indian service, and in time off doing field work. In addition there is a fellow named Bob Wallace who is doing some work on Sahaptin child training under a SSRC grant. I find a fairly large group of people all working on different projects to be quite stimulating—much exchange of data, comparison of notes, and even exchanging gossip about informants.

Of course, the "informants"—who quickly became accustomed to the arrival each summer of a revolving cast of Reed characters (Figure 2)—exchanged gossip about them, too, carefully noting their comings and goings and savoring their eccentricities; details (including nicknames given to members of the Reed crew) were still being recounted with amusement in the 1980s when I was at Warm Springs doing my own linguistic fieldwork.

The quality of life at "Uncle Avex's house"—later supplemented with a second house in a neighborhood of then-new BIA housing called Hollywood—emerges *inter alia* in the correspondence, especially with Harper. The Frenches and their students constructed a small dam in the creek beside the house to create a pool for swimming in the hot afternoons, and evenings seem to have been given over to anthropological "shop-talk" and some card-playing. On April 9, 1953, David French wrote to Harper:

You mentioned the possibility that your department might support a visit to the reservation during the last part of the summer. By all means, come if you can. We may not be there the whole time but present plans are to live in the same house and to try to re-establish on a modified scale the essence of the situation during previous summers. [...] It's a little hard to imagine summer at Warm Springs without you, however. Last summer's dam lasted until into the spring. Now it's all gone except the weak part where it attached to the bank. The new main channel is where the little island was previously. Do you think we should rebuild it?

Funds for the trip were slow to materialize in Ithaca, and in July 1953 an impatient Harper wrote back:

Imagine WS project is in full swing by now. Has the dam been rebuilt. Don't mark the cards before I get there. Hear you have quite a crew working, some living in Hollywood. Should be very good for information. Say hello to Mike [Mahar] for me—I will write him one of these days. [...] / As ever, / ed

By July 1953, David French was in Ann Arbor attending a symposium, and Kay was writing him frequent letters updating him on activities in and around Uncle Avex's house. One student, she writes on July 4, 1953, "has not done much in regard



Figure 2. Anthropology student Lynne Sherley (Reed class of '53) and an unidentified man at Warm Springs, circa 1952. Photograph by David or Kathrine French (University of Washington Library, Department of Special Collections, Papers of David H. and Kathrine S. French).

to his own [thesis] problem, and was somewhat worried about it. [...] I talked to him one night and it seems all he needs is a little reassurance and pushing which I can probably provide." Another student has "apparently set up so many deadlines ('I'll be done by Friday afternoon', etc.) that her parents got thoroughly insecure and she reacts negatively to their pressure. [X] tells her not to get paranoid and not to let herself see things entirely in their frame of reference, etc., etc."

Don't get paranoid—this is 1953, recall; but most of all, don't see things entirely in your parents' frame of reference! The Frenches were not functioning *in loco parentis*—far from it—but rather as colleagues, and as sources of advice and support when needed, functions that were also performed by fellow students for each other. Kay goes on to report a conversation with the (BIA) Superintendent of the Reservation, "in which he learned, apparently for the first time, that Indians spoke different languages. So the light of learning spreads." Here follows a quick rundown of the domestic furniture situation:

I also acquired a gasoline lantern and a tin wash basin and dipper. Your mother provided a large drip coffee pot. I found a cheap but adequate card table which will augment our working space, and what with the typewriter table and car seat here we are well furnished.

In his letter to Harper of April 9, 1953, David French reflects on what is by now a going concern:

The question of my tenure and promotion to associate professor is now official and non-secret. We have been gradually replanning our Warm Springs work. As I believe I mentioned in my last letter, we got some more money for this winter and next summer. During the summer we'll spend as much time as possible writing and fussing with notes and manuscript, all of this on the reservation. Beyond the summer, the plan is to work slowly and carefully on the various facets of Warm Springs research which will inevitably be unfinished. I see no reason why we cannot stretch some of this out over a period of years the way Kluckhohn has done at Ramah. For one thing, it will remain a good student training area. Then beyond the purely scientific considerations, is the fact that the work there has assumed emotional importance for both of us. We feel constructive or productive and become better prepared for life in Portland and for teaching.

French's reference here to what "Kluckhohn has done at Ramah" helps to put the Warm Springs Project into a wider context. Harvard University's "Values in Five Cultures" project—overseen by the anthropologist Clyde Kluckhohn (1905–1960), laboring under the watchful eye of Talcott Parsons (1902–1979)—brought together a star-studded interdisciplinary team of sociologists, anthropologists, psychologists, and philosophers to conduct fieldwork in five culturally distinct but geographically contiguous communities in New Mexico: the Mormon town of Ramah, a settlement of Texans at Fence Lake, Zuni Pueblo, the Hispano community of San Rafael, and the Ramah Navajo community (where Kluckhohn had been doing fieldwork since 1934). Begun in 1949 with a grant of \$100,000 from the Rockefeller Foundation (renewed in 1953 for another three years), the "Harvard Values Project" produced a stream of Ph.D. theses, monographs, and books between 1949 and 1956.³ Reed's "Warm Springs Project" was much more modest in size and scope, needless to say. But at a total cost of less than 5% of the Harvard project, it left—through the subsequent activities of its participants, if nothing else—a remarkable impact on anthropology, and on the arts and sciences more broadly.

Conclusion

Starting in 1951, Kay French began the systematic examination of social ceremonies at Warm Springs—community observances of milestones in the life-cycle like birth, marriage, and death—that would form the basis of her 1955 Columbia Ph.D. thesis (French 1955); in the mid-1980s she collaborated with Yvonne Hajda (née Phillips), an alumna of the original "Warm Springs Project," on a study of how these same ceremonies had changed (or not) over the intervening thirty years (this work remains unpublished).

³ See Evon Z. Vogt and Ethel M. Albert, "The 'Comparative Study of Values in Five Cultures' Project," in *People of Rimrock: A Study of Values in Five Cultures*, ed. Evon Z. Vogt and Ethel M. Albert (1966; repr., New York: Atheneum, 1970).

David French, meanwhile, had become absorbed in ethnobotany—Native people's names for, concepts about, and uses of plants and plant products—focusing his work on the Sahaptin and Wasco segments of the community. In 1961 he published a monographic history of Wasco-Wishram contact with Euro-American society (French 1961). Beginning in the mid-1970s he spent an increasing amount of his time on two activities: preparing dictionary entries for a lexicon of Kiksht in collaboration with Michael Silverstein of the University of Chicago and Dell Hymes and continuing his studies of Plateau ethnobiology in collaboration with Eugene S. Hunn (see Hunn's accompanying paper).

Since the 1970s, people in Native communities have sometimes viewed anthropologists ("anthros") with suspicion and even hostility. Over the decades that followed the Warm Springs Project, both Frenches were able to sustain relationships of mutual respect and reciprocity with tribal Elders and their descendants, and with people involved in culture and heritage activities on the reservation. The Frenches serenely weathered this period in part by "repatriating" their ethnobotanical and other knowledge to interested parties at Warm Springs whenever asked, and in part by making sure that people at Warm Springs knew they were always welcome to come visit at their house in Portland, and stay overnight for the kinds of "marathon conversations" in the basement that Eugene Hunn describes in his accompanying essay. Eventually, both Frenches came to be treated (and spoken of) as Elders in their own right, and received public ceremonial honors from the Confederated Tribes of Warm Springs both in person, in their later years, and posthumously.

The Warm Springs Project needs to be understood first within its own cultural and historical frame of reference, as it emerged in the tension between self-knowledge and knowledge of "others" that has characterized anthropology and the arts alike. In a July 4, 1989 letter to David French about a collection of essays in his honor to which French had contributed (Halper 1991), Gary Snyder noted that some of the essays in the book "amount[ed] more to a kind of culture history of our WWII West Coast period, than just memoirs about me." The collection, Snyder wrote,

begins to form the picture of an era. It seems as though there is a West Coast literary and cultural history that underlies some of the more widespread American social phenomena of the last 30 years that is virtually unknown.

If World War II changed American cultural consciousness of its place in the world on a collective level, it also transformed the consciousness of the post-service generation who in the late 1940s and early 1950s were returning to colleges and universities, either as students or as faculty members. The Warm Springs Project was animated by this new self-knowledge, and by a yearning for knowledge in America of "other cultures"—cultures now discoverable within its boundaries, even if first encountered outside them.

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ABOUT THE AUTHOR

Robert Moore earned a B.A. in Anthropology from Reed College and a Ph.D. in Anthropology and Linguistics from the University of Chicago. He has drawn on his own fieldwork with Kiksht (Wasco-Wishram) speakers and descendants at Warm Springs, Yakama, and environs (begun 1983) for a series of articles on language change, “oral literature” in performance, and community-based efforts to maintain and revitalize the language. He is a Senior Lecturer in Educational Linguistics at the Graduate School of Education, University of Pennsylvania.

