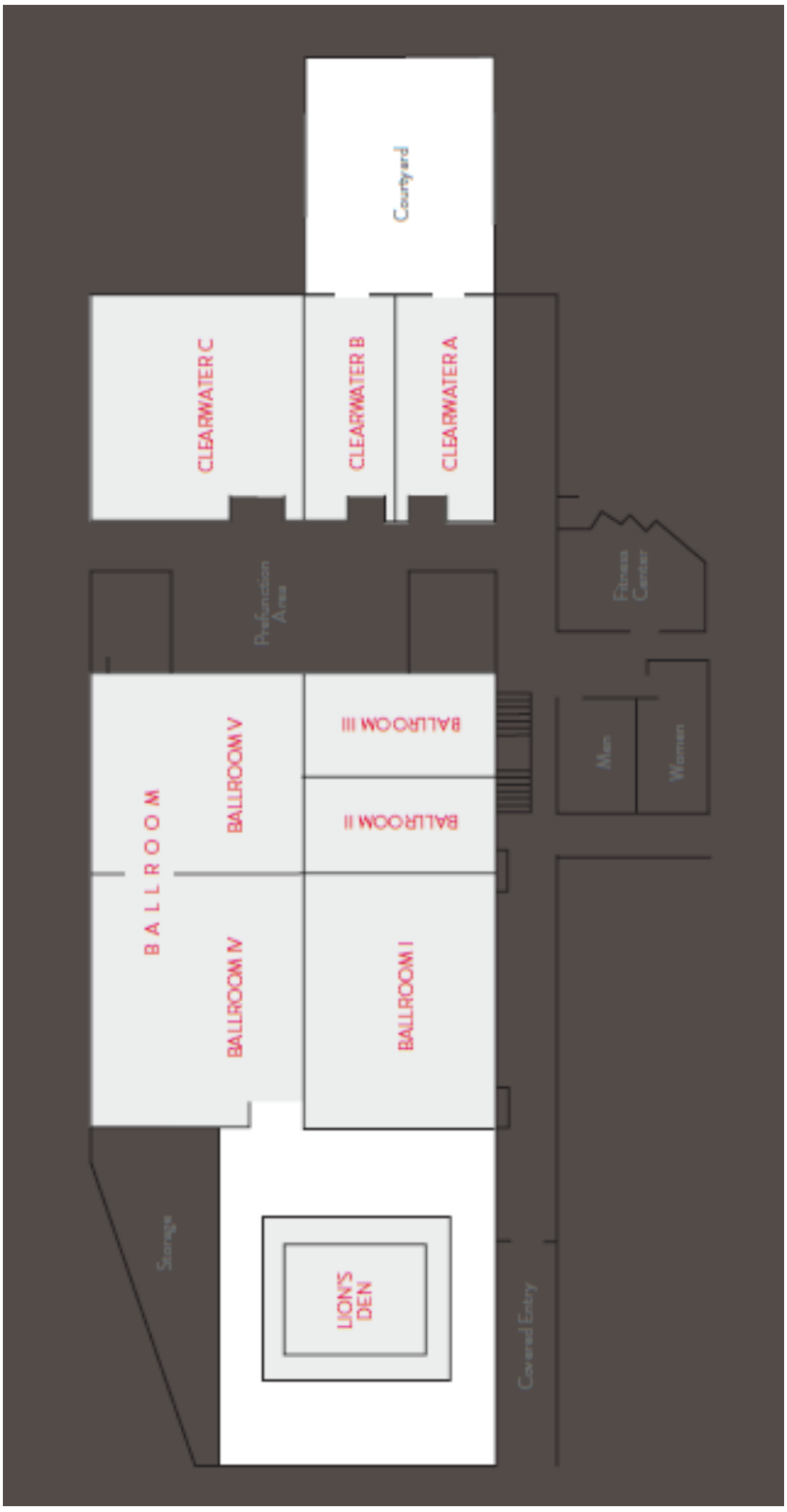
72nd Northwest Anthropological Conference

March 20-23, 2019, Kennewick, Washington

Hotel Map


Courtyard
CLEARWATER C
CLEARWATER B
CLEARWATER A
Pre-function Area
Fitness Center
Men
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BALLROOM
BALLROOM V
BALLROOM IV
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BALLROOM II
BALLROOM I
LION'S DEN
Storage
Covered Entry

Program

72nd Annual Meeting

Northwest Anthropological Association

March 20-23, 2019

Red Lion Hotel Kennewick Columbia Center

Kennewick, Washington

Conference Committee

Margaret Clark, Lindsay Kiel, Tom Marceau, Mary Petrich-Guy, Molly Swords

Northwest Anthropological Association Officers

Lee Sappington, President
James Bard, Vice-President
Jessica Curteman, Secretary
Laura Putsche, Treasurer

Conference Sponsors

Archaeological Investigations Northwest, Inc.; Architectural History and Archaeology! LLC; Association of Oregon Archaeologists; Cultural Resource Consultants; Central Washington University Anthropology and Museum Studies; Cultural Resources Protection Summit; Washington State Department of Archaeology and Historic Preservation; Direct AMS; Idaho Archaeological Society; Kevin Lyons; Lower Columbia Research and Archaeology; North Wind Resource Consulting; Perteet; Portland State University Anthropology Department; Simon Frasier University Heritage Resource Management; TRC; Visit Tri-Cities; Willamette Cultural Resources Associates, LTD; Washington State Department of Transportation Environmental Services

Confluence

This year's theme of confluence celebrates the concept of merging histories, identities, landscapes, theories, and techniques that together we use to better interpret our past. We invite you to explore confluence and consider how converging ideas influence our work in the Pacific Northwest.

Meet Our Keynote Speaker!

Rex Buck, Jr. is a spiritual leader and Elder of the Wanapum people. Like his father and grandfather before him, Rex, or more suitably Puck-Hyah-Toot, assumed the role of spiritual leader of the Wanapum in 1988. Rex was 33 years old at the time. This role derives from Rex's direct line of descent from Smohalla, the great 19th century Wanapum prophet. Rex is not just the spiritual leader for the Wanapum, but like his father and grandfather, is considered a leader for all the followers of the Wáashani religion and travels throughout the Northwest leading special Wáashat services, both for the living and the dead. Earlier in 1980, Rex had already taken on the role of being a teacher to the young Wanapum, passing on the language, culture, and traditions of the people to the next generation, much as his Elders had taught him, with particular emphasis on the centrality of religion in their life, and their long connection to the land.

Rex Buck, Jr. is of this land and speaks from the heart for both the people and the land itself. He has been at the center of negotiations with numerous Federal and state agencies, including the Department of Energy, the Army Corps of Engineers, and the Washington State Historic Preservation Office, to protect and preserve cultural resources important to the Wanapum. His unfailing commitment to maintaining traditional lifeways to the fullest extent possible makes him a sought-after speaker for the native community at the local and national level. He is well respected by those with whom he engages; an honest spokesman who can be trusted to say what he means and mean what he says. It is never about him, but rather always about his people and their long-term survival. He brings a unique perspective to the management of cultural resources on the Hanford Site and elsewhere throughout the Columbia Basin. His words live on long after being spoken.

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Conference Events and Meetings

Conference Registration Location: Prefunction Area

Wednesday- March 20, 2019	4:00pm-7:30pm
Thursday- March 21, 2019	7:30am-4:00pm
Friday- March 22, 2019	7:30am-2:00pm

Exhibitors Room Location: Lion's Den

Thursday- March 21, 2019	8:00am-4:00pm
Friday- March 22, 2019	8:00am-4:00pm

Meetings

Association of Oregon Archaeologists (AOA), Clearwater C

Thursday, March 21, 2019 5:00pm-6:30pm

NWAC Business Meeting, Ballroom IV

Friday, March 22, 2019 12:00pm-1:15pm

Association of Washington Archaeologists (AWA), Clearwater A, B, and C

Friday, March 22, 2019 5:00pm-6:30pm

Banquet and Keynote Speaker

Ballroom IV and V

Friday, March 22, 2019 7:00pm-9:30pm

Conference Agenda

***Vendor/Bookroom is located in the Lion's Den**

Wednesday March 20, 2019	
5:00 pm to 9:00 pm	**Welcome Reception** Location: Nomad Dining Room

Thursday March 21, 2019	
8:00 am to 10:00am	**Morning Sessions** **Presentations** Location: Clearwater A&B, Clearwater C, Ballroom I, Ballroom V **Posters** Location: Ballroom IV
10:00 am to 10:20 am	**Coffee Break** Location: Lion's Den
10:30 am to 12:00 pm	**Presentations** Location: Clearwater A&B, Clearwater C, Ballroom I, Ballroom V **Posters** Location: Ballroom IV
12:00 pm to 1:30 pm	**Lunch Break**
1:30 pm to 3:00 pm	**Afternoon Sessions** **Presentations** Location: Clearwater A&B, Clearwater C, Ballroom I, Ballroom V **Posters** Location: Ballroom IV

3:00 pm to 3:20 pm	**Coffee Break** Location: Lion's Den
3:20 pm to 4:00 pm	**Presentations** Location: Clearwater A&B, Clearwater C
3:20 pm to 5:00 pm	**Presentations** Location: Ballroom I, Ballroom V
	Posters Location: Ballroom IV
4:30 pm to 6:00 pm	**Ice Cream Social** Location: Ballroom IV
5:00 pm to 6:30 pm	**Meeting: Oregon Association Meeting** Location: Clearwater C

Friday March 22, 2019

8:00 am to 10:00 am	**Morning Sessions** **Presentations** Location: Clearwater A&B, Clearwater C, Ballroom I, Ballroom V **Posters** Location: Ballroom IV
10:00 am to 10:20 am	**Coffee Break** Location: Lion's Den
10:20 am to 12:00 pm	**Presentations**

	Location: Clearwater A&B, Clearwater C, Ballroom I, Ballroom V **Posters** Location: Ballroom IV
12:00 pm to 1:30 pm	**Lunch**
12:00 pm to 1:30 pm	**NWAC Board Meeting** Location: Ballroom IV
1:30 pm to 3:00 pm	**Afternoon Sessions** **Presentations** Location: Clearwater A&B, Clearwater C, Ballroom I, Ballroom V **Posters** Location: Ballroom IV
3:00 pm to 3:20 pm	**Coffee Break** Location: Lion's Den
3:20 pm to 4:30 pm	**Presentations** Location: Clearwater A&B, Clearwater C, Ballroom I, Ballroom V **Posters** Location: Ballroom IV
5:00 pm to 6:30 pm	**Meeting: Association of Washington Archaeologists** Location: Clearwater A, B, and C
6:00 pm to 7:00 pm	**Reception** Location: Nomad Dining Room
7:00 pm to 9:30 pm	**Banquet** Location: Ballroom I, IV, V

Saturday March 23, 2019	
9:30 am to 11:00 am	**Kennewick Man Ancient One Site Visit**
1:00 pm to 3:00 pm	**Alphabet House Tour**

Sessions

Thursday Morning

Symposium: **Slices of History and Culture of the Tri-Cities and the Hanford Site**

Room: **Clearwater C**

Organizers: **Mary Petrich-Guy and Stephanie Simmons**

Symposium Abstract: The Tri-Cities is predominantly associated with the Manhattan Project and Cold War Era activities of the Hanford Nuclear Reserve and subsequent clean-up activities. These periods impacted the prehistory, history, and culture of the area dramatically. This session will explore these periods as well as take a broader look into the complex past of this area.

8:00 Rice, David

Public Archaeology at Hanford and the Tri-Cities region before the Era of Public Funding

8:20 Mendez, Keith

Hanford Cultural Resources Program Overview, or How I Learned to Love the Atomic Bomb

8:40 McFarland, Doug

Hanford Archaeology: A Precontact View

9:00 Marceau, Thomas

An Intra-Site Analysis of the Faunal Assemblage from the Lewis Canal Site (45BN606) on the Hanford Site, Washington

9:20 Morton, Ashley M.

Homesteading Before Hanford: Survey Results of the Department of Energy Land Conveyance

9:40 Simmons, Stephanie

Soldier Settlements of the Department of Energy's Hanford Site, Benton County, Washington

10:00 BREAK

10:20 Franklin, Robert

Documenting African American History at Hanford and the Tri-Cities though Oral History

10:40 Clark, Margaret

In No-Man's Land: Army Camp Hanford

11:00 Petrich-Guy, Mary

Preparing Manhattan Project and Cold War Era Historic Artifacts from the Hanford Site for Public Access

11:20 Discussants: Warren Hurley

Symposium: **Deconstructing the Master Narrative: Archaeology of the Asian Pacific Diaspora in the Pacific Northwest**

Room: **Ballroom V**

Organizers: **Chelsea Rose and Don Hann**

Symposium Abstract: As articulated by Ronald Takaki, the Master Narrative of American History is the dominant presumption that the United States was "settled by European immigrants, and Americans are white." Early popular histories, based on the memories of white citizens presented Asian immigrants as bit players in a world dominated by Euro-American hero-actors carving a new nation out of the wilderness. This western movie model of American history is being deconstructed on a number of fronts, notably through the archaeology of the Asian Pacific diaspora. We present a selection of ongoing research which illustrates the magnitude, complexity and significance of the contribution of Asian immigrants to the development of modern American society. This archaeology, informed through analysis of period sources, is confirming Takaki's rebuttal of the Master Narrative- "America is a nation peopled by the world, and we are all Americans."

8:00 Rose, Chelsea

"From Guangdong to Oregon: Transnational History, Archaeology and the Oregon Chinese Diaspora Project"

8:20 Hann, Don

"And I Dig my Life Away: 19th Century Chinese Mining Kongsi Partnerships in the Pacific Northwest"

8:40 Withee, Katee R.

"Stacked Rock Features: Archaeological Evidence of Chinese Occupied Sites on the Malheur National Forest"

9:00 Johnson, Katie and Lew Somers

"Radar Love: Archaeology and Remote Sensing at the Kam Wah Chung State Heritage Site"

9:20 Cockerille, Kristina

"Faunal Remains from 10BO779: Analysis of Chinese Foodways from the Boise Basin"

9:40 Fitzgerald, Kimberli and Jamie French

"Lost History Discovered: Salem's Chinese Shrine"

10:00 BREAK

10:20 Campbell, Renae

"Introducing the HJCCC: A Digital Comparative Collection of Historical Japanese Ceramics"

10:40 Carlson, David

"The Barneston Menace": Anti-Japanese Hysteria and Health Care Practices at an Early 20th Century Nikkei Sawmill Town Community (1898-1924)"

11:00 Endacott, Neal

New Ways of "being American" during the Asian Diaspora: Zooarchaeological Inferences on Assimilation and Transnationalism from the Yama Site, Bainbridge Island, WA

11:20 Aranyosi, E. Floyd

The Formation of Japanese-American Cultural Identity in the Pacific Northwest: Perspectives from Archaeology and Archival Research.

Symposium: **A Motley Crew of Experimentors**

Room: **Ballroom I**

Organizers: **Kate Shantry**

Symposium Abstract: This past Fall semester, the National Science Foundation provided funding for Dr. Shannon Tushingham's graduate class in experimental archaeology and residue analysis. Presenters in this symposium are working in the American Southwest, California, the Columbia Plateau, MesoAmerica, Mexico, Puget Sound and subarctic Alaska. We explore processes and effects of boiling, brewing, fermenting, grinding, scraping and smoking using a variety of artifact proxies. Analysts used chemical, macroscopic and microscopic methods to interpret results. Papers include residue studies of chili, chocolate and tobacco as well as attribute analyses of cooled and quenched hot rocks, and lithic cutting and scraping tools.

8:00 Ellyson, Laura, Shannon Tushingham, and David Gang

Experimental beverage brewing of T. cacao and I. vomitoria: Palmitodiolen as an additional biomarker?

8:20 Rumberger, Jacklyn D., Shannon Tushingham, Anna Berim, David R. Gang

Drunk on Cacao: Experimental Testing of Residue Chemical Compounds of Fermented Cacao Pulp and Cacao Beans

8:40 Scanlan, Kathleen

Experimenting with stone use from a Yup'ik enet: Macro analysis of experimental use-wear on basalt and chert utilized flakes

9:00 Shantry, Kate

Pyromania: How Many Times Can You Cook and Quench a Rock until it Breaks?

9:20 Damitio, William and Shannon Tushingham

The Archaeology of Smoking in Northwestern North America: Synthesis of Archaeological Pipe Data and Evidence from Chemical Residue Studies

9:40 Zavala, Brisa Sanchez, Shannon Tushingham, Anna Berim, Jorgen Gang, and David Gang

A Motley Crew of Experimentors: Preliminary Residue Analysis of Created Molcaxitl Artifacts

Symposium: **Colville Confederated Tribes History/Archaeology Program General Session: A confluence of traditions and resources.**

Room: **Ballroom I**

Organizers: **Adam N. Rorabaugh and Roderick K. Donald**

Symposium Abstract: For members of the Confederated Tribes of the Colville Reservation Colville Confederated Tribes (CCT)] there is continuity between past and present. The presenters in this symposium demonstrate the efforts of the CCT History/Archaeology (CCT H/A) program in preserving the traditional practices of the constituent tribes of the CCT. CCT H/A works cooperatively with federal, state, other Tribal, and local agencies to ensure our history is not forgotten or diminished. This session also depicts the importance of protecting tribal rights and sovereignty within the context of professional cultural resource management.

10:20 Donald, Roderick

A Brief Introduction to the Confederated Tribes of the Colville Reservation's History and Archaeology Program

10:40 Rorabaugh, Adam

Re-evaluating Chronology, Houses, and Villages at the Cassimer Bar Locality on the Upper Columbia River

11:00 Gleason, Eric, Jacqui Cheung, and Brenda Covington

Reservoir Archaeology: Quantifying Erosion at Three Sites in Lake Roosevelt Reservoir, North Central Washington

11:20 Peasley, Sylvia and Pendleton Moses

Processing and Creating with Indian Hemp: A Versatile, Traditional Fiber

11:40 Sloma, Robert

Colville Tribes Engaged in the Basin: FY2018 in retrospect

Workshop: **State Funded Projects-A Workshop for Cultural Resources Professionals**

Room: **Clearwater A&B**

Time: **8:00 am to 10:00 am**

Organizers: **Sarah Thirtyacre**

Workshop Abstract:

Navigating cultural resources review for state funded projects that occur on public, private and tribal lands is often complicated and confusing. This workshop features an orientation by staff that have experience balancing the complexities of regulation and resource protection with project implementation.

Sponsoring Agencies:

Recreation and Conservation Office (RCO): Since the agency began in 1964, RCO has awarded over $2.3 billion in grants and contracts to fund recreation, conservation and salmon recovery projects in Washington State. The majority of RCO's funded projects require some type of cultural resources oversight or study.

Washington Department of Fish and Wildlife (WDFW): The agency manages over a million acres for the purposes of preserving, protecting and perpetuating fish, wildlife and ecosystems, while providing sustainable fish and wildlife recreational and commercial opportunities.

Sponsoring Agency Staff:

• Sarah Thirtyacre, Washington State Recreation and Conservation Office Cultural Resources Program Manager

• Katherine Kelly, Washington Department of Fish and Wildlife Lands Archaeologist

Panelists:

•Brandy Rinck, Archaeologist, King County Parks

•Steven Mullen-Moses, Director of Archaeology & Historic Preservation for the Snoqualmie Tribe

•Brian Carpenter, Outdoor Grants Manager, Washington State Recreation and Conservation Office

Workshop: **Panel Discussion on Ethnographic Work with Northwest Tribes**

Room: **Clearwater A&B**

Time: **10:20 am to 12:00 pm**

Organizers: **Donald Shannon**

Workshop Abstract:

This informal panel discussion will highlight the importance of ethnographic research with Tribes in the Pacific Northwest, and show how the Federal compliance process can generate ethnographic work. Panelists will include Federal Agencies who fund ethnographic research, academicians who work with regional Tribes, and representatives from Tribal cultural resource programs. We will discuss some of the differences between academically driven ethnography and compliance ethnography, both through consultants and research done by Tribes. Compliance ethnographic work highlights the living culture of Tribes in the Pacific Northwest, exemplified by issues such as impacts of development and restricted use of traditional homelands to hunt and to gather culturally significant plants, the complex dynamics of access to salmon and salmon fishing, and many more. The importance of ethnographic research, specifically related to Traditional Cultural Properties, is increasingly acknowledged in management documents generated by land-managing agencies.

One of the goals will be to highlight opportunities for students of anthropology to work with regional Tribes and to discuss the relevance and contributions of ethnographic research.

This is an informal event, and students are especially encouraged to attend to evaluate professional opportunities in anthropology.

Thursday Morning Poster Session

Room: Ballroom IV

8:00am to 12:00pm

Allen, Josh

Pre-contact use of Mesa Landforms on the Columbia Plateau: Results from Aggregate Lithic Analysis

Costigan, Lindsay and Stephanie O'Brien

Putting Walla Walla on the Map: A Study of Trade Routes to the Northwest

Curteman, Jessica, Chris Bailey, and Alex Nyers

The Summers Collection: Keeping Cultural Inspiration Alive

Dellert, Jenny and Tom Ostrander

Archaeological Investigation of Site 45KI449 at the Van Gasken Property, Des Moines, Washington

Dombrausky, Kailie, Grace Coffman, E. Chadwick de Bree, Emily Patton, and Mary Lee Jensvold

Emphatic modulation of chimpanzee signing

Donnermeyer, Chris, Trent Skinner, Michelle N. North, and Nicholas Guest

The Bridal Veil Lumbering Company: A Glimpse into an Intact Early Logging System in the Columbia River Gorge

Fulkerson, Tiffany and Lourdes Henebry-DeLeon

Intersectional Archaeological Approaches to Burial Practices: A Case Study from the Southern Plateau, Northwest North America

Henderson, Joshua and Meaghan Emery-Wetherell

Measuring Trace Element Concentrations in Artiodactyl Cannon Bones using Portable X-Ray Fluorescence

Hughes, Mackenzie, Dennis Wilson, Nik Harkins, Mallory Triplett, and Patrick McCutcheon

Initial Stone Tool Classification of Non-Professionally Assembled Lithic Collections

Johnson, Paula

Seventeen More Syllables: Further Investigations into the Shinjiro Honda Memorial Stone (45-KI-1256) and the Life of Poetry Master Shinjiro Honda

Muro, Sophie

Picture This: An Exploration of Photogrammetry and Digital Curation of Grand Ronde Belongings

Muschal, Marlis and Mike Shimel

Silver Creek Archaeological Context – Harney County, Oregon

Ngandali, Yoli

Invisible Photography: Examining groundstone art production processes using multispectral and digital imaging techniques

Smyrl, Anne

Fold Along the Dotted Line: A symmetry analysis of projectile points from HP-54

Snyder, Daniel and Jessica Curteman

Relocating a Hopkins site in Southwest Oregon using GPR, Magnetometry, and LiDAR

Stcherbinine, Sean

Investigating the Potential for Deeply Buried Occupation Surfaces in the Moses Lake Dune Field, Grant County, Washington

Wyatt, Noella and Cindy Morales

Sustaining Collections Research and Management: Tryon Creek House 2 (35WA288), Hells Canyon National Recreation Area.

