

66TH ANNUAL NORTHWEST
ANTHROPOLOGICAL CONFERENCE
27–30 March 2013

Hosted by the Anthropology Department, Portland State University

Portland, Oregon

Anthropology, Because it Matters

According to its Governor, Florida doesn't need any more Anthropologists; Anthropology is reported in the press to be the worst BA major, the Government of Canada has gutted the Archaeology/Heritage program in Parks Canada and changed the mission of what was the National Museum of Civilization to the National Museum of History, abandoning a strong commitment to Canada's First Nations. We and our professional organizations have all written letters, but we need to show how the practice of Anthropology matters. We know it matters. The conference welcomes symposia and papers on this topic as well as papers and symposia on any Anthropological topic in all four subfields.

Abstracts

Adams, Jacob (Washington State University)
see *Retherford, Tyler*

Adams, Martin E. (Paleoinsect Research)

Bugs! Bugs! Bugs! – Suggesting a New Approach to Pacific Northwest Archaeology

Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

Archaeoentomology, the study of insect remains in archaeological sites, has shown to be a very useful tool for the reconstruction of natural and human-influenced environments in the Old World. However, the paucity of insect-related archaeological studies in the New World only serves to underscore the need for such analyses. In addition to utilizing subfossil insects as indicators of past climates and environments, the analysis of archaeological insect remains can reveal information about past human societies that may be unattainable through artifacts alone, including the use of insect taxa to locate features such as privies or food storage areas; looking at insects as indicators of human hygiene in both prehistoric and historic contexts; tracking the history and path of introduced insects; and examining the use of insects as food – a practice that is particularly well known, ethnographically, in the Willamette Valley.

Adams, Martin E. (Paleoinsect Research)

Horton, Elizabeth, A. (National Park Service, Fort Vancouver National Historic Site/Washington State University)

Fear No Weevil: Botanical and Entomological Analyses of a Late-Nineteenth Century U.S. Army Privy, Vancouver Barracks, Washington

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

Rehabilitation activities for the ca. 1904 Artillery Barracks exposed a privy used from the mid-1880s to the early-1900s by Non-Commissioned Officers (NCOs) at Vancouver Barracks, a regional mobilization and training center. After the Indian Wars, soldiers were reassigned to peacetime duties, including civil engineering work, land exploration and peacekeeping duties. Troops relied heavily on the knowledge and abilities of their NCOs, responsible for their training. Analyses of seeds and insect remains recovered from these privy deposits not only yielded new information about the diet of the NCOs, but also revealed environmental implications about the condition of the privy structure itself, and possibly marked a new discovery record for an introduced insect pest. Furthermore, these data demonstrate the utility of incorporating archaeoentomological studies into research projects, a hitherto untapped line of evidence for Pacific Northwest archaeology, with its ability to address questions about 19th century diet, hygiene, and landscape ecology.

Adams, Ron (Archaeological Investigations Northwest, Inc.), Ozbun, Terry, L. (Archaeological Investigations Northwest, Inc.),

Davis, Sara, J. (Archaeological Investigations Northwest, Inc.)
Putting it into Context: Shell Middens, Villages, and Complexity on the Plateau

Symposium (Thursday 1:00 PM-3:20 PM, Elowah Falls)

Site 45CH791 was a specialized food processing station possibly used by people residing at the nearby Stemilt Creek Village. Cultural features, faunal materials, and stone and bone tools found at site 45CH791 indicate focused activities taking place at the site: primarily the harvesting and processing of shellfish and the processing of bone for marrow and grease extraction. Others have suggested that sites like Keatley Creek and the Stemilt Creek Village demonstrate socioeconomic complexity in Late Holocene sites on the Columbia Plateau. This paper explores the role that a site such as 45CH791 plays in this context and the information that a specialized resource processing site can contribute to these discussions of cultural complexity.

Ainslie, Jessica A. (Oregon State University)

A Preliminary Geoarchaeological Model of the Devils Kitchen Site, Coos County, Oregon

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

Geoarchaeological investigations at the Devils Kitchen site (35CS9), located on Oregon's southern coast, were conducted to describe and correlate the stratigraphic context of buried archaeological components and to reconstruct the site's immediate landscape through time. Using the results of grain-size analyses, soil descriptions, and portable x-ray fluorescence (PXRF) measurements, I present a preliminary model of stratigraphic correlation, site formation, and paleolandscape change. The utility of PXRF as a stratigraphic correlation tool is discussed as well.

Alexander, James, M

Symposium Discussant

Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Anderson, Erik (SWCA Environmental Consultants)

The Lazy Husband Law of 1913

Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)

In 1916, a local booster book entitled "History and Progress of King County" proudly displayed a photo of the "County Lazy Husband Stockade" as an example of the wisdom of the county commissioners. This was part of a state program begun in 1913 to imprison "Lazy Husbands" who failed to support their families. The men held at such facilities were forced to work while the state paid their wives a minimum of one dollar a day. Not only did other states follow Washington State's example, but news of the law was reported as far away as New Zealand and Singapore.

Anderson, Erik (SWCA Environmental Consultants)

Comet Lodge Cemetery, Seattle: Debunking Local Mythology or: Sorry, There Are No Bodies Under the Houses.

General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)

In 2008, the book "Weird Washington" was published, calling itself "Your Travel Guide To Washington State's Local Legends and Best Kept Secrets." It includes the myths that surround the Comet Lodge Cemetery in Seattle's Beacon Hill Neighborhood. The Cemetery has become a focus of local lore as many believe that there are multiple burials underneath houses that now occupy the northern portion of the original cemetery property. This myth has been perpetuated through various web-sources, many of them "ghost-researchers" as well as a single, dedicated activist.

Although the history of the cemetery is convoluted, confusion, and even sometimes contradictory, following the historical deposition of the property as well as the compiled burial records, there is no compelling evidence that a single burial ever took place in the current residential area.

Anderson, Shelby (Portland State University)

Environment: Archaeology and Climate Change in Northwest Alaska

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

Rapid environmental change related to global climate warming is destroying arctic archaeological sites. These disappearing sites are a long-term baseline for modern human-environment interactions in northern communities. Current research is directed at refining the late Holocene archaeological chronology for northwest Alaska and collecting data on past settlement patterns. The goal is to test hypotheses about the relationship between past social and environmental changes. Findings will provide context for contemporary research on climate change in northern communities. New archaeological data will also contribute to the development of a Geographic Information System, or GIS, model that predicts both site locations and risk factors for future climate change impacts to

archaeological sites. The GIS model will be used to prioritize future archaeological research and site management efforts. This talk will focus on the preliminary results and applied outcomes of this research.

Anderson, Shelby (Portland State University)

Woolsey, Dianna (Portland State University)

Clay and Ceramic Technologies of the Pacific Northwest: A Pilot Study.

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

Worldwide, the emergence of baked clay and ceramic technology is traditionally associated with increasingly sedentary lifestyles and the development of agriculture in antiquity. It is generally thought that high mobility and low population, characteristics of most hunter-gatherer groups, precluded the production of ceramics. Nevertheless, various hunter-gatherer groups developed or adopted ceramic technologies in diverse environmental settings. While research on this topic is expanding, little is known about the character and antiquity of clay and ceramic technologies in the Pacific Northwest. This pilot research project is aimed at addressing this problem and setting the stage for future research through grey literature review and collections research at various regional repositories. The focus is on establishing the temporal and geographic distribution of clay and ceramic technologies across the Pacific Northwest. Preliminary findings are presented here with the goal of soliciting information from other researchers about unpublished clay and ceramic artifacts or related information.

Andrefsky, William (Washington State University)

see *Retherford, Tyler*

Anglebeck, Bill

Discussant

Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)

Asinjo, Robert (Oregon State University)

see *Green, Amanda*

Aslett, Jamie R. (University of Idaho)

The Life and Archaeology of the Fisher Family

General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

Famous Idaho author, Vardis Fisher was born and raised on the south fork of the Snake River near Swan Valley, Idaho. His family lived on a property called Fisher Bottom. Although many of the author's stories were fictional, many were based on the life of the Fishers and their neighbors. The Bureau of Land Management, along with other agencies, acquired this property in February of 2012. There has been an archaeology survey as well as an historical architect who surveyed the family home. I plan to use the archaeology report, the historical architecture report, and the books written by Vardis Fisher to discuss the history of the Fishers and their property. Although there were no major items of significance found at this site, there is a story waiting to be told about the Fisher family, how they lived, used the land, and the structures they used for their daily lives.

Aymond, Ayla (Central Washington University)

see *Euster, Lisa*

Bakke, Gwen (Washington State University)

see *Grier, Colin*

Baldwin, Garth (Tierra Right-of-Way)

De Boer, Trent (Washington Department of Transportation)

Threading the Needle: Planning a New Roadway Through a Resource-Rich Landscape

Symposium (Friday 10:20 AM-4:40 PM, Astoria)

Yakima County proposes to construct a new roadway corridor connecting the downtown, west of Interstate 82, with the rapidly

developing Terrace Heights neighborhood across the Yakima River. The project area includes a braided river channel, floodplain, alluvial terraces, historic irrigation canals and rail lines, with historic homes and commercial structures as well. The project area also reportedly contains intact archaeological deposits with artifacts having been recovered by area residents. Four proposed corridors were considered, each with their own set of significant resources. Consulting parties include several federal, state, and local agencies, as well as the Yakama Nation. This presentation will discuss the early steps in cultural resources planning that have helped identify a preferred alternative for the project.

Bard, James C. (SWCA Environmental Consultants)

Weaver, Robert, M. (The Environmental History Company)

So What's Ailing You, Sandpoint?

General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

The Sandpoint Archaeological Project unearthed over 800 artifacts (by conservative MNI) related to medical treatments, many of them whole. The assemblage included both drug store and patent medicines. Approximately 300 were identifiable to specific druggists and the same number applying to various treatments. The most robust assemblages came from the main Townsite, the Chinese occupation area, and from a bordello and a brothel group (Restricted District), which allowed interpretation of distinct differences among site areas. In addition, the time period under study (1880 to 1914) crosses the boundary between older concepts of disease, medicine, and medical practices to a more complete understanding of germ theory and regulation of drugs. The paper explores concepts of medicine during those times and the results of intra-site analysis.

Barrick, Wilbur (Central Washington University)

Investigating Yakima Fold Belt Upland Land Use: Distributional Methods and GIS-based Spatial Analysis on the Yakima Training Center, Washington.

Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Cultural resource inventory data from multiple YTC inventory projects were examined using GIS to further precontact settlement and subsistence research in the Middle Columbia Basin. The study builds upon previous investigations of upland archaeology, including Dr. William Smith's work at the Sanders Site (45-KT-315) which drew early attention to the significance of interbed and lithic workshop locations in the Yakima uplands. Limited spatial accuracy and sample size paucity challenged previous GIS-based upland land use research in the region. The current availability of high resolution LiDAR imagery and a robust artifact-scale dataset afford new opportunities to investigate relationships between the archaeological record and microenvironments. Statistically significant non-random artifact associations with resource locations and variable scales of functional artifact type patterning were identified. Upland aggregate assemblage composition corresponds with expectations for acquisition loci. Results demonstrate the utility of distributional methods and surface artifact data in regional settlement pattern studies.

Baxter, Paul, W. (Museum of Natural and Cultural History, University of Oregon)

The Place of Cascadia Cave (35LIN11) in Western Oregon Prehistory

General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)

In 1966 Cascadia Cave gained an iconic position among Oregon sites due to its Cascade projectile point dominated assemblage which linked it to the newly hypothesized early regional tradition, the Old Cordilleran Culture, and what was for decades the earliest cultural radiocarbon date in Western Oregon. A reanalysis of the extant site assemblage combined with additional excavation data, obsidian sourcing and hydration data, and radiocarbon dates allows a contemporary understanding of Cascadia Cave's place in Oregon Prehistory.

Beauchamp, Douglas (Arts Consultant)

Versions and Variations of the Storied Wallula Stone, 1897-2012
General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

The powerful and resilient Wallula Stone resided in Portland City Hall's courtyard from 1910 to 1996. During this period of displacement from the Columbia River's Wallula Gap, the massive basalt monolith generated interpretations of the meaning of the complex of glyphs deeply carved within its two prominent faces. This paper presents the visual and narrative versions of origins including tribal initiations, Mayan, Mu, and white race affiliations, sun worshippers, and Buddhist missionaries. It frames this period in Portland with the emergence of Sacajawea as a Native icon, represented by a 1905 statue in Washington Park, and the problematic arrival of a gift in 1996 of a Chinese boulder, now in Terry Schrunk Plaza. Though the Wallula Stone was repatriated to the Confederated Tribes of the Umatilla Reservation 1996, versions of its meanings and significance continue to accumulate, including Native perspectives, new age orbs, and a rehearsal of sun worshiper explanations.

Becker, Thomas (Applied Archaeological Research, Inc.)

Archaeological Investigations at the Fisher's Landing Site (45CL6), a Unique Site Type in the Portland Basin.

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

Although amateur and professional archaeologists have known of the Fisher's Landing site (45CL6) since at least the 1930s, it is only recently that formal archaeological and rock art investigations have been conducted. The excavation results indicate that site 45CL6 contains intact, rich prehistoric and protohistoric cultural deposits associated with the Multnomah 2 subphase of the Portland Basin cultural chronology dating to A.D. 1250 and 1750. This poster reviews the rock art research at 45CL6, details the 2005 investigations conducted by Applied Archaeological Research, Inc., and examines the resulting evidence regarding site chronology, seasonality, and function.

Bell, Christopher (Oregon Department of Transportation)

see *Williams, Scott, S.*

Beyers, Doug (Washington State University)

see *Grier, Colin*

Beyers, Douglas (Washington State University)

see *McCarty, Margaret*

Bialas, Catherin (Historical Research Associates, Inc.)

11,000 Years on the Rogue River: Prehistoric Occupation of the Stratton Creek Site (35JO21), Josephine County, Oregon
General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)

The 1992 excavation of the Stratton Creek Site (35JO21) and subsequent analysis of the resulting collection in 2011 revealed extensive deposits from the Early Holocene and possibly Late Pleistocene, two time periods that are represented by an extremely small number of archaeological sites in southwestern Oregon. The deepest component extends from the bedrock upwards to the first appearance of pumice in the deposit, assumed to represent the eruption of Mt. Mazama. The three radiometric date estimates obtained support this with ages ranging from approximately 11,000 to 7,700 years ago (11,190 to 10,730, 9410 to 9030, and 7950 to 7730 cal B.P.) and make Stratton Creek the earliest dated site in southwestern Oregon.

Blanchard, Christian (Central Washington University)

Smith, William, C. (Central Washington University)

Lancaster, JD L. (Department of Anthropology, Oregon State University)

Lorenz, Joseph (Central Washington University)

Walker, Cameron (Archaeological Investigations Northwest,

Inc.)

Wooler, Ian (Central Washington University)

Pediocactus nigrispinus in the Tekison Rockshelter Site, Kittitas County, WA

Poster Session , Part 1 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

The Tekison Rockshelter, located between Ellensburg and Wenatchee, was partially excavated in 1970 by "amateur" archaeologists. By August of 1972 a grid was laid out, and the digging of Test Pit A had begun. Within Test Pit A from the surface down to the 59 inch level of the excavation, unique cactus spines were recovered each time in large amounts and appearing as if they had been cut from their bases and possibly scorched. The Sanpoil & Nespelem and the Thompson peoples burned and removed the spines of the cactus *Opuntia polyacantha* to aid acquisition of the flesh inside which was consumed. The Thompson were also known to steam cook *Opuntia fragilis* in pit ovens afterwards peeling the skin and eating the exposed flesh. The cactus spines recovered from Tekison resemble those of *Pediocactus nigrispinus*. Identification, using morphology and DNA, will shed light on uses of cactus plants.

Bluehorse-Skelton, Judy (Portland State University)

see *D'Cruz, Ridhi*

Bocinsky, R. Kyle (Washington State University)

Why Landscapes Matter: Inferring Defensiveness Around the Salish Sea

Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)

Our environments—both physical and social—explicitly structure our actions. Archaeological inference often hinges on this fact. Thus, we may identify raw material sources, project ethnographic social norms into the past, or attempt to reconstruct past ecologies all so that we may create appropriate environmental baselines for our inferences. In this paper, I argue that the same must be done if we are to infer defensive motivations on the Northwest Coast. Building on a defensibility index developed by Martindale and Supernant (2009), I quantify landscape defensibility across the Gulf of Georgia and lower Fraser River valley region of British Columbia using GIS. I then examine the defensiveness of recorded pre- and post-contact archaeological sites in the region in light of the baseline defensibility of the landscape. By doing so I am better able to infer to what extent peoples' initial decisions of where to build are defensive.

Boersema, Jana (Cascadia Archaeology)

A Late Prehistoric Camas Oven on Northern Whidbey Island
General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)

Ethnographies document the importance of the camas lily bulb as a subsistence resource that contributed to the viability of the semi-sedentary winter village settlement pattern on Whidbey Island, but archaeological evidence of camas use on Whidbey Island is primarily limited to occasional camas bulbs in botanical samples. Very few camas processing sites have been identified in the archaeological record from Whidbey Island. Recent excavation of a camas oven on West Beach, north Whidbey Island, demonstrates that large-scale camas processing took place at a special purpose site 640 ± 30 14C yrs B.P. The location of the site, several miles from large camas prairies, suggests that proximity to camas grounds is not the primary determining factor for processing site location, but that access to sandy soil, fuel, cobbles, and fresh water are more important.

Boswell, Sharon (SWCA Environmental Consultants)

Where is the Steamer Idaho?

Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)

The side-wheel steamer Idaho was built for the Columbia River trade in 1860, later made daily runs across Puget Sound but gained greatest notoriety as a hospital ship docked along the Seattle waterfront. The vessel served as the city's only free emergency

medical clinic for the poor from 1898 to 1907, but was eventually condemned and abandoned. Or was it? Public plaques, newspaper accounts, published histories and more recent cultural resource surveys all place the remains of the Idaho at different places along the Seattle waterfront. The question is whether this ship is still resting somewhere at the bottom of Puget Sound and, if so, how we can more accurately determine where it might be.

Bovy, Kristine M. (University of Rhode Island)

Breene, Morgan L. (University of Rhode Island)

Don't Forget the Birds!: Bird Remains from the Tse-whit-zen Village Site

Symposium (Thursday 1:00 PM-5:20 PM, Willamette)

Birds are often relatively scarce in Northwest Coast shell middens in comparison to fish, mammal and shellfish remains. However, sizeable numbers of bird bones have been recovered from Tse-whit-zen. Abundant taxa include murre, ducks, shearwaters, gulls, loons and grebes. We will outline how birds relate to the overall goals and predictions of the Tse-whit-zen project, including how different kinds of birds may be affected by climate change or earthquakes, and which taxa are found in predictable locations and seasons and could be controlled by discrete social groups or households (e.g. bird net poles, nesting sites). Preliminary taxonomic comparisons between two house structures will be made. Initial taphonomic data will also be presented, including evidence for systematic burning on wing elements, and effects of screen size on bird recovery. Finally, observations on the value of the Tse-whit-zen project to provide zooarchaeological training for undergraduate students will be shared.

Bovy, Kristine M. (University of Rhode Island)

see *Etnier, Michael A.*

Boxberger, Daniel (Western Washington University)

Treaty or Non-Treaty? Identity and the Heirs of Succession to the Western Oregon Treaties

Symposium (Thursday 10:20 AM-12:00 PM, Elowah Falls)

Between June 1850 and December 1855 twenty-four unratified treaties and seven ratified treaties were negotiated with the Native people of western Oregon. There exists much misunderstanding concerning the nature of unratified treaties and their relevance to modern-day treaty tribes. The Confederated Tribes of Grand Ronde were party to at least eleven unratified treaties and the heirs of succession to all of the ratified treaties of western Oregon. This research gives an account of an ongoing project with the Confederated Tribes of Grand Ronde that analyzes the history of treaty-making in Oregon Territory. Thirty years after restoration, the Grand Ronde tribe continues its struggle to regain sovereignty over ceded lands. An important part of this process is educating the public on the relevance of treaties to contemporary Native American issues in western Oregon.

Brauner, David (Oregon State University)

The House that Sheridan Built: Recovery of an 1856 Officer's House and New Perspectives in Historical Archaeology

General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

The Commander's house associated with Fort Hoskins (1856 to 1865), located in southern King's Valley, Oregon, was recently discovered in Pedee approximately 17 miles north of the old fort site. The house was returned to Fort Hoskins this past October. The house was placed on its' original footprint at the fort. The house location was excavated in 1976 and 1977 by the author. Extensive archival research combined with two years of archaeology at the house site led to a "reconstructed past" which is a typical outcome of research-based archaeology. Archaeologists often muse about going back in time to visit a site that they have worked on to see just how right or wrong their interpretations have been looking through the lens of archaeological data. For the first time in my 54 years as an archaeologist the ghost of summers past has found me.

An ancient house returns as teacher to an old archaeologist. Perceptions of spatial theory and material culture are the first lessons learned.

Brauner, David (Oregon State University)

see *Sheldon, David*

Bredeson, Molly L. (Western Washington University)

Sayward, Taylor A. (Western Washington University)

Reexamining the Howard Buswell Collection, Marietta WA

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

Howard Buswell (April 22, 1895-1965) dedicated over 30 years of his life to researching the history of his home town of Marietta, near Bellingham Washington. Howard's interests focused on early euro-American prospectors as well as the Lummi nation, which had inhabited this area prior to white colonization and relocation. Howard took great pride in his collections, going through meticulous work cataloguing the many artifacts he found on and around his family farm. Howard planned to compile his works into a local history book but passed away before completion. His collections were donated to the Center for Pacific Northwest Studies who passed the artifact collection on to the Department of Anthropology. Our project involves the reexamination of Mr. Buswell's initial catalogue and his correspondence at the archives to strengthen and acknowledge the value of this locally relevant historical collection as it was intended to be.

Breene, Morgan L. (University of Rhode Island)

see *Bovy, Kristine M.*

Brutzman, Drew (Eastern Washington University)

"Goon's are a Cancer on the Internet": Identity and Social Capital on the Something Awful Forums

General Session (Friday 1:00 PM-4:40 PM, Crater Lake)

Online chat forums as a communication medium are understudied anthropologically. Anthropologists like Tom Boelstorff (Coming of Age in Second Life) have studied online communities, but have mainly focused massively on multiplayer online games, rather than textual communities. This study focuses on the members of the Something Awful Forums, known as Goons. Goons come from different locations and real world cultures; they interact with one another primarily through the Forums. Each member identifies as a Goon, participating in Forum culture. This study uses ethnographic methods, including participant-observation, textual analysis, and interviews, to examine group identity and status on the Forums. I argue group identity is created and maintained via the performative nature of Goon interaction, through the creation of new discussion threads, often based on audio-visual materials, and sarcastic, ironic responses. The study of online communities like the Something Awful Forums provides insight into modern creation of society and culture.

Bryant, Jr., Vaughn M. (Department of Anthropology, Texas A&M University)

see *Jenkins, Dennis L.*

Burgess, Tabitha (Geo-Marine, Inc.)

see *Norred, Charles*

Butcher, Kayla (Western Washington University)

see *Campbell, Sarah K.*

Butler, Virginia L. (Portland State University)

Sterling, Sarah (Portland State University)

Overview of the Tse-whit-zen Village Site and Current Zooarchaeological and Geoarchaeological Research

Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)

Our on-going project is examining intracommunity response to abrupt environmental change through analysis of the faunal remains and, by extension, subsistence strategies, from Tse-whit-

zen, a village on the northwest coast of Washington occupied between 1800 and 100 yrs ago. The extensive horizontal exposure (> 500 m²) yielded enormous faunal sample sizes and remains of multiple discrete houses reflecting variable social status or economic specialization. Detailed geoarchaeological field recording of deposits produced a uniquely high-resolution view of prehistoric activity and temporal change at the site. We are analyzing faunal remains from three houses and their extramural middens, which likely represent corporate units of varying social rank and/or economic specialization. We will compare animal resource use strategies between and within households to understand the durability of social order over time in response to several high-magnitude earthquakes, as well as gradual climate change (Little Ice Age and Medieval Climatic Anomaly), and a gradual increase in sheltered intertidal habitat. This presentation provides an overview of the site and current project activities.

Butler, Virginia L. (Portland State University)
see *Rosenberg, J. Shoshana*

Butler, Virginia L. (Portland State University)
see *Wojcik, Kathryn A.*

Cadena, Guadalupe P. (Malheur National Forest)
Archaeological Testing at the Big Springs Site (35GR1575), Grant County, OR

General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)
A 2012 NWAC paper discussed shifts in hunter-gatherer mobility strategies during the Middle and Late Holocene. The distribution of obsidian sources illustrated in the paper suggested that early hunter-gatherers moved between the Harney Basin and an upland valley site known as the Malheur Headwaters. Site 35GR1575 is a large multicomponent site located about 10 miles south of the Malheur Headwaters. The site was originally recorded in 1980 and was divided into 16 artifact concentrations. According to the original site report, Big Springs (Concentration E) contained a wide range of diagnostic projectile points suggesting the area was utilized throughout the Holocene. In 2012, the Malheur National Forest conducted preliminary archaeological testing at Big Springs. The objective was to evaluate the subsurface component and to perform a more comprehensive survey. The paper will (1) summarize the results of the archaeological testing and (2) discuss similarities between site 35GR1575 and the Malheur Headwaters.

Camp, Stacey, L. (University of Idaho)
Collaboration and Outreach at Boise, Idaho's Cyrus Jacobs-Uberuaga House Public Archaeology Project
Symposium (Thursday 10:20 AM-11:40 AM, Multnomah Falls)

A productive partnership between the University of Idaho, the Idaho Archaeological Society, and the Basque Museum and Cultural Center formed during the summer of 2012 when Boise, Idaho's Basque Museum and Cultural Center discovered a well underneath the porch floorboards of a historic homestead they owned. This discovery led to a collaborative archaeological project in the heart of downtown Boise, and garnered substantial media attention due to its prime location. This paper will explore the outreach events that took place as part of the project, and the positive outcomes a project built upon collaboration and community participation engenders.

Camp, Stacey, L. (University of Idaho)
see *Dinubilo, Shaun*

Campbell, Renae (Willamette Cultural Resources Associates, Ltd.)

Paraso, Kanani (Willamette Cultural Resources Associates, Ltd.)

Japanese Culture Change in Oregon: An Archaeological Perspective

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)
Japanese immigrants played a vital role in Oregon's agricultural history, yet we know relatively little about their everyday lives, the communities they established for themselves, and their experiences within American culture prior to being relocated to internment camps during WWII. In 2012, WillametteCRA conducted test excavations at an historic site in Gresham, Oregon associated with Japanese truck farmers in the 1920s and 1930s. Most notable about the recovered collection is the large quantity of porcelain and the prominence of Japanese decoration and forms in the ceramic assemblage. The presence of both Japanese and American wares suggests a persistence of traditional food ways, but also some degree of cultural adaptation. Our study examines the regional context of pre-WWII overseas Japanese sites, through a comparison of ceramic assemblages from various site types throughout the west coast, as a means of exploring cultural change and the life ways of early Japanese in Oregon.

Campbell, Sarah K. (Western Washington University)
Preliminary Thoughts About the Tse-whit-zen Invertebrate Remains

Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)
Samples of marine invertebrates associated with two different house structures at the Tse-whit-zen Village site have been analyzed to date. A variety of depositional contexts are revealed by the level of fragmentation, weathering, and burning. A wide range of taxa are represented but also distinctive associations of taxa. Numerous urchin-rich deposits, characterized by two or more species of urchin and significant post-depositional alteration of unknown cause are clustered in one area. These may indicate consumption in a socially significant context.

Campbell, Sarah K. (Western Washington University)
Butcher, Kayla (Western Washington University)
Damitio, Will (Western Washington University)
Charles/St. Mungo Bone and Tooth Pendants from the Gulf of Georgia: Personal Adornment Before Labrets
Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)
Items of personal adornment often play a role in signaling group affiliation, status, or other aspects of social identity. In the Gulf of Georgia region, labrets, which appear sometime after 4,000 BP, have been a focal point of attention, perhaps to the detriment of other forms of adornment. Bone pendants are considered characteristic of the preceding Charles/St. Mungo Phase, but have received little attention. An assemblage of eight bone and five tooth pendants dated between 4800 and 4500 BP recovered from 45WH34 in the Nooksack River Valley is large enough to allow description of stylistic variation. In addition, the presence of blanks gives insight into technological production.

Campbell, Sarah K. (Western Washington University)
see *Syverson, Laura*

Carner, Amanda (Central Washington University)
Sullins, Kaeley (Central Washington University)
Wilding, Lisa (Central Washington University)
Hendrickson, Bonita (Central Washington University)
Jensvold, Mary Lee (Central Washington University)
Nighttime Enrichment Preferences of 3 Captive Chimpanzees (Pan troglodytes)

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)
Enrichment plays a key role in the psychological well-being of captive non-human primates (Buchanan-Smith 2011). Institutions that house captive apes are required to provide individuals with enrichment items. However, many institutions do not provide enrichment during the evening hours, when it is presumed apes are sleeping. Though captive chimpanzees rest between 8-12 hours each night this is not a continuous, unencumbered slumber (Videan 2005). The aim of this study was to determine if enrichment items, such as blankets, toys, magazines, and containers, were being used

by the 3 chimpanzee residing at the Chimpanzee Human Communication Institute. During the summer of 2012, the chimpanzees were recorded during evening hours. Using 80 hours of data, the chimpanzees used variety of enrichment items. They used blankets significantly more ($p < .05$) than other items. These data provide preferred types of enrichment items for primates housed in similar captive situations.

Carstens, Sharon (Portland State University)

Education/Interpretation: Creating an Innovative K-8 Bilingual Curricular Framework

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

This presentation describes a collaborative project aimed at creating an innovative curricular framework for integrated language/culture pedagogy that addresses issues of student retention in K-8 Mandarin immersion programs. It began with multi-site ethnographic research in a diverse set of program, followed by a collaborative project that included the university researcher and four experienced Portland based K-8 Chinese teachers. A bilingual book manuscript is our final product. Research demonstrated that interest levels in Chinese declined among older students, as English based learning outpaced student competencies in Chinese. Retaining student motivation requires knowledge and skills in Chinese that are not available through English (thus a focus on culture), while paying close attention to different types of cognitive and emotional skills of students at different grade levels. We found that this was best accomplished through a thematically based approach that integrates culture with language, presenting culture as both process and product.

Casserino, Christopher M. (Spokane Tribe of Indians)

The 1939-1940 Columbia Basin Archaeological Survey: A Retrospective

General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

This paper examines the Columbia Basin Archaeological Survey project over 70 years after publication of its monograph, *The Archaeology of the Upper Columbia Region*. Nearly equal in scale to the construction of Grand Coulee Dam itself, the survey examined portions of 300 miles of shoreline using Depression relief workers from the National Youth Administration, who moved tens of thousands of cubic feet of earth, exposing 35 sites. The goal of the Survey was to obtain information about the archaeology of the zone to be inundated. The extent to which this goal was accomplished is discussed here along with analysis of the data. The fate of these sites was sealed as they were immediately inundated by Lake Roosevelt, preventing future archaeologists from investigating them further.

Cavender, Bailey M (University of Idaho)

Made Locally?: Trade Ties Between Sandpoint, ID and Spokane, WA

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

The railroad played a major role in the settling of the Pacific Northwest, allowing goods and people to be transported at a much faster rate. Spokane, Washington and Sandpoint, Idaho, although only 77 miles apart, were also connected via several major and smaller railroad lines, a connection that is visible in the archaeological record. This poster will highlight a variety of goods manufactured in Spokane that were unearthed in Sandpoint during the construction of the new Highway 95 Byway.

Charles, Theodore (University of Idaho)

Ghosts of the Great Depression on the Carbon River: The Disappearing History of the Civilian Conservation Corps

General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

During recent years, the Civilian Conservation Corps has become increasingly present in archaeological studies across the United States. Beginning in the spring of 2011, the National Park Service

began a study of the Civilian Conservation Corps and their operations at Mount Rainier National Park from 1933-1941. Their history and the role of the program at Mount Rainier had immense impacts on both the environment and the present day management of federal lands. Extensive testing was done on Carbon River camp NP-5 along the confluence of the Ipsut Creek during the summer of 2011, which correlates with similar archaeological results made across the country. The data gained can be used to understand the archaeological potential and condition of public works projects across the Pacific Northwest.