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Reflections on David and Kathrine French's Contributions to Anthropological Research in the Columbia Plateau

Eugene Hunn

I first met David French on a visit to David and Kathrine's house across the street from Reed College on January 18, 1977. I had encountered several citations to his work on Plateau Indian ethnobotany as I prepared to initiate my Yakama Indian Ethnobiology research. My wife, kids, and I had moved to a rental outside Toppenish, Washington, on the Yakama Reservation in September of 1976 and in December I sent David a copy of a preliminary list of Sahaptin plant and animal names that I had culled from odd sources and from my initial conversations with several Yakama elders. He must have responded with an invitation, as I note in my field diary that I arrived in Portland about noon that January day and left the French's at 2:30 AM the following day, after a classic French marathon conversation. I recall very well the basement (Figure 1), where our conference was held. It being winter we were limited to inspection of fall grasses and fungi. David showed me a sample of a woody fungus (*Echinodontium tinctorium*) that was ground and mixed with deer fat and applied to the face to prevent chapping from the winter winds. I have five pages of notes ranging from names for white owls to a delicate desert evening primrose (*Oenothera pallida*) called variously steelhead or blueback salmon's eye. My notes of our conversations are, unfortunately, almost entirely limited to lists of Sahaptin, Latin, and English names for plants and animals. But that was the abiding interest for us both.

My next visit was an overnighter January 18–19, 1978. By then my grasp of Sahaptin issues was considerably advanced and I had a full season's plant specimens to review. *Lomatium* species were, of course, front and center, with David's extensive basement herbarium for ready reference. I believe it was at this visit that we planned our paper on Sahaptin *Lomatium* classification and nomenclature, our first joint writing effort:



Figure 1. The Frenches' basement work space at 3410 SE Woodstock Blvd., Portland, OR in 2007. Photographer unknown (courtesy of *Reed* magazine).

Hunn, Eugene S., and David H. French. 1981. "Lomatium: A Key Resource for Columbia Plateau Native Subsistence." *Northwest Science*, 55:87–94.

We were back at it August 24–25, 1978. We composed an elaboration of Brent Berlin's perceptual/taxonomic model by adding a relationship of coordination between similar organisms to the hierarchical relation of taxonomic inclusion at the heart of Berlin's taxonomic scheme.

Hunn, Eugene S. and David H. French. 1984. "Alternatives to Taxonomic Hierarchy: The Sahaptin Case." *Journal of Ethnobiology*, 4:73–92. Reprinted in *Case Studies in Ethnobotany*, Paul E. Minnis (ed.). University of Oklahoma Press, Norman (2000).

I recall on this occasion sharing breakfast after a long night in the basement. Kathrine (Figure 2) sprinkled dried, crushed leaves of *Lomatium grayi* on our eggs. *Lomatium grayi* is a highly aromatic, first-of-spring Indian celery known as *latit-latit* in Sahaptin, literally "many little flowers." We subsequently planned future writing projects, including a contribution to the *Smithsonian Handbook of North American Indians*, *Plateau* volume, long delayed. We ultimately co-authored two handbook chapters, published in 1998, four years after David's death.

My graduate student assistant for my Yakama ethnobiological studies was Brien Meilleur (now Doctor Meilleur). After a discussion with David about stories we had recorded to the effect that *Lomatium dissectum* roots could be macerated in a still pool in order to stun fish, he arranged for a Reed student, Rachel Cox, to test this account by a series of lab experiments. This she wrote up for her senior thesis. Subsequently, Brien and I co-authored a note on those experiments with Rachel, adding ethnographic context, which was published in the *Journal of Ethnobiology*. David was a key player in this collaboration.



Figure 2. In the Frenches' basement workspace, 1964. Left to right: Kathrine S. French, Jane Snell Raymond (Reed class of '59), and David H. French (courtesy of *Reed Magazine*).

Meilleur, Brien A., Eugene S. Hunn, and Rachel L. Cox. 1990. "Lomatium dissectum: Multi-Purpose Plant of the Pacific Northwest." *Journal of Ethnobiology*, 10:1–20.

David and Kathrine wrote the "Wasco, Wishram, and Cascades" chapter for the *Plateau* volume of the Smithsonian *Handbook of North American Indians* (edited by Deward Walker), while David and I co-authored two additional chapters, first a Plateau-wide summary of "Ethnobiology and Subsistence" jointly authored with Nancy J. Turner (she covered the Canadian half of the Plateau).

Hunn, Eugene S., Nancy J. Turner, and David H. French. 1998. "Ethnobiology and Subsistence." In *Plateau*, D. E. Walker, Jr., editor, Volume 12, pp. 525–545; *Handbook of North American Indians*, W. Sturtevant, gen. ed. Smithsonian Institution Press.

I had been pressed into service by Deward Walker to rework an early manuscript chapter on the Warm Springs Sahaptins that George Peter Murdock, since deceased, had crafted in the early stages of *Handbook* production. With David's help I wrote a new chapter to cover the "Western Columbia River Sahaptins," expanding the scope to include not only the Warm Springs communities David and Kathrine knew so well but to include also the Sahaptin-speaking communities—by then largely displaced to the Yakama reservation—at White Salmon, Lyle, Celilo Falls (including the village of Sk'in where my Sahaptin teacher, James Selam, fished as a child), John Day (where James grew up), Rock Creek (where James was born), Roosevelt, Pine, and Alder Creeks (home to James Selam's sister-in-law, Delsie Albert Selam (Figure 3)).

Hunn, Eugene S., and David H. French. 1998. "Western Columbia River Sahaptins." In *Plateau*, D. E. Walker, Jr., editor, Volume 12, pp. 378–394; *Handbook of North American Indians*, W. Sturtevant, gen. ed. Smithsonian Institution Press.

David was an anthropologist whose influence was felt less through academic publications—which were sparse and more often than not published in botanical journals—than through his personal encouragement—he provided a meticulous review of my book *Nch'i-Wána "The Big River"* for the University of Washington Press. Our discussions were always challenging, most held in his basement late at night with students and colleagues. He represented for me an ancestral anthropological generation, not far removed from Sapir, Kroeber, Kluckhohn, Mead, and Benedict. My exposure to anthropology was rather late in coming, so he was able to bring to life a formative era in American cultural anthropology. On occasion he would catch me up short with a critical perspective on what I had taken for granted, which always enhanced my understanding.

Less appreciated perhaps is the contribution of the small grants program of the Jacobs Research Funds to the support of many critically valuable ethnographic and linguistic studies of the endangered cultures of the Pacific Northwest. Kathrine French was on the advisory board of the Jacobs Research Funds from 1974 through 1999, and she served as chair of that board from 1980–1995. Robert Brightman now serves on the board, continuing Reed College's role in this effort. These funds were established by a bequest of Melville Jacobs, subsequently augmented by bequests of

his wife and mother. More recently, Dale Kinkade left a substantial sum to the funds. The board meets in early spring to evaluate applications for small grants to fund research on language and culture, with an initial focus on the Pacific Northwest but now expanded to the entire American continent.

Sahaptin research was greatly improved by the Frenches' always generous consultation and encouragement. Their life-long engagement with the lives of the people of the Warm Springs Indian Reservation defines the best practice of anthropological fieldwork.



Figure 3. Elsie Pistolhead harvesting roots above Satus Creek, Washington March 1977.

ABOUT THE AUTHOR

Eugene Hunn is Professor Emeritus in the Department of Anthropology at the University of Washington, now retired and living in Petaluma, California. Hunn has pursued a series of ethnoecological studies with Native American communities from Mexico to Alaska. His Plateau research with Yakama and Umatilla tribal elders, begun in 1976, continues. Key publications include *Nch'i-Wana "The Big River": Mid-Columbia Indians and Their Land* (in collaboration with James Selam and family, University of Washington Press, 1990) and *Chaw-Pawa Laakni, They Are Not Forgotten: Sahaptian Place Names Atlas of the Cayuse, Umatilla, and Walla Walla* (with Thomas Morning Owl, Phillip E. Cash Cash, and Jennifer Karson Engum, Tamastslikt Cultural Institute, Pendleton, Oregon, 2015).