Thursday Afternoon

General Session: **A**

Room: **Ballroom V**

1:30 Ross, Kayla and Ray von Wandruszka

Prophylactics Etcetera

1:50 Scott, Carly and Ray von Wandruszka

Stone Drugs and Dragon Bones

2:10 Robinette, Samantha and Ray von Wandruszka

Bad Medicine

2:30 Taber, Emily and Virginia L. Butler

Development and Application of an Economic Model of Fish Rank for Late Nineteenth-Century Pacific Northwest Households

2:50 BREAK

3:10 Peck, Alexandra

Coast Salish Social Complexity, Community Ties, & Resistance: Using Mortuary Analysis to Identify Changes in Coast Salish Society Before, During, & After the Colonial Period

3:30 Anderson, Erik D.

The King County Potter's Field: Mismanagement, Malfeasance and Corruption at 45-KI-1158

3:50 Codling, Chelsea

History and Foodways on Samuel H. Smith Site in Nauvoo, Illinois

4:10 Taylor, Breanne

Material Culture and the Social Dynamics of Residential Life at a Company Town: Archaeological Investigations at the Fairfax Townsite (45PI918), Pierce County, Washington

4:30 Tveskov, Mark Axel

Scorched Earth: The Military Campaign on the Lower Rogue River, 1856

4:50 May, Nathan

"They Expected a Hard Fight": Fire Line Metal Detecting Survey of the Rosebud Battlefield State Park Montana

General Session: **B**

Room: **Ballroom I**

1:30 Buchanan, Brian

The Cultural Heritage of the Palouse Prairie Restoration Project, Cheney, Washington

1:50 Lopez, Kirsten

National Register listed archaeological sites within the state of Oregon: statistics and what they mean for Oregon archaeology

2:10 McClure, Rick

Aipax-kan-ishchit - the Yakama Trail: history, archaeology, and an approach to evaluation

2:30 Rinck, Brandy and Philippe LeTourneau

A Cultural Resources Management Plan for Marymoor Park

2:50 BREAK

3:10 Pickard, Ashley

Deconstructing disaster: when ontological understanding of natural disasters and archaeological research, provide key information for past and present disaster response

3:30 Welch, John

Landscapes, Consultations, Archaeologies: Global Dynamics, Local Leadership, and the Promise of Full-Spectrum Heritage Resource Management

3:50 Luttrell, Charles T.

Farming on the Spokane Reservation - Case Studies of Indian Allotments No. 246, No. 247, and the Patrick W. Lawlor Homestead

General Session: **C**

Room: **Clearwater C**

1:30 Chatters, James

An Ancient Human and Extinct Megafauna in Hoyo Negro, Quintana Roo, Mexico

1:50 Farrell, Ian

Were There Blade Workshops at Coatlan del Rio: A Technological and Comparative Review

2:10 Helmer, Emily

Persistent Places in Southwestern Oregon

2:30 Humphries, Sarah J. and Kelly R. Bush

Basketry: Now as always

2:50 BREAK

3:10 Bernick, Kathryn

Plateau Analogues for Precontact Basketry from Coastal Sites

3:30 Johnson, Matt

A Zooarchaeological Analysis of Hole-in-the-Wall Canyon (45KT12) and French Rapids (45KT13) Sites: Ginkgo State Park, Washington"

3:50 Boersema, Jana, Teresa Trost, and Jonathan Haller

Successes and Limitations of the Piecemeal Approach to Archaeology on Utsalady Bay

4:10 Koetje, Todd

Neanderthals, Denisovians and Modern Humans: What material culture differences can we see during their overlap?

General Session: **D**

Room: **Clearwater A & B**

1:30 Carroll, Marna

Standing at the Confluence of Western Empire and Indigenous Knowledge: Decolonizing the Account of the Journey of Monchat- Apé, First American Anthropologist

1:50 Etnol, PJ

A Campus Community of Confluence: A Visual FYE Ethnography

2:10 Moon, Jonathan

Sweat Lodge on Campus: Examining Barriers of Communication of a Project between Native Students and the University of Idaho

2:30 Shannon, Don

Applied ethnographic work with the Confederated Tribes of Grand Ronde to document places of cultural significance: Mary's Peak

2:50 BREAK

3:10 Smith, Joshua

Confluent Anthropologies: The Political Anthropologies of Phinney and Boas in Contemporary Contexts

3:30 Wu, Shuxi

Transient Professionals: Asian employees and the American Transnational Corporation

3:50 Leischner, Emily

Insights from Absence: Methods in Examining Silences while Researching Northwest Coast Tumplines in Museum Collections

Thursday Afternoon Poster Session

Room: Ballroom IV

1:30pm to 4:30pm

Anderson, Jackey

Tekison Cave Sample Faunal Analysis

Daily, Phillip

A Community-Based Approach to Archaeological Site Preservation in a Changing Climate: A Lower Columbia Case Study

Damitio, William, Andrew Gillreath-Brown, and Shannon Tushingham

Expanding Research Accessibility of Archaeological Collections: Development of a Geospatial Database for the Washington State University Museum of Anthropology

Dampf, Steven and Ayla Aymond

Subsurface Investigations along the St. Maries River (10BW237, 10BW238, and 10BW240), Benewah County, Idaho

Eldredge, Kaitlyn and Katrina C. L. Eichner

19th century Consumerism in an Institutionalized Setting: Analysis of Ceramic Ware Consumption at Fort Davis

Frierson, Andrew and Stephanie A. O'Brien

Precontact Use of Pine Valley: Results from Site Mitigations at 35BA1495

Frugé, Adam

Preliminary Analysis Results: Sampling Fishes from 1976 Excavations at the Sam Israel House Pit (45GR76) near Soap Lake

Johnson, Katie and Mark Axel Tveskov

Mapping Settler Colonialism: The Cartography of the Rogue River War, 1855-56

Johnson, Trisha

Story Map - Confederated Tribes of the Colville Reservation – A Brief History

Kohnen, Kalli

Individual Variation in the Response of Captive Javan Gibbons (Hylobates moloch) to Visitor Presence.

Kretzler, Ian

Archaeological Investigation on Landscapes of Survivance

Kunas, Julia and Patrick T. McCutcheon

A Functional Analysis of Pre-Contact Sites and their Microenvironments on Lopez Island, Washington

Litzkow, Jamie

Soft Gold! How the Fur Trade Shaped Early Gold Rushes in the Pacific Northwest

North, Michelle and Virginia L. Butler

The Virginia Lake Stake Feature, Sauvie Island, OR: Updates from Fieldwork and AMS Dating

Owen, Amber

Ehler's Danlos Syndrome: Overlooked, Mistreated and Misunderstood

Sukau, Dana and Virginia L. Butler

Use of Backwards Design to Assess Public Engagement at the Archaeology Roadshow, Portland, Oregon

Syvertson, Laura and Kelly R. Bush

Exploring the Role of Historic China-town in a coastal community in Western Washington

Thiel, Samantha

A Hard Kind of Labor: An Archaeological Analysis of Small-Scale Hard Rock Mines in Northeast Washington

Friday Morning

Symposium: **Exploring Residential Variability Across the Columbia-Fraser: following-up on the "Plateau House Party"**

Room: **Ballroom V**

Organizers: **Molly Carney, James Brown, and Dakota Wallen**

Symposium Abstract: The Columbia-Fraser Plateau is perhaps most well-known for its perplexing archeological record of houses, residences, and domiciles. Pithouses are thought to have been adopted in two successive waves across the region, and on the Columbia Plateau, abandoned in favor of more mobile lifeways with long and conical mat lodges. The timing and nature, however, for these shifts in residential choices vary greatly across watersheds throughout the region, leading to a somewhat fragmented record of the Plateau cultural area. Such changes in residential decisions hint at complex and shifting social relations, with a mix of environmental, demographic, and social processes posited as explanations for cultural change. After last year's initial "house party" lightning round discussion, this 2019 follow-up session aims to dive deeper into dwellings in the Plateau past. Like the villages often located at the confluence of rivers, this session seeks to bring together seeks to bring together diverse voices to discuss and synthesize the inter- and intra-household record of the Columbia-Fraser Plateau.

8:00 Neller, Angela J. and Lourdes Henebry-DeLeon

It's in the Archives: Doing Archaeology On the Columbia Plateau

8:20 Solimano, Paul S., Todd B. Ogle, Daniel Gilmour, Donald Shannon, Breanne Taylor, and Kanani Paraso

Sedentism and Salmon Intensification along the Lower Snake River as seen at 45-FR-42, the Fish Hook Jim Site

8:40 Tushingham, Shannon and Tiffany Fulkerson

Women and Leadership in the Columbia Plateau

9:00 Sappington, Lee

An Overview of Pre-Contact Residential Structures in the Clearwater River Region, North Central Idaho

9:20 Wallen, Dakota

Inhabiting the Impassable: The Archaeology of Precontact Houses in Hells Canyon

9:40 Carney, Molly

Observations on Columbia Plateau Contemporaneous Individual and Group Structures, 1600 BP-present

10:00 BREAK

10:20 Endzweig, Pam

Modern Living on the John Day River Revisited: Historic Housepits at 35GM22

10:40 Hampton, Ashley

Manifesting Membership: Understanding Housepit Space-Use Utilizing GIS

11:00 Brown, Thomas J., Jonathan Duelks, and Paul Solimano

Conceptualizing the relationship between structures and 'households' on the Columbia-Fraser Plateau

11:20 Brown, James W. and Steven Hackenberger

Homescapes of the Columbia Plateau: Radiocarbon Chronologies of House Settlements

11:40 Discussant: Chatters, James

Workshop: **Association for Washington Archaeology Workshop: Archaeological Parenting**

Room: **Clearwater A&B**

Time: **8:00 am to 10:00 am**

Organizers: **Amanda Taylor**

Workshop Abstract: In this workshop, we will have a conversation about the challenges of pursuing a career in CRM, agency, museum, and academic archaeology while simultaneously trying to raise small humans. We troubleshoot some of the issues specific to the archaeology profession such as fieldwork and travel, and we hear from discussion leaders with a range of different parenting and work experiences.

Discussion leaders include Shelby Anderson, Naomi Brandenfels, Michelle Hannum, Lorelea Hudson, Sarah Johnson Humphries, Bob Kopperl, Paula Johnson, Alex Stevenson, Amanda Taylor, and Scott Williams. Parents and guardians of all varieties, aunts, uncles, and fellow travellers welcome. Children welcome to join us and voice their opinions and advice.

Workshop: **The Washington Information System for Architectural and Archaeologicals Records Data... Help Me!!!**

Room: **Clearwater C**

Time: **8:00 am to 10:00 am**

Organizers: **Allyson Brooks**

Workshop Abstract: For some using Washington State's WISAARD system is easy. For others, it is complicated and not intuitive. DAHP staffers are here to help!!! Bring your questions and concerns about the system and DAHP staffers will assist you with any questions or problems you may have. We are here to help!

Workshop: **FREE: Thesis Ideas!**

Room: **Ballroom I**

Time: **8:00 am to 10:00 am**

Organizers: **John Pouley**

Workshop Abstract: Attention current, future, and career graduate students. Do you still need a thesis topic? Are you tired of being laughed at? Are you disenchanted with your current topic (probably not a good sign, but who are we to judge)? If your answer is yes to any of these, please come listen to ideas and opportunities to study with area tribes, state and federal agencies and universities at the first ever NWAC thesis topic lightening round. We've got GIS. We've got Chinese collections. We've got faunal and zooarchaeological analysis. We've got lithic studies. We've got GOLD mining. We've got a fricken Spanish Galleon! Stick around after for a mixer to meet the presenters and ask questions.

Panel: **Cultural Resources, Technology, and the Public: Organizing Looting-focused Outreach Efforts for the Protection and Management of Cultural Resources**

Room: **Clearwater A&B**

Time: **10:20 am to 12:00 pm**

Moderator: **Julia Furlong**

Panel Abstract: This Panel Discussion will focus on public outreach with talking points including: how agencies educate the public about cultural resources, the law, and cultural resource protection, and how we can improve upon current education strategies using modern technology. The use of modern technology focused on better documentation and management of cultural resources, both prehistoric and historic, as well as looting prevention is an important step forward in cultural resources management (CRM). The panel is comprised of CRM professionals from a variety of backgrounds including consulting agencies, land managers, and tribal organizations who will provide a broad overview of current strategies and future goals. One key takeaway of this panel discussion will be brainstorming the development of a free app for public use used to track when and where cultural resources are encountered by nonprofessionals as well as provide on-the-spot educational resources to those individuals.

Panelists: Carla Burnside, Zone Archaeologist, Eastern Washington and Northern Idaho, US Fish and Wildlife Service; James Jenks, Historian/Architectural Historian, Archaeological and Historical Services, EWU; Stephanie Jolivette, Local Government Archaeologist, Washington DAHP; Kristen Martine, State Archaeologist & Deputy Preservation Officer, OR/WA Bureau of Land Management; Dan Meatte, Archaeologist, Washington State Parks and Recreation Commission; Guy Moura, THPO, Confederated Tribes of the Colville Reservation; John Pouley, Assistant State Archaeologist, Oregon SHPO

Symposium: **ODOT/WSDOT Transportation Session and Panel**

Room: **Clearwater C**

Organizers: **Scott Williams and Carolyn Holthoff**

Symposium Abstract: ODOT and WSDOT partner again for a session on transportation related cultural resources management. A variety of papers will be presented, to be followed by a panel discussion on culverts and fish-passage issues.

10:20 Williams, Scott

The National Register Eligibility of a Transportation Icon

10:40 Rudnicki, Larissa

The Neon illumiNation of Grants Pass

11:00 Kennedy, Jaime L. and Thomas J. Connolly

The Botanical Assemblage at 35CL19: A Clackamas Chinook Village in the I-205 Corridor

11:20 Stevenson, Alex and Michele Punke

Diatoms, Cordage, and a Brewery: Results of Archaeological Investigations and monitoring for the Tacoma Trestle Project

11:40 Discussion

12:00 Discussion

Friday Morning Poster Session

Room: Ballroom IV

8:00am to 12:00pm

Arnzen, Jacob

Got Peel? Identifying Cambium Peeled Trees in the Malheur National Forest

Hackenberger, Steven, Jon Shellenberger, Nick Finley, Autumn Adams, and Cindy Morales

LiDar and Ground Penetrating Radar Imaging: Yakama Nation and CWU Collaborations.

Kuzminsky, Susan, Rylee Robertson, and Kristina Cockerille

Investigating variation in nasal shape among prehistoric populations in North and South America

Leonard-Doll, Katy and Paloma Sanchez

Seeds of Survivance: Investigating Grand Ronde Foodways through Archaeobotany

Litzkow, Jamie

Basque Sheepherding Landscapes in Washington State: Assessing Potential and Identifying Features

Lorain, Michael, Jane Smith, Madonna Moss, Claire Alix, and Joshua Reuther

Wood Selection for Fish Trap Stakes in Southeast Alaska

Mathews, Bethany

Washington Women Homesteaders: Finding the Underrepresented History of Land Claimants in Early Washington State

Reed, Patrick and Shelby Anderson

Is Old Dirt Worth It? Geochemistry of Bulk Sediment Collections from Cape Krusenstern National Monument, Alaska.

Riley, Ashley

A Women's Right to Choose: An Outsiders View on the Role of a Female Jehovah's Witness and Her Right to Choose to Accept It

Tipton, Katherine and Shelby Anderson

Archaeologists, the Public, and Collectors: Establishing a Regional Database of Archaeological Sites on Private Land and Collections in Private Hands in the Portland Area

Triplett, Mallory

Preliminary Study on the Context and Movement of Tachylyte, a Unique Volcanic Glass in Washington State

Poster Symposium: **Pacific Northwest Consortium for Geophysics in Archaeology and CRM: Advancing Processing, Imaging, and Interpretation**

Organizers: **Rory Becker, Colin Grier, Steven Hackenberger, Lewis Somers**

Location: Ballroom IV

Time: 8:00am to 12:00pm

Becker, Rory

Earth Resistance Tomography in Archaeological Applications

Grier, Colin and Andrew Martindale

Modelling and Ground-Truthing Approaches to Geophysical Survey Interpretation: Mapping Archaeological Plankhouses in the Pacific Northwest

Lew Somers, Steven Hackenberger, James McLean, Christy Johnson, and Donald VanHeel

Multi-method Geophysical Survey: Yakima Army Training Center Site Evaluation

Maroney, Kendra

Magnetometry in Pend Oreille County, Washington

Friday Afternoon

Symposium: **"Yes, The River Knows": Narratives of the Duwamish**

Room: **Clearwater A&B**

Organizers: **Amanda Taylor**

Symposium Abstract As the Seattle landscape continues to urbanize, several recent cultural resources investigations along the Duwamish and Black Rivers converge with the narrative presented by Sarah Campbell at Duwamish No. 1 (45KI23) in the 1980s, Dennis Lewarch at the Allentown Shell Midden (45KI431) in the 1990s, and Astrida Blukis Onat at the Duwamish River Bend site in the 2000s. In some cases, discoveries of archaeological deposits have provided new insights about how people lived along the waterway. Cultural resources investigations in high sensitivity areas have also failed to recover

archaeological materials, in itself important data about past landscape use and depositional processes. Indigenous peoples of the Duwamish today have reinforced protection of culturally sensitive places and addressed archaeologists' perspectives on cultural deposits. Interpretations have also been influenced by historical information about river channelization, agriculture, and industry. This symposium provides an opportunity to fit archaeological data from discrete investigations into a larger narrative about the past millennium along Seattle's only river.

1:30 Lewarch, Dennis

Busybody, One More Time: Contributions of Research in the Lower Duwamish Embayment to the Development of Western Washington Archaeology

1:50 Miss, Christian, Johonna Shea, and Sharon Boswell

Ripple in Still Water: Contextual Themes, Research Opportunities and Historical Archaeology near the Duwamish and Black Rivers—Perspectives from Phase III of King County's Cultural Resources Protection Project. Part 2: Archaeological Perspectives

2:10 Boswell, Sharon

Ripple in Still Water: Ripple in Still Water: Contextual Themes, Research Opportunities and Historical Archaeology in the Duwamish/Black River Drainages—Perspectives from Phase III of King County's Cultural Resources Protection Project

2:30 Shong, Mike

Not to Touch the Earth: The Death of the Black River and the Effects on the Duwamish People and Archaeological Record

2:50 Stonehocker, Thomas
Place-based learning with elementary students in Seattle

3:10 Shantry, Kate

This Must Be the Place: Recollections and Realizations at the Renton High School Indian Site

3:30 Ostrander, Tom and Chris Lockwood

Results of Archaeological Survey along the Upper Chehalis River Drainage

3:50 Discussant: Phil LeTourneau

General Session: **E**

Room: **Clearwater C**

1:30 Chatters, James

New Radiocarbon Dating of the Earliest Component of the Roadcut Site (35WS4) at The Dalles, Oregon

1:50 Croes, Dale and Ed Carriere

Generationally-linked archaeology: Northwest Coast of North America example

2:10 Hannold, Cynthia

The Manufacture of Notched Net Sinkers from the Columbia Plateau: An Experimental Approach

2:30 Martinez, Kelley

Experimental Archaeology and Groundstone Technology: Understanding Manufacturing and Usewear Attributes through Replication and Tool Use

2:50 BREAK

3:10 Meatte, Daniel

ILLUMINATED ROCKS: Paleoindian Use of Quartz Crystal in the Western United States

3:30 Schultze, Carol and Jennifer Huff

Investigations into glacially rafted nephrite boulders in northern Washington

3:50 Schwab, Alex

California Creek Quarry: Insights from Drone Mapping and Ethnohistory

4:10 Cody, Tia and Shelby Anderson

LiDAR Predictive Modeling of Kalapuya Mound Sites in the Calapooia Watershed, Oregon

General Session: **F**

Room: **Ballroom I**

1:30 Sholin, Carl

The Hustle and Bustle of the Coast Salish Potlatch An Exploratory Case Study of Gift Economic Exchange and Bird Resources at the Village of Xwe'Chi'eXen, 45WH1

1:50 Middleton, Sherri and Patrick T. McCutcheon

Comparing A Surface Collection to An Excavated Collection in The Lower Skagit River Delta At 45SK51

2:10 Lubinski, Patrick and Lianne Bradshaw

Pre-Mazama Mammal Remains from Reanalysis of Bernard Creek Rockshelter: Early Results

2:30 Johnson, Raini

Intra- and Inter-Site Heterogeneity as a Source for Faunal Assemblage Variability in the Prince Rupert Harbour, British Columbia

2:50 BREAK

3:10 ~~Wardle, Weston~~

~~*The Scale of Plant Intensification in the Absence of Abundant Salmon Runs in the Upper Willamette Valley, Oregon*~~

3:30 Wessen, Gary and Stephen Samuels

Exploring Faunal Assemblages to Identify Ethnic Groups: Makahs, Quileutes, and Shell Middens on the Northwestern Olympic Peninsula of Washington

General Session: **G**

Room: **Ballroom V**

1:30 Solomonian, Adam

Memory at The Confluence of Family and Nation: shishalh Photographic Archives in the 21st Century

1:50 Rice, David

New Information on Horse Heaven Hills Pleistocene Turbidite Archaeological Find

2:10 McFarland, Doug, Cristina Garcia Lasanta, Zach Allen, Bernard Housen, Mike Valentine, and David Brownell

Only the lonely: Magnetic analyses to address function and burn/use history of non-feature burned rock

2:30 Simmons, Kim

Techniques for Production of Yarns and Threads for Warmth: Spinning Tools and Protein Fiber Sources in the Northwest.