Chatters, James

see *Dinubilo, Shaun*

Chatters, James

see *Sheldon, David*

Cheung, Jacqueline (National Park Service, Fort Vancouver National Historic Site)

Archaeological Evidence of Modoc Firearms during the Modoc War

Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)

During the 1872-1873 Modoc War a small group of Modoc warriors using a variety of different firearms held off a large force of well-armed U.S Army soldiers and volunteers. This paper uses both historical accounts as well as archaeological evidence found during the Stronghold survey to provide insight into the acquisition and use of firearms and ammunition by the Modoc during the war.

Ciani, Michael (MA student, Anthropology, University of Montana, Missoula)

MacDonald, Doug (Professor of Anthropology, University of Montana, Missoula)

Prehistoric Human-Bear Interactions in the Greater Yellowstone Ecosystem

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

The ethnographic record reveals that brown bear hunting was conducted by various northern-latitude hunter-gatherers in much of the world. Ethnographically, grizzly bear hunting was not only undertaken for subsistence reasons, but served both spiritual and ritual function. However, archaeological evidence supporting human bear interaction in the prehistory of the inland northwest is rare. This poster presents potential archaeological evidence of prehistoric bear hunting within the boundaries of present day Yellowstone National Park. Bear is the second most common protein identified on stone tools at prehistoric sites at Yellowstone Lake. Archaeological sites are also present on five of the lake's islands, possible evidence of pedestrian access across lake ice in early spring to scout for bear dens (known to hibernate on the islands). This poster serves as a synthesis of preliminary findings for a forthcoming thesis on bear hunting in the Greater Yellowstone Ecosystem.

Clements, L. Davis (Renewable Products Development Laboratories, Inc.)

Use of Ethnographic Techniques to Ground Official Aggregate Data for an Economic Development Strategy in Clackamas County

General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

The Clackamas County Economic Development Commission requested The Oregon Institute of Technology to provide data for the possible establishment of a biomass-based development strategy within the county. It was expected that the biomass residuals from greenhouse businesses would provide the raw materials for energy production of electricity to provide heating for local schools. The study questions concerned the amount, availability, type and location of potential biomass resources. Three engineering students were selected and began to collect the official government data on local biomass resources. Early in the

process it became obvious that the composite data prepared by traditional approaches did not reflect the actual availability of the biomass resource. This paper describes the use of anthropological perspectives and techniques to provide real-world, targeted, useable information to policy makers. As a result, county officials were able to begin a strategy based on formerly unknown biomass resources.

Cone, Danielle (South Puget Sound Community College)
Identifying Ancient Basketry Trade

General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)
 Of all of the wet sites that have been excavated throughout the Pacific Northwest, basketry has been the most technologically sensitive type of artifact recovered. Basketry styles often reflect the cultural community or family origins. Before they are found in the wet site context, these items were sometimes gifted, traded, or even sold. A basket weaver's work has the possibility of having traveled hundreds of miles before being found. I will be presenting research on the ability to identify basketry trade based on the styles, techniques, and designs used to weave baskets, mats, and hats excavated from different wet sites throughout the Northwest.

Connolly, Thomas J. (University of Oregon)
Kentta, Robert (Confederated Tribes of Siletz Indians)
Thorsgard, Eirik (Confederated Tribes of Grand Ronde, Oregon)
O'Connor, Jim (US Geological Survey)
Zenk, Henry (Confederated Tribes of Grand Ronde, Oregon)
Panel Discussion
Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

Connolly, Thomas J. (University of Oregon)
Kentta, Robert (Confederated Tribes of Siletz Indians)
Restoring Connections in Oregon's Salmon River Estuary
Symposium (Friday 10:20 AM-4:40 PM, Astoria)
 In conjunction with unrelated diking and filling, construction of the current alignment of US Highway 101 across Oregon's Salmon River Estuary (built in 1962) disrupted tidal flows and altered natural habitats. The Oregon Department of Transportation now plans to build two bridges on US Highway 101 that, along with coordinated efforts by the Siuslaw National Forest, will reestablish the natural flows of Salmon and Fraser creeks and restore the estuary's historic tidal flows. Cultural resource studies done in advance of this work brought to light previous unreported archaeological studies undertaken around the estuary, information regarding the assignment and disposition of Native allotments, and interactions between Native allottees and their non-Indian neighbors.

Connolly, Thomas J. (University of Oregon)
Symposium Discussant
Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

Connolly, Thomas J. (University of Oregon)
see Jenkins, Dennis L.

Cooper, Grace (Eastern Washington University)
Exploring Perceptions and Intentions of Code-Switching Among Bilingual Spanish-English Speakers
General Session (Friday 1:00 PM-4:40 PM, Crater Lake)
 Many scholars have researched how bilingual and multilingual speakers mix languages when they communicate, a process called code-switching. This study examines perceptions and understandings of code-switching in bilingual English-Spanish communication in the Inland Northwest, an area which has not been studied extensively. Earlier studies report that speakers generally hold a negative view of code-switching. To test if this still holds true today I conducted hour-long interviews with ten Spanish-English speakers. We discussed four musical selections as examples of code-switching and broader themes of language use.

From their responses I have identified how the view of code-switching has changed. This study renders older studies problematic for understanding current language use, but also offers insight for understanding current communication patterns among Spanish-English speakers.

Cooper, Jason (AMEC Environment & Infrastructure, Inc.)
Meeting New Challenges in Archaeological Monitoring, Presentation 1

Symposium (Saturday 10:20 AM-12:00 AM, Crater Lake)
 Rapidly evolving construction methods pose new challenges for archaeological monitoring. In this session of brief (3-5 minute) presentations, regional cultural resource professionals discuss approaches for cultural resources training and monitoring of construction crews working with newer construction techniques.

Cooper, Jason (AMEC Environment & Infrastructure, Inc.)
Archaeological Investigations at Eagle Gorge, Washington
Symposium (Thursday 8:00 AM-9:40 AM, Multnomah Falls)
 Eagle Gorge is a former Northern Pacific Railway train depot located on the Green River above the modern-day Howard Hanson Dam, nestled in the foothills of the Cascade Mountains near Enumclaw, Washington. Prior to its historic use, Eagle Gorge was a significant place for prehistoric and ethnohistoric settlement along the Green River. Dozens of archaeological sites have been documented over the last 30 years of research in and around Eagle Gorge. Today, Eagle Gorge is submerged for several months of the year beneath the impounded waters of the Howard Hanson Dam Reservoir. As a result of the annual raising and lowering of the reservoir, which is managed by the U.S. Army Corps of Engineers-Seattle District, Eagle Gorge emerges from the receding water and reveals new information on the people that came to this spot to hunt, fish, and gather resources. Recent archaeological fieldwork (2011) at Eagle Gorge uncovered site 45K11083, a late prehistoric hunting camp comprised of two hearth features, 64 stone and bone tools, 13 cores, and approximately 2,400 fragments each of lithic debitage and mammal bone.

Cooper, Jason (AMEC Environment & Infrastructure, Inc.)
Tale of Two Historic Mill and Railroad Towns along State Route 6 in Lewis County, Washington

Symposium (Friday 10:20 AM-4:40 PM, Astoria)
 In the southwest interior of Washington at the end of the 19th century, dozens of mill towns sprung up next to the Northern Pacific Railway corridor as it cut a ribbon of land west from Chehalis into the Willapa Hills. The pursuit of a vast inland empire of economically viable timber coupled with a newly built rail corridor across this portion of the state to the Pacific Ocean spawned the era of mill towns, including both McCormick and Walville, Washington. Harry W. McCormick, a central figure in the establishment of both towns, began his career as a telegraph lineman for the Northern Pacific which led him into the telephone pole/crossarm business and eventually into owning and operating several large sawmills. Recent archaeological investigations along State Route 6 for a Washington State Department of Transportation bridge replacement project located significant archaeological deposits associated with the McCormick town site and sawmill operation.

Coyote, Arrow (Confederated Tribes of the Colville Reservation)
Case Study: A Holistic Approach to Breathing Life into the Drowned Town of Keller, a Community on the Sanpoil River
Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)
 Originally the Sanpoil village, the town of Keller was established in 1898 when the Colville Reservation was opened for mineral entry. Archaeology provides information about the remnants of the town, now inundated by the Lake Roosevelt Reservoir, but it is the oral history that brings the town to life. This presentation offers a glimpse into the history of Keller.

Crate, Rhonda (Washington State University)

Adding One More to the Basket: Using Market Basket Analysis for Free List Data

General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)

Free lists are a unique data collection method used by anthropologists. Benard (2006) states that they are a “simple, yet powerful tool,” that can be used to develop culturally salient definitions. With budget cuts and time restrictions, anthropologists must ask themselves, “Is there more I can do with the data I already have?” Typically, methods of analysis are constricted to frequency, cluster analysis, and intercultural and individual variation. In recent years, many new methods of analysis have been introduced to the social sciences- one being market basket analysis. Market basket analysis provides helpful graphs and results that allow anthropologists to obtain cognitive inference about the population they are free listing. Though originally designed for large POS (Point of Sale) data, a small sample from a case study in Peru will demonstrate how simple and useful this analysis can be to draw associations between informants’ free lists.

Croes, Dale R. (South Puget Sound Community College)

Kilgii Gwaay—A 10,700 year old Wet Site Revisited in Late Spring 2012 on Southern Haida Gwaii, B.C., Canada

General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)

As a Wet Archaeological Site Specialist, I was invited by Parks Canada to help expand investigations of Kilgii Gwaay, so far the oldest and most important Northwest Coast wet site discovery. The site contains a rich assemblage of stone tools, preserved bone artifacts and fauna and, so important to wet site specialists, wood/fiber artifacts. The project crew, headed by Daryl Fedje and Dr. Quentin Mackie, explored this intertidal site during the lowest tides of the year. This wet site is in a protected embayment on southernmost Haida Gwaii (formerly the Queen Charlotte Islands), northern B.C. Canada. The site is of critical importance in understanding the very early period of post-glacial Northwest Coast settlement—when the coast was beginning to become forested and today’s NW land and sea resources were beginning to expand. Some interesting new finds add to the expanding data base of this distinct and earliest wet site.

Cromwell, Robert, J. (National Park Service, Fort Vancouver National Historic Site)

The Ceramics of Early-19th Century Fur Trade British Fort Sites along the Columbia River

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

This paper presents a comparative typological analysis of early-19th century British and Chinese ceramic wares imported into the Pacific Northwest through the British North American terrestrial fur trade. Specifically, it compares the archaeological ceramic assemblages from the Northwest Company’s Fort Okanogan (ca. 1811-1821), Fort Spokane (ca. 1810-1821), Fort George (ca. 1811-1821) and the Hudson’s Bay Company’s Fort Vancouver (ca. 1825-1860). All of these posts were supplied from England via a precarious ocean based sea route of over 17,000 miles, and in the case of posts such as Fort Okanogan and Fort Spokane, up to an additional 300 mile up-river and overland portage. This study helps to reveal the extent of which early-Victorian ideals gave precedence to the supply of British-manufactured goods to colonial outposts on the opposite side of the world, and what the presence of these ceramic wares may reveal about the socio-economic statuses of the occupants of these forts.

Cummings, Linda Scott (PaleoResearch, Inc., Golden, CO)

see Jenkins, Dennis L.

Daehnke, Jon (University of California, Santa Cruz)

"We Honor the House": Heritage, Public History and Protocol on the Ridgefield National Wildlife Refuge

General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)

In March 2005, the Cathlapotle Plankhouse located on the Ridgefield National Wildlife Refuge in Ridgefield, Washington first opened its doors to the public. The Plankhouse serves as a site of public history, where the general public can learn about the natural and cultural history of the refuge. In addition to serving as a site for historical interpretation, the Plankhouse is a place of cultural reclamation for the Chinook Nation, a cultural center where they hold tribal events, share songs and dances, and practice the protocols that are so central to who they are. The Plankhouse is also a place where competing visions about the past, the role and value of cultural resource stewardship, and the ownership and control of heritage come into focus. My talk traces the development of the Plankhouse, explores its value as a site of public memory, and looks at the occasional tensions surrounding its use.

Damitio, Will (Western Washington University)

see Campbell, Sarah K.

Darby, Melissa (Drake Anchorage Research Collaboration)

New Light on Drake's Landing

Symposium (Saturday 8:00 AM-10:40 AM, Multnomah Falls)

We examine new evidence of an endeavor involving one of England’s greatest heroes during one of the greatest -- but most secret -- voyages of all time. Francis Drake and company camped somewhere on the western coast of what is now the United States for five weeks during in the summer of 1579 during an interlude on what became known as “The Famous Voyage.” The exact movements of Drake’s company in the North Pacific, and how far north they sailed, have been the subject of debate ever since they returned to England in 1580. In the months following Drake’s return, the details of the voyage were suppressed due to the political situation with Spain; it nevertheless soon became public knowledge that Drake had navigated the Strait of Magellan and traveled up the West Coast of America, and encompassed the globe. We present new linguistic and material culture evidence that supports the theory that Francis Drake anchored the Golden Hinde on the Oregon Coast, rather than the oft-cited central California Coast.

Davidson, Charity (OCR Conservation Planning Coordinator)

Hurley, Warren (U.S. Bureau of Reclamation)

Enhancing Habitat and Protecting Cultural Resources through Collaborative Planning Efforts: A Case Study of the Middle Crab Creek Corridor, Columbia Basin Project, Washington

General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)

The Columbia Basin Project infrastructure is unreliable in regards to satisfying irrigation demand in the south Columbia Basin. In order to reconcile this issue, Reclamation, partnering with the Washington Departments of Ecology and Fish and Wildlife (E/FW), will be feeding water down middle Crab Creek to Potholes Reservoir, turning an intermittent creek back into a perennial stream. The additional water provides an opportunity to improve the habitat available for fish and wildlife. However, middle Crab Creek is also rich in archaeological, traditional cultural, and historical resources, and continues to be important to Native Americans. As such, implementing habitat improvements without compromising the preservation of important cultural resources has presented a unique challenge. This presentation will examine the collaborative planning efforts between Reclamation and E/FW, in consultation with Indian Tribes and SHPO, to achieve the objectives of enhancing habitat and protecting sensitive cultural resources, while facilitating water delivery needs.

Davis, Loren G. (Oregon State University)

A New Stemmed Projectile Point Cache from the Cooper's Ferry Site, Idaho

Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)

Excavations conducted at the Cooper's Ferry site during the summer of 2012 discovered a pit feature excavated into the site's basal deposits. This pit (designated Feature P1) contained 13 Western Stemmed Tradition projectile points made on cryptocrystalline silicate and fine grained igneous rock. Here, I describe Feature P1 and discuss the technological attributes of the P1 points and compare them with stemmed points recovered from the Pit Feature 2 equipment cache recovered at Cooper's Ferry in 1997 and from other early Plateau sites. I conclude by discussing how the Cooper's Ferry stemmed points contribute to our larger understanding of early Plateau lithic technologies.

Davis, Loren G. (Oregon State University)
see *Jenkins, Dennis L.*

Davis, Mary Anne (Idaho State Historical Society)
see *Osgood, Susie*

Davis, Sara, J. (Archaeological Investigations Northwest, Inc.)
Punke, Michele, L. (Archaeological Investigations Northwest, Inc.)

Introduction to the Cultural Deposits at a Food Processing station - 45CH791

Symposium (Thursday 1:00 PM-3:20 PM, Elowah Falls)
Recently identified prehistoric site 45CH791 is located on the Columbia River in the vicinity of Wenatchee, Washington, approximately one kilometer upstream of the well-studied Stemilt Creek Village site. As site 45CH791 was actively eroding into the river from water erosion and slumping of the cutbank, data recovery excavations were designed to salvage a sample of the remaining archaeological deposits. Three shell midden lenses, numerous fire-related features, and multiple episodes of occupation were documented in the course of these excavations. This paper provides an introduction to site 45CH791, the stratigraphy, cultural features, and the nearby Stemilt Creek Village to provide a context for the subsequent papers discussing the specialized site analyses.

Davis, Sara, J. (Archaeological Investigations Northwest, Inc.)
Symposium Discussant
Symposium (Thursday 1:00 PM-3:20 PM, Elowah Falls)

Davis, Sara, J. (Archaeological Investigations Northwest, Inc.)
see *Adams, Ron*

D'Cruz, Ridhi (Portland State University)
Bluehorse-Skelton, Judy (Portland State University)
Zierdt, Shawna (Verde)

Decolonization as Holistic Sustainability: A Case Study from NE Portland, Oregon

General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

This presentation analyzes an urban Native American ecological restoration and cultural revitalization project in NE Portland through the lens of decolonization theory and practice. Set within the 25 acre larger brownfield redevelopment project called "Let Us Build Cully Park!" (LUBCP!) in Northeast Portland, Oregon, the proposed 20,000 square foot Cully Tribal Gathering Garden (CTGG) serves as a case study and potential model for collaborative urban multi-ethnic land management. By tracing its unique trajectory in terms of partnerships among community organizations, educational institutions, tribal, city, and federal governments, we showcase the opportunities this project presents for the expression of newer forms of identity and community building through the transgression of colonial binaries like "nature" and "culture"; "foraging" and "farming"; "traditional" and "modern" and the bridging of knowledge-systems through the use of both "local ecological knowledge" and "Permaculture" in the garden design.

De Boer, Trent (Washington Department of Transportation)
see *Baldwin, Garth*

DeLeon, Ansel S. (Central Washington University)
DeLeon, Mark (Public Utility #2 of Grant County)
Application of Multispectral Imagery to Monitoring Site Stabilization

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

Is remote sensing useful to monitor the effectiveness of measures taken to stabilize sites – is the question we ask to determine whether or not meeting a permit requirement is better served by applying multispectral spatial tools to measure the success of an engineered solution to site stabilization, or to schedule conventional site visits at certain times of the year. We take a birds-eye view of eleven sites on two hydroelectric reservoirs on the middle Columbia River, that were stabilized by a combination of hard and soft armoring and vegetation in 2011. Our objective is to identify spectral signatures or indicators that may indicate the success of the treatments applied, in order to satisfy reporting requirements of regulatory agencies permitting the stabilization project.

DeLeon, Mark (Public Utility #2 of Grant County)
see *DeLeon, Ansel S.*

Dellert, Jenny (Historical Research Associates, Inc.)
Meeting New Challenges in Archaeological Monitoring, Presentation 3

Symposium (Saturday 10:20 AM-12:00 AM, Crater Lake)
Rapidly evolving construction methods pose new challenges for archaeological monitoring. In this session of brief (3-5 minute) presentations, regional cultural resource professionals discuss approaches for cultural resources training and monitoring of construction crews working with newer construction techniques.

Deur, Doug (Portland State University)
Environment: Wayfinding in the Contested Wilderness: Applied Environmental Anthropology in the National Parks

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

The National Park Service manages some of the United States' most prominent landmarks and environmentally sensitive lands. In protecting these places, the NPS has sought to preserve places once occupied, used, and managed by Native Americans and other communities in a "natural" condition, and to introduce recreational modes of land use unprecedented in these places. Conflicts frequently emerge between these traditionally associated communities, the NPS, park visitors, and other constituencies – conflicts that cultural anthropologists are well qualified to document and mediate. Through the University of Washington and now the PSU Anthropology Department Dr. Douglas Deur has served as a primary academic researcher participating in these endeavors in the western U.S. Drawing examples from recent projects, Deur will discuss the past, present, and future of problem-oriented anthropological research addressing national parks and other protected federal lands. Examples will include Deur's studies of cruise ship impacts on Tlingit Traditional Cultural Properties at Glacier Bay, the displacement of Yup'ik subsistence practices by trophy fishermen on Alagnak Wild River in Alaska, efforts by multigenerational Maine lobstermen to reoccupy the shoreline of Acadia National Park, and the effects of environmental change on Native American plant gathering traditions at Yosemite National Park.

Deur, Doug (Portland State University)
Symposium Discussant
Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Deur, Doug (Portland State University)
see *Wilson, Doug*

Dewey, Kyle (Edmonds Community College)
Rhynalds, Kyli (Edmonds Community College)
Ross, Laurie (Edmonds Community College)

Murphy, Thomas (Edmonds Community College)
Ryan, Erin (Edmonds Community College)
Kramer, Marshall (Edmonds Community College)
Anthropology Matters at Snoqualmie: Combining Traditional Knowledge with Science
Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)
 The Learn and Serve Environmental Anthropology Field (LEAF) School at Edmonds and Everett CCs combines traditional knowledge with science through service-learning projects that inform conservation, development and transportation planning. Students combine ecological teachings from the Snoqualmie Tribe with remote cameras, GIS mapping, and tracking skills to monitor wildlife corridors. At Two Sisters Return Site, students mapped elk, deer, and bear trails to assist the tribe with minimizing the environmental impact of the construction of a new tribal cultural center in this important elk migration route. Near Snoqualmie Pass, students have assisted Conservation Northwest and the I-90 Wildlife Bridges Coalition with the collection of baseline data for evaluating the effectiveness of wildlife bridges and overpasses currently under construction. Additionally, students are working with the Snoqualmie Tribe to construct a Traditional Knowledge Trail featuring native plants in green space adjacent to the Casino.

Dexter, Jaime (University of Oregon)
see Thomas, Scott

Dickson, Catherine (Confederated Tribes of the Umatilla Indian Reservation)
Symposium Discussant
Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Dickson, Catherine (Confederated Tribes of the Umatilla Indian Reservation)
see Wilson, Doug

Diederich, Matthew (Oregon State Historic Preservation Office)
Demonstration of Oregon SHPO GIS Database
General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)

Diedrich, Melanie (Archeological Macroflora Identification (AMI))
A Tide in the Affairs of Men... or Bound in Shallows and Miseries
Symposium (Saturday 8:00 AM-10:40 AM, Multnomah Falls)
 The objective of this inquiry was to determine if coastal erosion has significantly altered the configuration of Whale Cove, Oregon or if its boundaries closely resembled its current size and shape approximately 430 years ago. This was done by compilation of known data regarding the geological composition of Whale Cove's shoreline and the immediate vicinity to the north and south along the coast, the known coastal erosion processes and rates, and data regarding generalized and localized ocean currents along the Oregon coast. The foundations of the cove are built upon a bedrock shelf, seen near the mouth of Deadhorse Creek, and Columbia River Basalt, evident along the north and south headlands where they meet the ocean beach; this then forms the basis, or skeleton, of Whale Cove. The overlying sandstone cliffs on the northeast side of the cove are protected and, therefore, most likely eroding at a much slower rate than the outer ocean beach cliffs in other locations. Further comparisons of the current configuration of Whale Cove with the Dudley map confirms that it is possible that Whale Cove existed in its current configuration, although with minor differences in shape and size due to erosion, added sediment and changes in sea level.

Diedrich, Melanie (Archeological Macroflora Identification (AMI))
Charred, Uncharred, or Absent: the Likelihood of Botanical Preservation and What to Do About It.

Symposium (Thursday 8:00 AM-9:40 AM, Multnomah Falls)
 Preservation of uncharred botanical remains occurs in very dry protected sites such as rockshelters, very wet sites such as standing water in bogs and swamps, and alluvial or marine sediments that include out-flows of low-oxygen groundwater aquifers. Well-known wet-site examples in the Pacific Northwest include Ozette, Keatley Creek, Hoko, Cathlopote, Qugwes, and Sauvie Island. Charred materials from food processing, such as fish bones, shellfish shell fragments, carbonized roots, and seeds may be expected even in a site or a feature within a site where preservation may not be promising. Carefully constructed soil sampling methods and good field sampling procedures are important in order to develop the best sampling strategy at a given site for both charred and uncharred remains. The potential for the recovery of significant botanical material, be that seeds, basketry, or wood, is high in and around the Pacific Northwest; well thought out sampling, contingency planning, and processing soil samples apace with fieldwork ensures feedback for best practices and best results.

Dinubilo, Shaun (Central Washington University)
Hackenberger, Steven (Central Washington University)
Camp, Stacey, L. (University of Idaho)
Chatters, James
Salmon Remains in the French Rapids and Hole-In-The-Wall Archaeological Site Collections, Columbia River, Vantage, WA
Poster Session , Part 1 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)
 French Rapids (45KT12) and Hole-In-the-Wall (45KT13) sites were excavated in the 1960s by Robert Kidd, but the fish remains were never analyzed. At least two periods of occupation have been identified at each site: upper house occupations (ca. 700 BP) and lower house occupations (ca. 1700-1900 BP). Between these two time periods fishing may have shifted from Chinook to steelhead, for either behavioral or environmental reasons. Both the radiographic and measurement techniques (vertebra length and height) were used to help identify 13 whole vertebrae. Both tests suggest all 13 vertebrae are from Chinook, and although the sample size is small results do not indicate changes in fishing patterns. Shell and bone isotope work are also used to evaluate the possible environmental change between 2300 and 700 BP.

Dinwiddie, Joshua D. (Portland State University)
Get to the Point Already! Building a Chronology of the Adoption of Ground Slate Points on the Northwest Coast
General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)
 Ground slate points are generally assumed to be a maritime hunter-gatherer technology, and are considered one of the archaeological hallmarks of Northwest Coast peoples. However, the specific timing of their appearance is ill-defined. In a study of 90 artifact assemblages from 46 sites in Alaska, British Columbia, and Washington, I have identified a general north to south trend in the appearance of slate points; which begin to show up in the archaeological record around ~6,000 cal BP in southeast Alaska, to ~2,800 cal BP in Puget Sound. There are notable exceptions to this pattern, however, which illuminate the variable nature of the adoption of the technology. Given that these data are drawn from both cultural resource management reports and academic literature, I have made efforts to qualify these findings by addressing some of the common pitfalls of making inter-site comparisons, namely the comparability of radiometric dates and variable excavation volumes.

Dion, Madison, K (Central Washington University)
see Endacott, Neal

Dolan, Patrick (Washington State University)
Grier, Colin (Washington State University)
An Evaluation of the Spatial Structure of Tool Manufacture and Refuse Disposal at the Dionisio Point Site, Galiano Island
Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)

This paper examines the spatial structure of outdoor activities within a 1500 year-old village on the Galiano Island in the Salish Sea. Discussion of pre-contact Coast Salish daily economic practice has often focused on the shed-roof house as the primary locus of activity, supported both by ethnographic descriptions of plank-house activities as well as the fine-grained spatial analysis of house floor lithic and faunal assemblages. However, this research focus has meant that the spatial structure of the village outside of house floor deposits has been under-evaluated. Excavations at Dionisio Point since 2002 have explored a number of contexts adjacent to and distant from house floors. I contrast the deposition of faunal remains with those of lithic debitage to examine how people used outdoor spaces and the impacts that this may have on our understanding of pre-contact village organization.

Dolan, Patrick (Washington State University)
see *Safi, Kristin N.*

Donovan, Crys (Edmonds Community College)
Kono, Janelle (Edmonds Community College)
“Gaman”: Stories of Endurance from the Japanese Internment in the Pacific Northwest
Symposium (Friday 8:00 AM-9:40 AM, Crater Lake)
Edmonds Community College students, under the guidance of the Learn and Serve Environmental Anthropology Field (LEAF) School, are working with the Wing Luke Museum in Seattle to record previously undocumented stories of Japanese Internment in the Pacific Northwest during World War II. This ethnographic service-learning project at Nikkei Manor demonstrates that anthropology matters as a tool of social justice, offering Japanese American seniors an opportunity to contribute their voices to history. In these stories, we hear a more complex narrative of Internment than simple “imprisonment” and “assimilation.” Themes of resilience, resourcefulness, empathy and humor highlight how this American community worked with and around camp authorities to maintain both dignity and identity while interned.

Dorset, Elaine (National Park Service)
A Home Away From Home: Pollen Analysis Provides Insight into Working Class Life at Fort Vancouver, a 19th Century Fur Trade Post
Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)
At Fort Vancouver, the Hudson’s Bay Company’s Pacific Northwest administrative depot, more than 90% of the employees lived in a “company village,” west of the fort stockade. Visitors to the fort during the 19th century often made negative comments related to the squalor of this village. However, pollen analysis from recent archaeology paints a very different picture, illustrating the village inhabitant’s efforts to alter the landscape with an interesting combination of plants from Europe, their homelands and other continents, and the Pacific Northwest. This may indicate that a high degree of resources was employed to “refine” the neighborhood and improve quality of life through nutrition and natural remedies. These data not only provide an accurate, unbiased picture of the 19th century working community at Fort Vancouver, but also bring knowledge to help us cope with our fast-changing nutritional world, and to be less dependent on processed foods and chemical cures.

Dueppen, Stephen (University of Oregon)
see *Gallagher, Daphne*

Eichelberger, Justin E. (Oregon State University)
“Delicious Fathers of Abiding Friendship and Fertile Reveries”:
Tobacco and Alcohol Consumption at Fort Yamhill Company
Kitchen, 1856-1866
General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

The presence of beverage alcohol containers and smoking pipes recovered from Fort Yamhill is undeniable evidence for the consumption of such indulgence items at this mid-19th century Western Oregon military post. The historical and archival record is not only laden with evidence of this behavior but also suggests that these forts were punctuated by periods of the institutional acceptance and prohibition concerning the consumption of alcohol. The spatial distribution of the alcohol related artifacts within these sites suggests both a behavior of clandestine consumption and clandestine disposal. When the spatial distribution of alcohol related artifacts is compared to that of tobacco related items patterns of indulgence consumption begin to appear that suggest differing social and institutional levels of acceptance for the consumption of these indulgence items.

Elder, J. Tait (ICF International)
An Overview of the Willamette Valley Zooarchaeological Record: Patterns, Sampling, and Interpretive Considerations
Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)
Much of our understanding of the prehistory of the Willamette Valley is derived from an archaeological record biased towards upland activities. These conditions are not conducive to the preservation of faunal remains, an assertion seemingly corroborated by the paucity of sites with zooarchaeological remains in the valley. Additional factors including historic land use, geologic processes, and the frequency of large federal projects, have also likely modified the archaeological record. Given these considerations, what can the current zooarchaeological record tell us about past resource use in the region and what can we do to accommodate for factors that bias the regional archaeological record? My paper explores these issues by presenting an overview of the Willamette Valley zooarchaeological record, identifying local factors that are likely to affect the distribution and visibility of archaeological sites with faunal remains, and outlining possible approaches to accommodate for these factors.

Elder, J. Tait (ICF International)
see *Elliott, Patrick*

Elliot, Braden (Oregon State University)
A GIS Approach to Modeling Native American Influence on Camas Distribution: Humans as Environmental Variable
General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)
The development of agriculture, and the lack thereof, is an issue germane to the prehistory of the Pacific Northwest. A GIS-based ecological method, Habitat Distribution Modeling, may be adapted to measure human influence on the distribution of native food plants. Botanical, environmental, and cultural data are combined to create two such models for camas (genus *Camassia*). The first model is strictly ecological, while the second model incorporates contact-period indigenous cultural geography as well as archaeological data. Goodness-of-fit measures for each model, as well as relative contribution of each variable, are used to quantify model improvement when human influence is addressed. This novel incorporation of indigenous cultural geography into ecological modeling provides a powerful new tool for investigating the relationship between humans and their environment in the Pacific Northwest.

Elliott, Patrick (ICF International)
Elder, J. Tait (ICF International)
Dollars for Data: Selecting the Appropriate Geological Sampling Method to Get the Data You Need While Saving Money Down the Road
Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

Geological sampling methods are an integral part in any large-scale landform based archaeological sensitivity analyses. Although this technique may come at a cost larger than traditional archaeological survey methods, it can save the back end of a project by putting focus on specific locations of high archaeological potential chosen through the observation and interpretation of the data. Two geological sampling methods are most commonly used to achieve this; split-spoon sampling and roto-sonic core extrusion. These methods each have their strengths and weaknesses when it comes to cost, quality of data, integration into preliminary project work, and effectiveness. In this poster, I present the advantages and disadvantages of each sampling method and in doing so will display a series of criteria to determine which approach best serves the needs of your project, through first-hand experience of monitoring the geo-technical borings at the SR 520 Bridge Replacement Project.