Anthropological Works by David H. French

Selected publications: Native peoples of the Plateau and Northwest Coast

- 1955 The Warm Springs Indian Community: Will It be Destroyed? *The American Indian*, 7(2):3–17 (co-authored with Kathrine French).
- 1957a An Exploration of Wasco Ethnoscience. *American Philosophical Society Year Book*, 1956:224–226.
- 1957b Aboriginal Control of Huckleberry Yield in the Northwest. Paper presented at 56th Annual Meeting of American Anthropological Association, Chicago. [In *Indians, Fire, and the Land in the Pacific Northwest*, edited by Robert Boyd, pp. 31–35. Corvallis: Oregon State University Press, 1999.]
- 1958a Cultural Matrices of Chinookan Non-casual Language. *International Journal of American Linguistics*, 24(4):258–263.
- 1958b Notable Plants of the Warm Springs Indian Reservation, Oregon. *Leaflets of Western Botany*, 8(9):217–220 (co-authored with Robert Ornduff).
- 1961 Wasco-Wishram. In *Perspectives in American Indian Culture Change*, edited by Edward H. Spicer, pp. 337–430. Chicago: University of Chicago Press.
- 1965 Ethnobotany of the Pacific Northwest Indians. *Economic Botany*, 19(4):378–382.
- 1971 Ethnobotany of the Umbelliferae. In *The Biology and Chemistry of the Umbelliferae*, edited by V.H. Heywood, pp. 385–412. London: Published for the Linnean Society of London by Academic Press. (Supplement 1 to the *Botanical Journal of the Linnean Society*, Volume 64, 1971.)
- 1978 Sahaptin Color Terms. *Northwest Anthropological Research Notes*, 12(1):37 (co-authored with Eugene Hunn).
- 1981a Neglected Aspects of North American Ethnobotany. *Canadian Journal of Botany*, 59(11):2326–2330.
- 1981b Lomatium: A Key Resource for Columbia Plateau Native Subsistence. *Northwest Science*, 55(2):87–94 (co-authored with Eugene S. Hunn).
- 1982 Wasco-Wishram Noun Pluralization. Working Papers of the 17th International Conference on Salish and Neighboring Languages, Portland State University, 9–11 August 1982 (co-authored with Nancy J. Fowler).
- 1984 Alternatives to Taxonomic Hierarchy: the Sahaptin Case. *Journal of Ethnobiology*, 4(1):73–92 (co-authored with Eugene S. Hunn).

- 1985 Zebras along the Columbia River: Imaginary Wasco-Wishram Names for Real Animals. *International Journal of American Linguistics*, 51(4):410–412.
- 1991 Misconceptions about Indians. In *The First Oregonians: An Illustrated Collection of Essays on Traditional Lifeways, Federal-Indian Relations, and The State's Native Peoples Today*, edited by Caroline M. Buan and Richard Lewis, pp. 55–57. Portland, Oregon: Oregon Council for the Humanities.
- 1996 Personal Names. In *Handbook of North American Indians*, vol. 17, *Languages* (Ives Goddard, volume editor), pp. 200–221. Washington D.C.: Smithsonian Institution (co-authored with Kathrine S. French).
- 1998a Wasco, Wishram, and Cascades. In *Handbook of North American Indians*, vol. 12, *Plateau* (Deward E. Walker, Jr., volume editor), pp. 360–377. Washington D.C.: Smithsonian Institution (co-authored with Kathrine S. French).
- 1998b Ethnobiology and Subsistence. In *Handbook of North American Indians*, vol. 12, *Plateau* (Deward E. Walker, Jr., volume editor), pp. 525–545. Washington D.C.: Smithsonian Institution (co-authored with Eugene S. Hunn and Nancy J. Turner).
- 1998c Western Columbia River Sahaptins. In *Handbook of North American Indians*, vol. 12, *Plateau*, (Deward E. Walker, Jr., volume editor), Volume 12, pp. 378–394; Washington, D.C.: Smithsonian Institution (co-authored with Eugene S. Hunn).
- 1999 Aboriginal Control of Huckleberry Yield in the Northwest. In *Indians, Fire, and the Land in the Pacific Northwest*, edited by Robert Boyd, pp. 31–35. Corvallis: Oregon State University Press [= 1957b above].

Anthropological Works by Kathrine S. French

Selected publications: Native peoples of the Plateau and Northwest Coast

- 1955 Culture Segments and Variation in Contemporary Social Ceremonialism on the Warm Springs Reservation, Oregon. Doctoral dissertation, Columbia University.
- 1963 Ceremonial Segmentation. In [Actes de] Vie Congrès International des Sciences Anthropologiques et Ethnologiques, Paris, 30 juillet-6 août, 1960. Tome II, Ethnologie (premier volume), pp. 101–104.

New Materials on the Ancient Bone-Carving Art of the Eskimos of Chukotka¹

Yu. A. Shirokov

Translated by Richard L. Bland

Abstract Yuri A. Shirokov, a historian on staff at the State Museum of Oriental Art in Moscow, Russia, assembled a collection of 19 carved bone objects found by laborers, students, geologists, and so on, near the Bering Strait. These objects had no provenience. In the following translated article published in 1980, the author discusses and analyzes the artifacts which turn out, through comparison, to be from the Old Bering Sea and Punuk periods. The author determines that the objects share a number of traits, which include mastery of execution, exceptional knowledge of the environment, and intimate association with utilitarian requirements, and that the utilitarian and spiritual merge in the artifacts.

Introduction

In the present work, ancient art objects are used to compare sites of Old Bering Sea and Punuk times. These objects are also used to try to show the routes of development of artistic images and ornamentation. Nineteen objects of ancient art are presented to the reader. They share not just the fact that they were collected in the same year, in the same region, and belong to the same people (the Eskimos)—they also share the ancient artist-hunters' artistic mastery, rationality of use, and knowledge of features of the walrus tusk, and mainly, an imagery that has maintained its value up to the present time. The significance of each object is not reduced just to esthetic requirements; it is inseparable from utilitarian and ritual needs, from all cultural-economic activity of the ancient inhabitants of Chukotka.

Background

The 19 art objects are surface material collected not by archaeologists, but by workers at the sovkhos "Geroi truda" [Hero of Labor], students, and the geologists V. Gres, V. Zolotarev, and S. Praga of the Provideniya Expedition, based in the village of Lavrentiya [the author led the ethnographic crew of the Northeast Asian Interdisciplinary Archaeological Expedition].

Of course, there is a certain danger in judging an inventory found in isolation from an ancient site or burial. However, four items can undoubtedly be assigned to the Uelen cemetery, and it is possible to speak about the remaining ones, drawing on known sources and analogies.

¹ This article was published as "Novye materialy po drevnemu kostoreznomu iskusstvu eskimov Chukotki" in *Noveishie dannye po arkheologii Severa Dal'nego Vostoka* [The Most Recent Data Based on the Archaeology of the Northern Far East]. Magadan: SVKNII, 1980. Pp. 109–127. An abstract, map, new photographs of the artifacts and section headings have been added to aid the reader. See the end of this article for more information on the region.

At the end of the 1960s to the beginning of the 1970s, local residents began to find old items of walrus tusk. These items were found in the scree that was formed from the Uelen cemetery during construction of a new road from the village of Uelen to the sovkhos fur farm, which is two kilometers away.

One such item is a decorated plate (Figure 1) found by the Chukchi Sergei Ettykemen. The beauty and specificity of the design attests that this artifact is an Old Bering Sea masterpiece: "A feature... of Old Bering Sea design is the use of rather simple ornamental elements (concentric circles with a dot in the center, unbroken lines, sometimes with 'spurs,' or dotted lines, organically inscribed within the given parameters of the object), achieving a startling effect of the imagery. The object looks at you with its frequently repeated 'eyes' of concentric circles, as if alive. And such effect was, of course, the assigned goal of the primitive artist, who tried precisely to enliven, spiritualize, his hunting tool, to make it his active 'living assistant'" (Dikov 1974:94). Almost in the middle of the item were two narrow, slit-like, perforating cuts. The left cut was preserved fragmentarily, but its existence is not doubted. However, the form of the slits in this object is close to just a few specimens cited in the literature; the massiveness, length, and absence of a nose bridge distinguish it from the usual Old Bering Sea glasses. Three round holes for attachment at the edge of the object make it similar to armor plates. On the whole, the object is reminiscent of snow goggles. Similar items are preserved in museums and photographs of them have been repeatedly published (Arutyunov and Sergeev 1969: Figure 81: 1–3; 1975: Figure 7; 51: 1, 2; 75: 1–6). The assignment of the item is not entirely clear; possibly it was a kind of observation slit. N. N. Dikov interprets this artifact as an observation plate, with observation slits for the eyes, and a piece of armor (Dikov 1979:187: Figure 72: 2). Eskimo informants also believe that snow goggles were a device for protecting the eyes from enemy arrows, that is, as S. A. Arutyunov and D. A. Sergeev write, "they could simultaneously play the role of a visor" (Arutyunov and Sergeev 1975:122). Perhaps a warrior equipped with a similar plate is depicted by a curious anthropomorphic figure from the Chini cemetery (Dikov 1974: Plate. 32: 14). The age of the Uelen and Chini cemeteries is determined as approximately the same: the first is dated to the 4th–7th century A.D. (Arutyunov and Sergeev 1969:193), the second to the 1st–5th century A.D. (Dikov 1974:99).