2:50 BREAK

3:10 Hawes, Kathleen

AT THE ROOT OF THE MATTER: Basketry Construction Materials from the 2,000-year-old Biderbost Archaeological Wet Site (45SN100)

Friday Afternoon Poster Session

Room: Ballroom IV

1:30pm to 4:30pm

Burningham, Tessie

Mapping Fort Douglas: Georeferencing Historic Maps

Coggeshall, Elizabeth, Amy L. Schreier, Carrie Merrigan-Johnson, and Laura M. Bolt

The role of social interaction and nearest neighbor preferences in juvenile Alouatta palliata social development

Dampf, Steven, Ayla Aymond, and Sylvia Tarman

Subsurface Investigation at the Sandy Heron Site (45SP485), Spokane County, Washington

Fulkerson, Tiffany, Alexis Evans, and Shannon Tushingham

Demographic Trends in North American Archaeology: A Longitudinal Analysis of Gender and Occupational Affiliation Trends in the Register of Professional Archaeologists (RPA)

Galm, Jerry, Stan Gough, and Julia Furlong

Sacred and Profane: Site Organization and Abandonment Processes at the Late Paleoindian Sentinel Gap Site

Gargett, Robert H.

Archaeological dating of Late Holocene barrier beach development at 45IS298, Oak Harbor

Gently, Mary

Essentialism in Lesbian Separatist Collectives

Middleton, Sherri

Finn Town 45KI1325, A historic coal mining community

Monaco, Marci

Obsidian Biface Cache Site 35MA375: New Flintknappers Help Reveal Old Technology

Morris, Jessica

Rock Imagery Viewshed Results: The Central Washington Cultural Landscape

Moses, Pendleton, Sylvia Peasley and Trisha Johnson

Mapping Indian Hemp (Apocynum cannabinum) in the Traditional Territories of the Colville Confederated Tribes

Rorabaugh, Adam and Karen Capuder

A New Look at the Excavations at the Forts Okanogan, Cassimer Bar Locality

Sisneros, Mathew

Oregon Archaeological Sensitivity Model Based on Surficial Geology and Landform Analysis

Vance, Emma and Anna Prentiss

Investigating Mobility and Subsistence Organization through Lithic Technology at 48PA551

Weygint, Conner and Josh Krause

Tools of the Trade: Hand tools from a Chinese mining site in Idaho's Boise Basin

Saturday Morning

Field Trip: **Kennewick Man Ancient One Site Visit**

Meet in the Hotel Lobby to Caravan to the Site

Time: **9:30 am to 11:00 am**

Talk on Site by Thomas Marceau

Tour: **Alphabet House Walking Tour**

Time: **1:00 pm to 3:00 pm**

Cost: **$15** (Tickets still available and can be purchased at the Registration Desk)

Personal Transportation Required

Tour Information: Wander the streets of Richland for this walking tour! Participants will walk through neighborhoods studded with houses designed and constructed by the U.S. Government to help rapidly accommodate the influx of thousands of Hanford Site workers who came to the area as part of the top secret Manhattan Project. During World War II, the Manhattan Project developed the first nuclear weapons, the plutonium for which was produced north of Richland at the Hanford Site. Starting in 1943, the small farming community of Richland was transformed into one of the Manhattan Project's "Secret Cities", with the U.S. Corp of Engineers ultimately building almost 5,000 houses. Design of houses was undertaken by the Spokane architect Albin Pherson, who developed a series of house styles named after the letters of the alphabet. In addition to the alphabet houses, prefabricated housing was installed to meet urgent housing needs. This tour will visit several different house types, and along the way you will learn about their construction, architecture, and the part they played in the community's development and culture. Participants will be required to wear sturdy walking shoes and provide their own transportation to the tour departure location. Water and sunscreen is recommended.

Abstracts

A

Allen, Josh Central Washington University

Pre-contact use of Mesa Landforms on the Columbia Plateau: Results from Aggregate Lithic Analysis

The mesa landforms of the Mid-Columbia Plateau are unique and isolated geomorphic features, some of which were occupied by pre-contact peoples for nearly 4,000 years. Initial excavation and analysis at three Mesa sites (45-GR-162, 45-GR-144, and 45-GR-188) recovered over 15,000 chipped stone debitage and tools, most of which remain unanalyzed. Our research is focused on aggregate debitage analysis and other lithic object morphologies (bifaces, cores, etc) to derive assemblage types. The new results are compared to other Mesa and non-Mesa sites to assess variation in assemblage composition.

Co-authors: Jackey Anderson (Central Washington University), Nik Harkins (Central Washington University), and Patrick McCutcheon (Central Washington University)

Anderson, Jackey Central Washington University

Tekison Cave Sample Faunal Analysis

The Tekison Cave site, located in Kittitas County, central Washington, was excavated by avocational archaeologists in the 1970s, and later listed on the National Register of Historic Places. Excavators recovered chipped stone tools and debitage, basketry and other perishable artifacts, and faunal remains. Materials from the site have not been examined in detail by professional archaeologists, but projectile points appear dominated by the Columbia Corner-Notched arrow style based on an anonymous point inventory. Earlier materials may persist in undisturbed lower layers. I will be conducting a sample faunal analysis to determine if there is material present as a result of human activity. In addition to taxonomic analysis, I will observe taphonomic characteristics including digestion, burning, and fragmentation. As this material has still been in original field bags, completing this analysis will also result in part of the collection being properly curated for the first time. This project is part of my larger research into collections rehabilitation and accessibility. Research for Zooarchaeology course with Dr. Patrick Lubinski.

Anderson, Erik D. Wood Environment and Infrastructure Solutions

The King County Potter's Field: Mismanagement, Malfeasance and Corruption at 45-KI-1158

The King County Potter's Field was decommissioned in 1912 as a part of the Duwamish Waterway Project. Supposedly, over 3000 sets of remains were disinterred and cremated over a six-week period. Those involved had less than stellar reputations and accusations of corruption eventually led to a grand jury investigation from Washington State. These questions involving said alleged mismanagement and corruption could indicate an increased likelihood of human archaeological material presently remaining at the site.

Aranyosi, Floyd Olympic College

The Formation of Japanese-American Cultural Identity in the Pacific Northwest: Perspectives from Archaeology and Archival Research.

Immigration from East Asia to the Americas dates back to the 19th century and earlier, but the experience of Issei and Nisei (first and second generation) Japanese Americans has received little attention until recently. The history of Japanese Americans that is depicted in popular narratives usually starts with the internment in concentration camps during World War II. Our research at the site of 45KP105, "Yama Village," on Bainbridge Island, Washington helps to fill in the "backstory" of Japanese Americans, and provides insights into the formation of a culture that is both distinctly Japanese and unequivocally American.

Arnzen, Jacob Malheur National Forest

Got Peel? Identifying Cambium Peeled Trees in the Malheur National Forest

Cambium peeled trees are unique resources on the Malheur National Forest, but can be difficult to identify. These features are Historic Properties of Religious and Cultural Significance to Indian Tribes (HPRCSIT) and can be determined NRHP eligible. This poster discusses the physical characteristics, association, and settings of cambium peeled trees within the Emigrant Creek Ranger District of the Malheur National Forest. Cambium peeled trees have important cultural significance, and the purpose of this poster is to provide insight how the Malheur National Forest identifies and evaluates these cultural features.

B

Becker, Rory Eastern Oregon University

Earth Resistance Tomography in Archaeological Applications

Earth Resistance Tomography (ERT) is a geophysical prospection technique that produces 2D depth profiles similar to a single ground penetrating radar (GPR) slice with the same potential for creating 3D imagery from the 2D data. While earth resistance is a technique commonly employed during archaeological prospection surveys, the tomography method is infrequently utilized though the same equipment can be used to collect the data. ERT has the capacity to model sediment depths and identify archaeological features making it a useful method for subsurface geophysical investigations. However, the questions archaeologists ask of tomography data are inherently different that those explored through more common earth resistance techniques. This discussion provides an overview of the ERT technique and its applications within archaeology.

Bernick, Kathryn Royal British Columbia Museum

Plateau Analogues for Precontact Basketry from Coastal Sites

Recent discoveries of distinctive basketry expand our appreciation of coast-plateau connections in antiquity while raising new questions. Representative samples recovered with associated materials have better potential, but even isolated specimens may provide insights. Three examples illustrate current research: (1) an exquisite 750-year-old Plateau-style coiled basket cradle found in Coast Salish territory indicates the corridor of contact but not the place of manufacture; (2) a 1,900-year-old specimen from the Fraser Delta differs significantly from known basketry, anywhere, ethnographic or archaeological — I lean toward a Columbia Plateau origin, and further suggest that it may be ancestral to corn-husk bags; (3) the 2000 BP Biderbost site in the western foothills of the Cascade Mountains yielded numerous plateau-style stone artifacts and baskets that are like Klickitat baskets in size, shape,

and selvage, but more closely resemble same-age coastal basketry from southwestern British Columbia.

Boersema, Jana Cascadia Archaeology

Successes and Limitations of the Piecemeal Approach to Archaeology on Utsalady Bay

Two shell midden sites, 45IS7 and 45IS8, span the two-mile length of the Utsalady Bay shoreline on Camano Island. Today the shoreline is subdivided into more than 200 parcels, and the sites have been subject to piecemeal archaeological investigations controlled by the development projects of private landowners. Analysis of these investigations suggests revisions to the site boundaries, but provides little information about the function of the two sites. Since 2011, Cascadia Archaeology has conducted a series of investigations on one parcel at 45IS8 and several parcels at 45IS7. Our investigations provide a glimpse into activities that took place in slivers of each site. When compared with other investigations at the sites, it is possible to begin to understand site activities and the period of occupation of the sites. However, piecemeal archaeology significantly limits the potential for understanding the function of complex archaeological sites in a larger subsistence and settlement system.

Co-authors: Jana Boersema (Cascadia Archaeology); Teresa Trost (Cascadia Archaeology); Jonathan Haller (Stateline GIS)

Boswell, Sharon Washington Department of Fish and Wildlife

Ripple in Still Water: Ripple in Still Water: Contextual Themes, Research Opportunities and Historical Archaeology in the Duwamish/Black River Drainages—Perspectives from Phase III of King County's Cultural Resources Protection Project

Phase III of King County's Cultural Resources Protection Project provided the opportunity to review past studies, explore research sources, and develop historical themes and property types that may serve as a framework for understanding the county's historical archaeology. This presentation will briefly explore those historic themes and particularly focus on the context of settlement as it relates to the Duwamish/Black River watershed. The Duwamish River played a central role in settlement, subsistence, and cultural interactions as newcomers came into the region during the 19th and early 20th centuries. Over time, the dynamism and unpredictability of the river led to changing perceptions of potential uses and efforts to reimagine and reshape the waterway itself. Despite being

among the most studied rivers in the region from an environmental perspective, there remains much to learn about the human history of the Duwamish/Black River drainage during the more recent past.

Historical Perspectives: Sharon Boswell; Archaeological Perspectives: Christian Miss

Brown, James Washington State University

Homescapes of the Columbia Plateau: Radiocarbon Chronologies of House Settlements

Semi-sedentary and sedentary households have produced mosaic settlement patterns based on foraging and collecting strategies. The known distribution and organization of residential features appear to represent cycles of viable construction and/or differential preservation. The summed probability distributions of 150 radiocarbon dates from houses are used to compare settlement along the Upper Columbia, Upper Middle Columbia, and Middle Columbia River. Interpretation of this record requires explicit assumptions and multiple working hypotheses. If Bayesian representation of dates for house features can be used as proxies for resident populations, then two periods of less frequent house construction are evident 4500-3500 cal. BP and 3000-1500 cal. BP. Models of population movement and growth must be combined using agent-based simulations with broad geographic contexts in order to understand the effects of population pressure and environmental change in the adaptive strategies of the pre-contact Plateau inhabitants.

Co-author: Steven Hackenberger (Central Washington University)

Brown, Thomas University of British Columbia

Conceptualizing the relationship between structures and 'households' on the Columbia-Fraser Plateau

Within the Columbia-Fraser Plateau culture-historical frameworks and theories of social/political change have relied extensively on data largely deriving from excavations on domestic structures. This emphasis on domestic structures is justifiable given the important changes to mobility and/or social organization implied by their appearance and proliferation. However, despite the central role of domestic structures in discussions of Plateau history, the relationship between individual structures and the 'household' (sensu Wilk and Rathje 1982) has not been sufficiently explored. As such, research in the region often implicitly assumes a 1:1 relationship between structure and 'household' without a theoretical or empirical basis for doing so. We argue that spatio-temporal variability in size, form, investment, and function among structures on the plateau indicates a need to more explicitly evaluate how structures relate to the 'household' and that doing so will facilitate more sophisticated and nuanced understanding of socio-political, economic, and settlement/mobility pattern change in the region.

Co-authors: Jonathan Duelks (Willamette CRA) and Paul Solimano (Willamette CRA)

Buchanan, Brian Eastern Washington University

The Cultural Heritage of the Palouse Prairie Restoration Project, Cheney, Washington

The Palouse Prairie Restoration Project (PPRP) is a multi-year undertaking by Eastern Washington University to restore c. 150 acres of farmland to native vegetation and habitat. The project will develop educational, research, and recreational opportunities by converting wheat cultivation fields into native grasslands. The proposed project design details restoration of the biodiversity of the area, constructing multi-use trails, and developing research plots for faculty-led research and hands on learning experiences for students and the public. Ongoing research is being conducted on the natural and cultural history of the parcel. This presentation presents the preliminary results of student and faculty research on the cultural heritage of the project area and places our understanding of this parcel's past into a wider context of how the landscape around Cheney was utilized in the pre-contact and

historic periods. In addition, this paper presents potential future research opportunities the department will conduct at the parcel in the years to come.

Burningham, Tessie University of Idaho

Mapping Fort Douglas: Georeferencing Historic Maps

This poster presents research findings related to the georeferencing of historically hand drawn maps. The Fort Douglas Military Museum in Salt Lake City, Utah houses dozens of maps of the historic fort panning the decades between its founding in 1862 to the present day. The presentation focuses on six of these maps that were digitized and georeferenced in ArcGIS. The accuracies of the Fort Douglas maps were mixed, but they proved that georeferencing historical maps can be a powerful resource for archaeologists, architectural historians, and development companies. The process reveals how accurate these historic maps are and provides spatial coordinates for archaeological features on the landscape. Furthermore, I show how digitized maps are an invaluable development management tool that can be used to protect historical resources.

C

Campbell, Renae University of Idaho

Introducing the HJCCC: A Digital Comparative Collection of Historical Japanese Ceramics

The Historical Japanese Ceramic Comparative Collection (HJCCC) is a new online resource for identifying and describing nineteenth- and twentieth-century Japanese ceramics that are commonly found at North American archaeological sites. Launched in October of 2018, the HJCCC was created in partnership with the Asian American Comparative Collection (AACC) and the Center for Digital Inquiry and Learning (CDIL) at the University of Idaho, and the Burke Museum of Natural History and Culture in Seattle. This presentation introduces the HJCCC, its collaborative and educational underpinnings, and our goals for the future.

Carlson, David University of Washington

"The Barneston Menace": Anti-Japanese Hysteria and Health Care Practices at an Early 20th Century Nikkei Sawmill Town Community (1898-1924)

In 1904, the Seattle Star published a series of articles on what it called "The Barneston Menace": the presence of a Japanese immigrant community close to the Cedar River, one of Seattle's major fresh water sources. Singling out the Japanese workers from the rest of the multiethnic company town of Barneston, Washington, the Star sought to frame them as a uniquely dangerous threat to the health and security of the city's residents. This coverage was apparently serious enough that it led to several changes in the Nikkei community, the most notable of which was their resettlement to a more permanent location away from the river. This paper will provide some preliminary thoughts on what this event might imply for the meaning and significance of artifacts—particularly glassware—recovered from the Nikkei community at Barneston and contextualize these results within the historical development of early 20th century public health, United States racism, and Meiji-period health care in Japan.

Carney, Molly Washington State University

Observations on Columbia Plateau Contemporaneous Individual and Group Structures, 1600 BP-present

Archaeological investigations of dwellings see structures as both adaptive responses to environmental and social change, as well as manifestations of worldview and identity. In this paper, I focus on the long lodges and smaller conical lodges adopted across the central and eastern Columbia Plateau region from about 1600 BP onwards. How was interior and exterior space used in these structures? Is there any spatial patterning indicative of past lifeways

and social organization? I explore these questions by examining several examples of both long lodges and smaller lodges from published reports. Drawing on quantitative, qualitative, and ethnographic data, I argue that while both the individual conical and longer mat lodges were occupied simultaneously, they illustrate a fundamentally different use of space. I conclude with some cautionary thoughts about the uncritical use of the term "house," in a region and time period in which notions of structures and dwelling may not fit into our etic categories of houses and households.

Carroll, Marna Central Washington University

Standing at the Confluence of Western Empire and Indigenous Knowledge: Decolonizing the Account of the Journey of Monchat- Apé, First American Anthropologist

In 1758, the Histoire de la Louisiane, part memoir of the author, M. Page du Platz, and part ethnographic miscellany, was published. Within was an account of a cross continental journey undertaken by a Yazoo/Natchez man Monchat-Apé. His narrative, first used by the French to extend imperial claims to the Pacific Ocean, later passed to Meriwether Lewis and William Clark as a guide across Louisiana Purchase. The French and Americans paid scant attention to the scientific quest at the heart of Monchat-Apé's journey. Indeed, the narrative presents an approach recognizable as social science and Monchat-Apé's methodology, utilizing direct observation of phenomena, informant interviews and survey, presage scientific process and methodology that only later become the Western science paradigm. Monchat-Apé's quest delved into the origins of his people and discovered a new field of inquiry. Monchat-Apé is the first anthropologist, his account of incalculable value to anthropology today as it offers a new direction for the field.

Chatters, James Applied Paleoscience/ DirectAMS

An Ancient Human and Extinct Megafauna in Hoyo Negro, Quintana Roo, Mexico

The submerged caves of the Yucatan Peninsula are a treasure trove of new information about the first people and megafauna of Central America. One of the most exciting discoveries is Hoyo Negro, an immense natural trap found deep underground. Over the last 7 years, an international team of archaeologists, paleontologists, and geochemists has been exploring this site. It has so far revealed the most complete of the earliest human skeletons in the western hemisphere and near-perfect remains of 15 mammalian species, including gomphotheres, four species of giant sloth, saber tooths, and extinct South American carnivores. Most exciting are the remains of "Naia" a young woman who fell in nearly 13,000 years ago. The technical challenges have been immense and how we have addressed them provides useful lessons for archaeologists working in any region. Through methods we have developed, we are gaining new insights into the lives of Americas first inhabitants.

New Radiocarbon Dating of the Earliest Component of the Roadcut Site (35WS4) at The Dalles, Oregon

In the 1950s the Five-Mile Rapids Roadcut Site produced the first-known early Holocene occupation in the Columbia Plateau. The basal strata, I and II, contained a diverse toolkit belonging to what we now call the Western Stemmed Tradition and a rich, well-preserved fauna containing an abundance of salmon and many species of birds. As important as this early assemblage to this region's archaeological record, it is not well dated. During the dawn of radiocarbon dating, composite charcoal from Stratum I produced an age of 9785±200; an overlying age of 7875±100 was obtained for Stratum II. More recently, Butler and O'Connor dated what they saw as upper Stratum II at 8090±90. The early assemblage begged for better dating. During a study of early Holocene isotopic ecology, 23 radiocarbon dates were obtained on bone from mammals and birds. The results both establish the age of deposit and allow computation of the marine reservoir effect for this time in the Early Holocene.

Clark, Margaret CH2M HILL Plateau Remediation Company, a Jacobs' Company

In No-Man's Land: Army Camp Hanford

Historically, the Hanford Site is best known for its role in the Manhattan Project. It was the first site in the U.S. to manufacture weapons grade plutonium, some of which fueled the atomic bomb dropped on Nagasaki, Japan, in 1945. Less well documented is the decade the U. S. Army spent guarding the site from 1951 to 1961. Oral histories combined with artifacts recovered from a barracks' dump site provide insight into the Army's occupation. This paper's title is taken from one veteran who described his experience on the desert site – "We were out in No-Man's land…and I was so homesick."

Cockerille, Kristina University of Idaho

Faunal Remains from 10BO779: Analysis of Chinese Foodways from the Boise Basin

Beginning in the late 1860s, Chinese immigrants entered Southern Idaho's Boise Basin in search of gold. In the late nineteenth and early twentieth centuries, as much as half of the population in the region was of Chinese descent and a large portion of this population worked in the mining industry. Archaeological sites now located in the Boise National forest can help to better understand what daily life and conditions were like for these miners. Foodways and food preferences are an integral part of gaining this broader understanding. This paper will discuss the faunal remains from a Chinese mining site, 10BO779, located along Ophir Creek near Placerville. Of the approximately 7,500 artifacts found at this site, nearly 25 percent are faunal remains. Through the analysis of these remains, we can work to acquire a deeper knowledge of the customs and daily life of Boise Basin's Chinese miners.

Codling, Chelsea University of Idaho

History and Foodways on Samuel H. Smith Site in Nauvoo, Illinois

Nauvoo, Illinois is a small town, known today as a summer tourist destination because of rich religious history of the Church of Jesus Christ of Latter-day Saints (Mormons) and the splintering factions such as the Community of Christ churches. Archaeological excavations in Nauvoo began in the 1970s and continues today as a renovation project to restore the town as it looked during the Mormon occupation era from 1839 to 1846. The last five summers of the project were spent excavating the property of Samuel H. Smith, brother to Joseph Smith, the first LDS prophet of the church. This excavation revealed a foundation to a Mormon period structure along with about 35,000 artifacts. A closer look at the faunal remains and other artifacts for analysis will help to understand pieces of Samuel Smith's lifestyle and others living on the frontier during the Mormon occupation of Nauvoo.

Cody, Tia Portland State University

LiDAR Predictive Modeling of Kalapuya Mound Sites in the Calapooia Watershed, Oregon

This presentation details the development, testing, and results of a LiDAR and remote sensing predictive model to locate precontact mound sites in the Calapooia Watershed in the Willamette Valley, Oregon. Not much is known about these mound sites archaeologically, including where they are located in the 234,000 acre watershed. Additionally the watershed is 94% privately owned, making traditional archaeological survey impractical. To address this problem, I used ArcMap, LiDAR data, and aerial photography to develop a Kalapuyan mound

predictive model. Development of the model included filtering the LiDAR dataset to remove “noise”/ non-mound features, as well as inverting and digitally flooding the LiDAR dataset to identify inverted mounds. Testing included lab verification of the models ability to identify previously recorded mound sites and a focused pedestrian survey of the project area to assess whether the model identified previously unrecorded mounds. Four land parcels were surveyed and 22 model-identified sites were visited, with seven sites verified as newly recorded Kalapuyan mounds.