Endacott, Neal (Central Washington University)
Dion, Madison, K (Central Washington University)
McLean, Jamy (Central Washington University)
Medium and Small-Sized Mammals from the Sanders Site, Yakima County, WA
Poster Session , Part 1 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

The Sanders site (45KT315) is located on the U.S. Army Yakima Training Center. It was excavated by Dr. William Smith during two consecutive Central Washington University field schools (1971 and 1972). Excavations produced large collections including abundant lithic and faunal remains. Most of this assemblage is assigned to the Frenchman Springs Phase. Student research projects have since produced a series of nine radiocarbon dates that range from 2900 to 10,000 years ago. Faculty and students are also collaborating to complete identification of the site's fauna. The majority of specimens are deer-sized but the assemblage also contains numerous medium and small mammal remains. This study explores the potential of the medium and small mammals from the Sanders site to provide insights into past upland environments. Of particular interest are temporal changes in *Lepus* spp., *Sylvilagus* cf. *nuttalli*, and *Spermophilus townsendii*.

Etner, Michael A. (Western Washington University)
Bovy, Kristine M. (University of Rhode Island)
Tse-Whit-Zen: Preliminary Mammal Identifications and a Comparison of Mammalian and Avian Taphonomy
Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)
 Pilot data for a small sub-set of the mammalian remains from Tse-Whit-Zen (45-CA-523) provide one of the few direct records of prehistoric subsistence from the Olympic Peninsula. Although sample sizes are still too small to detect any major trends or patterns, preliminary results indicate that a wide range of taxa was utilized. Marine taxa include sea otters, fur seals, sea lions, and harbor seals, while terrestrial taxa range from elk and deer down to dog, beaver, and mountain beaver. Perhaps more interesting than the species composition is the degree to which the mammal bones were processed. Despite intensive field recovery efforts, only a very small percentage of the recovered bones are identifiable—even to element, let alone taxon. The pattern for the mammal remains will be contrasted with that of the birds, and possible explanations will be presented.

Euster, Lisa (Central Washington University)
Aymond, Ayla (Central Washington University)
Zooarchaeology of the Rosa Rockshelter: Patterns in Animal and Human Habitation
Poster Session , Part 1 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)
 Rosa Rockshelter, located in the Yakima River Canyon near Selah, Washington, was originally excavated in 1970 by Dr. William C. Smith (CWU, Anthropology). The shelter was likely used for storage during the Late Cayuse Phase (ca. 2000 BP). In this study,

271 faunal specimens were analyzed to determine whether they represent animals that died in the shelter, or were food remains left by humans or other animals. Thirty-seven, or just under 14%, of the specimens could not be identified to taxon or size class. Identified specimens included fish, large and small mammals, birds, crustaceans, and reptiles. Large ungulates were rare. Since the site assemblage includes cultural materials includes lithics and textiles, there is little doubt that the shelter was used by humans. However, only two instances of possible human modification, in the form of cut marks on one bone and burning of another, were observed.

Euster, Lisa (Central Washington University)
Symposium Discussant
Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Fairbanks, Marc (Central Washington University)
see Sheldon, David

Farjardo, Susana (Linfield College)
Losing the Hacienda: the Agrarian Reform's Affect on Landowners in the Peruvian Andes
General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

In 1968 the Peruvian government was overtaken by a military coup that would usher in the agrarian reform, a system of land distribution that would irrevocably change the country. Concepción, a member of the land-owning elite lived in a time and place at the very heart of the agrarian reform. As both a woman and acting manager for all three of the family's haciendas through the 1950s and 1960s, her life provides an excellent case study. I will use her life to do an ethnography of the particular to examine how Peru's national agrarian reform policies changed the lives of land-owners in the highlands. This study demonstrates the central need for regionalized analysis when studying the agrarian reform. Furthermore, examinations of class structure, ethnic tensions, gender, and land-ownership show that rather than being truly revolutionary, the agrarian reform was just the final straw for a system already in steep deterioration.

Fauvelle, Mikael (University of California, San Diego)
see Smith, Erin M.

Felling, Danielle C. (University of Nevada, Reno)
see Pattee, Donald

Ficca, Jodie
The Anthropology of #Occupy# Art and Literature
General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)
 The purpose of this anthropological perspective is to examine the functionality and accessibility of Occupy materials in comparison to our current materialistic culture to determine this new subculture's influence and sustainability in sociopolitical protest. While doing research at #OccupySeattle# and the #OccupyNationalGathering# in Philadelphia, I collected stacks of leaflets, post cards, posters, and literature as data. The data are the framework that Occupy uses to engage unsympathetic bystanders and our powerful institution. Despite the overwhelming amount of "artwork" produced, I have determined that Occupy materials are difficult to archive due to the postmodern and environmental philosophy of Occupy members, limited space and resources to produce data, health hazards leading to removed materials as waste, arrests leading to confiscation of materiality, and a comparison in the art world to "self-taught" art which leads to delegitimization of the movement's message.

Fincher, Erin (Western Washington University)
Wiggins, Katie (Western Washington University)
Pieces Esquilles as a Bone Reduction Tool
Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

Pieces esquilles are controversial objects in archaeology. Are they byproducts of bipolar reduction, or are they tools? We conducted an experiment in which we produced dacite flakes by bipolar reduction, and then used them as wedges to split a cow bone and a deer metapodial. We also split two similar bones using a cobble hammerstone because one of our goals was to determine whether the stone wedge would leave distinctive marks on the bone compared to percussion. Our experimental results indicate that dacite flakes produced by bipolar flaking are useful for both longitudinal splitting and circumferential chopping of bone. We observed distinctive patterns of attrition on the dacite flakes and the bone that is comparable to patterns observed on archaeological examples from site in Whatcom County.

Finley, Aimee (Applied Archaeological Research, Inc.)
CSI Vancouver: A Forensic Archaeological Study of Site 45CL927

General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

In 2010, Applied Archaeological Research, Inc. (AAR) took part in an environmental remediation project that involved removal of contaminated debris from a landfill located where the Vancouver Kaiser Shipyard used to be. The landfill was designated site 45CL927. The part of the landfill that AAR studied was on private property. The owners of the property sued the federal government to recoup the cost of the remediation. AAR was tasked with determining who created the landfill and when. That information was to be used as evidence in the court case. As such, the study was essentially forensic archaeology. It entailed in-depth historical research, an intensive study of the landfill, and analysis of roughly 1,800 artifacts. This paper provides detail on the forensic archaeology of the Vancouver Kaiser Shipyard landfill and answers the questions who created it and when. It also considers how the landfill was created and for what specific purpose.

Finley, Nicholas, A. (Central Washington University)
McCutcheon, Patrick T. (Central Washington University)
A Comparative Analysis of Ground Stone Tool Industry at the Grissom Site (45KT301), Kittitas County, Washington.
Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)
 Initial investigations into the Grissom site (45KT301) assemblage have demonstrated that it is both similar and different from house-pit villages along the main stem Columbia River. Ground stone tools are relatively abundant at the Grissom site and provide another artifact class that can be used to further explore the similarities and differences between this large upland archaeological assemblage and those found along the Columbia River. Ground stone tool classifications were adapted from the region so that direct comparisons could be made. Manufacturing techniques, use wear, and other analytical traits suggest that ground stone artifacts were used in a variety of ways just like those from sites along the Columbia River. While differences do exist, it is unclear whether they reflect different adaptations or are a function of sample size. Further analysis using this technique is proposed to establish a holistic view of ground stone tools on the Plateau.

Fortier, Brad (Portland State University)
Education/Interpretation: A Marriage of Two Applications: Anthropology and Improvisation
Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)
 There are two professional communities who are focused on organizational, community, and policy development that are unaware of one another. Applied anthropology has a long history of utilizing ethnographic techniques to learn about peoples' lives, organizations and communities in order to develop and administer reasonable policies for these organizations. Applied improvisation, the use of improvisational theater techniques and ideas as tools for similar development, has existed since the 1980's using theater techniques to elicit and explore the stories and values of their

clients. It also gives them tools and strategies for building sustainable organizations. These fields share similar goals, but they differ in methodologies and slightly in theory. This paper proposes ways these two fields could join in helping one another achieve their ends through a collaborative exploration utilizing each others' methods and theories. The field of applied anthropology could be bolstered, possibly streamlined, by the incorporation of applied improvisation.

Frances, Charles, G. (Lower Elwha Klallam Tribe)
Wheeler, Arlene (Lower Elwha Klallam Tribe)
Tribal Perspectives on Tse-whit-zen
Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)
 No Abstract.

Frances, Charles, G. (Lower Elwha Klallam Tribe)
Discussant
Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)
Frances, Charles, G. (Lower Elwha Klallam Tribe)
Symposium Discussant
Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)

Freeburg, Adam (University of Washington)
 see *Sterling, Sarah*

Fuld, Kristen, A. (Archaeological Investigations Northwest, Inc.)
Bone and Antler Tools from a Food Processing Station - 45CH791
Symposium (Thursday 1:00 PM-3:20 PM, Elowah Falls)
 Tools composed of bone and antler were recently recovered from 45CH791, a specialized resource processing site on the Columbia River and from the nearby Stemilt Creek Village site, 45CH302. These small yet diverse assemblages of bone and antler artifacts include fishing and wood-working gear reflective of subsistence activities. The utilitarian role of bone and antler technology is considered along with the potential of such tools to represent craft specialization and to signal socio-economic prestige. The latter concepts have been recently discussed in reference to the archaeology of the Northwest Coast and rare or unique Columbia Plateau archaeological sites like Stemilt Creek Village.

Fulkerson, Tiffany J. (Department of Anthropology, Washington State University)
Climate Change at the Pleistocene-Holocene Boundary in the Pacific Northwest: A Comparison of Proxy Datasets and the Archaeological Record
Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)
 The relationship between climate change at the Pleistocene-Holocene Boundary (ca. 12,600-10,200 cal B.P.) and cultural responses to attendant shifts in the environment remains a vexing issue for archaeologists. This study compiles and analyzes glacial, palynological, faunal, and stratigraphic/geomorphological proxy datasets for climate change in the Pacific Northwest of North America and compares them to the coeval archaeological record. The primary purpose of this exercise is to consider the potential ways in which the transition from a principally cool-moist to warm-dry climate regime at the Younger Dryas-Early Holocene transition affected cultural development for Late Paleoindian and Early Archaic peoples in the Pacific Northwest. Results suggest that climate change at this interval was rapid or abrupt, and may have contributed to synchronous changes in tools and technology, dietary habits, and settlement patterns that are observed in the archaeological record.

Gabriel, Kara I. (Central Washington University)
 see *Pritchard, Alexander Jonathan*

Gall, Alexander (Archaeological Services LLC)
Balancing Act in the C a Valley: Politics, Development, and the C a Valley Rock Art

General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)

The 1994 announcement of rock art in Portugal's C a Valley, and the subsequent decision to preserve this art, came amid intense controversy and public debate: the rock art was 'discovered' during the construction of a dam on the C a River. The art represents virtually uninterrupted human interaction with this unique landscape, beginning approximately 22,000 years ago in the Upper Paleolithic period. The Portuguese government sought to preserve and manage the C a Valley rock art through the creation of Portugal's first archaeological park. In addressing the preservation and management of the cultural resources located within the park's boundaries, the park's creation process has fundamentally changed the ways in which cultural resources and development are addressed in Portugal. This paper will address the challenges and repercussions of the creation of the park as observed by the author, who spent three months on-site interviewing subjects, reviewing documents, and conducting background research.

Gallagher, Daphne (University of Oregon)
Dueppen, Stephen (University of Oregon)
Archaeology of Shea Butter (*Vitellaria paradoxa* Gaertn. f.)
General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)

One of the most important cooking fats in the West African savanna, shea butter is derived from the nuts of an intensively managed tree native to the region (*Vitellaria paradoxa* Gaertn. f.). Productive shea trees are selectively preserved when clearing agricultural fields, but are also valued as firewood and for their medicinal bark. While shea has been intensively explored ethnographically, very little archaeological work has examined its role prior to the colonial era. This paper explores the archaeology of shea butter over ca. 1500 years at the site of Kirikongo, Burkina Faso. We consider both the botanical record, including the possible effects of intensive management on shea butter nut morphology, and the material culture of shea butter production.

Gaposchkin, E.M.
see *Haramundanis, Katherine*

Garcia, Tara (Department of Chemistry, University of Idaho)
see *Harman, Sarah*

Gardner-Allers, Lynne (Univ. of Oregon/Portland Public Schools)
Teaching "Culture"

Symposium (Friday 10:20 AM-11:20 AM, Crater Lake)
In the 21st century public education classroom, how is the concept of culture defined and explored? To highlight the complexities of teaching culture in K - 12 schools with diverse student populations, this qualitative study compares two teachers' methods and pedagogical processes that inform their curricular production of culture. The research interrogates if such pedagogical processes locate culture in terms of an ethnic and/or racialized "Others." Such pedagogical processes include problematizing a multicultural education framework. This paper favors an anthropological rather than multicultural approach to teaching about culture. From an International Baccalaureate anthropology class at Woodburn High School to a middle school sixth grade Cultural Connections class at Roosevelt Middle School in Eugene, I explore how two teachers teach culture.

Gilmour, Daniel M. (Willamette Cultural Resources Associates, Ltd.)
Solimano, Paul S. (Willamette Cultural Resources Associates, Ltd.)

Session Introduction and Pleistocene Studies in the Willamette Valley

Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)
In this paper, we first introduce the session theme and the broader goals of our group. We then present a brief history of Pleistocene studies in the region followed by an examination of the record of mammalian megafauna. The Willamette Valley has long been noted for finds of extinct herbivores, but the Pleistocene fauna of the region is not well understood, partly as a result of distinctive geomorphological constraints but also in part as a consequence of a lack of professional attention. Recent work has improved our understanding of the timing and ecology of vertebrate communities. We expand these efforts through scrutiny of the late Pleistocene paleozoological record through spatial and statistical assessments of taxonomic representation, as well as geographic modeling of areas of potential high probability likely to possess archaeological and/or paleontological resources of Pleistocene age.

Gilmour, Daniel M. (Willamette Cultural Resources Associates, Ltd.)
Solimano, Paul S. (Willamette Cultural Resources Associates, Ltd.)
Huff, Andrew J. (Willamette Cultural Resources Associates, Ltd.)
Pfandler, Andy (Willamette Cultural Resources Associates, Ltd.)
Smith, Stacy (Willamette Cultural Resources Associates, Ltd.)
Contemporary Issues with the Archaeological Record for Canids in the Pacific Northwest

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)
Anthropologists recognize the presence of a variety of wild and domestic Canids (*Canis* sp.) in precontact western North America. In the Pacific Northwest, some aspects of the archaeological record for these fauna are established, but not deeply examined. Past work largely consists of osteometric analysis aimed at species assignment and the detection of inter-breed diversity. In this poster, we study the record for human/canid interactions and identify shortcomings in the knowledge base. Topics we consider include geographic distributions of select taxa, issues with taxonomic assignments, exploration of nominal scale data, refinement of chronology, and regional syntheses.

Gilmour, Daniel M. (Willamette Cultural Resources Associates, Ltd.)
see *Goodwin, Matt*

Gleason, Eric (National Park Service)
A Brief Talk on a Deep Subject
Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)
During field surveys of Captain Jack's Stronghold in Lava Beds National Monument, northern California, two mysterious, deep excavation pits were located. By following physical and paper trails the surprising purpose of these features was eventually revealed.

Gleason, Eric (National Park Service)
A Brief Graphic History of the Growth of The Dalles, Oregon, and Implications for the Development of Chinatown (35WS453)
General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)
Test excavations at 35WS453, The Dalles Chinatown site, have exposed thick stratified deposits rich in historical era cultural features and artifacts. These deposits are the product of nearly a century's worth of intensive occupation, followed by a long period of near abandonment. A close examination of various historical documents can help in understanding the site setting, the archaeological record, and its context as part of the development of The Dalles.

Glinski, Shannon (University of Idaho)

Vitrophyre of the Clearwater River Region: Determining Trade and Movement Patterns Through the Use of XRF

General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

Identification of vitrophyre trade and movement patterns among the indigenous is possible through the use of an X-Ray Florescence (XRF) machine attached to a scanning electron microscope (SEM). By analyzing the sources of vitrophyre, we can identify correlations among the debitage left behind at the ten archaeological sites in the Clearwater River Region. This research will provide an understanding of trade and site-use patterns by revealing patterns in movements of raw material throughout the Clearwater River Region.

Goertzen, Heide (Woodburn High School)

The Woodburn Experience: "Marginal" Insights

Symposium (Friday 10:20 AM-11:20 AM, Crater Lake)

Does Anthropology matter in K – 12 schools? In particular, how is Anthropology relevant to students in the 21st century high school? This paper explores high school students' grasp of Anthropology and provides specific examples of the application of anthropological knowledge in a hybrid fieldwork project. The project includes site visits by Latina/o Woodburn High School students to ethnically diverse Roosevelt High School in North Portland and on-line interviews with students between both schools. This paper highlights the experiences of high school students "doing anthropology" and offers critical insights into the educational enterprise as experienced by students currently recognized as underrepresented and/or marginal by dominant school discourses.

González-Clements, Emilia (Fifth Sun Development Fund)

Helping Solve Contemporary Human Problems through Applied Anthropology: The Rainwater Basin Project, Nebraska

General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

The Rainwater Basin Joint Venture is a successful collaboration by federal and state government agencies, non-governmental organizations, farmers, cattle producers, private landowners, plus wetland and wildlife biologists to restore and protect wetlands and associated uplands in the Rainwater Basin, located in the center of the Central Flyway, a major migration route of migratory birds in Mexico, the United States and Canada. Each spring, millions of ducks, geese, cranes and shorebirds travel through this region in their migrations. However, by the 1980s, over 90% of the original pre-settlement wetlands were lost or badly degraded and migratory fowl populations began plummeting. This paper described the process that resulted in the concept plan. While the "problem" was to increase waterfowl populations, the "human problem" was to find a way for these disparate groups, with their own values and agendas, to come to agreement. I highlight the methodologies I used as an applied anthropologist-facilitator.

Goodwin, Jessica (University of Idaho)

Drawing from the Well: The Cyrus Jacobs-Uberuaga House Public Archaeology Project

Symposium (Thursday 10:20 AM-11:40 AM, Multnomah Falls)

The 2012 summer excavation of the Cyrus Jacobs-Uberuaga House in Boise, Idaho resulted in the recovery of a rich array of historic artifacts. Most of these artifacts were recovered from a well feature that, after going out of use in the 1890s, was used to deposit trash. Most artifacts are associated with the first occupants of the house, who built it in 1864 and lived there until 1907. Cyrus Jacobs and his family were founding members of Boise, active in its economic growth, political terrain, and social activities. Preliminary analyses of the artifacts coupled with archival research illuminate aspects of early life in Boise, issues of class and gender, and how the family experienced life in the urban frontier.

Goodwin, Jessica (University of Idaho)

Hart, Ashley (University of Idaho)

The Cyrus Jacobs Children: Place and Play in Early Boise

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

Cyrus Jacobs, a prominent founding citizen of Boise, built his house in 1864 in what was then, and now, the heart of Boise, Idaho. The house became a boarding house for Basque immigrant shepherders in the early 1900s, and by the end of the 20th century it transformed into a museum that illuminated important aspects of the city's history and life in the boarding house. In the summer of 2012, an archaeological excavation was prompted when porch renovations revealed a well and many historic artifacts dating to the 1890s. The two week excavation resulted in thousands of artifacts, many of which appeared to be related to children—primarily toys. Records indicate much of what the five children's places were in school and society, yet their personal objects and toys may tell a fuller story of their life at home, and how they experienced growing up in the early western city.

Goodwin, Matt (Willamette Cultural Resources Associates, Ltd.)

Pfandler, Andy (Willamette Cultural Resources Associates, Ltd.)

Huff, Andrew J. (Willamette Cultural Resources Associates, Ltd.)

Gilmour, Daniel M. (Willamette Cultural Resources Associates, Ltd.)

Solimano, Paul S. (Willamette Cultural Resources Associates, Ltd.)

Projectile Point Distribution in Klickitat County, Washington

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

This poster presents the results of a diachronic study of projectile point distribution across landform classes in Klickitat County, Washington. A significant amount of data has accumulated over the past 50 years from recorded and excavated sites in a wide range of environments, but little of this data has been synthesized. The distribution of these time-sensitive artifacts will provide insights into land-use strategies throughout the Holocene.

Gover, Andrea (Western Washington University)

Production of Ground Slate Knives in a Fraser River Valley Seasonal Occupation Site

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

In spite of long-term interest in slate knives, details of the manufacturing process are not often studied. For this research, I conducted a paradigmatic classification of ground slate knives and knife fragments from 45-WH-04 in Sumas, Washington. A production model created by Anthony Graesch was refined to gain insight into various stages of tool manufacture. These stages included initial reduction, shaping, grinding, hafting preparation, and preparation of a cutting edge. Various attributes assigned each artifact to a particular stage. A particular point of interest was the presence of notches on 40 of 326 ground slate knife fragments. Functional analysis of both notched and non-notched artifacts will yield important information for the ground slate industry at 45-WH-04.

Green, Amanda (Oregon State University)

Asinjo, Robert (Oregon State University)

Shifting Campus Food Systems: Add Anthropology and Stir?

General Session (Friday 1:00 PM-4:40 PM, Crater Lake)

In 2010 we began to explore how Oregon State University had changed its approach to food systems, an analysis that looked at academic, student and dining service programs. By 2011, our focus shifted to uncover the ways in which OSU could increase the share of sustainable foods served at campus dining facilities. Here we reflect on our experiences as anthropologists and food activists. We explore the following questions: What methodological tools and theoretical perspectives can anthropology offer in analyzing campus food systems? What impact can anthropologists have in

shaping university food policies? We answer these questions from two perspectives: first we review studies of campus food systems, and second, we reflect on our own analysis of the OSU food system. In particular, we consider our efforts to employ an approach inspired by the Real Food Challenge, a national campaign to increase the amount of sustainable food offerings on college campuses.

Grier, Colin (Washington State University)
Hopt, Justin (Washington State University)
Beyers, Doug (Washington State University)
Sackman, Adam (Washington State University)
Bakke, Gwen (Washington State University)
Continuity and Change in Two Northwest Coast Plankhouse Villages at the Dionisio Point Locality in Coastal Southwestern British Columbia

Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)
 WSU research since 2007 has revealed a major Late-period habitation component at the Dionisio Point locality on Galiano Island, southwestern British Columbia. Dating to roughly three centuries after the substantial Marpole village documented 150 meters to the west, the large plankhouse, associated midden deposits and adjacent cemetery provide an exceptional opportunity to elucidate continuity and change in economic and social practices at two villages occupied at different times over the last two millennia. Here, we update the chronology of the Late period occupation, address the diversity of its subsistence practices as revealed through faunal data, and contextualize the social and political dimensions of this Late-period habitation site.

Grier, Colin (Washington State University)
 see *Dolan, Patrick*

Grier, Colin (Washington State University)
 see *Marino, Matthew*

Grier, Colin (Washington State University)
 see *Ruzicka, Annette*

Griffin, Dennis (Oregon State Historic Preservation Office)
Island Retreat or Accidental Residence- It's All a Matter of Perspective: Early Land Use History of Islands in the Bering Sea Wildlife Refuge, Alaska

General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)

In 2012, an archaeologist accompanied the USF&WS to the Bering Sea Wildlife Refuge in an effort to learn about early human use of the refuge's islands. One of the most remote areas in Alaska, earlier archaeological fieldwork and historic records have documented that St. Matthew and Hall Islands attracted Eskimo, Russian and historic peoples in the past. The 2012 archaeological investigation tested two sites on St. Matthew Island and one on Hall Island in an effort to shed light on each of these periods of human land use. This paper summarizes the results of six days of excavation on islands that have suffered little disturbance from modern development and retain much information useful in understanding the role of such remote islands in human settlement and subsistence activities over the past 400 years.

Griffin, Dennis (Oregon State Historic Preservation Office)
Coastal Bone Effigy: Sacred Artifact or Personal Totem
General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)

In March 2009, a couple walking along Oregon's central coast found an old, large sacrum floating in a tide pool that had been modified to look like the head of an animal with a garnet used as an eye. Where this bone had originated, whether it represented an artifact that could have eroded from a local shell midden or was placed on the beach to stump scientists, all remained in question. Since its discovery, many scientists have volunteered their time to try and unravel this mystery. Lines of inquiry have included an

effort to determine what animal the bone is from, its age and how it arrived on the Oregon coast; the origin of the garnet; type of glue used to attach the garnet to the bone; and the type of tools used to modify the bone. This paper summarizes the findings of the four-year investigation.

Grover, JoRelle

Identity and Icons: Conflict and Consequences Surrounding the University of North Dakota's "Fighting Sioux"

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

Controversy surrounds the University of North Dakota's (UND) logo and nickname, The Fighting Sioux, generating a conflict with the neighboring American Indian tribe [Native American], the Standing Rock Sioux, dating back to the 1960's (Phillips and Rice 2010:511). Previous research done on this topic left a large discrepancy regarding the concept of cultural identity attached to the conflict, developments that have taken place since 2005, and more recent developments. The question I examine is why this issue incorporates such differing opinions. I examined the concept that the root of this controversy lies within cultural identities which are linked to the same idea, yet with diametrically opposed interpretations applied to it. I believe this issue is neither exclusively about ignorance nor intentional ethnic discrimination but about concepts grounded in identity, history, politics, financial motivations, and institutional difference.

Gustafson, Bruce

see *Sheldon, David*

Hackenberger, Steven (Central Washington University)

Symposium Discussant

Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Hackenberger, Steven (Central Washington University)

see *Dinubilo, Shaun*

Hackenberger, Steven (Central Washington University)

see *Steinkraus, Mark*

Hadlow, Robert (Oregon Department of Transportation)

see *Williams, Scott, S.*

Hale, Jessica (Applied Archaeological Research, Inc.)

'We Can Do It': The Results of the Archaeological Material Collected at the Kaiser Vancouver Shipyard at Site 45CL927
General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

Among the millions of individual items contained in the Vancouver Kaiser Shipyard landfill, 45CL927, roughly 1,800 artifacts were collected for analysis. The items were grouped into three main "waste streams" categories related to the construction of ships (Industrial Shipyard), the operations of the shipyard (Non-Industrial Shipyard), or waste from shipyard workers (Personal). The collection policy was driven by our research goals which were to date the landfill, characterize its contents, and gain insight, to the extent possible, into the day-to-day lives of shipyard workers. This paper focuses on the material culture retained from the landfill and especially the items that were used to date its formation. The artifacts provide insight into time lag and military supply chains. AAR's analyses generated new basic data useful for dating artifacts from the late historic era.

Hann, Don (Malheur National Forest)

Implied Narrative: Rock Art, Landscape and Myth at Picture Gorge, Oregon

General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)

Picture Gorge in eastern Oregon contains one of the largest concentrations of pictographs in the state. Site 35GR12 stands out in the number and complexity of designs. There are several paired images related to distinctive geologic features. Although in clear

association with each other, the images do not display the formal attributes to be identified as a scene or a true narrative. Formal and informed analysis of the images suggests they still tell a story, an implied narrative. By weaving together strands of evidence from Columbia Plateau history, ethnography, archaeology and mythology the broad outline of a story is presented.

Hansen, Heather (Central Washington University)
McCutcheon, Patrick T. (Central Washington University)
Evaluating Lithic Technology and Function over the last 5,000 years at the Sunrise Ridge Borrow Pit Site, Mount Rainier, Washington

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)
Recent human land use models proposed for the Northwest are firmly embedded in a forager/collector framework that explains the shift in the organization of technology as a function of human efforts to store resources. Evidence of this shift in upland contexts in the Cascade Mountains is subtle as environmental constraints are extreme, and may select for a limited tool kit. To investigate changes over the last 5,000 years we employed a paradigmatic lithic classification to test the hypothesis that there is no major change in lithic technology and function. Preliminary results suggest that changes in lithic technology and function are not subtle during the last 5,000 years. Site components dating to the last 2,000 years have a more diverse lithic assemblage than earlier components. The change in diversity is evaluated in terms of tool stone sources, intra-site structure and sample size constraints. These results suggest that there may have been significant differences brought on by changes in the resource structure in upland contexts, as well as restrictions to exotic tool stone sources.

Haramundanis, Katherine
Gaposchkin, E.M.
Francis Drake's Summer 1579 Visit to Oregon
Symposium (Saturday 8:00 AM-10:40 AM, Multnomah Falls)
When Drake left Guatulco, New Spain, at the end of April 1579 with the treasure he had gathered by pillaging ships and towns along the coast of South and Central America, he had two major goals: to search for the North-west Passage and to return safely to England. Several authors over the centuries have developed tracks in the North Pacific that Drake may have taken during the five months between leaving Guatulco and arriving in the Moluccas. We present new evidence about part of this journey. The evidence includes stone artifacts on the Oregon shore that represent a possession claim for the English crown, and a new map that shows the cove called the Port of New Albion in the Hondius broadside, for which Drake provided key information.

Harman, Sarah (Department of Chemistry, University of Idaho)
Garcia, Tara (Department of Chemistry, University of Idaho)
von Wandruszka, Ray (Department of Chemistry, University of Idaho)
Warner, Mark (Department of Sociology and Anthropology, University of Idaho)
Chemical Analysis of Artifacts Recovered from the Cyrus Jacobs-Uberuaga House
Symposium (Thursday 10:20 AM-11:40 AM, Multnomah Falls)
During an excavation in the summer of 2012, a historic well at the Cyrus Jacobs-Uberuaga House in Boise was explored. It yielded a wealth of artifacts that afforded an insight into the lives of the inhabitants of this oldest standing brick building in the city, dating back to 1864. As is often the case with historical artifacts, chemical analysis could provide information about their nature, purpose, and origin that was not immediately apparent. Even empty containers, such as a perfume bottle recovered from the well, provided interesting and unexpected clues. Grooming products and discarded household items were the mainstay of the items subjected to chemical analysis, which included techniques

such as combustion analysis, infrared spectroscopy, atomic absorption spectroscopy, and various forms of chromatography.

Hart, Ashley (University of Idaho)
see Goodwin, Jessica

Helzer, Marge (Social Sciences Division, Lane Community College)
see Thomas, Scott

Hendrickson, Bonita (Central Washington University)
see Carner, Amanda

Henrikson, L. Suzann (Bureau of Land Management, Burley Field Office)
Yohe II, Robert M. (Anthropology Program, California State University, Bakersfield)
Mammoth Hunting in the Desert West? Recent Analyses of Fluted Points from Owl Cave (10BV30), Idaho
Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)
The excavations at Owl Cave, conducted during the 1960s and 70s, produced tantalizing evidence to suggest human exploitation of terminal Pleistocene fauna on the Snake River Plain. While a synthesis of the excavation data was never published and the locality has since been purged from the roster of sites with an unambiguous association with extinct megafauna, recent analyses conducted on the fluted points from Owl Cave suggest the possibility that a mammoth may have been procured by terminal Pleistocene hunters. The seven point fragments recovered from the lower levels of the cave all exhibit evidence of catastrophic impact and two fragments produced positive reactions to horse and elephant antiserum. Despite these results, dates recently generated from Owl Cave mammoth bone have raised further questions. Renewed investigations at the site may be able to resolve these issues as well as shed light on the timing of megafauna extinctions and the ambiguous chronology of fluted points in the Desert West.

Hill, Cayla (Portland State University)
see Stallard, Lindsey

Hill, Genevieve (Madrone Environmental Services Ltd.)
"Not Suitable for Human Habitation" – Western Perceptions of Wetlands vs. Indigenous Evidence
General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)
There is considerable oral traditional and ethnographic evidence from the Northwest Coast that attests to the use of wetlands by ancestral First Nations groups. Despite this, wetland sites are infrequently identified until it is too late. By examining emic and etic evidence from Hul'qumi'num traditional territory on southwestern Vancouver Island, this paper will identify social and cultural beliefs which have given rise to our prevailing attitudes towards wetland sites.

Hockett, Bryan (Bureau of Land Management, Reno, NV)
see Jenkins, Dennis L.