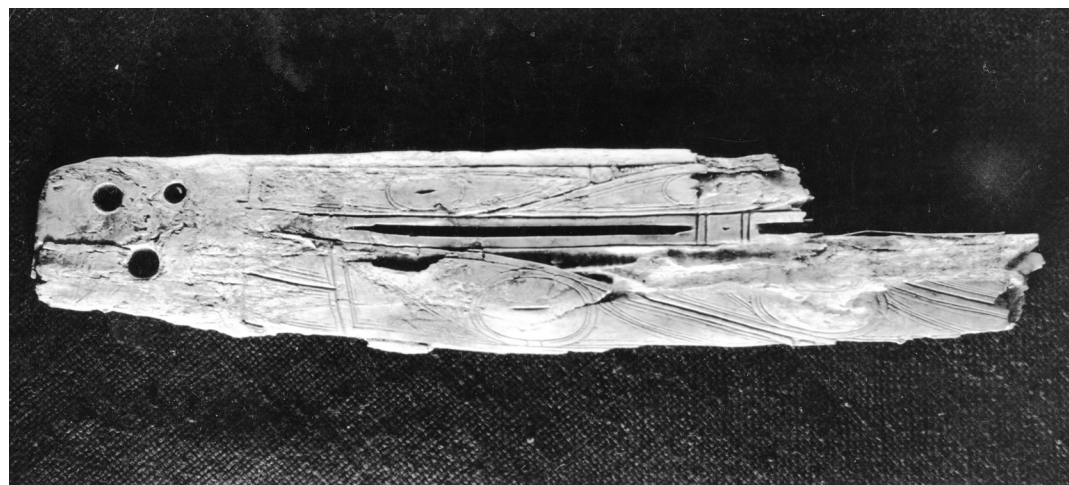


Figure 1. An Old Bering Sea plate.

It is interesting to note that the prehistoric carver placed not the usual dot or circle in the center of the ornamental convex oval, but a long, straight line reminiscent of a slit in goggles. Ancient Japanese sculptures also depicted eyes as large ovals with slits, for example, the Neolithic statuettes of the Kameyaoka type (terminal Jomon, second half of the 2nd millennium B.C.) (Vorob'ev 1958: Figure 8: 10). Analogous treatment of "eyes" on a plate and sculpture, in our opinion, is not a coincidence, but a distant echo of ancient contacts with the south. Borrowing, occurring over millennia, went all the way from the shores of Japan to Chukotka.

All the remaining finds are combined into groups by purpose, artistic features, material, condition of the bone, and time, which is established based on the decoration.

At the Uelen cemetery, we collected the following items: objects for transportation of prey and a handle, wooden objects, artifacts depicting a polar bear, anthropomorphic figures, amulets and children's toys, and a bone chain. The two items for transporting prey are old, "defunct" clasps, and have been very darkened through time (Figure 2: 1, 2). The traditional method of attachment of a procured sea mammal (with thongs to the rest of the equipment of the polar hunter) is clearly drawn by the Naukan Eskimo Unuk (Arutyunov and Sergeev 1969:145: Figure 72). Based on the statement of informants, hunting clasps were also amulets—"peacemakers"—with procured animals, and therefore as a rule, were decorated with figures or heads symbolizing animals. The precise combination of proportions permit recognizing the muzzles of seals, bearded seals, or walruses on small projections executed in relief. The author is limited to just drilled shallow holes in the place of the eyes, nostrils, and ears, reaching a creative resonance.



Figure 2. Clasps for transporting prey (1 and 2), a hook (3), a handle (4).

By the same method, but less skillfully, the heads of seals were created on the ends of an item that is most likely a handle (Figure 2: 4). Perforated round slots served for threading thongs. Such a handle could be for a line for towing a kayak. One of the older Eskimos has seen an ancient projectile weapon for hunting seals, consisting of a heavy stone and thong with an analogous carved bone handle fastened to it.

The tradition of decorating items of hunting equipment with the heads of procured animals is very ancient and widespread in Eskimo sculpture. Drilled holes, judging by their number, were not connected with inlaying. When eyes, nostrils, and ears of an animal were depicted with recesses, it certainly had some magical significance. According to the ideas of the Old Bering Sea people, the amulets/clasps we found were intended for hunting; the drilled holes probably “absorbed magical power.” Drilling holes in the place of the sense organs (in Eskimo plastic art there is the image of a human face executed by such technique) is a technique which directly contrasts the widely known tradition of the Eskimos to cover the eyes and ears of the deceased with special bone plugs, and to pierce the lips with labrets, protecting the living and dead from the penetration of evil spirits.

However, such method cannot be completely reduced to magic. Creating images with only the aid of some drilled holes certainly reflected the distinctiveness of individual style and artistic esthetic ideas. As utilitarian significance of the clasps predominates over ritual, the realistic resonance of the artistic image is dominant in the bone artifacts being examined.

Without doubt, the master craftsmen of the Old Bering Sea people (those who made the clasps, punches, and handles decorated by heads of polar bears and seals) considered contrasts of light and dark. They also attached significance to the tactile perception of things, trying to create the actual existence of the animal by the simple mechanical method of drilling.

A large hook (Figure 2: 3) for transporting prey, possibly the carcass of a whale, was found in the Stoibishchnyi Creek basin near the Ekven cemetery. It is dark brown bone with damaged areas. The deeply incised decoration is clearly seen: fine lines with spurs either follow the form of the object or form an illustration reminiscent of an image of a pictograph of the Yukaghir, or schematic anthropomorphic figure. The hook lacks sculptural designs and images, imparting artistic/magical connotation to the artifact. For Old Bering Sea objects, such designs are characteristic. The matter-of-fact geometric decoration, though, contains individual elements of Old Bering Sea style (straight lines with spurs), in contrast to the curvilinear-mottled and close to Punuk.

Close to the Old Bering Sea sculpture, regarding technique of preparation, is a wooden object (driftwood) in the form of a goby fish (Figure 3: 1), found on the shore near Lorino village. The generality of the image is combined with great artistic expression and ease of functional use. The fish figurine was inlaid with walrus ivory, but the inlay was not preserved, with the exception of a small piece on the “gills.” According to the oldest Uelen hunter Seigutegin, this object was also an amulet—a “peacemaker.” The hunter would have given their killed seal a drink from the pot from which this piece belongs; while conducting the feeding ceremony, the hunter would have placed his finger in the recess on the handle. Such items were preserved, according to a statement by an informant, in a special bag and taken on the hunt.

Inverted, on the opposite side, the amulet is reminiscent of a whale. This artifact rather clearly, though not as convincingly as in bone finds from Eskimo cemeteries,

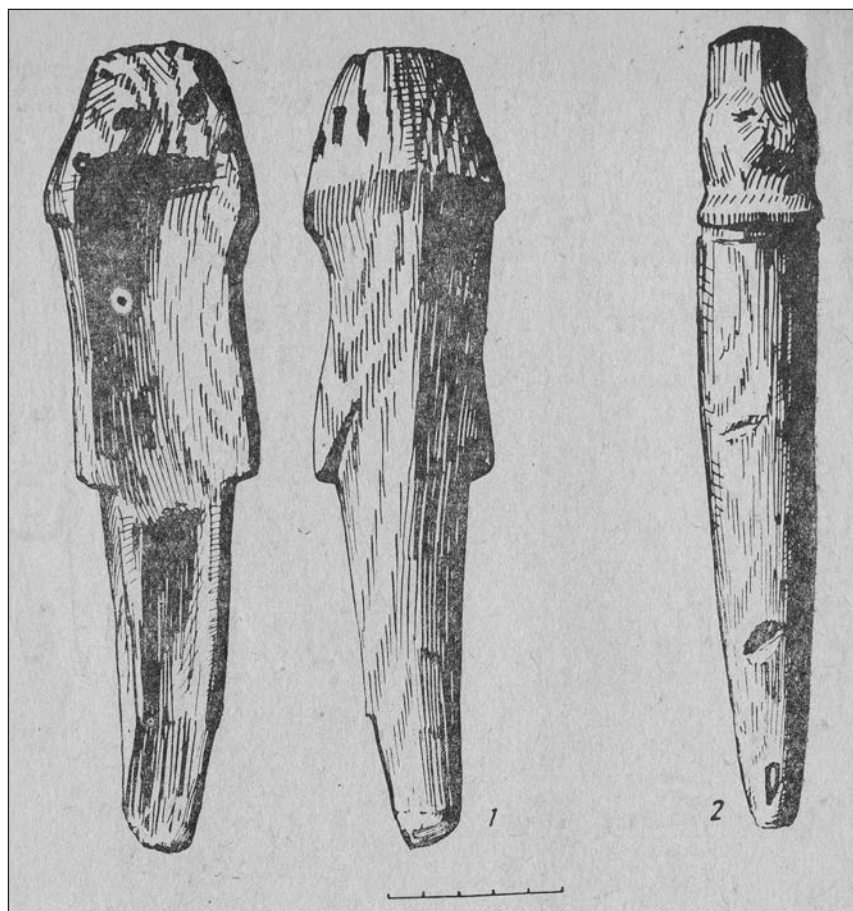


Figure 3. Wooden items.

expresses the principle of poly-iconicity, diversity of the object depending on the point of its examination (Sergeev and Fradkin 1971).