Co-author: Shelby Anderson (Portland State University)

Coggeshall, Elizabeth Central Washington University and Maderas Rainforest Conservancy

The role of social interaction and nearest neighbor preferences in juvenile Alouatta palliata social development

Primates’ extended juvenile period allows essential time for socializing that may help develop social skills necessary for survival and reproduction in adulthood. While juveniles continue to rely on their mothers after weaning, they also explore independently and socialize with others to build relationships. In this study we examine juvenile Alouatta palliata social behavior and nearest neighbor preferences. We hypothesize that juveniles will (1) spend more time engaged in social behavior than adults and (2) will demonstrate a spatial preference for adult females compared to other age-sex classes because females are known to facilitate social development more than males or other juveniles. This study took place at the La Suerte Biological Research Station, Costa Rica from May-August 2018. We conducted scan sampling of focal juveniles, adult females, and adult males to collect data on activity and nearest neighbor distance and identity. As pre dicted, juveniles spent significantly more time in social behavior (3.4% of the time) than both adult females (0.5%) and adult males (0.1%). Juveniles were significantly more likely to be nearest neighbors with adult females (66.4% of the time) than with adult males (10.4%) or other juveniles (7.5%). In addition, juveniles were significantly closer to adult females (1.6m) than adult males (2.8m), but there was no difference between juveniles’ proximity to adult females compared to other juveniles(1.5m). These results suggest that the juvenile period allows for increased social time and that juveniles rely on their mothers and other adult females for social opportunities, including social access to other juveniles.

Co-authors: Amy L. Schreier (Central Washington University, Regis University, and Maderas Rainforest Conservancy), Carrie Merrigan-Johnson (Maderas Rainforest Conservancy and University of Toronto at Mississuaga), and Laura M. Bolt (Maderas Rainforest Conservancy and University of Toronto)

Costigan, Lindsay Anderson Perry & Associates, Inc.

Putting Walla Walla on the Map: A Study of Trade Routes to the Northwest

In March 2017, the removal of a sidewalk panel during construction exposed a mélange of historic period artifacts. A subsurface investigation into turn-of-the-century Walla Walla by archaeologists at Anderson Perry & Associates, Inc., revealed artifacts imported from near and far. Oysters from the Olympic Peninsula, ceramics from China, and glass bottles from Europe highlight not only increasingly complex and far-reaching transportation methods but also Walla Walla’s prominence and importance as a transportation and agricultural hub in the Pacific Northwest during the late 19th and early 20th centuries. This archaeological site was determined to be a secondary deposit composed of several dumping episodes of refuse from developed areas of the city as this area developed into a residential neighborhood. Artifacts from this site speak to the tastes of Walla Wallans of multiple classes and ethnicities. This research addresses similar archaeological sites in the vicinity and their contents’ intriguing origins.

Co-author: Stephanie O'Brien (Anderson Perry & Associates, Inc.)

Croes, Dale Washington State University

Generationally-linked archaeology: Northwest Coast of North America example

Ed Carriere and I have spent the last four years doing what is often called experimental archaeology, replicating 2,000 year old baskets from the Biderbost wet site east of Seattle, Washington and reporting this in our new book. After pondering what and why we were doing this, Ed as a cultural expert and myself as an archaeological scientist, decided our approach was more than experimental archaeology, and beyond ethnoarchaeology and the direct historical approach. Through our lives we approached the artifacts of basketry from different perspectives and temporal directions. I focused from deep-time forward, statistically tracing ancient traditions over the course of more than 3,000 years, while Ed, worked from the present backwards, initially from what he learned from relatives and museum examples and now through archaeological examples from over 200 generations of his ancestors/grandparents. Our work tests my hypotheses explaining on-going cultural continuity in three regions of the Northwest Coast, and especially in Ed's inner Salish Sea region.

Co-author: Ed Carriere (Suquamish Elder and Master Basketmaker)

Curteman, Jessica The Confederated Tribes of Grand Ronde

The Summers Collection: Keeping Cultural Inspiration Alive

The 1870s are a point in time when the people of the Grand Ronde Reservation were in rapid transition as a result of extreme hardships. These are also the years wherein Rev. Robert W. Summers made significant collections of the material culture of the Grand Ronde people; in his words "As a way to preserve their drastically fading way of life". Today, the items in the Summers Collection have the power to educate and inspire modern generations about the skills, designs, devices, and deep knowledge their ancestors used for thousands of years. The sixteen items currently exhibited at Chachalu Museum and Cultural Center of The Confederated Tribes of Grand Ronde are on loan from the British Museum. To keep the power and inspiration alive in community after the items leave, the Tribe is devoting efforts to learn, teach, and model the practices embedded in their construction.

Co-authors: Chris Bailey (The Confederated Tribes of Grand Ronde) and Alex Nyers (The Confederated Tribes of Grand Ronde)

D

Daily, Phillip Portland State University

A Community-Based Approach to Archaeological Site Preservation in a Changing Climate: A Lower Columbia Case Study

Global climate change is an increasing threat to cultural resources, especially in coastal areas. Archaeologists have responded with risk assessments that gauge these threats and create preservation priorities for land managers. However, most assessments do not include input from descendant communities, which limits their potential value and relevance to archaeologists and tribal partners. We are in the initial stages of developing a risk assessment model for the Lower Columbia that includes a process for collaborating with tribes. In addition to incorporating the existing archaeological and ethnohistorical data typically used in risk assessments, our project will also incorporate indigenous stakeholder priorities through peer-to-peer partnerships. This poster outlines our work so far.

Damitio, William Washington State University

The Archaeology of Smoking in Northwestern North America: Synthesis of Archaeological Pipe Data and Evidence from Chemical Residue Studies

In this paper we synthesize recent research on ancient smoking practices in northwestern North America. We include a discussion of our current knowledge on the spatiotemporal distribution of smoking in the past as well as our understanding of past tobacco and other smoke plant use based on a review of the ethno-historic literature and numerous chemical residue studies performed on smoking artifacts from the region. The evidence at this time demonstrates that smoking was a widely distributed practice in the Inland Northwest over the past several thousand years—with the earliest known pipes dating to around 4,500 cal BP—but not on the Coast. Published and unpublished biochemical studies are discussed, with results that point to indigenous tobacco being an important smoke plant in the region as early as around 1,410 years ago at least as far north as the mid-Columbia region, far in advance of the introduction of trade tobacco in the northwest.

Co-author: Shannon Tushingham (Washington State University)

Expanding Research Accessibility of Archaeological Collections: Development of a Geospatial Database for the Washington State University Museum of Anthropology

Researchers at the Washington State University Museum of Anthropology are designing a synthetic research program through the creation of a geospatial database of archaeological collections curated at the museum. While significant progress has been made rehabilitating collections, no unified database had been developed that contained summary information on all of the collections. We describe the process of creating a geospatial database for the Museum of Anthropology sites and present the results. The Museum of Anthropology manages materials from 1,635 archaeological sites, 1,073 of which are associated with artifact collections. We present the first phase of a dynamic and evolving resource that will grow and change in the future. We hope that the spatio-temporal and other data will aid in the advancement of archaeological research in the State of Washington and beyond.

Co-authors: Andrew Gillreath-Brown (Washington State University and Shannon Tushingham (Washington State University)

Dampf, Steven Historical Research Associates, Inc.

Subsurface Investigations along the St. Maries River (10BW237, 10BW238, and 10BW240), Benewah County, Idaho

Following the requirements of FERC's Programmatic Agreement for relicensing, HRA assisted Avista Corporation in developing Historic Properties Management Plans for the Spokane River Project in eastern Washington and northern Idaho. HRA conducted archaeological testing at three sites (10BW237, 10BW238, and 10BW240) over two drawdown seasons along the lower stretch of the St. Maries River as part of the implementation measures presented in the HPMP for the Idaho portion of the Project. All three sites contain fire-modified rock (FMR) features partly intact in the cutbank, indicating intact deposits likely occur behind the cutbank and possibly in the drawdown zone. Preliminary results indicate that excavation units from at least two sites (10BW237 and 10BW238) may yield enough information to answer questions about NRHP eligibility, integrity, and soils to accomplish the goals of the study. This information will be used to assist in determining the NRHP eligibility and the most effective measures for the treatment of cultural resources adversely affected by the Project.

Co-author: Ayla Aymond (Historical Research Associates, Inc.)

Subsurface Investigation at the Sandy Heron Site (45SP485), Spokane County, Washington

Following the requirements of FERC's Programmatic Agreement for relicensing, HRA assisted Avista Corporation in developing Historic Properties Management Plans for the Spokane River Project in eastern Washington and northern Idaho. Implementation procedures include formal evaluation to determine a site's eligibility for listing in

the NRHP. Site 45SP485 consists of numerous deflated fire-modified rock features, shell concentrations, possible housepit depressions, and an assemblage of lithic tools. The site contains intact deposits with high archaeological potential, but suffers from impacts due to shoreline erosion, deflation of sediments, and recreational artifact collecting. HRA utilized magnetometry in 2016 to identify the presence of buried archaeological features for further investigation and to address the integrity of those features and the remaining buried site. Subsurface excavation in 2019 was directed at high magnetic targets identified during the first phase of the evaluation. This information will not only be used to help establish site eligibility, but also assist in determining the most effective protective measures for 45SP485.

Co-authors: Ayla Aymond (Historical Research Associates, Inc) and Sylvia Tarman (Historical Research Associates, Inc)

Dellert, Jenny Environmental Science Associates (ESA)

Archaeological Investigation of Site 45KI449 at the Van Gasken Property, Des Moines, Washington

The City of Des Moines unintentionally trenched through a largely intact precontact shell midden. Many of the trenches were backfilled and spoils spread across the yard. ESA's phased investigation utilized shovel probes and test units to delineate the site. Then, after DAHP and tribes concurred that the midden was an extension of 45KI449, ESA obtained a permit to conduct spoils screening efforts in order to recover the disturbed artifacts.Precontact materials included lithic flakes, tools, faunal bone and bone tools, charcoal, and FMR. The bone tools indicate fishing, wood working, weaving or basketry, and possibly for ritual purposes. The faunal assemblage includes large and medium terrestrial mammal, sea mammal, bird, and several fish species. The lithics indicates initial and late stage bifacial reduction. The bluff-top location is unusual. Shell density, midden thickness, variety of faunal, lithic, and personal/ritual artifacts, suggest long-term occupation. Reports of human remains and ethnographic places nearby may support Site 45KI449 as a winter village.

Co-author: Tom Ostrander (Environmental Science Associates (ESA))

Dombrausky, Kailie Central Washington University

Emphatic modulation of chimpanzee signing

Human signers modulate form of signs and cheremes to alter meaning. Emphatic signs co-occur with modulations of reiteration (repeated), duplication (2 hands), held sign (hands held in sign position), and enlarged size (outside signing space) (Klima & Bellugi, 1979). Five signing chimpanzees modulated signs in questions and other ways. Chimpanzee caregivers recorded into sign logs chimpanzees' signs, cheremes, and modulation notes. This study queried sign logs for records of listed modulations and notes on emphatic (e.g. makes sound). Of a corpora of 2,729 signs, 882 were modulated: 92% involved reiteration, 2% involved duplication, 2.44% involved held, 0.22% involved enlarged, 2% involved reiteration and duplication, 1% involved reiteration and held, and 0.55% involved reiteration and enlarged. Ten percent of modulated signs had note of emphatic. Of the emphatic signs, 82% included modulations. This highlights the role of modulation in emphatic signing and adds to our understanding of the patterns of sign modulation in chimpanzees and human signers.

Co-authors: Grace Coffman (Central Washington University), E. Chadwick de Bree (Central Washington University), Emily Patton (Central Washington University), and Mary Lee Jensvold (Central Washington University)

Donald, Roderick Colville Confederated Tribes History/Archaeology Program

A Brief Introduction to the Confederated Tribes of the Colville Reservation's History and Archaeology Program

The History and Archaeology Program at the Confederated Tribes of the Colville Reservation (Colville Confederated Tribes [CCT]) began in 1976 and the twelve tribes were one of the first to become a Tribal Historic Preservation Office (THPO) in 1996. There are now over 150 THPOs throughout the US. The program has grown to more than 40

employees and participates in more than 50 projects per year. A major aim of the History/Archaeology program is to promote tribal sovereignty through the identification and preservation of cultural resources within the reservation as well as tribal traditional lands.

Donnermeyer, Chris USFS - Columbia River Gorge National Scenic Area

The Bridal Veil Lumbering Company: A Glimpse into an Intact Early Logging System in the Columbia River Gorge

Logging was an economic and cultural pillar of the Pacific Northwest. The Bridal Veil Lumbering Company, a logging company operating in the Columbia River Gorge in Oregon State, was the longest continuously operating early lumber mill west of the Mississippi. The company spanned a timeframe that encompassed a wide range of technologies, immigration trends, and safety regulations. Until recently it was thought that the Bridal Veil system was not intact - broken up by roads, previous development, and looting. USFS Archaeologists working in the vicinity during the Eagle Creek Fire in 2017 documented previously unknown portions of the system. Later research revealed that LiDAR technology could be utilized in targeting further documentation. In 2018 a Passport in Time project was coordinated to identify and document more of the system and assess it for integrity. The project is expected to continue for several more field seasons. This poster documents the preliminary results of the project.

Co-authors: Trent Skinner, Michelle N. North (Portland State University), Nicholas Guest

E

Eldredge, Kaitlyn University of Idaho

19th century Consumerism in an Institutionalized Setting: Analysis of Ceramic Ware Consumption at Fort Davis

This poster summarizes analysis of ceramic ware consumption patterns in the context of a 19th century U.S. military fort. Specifically, this poster discusses a sample assemblage of ceramics recovered during a surface survey conducted on private property in Fort Davis, Texas. The sheet midden materials we are discussing were deposited by military personnel from the mid-1880s through the fort's official abandonment around the turn of the twentieth century. Consideration of domestically and institutionally produced refuse offers a unique perspective into the construction of an American presence on the Western American frontier. Ceramics are used to consider how daily practice reinforced ethno-racial, gendered, and national identities amongst residents at the fort. Of particular interest to the project are the experiences of African-American enlisted soldiers, women, and Hispanic civilians, and the changing ways in which these communities related to one another and the white, Euro-American community on a shifting frontier landscape.

Co-Author: Katrina C. L. Eichner (University of Idaho)

Ellyson, Laura Washington State University

Experimental beverage brewing of T. cacao and I. vomitoria: Palmitodiolen as an additional biomarker?

Archaeological detection of beverages derived from cacao (Theobroma cacao) and yaupon holly (Ilex vomitoria) relies upon the detection and composition of three methylxanthines: caffeine, theobromine, and theophylline. Recent experimental studies have challenged archaeological detection methods based on the presence of these compounds and instead propose methods based upon measured proportions of these compounds, particularly caffeine/theobromine ratios; however these proportions are affected by various beverage preparation methods such as roasting which challenge archaeologists' ability to confidently detect ceramic vessels used to brew beverages derived from these plants. This study presents the results of a controlled series of beverage-brewing experiments comparing the methylxanthine ratios of beverages brewed from roasted and unroasted samples of

cacao and yaupon holly. Additionally, this study explores the ability to detect palmitodiolen, a triglyceride found in cacao and absent from yaupon holly, in beverages brewed from cacao as a potential biomarker in archaeological ceramic residues.

Co-authors: Shannon Tushingham (Washington State University) and David Gang (Washington State University)

Endacott, Neal Central Washington University

New Ways of "being American" during the Asian Diaspora: Zooarchaeological Inferences on Assimilation and Transnationalism from the Yama Site, Bainbridge Island, WA

The Yama Site (45KP105), on Bainbridge Island, WA was a village occupied by Japanese immigrants, and their first-generation descendants, from about 1887 to 1929. Extensive surface survey and limited test excavations, by the Yama Archaeology Project, from 2015 to 2017 recovered a sizable zooarchaeological assemblage. The people of Yama village were among the first Japanese-Americans. A common perception of Issei is that they lived a traditional Japanese lifestyle in a new location. Most of the faunal specimens from Yama are domestic cattle, despite traditional Japanese diet including little beef. Burnt deer and rabbit remains indicate food procurement through hunting local wildlife, an uncommon practice in Buddhist cultures. Fish remains, a common food item in Japanese diets, are scarce. These data suggest the Yama residents were creating a new way of "being Japanese" (which included eating beef), and a new way of "being American" (which included traditional Japanese foods).

Endzweig, Pamela University of Oregon Museum of Natural and Cultural History

Modern Living on the John Day River Revisited: Historic Housepits at 35GM22

Excavation of housepits at 35GM22 on the lower John Day River prior to inundation by the John Day Reservoir uncovered two superposed living floors dating to the second half of the 19th century. Recovered materials reflect social changes the site's occupants were undergoing, evidenced by shell disc beads co-occurring with shell buttons, a leather shoe with a leather legging, and an abalone shell pendant with a locket and a military buckle, among others. An additional test pit revealed pre-contact use of the site. Reported by Cole and Cressman in 1961 and by Endzweig in 1985, the earlier findings are here revisited and placed within a broader regional context.

Etnol, PJ Eastern Oregon University

A Campus Community of Confluence: A Visual FYE Ethnography

Cultural anthropologists traditionally communicate about culture through the written word. Visual anthropologists are interested in communicating anthropological data in new, visual ways. Increasingly, anthropologists use visual techniques to present their data. The purpose of this research project is to produce a visual ethnography of Eastern Oregon University (EOU) students' first-year experience(s) (FYE). Visual ethnography allows researchers to create narratives of cultural experiences and life. These narratives may be shared with potential and future students to make them aware of what it is like to be a "Moutie." In addition, university administrators may be able to use these narratives to design better policies and procedures for EOU students. As part of this project, we are following students that come from different communities and cultures. The theme of this year's NWAC, "Confluence," can be related to the merging histories, identities, and experiences of this varied group as they make EOU their home, where they come together to make a unique campus community.

F

Farrell, Ian Pacific Lutheran University

Were There Blade Workshops at Coatlan del Rio: A Technological and Comparative Review

This paper addresses the question of whether there were any blade manufacturing workshops at the Aztec-period polity of Coatlan del Rio in Western Morelos, Mexico. First, I outline the technological characteristics of the artifacts collected from the surface sites surveyed by the Proyecto Coatlan in 1976. This analysis is specifically interested in the distribution of artifacts referred to as primary and secondary indicators of onsite blade production. I discuss the distribution of these items to see if they cluster enough to support the inference of any possible rural workshops at Coatlan del Rio. I incorporate comparative information pertaining to this issue from the Aztec sites of Capilco and Cuexcomate in Western Morelos, Calixtlahuaca in the Valley of Toluca, and Classic-period Teotihuacan in the Basin of Mexico. This study builds upon recent research on specialized craft production to help understand how the organization of Mesoamerican blade production varied over space and time.

Franklin, Robert Washington State University, Tri-Cities

Documenting African American History at Hanford and the Tri-Cities though Oral History

This project documents the African American history at the Hanford Engineer Works and the surrounding Tri-Cities (Kennewick, Pasco, Richland) though the themes of migration, segregation, and civil rights from 1943-1968. Oral histories with former Hanford workers, their families, and residents of segregated East Pasco illuminate a Jim Crow-like community in the inland Northwest.

French, Jamie Oregon SHPO

Lost History Discovered: Salem's Chinese Shrine

The Pioneer Cemetery in Salem, Oregon, contains a Chinese Shrine, used by the Chinese community during the Chinese Exclusionary Period (1882-1940). As demonstrated through Salem’s public archaeology project, the practice of community centered public archaeology can be a valuable way to work within an existing community to develop effective understanding and historic interpretation about archaeological sites associated with marginalized communities.

Co-Author: Kimberli Fitzgerald (City of Salem)

Frierson, Andrew Anderson Perry & Associates

Precontact Use of Pine Valley: Results from Site Mitigations at 35BA1495

The precontact record of Pine Valley in northeastern Oregon is primarily defined by archaeological investigations that have taken place outside the valley on surrounding public lands since land within the valley is predominantly privately owned. Recent excavations at 35BA1495, located near the town of Halfway, revealed a primarily Late Archaic record of occupation that may extend into the Paleoarchaic based on artifacts previously found within the site boundary. This poster presents the results of several analyses conducted on artifacts from 35BA1495 including XRF analysis of obsidian artifacts, protein residue analysis of diagnostic projectile points, and pollen and starch analysis of ground stone implements and FCR fragments. Results from the excavation and subsequent analyses provided much insight into the precontact use of Pine Valley such as raw material conveyance patterns, trade networks, and subsistence practices that all transcend the boundary zones of the Columbia Plateau and northern Great Basin culture area in an understudied valley on the periphery of these areas.

Co-author: Stephanie A. O'Brien (Anderson Perry & Associates)

Frugé, Adam Central Washington University

Preliminary Analysis Results: Sampling Fishes from 1976 Excavations at the Sam Israel House Pit (45GR76) near Soap Lake

The Sam Israel site is a precontact archaeological complex excavated at the north end of Soap Lake, Washington in 1976, with a large proportion of fish remains dating ~400 BP. The fish fauna is of particular interest due to the alkalinity and lack of resident fish in Soap Lake today. A sample of the fauna (including ~2,000 fish bones) was reported in 1997, but fish were not identified to species. As such, this inland Columbia Plateau site has the potential to enhance our understanding of the local procurement of fish with a more detailed analysis. My work cataloging this assemblage has already resulted in positive identifications for pikeminnow, Tui chub, sucker, and salmonid. This project is an analysis of 341 fish specimens from unit 9J, a part of my thesis research of a sample of 3,000 fish bones. My work involved taxonomy, taphonomy, and skeletal parts analysis of fish from screened and flotation contexts in unit 9J.