Holcomb, Justin (Oregon State University)
see Nyers, Alex

Holschuh, Dana, L. (Portland State University)
Toward a Critical Archaeology: A Marxist Analysis of Material Culture from Fort Vancouver and Kanaka Village
Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)
In the mid-nineteenth century Fort Vancouver was an isolated locus of capitalism conceived, constructed and run as the economic center of the Hudson Bay Company's business on the Northwestern frontier of North America. As such, the inherent inequalities of capitalism effected not only the labor policies and socio-economic realities at the fort and its associated workers'

Village, but ultimately became manifest in the material culture in use across these sites. This study places documentary research and the examination of ceramic assemblages from the Kanaka Village site into a Marxist framework in order to explore the influence of Victorian capitalism at Fort Vancouver. The results of this analysis are then compared to an assemblage from the Chief Factor's House, the richest household inside the fort. The results are presented here, along with a discussion of the effectiveness of this analytical framework for the current analysis.

Holstine, Craig (Washington State Department of Transportation)

see *Williams, Scott, S.*

Hopt, Justin (Washington State University)

see *Grier, Colin*

Horton, Elizabeth, A. (National Park Service, Fort Vancouver National Historic Site/Washington State University)
Status, Interaction, and Space: Mid-19th century Military Lifeways at Fort Vancouver, Fort Vancouver National Historic Site, Washington

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

The U.S. Army's Fort Vancouver in southwest Washington was the headquarters for Pacific Northwest military exploration and campaigns in the mid-19th century. This military community operated within a rigid social climate with firm cultural gender role expectations and rules of behavior. Victorian ideals of masculinity encouraged men to carefully focus their energies into bringing order and civilization to the world, while women were idealized as delicate and docile individuals, or "Angels in the House." Recent excavations of residential structures and outbuildings associated with Commissioned Officers, enlisted soldiers and laundresses provide an opportunity to better understand whether identified features and recovered artifacts reflect documented socioeconomic status and interaction patterns of occupants. This paper explores the extent to which these idealized Victorian gender roles are expressed in the archaeological record at Fort Vancouver, not only through daily activities and use of material objects, but through the built environment itself.

Horton, Elizabeth, A. (National Park Service, Fort Vancouver National Historic Site/Washington State University)

see *Adams, Martin E.*

Horton, Elizabeth, A. (National Park Service, Fort Vancouver National Historic Site/Washington State University)

see *Renard, Flynn*

Howard, Spencer (Artifacts Consulting, Inc.)

Washington State Roads: Integrity and Context GIS Analysis Symposium (Friday 10:20 AM-4:40 PM, Astoria)

Development of a geographic information system (GIS) early warning model to proactively identify historic significance levels and interpretive potential of state roads. A five county area serves as the initial project with potential for statewide expansion and inclusion of county roads. Central to this process is development of a methodology to understand alignment and setting changes over time, identify and locate character-defining features of the roads and their corridors, points of interest and associated built environment features, and assess visual and scenic qualities. The intent is to facilitate Section 106 and Section 4(f) project planning and to direct preservation efforts to those roads and corridors having the highest integrity. The interpretive element seeks to raise greater public awareness and appreciation for the role roads play in community and regional development patterns. Data will be shared through DOT and the Regional Transportation Planning Organizations for use by their clients in advanced project planning.

Howe, Nathaniel (Northwest Seaport)

Not Dead Yet: the Surviving Voice of Wooden Shipbuilding Symposium (Saturday 8:00 AM-10:40 AM, Multnomah Falls)

In many parts of the world nautical archaeology focuses on maritime cultures that disappeared long ago. Comparative material is often scant and the answers to many key questions will never be known. In the Pacific Northwest, however, there is still significant overlap between archaeological material and extant cultural niches. This overlap enables ethnography and living history to provide critical insight. For nautical archaeologists, the enigmatic details of early west coast ship construction may be explained by the handful of shipwrights who still work on the region's commercial wooden fishing fleet today. These tradesmen, however, are the last of their kind. The wooden fleet is dwindling and soon it will disappear along with generations of accumulated knowledge. While the Northwest's rare overlap of living and bygone trades still exists, research at Northwest Seaport in Seattle will focus on combining archaeological research with the insight of the last generation of traditional shipwrights.

Hoyt, Bryan (ESA Paragon)

Meeting New Challenges in Archaeological Monitoring, Presentation 4

Symposium (Saturday 10:20 AM-12:00 AM, Crater Lake)

Rapidly evolving construction methods pose new challenges for archaeological monitoring. In this session of brief (3-5 minute) presentations, regional cultural resource professionals discuss approaches for cultural resources training and monitoring of construction crews working with newer construction techniques.

Huff, Andrew J. (Willamette Cultural Resources Associates, Ltd.)

see *Gilmour, Daniel M.*

Huff, Andrew J. (Willamette Cultural Resources Associates, Ltd.)

see *Goodwin, Matt*

Huff, Meagan (National Park Service, Fort Vancouver National Historic Site)

Making Collections Matter: Using Artifacts to Connect Our Community to Archaeology and History

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

In the past year, Fort Vancouver National Historic Site has begun an outreach initiative to use its vast museum collection of archaeological and historic artifacts to better connect with the communities it serves, and to create new connections in communities it does not yet serve. This focus on actively reaching out to the community to share collections reflects greater trends in the museum field, which is becoming increasingly community- and visitor-centric. By undertaking outreach efforts through participatory exhibits, social media, and educational programming using collections, the park aims to create physical and virtual spaces where visitors can connect, both with the site and each other, through the medium of archaeology, history, and artifacts.

Humphreys, Jennifer E. (Central Washington University)

Lorenz, Joseph (Central Washington University)

Sheeran, Lori K. (Central Washington University, Department of Anthropology)

Norconk, Marilyn M. (Kent State University)

Wagner, R. Steven (Central Washington University)

DNA from Chewed Vegetation: a Non-invasive Collection Strategy for Arboreal Primates

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

Noninvasive collection of genetic materials from cryptic and endangered primates is challenging, and thus traditionally limited to samples such as feces, urine or hair. Saliva, while higher-quality, is more limited to terrestrial and/or habituated populations. This study examines a novel procedure for noninvasive saliva

collection using specimens collected in Bergendal, Republic of Suriname from golden-handed tamarins (*Saguinus midas*). The CO1 locus of mtDNA serves as a species identification marker. Successful DNA amplification from this collection technique will have wide application for obtaining saliva samples from endangered, cryptic, arboreal and/or non-habituated primate populations.

Hunter, Chelsea E. (Portland State University)

The Ghanaian Cocoa Industry: Finding Environmental, Social, and Economic Sustainability

General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

Cocoa, in its plethora of manifestations, is the world's third most popular commodity. Cocoa is generally grown in regions of the world considered biodiversity hotspots and its production has significant impacts on native species and biodiversity richness. Farmers, who comprise a significant portion of the population, are faced with a lack of economic security, which has consequential effects for their lifestyles and communities. My research explores the sustainability of the Ghanaian cocoa industry in the environmental, economic, and social sectors and the insights and possibilities fair trade lends to the development of this natural resource's economy.

Hurley, Warren (U.S. Bureau of Reclamation)

see Davidson, Charity

Hutchinson, Ian (Simon Fraser University)

Sterling, Sarah (Portland State University)

Peterson, Curt (Beeswax Wreck Project)

Dates as Data: Paleotsunamis and the Occupational Record at Tse-whit-zen.

Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)

The fifty-one radiocarbon ages from Tse-whit-zen are proxy indicators of occupational activity at the site. Is there evidence in this record that the site was abandoned in the aftermath of tsunamis generated at the Cascadia subduction zone? In this presentation we compare the Tse-whit-zen occupational pattern to that in neighboring areas. This comparison suggests that Tse-whit-zen, along with other sites at the eastern end of the Strait of Juan de Fuca, may have been a refuge for people displaced from the outer coast by a tsunami ca. 1600 years ago, only to suffer a similar fate themselves after a tsunami 1300 years ago, an event marked by wave-transported cultural deposits at the site. Tsunamis generated by more recent great earthquakes have apparently had only limited impact.

Hutchinson, Jane (Edmonds Community College)

Wildlife Matters: An Environmental Anthropology Report on Granite Falls Alternative Route

Symposium (Friday 8:00 AM-9:40 AM, Crater Lake)

The application of wildlife tracking skills combined with motion-sensitive cameras through service-learning projects by environmental anthropology students can provide practical results for stakeholders who are seeking to provide sustainable solutions to human-wildlife intersections and inform land management decisions. These citizen science projects become even more critical as populations push into the rural areas of the Pacific Northwest. In 2010, the Learn and Serve Environmental Anthropology Field (LEAF) School at Edmonds CC (now also at Everett CC) partnered with Snohomish County to monitor a wildlife passage structure in a new road alignment in Granite Falls, WA. Through the application of service-learning in human ecology courses LEAF School students are investigating the effectiveness of the structure and considering whether current land use issues may compromise the long term viability of the wildlife corridor. This research sets the stage for continued citizen science and community outreach projects in Granite Falls.

Jankowski, Stephen Todd (Malheur National Forest)

Testing the Pointing Cairn Hypothesis: Analysis of Stacked Rock Features at 35LK1483

General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)

Aboriginal rock features are poorly studied in archaeological contexts to date. However, a few recent studies show some cairns point toward prominent natural landmarks. This study tested the pointing cairn hypothesis at the Far View Butte archaeological site (35LK1483) in the Fort Rock Basin, Lake County, Oregon. In the field, stacked rock features (SRF) were located, recorded and systematically measured, specifically the orientation of the most prominent angle of 40 capstones on 38 identified SRF. Using GIS, I tested whether these stacked rock feature capstones pointed to one of five prominent topographical landmarks visible to the site area, within a 2° margin of error. The end results of this study show there were five alignments or positive matches (12.5%) of the 40 tested capstones. While this is slightly higher than expected due to chance, it is unclear if any of these alignments are intentional.

Jarrett, Jordan (Washington State University)

Ceramic Evidence for Distinct Mogollon and Pueblo Cultural Traditions at Largo Gap in New Mexico

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

The present aim is to confirm using ceramic analysis that Mogollon and Puebloan cultures coexisted in central western New Mexico during the Chaco Era of the Pueblo II period (1050-1130 AD). Previous studies have demonstrated that distinct ceramic traditions seem to be present at contemporaneous sites in the area; yet questions still remain as to whether or not gray wares, associated principally with Pueblo culture, are manufactured locally. The first objective is to determine first whether gray wares are produced with local clays and, second, whether or not ceramic traditions at Largo Gap follow the same trends as those of nearby great house sites. Microprobe as well as low-tech analysis is used to address whether the occurrence of gray and brown wares at Largo Gap suggests a Puebloan presence in this Mogollon cultural area, as opposed to being the result of either trade or Mogollon adoption of Puebloan pottery traditions.

Jenkins, Dennis L. (University of Oregon)

Davis, Loren G. (Oregon State University)

Stafford, Jr., Thomas W. (Stafford Research Laboratories, Inc.)

Connolly, Thomas J. (History, University of Oregon)

Bryant, Jr., Vaughn M. (Texas A&M University)

Jones, George T. (Hamilton College)

Rondeau, Michael (Rondeau Archaeological)

Cummings, Linda Scott (PaleoResearch, Inc)

Hockett, Bryan (Bureau of Land Management)

McDonough, Katelyn (University of Oregon)

Luthe, Ian (University of Oregon)

O'Grady, Patrick W. (University of Oregon)

Reinhard, Karl J. (University of Nebraska)

Swisher, Mark E. (University of Oregon)

White, Frances (University of Oregon)

Yohe II, Robert M. (California State University, Bakersfield)

Yost, Chad (PaleoResearch, Inc.)

Willerslev, Eske (University of Copenhagen, Denmark)

Younger Dryas Human Experience at the Paisley Caves

Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)

The Botanical Lens is a sealed in cultural component in Paisley Cave 2 that is dated to the Fort Rock Period—by nine AMS dates—between 12,680 and 11,630 cal yr BP (10,160-10,585 14C yr BP). The Botanical Lens appears to derive primarily from a limited number of occupations between roughly 12,140 and 12,300 cal yr BP. These occupations were related to local pronghorn and rabbit drives which occurred during the Younger Dryas climatic period. With increased precipitation and reduced temperatures and evaporation, pluvial Winter Lake shorelines approached the site

more closely and Ponderosa pine apparently stood on the site. Here, we document the activities represented by this rich and unique cultural deposit, and describe what living in Paisley Cave 2 would have been like during one of these cultural events.

Jenkins, Sarah (Archaeological Investigations Northwest, Inc.)
Shellfish and Bone Grease from a Food Processing Station – 45CH791

Symposium (Thursday 1:00 PM-3:20 PM, Elowah Falls)

Examination of faunal remains from site 45CH791 illustrate that the pre-contact people used the site to process large numbers of western pearlshell mussels (*Margaritifera falcata*), deer and other artiodactyls. Many of the artiodactyl bones represent low meat value skeletal elements - mostly fragments of skull, mandible, carpal, tarsal, metapodial, and phalanges. The amount of breakage, the types of bones broken, and the presence of impact marks and bone flakes suggest that bones were processed for the extraction of grease and marrow. These data appear to reflect a specialized meat processing station as the primary function of the site.

Jensvold, Mary Lee (Central Washington University)
see *Carner, Amanda*

Jensvold, Mary Lee (Central Washington University)
see *Keenan, Susan Ann*

Jensvold, Mary Lee (Central Washington University)
see *Pritchard, Alexander Jonathan*

Jensvold, Mary Lee (Central Washington University)
see *Schulze, Savannah M.*

Johnson, Amy (University of Idaho, SWCA)
Schiell, Rachel (University of Idaho, SWCA)
Loughmiller, Cristina (University of Idaho, SWCA)
Triplett, Mallory (University of Idaho, SWCA)
Investigations of Pend d'Oreille Hotel
Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)
Hotels played multiple roles in the settling of the American West, ranging from a place where people would have stayed for a night to a social gathering place. Archaeological investigations of historic Sandpoint, Idaho have provided the opportunity to look at one of these hotels, the Pend d'Oreille Hotel. The construction of the railroad drew prospective land owners and business men to the area of Sandpoint that was originally known for its wild character and seedy entertainment. Situated next to the railroad, the Pend d'Oreille Hotel may have been the first place the travelers stayed. The excavation of the Pend d'Oreille Hotel provides a unique opportunity to shed light on the patrons of this hotel and the travelers to Sandpoint, Idaho.

Johnson, Katie (Southern Oregon University Laboratory of Anthropology)
see *Tveskov, Mark*

Johnson, Paula (ESA Paragon)
Wilson, Katherine (ESA Paragon)
Williams, Scott, S. (Washington State Department of Transportation)
Because "Where the Collections Go" Matters: Developing a Draft Statewide Curation Policy for the Washington State Department of Transportation
Symposium (Friday 10:20 AM-4:40 PM, Astoria)
In March 2012, the Washington State Legislature directed the Washington State Department of Transportation (WSDOT) to develop a policy in consultation with the Department of Archaeology and Historic Preservation (DAHP) that would: 1) guide curation of artifacts encountered as part of operating and improving the state's transportation system, 2) guide WSDOT's use of museums and information centers as potential mitigation

when developing transportation projects, and 3) report on the development of such a policy to the Legislature by September 2012. ESA Paragon developed the draft policy and report in consultation with WSDOT, DAHP, and the Washington State Curation Summit, taking into account relevant federal and state laws and regulations addressing curation and property ownership and current best practices for curation within the museum field. This paper will discuss the development process, compare what other state DOTs do with their collections, challenges encountered, and present highlights of the draft curation policy.

Jones, George T. (Hamilton College)
see *Jenkins, Dennis L.*

Kaehler, Gretchen (Washington State Dept. of Archaeology and Historic Preservation)
Workshop Moderator
Workshop (Thursday 3:40 PM-5:00 PM, Elowah Falls)

Kanaby, Kara (U.S. Army Corps of Engineers)
Levees on the Landscape
Symposium (Thursday 8:00 AM-9:40 AM, Multnomah Falls)
Levees are a common feature on the landscape that due to their current existence are often overlooked as a historical resource. This is due to the fact that a levee constructed in the late 1800s may still be in use today as levees have been repaired and continually improved upon. This paper will explore levees and levee systems as they related to water management, their history and construction and how levee systems related to land use patterns of today.

Kannegaard, Rachael (Western Washington University)
A Small Tool with a Big Impact: A Fresh Approach to Quartz Crystal Microblade Analysis
Symposium (Saturday 8:00 AM-9:40 AM, Crater Lake)
Quartz crystal microblades are a small tool technology dating predominantly to the Locarno Beach Phase (3500-2400 BP) in the Salish Sea region. Previous research on these tools has focused on microblade morphology and replicative studies, while hafting-wear, use-wear, and residue analysis have received little attention. The goal of my analysis of nearly 100 quartz crystal microblades from multiple archaeological sites in Northwest Washington is a better understanding of the motivation behind production and use of this specialized technology. I postulate a wide range of uses for these versatile tools, including but not limited to, fish and game processing, and believe that this technology can provide insight into social changes during the Locarno Beach Phase.

Keenan, Susan Ann (Chimpanzee and Human Communication Institute)

Jensvold, Mary Lee (Central Washington University)
Sign Dialects in Chimpanzees
General Session (Friday 1:00 PM-4:40 PM, Crater Lake)
Dialects encompass myriad elements of discourse, such as accents, rhythm, intonation, and vocabulary. These language features and more are noted in spoken and sign languages for humans (e.g., Purnell, Idsardi, & Baugh, 1999; Nespor & Sandler, 1999). Accents are commonly associated with sounds, but they also exist in visual languages, such as American Sign Language (ASL). Variations in signs enable us to see these differences from one individual to another. Children will talk and sign in childish forms that differ from adult pronunciations and handshapes. Pronunciations can alter the rhythm of speech in different dialects (Ghazali, Hamdi, & Barkat, 2002). Different regions will have their own vocabulary for the same items, such as a submarine sandwich (Eames & Robboy, 1967). Chimpanzees who were exposed to ASL provide an outlet to explore these elements in non-human communication. There are many examples of instances, which chimpanzees alter their signs in speed, form, intensity, and vocabulary.

Keller, Sarah A.C. (Eastern Washington University)

Licorice Whips, Fennel and Ouzo, A Love/Hate Relationship
General Session (Friday 1:00 PM-4:40 PM, Crater Lake)

Whether a person likes or dislikes a specific food taste or texture is the result of factors that may be cultural and/or social as well as biological. The larger study of which this paper is a part, is an investigation into the causes of strong aversion in some individuals of certain foods that are otherwise accepted in American culture. This particular paper focuses on like or dislike of licorice candy and related anise-flavored food, drink and therapeutic items. The noticeably bimodal distribution of positive and negative responses to the licorice taste and the dichotomy and vigor of descriptions of what licorice tastes like suggests that there may be a genetic rather than a cultural basis to what the taster perceives. The larger study has also collected data on several other substances that have a similar bimodal distribution and strong response, including the spices/herbs cumin, cilantro, arugula and sage.

Kelly, Brenden (Southern Oregon University)

Historical Research in the Digital Age: Examining and Adapting Conventional Research to Incorporate Expanding Online Resources.

General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)

With the ever increasing amount of archives available in a digital format, scholars have quicker access to many historical documents. How can conventional research methods be appropriately translated to digitized documents and what problems may arise during or because of this transition? Little research seems available on key changes which arise in the new medium or in how wider access to documentary sources affects research as an aid or an impediment. Archival sources compared include physical documents, microfilm, and digitized documents all from a variety of sources. Also to be considered is if new forms of these archives change how we approach the research such as a biased access to data, how research is facilitated such as using appropriate search engines or visiting a physical archive; and how research is shared including journals, emails, and self-publishing.

Kelly, Katherine M. (Cultural and Environmental Research Co-op)

Aquaculture and Archaeology

Symposium (Thursday 8:00 AM-9:40 AM, Multnomah Falls)

An archaeological review of aquaculture projects is characterized by the need to develop a clear understanding of the limitations and potentials of preservation in a landscape that stretches from shoreline to the intertidal, and often extends to the offshore. An integration of traditional archaeological tools with available free- or open-source software and data sets can profoundly impact research perspectives and archaeological interpretation. Adding non-traditional tools to our kits and engaging in multi-disciplinary research, which takes into consideration the optimum environments for a variety of shellfish species, coastal geomorphology, local culture history, and land-use patterns, among other elements, may be the most successful analytical approach.

Kenmotsu, Nancy (Geo-Marine, Inc.)

Workshop Moderator

Workshop (Thursday 3:40 PM-5:00 PM, Elowah Falls)

Kenmotsu, Nancy (Geo-Marine, Inc.)

see *Norred, Charles*

Kennedy, Cheryle (Confederated Tribes of Grand Ronde)

Discussant

Symposium (Thursday 10:20 AM-12:00 PM, Elowah Falls)

Kentta, Robert (Confederated Tribes of Siletz Indians)

Symposium Discussant

Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

Kentta, Robert (Confederated Tribes of Siletz Indians)

see *Connolly, Thomas J.*

Kiers, Roger (Washington State Department of Transportation)

Japanese Immigrants in the Early 20th Century Lumber Industry of Western Washington

Symposium (Friday 10:20 AM-4:40 PM, Astoria)

At the turn of the century, western Washington experienced an influx of Japanese immigrants, many of whom quickly made their way into the region's extractive industries. By the early 20th century, Japanese immigrants could be found working at sawmills in dozens of communities. In rural company towns such as McCormick, Washington, Japanese workers and their families congregated in residences set apart from the rest of the community. Although the history of Asian immigrants (and other workers) in Washington's lumber industry has often been overlooked due to the rural and ephemeral nature of such work, available historical records provide a glimpse into the workings of these segregated towns, and evidence of Japanese inhabitants at former town sites can still be found on the landscape today. Archaeological research at town sites like McCormick is poised to yield additional insights into the lives of Japanese immigrants in the lumber industry.

King, Roxanna (Washington State University)

Medical Pluralism in a Rural Moroccan Village

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

When illness strikes, rural Moroccans utilize many different treatment options ranging from self-treatment and traditional healing to biomedicine. This study aims to identify the decision-making processes involved in seeking treatment in this pluralistic system and to illustrate how the results of this study can be utilized to improve local healthcare. This study uses an ethnographic decision model based on data collected from informal interviews, structured interviews, term-frame interviews, contrastive questioning interview, hypothetical situations interviews, and ranking tasks. To test the validity of the model, the hypotheses of the model were compared with illness case histories collected from 62 households. The model accounts for 93.5% of the choices included in the test. This research addresses the debate as to whether rural populations underutilize the biomedical system due to health lowering cultural models of illness or seclusion and restricted access to resources. The data supports the seclusion and restricted access hypothesis.

Kisling, Breanne (SWCA Environmental Consultants)

Swords, Molly (SWCA Environmental Consultants)

Petrich-Guy, Mary (University of Idaho)

It's Closing Time – Artifacts of the Drinking Culture of Sandpoint

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

The Sandpoint Archaeology Project is the largest archaeological collection in the state of Idaho to date. As a turn-of-the-century railroad town in Northern Idaho, Sandpoint was known for its "good-timey" and rowdy nature. From the excavated brothels, saloons, hotels, boarding houses, and commercial district, the material culture relating to alcohol is felt strongly rooted in the history of the town and the lives of its residents. This poster will serve as an examination of the culture of alcohol consumption among turn-of-the-century residents of Sandpoint, Idaho.

Kittilstved, Tiffani (Eastern Washington University)

Japanese Phonetics

General Session (Friday 1:00 PM-4:40 PM, Crater Lake)

This research contributes to our understanding of the Japanese language by documenting some of the distinctive phonetic features. I sampled consonants and vowels by isolating examples that emerged from discussions about English language learning with Japanese international students. Within the category of consonant production, I focused on a lack of aspiration in certain

consonants; alveolar stops; voiceless fricatives; and approximates. In the category of vowel production, I looked at the use of short and long vowels; and vowel devoicing. This documentation is the starting point for my further research and documentation of Japanese phonetic features. I would like to use this research to produce an all inclusive audio book for the use of non-native Japanese learners and, further, enrich Linguistic Anthropology's inventory of Japanese phonetics data.

Klein, Charles H. (Portland State University)

Human Health: Medical Anthropology in Action: Creating Community-based Sexual Health Programs

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

Medical anthropologists have played a critical role in developing cultural competent and effective HIV prevention programs since the beginning of the epidemic. This talk will present an overview of my work in sexual health promotion as an applied anthropologist in Brazil, a health program planner at the San Francisco Department of Public Health, and a senior researcher at Sociometrics Corporation, a for-profit research and development company based in the San Francisco Bay Area. I will examine how anthropology theory and methods can be used to improve health promotion program content, data collection instruments, program logic models, evaluation plans, and practitioner trainings. I will highlight the opportunities and challenges of working with community-based organizations and how participatory research can serve work to bridge between affected communities and the public health/biomedical establishment.

Kneifel, Rebekah (Equinox Research and Consulting International, Inc.)

see *Lewis, Ian*

Komen, Dana (Eastern Washington University)

Archaeology along the River of No Return; Excavations at site 10IH368 in the Salmon River Canyon

Symposium (Friday 10:20 AM-4:40 PM, Astoria)

Western Federal Lands Highway Division improvements to the Salmon River Road near Riggins, Idaho prompted archaeological excavations at site 10IH368. In 2012, Archaeological and Historical Services of Eastern Washington University conducted excavations at the site located on an alluvial fan adjacent to the Salmon River. Radiocarbon dates and temporally diagnostic lithic artifacts provide a late prehistoric date of site occupancy (the last 1,300 years). Faunal remains and artifact types indicate an emphasis on large mammal acquisition and processing. This paper presents results of the 2012 excavations, compares the results with other archaeological sites along this stretch of the Salmon River, and discusses the site in relation to the existing lower Salmon River canyon model with its fishing oriented emphasis.

Kono, Janelle (Edmonds Community College)

see *Donovan, Crys*

Kopperl, Robert (SWCA Environmental Consultants)

Rinck, Brandy (SWCA Environmental Consultants)

Smith, Ross (SWCA Environmental Consultants)

An Archaeological and Geoarchaeological View of the Middle Chehalis River Valley from the WSDOT I-5 Mellen-to-Blakeslee Junction Project.

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

Recent investigations for several WSDOT road improvement projects along the I-5 corridor near Centralia, Washington provided opportunities to examine pre-contact Native American settlement in the mid-Chehalis River valley. Geoarchaeological analysis of existing soil information and new stratigraphic data from backhoe trenches, excavation units, shovel probes, and boreholes in a half-mile-long transect established a landform model of this dynamic alluvial setting and formation histories of numerous archaeological resources including the Mellen Site

(45LE125). The majority of this site occupies a glacial outwash plain, while the southern and western portions cover a complex mosaic of alluvial landforms. Intensive sampling of 45LE125 and other nearby sites reveals patterns of local and exotic raw material acquisition, tool manufacture, and use in a variety of floodplain settings based on deposits dating as early as 5670 cal BP.

Excavations at 45LE125 also revealed cultural stratigraphy notably different from the inferences made in the early 1970s.

Kraft, Wayne B. (Eastern Washington University)

Traditional Life and the Survival of Transylvanian Village Cultures

General Session (Friday 1:00 PM-4:40 PM, Crater Lake)

Many forces of change threaten Transylvanian Hungarian village communities. We appraise the relative success of the conservation of village cultural forms by examining several features that distinguish traditional and post-traditional performance. No individual performance can be understood in isolation, but must be interpreted within the context of the cultural as a whole. Moreover, no single performance may be understood as a work unto itself, but needs rather to be seen, according to László Felföldi, as "one part of an entire life's work". Elements of traditional life survive as nothing more than museum artifacts—concrete or figurative—except to the extent that they are embedded both within the community and its culture as a whole and within the entire life span of its practitioners.

Kramer, Marshall (Edmonds Community College)

"Cheat Death, Return to Life": Cultural Anthropology Matters in the Archaeological Excavation of a Japanese Milltown

Symposium (Friday 8:00 AM-9:40 AM, Crater Lake)

Far from being "dead," cultural anthropology offers archaeologists the opportunity to make their historical finds more accessible to the public and useful in the preservation of local heritage. Drawing on the recent excavation of a Japanese Milltown in Mukilteo, WA (45-SN-575) by AMEC and the LEAF School, this paper argues that cultural anthropology enriches Cultural Resource Management (CRM) mitigations by contextualizing "mundane" and "exotic" artifacts to create a dynamic and enduring portrait of immigrant culture. The paper discusses the stories of several Japanese ceramic and glassware artifacts, tracing their origins and connecting them to present day cultural phenomena. In conclusion, the paper highlights the promotional value of these cultural narratives in both educational outreach and the preservation of local cultural heritage in Mukilteo.

Kramer, Marshall (Edmonds Community College)

see *Dewey, Kyle*

Lahoff, Rachel (Portland State University)

Survant, Cerinda (Portland State University)

Education/Interpretation: Interpretation in Southern Great Basin Protected Areas: Assessing Representations of Indigenous Peoples and Place

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

Great Basin protected areas vary in interpretive content and design. New interpretive centers must benefit the landscape, stakeholders and managers of these sites. To ensure interpretive site success, an analysis of manager and stakeholder reactions to existing interpretation must exist. Lahoff's work evaluates existing interpretive sites associated with protected areas in the Great Basin with a focus on the portrayal of American Indian communities traditionally associated with the site. This research addresses interpretation in two dimensions: analyzing a variety of sites in terms of physical layout and content; and analyzing stakeholders', managers' and visitors' perceptions of interpretation. Survant's research details the development of a methodology to assess the interpretation of vulnerable archaeological resources on public lands. Using case studies of five existing visitors centers/interpretive areas around the Great Basin, this research

uses qualitative and quantitative methods to evaluate different strategies for interpreting landscape, environment, and culture to the visiting public.

Lancaster, JD L. (Oregon State University)
see *Blanchard, Christian*

Lancaster, JD L. (Oregon State University)
see *Lancaster, Katrina L.*

Lancaster, Katrina L. (Linn-Benton Community College)

Lancaster, JD L. (Oregon State University)

Least-Cost-Path Networks between Obsidian Sources: Toward Predictive Modeling of Site Locations on the Landscape Using Geographic Information Systems

Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)

This paper discusses use of Geographic Information Systems (GIS) for the construction of least-cost-path networks for predictive modeling of archaeological site locations on the landscape. The study area is within the Burns District Bureau of Land Management's (BLM) holdings, located in the northern Great Basin of southeastern Oregon, Lake, Harney, Malheur and Grant Counties. We have created a predictive model using geographic location data for obsidian sources, and Western Stemmed Tradition (WST) projectile points. The predictive model generated a series of pathways between the obsidian source locations, based on the relative cost of traversing different parts of the landscape given slope and land cover type. Locations of surface-recovered WST projectile points are used to test the model. We expect that at least some of these pathways will predict WST site locations, and may aid First American studies in the northern Great Basin.

Landreau, Christopher (Reiss-Landreau Research)

Cooperative Management of the Northwestern Improvement Company's #5 Mine

Symposium (Friday 8:00 AM-9:20 AM, Astoria)

In 2012, Reiss-Landreau Research was contracted to conduct the re-identification of, and provide management recommendations for, any remaining appurtenances of the Northwestern Improvement Company's #5 Mine located between Cle Elum and Roslyn, WA. Aspects of the mine were recorded in 1999 as part of a Forest Practices Application. We found the foundational and structural remains of the #5 Mine eligible to the National Register of Historic Places under Criteria A and D, for their contribution to broad patterns of American history both locally and nationally (i.e., 19th and 20th Century coal mining), as well as for their data potential. In management consultation with DAHP, the current landowner expressed willingness to avoid the historically significant areas while maintaining the flexibility to harvest timber away from the historic site. Additional creative management possibilities were explored within the demesne of the former mine.