Images of hunted animals live in cult objects as well as everyday objects. This is exhibited in a wooden item with a sculpted depiction of a bearded seal head (Figure 3: 2). According to the determination of an informant, this is a family totem and is usually kept in the living quarters. It is possible that the front part of the muzzle of the animal began to deteriorate from feeding it oil. A second informant defined the object as a stopper for an inflated bearded seal skin. The form of the item corresponds to such an assignment, but the item is large (22 cm long). The first proposal is more probable since the Eskimo cult sculpture was very often made of wood (Zhurov and Sergeev 1962). Although they were realistically faithful to the images of the animals, items made especially for festivals bore only traces of being schematic since symbolic ceremonies did not require great care in their preparation.

Substantially more artistically executed is the head of a swimming polar bear (Figure 4: 3). Judging by the rounded (1 cm diameter) and rather deep hole, the sculpted item was seated on something; possibly it was the pommel of a handle. As on the clasps, the proportions of the animal's muzzle are very faithful here. The closed eyes and even the folds of the fur on the neck and behind the ears are ornamentally shown. A dashed, deep cut along the sides creates the impression of a smooth water surface being dissected. The watchfulness of a polar hunter combined with the newness of the artistic decision of the image is manifested in this item.

In the ancient sculptures of the Asiatic Eskimos, the image of the polar bear is often encountered (Machinskii 1941:80–89; Rudenko 1958; Arutyunov and Sergeev 1969). The figures are covered with curvilinear decoration and each has its own character.

On another small hunting punch/perforator, the head of a polar bear was executed by the technique of drilling we are familiar with (Figure 4: 2). It is not out of question that the ancient hunter, piercing a hole in a thong or skin of a killed animal, placed a certain magical meaning in the process. However, it is more plausible that the present sculpture was far from magical but rather answered esthetic demands—it was more a decoration than sacred totem.

Two other items (Figure 4: 1, 4) from Stoibishchnyi Creek are later in style. They have substantially less sound “art of ancient naturalism,” according to the statement of H. Breuil (Selivanov 1976).

A large panel on both ends is decorated with the head of a bear and a design (Figure 4: 1): short, clear lines with spurs were made along the edges and in the middle, while the remaining part of the panel is empty. The master carefully reproduced short ears in relief, eyes carved with deep lines (clearly with a metal object), nostrils, and mouth. The elongated heads of bears were deprived of fine realistic generality; the image of the animal is closer to naïve, late representations. Such features as ornamentally-treated eyelashes above the slits of the eyes brings this item close in appearance to those from Old Bering Sea sites.

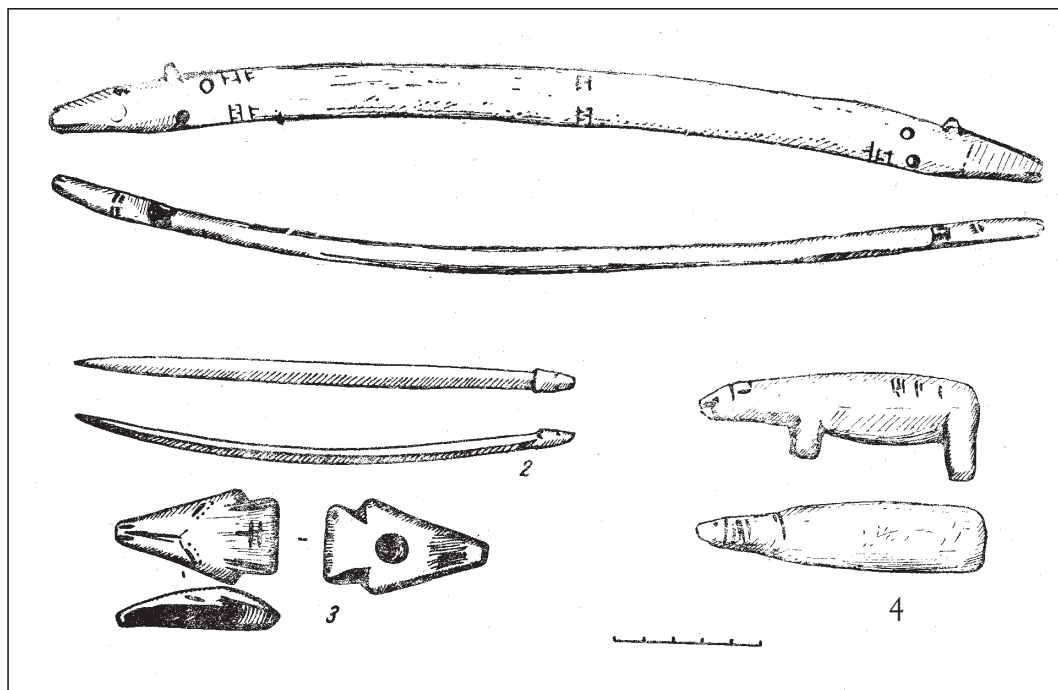


Figure 4. Artifacts depicting a polar bear.

In another item of dark-brown color, the bear is represented schematically, though overall accurately, with a stretched neck (Figure 4: 4).

A stable tradition of such cult representation existed for centuries; many artifacts are now in museum depositories (Arutyunov and Sergeev 1975: Figure 79: 1; Rudenko 1958: Pl. 16: Figure 12; Orlova 1964: Figure 15: No. 1748–1; No. 2035–185/3).

Researchers, particularly A. P. Okladnikov and S. V. Ivanov, traced Paleolithic traditions in the Neolithic art of Siberian tribes (Ivanov 1954:483–504; 1963:163–248; Okladnikov 1941, 1971; Lyapunova 1967, 1975:178–194) and their distribution and reincarnation in sculpted and ornamental specimens of ancient art of the Aleuts and Eskimos. Thus, a representation of waterfowl was reincarnated among the Aleuts and American Eskimos in ceremonial masks, head gear, and small plastic art—amulets-guardians. It is no accident that at different stages of Eskimo culture, figurines of waterfowl are often encountered.

In our view, raven sculptures were also in the Old Bering Sea along with items of loons, eiders, and shelducks. Some figurines from the Ekven cemetery represent precisely the raven (Arutyunov and Sergeev 1975: Figure 77: 23, 25). The outward appearance of the raven was recreated by graphic means (a method characteristic for the Old Bering Sea people). Figurines of birds had a flat base, since they were suspended or sewn to clothing, which is attested by round holes in the tails. Possibly the term *mytyg'l'ugol'* (baby raven), still used by the Eskimos of the older generation, came from Old Bering Sea, meaning such amulets, though such figurines lost their specific differences long ago and are associated among the local population with waterfowl. Conservative, but built on live observation and generalization, this image existed for centuries in the art of people.

In spite of the broad distribution of these waterfowl figurines, the tiny sculpture of a bird found at Stoibishchnyi Creek (Figure 5: 3) is of undoubted interest. Its age is attested not only by the dense dark-brown color, but also the Punuk design. The desire of the artist to follow the form of the object, the absence of strict symmetry, and the smoothness of the lines, still speak of Old Bering Sea skills, even though the Punuk