Fulkerson, Tiffany Washington State University

Demographic Trends in North American Archaeology: A Longitudinal Analysis of Gender and Occupational Affiliation Trends in the Register of Professional Archaeologists (RPA)

Recent trends in the demographic landscape of North American archaeology indicate that women now outnumber men in the number of PhDs awarded, but continue to be inadequately represented among tenure-track and Research-1 faculty, in leadership positions in compliance professions, and within the realm of peer-reviewed publishing. These trends point to a “leaky pipeline” effect, whereby there is an attrition of women in the more advanced and prestigious levels of archaeology. One aspect of the professional pipeline that has not been well explored is the demographic makeup of members of national professional associations like the Society of Professional Archaeologists (SOPA)/Register of Professional Archaeologists (RPA), which serves as a proxy for more broad-scale demographic trends in the general workforce of archaeology. In this study we explore the gender and professional affiliation makeup of SOPA/RPA members from 1976–2018. This poster will present the results of our study and provide recommendations for improving equity in archaeology.

Co-Authors: Alexis Evans (Washington State University) and Shannon Tushingham (Washington State University)

Archaeological Approaches to Burial Practices: A Case Study from the Southern Plateau, Northwest North America

Archaeological studies of status and mortuary behavior on the southern Plateau suggest that rather than being fixed and dichotomous, past gender systems may have been considerably dynamic. Recent inquiries into funerary behavior and identity have advanced the archaeological understanding of mortuary practices by engaging with Indigenous, feminist, and queer knowledge systems and critiques—particularly those that challenge Western and normative assumptions which bias scientific interpretation. Building from these frameworks, this study reexamines the relationship between gender and mortuary behavior in the archaeological record of the southern Plateau through an analysis of the distribution of grave objects across sex and age classes from numerous burial sites. Our analytical approach relies on a critical review of primary literature in combination with data derived from previous research conducted by Lourdes Henebry-DeLeon wherein numerous individuals from archaeological burials were determined to have been incorrectly sexed when they were originally reported. This poster will offer the preliminary results of our study.

Co-author: Lourdes Henebry-DeLeon (Central Washington University)

G

Galm, Jerry Eastern Washington University

Sacred and Profane: Site Organization and Abandonment Processes at the Late Paleoindian Sentinel Gap Site

Abandonment of the Sentinel Gap site is minimally represented by the intentional breakage of different categories of artifacts, the deliberate redistribution of some "killed" artifacts across the occupation surface, and the burning of two probable domestic structures. This final phase of the site record can be understood as an extension of the highly structured and ritualized organization of the occupation. Embedded in this pattern of site abandonment is a duality characteristic of classification of the natural world into binary oppositions. A separation of the world into the classic categories of sacred and profane is characteristic of a system of religion. A system of fundamental religious beliefs undoubtedly would have permeated all elements of daily life represented in the Sentinel Gap site occupation record.

Co-authors: Stan Gough (Eastern Washington University) and Julia Furlong (Eastern Washington University)

Gargett, Robert H. Equinox Research and Consulting International Inc. (ERCI)

Archaeological dating of Late Holocene barrier beach development at 45IS298, Oak Harbor

Radiometric age estimates from intact deposits of precontact archaeological site 45IS298—the Windjammer Park Site—are used to propose a timeline for the Meghalayan (Late Holocene) evolution of the barrier beach that fronts Oak Harbor on Whidbey Island in the Salish Sea. During work for the City of Oak Harbor's Clean Water Facility Project, ERCI has accumulated 15 AMS radiocarbon dates ranging between 495 and 1710 cal BP. These provide a proxy for the last 1,500-or-so years of the landform's growth. Its easternmost and narrowest point has migrated eastward at the same time as the foreshore built southward into the harbor.

Gently, Mary Southern Oregon University

Essentialism in Lesbian Separatist Collectives

This work highlights the history, motivations, and outcomes of lesbian separatist collectives, highlighting land-based collectives in Southern Oregon and the Roseburg area. The research focuses on the political and personal motivations of the women involved and the ways in which the ideologies that drove them also often undermined their ability to effect lasting change and maintain healthy communities. This work incorporates the author's interviews with members of local collectives and data analysis regarding communal longevity, reasons for dissolution, membership numbers, and publications to highlight patterns in regard to success and failure. In addition, the work utilizes sources from the UO archives including the WomensShare Collective Records and the Ruth Mountaingrove Papers as well as local collective member's personal files. This work provides insights into ideological and structural distortions that work to undermine radical movements. The original data analysis and filmed interviews add new information to the existing literature.

Gleason, Eric Colville Confederated Tribes History/Archaeology Program

Reservoir Archaeology: Quantifying Erosion at Three Sites in Lake Roosevelt Reservoir, North Central Washington

During spring 2018, the Colville Confederated Tribes History/Archaeology Program intensively surveyed and mapped three sites in the drawdown zone of Lake Roosevelt reservoir: 45LI224, 45ST45, and 45ST60. These sites experience reservoir induced erosion caused by daily operation of Grand Coulee Dam and seasonal fluctuations of Lake Roosevelt. Erosion has resulted in irreparable loss of archaeological data through displacement of intact culture bearing deposits and cultural features. In most cases, evidence of erosion now consists of historic

photographs and maps, pre-dam descriptive narratives, remnant tree stumps and root wads, and dispersed artifacts and deflated and lagged features scattered across the barren drawdown zone. Archaeological data loss varies from site to site. Quantifying it is compounded by the cyclic nature of reservoir induced erosion and deposition seemingly exposing cultural materials one year and burying them the next. Using a variety of techniques, we have attempted to quantify the current extent of erosion at these three sites and extrapolate potential archaeological data loss.

Coauthors: Jacqui Cheung (Colville Confederated Tribes History/Archaeology Program) and Brenda Covington (Colville Confederated Tribes History/Archaeology Program)

Grier, Colin Washington State University

Modelling and Ground-Truthing Approaches to Geophysical Survey Interpretation: Mapping Archaeological Plankhouses in the Pacific Northwest

Near-surface geophysical survey, a staple of archaeological investigations in some areas of the world, has been underutilized in Northwest Coast archaeology. Heterogeneous shell-rich deposits and perishable features make up much of the archaeological record of the region, posing particular challenges for geophysical interpretation. We are taking on these challenges by developing a systematic and reproducible approach to geophysical feature interpretation involving (1) repeated survey under varying conditions, (2) creating statistical models for predicting feature identity, and (3) conducting a program of archaeological ground-truthing. We outline our methodology, illustrating how it can be applied in service of mapping the remains of ancient cedar plankhouses across the Pacific Northwest, focusing on our recent work at Lamalchi Bay in the southern Gulf Islands of coastal British Columbia, a long-standing Hul'q'umi'num village that was destroyed by British Colonial forces in 1863.

Co-author: Andrew Martindale (University of British Columbia)

H

Hackenberger, Steven Central Washington University

LiDar and Ground Penetrating Radar Imaging: Yakama Nation and CWU Collaborations

Some 15 years of formal collaborations between Central Washington University (CWU) Department of Anthropology and the Yakama Nation Cultural Resource programs (YNRP) have included: contracts, learning agreements, lecture programs, internships, and field school sessions. Two recent initiatives are: 1) LiDar and ground mapping of house settlements, and 2) ground penetrating radar studies of sites with cooking features and house features. Airborne LiDar coverage has grown and improved in resolution due to extensive wildlife and fisheries studies and habitat improvements. This coverage is aiding mapping and monitoring of house settlements that remain threatened by looting, grazing and fire management. Pilot projects using ground penetrating radar are proving useful for evaluating type and number of cooking/heating features outside and inside of small and large house features.

Co-authors: Jon Shellenberger (Yakama Nation), Nick Finley (Yakama Nation), Autumn Adams (Central Washington University and Yakama Nation), and Cindy Morales (Central Washington University)

Hampton, Ashley University of Montana

Manifesting Membership: Understanding Housepit Space-Use Utilizing GIS

This paper focuses on examining ways lineage-based and clan-based connections structured intra-household labor patterns and access to power within a multi-generational housepit (HP54) over time. The Bridge River site (EeRl4) — located in the Mid-Fraser Canyon, British Columbia, Canada — was generally egalitarian, but saw the manifestation of situated power-differentials in terms of access to wealth and prestige during times of resource stress. Through an examination of changing patterns in space-use and resource access/management across these occupational floors, we may understand micro- and macro-scale shifts in lineage-based connections or alliances at the household level. Utilizing a GIS-based approach, this paper will illuminate spatial patterns of household membership and how inter-household connections affect the development of prestige-based social distinctions. Ultimately, by understanding the interplay of environmental, demographic, and social processes within a singular housepit over multiple generations we may better understand the recursive relationship between culture, environment, and individual agency.

Hann, Don Malheur National Forest

And I Dig my Life Away: 19th Century Chinese Mining Kongsi Partnerships in the Pacific Northwest

Chinese immigrant gold miners in North America have generally been portrayed as unskilled laborers in both popular and academic descriptions. They were believed to have made a basic subsistence living scouring placer deposits previously worked and abandoned by white miners. Archaeological evidence and historic documentation suggests this is a gross oversimplification. Contemporaneous mine claim records in Grant County Oregon refer to the Chinese entities buying or leasing placer claims as “copartnerships.” That is an apt description of kongsi- a type of business partnership that was the basis of Chinese mining companies operating in Southeast Asia for a full century before the discovery of gold in California. Members of a kongsi shared in the risks and profits, generally commensurate with the level of skills or capital they contributed. Evidence for kongsi partnerships among Chinese gold miners in the southern Blue Mountains of Oregon will be presented.

Hannold, Cynthia University of Idaho

The Manufacture of Notched Net Sinkers from the Columbia Plateau: An Experimental Approach

Fishing has long been an important subsistence activity for Native groups in the Columbia Plateau. With the exception of lithic net sinkers, traditional fishing technology was manufactured from organic materials that have rarely survived in the archaeological record. The recovery of net sinkers can determine whether net fishing was employed at an archaeological site. Types of net sinkers include grooved-stone, perforated, and notched. Notched net sinkers appear in abundance throughout the Columbia Plateau. Understanding how these net sinkers were manufactured can provide archaeologists with insights into seasonal toolmaking activities, which can lead to a better understanding of the time and energy expended during these processes. This paper describes an archaeological experiment that records the steps involved in making notched net sinkers, the physical effects on the knapper, and the implications for understanding past human lifeways.

Hawes, Kathleen Central Washington University

AT THE ROOT OF THE MATTER: Basketry Construction Materials from the 2,000-year-old Biderbost Archaeological Wet Site (45SN100)

Conducted in 2015-2016, microscopic identification by cellular analysis of the 2,000-year-old Biderbost wet-site (45SN100) pack baskets revealed that split Western red cedar roots (Thuja plicata) were used in the construction of the majority of these beautiful ancient baskets. The baskets were recovered from the banks of the Snoqualmie

River near Duvall, WA in the early 1960's, one of the earliest Northwest Coast wet-site excavations. My presentation will discuss the process of cellular analysis and identification of the cedar root used at this ancient site; and continue with the proposed comparison of the Biderbost material with material from two early Salish Sea basket collections: the stylistically and temporally similar DgRs-30 Water Hazard collection (~2,000 BP); and the DhRt-4 Musqueam Northeast collection (~3,000 BP). Both collections were recovered from archaeological wet-sites located in the Fraser River Delta, B.C. I will also provide an update from a recent analysis and preliminary identification of samples from one of the Water Hazard baskets (DgRs-30:44).

Helmer, Emily Washington State University

Persistent Places in Southwestern Oregon

This study takes a Geographic Information Systems approach to understanding the role of place in determining settlement patterns in southwestern Oregon. Persistent use of settlement locations transforms these spaces in places, or locations where memory and identity become embedded. In order to test how this phenomena influences settlement location, density-based spatial clustering of applications with noise (DBSCAN) was used to analyze the patterning of sites over time and determined that sites are clustered near previously existing sites, even when equally suitable land occurs nearby. True site locations were compared to randomized site data to further investigate this pattern. This analysis demonstrates a region-wide pattern of persistence in particular places despite the wide availability of environmentally suitable land, which suggests that places with previous human occupation were chosen preferentially for settlement.

Henderson, Joshua Central Washington University

Measuring Trace Element Concentrations in Artiodactyl Cannon Bones using Portable X-Ray Fluoresence

Artiodactyl bones are the most common faunal remains found in Washington prehistoric archaeology sites, but are often too fragmented to accurately identify to taxon. Traditional faunal analysis can only assign unidentifiable bone fragments to size class, and chemical methods often require bone destruction. In this thesis research, we tested a non-destructive faunal analysis technique using portable X-ray fluorescence (pXRF) to measure trace element concentrations in comparative collection and archaeological bone samples. Using cannon bones from five different artiodactyl species, we collected trace element data from 50 comparative collection specimens and 18 archaeological specimens previously identified to species. We used a Random Forest classification analysis to predict the family and species of modern comparative and archaeological specimens based on collected trace element data. Species identification accuracy was 70% for modern specimens and 22% for archaeological specimens, with family accuracy at 82% and 67%, respectively. These results suggest that the identification by pXRF is promising, but require further work to be definitive.

Co-author: Meaghan Emery-Wetherell (Central Washington University)

Hughes, Mackenzie Central Washington University

Initial Stone Tool Classification of Non-Professionally Assembled Lithic Collections

With a growing number of lithic artifact collections accumulating from throughout the northern Great Basin, identifying what first steps to take in collections management is becoming increasingly crucial. Though new excavations continue, it is necessary to develop an initial paradigmatic classification scheme if non-professionally assembled lithic collections are to be studied for scientific purpose. The objective of this research is to develop a general lithic classification scheme to encompass the traits and variability encountered in some Great Basic lithic artifacts, including projectile points. The Wild/Clymer stone tool collection includes 4, 461 stone tool artifacts, many of which are highly variable, including stemmed points, crescents, and overshot flakes. High resolution provenience is lacking, but general geography is present. Before attempting to determine provenience of a subset of these artifacts labeled from Frenchglen, OR (n=1052), we found it necessary to develop a classification scheme

to identify shared characteristics in the collection. This allows us to proceed with typological classification and develop future research questions.

Co-Authors: Dennis Wilson (Central Washington University), Nik Harkins (Central Washington University), Mallory Triplett (Central Washington University), and Patrick McCutcheon (Central Washington University)

Humphries, Sarah J ERCI

Basketry: Now as always

Two basketry fragments found deeply buried in washover deposits in Oak Harbor on Whidbey Island, Washington, provides an opportunity to compare modern and ancient weaves. By some estimates, durable artifacts (stone, bone, antler, shell) comprised only 5% to 10% of Northwest Coast material culture, which limits archaeologists' ability to appreciate the richness of past cultures. The 90% of artifacts that are perishable, which we so rarely see, contribute deeply to the stories revealed during archaeological investigations—babies are carried in blankets and baskets; food is stored for winter in baskets and boxes. These are everyday things, which can be more personal, more intimate. This paper explores the details captured in the fully stabilized pair of basketry fragments and compares them with modern analogs as we add to our understanding of the last two millennia of life along the shoreline of Whidbey Island.

Co-author: Kelly R. Bush, ERCI

I

J

Johnson, Katie Southern Oregon University

Mapping Settler Colonialism: The Cartography of the Rogue River War, 1855-56

Settler colonialism rapidly impacted southern Oregon with the onset of the gold rush. The Shasta, Takelma, and Athapaskan people accommodated the mass immigration of prospectors and settler families in various ways, but ultimately many turned to armed rebellion. The Rogue River War of 1855-56 was a concerted effort by indigenous leaders to resist this incursion by military means, an effort that ultimately failed due to the actions of the United States Army. This poster presents a series of maps produced through primary document and archaeological research using GIS technology that allows for a broader presentation of the Rogue River War than previously available.

Co-author: Mark Axel Tveskov, Southern Oregon University

Radar Love: Archaeology and Remote Sensing at the Kam Wah Chung State Heritage Site

In the fall of 2018 the Southern Oregon University Laboratory of Anthropology and Lew Somers of Archaeo-Physiscs conducted remote sensing at the Kam Wah Chung State Heritage Site, across the historical John Day Chinatown. This project complements years of documentary and archaeological research at the site, allowing for a more complete interpretation of the subsurface resources and providing new insight for future management of the archaeological site.

Co-author: Lewis Somers (Archaeo-Physics LLC)

Johnson, Matt Wanapum Heritage Center

A Zooarchaeological Analysis of Hole-in-the-Wall Canyon (45KT12) and French Rapids (45KT13) Sites: Ginkgo State Park, Washington"

A taxonomic and taphonomic faunal analysis was completed for the entire zooarchaeological collection (n=5,354) for two house feature sites, Hole-in-the-Wall Canyon (45KT12) and French Rapids (45KT13). Both sites are located near Vantage, Washington within the inundated area of the Wanapum Reservoir, and were excavated as part of large scale archaeological salvage work prior to dam construction in the summers of 1961-62. Radiocarbon dates between both sites range from 10,000 cal B.P. to present, with most occupation postdating 2750 cal B.P. Faunal analysis results indicate utilization of large mammals, river mussels, carnivores, and an assortment of fish and small mammals. Results of faunal analysis from 45KT12 and 45KT13 were compared to 16 other analyzed faunal assemblages from the Priest Rapids-Wanapum Reservoirs. Faunal assemblages are largely similar in represented taxa, with the most ubiquitous fauna being salmonids, leporids, cervids, bovids, and Western Pearlshell mussel. Additionally, this work helps to demonstrate the utility of rehabilitation and analysis of aging archaeological collections.

Johnson, Paula WillametteCRA

Seventeen More Syllables: Further Investigations into the Shinjiro Honda Memorial Stone (45-KI-1256) and the Life of Poetry Master Shinjiro Honda

In 2015 a carved stone was discovered in the brambles behind a residence in Seattle's International District. The stone commemorated Japanese immigrant Shinjiro Honda, a senryu poetry master who lived in Washington between 1905 and 1941. Senryu is a witty and wry Japanese 17 syllable poetry style popular among Japanese immigrants. Based on the inscription, the stone was recorded as a cemetery and was left untouched. In 2018, the landowner sought to redevelop the property and an excavation permit was issued to determine if cremated human remains were beneath the stone; they were not. This poster will highlight further research into the remarkable life and work of Shinjiro Honda and efforts to determine his actual final resting place.

Johnson, Raini University of British Columbia

Intra- and Inter-Site Heterogeneity as a Source for Faunal Assemblage Variability in the Prince Rupert Harbour, British Columbia

This paper focuses on understanding the variability of fauna (dominantly fish) found in coastal shell-based archaeological sites in the Prince Rupert Harbour, British Columbia and asks how sample and site location affects the relative abundance and species diversity of faunal assemblages. By recognizing that site location affects the relative abundance and diversity of species found archaeologically, we can begin to see relationships between site location and species habitat zones and develop a more complete view of both regional subsistence variability and inter-site relationships. Recognizing that sampling location affects relative abundance allows us to examine sampling practices and highlights areas within a site which are more likely to be representative of past subsistence practices than others. Acknowledging the effects of both inter- and intra-site variability allows for the design of best practice sampling methods and regional overviews that will showcase a more complete and diverse faunal record and allow for more accurate, location-specific sampling.

Trisha Johnson

Story Map - Confederated Tribes of the Colville Reservation – A Brief History

Confederated Tribes of the Colville Reservation – A Brief History story map provides basic introduction into history of the member Tribes of the Colville Reservation. Included are a description and spatial locational map of each Tribe's native territory with a brief explanation of how members of each Tribe arrived on the Colville

Reservation. A narrative of each tribe's way of life follows each map with photographs and video. This story map harnesses the power of a GIS and technology to integrate maps, legends, text, photos, videos and provides functionality such as pop-ups and time sliders that help the users explore the rich content that story maps provide.

K

Kennedy, Jaime L. University of Oregon Museum of Natural & Cultural History

The Botanical Assemblage at 35CL19: A Clackamas Chinook Village in the I-205 Corridor

The Oregon Department of Transportation (DOT) plans to add lanes to I-205, the Portland Bypass, including the Abernethy Bridge spanning the Willamette River. Site 35CL13, the main village of the Clowewalla Chinook, is on the west bank and 35CL19 at the mouth of Abernethy Creek is on the east bank. Bridge construction in the 1970s re-sculpted much of the corridor and disturbed archaeological contexts along both banks. However, past construction had avoided the historic Abernethy Elm in site 35CL19 (planted ca. 1850 and removed in 2001) around which a 5x5 m curb had been built. Testing within the curb identified intact cultural deposits. The distribution of lithic artifacts and botanical remains indicated two distinct periods of occupation, one at a depth of ca. 70-80 cm and another at a depth of ca. 110 cm. The botanical assemblage, a focus of this report, was especially rich, with acorns, hazelnuts, camas, berries, and tobacco all represented.

Co-author: Thomas J. Connolly (University of Oregon Museum of Natural & Cultural History)

Koetje, Todd Western Washington University

Neanderthals, Denisovians and Modern Humans: What material culture differences can we see during their overlap?

The time frame from 50-30 kya contains evidence for at least three distinct human populations spread across northern and western Eurasia. These groups faced serious environmental challenges, and seem to have existed in widely spread, small populations with perhaps very similar basic cultural adaptations. As indicated by shared genes, these groups were evidently in contact. How are these populations represented in material culture? To what extent can we begin to see typological and technological patterns in material culture that might distinguish them? Preliminary comparisons suggest only very subtle distinctions. Is this the Bordes-Binford debate's revenge?

Kohnen, Kalli Central Washington University

Individual Variation in the Response of Captive Javan Gibbons (Hylobates moloch) to Visitor Presence

Captive primate caregivers must reconcile diverging ideas regarding the role of the public in primate sanctuaries. One prevailing philosophy states caregivers should minimize stress to captive primates; another holds that engaging the public in the form of educational tours can increase public involvement in conservation initiatives. In order for both viewpoints to coexist effectively, caregivers must assess the relationship between visitor presence and behavioral indicators of stress. I assessed the impact of visitor presence on the activity budgets of 10 captive Javan gibbons (Hylobates moloch) at the Gibbon Conservation Center by comparing their behavior on days when visitors were present versus days when visitors were absent. Individual gibbons varied in which behaviors were impacted by visitor presence and in the directionality of that impact. This indicates sanctuaries should assess each individual primate's reaction to visitors when determining visitor policy.