LeCompte-Mastenbrook, Joyce (University of Washington)

Risk & Relational Ecologies in the Historic Food System of Puget Salish Territory

General Session (Friday 1:00 PM-4:40 PM, Crater Lake)

This presentation describes how the cultivation of social networks and cultural ideologies helped buffer against vulnerabilities in the historic food system of Puget Salish people. I examine three classes of vulnerability: 1) limited seasonal availability of key foods (temporal variation), 2) ecological heterogeneity and spatial variability in types of nutrients supplied by different kinds of plant and animal foods, and 3) regional scale, fast and slow-moving variables that in the case of the former may affect species abundance, productivity, and/or composition over the long-term and in the latter case potentially left people and resources vulnerable to unpredictable and potentially devastating disasters. Drawing on the "resource cultivation" model proposed by Blukis-Onat (2002), I describe three kinds of relational ecologies that helped to mitigate these risks to food security at village, watershed,

and regional scales. Resource cultivation thus includes cultivation of relationships with spirit power (skolalitut), plants and animals, and with people.

Lee-Noonan, Tabria (Eastern Washington University)

The Role of Culture in Addiction Treatment

General Session (Friday 1:00 PM-4:40 PM, Crater Lake)

The most common methods of addiction treatment in the United States are behavioral therapy, therapeutic communities and biopharmacological treatments. This paper asks the question of what role does culture play in these different forms of treatment. In this paper, I use exploratory methods, as well as an in-depth cross-disciplinary literature review to determine the role of culture in substance abuse treatment in the United States. Within the literature, I concluded that culture, while not entirely disregarded, is not a main factor when implementing substance abuse treatment methods. In conclusion, I recommend ways on integrating cultural competency in addiction treatment and care.

Lefler, Brian J. (Portland State University)

Environment: Whistling at Night with Twisted Lips: The Role of Nuwuvi (Southern Paiute) Taboos in Natural and Cultural Resource Conservation in Pinyon-Juniper Ecosystems

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

From ancient groves in India to the seascapes of Australia, indigenous sacred sites and taboos effectively protect biological and cultural resources worldwide. My research locates such conservation mechanisms among Nuwuvi (Southern Paiute), the indigenous denizens of the Great Basin and Mojave Desert. Using a framework of six resource and habitat taboo (RHT) categories identified cross-culturally, I identify Nuwuvi RHTs and examine their potential impacts on resource conservation in pinyon-juniper ecosystems in southern Nevada. My research contributes to the development of a collaborative resource stewardship plan among seven Nuwuvi Nations and two federal land management agencies in two southern Nevada protected areas.

Lehman, Melissa (Applied Archaeological Research, Inc.)

Tsunamis as Site Formation Processes

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

The A.D. 1700 tsunami off of the coast of Japan is well documented both in Japanese historical sources and in the stratigraphic record of such places as Nehalem Spit along the Oregon Coast. Recent geoarchaeological research indicates that the tsunami washed over Nehalem Spit. In its waters the tsunami carried artifacts including ceramic vessels fragments, pieces of beeswax, and ship wreckage debris over and across the spit redistributing and burying the material. The artifacts are believed to have originated on a Spanish galleon that wrecked near the mouth of the Nehalem River ca. A.D. 1650-1700. A recent study by the PSU Geology Department examined the potential energy of the tsunami as it swept over the Nehalem Spit. Specifically, the study examined the energy of the wave's backwash and its capacity to transport large clasts. This poster presents the results of the study.

Lewis, David (Confederated Tribes of Grand Ronde)

From Eden to Hell

Symposium (Thursday 10:20 AM-12:00 PM, Elowah Falls)

An exploration of the tribal and government accounts of the forced removal of the western Oregon tribes from their homelands to the Grand Ronde Indian Reservation. Numerous settler accounts of the Willamette Valley equate the valley as being the valley of Eden while the reservations were run as concentration camps. Agents of the US government worked to remove the tribes and place them away from the most desired lands for settlement. Tribal histories of the removal process show hardships and inequities as they are concentrated on the reservation permanently.

Lewis, Ian (Equinox Research and Consulting International, Inc.)

Kneifel, Rebekah (Equinox Research and Consulting International, Inc.)

Huntmen, Frontiersmen, Militia, Oh My! An Investigation of Historic Firearm use in Oak Harbor, WA

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

Whidbey Island's frontier settlement and military presence played a major role in territorial acquisition and defense of the Puget Sound. Based on the historic artifact assemblage from a site on the Oak Harbor waterfront, it has become clear that firearm possession was strongly engrained in the local culture; bullet casings and shotgun shells represent a significant portion of this data. The headstamp of a cartridge can provide information sufficient enough to date and classify the artifact. Depending on the product, information provided can include distinct manufacturer's marks, caliber or gauge designations, and even a stamp of the production year! In addition to the variety of casings and shells, unique military memorabilia has been recovered that highlight key moments in history. Using a portion of this site's historic assemblage allows for interpretation of firearm use in Oak Harbor and the colorful military history of Whidbey Island in general.

Li, Jinhua (Anhui Normal University)

see *Link, Jessa*

Li, Jinhua (Anhui Normal University)

see *Pritchard, Alexander Jonathan*

Link, Jessa (Central Washington University)

Murphy, Ashley (Central Washington University)

Li, Jinhua (Anhui Normal University)

Sheeran, Lori K. (Central Washington University)

Maternal Investment in Free-ranging Tibetan macaques (*Macaca thibetana*)

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

The terminal investment hypothesis predicts that in species whose reproductive value decreases with age, adult females should increase energy expended on each successive infant. We tested this hypothesis on a group of provisioned, habituated Tibetan macaques during August-September 2012 and compared females' investment in offspring born 2009-12. Maternal ages ranged from 7-22 yrs. We predicted that older mothers would be proximate to their offspring more than younger mothers. We collected data through 5-minute focal-animal samples during which we recorded mother-infant proximity. Mothers did not differ in proximity scores for offspring born in 2009 or 2010, but they did differ for children born in 2011 (Kruskal Wallis One-Way ANOVA, $H=27.04$, $df=3$, $p<0.0001$) and 2012 ($H=66.06$, $df=4$, $p<0.0001$). The time a female spent proximate to her child was not explained by maternal age; rather, it may be related to the child's age and the number of dependent children the mother has.

Lockard, Larry

Symposium Discussant

Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Lockwood, Chris (ESA Paragon)

Meeting New Challenges in Archaeological Monitoring, Presentation 6

Symposium (Saturday 10:20 AM-12:00 AM, Crater Lake)

Rapidly evolving construction methods pose new challenges for archaeological monitoring. In this session of brief (3-5 minute) presentations, regional cultural resource professionals discuss approaches for cultural resources training and monitoring of construction crews working with newer construction techniques.

Loether, Paul (National Park Service)

Symposium Discussant

Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Loether, Paul (National Park Service)

see *Wilson, Doug*

Loewen, Robert (Central Washington University)

see *Matthes, Whitney*

Lohse, E.S. (Idaho State University)

Moser, Coral (Idaho State University)

The Western Stemmed Point Tradition on the Columbia Plateau General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

Various large stemmed and shouldered lanceolate stone projectile in the Pacific Northwest are considered part of the Western Stemmed Point Tradition (WSPT). Many variants of the WSPT have been identified on the Southern Columbia Plateau, including Windust, Lind Coulee, and Haskett. Although different cultural sequences marked by these diagnostic types have been defined for more than 40 years (cf. Snake River chronology of Leonhardy and Rice 1970), Moser (2010) represents the first quantitative analysis of the basic morphology of the Western Stemmed Points. Multivariate statistical analyses clearly sorted these diagnostic types based on recognized morphological attributes, in a replicable and explicit classification.

Lohse, E.S. (Idaho State University)

Roundtable Participant

Roundtable (Thursday 8:00 AM-10:00 AM, Pyramid)

Longstaff, Laura (University of Idaho)

see *Sappington, Robert Lee*

Lorenz, Joseph (Central Washington University)

see *Blanchard, Christian*

Lorenz, Joseph (Central Washington University)

see *Humphreys, Jennifer E.*

Loughmiller, Cristina (University of Idaho, SWCA)

see *Johnson, Amy*

Lubit, Amanda (Portland State University)

Human Health: Mental Health in Post-Conflict Libya: Program and Policy Recommendations

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

In my work with Libyan mental health professionals I have identified ways to assist ongoing reconstruction, healing and reconciliation processes currently taking place. Post-conflict Libya faces the challenges of establishing a national health system that is capable of addressing mental health needs for a population traumatized by the recent war and decades of repression. My contribution to this has been to develop program and policy recommendation that will assist in ongoing efforts to address mental health needs. To achieve this, programs must focus not only on mental health but also on conflict resolution, and they must also focus on communities as well as individuals. Using this approach, I have developed recommendations for creative community based programs that are cost-effective, culturally appropriate and adaptable to different regions and communities. I have divided these recommendations into the categories of nature, arts, movement and memory-based programs.

Luevano, Lucy (Confederated Tribes of the Colville Reservation)

Life Along the Nespelem River

Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)

Who are the Colville People? When we get asked, 'where are you from?', I usually answer by saying I was born and raised in Nespelem, Washington. Invariably, I am then mistakenly told that I am 'Colville'. Although I live on the reservation of the Colville Confederated Tribes, my heritage come from the Nez Perce, Palus,

Moses-Columbia, Entiat, & Wenatchi Tribes whom now reside on the reservation. The 1.4 million acre Colville Reservation is home to twelve aboriginal tribes. These include the Wenatchi, Entiat, Chelan, Methow, Okanogan, Nespelem, San Poil, Colville, Lakes, Palus, Nez Perce, & Moses/Columbia. Each of these tribes is rich in its own culture and teachings. In this presentation, I discuss the Chief Joseph Nez Perce Band that currently live along the Nespelem River in Nespelem, Washington. Here, I share a glimpse into our way of life and a little history of our people along the Nespelem River.

Luthe, Ian (University of Oregon)
see *Jenkins, Dennis L.*

Lynch, Michelle (Simon Fraser University)
Handkerchiefs, Dress Goods, and Spoons: Heiltsuk Use of European Material Culture at Old Bella Bella, BC, 1833 - 1899
General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

The contact-era Heiltsuk village of Old Bella Bella, British Columbia, site of both HBC Fort McLoughlin (1833-1843) and a Methodist mission (1880-1890), existed during a time of rapid changes. Missionary influence resulted in a shift among the Heiltsuk from traditional longhouses to European-style single-family frame houses, creating two spatially and temporally separate archaeological assemblages. Using data collected during a 1982 excavation of this site, this study compares artifact assemblages from one contact-era traditional house and one frame house in order to analyze changes in the frequencies of various artifact types. This research examines the process of adoption of European material culture on the Northwest Coast by looking at how European goods were incorporated into Heiltsuk culture over time and explores the idea that material culture was actively used by the missionaries as a tool of enculturation.

MacDonald, Doug (University of Montana)
see *Ciani, Michael*

Mace, Timothy (University of Idaho)
Personal Grooming in Historic Sandpoint, Idaho
Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)
People have always had a need and desire for personal grooming. Archaeological investigations at Sandpoint, Idaho have revealed a wide variety of objects relating to personal grooming, ranging from toothbrushes to a bottle of hair dye. Grooming has been and remains an important part of life. Reasons for grooming range from health to appearance. This poster is a brief examination of personal grooming objects recovered in Sandpoint, Idaho.

Mack, Joanne M. (University of Notre Dame)
Possible Function of Rock Pits within Talus Slopes of the Southern Cascades
General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)
The investigation of talus slopes adjacent to a village along the Upper Klamath River lead to the discovery of pit depression complexes adjacent to Shasta villages. The rock-lined pits combined with a specialized clay-lined tule bag were likely part of a strategy for food storage. Such storage would have contributed to the relative permanency of Shasta village along the Klamath River and its major streams in the Southern Cascades.

Major, Maurice (Washington Department of Natural Resources)
Dendrochronology: The Past and Future of Culturally Modified Trees on Washington State Lands
General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)
Previously unrecognized, Culturally Modified Trees (CMTs) have been recorded as archaeological sites in Washington for about two decades, but difficulties persist with recognizing, documenting,

and managing this site type. Despite years of turning in site forms, it is unclear what we hope to learn from this type of living site. On Washington's State Trust Lands, modified and yet-to-be-modified trees have importance well beyond archaeology, looming large in the perspective of wildlife biologists and Tribal cultural practitioners. After five years of recording CMTs and working with Tribes, here are some perspectives on the practical side of documenting and learning from these sites, as well as preserving the trees and perpetuating the cultural practices associated with them.

Major, Maurice (Washington Department of Natural Resources)
"Office Hours: Cultural Resources on Washington State Lands"
Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)
This is an opportunity for Tribes, archaeologists, and anyone else with an interest in cultural resources on the 5 million acres of lands managed by Washington DNR to speak with one of the cultural resource specialists for those lands. Anyone and any issue is welcome.

Manetas, Cassandra (Washington Department of Transportation)
Efficient Monitoring: Honoring Commitments Using Landform Analysis on SR 520 Eastside
Symposium (Friday 10:20 AM-4:40 PM, Astoria)
During the environmental assessment for the SR 520, Medina to SR 202: Eastside Transit and HOV Project, the Washington Department of Transportation (WSDOT) determined the project would have no adverse effect to historic properties and included a broad-scale one-meter deep archaeological construction monitoring commitment at targeted locations. The general nature of this commitment proved difficult in communicating both intent and expectations during actual construction. WSDOT contracted ICF International to conduct a landform analysis to develop a refined monitoring plan based on geomorphology and previous ground disturbance that met project needs. This analysis was then used to create monitoring buffers around areas with a greater probability for encountering artifacts in primary context, allowing for better coordination between construction contractors and archaeological monitors. This approach has resulted in valuable "lessons learned," and future application of similar landform analyses can result in more efficient monitoring plans that save time, money, and streamline communication.

Manion, Mollie (Oregon State University)
Where Have All the Women and Children Gone? Using Demography as a Baseline for Analysis in Historical Archaeology
General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)
Due to the patriarchal societies that most historical archaeologists research, many of the historical documents are written for, by or about men. Historical archaeologists often interpret archaeological sites as if these male head households were the only ones in the household contributing to the archaeological record or making any meaningful decisions in the past. However, the majority of historic domestic households were composed of women and children. I propose that in historical archaeology, we should look at the actual demography of the community before we interpret who is present at the archaeological site. Documents in the form of census records, marriage records, and birth records often hold much of the information that we would need in order to reconstruct the demographics, which can lead us to more a holistic interpretation of these past populations.

Marchand, Amelia (Confederated Tribes of the Colville Reservation)
Through the Smoke of Fire 198
Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)

The fire season of 2012 on the Colville Indian Reservation began in early April and continued through mid-October, ending with the St. Mary's Mission Road Fire #198. This fire consumed over 16,853 acres of land, destroyed two homes and a number of outbuildings. Nearly seventy cultural resources in a variety of forms are located within the footprint of Fire 198, including cemeteries, Traditional Cultural Properties (TCPs), precontact and historic sites. From the first call to the last site visit, this presentation reviews the actions taken to identify, protect, and address potential and actual effects to cultural resources during and after the fire, and provides a Tribal perspective of cultural resource management as observed through the smoke.

Marcotte, Jacqueline (Environmental Science Associates)
Maritime Archaeology Methodology – Coring and Dredging.
Symposium (Saturday 8:00 AM-10:40 AM, Multnomah Falls)
 Two maritime archaeology projects were conducted in the Pacific Northwest in 2012 that required submerged, subsurface survey. The first project was conducted as part of a National Park Service study of the dinghy dock at English Camp in San Juan Island's Garrison Bay. Subsurface testing was completed using diver operated coring devices. The manual coring devices used were developed specifically for this project, and designed for data recovery as well as discovering presence/absence of a submerged shell midden. The second project was conducted in the Columbia River, in Boardman Oregon, and involved excavation of submerged test units with a suction dredge. This paper presentation outlines the development and methodology of the diver operated coring devices, as well as the methodologies used to excavate submerged test units with a suction dredge.

Marino, Matthew (Washington State University)
McLay, Eric (University of Victoria)
Sackman, Adam (Washington State University)
Sellers, Robby (Washington State University)
Grier, Colin (Washington State University)
Preliminary Analysis of Dog Remains in Proximity With Human Burials at DgRv-006, Dionisio Point Locality
Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)
 During archaeological excavations at the DgRv-006 site at Dionisio Point in the southern Gulf Islands, British Columbia, numerous apparent dog burials and less spatially-organized dog remains were encountered in high frequencies in close proximity to human burials. The context of these faunal remains suggest canids were significant, ritually-charged, symbolic actors in the Coast Salish world. Preliminary analysis of the recovered canid remains is directed toward determining if the remains reflect organized dog inhumations, or simply midden disposal. The goal is to understand the relationship of Coast Salish peoples with their dogs locally, properly situate the presented data from Galiano Island within the context of regional research on human-animal relationships, and ultimately to understand the treatment of dogs in both life and death.

Marken, Mitch (Beeswax Wreck Project)
 see *Williams, Scott, S.*

Martin, Dan (CH2M Hill)
Historic Glass and Ceramic Gastroliths at 35GM137
Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)
 Gastroliths are used by herbivorous birds to aid in digestion. In the wild they are generally small stones, bone or shell fragments which are voluntarily ingested. These fragments are held in the gizzard where they aid in breaking up resistant food, preventing blockages and extending the efficiency of digestive juices. During a damage assessment on a small turn of the century homestead (35GM137) a ten centimeter level produced 31 gastroliths. This paper attempts to explain why this fairly high concentration was present by examining the contents of a gizzard from a recently killed chicken

and looking at turn of the century small scale poultry production techniques.

Mas, Jessica M. (Chimpanzee & Human Communication Institute)
 see *Schulze, Savannah M.*

Mathews, Kelly (Eastern Washington University)
Poetry and Post-Modern Communities
General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)
 Theorists like Anthony Giddens have argued that modernity has led to the breakdown of social communities. At the same time traditional communities are under attack, people are constructing new communities based on social identities. Using ethnographic research done in the summer of 2012, this paper presents case studies from the Spokane poetry community to examine how poets build community and deal with conflict. The poetry community brings together traditional academic poets with younger performance poets through performance venues and mentoring relationships. Poetry performance has been key, as it builds a sense of intimacy among the regulars based on a shared vulnerability drawing them together through rituals of performance and interactive listening. The exchange of ideas and sharing of experiences makes for a sustainable and growing community. While there may be a breakdown of traditional communities as Giddens suggested, this study suggests avenues of exploring postmodern ways of building community.

Matthes, Whitney (Central Washington University and McNair Scholars Program)
Scott, Shane (Central Washington University)
Loewen, Robert (Central Washington University)
Textiles from the Rosa and Tekison Rockshelters, Yakima River Canyon, Washington State
Poster Session, Part 1 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)
 Dr. William Smith excavated the Rosa Rockshelter, 45YK301, in 1971. In the early 1980's Dr. Smith was also instrumental in negotiating the donation of a large sample of the Tekison Rockshelter collection. The Tekison collection along with data from original artifact inventories provides an invaluable opportunity to study and document textile technology and style. Both collections include fragments of matting, cordage and basketry that date to the Cayuse Phase (circa 2000 BP). Two-ply S twist cordage dominates the assemblages. Z twist cordage is rare and only appears in the upper (more recent) occupation debris.

Matthes, Whitney (Central Washington University and McNair Scholars Program)
Cordage from the Rosa Rockshelter, Yakima River Canyon, Washington State
Symposium, Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)
 Dr. William Smith excavated the Rosa Rockshelter 45YK301 in 1971 and recovered a large assemblage of preserved plant remains from a single storage feature. These materials include fragments of cordage and basketry that date to the Cayuse Phase (circa 2000 BP). Two-ply S twist cordage of Dogbane (Indian Hemp) dominate the assemblage and many fragments are found stitched through tule mat. Several fragments of two-ply Z twist cedar cordage are found woven with cedar platts that probably formed the rims of one or more open weave baskets. Examples of grass, sage bark, and hair cordage are also represented. The type and frequency of cordage fragments are compared to other larger assemblages documented from dry caves in the Columbia Basin. This study contributes information on the material culture and technological abilities of women and men from a discrete time and place in the history of Columbia Plateau peoples.

McCarty, Margaret (Washington State University)
Case Study: Potential of Anthropological Aid for Economic Growth in Chijnya Peru
General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

This paper presents an outline of economic activity in Chijnya, a small village in the Andes Mountains of Peru, based on surveys and observations conducted during five weeks of field work. With few employment prospects available, virtually all villagers are self-employed. The economy revolves around animal husbandry, with a majority of income earned by selling milk to the community owned cheese factory, though most families supplement their income by selling crops, livestock, and homemade craft goods, or operating other small businesses. Both the current and potential impact of anthropological aid in stimulating economic growth is explored, as are cultural factors which could further stimulate, or hinder, such efforts. With anthropological support, Chijnyans could create an entrepreneurial culture and diversify their economy in a manner which would improve their overall well-being.

McCarty, Margaret (Washington State University)
Beyers, Douglas (Washington State University)
Cultural Relativism, Human Rights, and Globalization: Anthropology and the Future of International Development
General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

The international community has invested extensively in largely unsuccessful developmental efforts aimed at providing the kinds of protections which are fundamental to groups and individuals realizing their full potential. Historically, anthropologists have hesitated to embrace internationally recognized standards of human rights, believing that the ideals of cultural relativism prevented the creation of truly universal values. Recently, however, we have begun to realize that cultural diversity can be preserved only by protecting the rights of groups and individuals to freely express their culture. This growing understanding has led many anthropologists to begin participating in efforts to create and enforce a more universal system of basic human rights laws, in the interests of preserving cultural integrity. Given the complex forces shaping international development, anthropologists, with our extensive relativistic training and intercultural experience, are uniquely and excellently suited to help improve the methodology, implementation, and oversight of international human rights and development programs.

McClure, Rick (USDA Forest Service)
Exclusion Act Case Files and the Archaeology of Chinatown, The Dalles, Oregon (35WS453)
General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

The enforcement of U.S. Chinese Exclusion Act policies between 1882 and 1943 included tight controls over immigration from China and close monitoring of the travel and movements of Chinese-born residents. Records of the Immigration Service, Department of Commerce and Labor, now housed at the National Archives, Seattle, include the case files for individuals seeking permission to visit China and return to the U.S. These files contain detailed information about the people, their businesses and occupations, personal histories, and social relationships, and represent an important body of historical data pertaining to overseas Chinese communities in the Pacific Northwest. The case files for Chinese residents of The Dalles, Oregon provide substantial context for understanding the archaeology of site 35WS453, at the center of the city's small, but once thriving Chinatown. The content of these files is evaluated with respect to archaeological expectations and the results of recent excavations at the Wing Hong Hai Mercantile building, one of several former Chinese businesses within the boundaries of the archaeological site.

McClure, Rick (USDA Forest Service)
Symposium Discussant
Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

McClure, Rick (USDA Forest Service)
see *Wilson, Doug*

McCutcheon, Patrick T. (Central Washington University)
Symposium Discussant
Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

McCutcheon, Patrick T. (Central Washington University)
see *Finley, Nicholas, A.*

McCutcheon, Patrick T. (Central Washington University)
see *Hansen, Heather*

McCutcheon, Patrick T. (Central Washington University)
see *Rennaker, Patrick W.*

McDaniel, Olivia (University of Idaho)
Through the Eyes of the Jewel Eyed Dragon: A Look at Traditional Décor in Western Japanese Internment Camps
Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)
Between May 1943 and May 1945, in a remote area of Northern Idaho, lies the site of an all male, WWII Japanese Internment camp. Excavations completed by the University of Idaho in 2010 have unearthed the fragments of a handmade Japanese vessel from the Nippon ceramic era, which is in the design of a "jewel eyed slip trailed dragon." The discovery of this Japanese ware among the artifacts found at the site provides a peek into the importance that internees placed on vessels from home. When compared with assemblages from other Japanese internment camps in the United States, we can begin to further analyze the types of traditional Japanese décor that were meaningful to the internees.

McDonough, Katelyn (University of Oregon)
Gifts from the Pueblo Valley: A Donated Collection Contributes to Oregon Archaeology
General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)
The Grove Ranch collection was gifted to the University of Oregon Museum of Natural and Cultural History in 2011. It contains 410 artifacts, including flaked stone tools, ground stone, and debitage. These artifacts were collected in the early 1900s from the former Grove Ranch, located in the little studied area of Pueblo Valley in Harney County, Oregon. This collection contains a variety of artifacts, including temporally diagnostic projectile point types ranging from the Early to Late Holocene. This paper summarizes the results from analyses of the projectile points, bifaces, and geochemical sources, with consideration of the region's environmental and ethnographic backgrounds. This collection not only contributes to the archaeological record of Oregon, but also provides an example of the exciting research opportunities made possible by donated collections.

McDonough, Katelyn (University of Oregon)
see *Jenkins, Dennis L.*

McGill, Kendall A. (Washington State University)
Rediscovering Granite Point: Bringing Past Excavations into the Digital Age
General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

Excavation of Granite Point (45WT41), situated along the Lower Snake River, was directed and funded by Washington State University, in cooperation with the National Parks Service, during the 1967 and 1968 field seasons. This fieldwork uncovered the site's long history of occupation and revealed a record of 10,000 years of cultural change which made Granite Point an important component to building a cultural chronology of the Lower Snake River region. Fifty years later, limited awareness and access to its

collection are affecting Granite Point's continued contribution to archaeological research. Regional and national programs have been implemented to increase electronic visibility and sharing of archaeological collections, but the physicality of Granite Point's records impedes its dissemination into the digital world. This project has focused on bringing Granite Point up to the technological present, with digitized field records and internet accessibility, identifying the potential for future student led projects.

McLay, Eric (University of Victoria)

see *Marino, Matthew*

McLean, Jamy (Central Washington University)

see *Endacott, Neal*

McNabb, Caroline L. (San Jose State University)

"Women's Wisdom": Menarche Narratives and Body Politics

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

Menarche—the first menstruation, and often the ultimate signal of puberty and impending adulthood—is sometimes perceived as empowering, a time for sisterhood and the passing of loving motherly advice. Alternately, from red tent gatherings to advertisements depicting laughing women running on the beach wearing white, menstruation is painted as benign and sanitized in popular culture. But there is also a darker aspect: the locker room scene in "Carrie;" misogynist jokes about animals that bleed yet don't die; female politicians suspected of being incompetent because of demon PMS. In truth, menarche and menstruation experiences are just as different as the people who have them. Focusing on the ways in which gender and sexual identity impact menarche, as well as the intersection between popular culture and the menstruating body; this paper investigates menstrual experiences through 75 interviews, popular media, scholarly and not-so-scholarly texts, and observation of several Internet communities.

Meatte, Daniel (Washington State Parks)

A Use-wear Analysis of Clovis Beveled Rods from the East Wenatchee Site, Douglas County, Washington, USA

Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)

Among the most enigmatic objects in American Archaeology are Clovis-age beveled bone rods. Usually fashioned from bone or ivory, these distinctive tools have been recovered from archaeological contexts that include burials (Anzick), caches (East Wenatchee, Simon), kill sites (Sheridan Cave) and campsites (Blackwater Draw). Researchers posit a variety of theories on the function of these objects as foreshafts, "clothespin" foreshafts, pry bars, pressure flakers, levered hafting wedges, composite ceremonial staffs, points, composite points, and sled runners. With at least nine published explanations for the function of these rods, we must ask: Why should such a simple tool defy explanation? This paper presents results of a use-wear analysis of 12 beveled rods recovered from the East Wenatchee Clovis site in south-central Washington State and compares these data to a second set of Clovis-age beveled rods recovered from the Anzick burial site in southwestern Montana. Results indicate the beveled rods formed compound tools designed to be joined together by scarf joints – a simple, efficient technique for joining long, cylindrical objects together. Implications of this design are presented.

Meyer, Jon (Confederated Tribes of the Colville Reservation)

Introduction to the Confederated Tribes of the Colville Reservation

Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)

The Confederated Tribes of the Colville Reservation consists of the Wenatchi, Entiat, Chelan, Methow, Moses-Columbia, Sanpoil, Nespelem, Okanogan, Lakes, Colville, Palus, and Chief Joseph Band of the Nez Perce. This presentation provides an introduction

to the history of our people and the work being done at the Colville Tribes' History/Archaeology Program.

Meyer, Jon (Confederated Tribes of the Colville Reservation)

Reports of the Sinixt Extinction are an Exaggeration

Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)

For thousands of years, the Sinixt, or Arrow Lake Band, resided along the upper reaches of the Columbia River and the Arrow Lakes in what is now Washington State and the Province of British Columbia. Arrival of Europeans decimated the Sinixt population, and in 1955 the Legal Advisor to the Indian Affairs Department declared the Sinixt "extinct." This news, however, would have come as a surprise to the 257 Sinixt enrolled with the Confederated Tribes of the Colville Reservation. This presentation looks at the ethnography and history of the Sinixt. I then explore efforts taken by the Colville Tribes to reestablish a Sinixt presence in the Arrow Lakes region. In particular, I examine the importance of recent archaeological studies at two sites on Lower Arrow Lake in respect to this mission. Ultimately, we find that anthropology and archaeology may contribute greatly in the battle to reinstate Sinixt rights.

Middleton, Emily M. (University of Nevada, Reno)

Paleoindian Rock Art?: Great Basin Carved Abstract Rock Art in the Northern Great Basin

Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)

One of the principle ways that archaeologists tell time is through the use of temporally diagnostic projectile points as index fossils; however, this practice has not been widely employed to date rock art sites. A unique style of rock art found in the northern Great Basin provides a useful data set with which to apply this approach as it appears stylistically distinct and significantly older than much of the rock art found elsewhere in the Great Basin. This style, termed Great Basin Carved Abstract (GBCA) has been found buried stratigraphically beneath a sealed layer of Mazama tephra which suggests that this style dates to the Early Holocene or earlier. I present time-adjusted projectile point frequencies of temporally diagnostic points found at GBCA rock art sites to lend additional support to its great antiquity.

Milton, Christopher (Portland State University)

see *Sterling, Sarah*

Minor, Rick (Heritage Research Associates)

see *Peterson, Curt*

Molinari, Kiley E. (University of Idaho)

Adapt and Adopt: Apsáalooke (Crow) Beadwork and Regalia from the 19th Century to Today

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

For the Apsáalooke (Crow Tribe of Montana) traditional beading practices have continued with vitality and significance, adapting and adopting to reservation life. In this paper, beading can be understood as a form of cultural survivance and resistance to European assimilation. While beading techniques and methods, along with many traditional designs and patterns have remained virtually unchanged since pre-reservation times, other designs have been readily incorporated into ceremonial regalia by younger beaders in the tribe. This modernization of images, including pop and media culture designs, can be witnessed displayed as medallions and incorporated into other parts of ceremonial dress, for men, women, and children. Whether it is a superhero or a new type of bead, Apsáalooke beaders are able to display a little of their own personality, while still maintaining traditional beading techniques their ancestors have used for generations.

Monaghan, Brian (Confederated Tribes of the Colville Reservation)

Fishing on the Colville Reservation: Adapting to the Dams
Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)

With the construction of the Grand Coulee and Chief Joseph dams, Indians living on the Colville Reservation found their traditional fishing locations inundated and the salmon runs blocked. These construction projects changed the economy and the culture of the Colville Reservation. This presentation looks at the history of fishing among Colville tribal members prior to the construction of the dams and examines fishing practices currently employed by tribal members.

Montuori, Hillary (Portland State University)

Education/Interpretation: Friends as Resources: Critical Mentoring Strategies for Postsecondary Preparation

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

Friends of the Children is a nonprofit, intensive mentoring program that matches paid, full-time, college graduates as mentors to marginalized youth beginning in Kindergarten and continuing through their senior year in high school. In light of an organizational initiative to better prepare the youth they serve, both academically and socially, for success in higher education and the work force, I conducted ethnographic research in order to recommend postsecondary preparation strategies. My work highlights the quality, ongoing mentorship that is already taking place at the same time it suggests specific means by which mentors and administrators can more holistically and directly impact long-term higher education and career outcomes in a positive way. A unifying element to these mentoring strategies is the cultivation of the youths' ability to maintain key aspects of their identities while traveling across borders of race and class in order to acquire positions of power in their own self-interest.