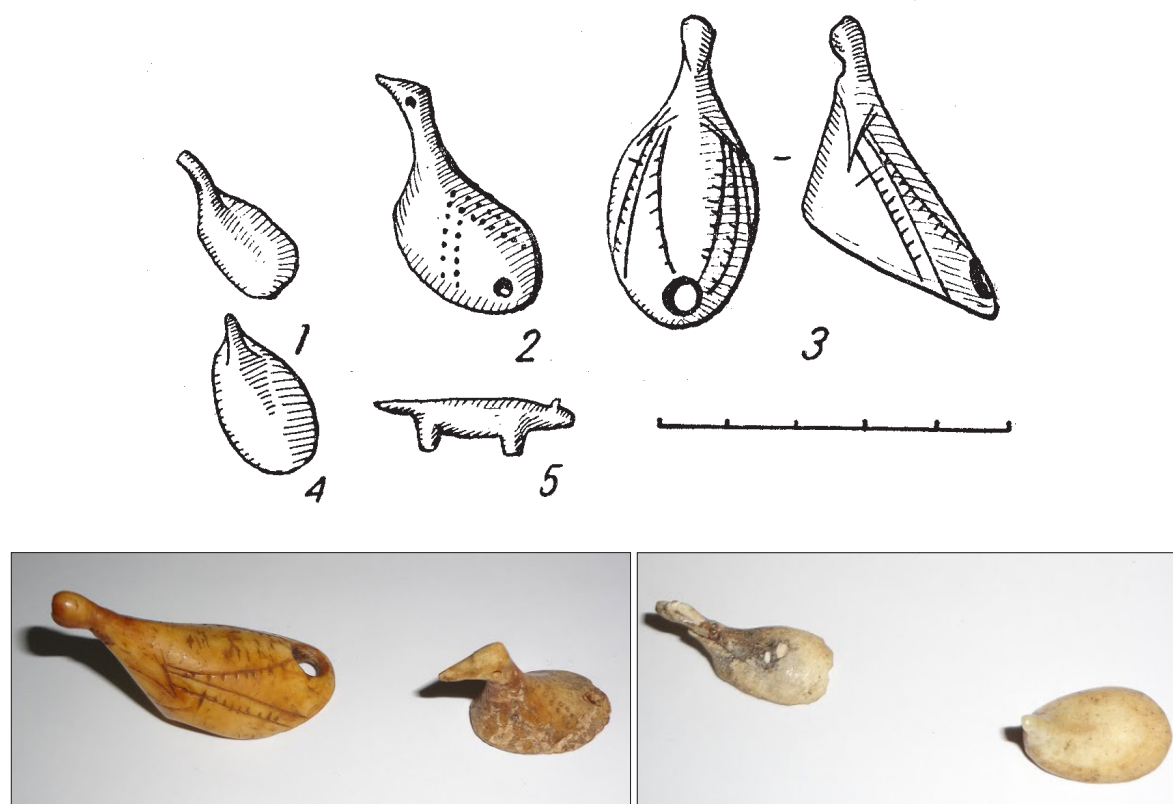


Figure 5. Amulets and children's toys.

tradition is overcoming here. Possibly the master was trying to graphically impart wings and feathers of a bird with geometric design. However, this design lacks true imagery. Still alive, sketched in the way of Old Bering Sea engraving, this sculpture now trends toward a rational scheme and seems especially dry and lifeless in comparison with the mottled pattern of the plate (see Figure 1).

Bird figurines (amulets-guardians) simultaneously served as children's toys. Most sculptures (Figure 5: 1–5) are taken from a child's grave, where they were found with colorful shining pebbles, beads, and a figurine of a dog. Tiny images of birds appeared in museum collections from the beginning of the 20th century up to the 1930s–1940s (Orlova 1964: Figure 7; Mitlyanskaya 1976). Part of the finds are similar by decor (Figure 5: 2) and outward appearance to late exhibits. Old Bering Sea figurines of birds are more alive, more realistic, than Punuk, "prehistoric" ones, or figurines of the present time. But the continuity in artistic representation of the image cannot be doubted. At Stoibishchnyi Creek a spear-thrower and several later items were discovered. The proximity to the Ekven cemetery does not mean that these bone artifacts can be assigned to it, as occurred with the Uelen finds, though stylistically the things found can be viewed as transition from Old Bering Sea to Punuk. This is how Arutyunov and Sergeev (1975:127) characterized the burials of the Ekven cemetery. In order to assign these finds to a known archaeological site, it is necessary to undertake a detailed examination and excavation of their location.

One of the most interesting ancient things is an anthropomorphic figure (see Figure 6). Judging by known analogies, this is an amulet-guardian. Black from time, the front side of the tiny sculpture is flat, with the dark-brown back and legs in weak relief. The figure, without considering the short arms, is basically proportional and elegant. The body is conveyed with an awareness of observational anatomy, which, according to the plan of the carver, was very significant; the amulet should represent a single whole with its owner, be "part of his flesh." Hence, the form of the sculpture is treated in two ways—a flat silhouette adjacent to the owner and "live nudity." Interesting, in



Figure 6. Anthropomorphic images.

our view, is the interpretation of the assignment of the object given by an informant, graduate student at SVKNIL, the Naukan Eskimo T. S. Tein: "The hunter, according to the convictions of the Eskimos, can fall into such situation where for a moment he loses himself—his shadow. And the shadow is represented by the figurine." The aged informant Tlyuaun stated that this object—a "guardian"—helper against evil spirits—*tumg'el'ku'tak*—was hung on a shaman's *kukhlyanka* [garment], on the back. The Naukan Eskimo woman Kameya (b. 1905) did not believe the thing should be obligatorily a shaman's: "You come, we'll hang it on you so you won't be afraid." Such ideas about the shadow of a person, physically connected with him, are also found among other peoples (Ivanov 1970:86; Popov 1944:88–89).

It is possible to find specimens in early Eskimo art that echo in some degree the manner of execution of the nude figurine. That is, the tiny figures from Vankarem that are close in style (Figure 5: 2) (Dikov 1968:71, Figure 20) and from the Ekven cemetery (Arutyunov and Sergeev 1975: Figures 54: 5; 78: 7), as if made by the same master. Regarding the "dancer" sculpture taken from the Ekven cemetery, Arutyunov and Sergeev (1975:125) wrote: "The observer, accustomed to conventionality, schematics, the frequent disproportion in Eskimo sculpture, cannot but be surprised by the exceptional realism, accurate reproduction of natural forms and proportions of the human body in this sculpture full of dynamism and expression."

Though our "guardian" sculpture is more static, it nevertheless rather precisely represents a naked person.

The Vankarem and Ekven sculptures are analogous to Eskimo-Aleut sitting human figurines studied by S. V. Ivanov (1949) and included by him "in the vast circle of sites of Pacific Ocean art" (Ivanov 1949:208).

The nude sculpture from Stoibishchnyi Creek is interesting in that it is similar to the modeling of the body of the above-named from Vankarem, and at the same time it belongs to another tradition of more static, flat representation. It is connected with a shadow, and not with a real "volumetric" image of a deceased ancestor (the specific pose—"imitation of the flexed bodies of the deceased") (Ivanov 1949:207).

The continuity of the ancient images, and stable traditions of technique of working bone, are characteristic features of Eskimo art. Today one cannot help but be surprised at the diligence with which the master achieved the result. S. P. Krasheninnikov was amazed at the skillful chain of the Chukchi bone carver: "... no one would take the purity of the work for the work of a wild Chukchi, and made with a stone instrument" (Krasheninnikov 1949:382).

Chain pendants of a single canine were widespread in Old Bering Sea and Punuk in the 19th and beginning of the 20th centuries. As a sample of such artifacts, we cite the chance find by residents of Uelen—an old, unfinished chain of walrus bone (Figure 7). We will dwell on the technological process of its creation. The master drilled a multitude of holes in the relief blank, which, merging into large ones, form the openings of rings and finished links. The process of drilling artifacts reached our time without change.

The author observed it in the 1960s in the village of Nunyamo. The Naukan Eskimo Zhirintan drilled holes through and to different depths with the aid of a small bow (*sin'usa*) made of walrus rib, and a drill (*ukhukh'tun*), a wooden or bone rod with an iron end—a kind of tip. The opposite part of the drill was firmly seated in the hole (*ytakhlak*) of a special support bushing (*kykhwik*) that the carver clenched in his teeth (Figure 8: 1–3).

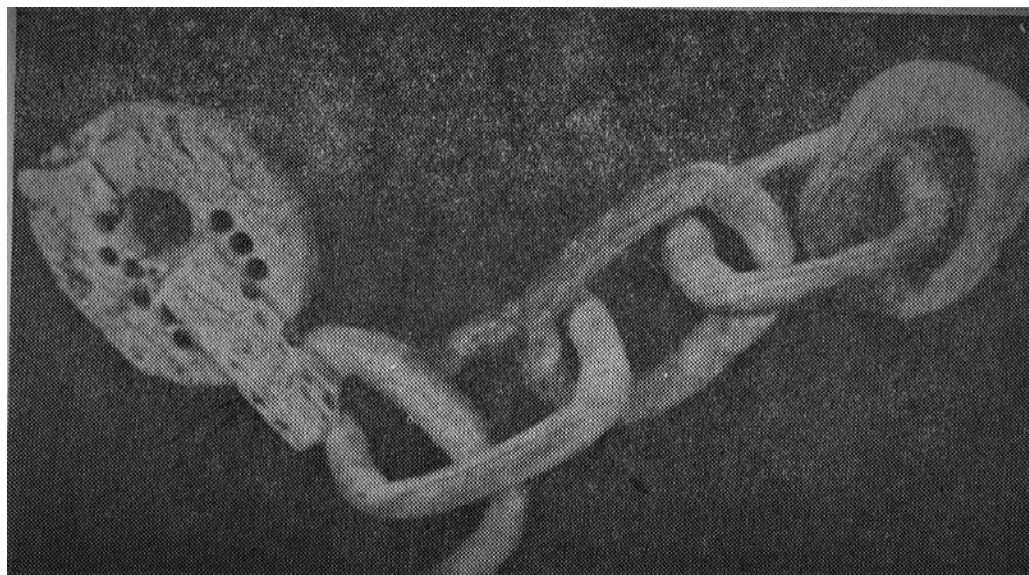


Figure 7. A carved chain of walrus tusk.