Kretzler, Ian University of Washington

Archaeological Investigation on Landscapes of Survivance

In the 1850s, the federal government forcibly removed dozens of Native communities to the Grand Ronde Reservation in northwestern Oregon. In the 150 years since the reservation's establishment, the Grand Ronde community has navigated government policies designed to terminate tribal lifeways and political sovereignty. At the same time, the community transformed the reservation into a new home characterized by enduring cultural presence and persistence. Since 2014, Field Methods in Indigenous Archaeology, a community-based research project co-directed by the University of Washington and the Grand Ronde Historic Preservation Office, has explored the material traces of these complex histories. This poster reflects on the obligations and opportunities that arise when conducting archaeological investigation on landscapes of dense historical and contemporary significance. It explores how combining low-impact field methods that incorporate Grand Ronde cultural practices and concerns with holistic, multi-scalar datasets lends new detail to Grand Ronde's ongoing story of survivance.

Kunas, Julia Central Washington University

A Functional Analysis of Pre-Contact Sites and their Microenvironments on Lopez Island, Washington

This study investigates the relationship between recorded precontact archaeology on Lopez Island, Washington and the island's microenvironments. Data for the archaeology and microenvironments on Lopez Island were gathered from WISAARD, USGS, and other published sources. We described and sorted data from a sample of 54 sites by variables defined from three categories: previous research, microenvironment, and archaeology. This allowed us to give each site three functional classification codes for each larger category. Previous research like Thompson's (1978) analysis identify the changes in settlement patterns on the Northwest Coast and note the importance of functional analysis in understanding distribution of site types across microenvironments. Taylor et al. (2011) suggest an analysis of resources that may have been affected by climate changes, resulting in changes in settlement patterns. This research shows how information on precontact Lopez Island sites can be further investigated to address research questions for the Salish Sea region like changes in resource extraction and settlement patterns.

Co-Author: Patrick T. McCutcheon (Central Washington University)

Kuzminsky, Susan University of Idaho and University of California, Santa Cruz

Investigating variation in nasal shape among prehistoric populations in North and South America

Features of the human skull have long been used by anthropologists to investigate sexual dimorphism, biological relationships, and climate adaptation. Among the most studied of these features is the nasal region, although there is no agreement as to whether this region is controlled by genetics or reflects an adaptation to differing environments and temperatures. This has important implications, particularly for forensic casework and assessments of population history, which rely on the inclusion of midfacial features for comparative analyses. In this study, we test whether differences can be ascertained by the shape of the nasal region using 3D surface scans and geometric morphometric methods. The skeletal series includes human dry crania from mild, coastal habitats and extreme cold climates throughout the Americas. We discuss the results and their implications for research focused on ancestry, climate and reconstructing population history. This work also highlights the applicability of non-destructive 3D methods to examine human variation among prehistoric and modern populations.

Co-Authors: Rylee Robertson (University of Idaho), Scott Jones (University of Idaho), and Kristina Cockerille (University of Idaho)

L

Leischner, Emily University of British Columbia

Insights from Absence: Methods in Examining Silences while Researching Northwest Coast Tumplines in Museum Collections

The Smithsonian Institution houses nearly thirty woven tumplines, collected in the late-19th and early-20th century from Northwest Coast Indigenous communities. These intricate and colorful bands of fabric have been used as carrying straps, attached to baskets or bundles and slung across the body or forehead. While researching tumplines at the Smithsonian, I found several that were completely undocumented, still attached to baskets, but unseen in the collections database. Using two tumplines collected from the Yakima Indian Reservation as a case study, this presentation examines how objects can be made invisible through museum practice. Combining archival, object-based and anthropological methodologies, I explore how attending to absences, rather than closing lines of research opens up new questions and insights into the changing meanings that objects hold as they are collected, catalogued, displayed and stored in museums. I argue reading into silences is a necessary practice towards decolonizing museums and imagining the types of institutions we want to exist in the future.

Leonard-Doll, Katy University of Washington

Seeds of Survivance: Investigating Grand Ronde Foodways through Archaeobotany

Few archaeologists have researched daily life, especially foodways, of Native communities on reservations. In collaboration with the Grand Ronde Historic Preservation Office, we used archaeobotany to examine the Grand Ronde community's relationships with land and food during the late nineteenth to early twentieth centuries and the impact colonialism had on their dietary practices. Focusing on one of the reservation's first habitation areas, we identified charred seeds and tracked their prevalence over time and space. This research improves our understanding of plant use and its adaptation within the reservation community. It also supplies a reference collection of seeds and plants present at Grand Ronde during this period. This research also contributes to ongoing conversations regarding first foods revitalization within the Grand Ronde community, highlighting that the community's use of plants on the reservation is a story of food resiliency that continues to this day.

Co-author: Paloma Sanchez (University of Washington)

Lewarch, Dennis Suquamish Tribe

Busybody, One More Time: Contributions of Research in the Lower Duwamish Embayment to the Development of Western Washington Archaeology

Since the Duwamish No.1 Site (45KI23) was first recorded in 1975, more than 12 archaeological sites have been identified in the Duwamish River-Black River drainage system. A review of the history of investigations highlights contributions to the discipline over the past 44 years in areas such as field techniques, analytical techniques, and substantive data. Projects helped advance archaeological construction monitoring procedures, coring and other sampling protocols, excavation techniques, field processing procedures, and recording systems. Increased sophistication in geoarchaeology provided useful geomorphological data documenting effects of seismic uplift, complex alluvial floodplain processes, and rates and effects of Duwamish River delta progradation. Substantive archaeological results include regionally important data on time depth of occupations, variation in settlement types, and kinds of adaptations to changing floodplain environments. The presentation will summarize some of the most important contributions made by archaeologists working in the Lower Duwamish Embayment.

Litzkow, Jamie Bureau of Land Management

Basque Sheepherding Landscapes in Washington State: Assessing Potential and Identifying Features

Basques were among the earliest Europeans to arrive in North America, and sheep were one of the first livestock brought into the Northwest by the Pacific Fur Company at the founding of Fort Astoria in 1811. A large population of Basques emigrated from South America during the California gold rush, many settling into sheepherding to provide food for the influx of prospectors swarming the Sierra Nevada Mountains. By the end of the Civil War, California, Oregon, and New Mexico held more than 1/8 of the entire sheep population in the United States; with three Pacific states alone (including Washington) bursting with over three million head. Between 1890 and 1934, the drylands of the Columbia Plateau were inundated with sheep herders seeking public lands for winter and summer range. The industriousness of Basque herders, in particular, was considered synonymous with the development of a successful sheep industry in the west. There are known Basque population centers in the state during this critical period of economic development, but nothing has been researched regarding how early sheepherders (especially those of Basque-descent) adapted their environment to accommodate operations in the Columbia Plateau. Preliminary correlations have been drawn to known Basque-related landscape features across the west with a specific example from south-eastern Washington. These features have no known archaeological analogue reported in the state to date.

Soft Gold! How the Fur Trade Shaped Early Gold Rushes in the Pacific Northwest

By 1821, the Hudson's Bay Company (HBC) had successfully monopolized the fur trade industry in the Columbia River Basin. Well-worn travel routes connecting far flung inland posts had opened once impenetrable areas of present-day British Columbia, Washington, Idaho, and Oregon to commerce, missionary work, scientific exploration, and non-Native settlement. The HBC's push to develop self-sustaining trade centers propelled the sheep, cattle, and agricultural industries west of the Rocky Mountains. As fur sources depleted, HBC traders expanded their geographic reach and diversified their exploratory goals, seeking out supplemental income and targeting the region's precious mineral resources. As a result, the majority of early gold discoveries in the Pacific Northwest were made in concert with fur trading activities and excursions. The frenetic pursuit of gold resulting from these discoveries had resounding geopolitical effects, driving westward expansion, re-sparking international boundary disputes, and further eroding fragile relations with regional tribes.

Lopez, Kirsten Oregon State University

National Register listed archaeological sites within the state of Oregon: statistics and what they mean for Oregon archaeology

With thousands of sites in the Oregon Archaeological Records Remote Access (OARRA) database, the number and distribution of these sites that have been listed in the National Parks Service National Register of Historic Places has been unknown. This data was compiled and analyzed during an internship at the Oregon State Historic Preservation Office. The data revealed a lack of (or uneven) representation in certain regions and groups, as well as surprising oversights and discontinuities between the National Register and OARRA databases. Listing oversights may reveal misunderstandings of the benefits of listing, including accurately communicating importance to the public, potentially leading to wider support for the field and the work we do. These data give us an idea of where we as a field can open conversations of completing the listing process for important archaeological sites in the future.

Lorain, Michael University of Alaska Fairbanks

Wood Selection for Fish Trap Stakes in Southeast Alaska

Fish traps were important tools for Northwest Coast populations for providing consistent sources of fish as the tides ebbed and flowed. This project is focused on building baseline data to understand the larger technology of

these structures, and how people utilized the environment they reside in to establish and maintain fish trap systems. This study is focusing on part of the decision-making process, the selection of wood species for the stakes that are essential to the trap. Our goal is to better understand whether there is a preference for specific species, and whether these follow a spatial or temporal pattern. Here, we present our initial findings on data from five fish traps on Admiralty, Mitkof, and the Prince of Wales Islands. Twenty-five stakes were sampled and identified providing information about the preferential use of two species, Hemlock (Tsuga sp. cf. t. heterophylla) and Alaska Yellow Cedar (Cupressus nootkatensis).

Co-authors: Jane Smith (U.S. Forest Service), Madonna Moss (University of Oregon), Claire Alix, (University of Paris Pantheon Sorbonne), Joshua Reuther (University of Alaska Fairbanks)

Lubinski, Patrick Central Washington University

Pre-Mazama Mammal Remains from Reanalysis of Bernard Creek Rockshelter: Early Results

Bernard Creek Rockshelter is one of few Plateau archaeological sites with well-preserved faunal remains in pre-Mazama deposits. The site lies in Hells Canyon in west-central Idaho. Initial faunal analysis was reported in 1977 by Randolph, Dahlstrom, and Boreson for mammals and birds, and by Casteel for fishes. The present study is a reanalysis of mammalian fauna from Pre-Mazama deposits in Block I, 160-370 cmbd, associated with four radiocarbon dates ~7400-7190 BP. To date, 15 of 21 levels have been analyzed (2,978 specimens), largely confirming the taxonomic distribution of the original analysis. The fauna are dominated by fragmentary remains of small artiodactyls, particularly bighorn sheep, but also deer, with small numbers of carnivores and rodents. This apparent big game focus may be tempered when fish and mussel remains are included. There is little doubt the fauna is anthropogenic, given 98% bone breakage, rarity of digestive or gnawing damage (0.3%), and occurrence of butchery, impact, and anvil marks (8%).

Co-author: Lianne Bradshaw (Central Washington University)

Luttrell, Charles T. Washington State Parks and Recreation Commission

Farming on the Spokane Reservation - Case Studies of Indian Allotments No. 246, No. 247, and the Patrick W. Lawlor Homestead

Executive Order-establishment of the Spokane Reservation in 1881 created new opportunities in horticulture-agriculture for local peoples. However, formal allotting did not begin until October 1906 with 647 allotments completed by summer 1909, including two allotments for traditional natives Jonas and Louise Mary Joseph. Political lobbying thereafter by Caucasian settlers resulted in non-Indian homestead entry on reservation lands beginning in 1910. Homesteader Patrick W. Lawlor was one land claimant who settled near the Joseph family. Comparison of these Indian and non-native properties has value in understanding subsistence-level farming on the Spokane Reservation in the early twentieth century.

M

Marceau, Thomas Washington State University, Tri-Cities

An Intra-Site Analysis of the Faunal Assemblage from the Lewis Canal Site (45BN606) on the Hanford Site, Washington

The Lewis Canal Site (45BN606) is located on a low terrace varying from 3 to 6 meters above the Columbia River. The terrace has been an area of sediment accumulation with discrete intervals of soil development since the start of sand deposition about 6800 B.P. A total of 33 units were excavated at the site. Eleven radiocarbon dates were obtained providing an occupation range of approximately 3400 B.P. to 100 B.P. for the six cultural components identified at the site. This paper focuses on the 1,061 faunal remains, representing 26 taxa,

recovered during excavation. Correspondence analysis, based on the number of identified specimens (NISP), is used to examine specifically where and when these remains were deposited within the site assemblage. The analyses demonstrate differential utilization of the site area by age, as well as differences in fauna brought back to the site within these areas through time.

Maroney, Kendra Kalispel Tribe of Indians

Magnetometry in Pend Oreille County, Washington

Now with six years of practical field and analytical experience in the use of various remote sensing methods, the Kalispel Tribe of Indians is providing an annual synopsis of its recent datasets. In 2018, magnetometry was used at two sites in Pend Oreille County: 45PO430 and 45PO493. A Geometrics G-858 magnetometer was used to collect total field gradient data, and was then processed using MagMap2000, Surfer 15, and Oasis Montaj. The surveys were completed prior to excavation of two sites that lacked surface indicators of archaeological features. The magnetometry results guided the placement of the test units, and the excavation of several multi-component prehistoric earth ovens. On a larger scale, these results help to focus on the specific signatures (e.g., earth ovens, residential floors), rather than non-archaeological noise. This poster presents the results of the two magnetometry surveys, needful adaptations throughout the project, and recommendations for future magnetometry surveys.

Martinez, Kelley Portland State University

Experimental Archaeology and Groundstone Technology: Understanding Manufacturing and Usewear Attributes through Replication and Tool Use

Despite the importance of groundstone tools to Indigenous communities in the Pacific Northwest, the technology is analyzed at a coarse level in the region. Detailed analyses of groundstone assemblages inform on regional Indigenous raw material knowledge, resource use, tool manufacturing, and maintenance practices. To build more robust regional analyses of groundstone assemblages, I used standardized analysis methods and terminology, coupled with experimental studies. I experimentally produced and used five common northwest groundstone tool types and analyzed the resulting manufacturing and usewear. I used results from the experimental study to inform my interpretation of usewear on an archaeological groundstone collection from the Lower Columbia River, identifying specific attributes associated with different manufacturing strategies and tool use. These observations can be applied to the analysis of archaeological assemblages to form hypotheses on how the tools were manufactured, used, and repaired prior to deposition. Additionally, experimental tool manufacture and use offer valuable insights into skill level, specialization, and investment associated with groundstone technology.

Co-author: Shelby Anderson (Portland State University)

Mathews, Bethany Undertold Histories Project

Washington Women Homesteaders: Finding the Underrepresented History of Land Claimants in Early Washington State

Under the 1862 Homestead Act, single, divorced, deserted, and widowed American women were eligible to claim up to 160 acres of unappropriated public land for the purpose of settlement and cultivation. No comprehensive study of woman homesteaders has been completed but regional studies indicate that women comprised between 3–21% of homesteaders in the American West. Homesteader demographics varied across the West due to differences in local environments, culture, and settlement politics. The Washington Women Homesteaders project seeks to record the story of female homesteaders in order to build a historic context of homesteading which includes underrepresented persons and preserve the sites of their homestead experiences. This poster presents the preliminary findings from 2018 historical research, including a summary of Thurston County homesteaders.

May, Nathan Confederated Tribes of the Umatilla Indian Reservation

"They Expected a Hard Fight": Fire Line Metal Detecting Survey of the Rosebud Battlefield State Park Montana.

A metal detection survey of potential fire lines, visitor trails, and additional parking lots to the Rosebud Battlefield State Park, Montana documented battle-related artifacts. The remnants of conflict were largely documented through firearms related artifacts, such as cartridges and bullets, but one iron arrow point documented speaks to other weapons and tactics implemented by combatants. Although the iron arrow point is the only non-firearm artifact documented through archaeological investigations, indirect evidence, such as historical accounts, supports the use of the bow and arrow at the Battle of the Rosebud. The manufacture and trade has been the subject of several studies, but it is the intent of this paper to elucidate the how the bow and arrow was used in battle, and how the iron arrow point documented at the Rosebud Battlefield evidences said use.

McClure, Rick Headwaters Historical Services

Aipax-kan-ishchit - the Yakama Trail: history, archaeology, and an approach to evaluation

Trans-montane trails were primary avenues for exchange and social interaction between indigenous peoples east and west of the Cascade Mountains during pre-contact and historic times. The Aipax-kan-ishchit, or "Yakama Trail," ranked among the principal routes in the southern Washington Cascades, connecting Taytnapam settlements in the Cowlitz River watershed with Yakama settlements to the east. A group of private, non-profit, tribal, and federal partners initiated efforts in 2018 to begin comprehensive mapping and documentation of the Yakama Trail, while developing a cultural/historical context for National Register evaluation and a strategy for assessing the integrity of the resource. This presentation summarizes research completed to date and addresses potential challenges for nomination and listing.

McFarland, Doug Pacific Northwest National Laboratory

Hanford Archaeology: a Precontact View

Hanford Because of its nuclear reputation, and limited access, Hanford Reservation is a mostly pristine 560 square mile snapshot of Columbia Plateau precontact archaeology within the mid-Columbia River area. The vast undeveloped landscape offers a unique opportunity to look at changing Holocene climate and cultural land use of river, and of upland and lowland "interior" through time.

Only the lonely: Magnetic analyses to address function and burn/use history of non-feature burned rock

By combining geomagnetic and paleomagnetic analyses of fire altered rock (FAR), archaeologists can address function and burn/use history without the context of an intact burn feature. How archaeological FAR was used reflects cultural preference, use and function, and has changed over time. The same heat that makes these artifacts directly dateable with TL and OSL, also leaves a series magnetic signatures in iron bearing rocks. A sequence of analyses addresses maximum temperature, the movement of the rock (use) during cooling, and the magnetism and mineralogy needed for best results. Preliminary results from analyses compare midden-excavated FAR, and contemporary ethnographic FAR to address function and burn/use history. Planned analyses include but are not limited to, thermal demagnetization, magnetic hysteresis loops, magnetic susceptibility with temperature, Curie temperature analysis, and isothermal remnant magnetization. Discussion will address analyses to this point and next steps.

This research would not be possible without the generous cooperation of the Jamestown S'Klallam Tribe and their cultural resources program.

Co-authors: Cristina Garcia Lasanta, (Western Washington University), Zach Allen (Central Washington University), Bernard Housen (Western Washington University), Mike Valentine (University of Puget Sound), Lindsay Kiel (Mission Support Alliance), and David Brownell (Jamestown S'Klallam Tribal Historic Preservation Office)

Meatte, Daniel Washington State Parks

ILLUMINATED ROCKS: Paleoindian Use of Quartz Crystal in the Western United States

Paleoindian sites in western North America occasionally yield tools made of translucent quartz crystal. These crystals can be both practical and visually attractive. Despite their internal crystalline structure, crystals are subject to conchoidal fracture, so they are ideal for tool making. They also have a number of curious aesthetic qualities: optical transparency; a regular hexagonal shape that scales regardless of size; the ability to refract light, which produces visual distortions; and illumination (triboluminescence) when struck or abraded. The size, character and distribution of quartz crystals in the western United States is closely tied to the distribution of granitic batholiths bearing exposed pegmatites. This limited geographic distribution, coupled with several aesthetic properties of quartz crystals, indicates their use is closely tied to underlying symbolic values. Quartz crystals, indeed many mineral types, underlie Paleoindian symbolism as expressed in the making of stone tools.

Mendez, Keith Mission Support Alliance

Hanford Cultural Resources Program Overview, or How I Learned to Love the Atomic Bomb

General overview of the Hanford Site cultural resources management program. The Hanford Site status as a nuclear reservation for 70 years created complex and unique conditions for historic preservation in eastern Washington. Presentation will discuss the history and structure of the cultural program that addresses the multiple contexts of the archaeological record as well as the interaction between federal and state agencies, contractors and consulting parties.

Middleton, Sherri Central Washington University/ Tierra Right of Way

Finn Town 45KI1325, A historic coal mining community

Tierra ROW conducted site testing for 45KI1325 to determine site eligibility for the National Register of Historic Places (NRHP) in 2018. Located in Bellevue along Coal Creek, Site 45KI1325 corresponds well with the historical coal mining area known as Finn Town. Finn Town, a community of 50 Finnish families, grew around the operation of the Ford Slope mine in 1908. The town was razed by 1936 when mining operations ended. To determine eligibility, multiple lines of evidence, including historical records and archaeological data, were used to study historic-era chronology, architecture, economic production, and consumption. Subsurface investigations resulted in recording three intact features, one of which is a coal bunker, and 642 historic-era artifacts. Historical archival research confirmed 45KI1325 is the ruins of the razed coal mining community, Finn Town. Tierra ROW recommended that 45KI1325 is eligible for the NRHP under Criterion A and Criterion D.

Comparing A Surface Collection to An Excavated Collection in The Lower Skagit River Delta At 45SK51

The Lower Skagit River Delta is comprised mainly of agriculture fields, and artifacts are commonly found on the surface of the plowed fields. The archaeological data potential of surface collections in this area is unknown as many of those sites remain unstudied or analyzed. The Lower Skagit River Delta Surface Collection (LSRDSC) is from a plow zone context located in Skagit County, Washington. The assemblage has 382 stone, bone, and shell artifacts that exhibit a wide diversity of technological forms representing various states of manufacture. The purpose of this study is to determine if LSRDSC, a surface collection, can be used successfully in a modern research context. Specifically, is the surface collection comparable to the excavated site 45SK51 material culture? Using Brainerd-

Robinson correlation coefficient we show that the surface assemblage is comparable to the excavated assemblage, with some exceptions (e.g., bone) making this plow zone sample useful for addressing regional research questions.

Co-author: Patrick T. McCutcheon (Central Washington University)

Miss, Christian

Ripple in Still Water: Contextual Themes, Research Opportunities and Historical Archaeology near the Duwamish and Black Rivers—Perspectives from Phase III of King County's Cultural Resources Protection Project. Part 2: Archaeological Perspectives

Lands adjacent to the Duwamish and Black Rivers have hosted numerous cultural resources investigations with important results for the study of pre-contact and ethnohistoric land use. The intensity of this investigation is directly related to continued development for primarily industrial purposes. Unfortunately, historical archaeological resources are poorly represented among properties regarded as significant owing to disturbance and to our inability to interpret the remains we do encounter. This situation afflicts much of the county and the urbanized Pacific Northwest. This portion of the presentation will examine past work and suggest ways to improve identification and interpretation of historical archaeological remains.