Moose, Christopher (Central Washington University)

Regenerating Archaeological Collections: Manastash Pines (45KT346), Kittitas County, Washington

Poster Session, Part 1 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

The Manastash Pines were excavated under a state permit in 1979 by Dr. James Alexander as part of a Central Washington University field school. The eruption of Mount Saint Helens, combined with other circumstances, interrupted a proposed multi-year project. Test excavations along with a block excavation revealed evidence of seasonal occupation of this upland spring site. Artifacts in deposits up to a meter deep indicate occupations may have begun as early as five or six thousand years ago. Revitalizing the collections, by both inventorying artifacts and analyzing excavation records, reveals the significance of the collection and intact site deposits. Ongoing analysis of the site assemblage will help answer research questions about resource intensification in upland settings and/or the responses of upland resources to climatic changes. Studying this collection, combined with future investigations of other spring sites, will fill gaps in our chronological and geographical studies of upland settlement patterns.

Morency, Lauren (Portland State University)

Concerning The Black Truffle Market in Aups, France: A Closer Look at the Impacts of Climate Change and Global Market Demands on Cultural Heritage

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

In the Province of Aups, France the black truffle market has endured in both its economical prosperity as well as a distinguished aspect of France's past and present cultural heritage. The significance of the truffle dates back to the Egyptian dynastic era, and has maintained its presence into modern cuisine. However, with the continuing shifts in climate change as well as an economically competitive market has resulted in some damaging changes to truffle culture. Today's truffle market is in competition with China, and locals cannot make a living on truffle cultivation alone. Scientific research is only not telling us about the benefits of truffles, and culture indicates an uncertain future for truffles in France. My research will examine how climate change and the

continued global market demands surpass the capacity of those who have cultivated truffles for generations, thus opening the market up to global competition.

Morton, Ashley M. (University of Idaho)

Medical Anthropological Approaches in Archaeology, Examining Health and Human Responses to Sickness in the Past
General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)

Medicine and hygiene features prominently in archaeological assemblages. While archaeological scholarship has done much to illuminate past consumption of medicine and hygiene products, this scholarship has emphasized functionality—basic uses and treatment. Efficacy, harm reduction, and self-medication—popular approaches in medical anthropology that are largely underexplored in archaeology—provide useful insights into human responses to sickness in the past. As a practice still common among American women today, douching provides a unique case study for archaeologists to explore motivations into treating social and medical issues diachronically that include birth control, venereal disease, infection, inflammation, general hygiene, and even cancer. Combining material remains of douching paraphernalia from late 19th and early 20th century residential and red-light contexts with archival research, this paper incorporates the aforementioned approaches to further understanding about relationships between past people and health.

Moser, Coral (doctoral student, Idaho State University)

see *Lohse, E.S.*

Murchie, Tyler (University of Calgary)

One Gun Phase Points: A Statistical Reassessment of the Late Side-Notched Projectile Point System in Alberta using 2D Digital Scanning

General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)

Investigations on the Canadian Plains have been unsuccessful in differentiating precontact projectile points recovered from One Gun phase sites—an intrusive group to the region—and points from the locally defined Cayley series, which are frequently used as diagnostic markers of the Old Women's phase. This work uses a variety of statistical methods in a new effort to investigate these similarities using points from the One Gun phase Cluny site, and points from the uppermost levels of the Head Smashed-In Buffalo Jump site. Metrics were collected on digital images from direct 2D point scans to promote consistency, accuracy, and replicability. While population level differences were found, individual specimens could not be identified to their respective phase. In this case, projectile points are not reliable variables for linking components with phases in the protohistoric period, which suggests that the point type may be best described as a horizon style.

Murphy, Ashley (Central Washington University, Department of Anthropology)

see *Link, Jessa*

Murphy, Thomas (Edmonds Community College)

Discussant

Symposium (Friday 8:00 AM-9:40 AM, Crater Lake)

Murphy, Thomas (Edmonds Community College)

Scott, Emily (AMEC Environment & Infrastructure, Inc.)

Unlikely Bedfellows: A College, Consultant, and City use Mitigation for Education

Symposium (Friday 8:00 AM-9:40 AM, Crater Lake)

The City of Mukilteo's inadvertent discovery of historic artifacts during fish passage restoration in Japanese Gulch (45-SN-75) led to a unique arrangement between a local community college, a cultural resources consulting firm, and City representatives. In order to progress with the fish ladder and historic creek channel restoration, AMEC partnered with the Learn and Serve

Environmental Anthropology Field (LEAF) School at Edmonds and Everett CCs to facilitate offering a series of new field and lab courses in archaeology. Mitigation efforts required the excavation of shovel test probes within fish ladder footprints, and data recovery within the planned ground disturbance of the creek channel restoration. AMEC led a 2-week field school of 16 students from various colleges and universities in order to accomplish these tasks. This unique service-learning collaboration earned a Vision 2040 Award from the Puget Sound Regional Council, demonstrating that anthropology matters in sustainable development.

Murphy, Thomas (Edmonds Community College)
Symposium Discussant
Symposium (Friday 8:00 AM-9:40 AM, Crater Lake)

Murphy, Thomas (Edmonds Community College)
 see Dewey, Kyle

Naumann, Aaron (Confederated Tribes of the Colville Reservation)
How Collaboration and Shared Responsibilities Result in Resource Protection: A Case Study from the Chief Joseph Dam Reservoir Project Area
Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)
 The ever-changing circumstances associated with water management in the Upper Columbia River have and continue to be the catalyst for change in other management decisions throughout the region. These shifting circumstances are witnessed through such aspects as altered flow rates and fluctuating reservoir pool levels, which in turn, impact cultural resources. The Confederated Tribes of the Colville Reservation (CCT) History/Archaeology Program works tirelessly with the appropriate responsible agencies to ensure adequate measures are taken to protect the cultural resources within the traditional territories of the CCT. This paper will discuss the path and initial results of a bank stabilization project, which was a collaborative mitigation project between the U.S. Army Corps of Engineers and the CCT located on the Chief Joseph Dam Reservoir (Rufus Woods Lake).

Norconk, Marilyn M. (Kent State University)
 see Humphreys, Jennifer E.

Norred, Charles (Geo-Marine, Inc.)
Kenmotsu, Nancy (Geo-Marine, Inc.)
Burgess, Tabitha (Geo-Marine, Inc.)
Farming the Margins: Early 20th Century Farming Risks along Middle Crab Creek, Grant County, Washington.
General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)
 In the early 1900s, with the advent of the Northern Pacific Railroad, settlers began to move into Washington. Middle Crab Creek, a drainage located just north of Moses Lake, provided water to a portion of land deemed fit for farming orchards, at least seasonally. Transportation combined with Crab Creek's anticipated potential for dams and canals was thought to represent an opportunity to irrigate lands adjacent to the drainage and encourage homesteading. However, the irrigation boom was short-lived. Although Crab Creek carries water, it is not reliable and efforts to dam portions of it could not impound sufficient water annually to sustain crops and orchards. By 1930, the settlers were gone and the homesteads few. In 2011 and 2012 Geo-Marine, Inc., inventoried Crab Creek and recorded archaeological sites and structures related to the local irrigation boom and bust of the early 20th century.

Nyers, Alex (Oregon State University)
Holcomb, Justin (Oregon State University)
Digital Recordation, Analysis, Distribution, and Replication of Archaeological Artifacts

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)
 In order to protect archaeological collections, access to artifacts is commonly restricted to researchers with specific purposes. Even so, traveling to collection facilities to make in-person studies of artifact attributes can be time consuming and costly; moreover, manual measures of artifact morphology are relatively slow and realistically limited to a narrow range of potential dimensions. For studies based on the morphometric aspects of artifacts, three dimensional scans offer a viable alternative to museum visits or collection loans. Here, we describe the application of 3D laser scanning to create digital replicas of artifacts, the use of these digital replicas for quantitative analyses, and their dissemination. We also describe the use of new, relatively low cost 3D printing techniques to create physical artifact replicas and their potential applications.

O'Neill, Brian L. (University of Oregon)
Obsidian Studies of Pre- and Post-Mazama Artifacts from the Upper Umpqua Basin Medicine Creek Site
General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)
 The Medicine Creek site, located on the upper North Umpqua River, was the first archaeological site in this region to yield pre-Mazama cultural material. When it was excavated in 1980, obsidian studies in Oregon were in their infancy. A sample of 100 obsidian specimens was recently examined, from which sourcing and hydration information was obtained. The results of these obsidian studies are compared with those from other multi-component occupations in the Umpqua Basin.

O'Connor, Jim (US Geological Survey)
Symposium Discussant
Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

O'Connor, Jim (US Geological Survey)
 see Connolly, Thomas J.

Odell, Molly (University of Washington)
Saltonstall, Patrick (Alutiiq Museum and Archaeological Repository)
The Roots of Early Kachemak Technological Change in the Kodiak Archipelago
Symposium (Saturday 8:00 AM-9:40 AM, Crater Lake)
 In the Kodiak Archipelago the shift to intensified marine and anadromous fishing roughly 4000 years ago was accompanied by an increased reliance on ground slate technology and smoke/processing features. While both ground slate tools and smoke/processing features were used on Kodiak as early as 5500 BP for hunting and processing sea mammals, it was not until after 4000 BP that those same technologies were adapted for processing large quantities of fish. Focusing on a series of recent excavations in Women's Bay on Kodiak Island, Alaska, this paper will examine the roots of these technologies and their relationship to the social and economic changes of recent millennia that often characterize societies of the North Pacific including sedentism, villages, and social complexity.

O'Grady, Patrick W. (University of Oregon)
Geotechnical Core Drilling at the Sheep Mountain Clovis Site: A Case Study in Transportation Agency, Land Agency and University Collaboration
Symposium (Friday 10:20 AM-4:40 PM, Astoria)
 In 2009, the Oregon Department of Transportation (ODOT) and Burns District Bureau of Land Management (BLM) collaborated on an exchange of services. An important outcome of the exchange was core drilling by ODOT's geotechnical drilling crew at sixteen locations across the Sheep Mountain Clovis site. The project goal was scientific in nature, to assist the University of Oregon Archaeology and Geoarchaeology Field School in interpreting site deposits and ultimately develop strategies for excavation across the deeply stratified Paleoindian camp. Drill samples extended from

surface to bedrock, ranging from 1.82 m (six feet) to 6.1 m (20 feet) deep across the 5.5 acre site. Cores were essential for identifying buried tephra and consistent sedimentary layers. This paper highlights an important contribution by ODOT and BLM on behalf of Oregon's ancient heritage. Archaeological discoveries resulting from the core studies and two new Optically Stimulated Luminescence (OSL) dates from relevant site deposits will be presented.

O'Grady, Patrick W. (University of Oregon)
see *Jenkins, Dennis L.*

O'Grady, Patrick W. (University of Oregon)
see *Thomas, Scott*

Oosahwee-Voss, Eric (Confederated Tribes of the Colville Reservation)

Sinkayuse and the Rocky Ford Area: The Multi-Leveled Resource Use by Chief Moses and His People and the Importance of Traditional Cultural Properties in Section 106 Consultation

Symposium (Friday 8:00 AM-11:00 AM, Elowah Falls)

The Sinkayuse or Moses-Columbia is one of 12 constituent tribes of the Confederated Tribes of the Colville Reservation. The Moses-Columbia have used the Rocky Ford area for many generations. To outsiders it looks like an arid desert, but to those in the know, the landscape is full of traditional food and medicine. This paper will explore the Moses-Columbia use of the area surrounding Rocky Ford in Central Washington and the importance of considering Traditional Cultural Properties in Section 106 Consultation.

Oosahwee-Voss, Eric (Confederated Tribes of the Colville Reservation)

Sinkayuse and the Rocky Ford Area: The Multi-Leveled Resource Use by Chief Moses and His People

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

The Sinkayuse or Moses-Columbia is one of 12 constituent tribes of the Confederated Tribes of the Colville Reservation. The Moses-Columbia have used the Rocky Ford area for many generations. To outsiders it looks like an arid desert, but to those in the know, the landscape is full of traditional food and medicine. This poster explores the many and varied uses of the area by Chief Moses and His People.

Oosahwee-Voss, Eric (Confederated Tribes of the Colville Reservation)

Symposium Discussant

Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Oosahwee-Voss, Eric (Confederated Tribes of the Colville Reservation)

see *Wilson, Doug*

Osgood, Susie (USDA Forest Service)

Davis, Mary Anne (Idaho State Historical Society)

Chinese Olives and Dracontomelon: Exploring the Merchandise of the Pon Yam Store in Idaho City

Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)

In 1998, the Boise National Forest and Idaho City Historical Foundation formed a partnership to restore the Pon Yam Store to its original character as a nineteenth century Chinese merchant's shop, and adapt the building for use as a museum and research center. FS archaeologists and volunteers conducted test excavations on the property. At Pon Yam, an opportunity to excavate under the floor boards in the store provided a look at artifacts not usually found in archaeological sites due to a lack of preservation. Firecrackers, incense sticks, and botanical remains were preserved in the dry soil under the boards. The collected botanical remains included a vast numbers of Chinese olive seeds

and a smaller number of an unknown seed eventually identified as *Dracontomelon*.

Ozbun, Terry, L. (Archaeological Investigations Northwest, Inc.)

Lithic Industry at a Food Processing Station – 45CH791

Symposium (Thursday 1:00 PM-3:20 PM, Elowah Falls)

Stone tools such as bifacial "mule ear" or "pentagonal" knives, schist knives, milling equipment, choppers, flake tools, and anvils reflect intensive work at a food processing station recorded as archaeological site 45CH791. The lithic assemblage also includes pecking stones and hammerstones for production and maintenance of the food processing tools. Diagnostic lithic debitage is characteristic of an emphasis on resharpening worn tools to keep them efficient during rigorous use. These complementary elements of the lithic industry at 45CH791 are consistent with specialized and concentrated processing to maximize the nutrition potential of game animals.

Ozbun, Terry, L. (Archaeological Investigations Northwest, Inc.)

see *Adams, Ron*

Packwood, Kirk (University of Montana)

Informal Agendas: Social Control, Oppression, and Ideological Transmission in United States Biomedicine

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

Despite outward appearances and formal declarations, interaction with biomedical health care institutions and personnel in the United States is not a socially, economically, or politically neutral event. A fairly significant amount of social control and oppression are evident within United States biomedicine at the informal interactional, structural, and ideological levels, directed disproportionately toward marginalized groups and individuals. Perceiving United States biomedicine within the theoretical framework of the "ideological state apparatus" helps to illuminate the informal or latent social control function(s) of the United States Biomedical Health Care System.

Paraso, Kanani (Willamette Cultural Resources Associates, Ltd.)

see *Campbell, Renae*

Pattee, Donald (University of Nevada, Reno)

Smith, Geoffrey M. (University of Nevada, Reno)

Felling, Danielle C. (University of Nevada, Reno)

A Changing Valley: Diachronic Shifts in Mobility and Toolstone Procurement in Oregon's Warner Valley

Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)

X-ray fluorescence analysis (XRF) is a common technique that researchers use to determine the geochemical properties of lithic materials. It allows researchers to calculate the distances and directions that prehistoric artifacts traveled via direct procurement and/or exchange, and these data are often used to address questions of prehistoric mobility and toolstone procurement strategies. This study incorporates a large sample of obsidian projectile points ranging from fluted and stemmed Paleoindian (~11,000-8,000 BP) points to Archaic (~8,000 BP to Contact) points from Oregon's Warner Valley and considers diachronic shifts in mobility patterns and toolstone procurement strategies there. Additionally, data derived from the projectile point sample may offer greater insight into Warner Valley's place in the prehistoric socioeconomic systems of the northern Great Basin. Evidence from surrounding study areas facilitates situating Warner Valley within this broader context.

Peart, Kirrin (Western Washington University)

Re-Collection: Connecting Objects and Records from an early 20th Century Museum Collection

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

The Department of Anthropology at Western Washington University inherited a collection that once was part of the Collins Museum at the Bellingham State Normal School. This collection includes marvelous artifacts from various locations, especially Oceania and North America, with a large collection of Northwest Coast stone tools. The only documentation associated with the collection is a catalogue created in 1933 by Erna Gunther, director of the museum at the University of Washington. Over the years the integrity of the collection and labels have been compromised, which created issues determining which artifacts went with the collection. My project was to locate and match artifacts to the original catalog, and then label them using proper techniques. Research on individual artifacts was aided significantly by digital museum resources from around the world. This poster details the process and its challenges.

Pederson, Nora (University of Alberta)

Creating Dialogue in Environmental Ethnohistory

Symposium (Thursday 10:20 AM-12:00 PM, Elowah Falls)

Through the 19th and 20th centuries, human-environment relationships on the southern Northwest Coast transformed through interaction with non-local and colonial institutions. Many historians have portrayed this in terms of natural resource use and extraction linked to American imperialism, while the ethnographic literature is dominated by salvage anthropology seeking to reconstruct an aboriginal past cut short by colonial projects. By orienting historical narratives towards national economies and anthropological narratives towards the ethnographic present, the literature on past human-environment relationships in western Oregon systematically excludes Aboriginal people whose lives did not fit neatly into racial classifications, leaving little room for dialogue. Oral histories from members of the Grand Ronde community provide alternative narratives that challenge these racialized accounts. By approaching written and oral texts dialogically, this paper problematizes traditional approaches to historical and ethnographic narratives and explores the possibilities of alternative ethnohistories.

Peery, Jordan (Southern Oregon University Laboratory of Anthropology)

An Analysis of Charmstones and Incised Stones from the Marial Site (35CU84)

General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

Many archaeological sites in southern Oregon and northern California contain an ill-defined category of artifacts that are sometimes referred to as “charmstones”, incised stones, or plummets. The purpose of such artifacts remains in question; however some suggestions have been made. These interpretations range from entirely functional to more spiritual in nature. Marial is a large, well stratified resource acquisition camp site on the Rogue River from which several thousand lithic artifacts were recovered. Among all the obviously functional tools were a handful of artifacts that were more ambiguous in nature. By comparing these artifacts with those found at the Pistol River, Lone Ranch, Limp Creek, and Tseriadun Sites as well as ethnographic data collected by Lorenzo Yates it is possible to establish a typology in order to assess the attributes and potential purposes of charmstones.

Peterson, Curt (Beeswax Wreck Project)

Minor, Rick (Heritage Research Associates)

Peterson, Galen (Heritage Research Associates)

CRM Floodplain Geoarchaeology in the 21st Century: LiDAR topography, GPR profiling, Trench Pole-Cam Imaging, and AMS Morpho-stratigraphic Dating: Orleans Terrace Unit, Corvallis, Middle Willamette River Valley, Oregon

General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)

Conventional archaeological excavations for site discovery and site evaluation rarely provide subsurface exposures of sufficient size and depth to establish the geoarchaeological context of

archaeological remains that are buried deep in floodplain soils. In accessing the potential for prehistoric occupation the 40-acre Orleans terrace, located east of Corvallis, Oregon, was analyzed for latest prehistoric channel migration by LiDAR 1/3 arcsec (vertical resolution ± 0.5 m). GPR profiles utilizing 1000v transmitter and 50 MHz antennae penetrated overbank flood silts and channel bank sand to reach basal gravel at 3–4 m depth. Backhoe trenches with scaled side-walls (4 m depth) were imaged with remote pole-camera (Go-Pro). AMS radiocarbon dating of charcoal above fire-baked red bisque was used to date the Orleans morpho-stratigraphic unit (500 yr BP) and the first evidence of large-scale paleoliquefaction from the AD 1700 great Cascadia earthquake in the Willamette Valley.

Peterson, Curt (Beeswax Wreck Project)

see *Hutchinson, Ian*

Peterson, Curt (Beeswax Wreck Project)

see *Williams, Scott, S.*

Peterson, Galen (Heritage Research Associates, Eugene, Oregon)

see *Peterson, Curt*

Petrich-Guy, Mary (University of Idaho)

Approaching the Efficacy of Archaeological Teaching Kits

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

Archaeological teaching kits for elementary classrooms can be useful tools, facilitating an easy integration of archaeological material into schools; yet how do these kits impact students and teachers, how well do they align with state curriculum, and how likely are teachers to use the kits in the classroom? This poster presents preliminary assessments of an archaeology kit prototype project that utilizes deaccessioned historical artifacts from Sand Creek Byway excavations in Sandpoint, Idaho.

Petrich-Guy, Mary (University of Idaho)

see *Kisling, Breanne*

Pfandler, Andy (Willamette Cultural Resources Associates, Ltd.)

see *Gilmour, Daniel M.*

Pfandler, Andy (Willamette Cultural Resources Associates, Ltd.)

see *Goodwin, Matt*

Poole, Justin (Central Washington University Undergraduate Senior)

The Music Ring

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

In this research I use the Kula Ring, as explained by Malinowski, Mauss, and Weiner, to gain insight in to trade networks among musicians in central Washington State. According to Malinowski, the Kula Ring is a vast trade network in Southeast Asia in which items are traded for like items, not for economic motives, but rather to serve a cohesive function within the society. I believe that musical trade networks—what I refer to as “music rings”—act in a similar way by serving as a mechanism for social solidarity, binding together friendships, as well as relationships between student and teacher, or band members and conferring status to both the giver and the receiver. In the Music Ring, trades are made quite often, especially with guitars, and other music equipment. Often, items traded end up being traded with many musicians and sometimes end up returning back to the original owner. In order to demonstrate the similarities between these trade networks, I draw from participant observation with musicians as well as interviews with musicians. I am thus able to show how the music ring serves a social function, rather than economic function among local

musicians, what it provides to them, and why it is important among those involved.

Pouley, John (Oregon Parks & Recreation Department: Heritage Programs)
Symposium Discussant
Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Pouley, John (Oregon Parks & Recreation Department)
see *Wilson, Doug*

Pratt, Jordan (University of Oregon)
A Summary of the 2012 University of Oregon Archaeological Field School Excavation at Rimrock Draw Rockshelter
General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)
An overview of the activities and excavation practices of the University of Oregon Field School's 2012 excavation of Rimrock Draw Rockshelter (RDRS) in Harney Basin, Southeastern Oregon. The six-week program worked in conjunction with a three-week Paelobotony Field School to give undergraduates field research opportunities. Part of ongoing UO research of Paleoindian Great Basin sites, the Field School worked with the Burns District Bureau of Land Management (BLM) and Oregon Archaeological Society (OAS) to investigate RDRS. Students reopened test units and began new excavation units. Excavations extended to a depth of 3.2 m with many encouraging discoveries including Eastgate, Elko, Northern Side Notch, Stem and Haskett Points, as well as artifacts associated with fluted point technology surrounding the rockshelter. Distinct archaeological components were identified, most importantly stem points concentrated at stratigraphically distinct layers. Tephra deposited 60 cm above bedrock suggests that some artifacts may exceed 13,000 14C years in age.

Price, Erika J. (Central Washington University)
Variability of Locomotion in Mantled Howling Monkeys (Alouatta palliata) in Costa Rica and Nicaragua
Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)
This research examines how differences in sex, age, and habitat affect locomotion in mantled howling monkeys (*Alouatta palliata*). Field observations were conducted from June to July 2012 at La Suerte Biological Field Station in Costa Rica and Ometepe Biological Field Station in Nicaragua. Four different facets of locomotion were studied: mode of locomotion, level of forest utilized, type of substrate used, and tail use. These factors were compared between age classes, sexes, and field sites. Climbing was found to be the most prevalent mode of locomotion among all age/sex classes at both sites; infants and juveniles jumped more than adults; and females and males were generally similar in their pattern of locomotion. Generally, all individuals preferred small to medium to large and oblique to horizontal to vertical substrates, and preferred mid-canopy to crown to emergent trees. Infants used their tail more during locomotion than any other age group.

Pritchard, Alexander Jonathan (Central Washington University)
Sheeran, Lori K. (Central Washington University, Department of Anthropology)
Jensvold, Mary Lee (Central Washington University)
Gabriel, Kara I. (Central Washington University)
Li, Jinhua (Anhui Normal University, School of Life Sciences)
Wagner, Ronald S. (Central Washington University)
Measuring Personality Traits in Provisioned Tibetan Macaques (Macaca thibetana), Mt. Huangshan, China
Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)
Non-human primate personality research can aid in understanding the context through which human personalities and group structures evolve. The present study presents an exploratory technique for personality assessment that utilizes behavioral measures selected without a priori assumptions. We studied a group of free-living, provisioned Tibetan macaques (*Macaca*

thibetana) during August-September, 2012. Familiar humans rated 12 adult macaques using a 27-item personality survey for each monkey. Behavioral measures were recorded from observations of the same 12 monkeys. A Principal Component Analysis on the reliable elements of the personality survey revealed five personality components: Insecurity, Reactivity, Boldness, Sociability and Leadership. Discriminant analyses were used to determine which behavior variables best predicted personality group membership for each of the components. These results indicate that the behavioral measures of avoidance, lunging and fear grinning, self-directed behaviors and touching, proximity, and chasing can be used to significantly ($p \leq .05$) predict personality types in this population.

Punke, Michele, L. (Archaeological Investigations Northwest, Inc.)

History Beneath the Streets: The Archaeology of the Portland-Milwaukie Light Rail Transit Project

General Session (Friday 1:00 PM-5:00 PM, Multnomah Falls)
Archaeological investigations during construction of a light rail transit line between the cities of Portland and Milwaukie, Oregon, have revealed numerous historic-period archaeological sites beneath city streets, parking lots, and street-side embankments. Archaeological deposits dating to the late 1800s and early 1900s provide a glimpse into the lives of Oregonians as they settled into the city and surrounding areas. This presentation summarizes the archaeological discoveries that have been made along the light rail corridor, including refuse disposal features, sewer features, remains from the Fischer Pottery factory, and structural features from the Portland Traction Company's interurban railway.

Punke, Michele, L. (Archaeological Investigations Northwest, Inc.)
see *Davis, Sara, J.*

Reed, Patrick (ICF)
Meeting New Challenges in Archaeological Monitoring, Presentation 2
Symposium (Saturday 10:20 AM-12:00 AM, Crater Lake)
Rapidly evolving construction methods pose new challenges for archaeological monitoring. In this session of brief (3-5 minute) presentations, regional cultural resource professionals discuss approaches for cultural resources training and monitoring of construction crews working with newer construction techniques.

Patrick Reed (IFC International)

J. Tait Elder (IFC International)

Shane Sparks (IFC International)

Experimental Research on the Effects of Fluvial Processes on Exposed Archaeological Features Located on Point Bars along Streams with Annual Discharge Variation – Preliminary Results.
Poster Session 2 (Friday Morning 10:30 -12:00 AM Wahkeena Falls)

It is commonly assumed that archaeological sites formed within active river channel margins are unlikely to preserve. While this assumption is grounded in well-documented physical processes and relationships, it has largely been untested. We developed an experimental approach to test this relationship, and presented the experimental study plan at the NWAC 2012 conference. Using this study plan, and integrating input from the conference participants, we implemented an experimental analysis of how archaeological hearth features preserve within an active river channel margins. In early November 2012, we placed four faux hearth features along a point bar of the Snoqualmie River. Over the next two months, at least two of the faux hearth features were inundated by high water events on four occasions. Over the course of this period, we revisited the study area periodically to observe how these events

affected the features. In this poster, we present and synthesize the preliminary results of this analysis.

Reese, Kelsey M. (Washington State University)

The Spatial Relationship of Community in Mesa Verde Proper: Preliminary Results

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

The unique topography of Mesa Verde National Park produces challenges in defining a “community” in the traditional spatial sense. Previous definitions in the Mesa Verde region have included both quantitative and qualitative methods—including the likelihood of regular interaction between households, the presence of non-kin members, etc.—but focusing on the park itself produces its own challenges. By analyzing the distribution of habitation sites through fourteen modeling periods, as defined by the Village Ecodynamics Project, the characteristics of settlement patterns can be observed and defined through time and space. This approach allows for the observation of emergent characteristics of a community within this small geographic region. Therefore this study aims to define “community” in terms that are specifically tailored to Mesa Verde proper, which may or may not conform to the characteristics defined in previous literature.

Reinhard, Karl J. (University of Nebraska)

see *Jenkins, Dennis L.*

Renard, Flynn (Portland State University)

Horton, Elizabeth, A. (National Park Service)

19th Century Dog Burials at Fort Vancouver National Historic Site, Vancouver, Washington

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

Fort Vancouver was the 19th century headquarters for both the Hudson’s Bay Company’s (HBC) fur trading enterprise and the U. S. Army in the Pacific Northwest. Since 1947, National Park Service archaeological excavations at the HBC stockade, company village, and quartermaster sites have addressed the analytical potential of the site for studies of architecture, ethnicity, spatial analysis, and economics. Understanding dog breeds at Fort Vancouver can answer questions concerning socio-economic status along with daily household organization. Using osteometric analyses, previous research on Makah and Coast Salish dogs established two body size types that are significant for determining breed origin. This paper examines whether skeletal dog remains recovered during excavations at Fort Vancouver demonstrate significant differences and/or similarities in body form from native breeds. This research expands our zooarchaeological knowledge of dogs as domesticates in the Pacific Northwest, and sheds light on social interactions within 19th century communities at Fort Vancouver.

Rennaker, Patrick W. (Central Washington University)

McCutcheon, Patrick T. (Central Washington University)

Macro-Botanical Recovery Rates Using Flotation of Sediments from the Sunrise Ridge Borrow Pit Site

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

The paleo-ethnobotany literature on recovering macro-botanical remains from archaeological sites suggests that the pre-treatment of flotation sediment samples will affect recovery rates. In order to determine the best approach at the Sunrise Ridge Borrow Pit Site (45PI408) we conducted a set of experiments with comparable samples of freshly excavated sediment. This site has a diverse set of features that contain large amounts of visible plant remains. Knowing which recovery technique will produce the best identification rates will greatly facilitate comparisons. We collected 13 four-liter samples of freshly excavated sediment during the summer of 2012. Each freshly excavated sample was split into 4 one-liter samples, one of which was immediately processed in a flotation tank. Two samples were dried, one to be

floated after drying and the other to be gently dry sieved through a nested screen stack. Preliminary results show that samples sent through the nested screens recover greater amounts of charcoal compared to either of the floated samples (fresh and dried).

Alternatively, there are differential recovery rates in samples from the flotation system. These results are discussed in relation to the amount of time it takes to process the samples.

Retherford, Tyler (Washington State University)

Andrefsky, William (Washington State University)

Adams, Jacob (Washington State University)

Distinguishing Lithic Geofacts and Artifacts at the Individual Level

General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)

A problem facing many archaeologists is the accurate identification of human produced, as opposed to naturally occurring, lithic artifacts. This is especially true in the case of highly contentious claims of sites predating Clovis occupation. Many of these sites are defined by their seemingly simplistic lithic assemblages which are often critiqued as natural, rather than human produced. Often these sites are critiqued by qualitative analysis of individual suspect artifacts in an attempt to judge whether they are human produced. Here an experimentally created set of fall-produced geofacts are analyzed at the level of individual artifacts to determine the utility of this approach, focusing on apparent flake tools, cores, and debitage. While some characteristics are suggestive, a lack of ubiquitous diagnostic features differentiating geofacts from artifacts indicates this approach alone is not sufficient to distinguish between gravity-produced natural flakes and intentionally created human debitage. Instead, an assemblage-level analysis methodology is recommended.

Rhynalds, Kyli (Edmonds Community College)

see *Dewey, Kyle*

Rhynard-Geil, Shannah (Oregon State University)

Camel Cigarette Tins in Historical Archaeology Sites

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

Cigarette and tobacco tins are frequently encountered at mining and railroad sites. It is possible to find the date range of an archaeological site by dating the artifacts found there. Cigarette and tobacco tin canisters and labels change habitually through out time. As disposable consumer goods, these tins can provide excellent chronologies of sites, as well as information regarding the lives of their inhabitants. However, without proper research, archaeologists can easily be led astray. The Camel cigarette tin is a perfect example. In the 1990’s, “throwback” Camel cigarette tins were introduced to the market and can easily be mistaken for genuinely vintage tins. Also, other companies have attempted to sell their products by mimicking the Camel logo. Truly vintage Camel cigarette tins were available only in 1930. This poster illustrates the evolution of Camel’s logo.

Rice, David, G.

Symposium Discussant

Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Rinck, Brandy (SWCA)

Meeting New Challenges in Archaeological Monitoring, Presentation 5

Symposium (Saturday 10:20 AM-12:00 AM, Crater Lake)

Rapidly evolving construction methods pose new challenges for archaeological monitoring. In this session of brief (3-5 minute) presentations, regional cultural resource professionals discuss approaches for cultural resources training and monitoring of construction crews working with newer construction techniques.