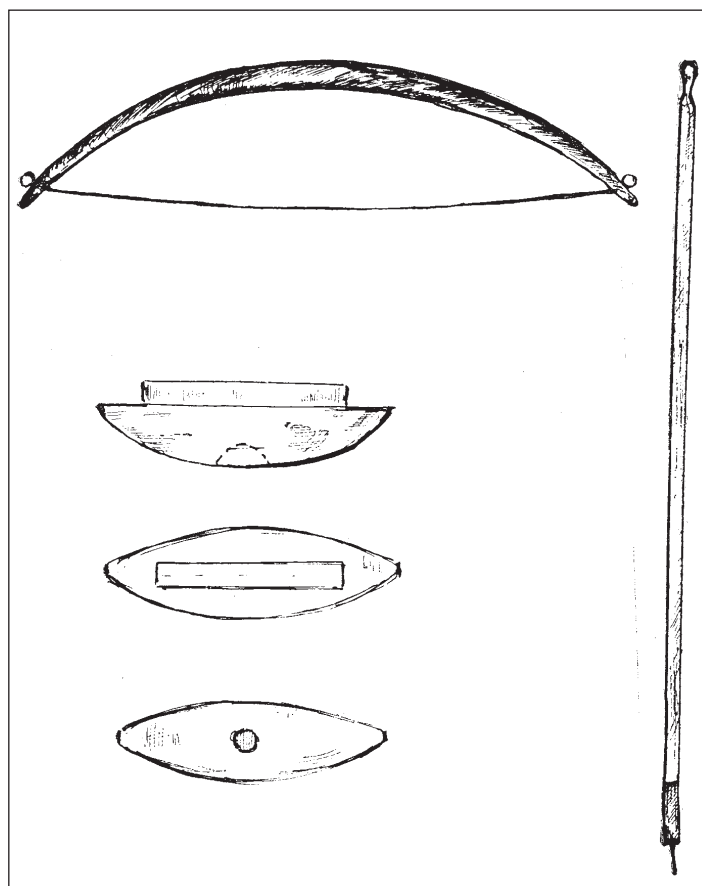


Figure 8. Tools of the master bone carver (based on an illustration by the Eskimo Unuk).

The process of drilling with a primitive drill is shown in the presented illustration (Figure 9) of a modern sculpture by an American Eskimo ("Sculpture..." 1959).

Thus, the ancient and modern carvers of bone widely used the bow drill, achieving image embodiment along with resolution of technical problems.

The artistic images continuing to exist in Old Bering Sea art are subsequently established in Punuk and the "prehistoric" periods.

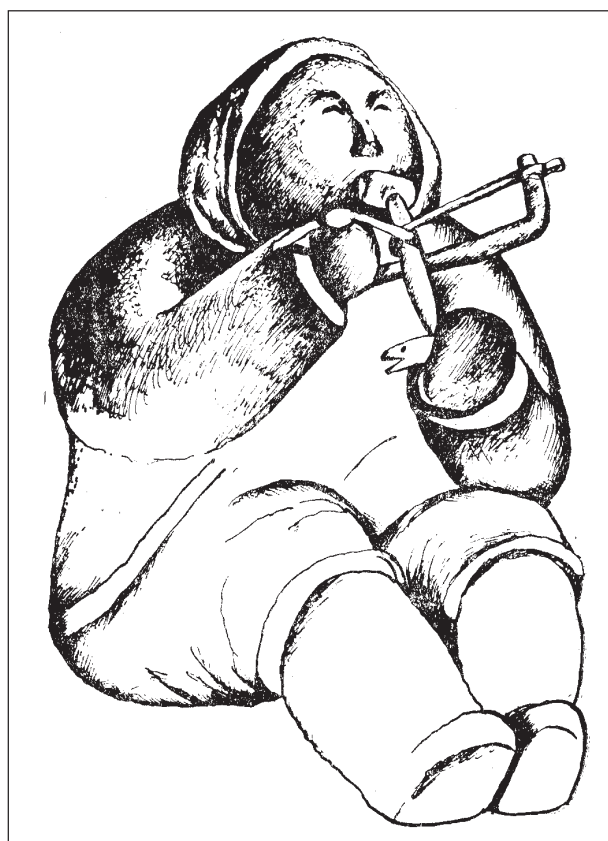


Figure 9. A bone carver with bow drill (a sculpture by an American Eskimo).

Analysis

The examined finds attest to the high level of decorative art of the Eskimos—the continuity of style and skills of different epochs. These objects resonate with finds from the Uelen and Ekven cemeteries, produced applied art numbering in the hundreds, considered real masterpieces by the most stringent modern standards. The miniature sculpture of the Old Bering Sea period, more than the following epochs, has inherent features of artistic generalization. Often several forms of different animals are seen altogether in this item. The prehistoric master attained this diversity not only by adding images of objects into one thing, but frequently also by revealing the plastic, high-relief, and graphically-contoured similarity of volumes and outlines. The vigilance of the Old Bering Sea people was similar to artists of Paleolithic art, especially sensitive to the associative perceptions of form.

It seems that the reasons which stipulated substantial changes in representational art, namely the transition from Old Bering Sea art to Punuk art, have not yet

been completely researched in spite of a great amount of work. S. A. Arutyunov and D. S. Sergeev say,

We will not explore reasons for the decline in the art of design and ornamentation that began in the Old Bering Sea period. The cause could be a combination of factors: increased intertribal influence, a shift in ideological self-expression from graphic to visual and verbal, or the development of whale hunting and the enlargement of the basic units of economic and household cooperation connected with it. (Arutyunov and Sergeev 1975:178)

For these reasons, we should add the presence of old, conservative images that could become common with the strengthening of the economic unit of society. In the plastic art of Old Bering Sea there were two directions: 1) detailed, realistic reproduction of natural forms and proportions; and 2) creation of symbolically represented, “approximate” images. In ritual sculpture, the authors took individual details from live observation, emphasized them, and canonized them. A similar process occurred in engraving. To replace the abundance of Old Bering Sea decoration came different elements of Punuk design, which had been gradually losing its connection with form, thus becoming sparing and dry. A typical example of Punuk design is the decoration on children’s toys and figurines (Figure 5: 1, 2).

Each epoch added its own features to the “stable” forms of the little-changing natural environment. However, individual images similar to each other and ornamental symbols existed for whole centuries.

Traditions of representation of whole figures or only the heads of people and animals, and the striving of the ancient master to realistically reproduce the “repository of the soul” of the hunted animal, can be traced in Eskimo art from the Old Bering Sea period up to the 20th century.

It is interesting to note that in the dress of the Eskimos and Chukchi, the ancient tendency is manifested to leave the head of the animal on the skin. These are the children’s fur coveralls with a hood in the form of a fawn’s head or a Chukchi hunter’s head-gear/mask—the muzzle of a seal—that have been preserved up to now (Ivanov 1975: Pl. 4), and men’s hats decorated with wolves’ heads, mentioned by W. G. Bogoras (1901:12). S. V. Ivanov expressed an assumption about the origin of a large number of decorative motifs of stylized birds’ heads (Ivanov 1930). The Eskimos and coastal Chukchi use part of the hide, taken from the head of the *gaga grebenushka* [a kind of eider], in old clothing and modern artifacts of decorative-applied art.

Conclusion

Traditions that are traced in sculpture also find embodiment in other kinds of art.

Two tendencies can be traced in the sculptures of the Eskimos over the extent of chronologically significant time: in the detail, or in the quite generalized manner of execution of creations. They were brought about, on the one hand, by conservatism of forms generated by the slow development of society and inheritance of old, stable forms and technical skills; on the other, by the life-giving proximity to nature, immediacy of impressions, the remarkable visual memory of maritime hunters, and their esthetic requirements.

The first tendency in sculpture dominated during the Old Bering Sea period; the second during Punuk. Both continued their existence into “prehistoric” and present time. A grossly generalized manner appears in works connected with cults: bust figures on fire boards, anthropomorphic images—*kalyak’vynakh*—and sculptures of polar bears. A realistic manner prevails with the appearance of new, more progressive tools of the bone carver and the development of artistic craft in bone carving.

Characteristic of the old Eskimo bone-carving art is the merging of utilitarian and spiritual beginnings. The applied character of a thing defined the precise commensurability of the works with man. Keen observation and the ability to expressively generalize the form give monumental grandeur to the tiny sculpture of the Eskimos, a quality which distinguishes the work of both a master of Old Bering Sea, and of the modern Chukchi bone carver-craftsman.

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ABBREVIATIONS

AN SSSR – Akademiya Nauk SSSR [Academy of Sciences of the USSR].

ChOKM – Chukotsky Oblastnoi Kraevedchesky Muzei [Chukotka Regional Museum].

IE – Institut Etnografii [Institute of Ethnography].

Izv. – izvestii [news].

KSIIMK – Kratkie Soobshcheniya Instituta Istorii Materialnoi Kultury [Brief Reports of the Institute of the History of Material Culture].