Co-authors: Johonna Shea, Sharon Boswell

Monaco , Marci University of Idaho

Obsidian Biface Cache Site 35MA375: New Flintknappers Help Reveal Old Technology

A landowner in Salem, Oregon recovered an obsidian biface cache during excavations of a spring fed pond in 2015. This unique archaeological site (35MA375) is the only recorded obsidian biface cache within Oregon's Willamette Valley. The cache provided a unique opportunity to examine bifacial blanks and produce data useful for interpreting other biface caches. These obsidian bifacial blanks had natural and anthropogenic attributes that may hinder further reduction. Assessing a flintknapper's skill level may give us insight into why the bifaces have characteristics and attributes undesirable to an experienced flintknapper. I am working with novice, intermediate, and master flintknappers to produce 15 obsidian bifacial blanks each. The project goal is to determine if skill level can be designated by comparing the technological analysis of the original bifacial blanks to those produced by flintknappers who vary in skill level. This provides information about choices and strategies used by novice flintknappers as they become familiar with stone tool production.

Moon, Jonathan University of Idaho

Sweat Lodge on Campus: Examining Barriers of Communication of a Project between Native Students and the University of Idaho

The University of Idaho is a land grant university which is located on traditional Nez Perce lands. Located in the city of Moscow, Idaho the university is located with indigenous tribes surrounding it in all directions. Over the past several decades the university has worked to create relationships with the surrounding tribes through collaborative projects. Through these relationships the university has demonstrated a desire to recruit indigenous students and makes continued efforts to improve retention rates among these students. The most recent of these efforts is a collaborative project to set aside space for a sweat lodge for the university indigenous community. In this paper I seek to examine this recent process for possible barriers in communication which if addressed could work towards strengthening the relationships between the U of I and its surrounding native communities as well as its own community of native students and faculty while working to continue the goals of native student recruitment and retention.

Morris, Jessica Central Washington University

Rock Imagery Viewshed Results: The Central Washington Cultural Landscape

The relationship between rock imagery and the cultural landscape of the Middle Columbia River area provides insight into the style and purposes of rock imagery. The US Army Yakima Training Center (YTC) presents a unique opportunity to analyze the cultural landscape and associated rock imagery. I have visited eleven rock imagery sites for my thesis research for the purposes of analyzing its relationship to the landscape as well as to promote its continued preservation. This study began in summer 2018 with the assistance of the CWU CRM Field School and Stell Environmental LLC. Preliminary results of digital viewshed analyses show landscapes visible from each site type. Discussion will address progress thus far, next steps, consultation, and recommendations. Future research includes additional analysis of configurations of site types across the landscape.

Morton, Ashley M. Independent Contractor

Homesteading Before Hanford: Survey Results of the Department of Energy Land Conveyance

Between 2013 and 2014, archaeological research and survey work was conducted to support The U.S. Department of Energy- Richland (DOE-RL) in an Environmental Assessment (EA) for conveying land outside of federal ownership. This work resulted in identifying one historical-period homestead site (the Otto Henry Luelloff homestead) determined eligible for listing on the National Register of Historic Places. As one of the few known domestic and agriculture representations of the Fruitvale community, a small, short-lived farming district that disappeared in 1943 accompanying government occupation, this paper discusses the archaeological remains of the site as it relates to the history of farming development in the area, today, known as Hanford.

Moses, Pendleton Colville Confederated Tribes History/Archaeology Program

Mapping Indian Hemp (Apocynum cannabinum) in the Traditional Territories of the Colville Confederated Tribes

Indian hemp (Apocynum cannabinum) is one of several traditional cultural species being mapped, in part to better understand its abundance and habitat requirements, and also to provide gathering locations for traditional practitioners. The strong fibers in the stems of Indian hemp or hemp dogbane, and the distribution of the species east of the Cascades, made it a valuable item of trade with coastal tribes. Hemp cordage was such a desirable commodity that sites were kept secret and fights broke out over populations that produced the highest quality fibers. We have found that Indian hemp often lives above streams or lakes, and sometimes on roadsides. The Traditional Cultural Plant Team has mapped several populations, including one site mentioned in historic literature that we are also monitoring. There is great variability in size of annual stems, which may have to do with differences in genetics, substrate, moisture availability or a combination of these.

Co-authors: Sylvia Peasley (Colville Confederated Tribes History/Archaeology Program) and Trisha Johnson (Colville Confederated Tribes History/Archaeology Program)

Muro, Sophie University of Washington

Picture This: An Exploration of Photogrammetry and Digital Curation of Grand Ronde Belongings

Existing approaches to artifact modeling focus primarily on analysis of artifact attributes and preservation of excavation contexts. Less attention has been paid to modeling's potential in strengthening connections between descendant communities and their cultural heritage. In collaboration with the Grand Ronde Historic Preservation Office, we created a series of three-dimensional models of excavation units and belongings associated with a late nineteenth and early twentieth century settlement area on the Grand Ronde Reservation in northwestern Oregon. Photogrammetry provides an alternative approach to heritage curation, allowing us to share interactive, three-dimensional models of historic belongings with the tribal community. This not only lends additional transparency

to our research process, it can also initiate conversations with tribal members about the functions and meanings of belongings in historic reservation lifeways. Photogrammetry can thus play an important role in the development of community-based research practices.

Co-authors: Bay Loovis (University of Washington) and Ethan Mofidi (University of Washington)

Muschal, Marlis Willamette Cultural Resources Associates, Ltd.

Silver Creek Archaeological Context – Harney County, Oregon

In the spring of 2018, WillametteCRA conducted systematic pedestrian survey of two 300-acre parcels in northern Harney County. We documented 26 sites and 53 isolates, all of which were characterized by surface scatters of obsidian flaked tools and debitage. Shovel probing around sites and isolates indicates these resources are not substantially larger than visible on the surface. The depth of cultural materials appears to be limited to the surface or near-surface. We review archaeological studies conducted in the uplands north of the Silver Creek valley floor to create a regional comparison of precontact site content and age. We draw conclusions on regional and temporal variation in the Silver Creek drainage in order to create explicit test expectations and future avenues of research for regional patterns of precontact land-use.

Co-author: Mike Shimel (Willamette Cultural Resources Associates, Ltd.)

N

Neller, Angela Wanapum Heritage Center, Grant County PUD

It's in the Archives: Doing Archaeology On the Columbia Plateau

Hydropower has a long history in the Pacific Northwest and the Columbia River is uniquely situated as a hydropower river. With more than 60 dams in the Columbia River watershed the effect to the archaeological record is great. Available resources are limited for understanding households and settlement patterns. Diverse voices speak to this record including those of amateur archaeologists. The prehistory of the Priest Rapids-Wanapum region resides in archaeological collections of both amateur and professional archaeologists. These collections are the remaining site material for sites now inundated. The documentation and study of amateur collections along with that of professional archaeologists help to build regional histories. While much of this data has been sitting for years, these collections have proven to be valuable for research undertaken in cultural affiliation studies for repatriation. Future research projects will demonstrate what a valuable resource these collections are for understanding households and settlement patterns in the interior Northwest along the Middle Columbia.

Co-author: Lourdes Henebry-DeLeon (Central Washington University)

Ngandali, Yoli University of Washington

Invisible Photography: Examining groundstone art production processes using multispectral and digital imaging techniques

Multispectral imaging (MSI) tools are relatively new non-invasive digital techniques in collections-based archaeological research. MSI captures image data at specific wavelengths to reveal hidden materials, pigments, and inks invisible to the naked eye. My research uses MSI and a suite of digital imaging tools to analyze groundstone artifacts held in museum collections. I use digital imaging tools to detect transformations in carving and paint preparation practices by identifying evidence of use-wear, carving, and paint deterioration. My results

reveal diagnostic patterns of reduction and retouch with a technical style specific to the Lower Columbia River Region, a Chinookan art tradition still in practice today. These digital techniques provide additional interpretive power to artifacts or belongings with little to no provenance that have been removed from their original context. Furthermore, these data concerning production processes contribute to the study of object biographies and shared technological knowledge among communities of practice along the Lower Columbia River.

North, Michelle Portland State University

The Virginia Lake Stake Feature, Sauvie Island, OR: Updates from Fieldwork and AMS Dating

This poster presents preliminary results of fieldwork and AMS dating from the Virginia Lake project and discusses future analyses. Our project seeks to expand scholarship on systems of wetland ecosystem engineering and aquaculture in backwater areas of the Lower Columbia, through documentation of a possible fish weir on Sauvie Island, OR. In September 2018, with assistance from up to six volunteers, we recorded the 70 m long alignment of wood stakes and carried out survey, subsurface testing, and sample collection. Field methods were designed to answer these main questions: How old is the feature? What was its function? And what is its cultural affiliation? This project will also have methodological value to future landscape-level studies by creating a template for evaluating features of this kind and placing them within a broader context.

Co-author: Virginia L. Butler (Portland State University)

O

Ostrander, Tom Environmental Science Associates

Results of Archaeological Survey along the Upper Chehalis River Drainage

The Washington State Department of Ecology is conducting environmental review for a plan to construction a flood water retention facility in the upper reaches of the Chehalis River. As part of the Section 106 compliance ESA conducted a surface and subsurface survey of the 1,300-acre APE. During this effort ESA developed its own predictive model for the APE, and utilized a fully paperless system for in-field updating of the predictive model, surface and subsurface survey, and site form recording. As a result, over 800 shovel probes were excavated, and 13 new archaeological sites were recorded. ESA's results indicate that the precontact use of the drainage focused on both terrestrial mammals and riverine resources. A landscape focused interpretation of the sites location provides key clues to understanding site use, despite relatively sparse artifact density. Testing at these sites may answer long-standing fundamental questions regarding subsistence strategy change, and cultural affiliation of the precontact peoples who utilized upper Chehalis.

Co-author: Chris Lockwood (Environmental Science Associates)

Owen, Amber Whatcom Community College

Ehler's Danlos Syndrome: Overlooked, Mistreated and Misunderstood

Ehler's Danlos syndrome is often overlooked, mistreated and misunderstood. Ehler's Danlos Syndrome is a group of heritable connective tissue disorders that is characterized by joint hypermobility, connective tissue fragility and many other symptoms. For this project I interviewed 36 participants all of whom are diagnosed with Ehler's Danlos Syndrome and are members of local support groups. I asked three questions of the participants, with the third question having a part two. Respondents reported that it took many years and multiple doctors to receive their diagnosis, and most felt that their symptoms were often minimized by their health care providers. This is a relatively small data pool and warrants more research; this is indicative of larger issues that is not only related to

EDS, but many rare or rarely know chronic health issues. Women are also more likely to be dismissed and mistreated by medical providers; this is a cultural issue that must be addressed.

P

Peasley, Sylvia Colville Confederated Tribes History/Archaeology Program

Processing and Creating with Indian Hemp: A Versatile, Traditional Fiber

Revitalizing ancient skills using traditional materials is an important part of maintaining culture and protecting sovereignty. As the Plant Team mapped various populations of Indian hemp, we became interested in processing the fibers, making cordage, and creating items that have been valued since time immemorial. We noticed that stems from different populations varied in height, and also in shades of the fibers, ranging from straw-colored to reddish. This may have to do with habitat, genetics, or possibly time of harvest. Methods of processing include burying hemp stems in moist ground before splitting them, removing the fibers and combing them with a notched deer rib. Producing cordage is labor-intensive, adding to the value of the finished products, which include bags and nets of various sizes as well as thread, twine and rope used for everything from sewing clothes to catching fish to lashing tule stems together when constructing mats and lodges.

Co-author: Pendleton Moses (Colville Confederated Tribes History/Archaeology Program)

Peck, Alexandra Brown University

Coast Salish Social Complexity, Community Ties, & Resistance: Using Mortuary Analysis to Identify Changes in Coast Salish Society Before, During, & After the Colonial Period

Coast Salish burials grew less elaborate and increasingly egalitarian during the colonial era, despite assumptions that European presence contributed to cultural complexity in Coast Salish communities. This paper employs mortuary evidence to account for Coast Salish social organization and ranked status shifts throughout the 16th-20th centuries—a period defined by settler colonial and Catholic presence throughout the Northwest. Although previous scholars claim that an influx of foreign goods resulted in stratified Coast Salish communities, funerary data reveals high degrees of tribal complexity present prior to European arrival. Challenging popular accounts, burial evidence demonstrates that Coast Salish society became more unified during the colonial period. Unification resisted strong colonial imposition, functioned as a coping mechanism during political turmoil, and retained tribal identity. I analyze Coast Salish interment methods including burials via middens, rock cairns, sky boxes, cremation, built structures, caves, Catholic cemeteries, and Indian Shaker Church practices to chart changes from an elite/commoner/slave class system to one that revealed social solidarity.

Petrich-Guy, Mary Mission Support Alliance

Preparing Manhattan Project and Cold War Era Historic Artifacts from the Hanford Site for Public Access

As part of a programmatic agreement and a treatment plan for the maintenance, deactivation, alteration, and demolition of the built environment constructed during the Manhattan Project and Cold War Era periods of the Hanford Site's operations, cultural resource teams identified associated artifacts and media for preservation and public access. This presentation will discuss the identification of items; and screening them for health, safety, and security concerns prior to transferring them off-site for curation and public access.

Pickard, Ashley University of Durham

Deconstructing disaster: when ontological understanding of natural disasters and archaeological research, provide key information for past and present disaster response

In order to discuss how distinct past cultures may have understood and reacted to natural disasters, there must first be a common understanding of what disasters, and survival of such disasters, meant to those cultures. These terms might be mistaken as universal norms, while they are actual bound within the ontological perspective of the given individual or society. Diverse geographic and chronological archaeological examples of societies dealing with disasters will highlight the impact that an ontological perspective had on the nuanced concepts of, disasters, resilience, and safety. This paper will discuss the theoretical and methodological approaches that integrate ontology within archaeological and modern disaster research, teasing out their complexities. Finally, these themes will be applied to the conversations of modern disasters; laying a foundation, upon which archaeological research can examine past natural disasters and draw parallels to modern concepts of disasters, resilience, and safety.

Prince Martinez, Kelley Portland State University

Experimental Archaeology and Ground Stone Technology: Understanding Manufacturing and Use Wear Attributes through Replication and Tool Use

While ground stone tools represent diverse site activities, the technology is analyzed at a coarse level in the Pacific Northwest. Conducting more detailed analyses of ground stone assemblages can inform on regional Indigenous raw material knowledge, resource use, and tool manufacturing and maintenance practices. Using standardized analysis methods and terminology coupled with experimental studies will help build more robust regional analyses of ground stone assemblages. Applying experimental archaeology to ground stone technology analysis offers a means to explore variables in tool manufacture and use through raw material selection, reduction strategies, and use wear. The subsequent analysis of ground stone tool replicates identifies specific attributes associated with different manufacturing strategies and tool use. These observations can be applied to the analysis of archaeological assemblages to form hypotheses on how the tools were manufactured, used, and repaired prior to deposition. Additionally, experimental tool manufacture and use offer valuable insights into skill level, specialization, and investment associated with ground stone technology.

Q

R

Reed, Patrick Portland State University

Is Old Dirt Worth It? Geochemistry of Bulk Sediment Collections from Cape Krusenstern National Monument, Alaska

Soil geochemistry has been utilized in archaeological investigations since the early 20th century. Initially simple in-field indicators were used for archaeological prospection. Recent spectrographic analysis (e.g. mass spectrometry (ICP-MS)) projects are gathering detailed information about spatial patterning. Methodologies for soil analysis, primarily developed in the geosciences and environmental contamination testing, emphasize specific collection procedures and rapid sample analysis to prevent introducing post sampling contamination and provide traceability. Archaeology has followed suit, emphasizing new excavations for analysis. Considering the curation crises, can anything be done with the large quantities of previously collected bulk soil samples? Traditional methodologies suggest that samples not “properly” stored (dried and kept in a cool environment) potentially lack viability for meaningful analysis. Here we report results of geochemical analysis of bulk samples collected between 2006-2010 and stored in typical archaeological lab conditions. Our results suggest there is potential in analyzing previously collected bulk samples to gain insights regarding subsistence, and settlement patterns.

Co-author: Dr. Shelby Anderson, Portland State University

Rice, David Plateau Archaeologist

New Information on Horse Heaven Hills Pleistocene Turbidite Archaeological Find

Long searched-for by archaeologists and geologists for more than 80 years, a single lithic artifact assemblage of 29 diverse specimens found at the eastern terminus of the Horse Heaven Hills remains the only substantive evidence that humans witnessed some of the Missoula Floods across the channeled scablands of southeastern Washington into the Pasco Basin. Rice (2017) described a private find of individual artifacts, and their general location on a steep northeastern facing bank about 75 meters above the current level of the Columbia River (then Glacial Lake Lewis). Their geological context was a Late Pleistocene high-energy turbidite flood deposit, which also contained the nearby West Richland mammoth found in 1978. Since that time more detailed information has been published about the nature of turbidite deposits, along with a tighter analysis of the age and geochronology of the Missoula Flood flood events in the Pasco Basin. These indicate this archaeological find is probably the oldest known in the state, at earlier than14,400 Cal Yr B.P. Coincidentally, this geographic setting may correspond to a recent human genomic finding by AAAS which concludes there was a dispersal point for an early, rapid SNN human migration that resided in the interior of Oregon-Washington ~17 to 14 ka years ago, from there, to Central and South America beginning ~15.7 ka.

Public Archaeology at Hanford and the Tri-Cities region before the Era of Public Funding

This presentation acknowledges the significant role of private citizens of the Tri-Cities region, who as members of the Mid-Columia Archaeological Society (1967-1987), supported and contributed to the archaeology of southern Plateau prehistory. Their contributions are manifold, and in many different civic areas: site survey, site testing documentation, public education, speaker programs, publications and exhibits, site protection, and conservation of archaeological collections. They have collaborated with professional archaeologists and colleges working in the area, and supported their projects with labor and advice. Their occupational diversity provided a wide range of technical capability, and professionalism. MCAS efforts have contributed the basis for nomination of seven National Register District nominations at Hanford by the US Department of Energy to the Keeper of the National Register; comment on permit applications for archaeological permits issued by the State Department of Archaeology & Historic Preservation, and support for Native American burial relocation and reburial for inadvertent discoveries. Their contributions to Hanford and regional archaeology are hereby appreciated and acknowledged.

Riley, Ashley Whatcom Community College

A Women's Right to Choose: An Outsiders View on the Role of a Female Jehovah's Witness and Her Right to Choose to Accept It

There is an abundance of preconceived notions, most of which are negative in nature, about what it is like to be a female Jehovah's Witness. These notions most often result in instantaneous judgments and a feeling of otherness towards the women. Over the course of my research, I attended weekly meetings and conducted interviews with female members of the church. My research demonstrates that the role of women in the church is much more complex. It is my intention with this paper to provide an insight into the choices women make as they identify as a Jehovah's witness in the hopes of engendering understanding and recognition.

Rinck, Brandy King County Parks & Recreation Operations

A Cultural Resources Management Plan for Marymoor Park

Due to its natural and cultural setting, Marymoor Park is one of the most archaeologically sensitive assets in the King County Parks system. Archaeological investigations and unrestricted development occurred across the park for decades, and records of this work vary in quality. Parks determined that a Cultural Resources Management Plan is needed for long-term preservation of cultural resources in Marymoor Park. The plan begins with a park-specific discussion of the land use history and environmental framework that inform on the potential for encountering cultural resources. The context is followed by a resource inventory, verification of site boundaries, and a summary of previous investigations. Results of recent fieldwork add data to address information gaps and build a sensitivity model. This plan allows for future identification and evaluation of cultural resources following proactive and reactive preservation strategies to minimize impacts. Once complete, Parks will identify stakeholders (i.e., Tribes, SHPO, user groups, the preservation community…) and formalize the plan as an agreement.

Co-Author: Philippe LeTourneau (King County Historic Preservation Program)

Robinette, Samantha University of Idaho

Bad Medicine

Excavations at 19th and early 20th century archaeological sites frequently produce bottles and other containers with remnants of medicines that were in general use in days gone by. Modern analysis and improved understanding of human physiology has shown that these materials often did more harm than good. In addition, regulations were minimal or non-existent, so that even compounds that were known to be poisonous could be slipped into preparations with impunity. Chemical analysis, or, if available, ingredient lists, can leave modern observers incredulous about the toxins that people ingested with the purpose of improving their health.

Co-author: Ray von Wandruszka (University of Idaho)

Rorabaugh, Adam Colville Confederated Tribes History/Archaeology Program

A New Look at the Excavations at the Forts Okanogan, Cassimer Bar Locality

The historic (45OK64) Astor Fort and (45OK65) Hudson's Bay Company Forts Okanogan have been subject to concerted archaeological and historic research over the past century. Using a GIS, combining historic aerials and site maps CCT H/A re-examined the past field efforts at these sites to evaluate excavated fort architecture and the presence of noted pre contact features and architecture. This effort clarified the original Stuart party fort at the Fort Astor location and the ambiguity surrounding when the Astor Fort location was abandoned for the Hudson's Bay Company Fort Okanogan. The presence of pre contact occupation including mat lodge houses was confirmed through this re-examination. Additionally, combining the data from these efforts helped to resolve the spatial location and extent of post-fort uses of the Astor and HBC Forts by Okanogan peoples.

Co-author: Karen Capuder (Colville Confederated Tribes History/Archaeology Program)

Re-evaluating Chronology, Houses, and Villages at the Cassimer Bar Locality on the Upper Columbia River

Beginning with Stallard's survey in the 1950s, significant archaeological investigations have occurred in the Cassimer Bar locality of the Upper Columbia River. Many of these efforts, such as the excavations by Grabert are on landforms now inundated by the initial Wells reservoir pool raise. Using a GIS, CCT H/A compiled historic aerials and maps from previous field efforts at Cassimer Bar in an effort to construct a database of pre contact architectural features including house dimensions at the locality. This effort, combined with OxCal4.3 calibrated radiocarbon dates using a Bayesian Kernel Density Estimation (KDE) model, sheds light on the timing of the formation of Cassimer Bar as a landform and changes in habitation on the bar over the Holocene. The combined

data suggest continuous occupation of the bar with periods of more intensive use and highlight taphonomic biases resulting from inundation.

Rose, Chelsea Southern Oregon University Laboratory of Anthropology

From Guangdong to Oregon: Transnational History, Archaeology and the Oregon Chinese Diaspora Project

The Southern Oregon University Laboratory of Anthropology (SOULA) has forged a collaborative partnership with a variety of agencies including the Malheur National Forest, the Medford District BLM, Oregon State Parks, and the Oregon Historical Society in an effort to conduct and share research on Oregon's Chinese diaspora history. The project is currently investigating a variety of sites associated with the Oregon and California Railroad, gold mining in the Blue Mountains, and life in rural communities. In joining forces across the state, the project is exponentially increasing awareness about, and information on, one of Oregon's most historically underrepresented populations.