Rinck, Brandy (SWCA)

see *Kopperl, Robert*

Riser, J. Luran (WSDOT ESO)

SR99 Alaskan Way Viaduct Replacement Project: An Archaeological Monitoring Update on the Bored Tunnel Launch Pit and Cut and Cover Tunnel Access

Symposium (Friday 10:20 AM-4:40 PM, Astoria)

The Alaskan Way Viaduct Replacement Project (AWVRP) presents many archaeological opportunities rarely experienced on Washington State Department of Transportation (WSDOT) projects. Excavation of the 400 foot long deep bored tunnel launch pit and south portion of the tunnel continues to present many unique challenges. Through Section 106 commitments, WSDOT is engaged with extensive monitoring and continuous investigation of deep deposits where conventional assessment approaches are ineffective. Geotechnical data and ongoing investigations from secant pile drilling have contributed valuable information to understanding the stratigraphy and cultural resources potential of the project area. Utilizing construction activity to find landforms makes it imperative to plan ahead and develop a protocol for construction personnel to follow if a significant resource is encountered. Archaeological monitoring of the historic tide flat layer within the launch pit is nearly complete. This paper will discuss monitoring, coordination methods, and provide a general update of the AWVRP.

Rondeau, Michael (Rondeau Archaeological)

see *Jenkins, Dennis L.*

Rorabaugh, Adam N. (Washington State University)

McNabb, Caitlyn Y. (Washington State University)

A Gravity Model of Lithic Material Quality and Implications for Toolstone Access and Ownership in the Salish Sea

Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)

Although provenience studies can inform which sources of lithic raw material were used by past peoples, why certain sources were used are tied to a constellation of geologic, geographic, and social factors. In order to examine why certain lithic sources were used, Wilson's (2007) gravity model of lithic resource attractiveness is employed to examine the geological and geographical reasons for utilizing some sources (CVR, CCS, and Obsidian sources are examined) reported in the literature over others in the Coast Salish region. A material quality index (MQI) is used to assess toolstone from 40 sites in the Salish Sea over the past 5,000 years. A comparison of MQI with the gravity model suggests that social factors such as resource ownership and toolstone representing 'pieces of places' results in departures from the expected distribution of toolstone at some sites than what would be predicted from material factors alone.

Rorabaugh, Adam N. (Washington State University)

A Typological Debitage Analysis of DgRv-6, a Late Gulf Island Plankhouse: How the Byproducts of Production Reflect Continuity in Daily Practices

Symposium (Saturday 8:00 AM-9:40 AM, Crater Lake)

With few exceptions, in-depth studies of the byproducts of Northwest Coast lithic production have taken a back seat to formed tool studies. Debitage analyses can provide key insights to the transmission of daily practices. Following Sullivan and Rozen (1985), I present a typological analysis of thedebitage from DgRv-6, a late period (1100 BP-Contact) Coast Salish plank house, and its associated midden. Although the living floors of the house were regularly cleaned, resulting indebitage associated with early stages of reduction being found primarily in midden deposits and the edges of the house, obsidian and slatedebitage were found in association with the center of the house and its sea urchin feature. These patterns appear stable through time and may reflect continuity in daily practices at DgRv6. This study highlights the contribution of high resolutiondebitage analyses towards furthering our understanding of the use of space within Northwest Coast households.

Rose, Chelsea (Southern Oregon University Laboratory of Anthropology)

Failures and Frauds on 'the Big Sticky': The Archaeology of Two Homesteads in the ODOT Vernal Pools Restoration Bank, Jackson County, Oregon

Symposium (Friday 10:20 AM-4:40 PM, Astoria)

Recent excavations at the Bryant Homestead Site 35JA791 and the Kincaid Homestead Site 35JA822 provided a glimpse into the settlement and development of the Agate Desert. The Agate Desert, or 'big sticky', appears bucolic, yet is a landscape largely unfit for agriculture due to its unique hydrology. Accordingly, archaeological assemblages reflected a short-lived occupation suggesting early homesteaders in the Agate Desert were building just enough infrastructure to 'prove up' and comply with the Homestead Act requirements, but not making long-term investments in the properties. The partially improved abandoned homesteads were readily snatched up by turn of the century land speculators and tuned into equally unsuitable orchard tracks, most of which remained undeveloped. Although these findings are preliminary, they highlight that archaeological investigations into otherwise unremarkable homesteads can provide valuable information about how the modern Rogue Valley was shaped through its failures and frauds, and not just its successes.

Rose, Chelsea (Southern Oregon University Laboratory of Anthropology)

see *Tveskov, Mark*

Rosenberg, J. Shoshana (Portland State University)

Butler, Virginia L. (Portland State University)

A Study of Social Rank and Resource Control Using Ichthyofaunal Remains from the Cathlapotle Plankhouse Village Site on the Lower Columbia River

General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)

Social inequality and inherited rank are a trademark of the social organization of Northwest Coast Native Peoples, and faunal remains are one potential path for examining this. My thesis work will test the relationship between prestige differentials and subsistence patterns through the analysis of fish remains from the Cathlapotle plankhouse village site (45CL1) on the Lower Columbia River. Using models from optimal foraging theory to develop a ranking system for fish taxa based primarily on size, I will examine the degree to which social rank designations of house units are reflected in the spatial distribution of ichthyofaunal remains relative to their taxonomic rankings. Preliminary analyses based on NISP show a higher proportion of salmon compared to lower-ranked minnows/suckers in the house compartment where elite members of the village likely lived. My research will inform on the nature of resource control in the region and the efficacy of drawing conclusions about social rank through faunal remains.

Ross, Laurie (Edmonds Community College)

see *Dewey, Kyle*

Rossi, Mary (APT-Applied Preservation Technologies)

Workshop Moderator

Workshop (Thursday 3:40 PM-5:00 PM, Elowah Falls)

Roulette, Bill (Applied Archaeological Research, Inc.)

'Life in Wartime': An Examination of the Master Narrative Regarding America's Participation in WWII As Seen in the Archaeological Evidence from the Vancouver Kaiser Shipyard landfill, 45CL927

General Session (Thursday 8:00 AM-12:00 PM, Wahkeena Falls)

The master narrative that has been created to help us understand and digest American's WWII experience casts it as the "Good War" in which the United States with a little help from Great Britain freed the world from tyranny. In large part, victory was

achieved because Americans stood together, made sacrifices, and were patriotic. In so many regards, the WWII master narrative rings true. But the fact is that we were not all in it together. Archaeological investigations at site 45CL927 provide insight into the how everyday experience of shipyard workers deviated from the WWII master narrative. Alcohol beverage containers and shipyard craft projects reflect behaviors that contradict the popular image of the home front patriot.

Rowland, Julia M. (Equinox Research and Consulting International Inc. (ERCI))

"Keep Me Posted: A Look at Historic Social Networking and Postcard Use in Washington State (1905-1927)"

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

In today's age of Facebook and Twitter, we are well aware that social networking plays an important role in human life. In the past status updates were more than a click away, but people still maintained expansive social networks. Postcards played a role in these relationships. Although thought of today as souvenirs, this study illustrates that postcard's utility in the past was more day to day. This study examines the written messages of over 500 postcards from a personal collection recovered in Anacortes, Washington. By providing analysis and archival information, this poster will create a snapshot of social networking in the past. Further, this research illustrates a new way that historic postcards can be used to reconstruct the past. Postcards have long been of interest for their images, which hold valuable clues to architecture and lifestyles of the past, but rarely has their content been considered.

Russell, Hannah (University of Idaho)

The Consequences of Valued Archaeology: The Absence of Documented Historic Indigenous Sites on the Columbia Plateau and What We Can Do About It

General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

The archaeology of the American West documents the prehistoric Indigenous site, and the historic Euro-American site. This simplistic dualism denies historic diversity. Although there have been meaningful advances in the documentation of plurality, the archaeology of historic Indigenous sites remains a blind-spot. While some archaeologists are addressing this issue, the application is regional. On the Columbia Plateau historic Indigenous site documentation is absent. This paper identifies three problems that perpetuate the repression of this archaeological knowledge. Firstly, the biases of archaeologists overlook and misinterpret historic Indigenous components. Secondly, individual specialization muddles archaeological contexts in the field; and lastly, once misinterpreted in the field and the lab these misidentified sites and site components are archived with misinformation. Finally, I will suggest some possible solutions by drawing from regions that have been successful in identifying and documenting historic Indigenous sites thereby incorporating them into their regional pluralistic narrative.

Ruzicka, Annette (Washington State University)

Grier, Colin (Washington State University)

Indigenous and Community Archaeology: Implementing Hul'qumi'num Customary Law in Archaeological Practice on Galiano Island, British Columbia, Canada

Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)

Indigenous archaeology represents a growing sub-field that advocates localized practices and encourages archaeologists to consider the broader impacts of their research. A main tenet of Indigenous archaeology is the incorporation of Indigenous cultural knowledge and oral traditions into archaeological practice and interpretation. Here, we present research conducted at Dionisio Point on Galiano Island, southwestern British Columbia as an attempt to develop a methodology consistent with Hul'qumi'num traditions of cultural heritage management as expressed in

Hul'qumi'num customary law. We present the basic tenets of Hul'qumi'num customary law that pertain to archaeological research, as identified by the Hul'qumi'num Treaty Group and Penelakut First Nation. We discuss how these tenets were incorporated and implemented in archaeological practice in the 2012 excavation of the Perry Lagoon Midden Site (DgRv-006) at Dionisio Point.

Ryan, Erin (Edmonds Community College)

see Dewey, Kyle

Saban, Chantel V. (Department of Anthropology, Oregon State University)

Palynological Perspectives on Late Pleistocene to Early Holocene Human Ecology at Paisley Caves (35LK3400), Cave 2 Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)

Paisley Caves (35LK3400) is a system of eight rockshelters located in the Summer Lake Basin of Eastern Oregon. Excavations of these Caves resulted in the discovery of 14,300-year-old coprolites yielding ancient human DNA, representing some of the earliest human remains in the New World. Arid conditions at the site help to preserve perishable cultural materials as well as micro- and macrobotanical fossil remains. This study uses pollen recovered from well stratified cave sediments to build a paleoenvironmental record of the Summer Lake Basin from the time of earliest human habitation in the late Pleistocene to the Mount Mazama eruption in the early Holocene. The goal of this study is to shed light on the paleoenvironmental context of early human occupants at Paisley Caves and to better understand the adaptive context of early humans in the Northern Great Basin.

Sackman, Adam (Washington State University)

see Grier, Colin

Sackman, Adam (Washington State University)

see Marino, Matthew

Safi, Kristin N. (Washington State University)

Dolan, Patrick (Washington State University)

Evaluating Site Connectivity and Marine Travel Through Time Among Settlements of the Salish Sea

Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)

This analysis examines prehistoric settlement patterns within the Salish Sea. For much of the Holocene, canoes would have been the dominant mode of travel across the coastscape created by the inland water ways of southwestern British Columbia and northwestern Washington. Drawing upon site records from both regions covering the last four decades, we assess patterns in site distributions and patterns of connectivity and travel among shoreline occupations spanning the mid to late Holocene. We utilize GIS- based pathways analysis to generate realistic travel corridors between known site locations. Clustering algorithms and network analyses permit us to evaluate the degree to which site location and large site centrality is a function of neighboring site distributions, potential resource access, and marine travel between clusters and network nodes.

Saltonstall, Patrick (Alutiiq Museum and Archaeological Repository)

see Odell, Molly

Sammons-Lohse, Dorothy (Chair, Department of Instructional Design, Idaho State University)

Roundtable Participant

Roundtable (Thursday 8:00 AM-10:00 AM, Pyramid)

Sappington, Robert Lee (University of Idaho)

Longstaff, Laura (University of Idaho)

**Results of Investigations at the Kelly Forks Work Center Site:
12,000 Years of Human Occupation at the Interface Between the
Columbia Plateau and the Northwestern Plains**

General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)

University of Idaho archaeologists conducted field schools from 2010 to 2012 at the multi-component Kelly Forks Work Center site (10CW34), located at the confluence of Kelly Creek and the North Fork of the Clearwater River on the Clearwater National Forest. A series of twenty-six radiocarbon dates, beginning ca. 10,680 BP (Cal BP 12,820), document recurring occupations from the early Holocene into the historic period. Concentrations of Windust phase and Cascade phase flaked lithic tools, plus anvils, net weights, and shaft abraders were recovered, indicating that onsite activities included tool manufacture and modification, as well as fishing, hunting, and animal processing. While most cultural materials are comparable to those from the southern Columbia Plateau, several lithic tools are similar to styles from the northwestern Plains, including a Paleoindian Goshen point and a late prehistoric Avonlea point. Protein residue analysis from lithic tools and features has identified bison, rabbit, human, and beaver/porcupine antisera. X-ray fluorescence has identified obsidian and vitrophyre items from multiple sources in Idaho, and Oregon, and Montana. Kelly Forks represents a significant setting in the northern Rockies located at the interface between the Columbia Plateau and the Northwestern Plains that was used intermittently for more than 12,000 years.

Sayward, Taylor A. (Western Washington University)
see *Bredeson, Molly L.*

Schiell, Rachel (University of Idaho, SWCA)
see *Johnson, Amy*

Schrock, Jedd (Portland State University)
see *Zenk, Henry*

**Schulze, Savannah M. (Chimpanzee & Human
Communication Institute)**

**Mas, Jessica M. (Chimpanzee & Human Communication
Institute)**

**Stafford, RyAnn (Chimpanzee & Human Communication
Institute)**

Jensvold, Mary Lee (Central Washington University)
***Captive Chimpanzee Preference for Environmental Enrichment:
Naturalistic vs. Artificial***

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

The cognitive abilities of chimpanzees are complex requiring challenging environmental enrichment that promotes well-being and species typical behaviors (Fouts 1998; Lutz & Novak 2005). We examined the use and preference of two types of enrichment for three adult chimpanzees living in captivity at the Chimpanzee and Human Communications Institute. These include (1) artificial: magazines, drawing material, brushes, cardboard, toys etc., and (2) naturalistic: items typically found in a free-living environment such foliage and branches (Davey 2005). We predicted that as cross-fostered chimpanzees they would demonstrate a preference for artificial enrichment. A chi-square test of independence revealed that the proportion of time intervals during which the chimpanzees touched the enrichment varied with condition in all three individuals. Overall rates of touching were greater in the naturalistic enrichment condition. Naturalistic enrichment often was edible which may account for the differences in conditions. The implications of these results will be discussed.

Schwartz, Tracy (University of Oregon)
***"Fantastic!" "Wonderful!" "Excellent!": Education and Public
Perception of Archaeology at the Cyrus Jacobs-Uberuaga
Boarding House Well Excavation***

Symposium (Thursday 10:20 AM-11:40 AM, Multnomah Falls)

Rarely do archaeologists have the opportunity to act as a tour guide for over 1,000 eager site visitors while also trying to conduct an excavation. However, this was the case at the Cyrus Jacobs-Uberuaga Boarding House in Boise, Idaho during a ten-day span in August of 2012. Not wanting to miss an opportunity to gather more data than just the artifacts coming up from the well, a survey was created and public input on archaeologies ability to educate was collected. This paper will summarize some of the results from the public's responses, as well as share the good, the bad, and the unforgettable lessons learned.

Schwartz, Tracy (University of Oregon)

***The Spirit of Section 106: An In-Depth Look at the Adoption of
the National Historic Preservation Act of 1966 and the
Conversation Surrounding Section 106***

General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)

On October 15th, 1966 President Lyndon B. Johnson signed legislation creating Public Law 89-665, the National Historic Preservation Act (NHPA). Included in this bill was Section 106, which mandates that projects with federal funding consider any impact on historic resources, including pre-historic and historic archaeological sites. Despite the site protection and job security created by the NHPA, rarely do we consider the timing, the people, the purpose, and the conversation surrounding its adoption. This paper will explore who the major players were behind the NHPA, what events were having an undeniable impact on the creation of the law, what was being said about Section 106 in the halls of Congress, and why the timing was crucial. This knowledge sheds new light on the law that, whether for good or bad, we all work within. We cannot understand the future of the Section 106 without first understanding where it has been and its history.

Scott, Emily (AMEC Environment & Infrastructure, Inc.)
see *Murphy, Thomas*

Scott, Jamieson-Lee (University of Idaho, SWCA)

A Visual Sample of Overseas Chinese Ceramics

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

The study of lifeways of Overseas Chinese has been an important topic in historic archaeology of the American West. Questions pertaining to their socioeconomic status, marginalization, role in the development of an industrialized and urbanized United States, and, in many instances, expulsion, have been explored in the archaeological record. Following excavations along the historic Northern Pacific Rail line and of a building occupied by Chinese immigrants in the late 19th to early 20th century in Sandpoint, Idaho, has offered up examples of Chinese ceramics that fall within the existing typologies. The now catalogued Sandpoint assemblage is an invaluable teaching tool as it exemplifies a wide variety of ceramic types associated with Overseas Chinese. This poster will provide a helpful guide to these ceramics.

Scott, Shane (Central Washington University)

Destination Resort Planning with Coal Mining Themes

Symposium (Friday 8:00 AM-9:20 AM, Astoria)

Coal mining in Central Washington spanned from the late 19th to early 20th century. The Roslyn-Cle Elum Coal Field was at one time the most extensive and valuable in Washington State and by 1961 over 50 million tons of coal had been extracted and shipped from the Number 9 mine. The features of the Number 9 Mine were recorded in 1998 as site number 45TK1380 and determined eligible to the National Register of Historic Places. Mining operations have left an indelible mark on the local landscape in the form of building foundations, mine entrances, rail lines, and waste piles. Since 2004, CWU has assisted Suncadia in their cultural resource compliance work in the Roslyn Area. Embracing the coal mining history of the Roslyn became a critical planning point for

Suncadia. Housing tracks, golf courses, and facilities have been designed in a way to incorporate, celebrate, and interpret the historic archaeological mining features thereby supporting a profound sense of place in this community. The Number 9 mine is the center point of this planning effort.

Scott, Shane (Central Washington University)
Symposium Discussant
Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Scott, Shane (Central Washington University)
see *Matthes, Whitney*

Sellers, Robby (Washington State University)
see *Marino, Matthew*

Shannon, Donald (Willamette Cultural Resources Associates, Ltd.)
Don't Believe Everything You Read About Northwest Tribes: The Need For Continued Ethnographic Work in the Northwest
General Session (Thursday 1:00 PM-4:20 PM, Wahkeena Falls)
Like most cultural resource work, ethnographically oriented compliance efforts operate under time and budget constraints. These hinder the traditional cultural anthropological model of conducting fieldwork to understand a culture through time: learning languages, establishing personal contact and rapport with community members, and repeated field visits. Instead, we rely heavily on previously published material, primarily Vol. 12 of the Handbook of North American Indians. This volume is the starting point for much of the ethnographically oriented compliance work by contractors in the Northwest. While an impressive piece of work, it contains mistaken spellings, mis-location of places, and statements about Native peoples that are clearly wrong. Contractors and Federal Agencies need to acknowledge that published material is but a starting point. There is no substitute for ethnographic work to understand the cultural continuity and living culture of the Tribal communities in the Pacific Northwest.

Shantry, Kate (SWCA Environmental Consultants)
The Distribution and Meaning of Labrets on the Salish Sea
General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)
The understanding of labrets on the Northwest Coast is mostly attributed to ethnographic and ethnohistoric studies, and the archaeological record of the Arctic, the North Coast, the Gulf Islands, and the lower Fraser River. Expanding the data set into Washington State provides a fuller picture of labretifery on the Salish Sea, where cultural, geographic and temporal distributions suggest that labrets can be viewed as signifiers of economic relationships amongst village groups. By employing the labret as a proxy for seascape relationships, finer-grained studies can be conducted using requisite site data.

Sharley, Ann (SWCA Environmental Consultants, Seattle)
Bridge No. 737, Juneau: Just Another 1960s Concrete and Steel Bridge?
General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)
In 1965 the Alaska Department of Highways constructed Bridge No. 737, also known as Brotherhood Bridge, across the Mendenhall River eight miles northwest of the City of Juneau. The bridge was a steel girder structure, a type ubiquitous throughout Alaska and the rest of the nation during the period. Bridge No. 737 served the Juneau community well, conveying ever-increasing numbers of vehicles over the river. In time, however, the harsh southeastern Alaska climate, seasonal flooding, and an occasional jokulhlaups took their toll. By 2010 the deteriorated bridge was slated for replacement and Alaska Department of Transportation and Public Facilities contracted with SWCA for cultural resources assessment of the structure. Bridge No. 737 was determined

eligible for listing on the National Register of Historic Places. What made this bridge stand out from others of its type? Feel free to attend the session to learn the rest of this interesting story.

Shaw, Lawrence (University of Idaho)
Marketing Ben Hur
Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)
During excavations for Dr. Stacey Camp's Kooskia Internment Camp Archaeological Project in 2010, the base of a Ben Hur Coffee glass jar was unearthed. This poster will explore the marketing of Lew Wallace's story, Ben Hur. The book was published in 1880 and sold over 1 million copies by 1911. This book inspired plays, two movies, and countless franchised products. Ben Hur Coffee and spices were manufactured in California but were sold all over the West. Ben Hur Coffee artifacts have also been found at the Manzanar Japanese internment camp. The artifacts found at Kooskia and Mazanar are early examples of marketing strategies that are used in today's film industry.

Shea, Holly, A. (Warm Springs Geo Visions)
The Grissom Site: The Research Potential of a Rehabilitated Archaeological Collection, Kittitas Valley, WA.
Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)
The Grissom site (45KT301) is a multi-component archaeological site in northeast Kittitas Valley, excavated by Central Washington State College between 1967 and 1971. The site is significant because it is one of few scientifically excavated upland sites in the Columbia Plateau and likely represents part of Che-lo-han, an annual intergroup gathering place. Excavations at the site produced 13,622 catalogued bags of pre-contact and historic artifacts. Due to the organization of early field schools, excavation results were never published. The Grissom site's rehabilitated collection presents a highly cost-effective way to explore new research questions about past site occupations and regional settlement patterns. This paper presents a summary of investigations at the site and a synthesis of collection research. Results prove the invaluable research potential inherent in the Grissom site collection and reveal tangible links to Kittitas Valley heritage.

Shea, Holly, A. (Warm Springs Geo Visions)
Symposium Discussant
Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Shea, Johonna (SWCA Environmental Consultants)
It's Time to See the Frozen Fish Aquarium
Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)
The Seattle Frozen Fish Aquarium was the first such facility of its kind and, when opened, was thought to be unique in the country. The tourist attraction, located in the cold storage rooms of the Port of Seattle's Spokane Street Terminal, was opened to the public in 1921 and contained more than 100 specimens. The aquarium seems to have been most popular in the early 1930s, though it remained in operation until 1956 when the Port finally closed it down.

Sheeran, Lori K. (Central Washington University, Department of Anthropology)
see *Humphreys, Jennifer E.*

Sheeran, Lori K. (Central Washington University, Department of Anthropology)
see *Link, Jessa*

Sheeran, Lori K. (Central Washington University, Department of Anthropology)
see *Pritchard, Alexander Jonathan*

Sheldon, David (Central Washington University)
Chatters, James

Fairbanks, Marc (Central Washington University)
Gustafson, Bruce

Brauner, David (Oregon State University)
Early Resource Intensification and Collector Strategies: The
Bray Site, Pierce County, WA

Poster Session 2 (Friday 10:20 AM-12:00 PM, Wahkeena Falls)

The Bray Site in Southern Puget Sound contains intact pit-hearth features indicative of resource intensification (ca. 2000-4000 RCYBP). The site was investigated due to damage related to construction on private property. Radiocarbon dates and evidence for food residues are reported. Along the Northwest Coast, mass food processing and storage were well established by 3500 RCYBP, especially where marine resources were abundant. To date we have no such early evidence for mass plant processing in Southern Puget Sound. Evidence from the Bray Site suggests that a collector strategy, including mass processing of plant food resources, developed along the White River perhaps as early as 4000 RCYBP. The extent and patterning of site cooking features are documented using minimally destructive testing and 3-D GIS mapping. The use of a LiDAR base layer combined with a GPS survey and coupled TOPCON base station, produce high resolution 3D maps that support both archaeological interpretations and damage assessment.

Shepard, Emily (Portland State University)

Quantifying Labor Involved in Plankhouse Construction and
Maintenance on the Southern Northwest Coast

General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)

On the Northwest Coast, plankhouses frequently stood for hundreds of years and housed many generations. These large wooden structures were costly to build and required ongoing repair. In this presentation, I quantify the materials and labor involved in construction and maintenance of plankhouses at two sites in the Lower Columbia River Region of the southern Northwest Coast, Meier and Cathlapotle. To do so, I use GIS data from excavations at Meier and Cathlapotle, along with historical documents and ethnoarchaeological studies. This project demonstrates that massive amounts of raw material and labor were required for initial construction and continued repairs of these dwellings. These tasks also required considerable skill, careful planning, and sustained transmission of knowledge through generations.

Shong, Michael (SWCA)

Meeting New Challenges in Archaeological Monitoring,
Presentation 7

Symposium (Saturday 10:20 AM-12:00 AM, Crater Lake)
Rapidly evolving construction methods pose new challenges for archaeological monitoring. In this session of brief (3-5 minute) presentations, regional cultural resource professionals discuss approaches for cultural resources training and monitoring of construction crews working with newer construction techniques.

Shong, Michael (SWCA)

Late Pre-Contact Maize on the Columbia Plateau: Evidence of
Long-Distance Exchange, or a Case of Mistaken Identity?

Poster Session 3 (Friday 1:00 PM-2:40 PM, Wahkeena Falls)

The Bonspur Lithic Scatter (45DO917) is a pre-contact, upland encampment in lower Moses Coulee in Central Washington State. The site occupies a stable dune landform approximately 4 kilometers east of the Columbia River. Data recovery conducted in 2012 focused on a small cultural feature identified during testing composed of fire-modified rock, lithic artifacts and faunal remains. Radiocarbon analysis of culturally-associated charcoal produced a calibrated date range of 550-650 BP. The feature also produced a pestle and hopper mortar base, the latter of which was submitted to PaleoResearch Institute for phytolith, starch, and protein residue analysis. The analysis yielded negative results for traditional Salishan food staples such as camas, lomatium, salmon, and other Plateau-based foods; however, combined phytolith and starch

evidence indicates that maize kernels and grass seeds were processed on this tool. This poster presentation examines the possibility of long distance exchange networks prior to the introduction of the horse into Plateau Culture.

Shou, Corey (Idaho State University)

Roundtable Participant

Roundtable (Thursday 8:00 AM-10:00 AM, Pyramid)

Simmons, Stephanie (Portland State University)

More than their Contents: The Recontextualization of Vessel
Glass into Tools by Chinookan Peoples and Fur Traders

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

Researchers worldwide have studied the reutilization of glass fragments into indigenous tool forms. Recent excavations at the contact period Chinookan Middle Village revealed that glass had been culturally modified into tools. Historical records do not report whether Chinookan peoples modified glass to create tools, and what the motivation was for such use. This paper reports the archaeological analysis of glass assemblages from two Chinookan Villages, Cathlapotle and Meier which were occupied until approximately 1830. Additionally the glass assemblages from two houses from the colonial-period multiethnic employee village of The Hudson's Bay Company's Fort Vancouver are compared to these. It appears clear that indigenous and fur trade peoples recontextualized glass in a variety of ways.

Skinner, Colin (Southern Oregon University)

Artifact Conservation: Restoring Corroded Ferrous Artifacts

General Session (Saturday 8:00 AM-11:20 AM, Elowah Falls)

In the summer of 2012 the Southern Oregon University Laboratory of Anthropology (SOULA) conducted a field school on the Oregon coast at "Camp Castaway," the site of an 1850s shipwreck. Due to the site conditions, artifacts recovered from this excavation are vulnerable and in need of conservation. Using electrolysis, a method of removing rust from ferrous material using an electrolyte, sacrificial anodes, and a power supply, selected ferrous artifacts are being stabilized with the goals of artifact analysis and long term preservation. Iron conservation is an important tool for use in both maritime and terrestrial contexts, and SOULA hopes to use this project as a means of establishing a cohesive methodology for use on a variety of project contexts.

Smith, Cameron M. (Portland State University)

Public Archaeology on the Ridgefield National Wildlife Refuge:
Integrating the Current Landscape Archaeology Approach With
the Cathlapotle Plankhouse.

General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)

From 1991-1996 the Wapato Valley Archaeology Project excavated Cathlapotle Village (45CL1), focusing on the dwellings of the Chinookan people of the protohistoric people of that village. Among many results was the Cathlapotle Plankhouse replica, now visited by hundreds of local nonlocal visitors annually, and used by local native people for gatherings and rituals. I comment briefly on this history before focusing on the Wapato Valley Archaeology Project's current research on the refuge, which is now characterized by a 'landscape archaeology' approach, setting Cathlapotle village in a geography of resource patches. I introduce a draft 'Cathlapotle Village Atlas' indicating resource patches likely visited by the people of Cathlapotle, and describe how this atlas can be used to help educate visitors of the Ridgefield National Wildlife Refuge about aboriginal land use.

Smith, Erin M. (Washington State University)

Fauvelle, Mikael (University of California, San Diego)

Comparing Canoes: Parallels in Watercraft use and Social
Organization in Southern California and the Northwest Coast
Symposium (Friday 1:00 PM-4:20 PM, Willamette Falls)

The Pacific Northwest Coast and California's Channel Islands were home to two of the world's most complex hunter-gatherer

groups. In both areas, societies could be characterized by their heavy dependence on watercraft for both trade and subsistence. Watercraft use, however, varied considerably between the two regions. On the Northwest Coast, boats were used by both commoners and elites for trade, subsistence, and residential mobility. The Chumash tomolo, on the other hand, served as a critical status item with access restricted to elites. These differences in watercraft use, we argue, are reflected in the settlement patterns, economic activities, and systems of social organization seen in both regions. This paper will compare the role of watercraft in the political economies and historical trajectories of California and the Northwest Coast in order to better understand the relationship between watercraft and social complexity seen in aquatic hunter-gatherer societies.

Smith, Geoffrey M. (Department of Anthropology, University of Nevada, Reno)

see *Pattee, Donald*

Smith, Julia (Eastern Washington University)

New Landscapes of Coffee in Costa Rica: Appellations and Traceability

General Session (Friday 1:00 – 5:00 PM Crater Lake)

Current food movements involve an increasingly specific placing of food within landscapes. Using ethnographic data collected in 2011, this paper explores how the rise of the elite coffee market has changed understandings of coffee landscapes in the Tarrazu region of Costa Rica. When coffee was treated as an undifferentiated commodity, coffee land was treated as more or less interchangeable. This new landscape of coffee is highly differentiated in ways like landscapes defined by wine production. Producers and governments have named and defined coffee regions, which are starting to function as appellations of origin. Within these regions, the best coffee comes from named farms. Finally, every lot of coffee sold through the elite coffee market is traceable: its harvest can be specifically located in space and time. Shifts in production and marketing have led to a new embedding of a product in its landscape.

Smith, Ross (SWCA)

see *Kopperl, Robert*

Smith, Stacy (Willamette Cultural Resources Associates, Ltd.)

see *Gilmour, Daniel M.*

Smith, William, C. (Central Washington University)

Symposium Discussant

Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)

Smith, William, C. (Central Washington University)

see *Blanchard, Christian*

Solimano, Paul S. (Willamette Cultural Resources Associates, Ltd.)

see *Gilmour, Daniel M.*

Solimano, Paul S. (Willamette Cultural Resources Associates, Ltd.)

see *Goodwin, Matt*

Spoon, Jeremy (Portland State University)

Environment: Indigenous Peoples and Protected Areas: A Model for Co-Learning

Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)

Governed by federal agencies, many protected areas in the United States exist within Native American ancestral territories. This presentation illustrates a model for engagements between indigenous peoples and these protected areas. The framework contains three components—consultation, resource stewardship and public education. In each, co-learning among indigenous

peoples, federal agencies, scientists, and the general public are vital to the process of achieving mutually agreed upon outcomes. As a case study, I present multiple on-going applied research projects in southern Nevada among Nuwuvi (Southern Paiute), the Fish and Wildlife Service and the Forest Service. These engagements utilize collaborative ethnoecological research, facilitated planning meetings with working groups of representatives from tribes and federal agencies, and multi-generation resource management activities to create and enhance communication pathways and to steward the land. To date, the projects have generated a consultation handbook, resource stewardship plan and content and design for four visitors centers.