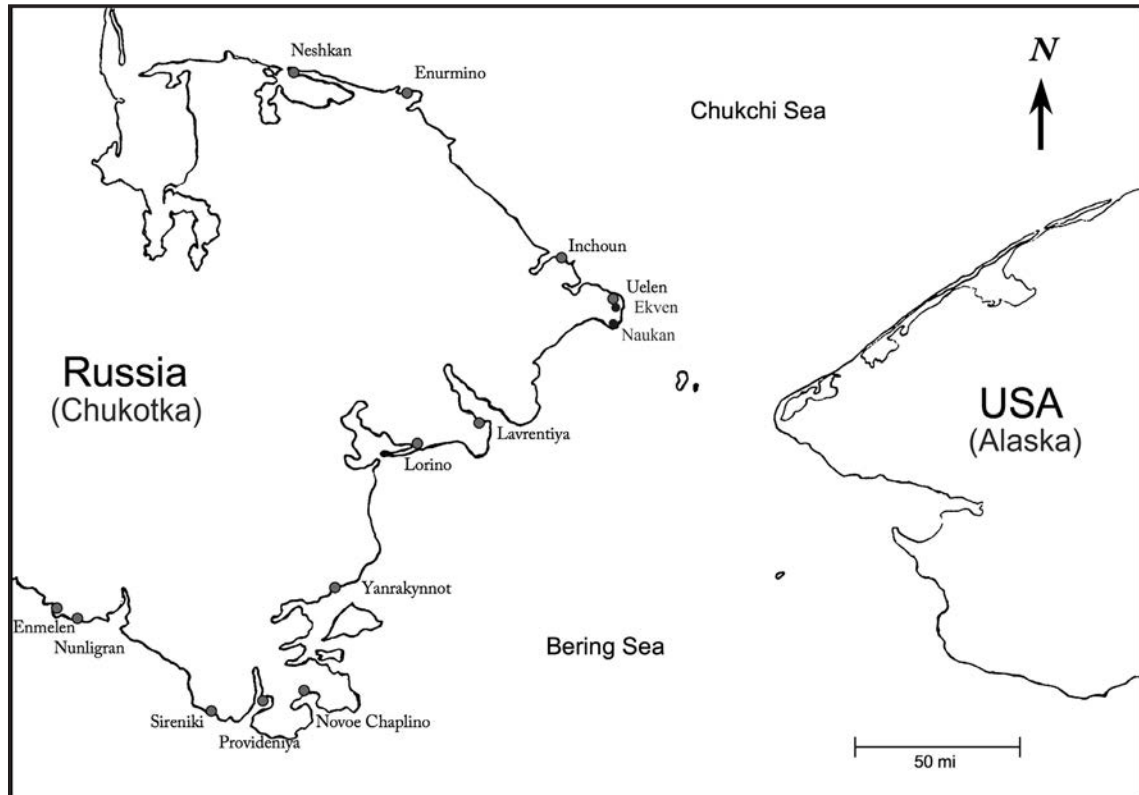
SO – Sibirskoe Otdelenie [Siberian Division].

SVKNII – Severo-Vostochnogo kompleksnogo nauchno-issledovatel'skogo instituta (Works of the Northeastern Interdisciplinary Scientific Research Institute).

VGO – Vsesoyuznoe geograficheskoe obshchestvo (All-Union Geographic Society).

Zap. – zapiski [notes].

MAP OF RESEARCH AREA



ADDITIONAL READINGS

For those interested in the prehistoric art of Chukotka there are books in English available:

Dikov, Nikolai N.

1999 *Mysteries in the Rocks of Ancient Chukotka (Petroglyphs of Pegtymel')* by Nikolai N. Dikov. Anchorage, Alaska: Shared Beringian Heritage Program, National Park Service.

Kir'yak, Margarita (Dikova)

2007 *Early Art of the Northern Far East* by Margarita (Dikova) Kir'yak. Anchorage, Alaska: Shared Beringian Heritage Program, National Park Service.

2015 *The Enigmatic World of Ancient Graffiti: Rock Art in Chukotka: The Chaunskaya Region, Russia*. Oxford, England: Archaeopress Publishing Ltd.

Several untranslated books by A. P. Okladnikov deal with the rock art of Siberia.—
Trans.

CHRONOLOGY

Old Bering Sea—3rd/4th to 8th/9th centuries AD

Birnirk—9th to 11th century

Punuk—11th to 13th century

Thule—12th to 19th century

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Shirokov Yuri Alexandrovich was born in 1935 in Irkutsk. In 1958 he graduated from the Historical Faculty of the Moscow Institute of Pedagogical Instruction and began to work as a history teacher at the Anadyr Pedagogical School (Chukotka). In 1967 he graduated from the Ural State University with a degree in art history. In 1962–1970 he was the director of the Chukotka Regional Museum of Local History (Anadyr). 1974–1977—Research Fellow at the Department of Archeology of the SVKNII (Magadan); 1977–2012—Senior Researcher of the State Museum of the Arts of the Peoples of Vosok (Moscow). Now retired, he lives in the city of Balashikha (Moscow region).

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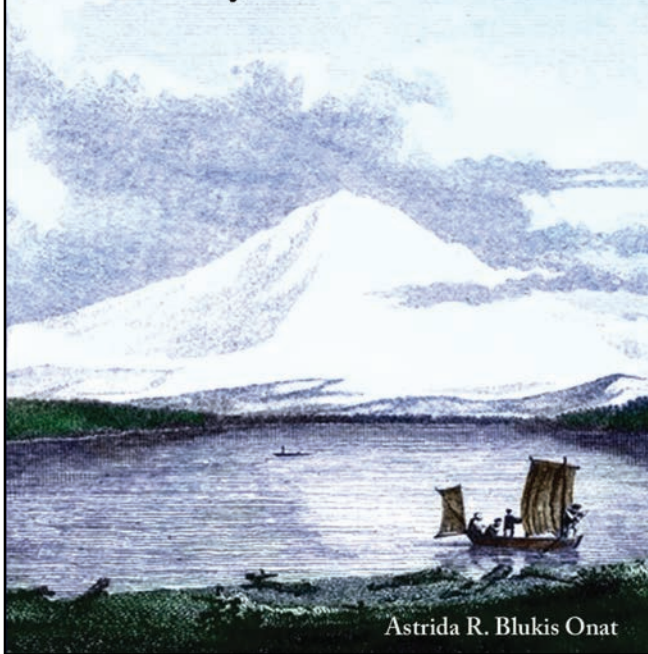
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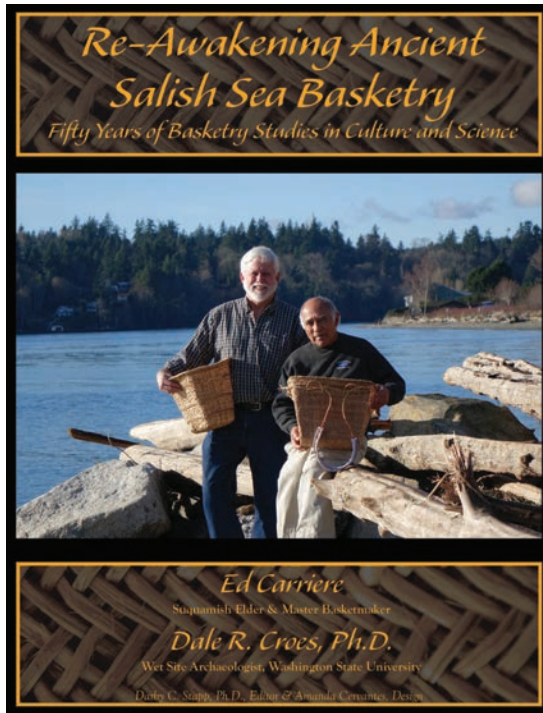
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Re-Awakening Ancient Salish Sea Basketry: Fifty Years of Basketry Studies in Culture and Science traces the evolution of traditional basketmaking on the Northwest Coast of North America from thousands of years ago to contemporary times. The book explores the lives of two basketry specialists, Ed Carriere and Dale Croes; describes their analyses of the 2,000-year-old basketry collection from the Biderbost wet site, Snoqualmie Tribal Territory, housed at the University of Washington Burke Museum Archaeology Program; describes their development of *Generationally-Linked Archaeology*, a new approach that connects contemporary cultural specialists with ancient and ancestral specialists through collaboration with archaeologists; and details the sharing of their efforts with cultural audiences, such as the Northwest Native American Basketweavers Association, and scientific audiences, such as the annual Northwest Anthropological Conference.

About the authors

The book is the result of a collaboration between Mr. Ed Carriere, Suquamish Elder and Master Basketmaker, and Dr. Dale Croes, Northwest archaeologist specializing in ancient basketry and excavation of Northwest Coast waterlogged sites (also known as “wet sites”). Both men have spent over 50 years of their lives exploring their mutual interest in the art of basketry.