Stafford, Jr., Thomas W. (Stafford Research Laboratories, Inc)

see *Jenkins, Dennis L.*

Stafford, RyAnn (Chimpanzee & Human Communication Institute)

see *Schulze, Savannah M.*

Stallard, Lindsey (Oregon State University)

Hill, Cayla (Portland State University)

Union or Strike? The Chronology of Pocket Tobacco Tins

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

During the late nineteenth and early twentieth centuries, pocket tobacco tins were widely sold and distributed throughout the United States. Being a ubiquitous commodity during the turn of the century, tobacco tins are now frequently found in archaeological sites today. With the introduction of chromolithography in 1882, tobacco companies could print colorful, graphic logos directly on the tin, rather than on paper labels. Fortunately for the archaeologist, the lithographed labels of each brand were preserved. Patent and trademark research along with extant examples from two common brands of tobacco, Union Leader and Lucky Strike, show the changes in tin and logo design throughout their years of manufacture. Since the trademark designs changed frequently, tobacco tins are excellent horizon markers for dating early twentieth century historic sites.

Steele, Rozsika D. (Central Washington University, Resource Management)

Amazonian Communities and Sense of Place

General Session (Thursday 8:00 AM-12:00 PM, Crater Lake)

The Area de Conservacion Regional Comunal Tamshiyacu Tahuayo (ACRCTT), located in Loreto, Peru, protects 1,000,000 acres of the Amazon basin. The creation of the ACRCTT is the result of resident communities' efforts to conserve the region's biodiversity, while maintaining the integrity of their livelihoods and local customs. This research examined community members' sense of place using Resident Employed Photography (REP) and ethnographic interviews. Thirty-three participants, representing a 47% sample of households in the neighboring villages of Buena Vista and El Chino, were given single-use disposable cameras and asked to take pictures of what was most important to them. A total of 631 photographs were developed. Participants sorted their photos in order of relative importance and then provided a narrative description of each image. The images identified as being the ten most important, a total of 320 photographs, were considered for analysis. Plants, palms, and trees represented 63% of these images.

Steinkraus, Mark (Central Washington University)

Hackenberger, Steven (Central Washington University)

The Number 4 Mine and its place in the History of the Roslyn-Cle Elum Coal Field

Symposium (Friday 8:00 AM-9:20 AM, Astoria)

Coal was extracted from the Roslyn-Cle Elum coal fields from 1886 - 1963. Initial extraction was done by the Northern Pacific Railroad and operations were later assumed by the Northwestern

Improvement Company. This rich history of mining is well preserved in the local community of Roslyn and Cle Elum today and has a significant effect on the cultural resource planning. The archaeological features of the Number 4 Mine are largely intact and were recorded in 2008. A landscape analysis of these features clearly identifies the above ground mechanics of the mining operation. A detailed history of local mining, description of mining features, and how these features worked together will be presented with a discussion of National Register Districts and Landscapes.

Stenger, Alison T. (Institute for Archaeological Studies)

Early Bifaces from Underwater Environments: A New

Perspective on Tool Use

Symposium (Saturday 8:00 AM-10:40 AM, Multnomah Falls)

A number of Western Stemmed points, and variants such as Haskett, have been recovered from underwater environments. All of the bifaces are stylistically early, and in excellent condition. The flake scars are clearly visible, and there is no evidence of water transport. More recent lithic types are rarely observed in association with these bifaces. Despite these areas of commonality, the types of aquatic ecosystems, and the surrounding environments represented, are tremendously varied. Waterways include quiet meanders, active river systems, and lakes. Elevations start at 100' above sea level and extend to more than 5,500'. This paper examines the early material and the associated environment for each type. Some alternative uses for these lithics, beyond large terrestrial game hunting, are proposed.

Sterling, Sarah (Portland State University)

Freeburg, Adam (University of Washington)

Milton, Christopher (Portland State University)

Potential Uses for GIS in the Analysis of Deposits at Tse-whit-zen

Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)

In this presentation, we outline the potential for GIS in the analysis of the excavated deposits at Tse-whit-zen. We are currently using GIS to integrate faunal databases from the site such that quantities of different taxonomic groups can be tied to their respective excavation strata. GIS also allows smaller excavation strata to be combined into larger depositional analytic units, while retaining original provenience information. In addition to these applications, we also discuss analytical potential for the method; quantifying spatial differences between identified households, connecting deposits indicative of seismic activity and further refining chronological information from the site.

Sterling, Sarah (Portland State University)

see *Butler, Virginia L.*

Sterling, Sarah (Portland State University)

see *Hutchinson, Ian*

Stevenson, Alexander E. (ICF International)

Freshwater Mollusc (Paleo)ecology in the Willamette Valley and Implications for Conservation

Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

Freshwater molluscs play an important role in stream and lake health and are bellwethers of water quality. Since Euro-American settlement of the Willamette Valley mollusc populations have been severely impacted by landscape modifications. These animals are also an important traditional food for peoples of the Willamette Valley. Conservation and restoration efforts drawing primarily on modern biogeographic data could benefit from ethnographic and archaeological information on these often overlooked invertebrates. In this paper, I review modern biological and anthropological data from the upper Willamette Valley to explore how data sets with a historical perspective might augment modern survey data to revise past ranges of freshwater mussels. Such historical data, while relatively rare in the region for a number of reasons, have implications for modern land management practices

including dam operations, agricultural practices and recreational use of the Valley's rivers as well as conservation biology.

Storey, Danielle (U.S. Army Corps of Engineers)

The Management and Regulation of Nature: An Examination of How Cultural Resource Management Fits into the Larger Picture of Flood Control and Ecosystem Restoration

Symposium (Thursday 8:00 AM-9:40 AM, Multnomah Falls)

The Pacific Northwest is characterized by its coursing rivers, wooded mountains, and rich and complex coastlines. The earliest emigrants to the region focused on harnessing those resources for industry and profit. Early pieces of Federal Legislation such as the Flood Control Act of 1936 viewed the environment in terms of how the natural world could be regulated for human use. Dams such as Mud Mountain and Chief Joseph became symbols of modernism and control. While the story of how cultural resource sites were submerged under these huge Federal projects is well known, shifts in our ideology in the last 20 years towards "green" projects comes with its own challenges. The removal of these flood control structures often entails the destruction of our early historic period sites, the self same locations that the original structures were built to protect. This paper examines how cultural resources fit within our shifting paradigm of what is natural and asks the question, what state are we trying to get back to?

Sullins, Kaeley (Central Washington University)

see *Carner, Amanda*

Survant, Cerinda (Portland State University)

see *Lahoff, Rachel*

Sweeney, Michael (Portland Public Schools (retired)/Lewis and Clark College (adjunct))

Teaching Anthropology in High School: Ruminations from a Public School Teacher

Symposium (Friday 10:20 AM-11:20 AM, Crater Lake)

Based on 20 years of teaching and observing in high school anthropology classes in Portland Public Schools, where 60 different languages are represented, this paper examines three topics: First, what is the International Baccalaureate Anthropology curriculum? How does IB's structure affect the construction of anthropological knowledge? Second, two ethnographic immersion examples: change and adaptation of H/Mong culture in the American Melting Pot, and the construction and transformation of Afro-Haitian identity in the New World. An anthropological critique, grounded by at least 3 cultural immersions, allows students to compare complex perspectives of diversity in the American public school. Texts, multiple theoretical approaches and ongoing fieldwork also inform the methods of teaching anthropology in a diverse learning community. Finally, this paper addresses the transformative impact of immersion ethnography on students and teachers.

Swisher, Mark E. (Museum of Natural and Cultural History, University of Oregon)

see *Jenkins, Dennis L.*

Swords, Molly (SWCA Environmental Consultants)

Stated for More: An Examination of Historic Writing Slate in the Archaeological Record

Symposium (Thursday 3:00 PM-4:20 PM, Crater Lake)

As archaeologists we often encounter an artifact that is a "no brainer" to identify - the form suggests a traditional and straightforward interpretation. However, this limited scope can constrain our understanding of past peoples. What if there is more to the story than meets the eye? From the Donner Party's Alder Creek campsite to the railroad town of Sandpoint, Idaho, writing slate fragments have been unearthed at a multitude of historic sites. Though often set aside as "solved" this versatile "tool of the written word" can lend surprising insights to daily life. This paper

will shed light on the different and lesser-known uses of writing slate.

Swords, Molly (SWCA Environmental Consultants)
see *Kisling, Breanne*

Syverson, Laura (Western Washington University)
Campbell, Sarah K. (Western Washington University)
Dealing with Abundance: Redundancy Approaches to Sampling Archaeofauna

Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)
Numerous shell samples were collected during excavations at the Tse-Whitzen site; the 2754 samples from the areas studied for this project alone fill 45 archive boxes. In order to analyze the marine invertebrate fauna in a reasonable time frame and level of effort comparable to other faunal analyses, we wanted to make the analysis as efficient as possible in terms of information collected. Instead of omitting samples, which might compromise spatial coverage, or choosing an arbitrary size cutoff with unknown effects on representativeness, we experimented with subsampling large samples using a stopping rule for reaching the point of redundancy. In this paper we evaluate the effectiveness of our method. We suggest that sampling to redundancy methods provide a useful alternative to other forms of subsampling for ensuring representative information.

Taub, Alex A. G. (Wenatchee Valley College)
Will This Be on the Test? Making Our Students Understand How Anthropology Matters in Their Daily Lives.
General Session (Thursday 1:00 PM-5:00 PM, Multnomah Falls)

The presenter will share some of the activities used in his courses to help his students not only learn the information, but to understand how our concepts affect their daily lives. The introductory projects include: Researching their own cultural heritage through ethnographic research to understand how their parents' past affected their own enculturation. Studying non-industrial cultures and replicating an artifact from these cultures to understand how the term non-industrial does not mean these cultures are either simple or primitive. Performing and creating mock archaeology excavation to encourage students to think about how their own material culture reflects their life choices. Class activities to demonstrate how controlling their own linguistic presentation can affect how they are viewed by others in the social and work environments.

Taylor, Amanda (Pacific Lutheran University)
Using Lithic Data to Explore Territoriality in the San Juan Islands

Symposium (Saturday 8:00 AM-9:40 AM, Crater Lake)
Settlement pattern analysis and resource accessibility in the San Juan Islands indicate a possible increase in territorial behavior after 600 cal BP. In the absence of well-dated defensive sites and other traditional indicators of boundary defense, lithic procurement and manufacture patterns can be used to explore shifts in movement and social boundaries in the Salish Sea region during the Late Holocene. In this paper, I analyze the ways that lithic procurement and manufacture changed at the Watmough Bay site in the San Juan Islands, Washington. I present data on the use of local slate, extra-local raw material, fine-grained volcanic rock from nearby beaches, and reduction sequence analysis. Finally, I consider the potential and drawbacks of the dataset for addressing research questions about territoriality.

Tecca, Alison (Pacific Lutheran University)
Prehistoric Collecting: Using Lithics to Examine Subsistence Strategies at the Berkeley and Fryingpan Rockshelters
Symposium (Saturday 8:00 AM-9:40 AM, Crater Lake)

Throughout prehistory, hunting and gathering has been the subsistence and settlement strategy for cultural groups in the Pacific Northwest. These groups can be viewed along a theoretical continuum developed by Lewis Binford (1980), ranging from highly mobile foragers to semi-sedentary collectors. In the Pacific Northwest, groups shifted to increasingly more intensive collector systems after 5000 BP. Lithic data from the Fryingpan and Berkeley Rockshelters near Mt. Rainier National Park, both post-dating 2000 BP, were analyzed and compared in an attempt to determine the possible functions of the rockshelters within such a collector subsistence system. Using Binford's model as a base, both sites appear to adhere to the field camp site type, with lithic data suggesting occupations by highly specialized task groups that were probably focused on seasonal upland hunting.

Thomas, Michael (South Puget Sound Community College)
Identifying Ancient Nets from the Salish Seas and Possible Trade Patterns

General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)
This study explores ancient net materials, knots, and weave types from wet sites of the Salish Seas. Possible net trade patterns among site areas of the Salish Sea will be examined, including possible trade of nets from the north and south into the Salish sea region. Questions posed include: are there regional variations in net making? If so how does it vary? Once regional differences are identified can we propose a trade pattern between regions? Future research includes recording ethnographic museum collections of the Northwest Coast Indian nets.

Thomas, Scott (Burns District Bureau of Land Management)
O'Grady, Patrick W. (Museum of Natural and Cultural History, University of Oregon)
Helzer, Marge (Social Sciences Division, Lane Community College)

Dexter, Jaime (Department of Anthropology, University of Oregon)
Pleistocene and Holocene Paleoclimate Reconstruction at Rimrock Draw Rockshelter (35HA3855) in the Far Northern Great Basin

Symposium (Saturday 8:00 AM-11:20 AM, Willamette Falls)
Rimrock Draw Rockshelter in Harney County, Oregon has been the site of recent archaeological excavations sponsored by a partnership between Burns District Bureau of Land Management (BLM), University of Oregon Museum of Natural and Cultural History and other interested specialists. The BLM funding has been provided through the agency's Climate Change research theme because the site shows promise of buried botanical and cultural remains that may span the last 12,000 years. Excavation has revealed the site has stratified, deeply buried sediments and contains a significant amount of charcoal and other botanical remains that document climate change. It has also yielded a number of buried volcanic tephra enabling archaeologists to establish a chronology for the site independent from radiocarbon dating. Lowland paleoenvironmental data from southeast Oregon is lacking between about 7,000 to 13,000 years ago and this newly discovered site contains remains that could fill this data gap.

Thorsgard, Eirik (Confederated Tribes of Grand Ronde, Oregon)
Symposium Discussant
Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Thorsgard, Eirik (Confederated Tribes of Grand Ronde, Oregon)
Symposium Discussant
Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

Thorsgard, Eirik (Confederated Tribes of Grand Ronde, Oregon)
see *Connolly, Thomas J.*

Thorsgard, Eirik (Confederated Tribes of Grand Ronde, Oregon)
see *Wilson, Doug*

Triplett, Mallory (University of Idaho, SWCA)
see *Johnson, Amy*

Tveskov, Mark (Southern Oregon University)
Rose, Chelsea (Southern Oregon University)
Johnson, Katie (Southern Oregon University)
Center to Periphery to Center to Periphery: The South Fork Coquille River from Prehistory to the Twentieth Century Symposium (Friday 10:20 AM-4:40 PM, Astoria)
Since 2001, the Southern Oregon University Laboratory of Anthropology, the Coquille Indian Tribe, and, more recently, the Western Federal Lands Highway Division has conducted ethnohistoric, oral history, and archaeological research in the South Fork Coquille River region. This historical anthropology has fleshed out an intriguing story of how the area has oscillated back and forth between being the “center” of larger social interactions to, sometimes by design, sometimes otherwise, being a relatively isolated periphery. The region was at its most cosmopolitan when used by Athapaskan speaking people late in prehistory, and again when the town of Powers was established in 1912 and became the center of the largest timber harvesting operation in the United States. In between, the region was settled by pioneer families of the “Carolina Company” who, escaping the tumultuous aftermath of the Civil War, sought to replicate aspects of their Appalachian homeland on the Tennessee-North Carolina border.

Vassar, Anne (Central Washington University)
Grissom Site (45KT301) Inter- and Intra-Site Comparisons of Stone Tool Technology and Function Through Time.
Symposium , Part 2 (Friday 1:00 PM-4:00 PM, Elowah Falls)
Six new AMS radiocarbon dates confirm that this major upland site was occupied from 4000 years ago up through historic times. Analysis of the lithic assemblage shows that different types of activity areas, such as resource processing areas, were established across the site and that these activity areas were maintained in place during most of the site’s occupational history. Comparisons of the Grissom lithic assemblage with lithic data for other regional sites prove inconclusive. Site reports do not include standard forms of classification or consistent counts of artifacts. The intra-site analysis included artifacts from five units, and identification of activity patterns was only possible given the extensive and large sample excavated from the Grissom site as rehabilitated by faculty and students.

von Wandruszka, Ray (University of Idaho)
see *Harman, Sarah*

Wagner, R. Steven (Central Washington University)
see *Humphreys, Jennifer E.*

Wagner, Ronald S. (Central Washington University)
see *Pritchard, Alexander Jonathan*

Walker, Cameron (Archaeological Investigations Northwest, Inc.)
Blood Residues at a Food Processing Station – 45CH791 Symposium (Thursday 1:00 PM-3:20 PM, Elowah Falls)
Blood residue analysis was conducted on 12 bone and stone artifacts recovered from site 45CH791. The results of the residue analysis are presented, along with an overview of the residue extraction technique used, cross-over immunoelectrophoresis (CIEP). The range of artifact materials from site 45CH791 provides good examples of both the possibilities and the limitations of the CIEP technique, which are explored here.

Walker, Cameron (Archaeological Investigations Northwest, Inc.)
see *Blanchard, Christian*

Walker, Deward (University of Colorado, Boulder)
Roundtable Participant
Roundtable (Thursday 8:00 AM-10:00 AM, Pyramid)

Walton, Lauren (Reiss-Landreau Research)
Saddle Rock Park, Wenatchee, WA—Managing a Gold Mine for Recreational Use
Symposium (Friday 8:00 AM-9:20 AM, Astoria)
In 2012, Reiss-Landreau Research investigated Saddle Rock Park for the City of Wenatchee. In the late 1850s, gold was discovered in the Pacific Northwest. One of the places was the Okanogan Country, where an abundance of folded sedimentary rock held mining potential. Importantly, after the General Mining Act of 1872, many prospecting claims were staked near Wenatchee, WA. Claims and actual mining took place at Saddle Rock from 1894 to the 1950s. We were able to document at least six early mining claims within the boundaries of the park itself. At present, we have recommended a Historic Mining District nomination for the entirety of Saddle Rock Park as well as a variety of other creative management possibilities including an interesting and compelling historically rich city park interpretive trail, which could serve both mitigatory and documentary purposes.

Warner, Mark (University of Idaho)
see *Harman, Sarah*

Weaver, Robert, M. (The Environmental History Company)
see *Bard, James C.*

Wendel, Kendra (Portland State University)
Environment: Working Towards Collaborative Stewardship: Nuwuvi (Southern Paiute) and Federal Agency Perceptions of Hydrological Restoration in Two Great Basin Protected Areas Symposium (Thursday 8:00 AM-12:00 PM, Willamette Falls)
In the arid landscape of the southern Great Basin, hydrological resources continue to be impacted by growing urban populations, climate change, and increased recreation and tourism. Land management agencies in the region are tasked with restoring these resources in light of various ecological, economic, and political concerns. Nuwuvi (Southern Paiute) have known and managed these water resources for thousands of years prior to Euro-American arrival in the region. This paper considers perceptions of hydrological restoration held by representatives from six Nuwuvi Nations and two federal agencies: U.S. Forest Service and U.S. Fish and Wildlife Service. This research contributes to the Nuwuvi Knowledge-to-Action project, an effort that aims to identify opportunities for collaborative stewardship in two protected areas managed by USFS and USFWS. Data is drawn from two months of fieldwork conducted in 2012, which included interviews and field reconnaissance with Nuwuvi and Federal Agency participants.

Wessen, Gary (Wessen & Associates, Inc.)
45SJ540 - A Mayne Phase Occupation on Orcas Island, Washington
General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)
Testing and small-scale data recovery excavations at 45SJ540 - a shell midden located near Eastsound on Orcas Island - indicate that this site was occupied between approximately 4,300 and 1,800 years ago. A small sample of artifacts recovered from the site suggests that a Mayne Phase occupation is represented and that a later, as of yet unidentified component is also present. Faunal materials indicate that it was used in late winter to early spring by people who focused largely on deer hunting and a herring fishery.

Wheeler, Arlene (Lower Elwha Klallam Tribe)
Discussant
Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)

Wheeler, Arlene (Lower Elwha Klallam Tribe)
Introduction
Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)
White, Frances (Department of Anthropology, University of Oregon)
see *Jenkins, Dennis L.*

White, Teresa (University of Montana)
Countering the "CSI Effect" Using Forensic Entomology
General Session (Friday 1:00 PM-4:40 PM, Crater Lake)
A trend emerging in forensic entomology is the use of forensically important (FI) entomology to assist the Criminal Justice System to help solve crimes. The field of crime scene investigation is constantly transforming, and the public is demanding quick resolutions to crimes due to what is referred to as the "CSI effect." The "CSI effect" is a misconception by the public that crimes can be solved in the time it takes to watch one of the many fictitious crime shows on TV; therefore, it is up to professionals in the field to inform the public without compromising a case. A common application of forensic entomology is the estimation of time since death (TSD) or the postmortem interval (PMI). The use of PMI can help to either implicate or exonerate a defendant in a criminal case. Forensic entomologists are frequently called upon as expert witnesses in court cases throughout the world.

White, Teresa (University of Montana)
Death, Decomposition, and Dismemberment: Black-Billed Magpies as Facultative Scavengers On Carrion
General Session (Friday 1:00 PM-4:40 PM, Crater Lake)
The objectives of this research study were to empirically study the temporal order of events of postmortem changes in Missoula Montana utilizing three pig (*Sus scrofa*) cadavers by documenting postmortem changes and rate of soft tissue decomposition of two pigs over the course of one year, commencing on August 1, 2011 and concluding on August 1, 2012, and one control pig cadaver placed on August 1, 2012 and removed after mummification on August 20, 2012. Variables in Montana, that have not been fully researched, include the wide variations between minimum and maximum temperatures and relative humidity, entomological activity, mummification, and facultative avian scavenging. The information from this study can help law enforcement and medico-legal personnel estimate the postmortem interval (PMI) when the time since death is unknown.

Wiggins, Katie (Western Washington University)
see *Fincher, Erin*

Wilding, Lisa (Central Washington University)
see *Carner, Amanda*

Willerslev, Eske (Centre for Geogenetics, University of Copenhagen, Denmark)
see *Jenkins, Dennis L.*

Williams, Mark R. (University of New Mexico)
Early Holocene Maritime Resource Specialization on Prince of Wales Island, AK
General Session (Friday 8:00 AM-12:00 PM, Willamette Falls)
This paper presents preliminary results from the survey of a 10,700 year-old waterlogged shell midden in northern Prince of Wales Island, Alaska. Anaerobic conditions within the two-meter thick shell deposit have yielded excellent preservation of botanical remains and small fauna. Consequently, this site has a high potential to address questions of early Northwest Coast resource management and maritime specialization. This paper reports initial findings from the 2012 survey and outlines the direction of future research at the site.

Williams, Sarah (Washington State University)
Pollen Analysis of Archaeological Samples Collected from Magdalena de Cao Viejo, Peru
General Session (Friday 8:00 AM-11:40 AM, Multnomah Falls)
This paper presents the impacts of the colonial reducciones, a period of colonial upheaval and forced migration of the Inka during the 16th century at the site of Magdalena de Cao Viejo. Palynological data generated from various contexts from excavations at Magdalena de Cao Viejo will be reviewed. Specifically, I employ a human ecological approach to examine the pattern of plant usage before and after Spanish conquest in an effort to shed light on how colonialism may have affected Inka interaction with their environment. I provide characterizations of plant taxa found in contexts, including adobe bricks, fills and floors, and a stratigraphic profile. The pollen record may reflect a shift in plant use for consumption and building purposes. There has been a dearth of palynological research during colonial times in Peru. Therefore, this paper will provide informative data for the interpretation of the colonial reducciones.

Williams, Scott, S. (Washington State Department of Transportation)
Peterson, Curt (Beeswax Wreck Project)
Marken, Mitch (Beeswax Wreck Project)
Geoarchaeological and Historical Research on the Redistribution of the Beeswax Galleon Wreck Debris by the Cascadia Earthquake and Tsunami (A.D. 1700), Oregon, USA
Symposium (Saturday 8:00 AM-10:40 AM, Multnomah Falls)
Geoarchaeological and historical research indicate the wreck of a Manila galleon in northwest Oregon (USA) occurred prior to the last Cascadia earthquake tsunami and coastal subsidence at A.D. 1700 which redistributed and buried wreck artifacts on the Nehalem Bay spit. Research has focused on site formation processes associated with the tsunami impacts, and corresponding distribution of artifacts. Wreck debris was initially scattered along the spit ocean beaches, then washed over the spit by tsunami (6–8 m elevation), and remobilized in beach strandlines by catastrophic beach retreat. Natural recovery of the spit (150 m beach progradation) and modern foredune accretion (5 m depth) have buried both the retreat scarp strandlines and associated wreck artifacts. Several seasons of shore based archaeological survey, in concert with geomorphologic testing and analysis of offshore sand movement have illuminated a trail of artifacts that leads to a small area off the coast that may contain the lower hull portions of the wreck. Remote sensing using high-resolution multi-beam sonar has identified two targets with high potential to be the wreck. Archaeological and historical research done to date suggests the wreck is the Santo Cristo de Burgos, a Manila Galleon that disappeared in 1693 with a cargo of beeswax, porcelain and Asian trade goods.

Williams, Scott, S. (Washington State Department of Transportation)
Holstine, Craig (Washington State Department of Transportation)
Hadlow, Robert (Oregon Department of Transportation)
Bell, Christopher (Oregon Department of Transportation)
Do Historic Bridges Matter? A Panel Discussion on Bridge Preservation Issues
Symposium (Friday 10:20 AM-4:40 PM, Astoria)
Both WSDOT and ODOT are facing increased funding and political pressure to make bridges "safe", and such measures often threaten the historic integrity or even existence of historically significant bridges. This panel discussion will focus on the challenges that both agencies face when trying to preserve historically significant bridges, the steps the agencies are (or are not) taking, and why historic preservationists in both states should be concerned.

Williams, Scott, S. (Washington State Department of Transportation)
Symposium Discussant
Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Williams, Scott, S. (Washington State Department of Transportation)
see *Johnson, Paula*

Williams, Scott, S. (Washington State Department of Transportation)
see *Wilson, Doug*

Wilson, Doug (National Park Service & Portland State University)

Loether, Paul (National Park Service)

Thorsgard, Eirik (Confederated Tribes of Grand Ronde, Oregon)

McClure, Rick (USDA Forest Service)

Pouley, John (Oregon Parks & Recreation Department)

Oosahwee-Voss, Eric (Confederated Tribes of the Colville Reservation)

Williams, Scott, S. (Washington State Department of Transportation)

Dickson, Catherine (Confederated Tribes of the Umatilla Indian Reservation)

Deur, Doug (Portland State University)

The How, Where and Why of Traditional Cultural Properties, Panel Discussion

Symposium (Thursday 1:00 PM-2:40 PM, Crater Lake)

Wilson, Doug (National Park Service & Portland State University)

Discussant

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

Wilson, Katherine (ESA Paragon)

see *Johnson, Paula*

Withee, Katee (University of Nevada, Reno)

Younie, Ashlee (University of Nevada, Reno)

Aurora Neighborhoods Project: Archaeological Investigations of a Mining Boomtown

Poster Session 1 (Friday 8:00 AM-10:00 AM, Wahkeena Falls)

The Aurora Neighborhoods Project investigates domestic occupation and material culture remains from multiple households within the former mining community of Aurora, Nevada. This project provides archaeological examples of the usefulness of anthropology as a discipline; revealing information on past human life and providing avenues for the public to connect to histories of people and places. Three research themes of exploration are variability and change in domestic households and settlements, materiality of social identity in a mining town, and power dynamics in urban contexts on the frontier. The University of Nevada, Reno and U.S. Forest Service sponsor these archaeological investigations. During the 2012 field season, investigations were conducted at the Levy House, occupied by Isaac Levy and his family from 1861 to 1884. Future investigations will construct an understanding of the daily lives of residents, as well as, contribute to overall studies of contemporary western mining towns.

Wojcik, Kathryn A. (Portland State University)

Butler, Virginia L. (Portland State University)

Tracking Fish Response to Abrupt Environmental Change at Tse-whit-zen, a Large Native American Village on the Olympic Peninsula of Northwest Washington State

Symposium (Thursday 1:00 PM-5:20 PM, Willamette Falls)

Evidence of large earthquakes occurring along the Pacific Northwest Coast is reflected in coastal stratigraphy from Oregon to British Columbia, where there also exists an extensive archaeological record of Native American occupation. Tse-whit-zen, a large village dating to the past 2000 years and spanning several earthquake events, was excavated with fine stratigraphic control allowing for precise comparison of these natural and cultural records. Here we report on the >10,000 fish remains from one 2x2 m block associated with Structure 1. We examine changes in relative taxonomic abundance through time to assess the impacts of earthquakes and other environmental changes on fish populations and in turn human subsistence. Results indicate use of a wide range of marine fish taxa including various sculpins (Cottidae), flatfish (Pleuronectiformes), herring (*Clupea pallasii*) and salmon (*Oncorhynchus* sp.), illustrating a highly diverse diet. Effects of sampling, quantification, and taphonomy on results are discussed.

Wooller, Ian (Central Washington University)

see *Blanchard, Christian*

Woolsey, Dianna (Portland State University)

see *Anderson, Shelby*

Wynia, Katie, A. (Portland State University)

Looking for Patterns in the Pipes: Using Spatial Analysis of Tobacco Pipe Fragments to Examine Behaviors on the Fort Vancouver Village Landscape

Symposium (Saturday 8:00 AM-11:40 AM, Wahkeena Falls)

While clay tobacco pipe fragments are often used chronometrically, behaviors associated with their use and deposition can create informative spatial patterning. This paper explores the spatial distribution of pipe fragments at the Hudson's Bay Company Fort Vancouver village site, ca. AD 1829-1860, to infer daily behaviors including tobacco consumption and refuse disposal. The village site was home to employees and their families, representing a variety of ethnic backgrounds including Native American groups, Hawaiians, Europeans, Métis, and French-Canadians. Archaeology is vital for learning about their lives, as historical documents contain little about the village and its inhabitants. Tobacco pipes from this uniquely diverse community provide insight into daily life and cultural interaction during the contact period in the Pacific Northwest. The spatial distributions of pipe fragments reveal clustering across the village landscape, indicating smoking activity areas both in and around dwellings, as well as a variety of refuse disposal locations.

Yohe II, Robert M. (California State University, Bakersfield)

see *Henrikson, L. Suzann*

Yohe II, Robert M. (California State University, Bakersfield)

see *Jenkins, Dennis L.*

Yost, Chad (PaleoResearch, Inc.)

see *Jenkins, Dennis L.*

Younie, Ashlee (University of Nevada, Reno)

see *Withee, Katee*

Zenk, Henry (Confederated Tribes of Grand Ronde, Oregon)

Schrock, Jedd (Portland State University)

Cultural Translation on Late Nineteenth-century Grand Ronde Reservation: a Participant's View

Symposium (Thursday 10:20 AM-12:00 PM, Elowah Falls)

Our presentation calls attention to a uniquely personal perspective on the tension between cultural survival and cultural assimilation at late-nineteenth century Grand Ronde Reservation, preserved in the form of an extended Kalapuya-language text dictated by a man who experienced that tension at first hand. The man was Louis Kenoyer, born at Grand Ronde in 1869; the text is his

Autobiography of a Tualatin, prepared by Melville Jacobs in 1936 but never published. While Louis Kenoyer was exposed from birth to indigenous lifeways and ideology, he was also a member of the very first class boarded at the on-reservation government school, where he was an apt student. Jedd Schrock will summarize our progress so far in processing and working up the mass of manuscript materials associated with this text; Henry Zenk will reflect on Louis Kenoyer's life as a case-study in cultural translation.

Zenk, Henry (Confederated Tribes of Grand Ronde, Oregon)
Symposium Discussant
Symposium (Thursday 8:00 AM-10:00 AM, Elowah Falls)

Zenk, Henry (Confederated Tribes of Grand Ronde, Oregon)
see *Connolly, Thomas J.*

Zierdt, Shawna (Verde)
see *D'Cruz, Ridhi*

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