Ross, Kayla University of Idaho

Prophylactics Etcetera

The use of condoms has a long history in the United States. An early example, dating from around 1730, was recently sent to our laboratory from Maryland. Such early specimens were often made from animal parts, including pig gut, sheep intestine, and fish bladder. After Goodyear's invention of vulcanization (1839), rubber condoms came into use, followed by latex (1919) and polyurethane (1994). Prophylactics are not often recovered in archaeological excavations, but their analysis can be both interesting and chemically challenging. Other means of contraception (and sanitation) used in the 19th and early 20th centuries included post-coital rinses and douches. Remnants of materials used in these practices are occasionally recovered in excavations, often at former brothel sites.

Co-author: Ray von Wandruszka (University of Idaho)

Larissa Rudnicki ODOT

The Neon illumiNation of Grants Pass

In the process of updating the Caveman Bridge, over the Rogue River, in Grants Pass, Oregon, a community treasure was uncovered: a defunct neon sign. The sign, which proved to have an illuminative history to the famous Redwood Empire, once again, though this project, was placed in the community limelight. This presentation will discuss the neon sign and its history, and the feel good story of a community that turned to social media and news sources to make sure its importance was remembered, and, ultimately, preserved.

Rumberger, Jacklyn D. Washington State University

Drunk on Cacao: Experimental Testing of Residue Chemical Compounds of Fermented Cacao Pulp and Cacao Beans

The paper presents the preliminary results of an experimental residue analysis project aimed at observing variation in biomarkers among different forms of cacao. Specifically, this analysis will employ liquid chromatography/mass spectrometry to identify theobromine, caffeine, and theophylline in the cacao bean and fermented cacao pulp. This research seeks to identify variations in the biomarkers of fermented cacao pulp, roasted cacao bean, and unroasted cacao bean. Identifying biomarker variation in ceramic residues allows for a more complete understanding of cacao usage in Mesoamerica. Specifically, this analysis will be used to verify the hypothesis that fermented cacao pulp and cacao bean-based cacao beverages can be distinguished chemically. This information can be applied to artifacts to determine whether cacao was consumed as both an alcoholic beverage made from

fermented cacao pulp and a chocolate beverage made from the cacao bean as suggested by ethnographic, iconographic, and ceramic typologies.

Co-Authors: Shannon Tushingham (Washington State University), Anna Berim (Washington State University), David R. Gang (Washington State University)

S

Sappington, Lee University of Idaho

An Overview of Pre-Contact Residential Structures in the Clearwater River Region, North Central Idaho

The investigation of traditional residential structures in the Columbia-Fraser Plateau provides insights into the pre-contact social and political organization of native groups. Numerous historic and ethnographic accounts have reported a variety of pit houses, mat lodges, and other residential structures in the Clearwater River Region. Since the late 1970s, archaeologists have investigated house structures at ten pre-contact sites across the region. Houses are most common along the lower Clearwater River and the Middle Fork with none having been encountered above the South Fork. The settings for houses generally reflect traditional settlement patterns and are frequently associated with ethnographic Nez Perce villages. Houses range in age from approximately 5000 BP to 700 BP. Early houses appear to have been semi-subterranean while late pre-contact and historic houses were shallower mat or hide structures. Spatial analyses have provided evidence of household activities and insights into subsistence and economic tasks including lithic tool use and manufacture, mammal processing, fishing, and storage.

Scanlan, Kathleen Washington State University

Experimenting with stone use from a Yup'ik enet: Macro analysis of experimental use-wear on basalt and chert utilized flakes

Despite a surge in gender studies addressing the idea that human behavior is not synonymous with male behavior, obstacles to identifying archaeological female spaces still exist in southwest Alaska. The identification of use-wear patterning on flakes has the potential to assist in the identification of gendered activity areas in a 1500-year-old enet or women's house. A series of organic materials were subjected to tasks that would potentially occur in a Yup'ik winter village household utilizing lithic tools: hide scraping, wood and antler shaving, and grass cutting. The purpose of the experiment was to determine if edge-damage analysis has the potential to identify tasks ethnographically associated with women. Patterning identified during experimentation provides a reference point for the analysis of the archaeological assemblages. Hide scraping and grass cutting, both strongly associated with women's work in the Yup'ik society, resulted in the most distinct use-wear patterning, meaning that women may have left their mark on the inorganic archaeological record.

Schultze, Carol Tierra Right of Way Services, LLC

Investigations into glacially rafted nephrite boulders in northern Washington

Nephrite is recognized as the preferred material for making adze blades (celts) worldwide. In the Pacific NW, the majority of adze production has been located in the vicinity of the Frasier River, BC, Canada. This paper reports the discovery of a previously unknown source of nephrite or nephrite-like stone (jadeite, serpentine, etc) in glacially rafted boulders. This was discovered in Stillaguamish territory, during routine archaeological monitoring of excavations for an electrical substation for the Snohomish County PUD in Arlington, Washington. This paper will discuss the potential for adze production in northern Washington and serve as a case study in the potential benefits of cooperation between utilities, tribes, colleges, and cultural resource management professionals.

Co-author: Jennifer Huff (Edmonds Community College/University of Washington)

Schwab, Alex Ethnotech LLC

California Creek Quarry: Insights from Drone Mapping and Ethnohistory

The California Creek quarry is a large high elevation chert quarry in Western Montana that likely factored prominently into patterns of settlement, trade, subsistence and mobility for past populations in the region. The mining of these lithic resources results in a unique land use area, a prehistoric quarry. Despite the size and extent of this quarry, very little research has been conducted about the site. The goal of this study is to address some information gaps regarding this quarry and to assess its regional significance through two main approaches. The first approach will be to develop a regional context for the quarry in which to better understand how mining at the site factored into regional patterns of trade and subsistence. Ethnohistorical sources are particularly useful in developing this context, especially in the absence of lithic sourcing for the quarry. The second approach is to acquire high resolution spatial data aimed at measuring mining intensity for the site using with drone based remote sensing. These approaches provide baseline information from which to better understand the scale and regional significance of the quarry.

Scott, Carly University of Idaho

Stone Drugs and Dragon Bones

Stone Drugs (minerals used for medicinal purposes) and Dragon Bones (ground up animal bones) play an important role in Traditional Chinese Medicine. It is therefore not surprising that archaeological excavations of historical Chinese labor camps and settlements often turn up remnants of these materials. This is, of course, partially due to the fact that they are very persistent and, unlike plant derived remedies, are not subject to rapid oxidative, hydrolytic, or microbial decay. From a chemical analysis point of view, identification can be challenging because the medical minerals are often similar to, or even indistinguishable from, parts of the soil contaminants that may have entered the vessel as it lay buried.

Co-author: Ray von Wandruszka (University of Idaho)

Shannon, Don Willamette Cultural Resources Associates, Ltd.

Applied ethnographic work with the Confederated Tribes of Grand Ronde to document places of cultural significance: Mary's Peak

This presentation provides the results of a study conducted on behalf of the Bonneville Power Administration (BPA) to determine if Traditional Cultural Properties are present on Mary's Peak, in Benton County, Oregon. BPA has proposed modifications to an existing communications facility on Mary's Peak. The area is in the traditional homeland of the Mary's River Band of Kalapuya, who are today represented by the Confederated Tribes of Grand Ronde and the Confederated Tribes of Siletz Indians. The methodology employed a review of existing literature, a field visit, and interviews with members of the affected Tribes. Using guidelines in National Register Bulletin 38, Mary's Peak is evaluated as a Traditional Cultural Property (TCP), and findings are presented that Mary's Peak is eligible for the National Register of Historic Places under all four criteria. This report recommends consultation with the affected Tribes to discuss possible project effects to the Mary's Peak TCP.

Shantry, Kate Washington State University

Pyromania: How Many Times Can You Cook and Quench a Rock until it Breaks?

Due to the lack of ceramics in Puget Sound, boiling technology is a two-step process requiring rocks to use as heating elements that are transferred to a container of water. To successfully boil food in a liquid medium, the heating elements must be resistant to thermal shock, or the contraction fracturing that occurs when rocks are heated and quickly cooled, or quenched, in water. In addition to foodstuffs, peoples of Puget Sound boiled an inordinate amount of plants for medicinal and other purposes. This paper discusses the material types available on Puget Sound beaches which are most suitable for boiling technology.

This Must Be the Place: Recollections and Realizations at the Renton High School Indian Site

The behavior of small-scale societies on the Northwest Coast has largely been approached from the aspect of the winter village. The Renton High School Indian Site offers a window into activities at a summer location used repeatedly during the Late Holocene. This paper discusses the salmon signature related to the thermal feature functions including summer fuel wood preferences. Not only did this project make a contribution despite the cultural resource management context of the excavation, but it provided the foundation for my own development as an archaeologist. The legacy of Renton lives on as Puget Sound researchers continue to investigate the unique interactions between humans and the dynamic environment of the Duwamish River valley.

Sholin, Carl Western Washington University

The Hustle and Bustle of the Coast Salish Potlatch An Exploratory Case Study of Gift Economic Exchange and Bird Resources at the Village of Xwe'Chi'eXen, 45WH1

Predominant paradigms to explain the distribution of archaeological faunal remains primarily focus on diet. The economic structure of the potlatch is an alternative model to account for the presence of avifauna. In the Salish Sea avifaunal materials contribute to a continuous social system as both food and wealth objects. How avian resources were harvested, transformed into commodities, and used to signal rank and prestige in the context of the potlatch are considered. This study explores how these themes are reflected in the archaeological record over the last 3,500 years of occupation at the village of Xwe'Chi'eXen, 45WH1. Over 2,109 bird bones were analyzed from two-time components that correspond with the Locarno Beach and Marpole phases. Increases in frequency of naturally aggregating taxa, and changing patterns of avian diversity over time, are interpreted as increasing reliance on mass harvest hunting techniques. These patterns are interpreted as consistent with formalization of the Coast Salish gift economy.

Shong, Mike Willamette CRA

Not to Touch the Earth: The Death of the Black River and the Effects on the Duwamish People and Archaeological Record

In 1917 the U.S. Army Corps of Engineers completed the Lake Washington Ship Canal connecting Lake's Washington and Union with Puget Sound. The year before the Corps breached cofferdams that lowered the level of Lake Washington by nine feet which fell below the lake's natural drainage outlet via the Black River, and the river ceased to exist. The Black River historically connected Lake Washington to the Green/Duwamish River which empties into Elliot Bay approximately 14 miles downstream of the confluence. The Black River was formerly the cultural center of the Duwamish people and an important fishery, travel corridor and place of mythological importance. The presentation will summarize the natural hydrology of the Lake Washington drainage basin and the effects of the ship canal on the native people. The presentation will conclude with implications to the archaeological record from the subsequent infilling of the Black River channel and rerouting of tributary streams.

Simmons, Kim

Techniques for Production of Yarns and Threads for Warmth: Spinning Tools and Protein Fiber Sources in the Northwest.

Northwest archaeological collections and excavation practices have a paucity of tools for the spinning of fibers and production of textiles or the textiles themselves. Exceptions are the preserved cordages in several sites relying on plant based fiber. This is notoriously due to problems with preservation of these materials. However there is clear evidence of cloth making tools in the presence of fine sewing needles at 13000 BP in central Washington and a rich availability of protein fiber sources including mountain goat, bison and most notably a breed of dog specifically engineered for spinning fiber production. An overview of spinning techniques will give an understanding of how these practices might look in activity areas in archaeological sites. The harvesting or collection of the various protein fiber sources are discussed with analysis of their insulating capabilities. These hidden technologies are as important to the understanding of human occupations of the northwest as those better preserved technologies that currently comprise the archaeological collection.

Simmons, Stephanie Mission Support Alliance

Soldier Settlements of the Department of Energy's Hanford Site, Benton County, Washington

The Department of Energy's Hanford Site, located in Benton County, Washington, is historically associated with production of plutonium for atomic bombs during World War II and the Cold War, as well as current clean-up efforts. Prior to 1943, though, the area was home to the farming communities of Hanford and White Bluffs. A number of the area farms were developed as part of the State of Washington's 1919 White Bluffs-Hanford Land Settlement Project. This program provided World War I Veterans a loan to purchase 20 acres of land. Each tract included a house, barn, and a poultry house. Additional financial aid was available for the purchase of irrigation equipment and livestock. This presentation will explore the history of this program, its ultimate outcome, and archaeology of these farmsteads.

Sisneros, Mathew ICF

Oregon Archaeological Sensitivity Model Based on Surficial Geology and Landform Analysis

ICF has previously assisted in the creation of sensitivity models to identify the buried archaeological potential for the states of Washington and California, as well as the territory of Puerto Rico. This approach has now been applied to the state of Oregon by employing geologic landform types and soil age as the main model inputs. Surface geology data was not available to support the entire effort so ICF combined natural resource conservation soil data and attributed the soil parent material with surface geology units at a scale of less than 1:100,000 to cover soil data gaps. After statewide data coverage was achieved, the landform and parent material types were normalized based on geomorphic origin, and assigned a geologic epoch (Holocene or Pleistocene and older). This poster presents the methods used to develop this model, and discusses the potential it has to be an efficient and practical approach for predicting buried archaeological sensitivity at a large regional scale.

Sloma, Robert Colville Confederated Tribes History/Archaeology Program

Colville Tribes Engaged in the Basin: FY2018 in retrospect

The Colville Tribes History/Archaeology Program is assisting the Washington State Department of Ecology (Ecology) and Bureau of Reclamation (Reclamation) with cultural resource management in the Columbia Basin based on a cooperative agreement regarding implementation of the Odessa Subarea project. The Odessa Subarea project is a groundwater replacement effort under the Columbia Basin Project in eastern Washington State designed to deliver surface water from the Columbia River to lands that currently rely on an aquifer. Since 2015, one Colville Tribes

Resource Specialist has reviewed and considered specific improvements proposed under the Odessa Subarea Special Study Area – Odessa Groundwater Replacement Program, and other undertakings within the broader Columbia Basin Project region to protect cultural resources and assert Tribal interests in Traditional Territory off reservation. A summary of Fiscal Year 2018 highlights goals and accomplishments under this mutual agreement.

Smith, Joshua The University of Western Ontario

Confluent Anthropologies: The Political Anthropologies of Phinney and Boas in Contemporary Contexts

This paper explores the political anthropologies of both Franz Boas and Archie Phinney as it relates to the issues of colonialism/decolonization in their own time and for contemporary challenges/struggles today, especially as it relates to the importance of land, language and Indigenous sovereignty. As a student of Boas', Phinney's work and correspondence reflect and amplify signifiant theoretical and methodical perspectives vital to Indigenous Sovereignty and Law today.

Smyrl, Anne University of Montana

Fold Along the Dotted Line: A symmetry analysis of projectile points from HP-54

This project explores the relationship between quantitative analysis of archaeological artifacts and the lived experiences of their original creators. A symmetry index was created and applied to an assemblage of projectile points from the Bridge River archaeological site in order to explore the relationship between knapping skill and point symmetry. Bilateral symmetry of projectile points is generally assumed to be a specifically desired trait, due to its formal advantages and difficulty of manufacture. In order to test this assumption in the case of Bridge River specifically, the selected projectile point assemblage contained points displaying a wide range of knapping skill, and the symmetry index was applied to determine the extent to which symmetry increased in combination with other hallmarks of knapping skill. Going forward, this analysis will contribute to larger questions of how novice knappers at Bridge River learned to perfect their craft.

Snyder, Daniel USDA-NRCS

Relocating a Hopkins site in Southwest Oregon using GPR, Magnetometry, and LiDAR

Remote sensing techniques were used in multiple ways (ground-penetrating radar, magnetometry, and LiDAR) in an attempt to relocate an extensive Pre-Contact site north of Ashland in the territory of the Upper Takelma, and first recorded in the 1970s by a student of Dr. Joseph Hopkins of Southern Oregon University. The site is on property currently owned by Willow-Witt Ranch, who have generously agreed to this ongoing fieldwork which was undertaken through the collaborative effort and resources of a federal agency, an Oregon Tribe, and an independent researcher.

Co-author: Jessica Curteman (The Confederated Tribes of Grand Ronde)

Paul S. Solimano Willamette Cultural Resources Associates, Ltd.

Sedentism and Salmon Intensification along the Lower Snake River as seen at 45-FR-42, the Fish Hook Jim Site

Based on his work at 45-FR-5, Schalk (1983) presented a model of salmon intensification and reduced mobility during the last ca. 1,500 years along the Lower Snake River. In this paper we review this model using new data from 45-FR-42, the Fish Hook Jim Site. This site, which has a large cemetery and housepit village, was the focus of extensive looting and formal archaeological excavations in the late 1950s. Only burials were reported, however, with the housepits ignored. In a project funded and supported by the USACE and BPA, we analyzed the unreported housepit data. We compared our results to Schalk's model and while our data was not robust enough to test the

entire model, we can support parts of it. We suggest other research avenues that would allow more comprehensive testing of Schalk's model.

Co-authors: Todd B. Ogle, Daniel Gilmour, Donald Shannon, Breanne Taylor, and Kanani Paraso

Solomonian, Adam Langara College, Vancouver BC

Memory at The Confluence of Family and Nation: shishalh Photographic Archives in the 21st Century

This paper reflects on recent fieldwork conducted with the shishalh Nation on the Sunshine Coast of British Columbia. The focus is on the digitization of family photograph collections for the purposes of producing a larger community archive. I will speak specifically about the 'act of transfer' (Taylor 2003) that occurs in such circumstances, when family property becomes National patrimony, and what this might reveal about the production of contemporary indigeneity.

Somers, Lew ArchaeoPhysics

Multi-method Geophysical Survey: Yakima Army Training Center Site Evaluation

Ground penetrating radar, magnetometry, and resistivity methods were applied in a pilot study for the US Army Yakima Training Center. This work is in support of minimally destructive evaluation of sites for the National Register of Historic Places. CWU deployed GPR and Lew Somers tested magnetometry and resistivity. Soils were too dry during July to use obtain resistivity readings. GPR and magnetometry yielded correlated signatures for two features buried at a depth of roughly one meter. Images are processed in two software programs. Ground truthing is underway and survey target areas may be expanded this summer.

Co-authors: Steven Hackenberger (Central Washington University), James McLean (Central Washington University), Christy Johnson (Central Washington University), and Donald VanHeel (Eastern Washington University)

Stcherbinine, Sean Archaeological and Historical Services

Investigating the Potential for Deeply Buried Occupation Surfaces in the Moses Lake Dune Field, Grant County, Washington

The Moses Lake Dune Field formed from sands deposited by terminal Pleistocene outburst floods. Dune sands up to 6 meters deep contain two well understood strata denoting distinct lithologies of the flood path. However, landform evolution and the potential for deeply buried surfaces in the dune field remain unclear. Deep archaeological testing and column sampling were undertaken to investigate the potential for deeply buried cultural materials and occupation surfaces within dune sands active throughout the Holocene. Trench profiles were recorded, and column samples measured for grain size, acidity, and organic content, allowing pedostratigraphy to be documented and depositional history discussed. The Moses Lake Dune Field is increasingly being modified by development, agriculture, and borrowing. Results of this study will aid archaeologists when discussing potential impacts to cultural resources inside the Moses Lake Dune Field, as well as eolian environments of central Washington.

Stevenson, Alex ICF

Diatoms, Cordage, and a Brewery: Results of Archaeological Investigations and monitoring for the Tacoma Trestle Project

Sound Transit's Tacoma Trestle Track and Signal Replacement Project in Tacoma Washington is wrapping up after nearly six years of cultural resource compliance. Archaeological monitoring of geotechnical bores in 2014 resulted in identification of an approximately 8000-year-old buried surface and cordage thought to be associated with the

surface, approximately 60 feet below modern ground level. Subsequent mitigation of adverse effects to this presumed archaeological site (45PI1327) included detailed paleoenvironmental analysis of samples taken from 11 locations within the identified site area. In this presentation we share this paleoenvironmental data, results of cordage analysis, as well as results of near surface archaeological monitoring where remnants of one of Tacoma's earliest breweries were identified during construction activities.

Co-author: Michele Punke (Historical Research Associates, Inc.)

Stonehocker, Thomas Islandwood/University of Washington

Place-based learning with elementary students in Seattle

How do young people think about the natural and human environments of Seattle? Tom Stonehocker proposes an environmental education curriculum that helps upper-elementary students explore intersections of ecology, geography, and the social landscape of the city. Lessons contain a mixture of experiential outdoor learning and in-class learning grounded in NGSS standards as well as Common Core social studies standards. Each lesson centers around a different aspect of how human communities and ecological communities shape each other in Seattle. Students examine how changes reverberate across ecosystems, piece together local history, and propose solutions to issues faced by local communities. This presentation will chronicle the on-going development of place-based curriculum from the perspective of a Master of Education candidate from Islandwood and the University of Washington.

Sukau, Dana Portland State University

Use of Backwards Design to Assess Public Engagement at the Archaeology Roadshow, Portland, Oregon

Public archaeology has grown in recent decades with increased recognition of the need to garner public support and increase accessibility of archaeology to a range of publics. While public outreach efforts have been increasing, there have been limited reflections on how we measure the effectiveness of our efforts. One approach used in the field of Education is Backwards Design, which focuses on clearly defining goals and methods of assessment for education or public outreach. We applied the Backwards Design framework to the design and implementation of an outreach activity at the Portland State University Archaeology Roadshow, 2018. The activity's purpose was to encourage visitors to take an active role in their visit to the event through engaging with presenters hosting booths and activities. We proposed this could be accomplished and the activity assessed by giving visitors a card with several questions they could pose at booths. Our poster reviews the promise and challenge of using Backwards Design in public archaeology.

Co-author: Virginia L. Butler (Portland State University)

Syvertson, Laura Equinox Research and Consulting International

Exploring the Role of Historic China-town in a coastal community in Western Washington

The historic district in downtown Port Townsend is a celebrated tourist destination that strongly embraces its cultural heritage and Victorian-style architecture. Despite this, there are aspects of downtown heritage that are not as widely shared, including historic Chinatown. In the Fall of 2018, ERCI was presented with the opportunity to highlight this and other lesser known parts of Port Townsend heritage when the need to replace Memorial Field light posts arose. During machine testing to find a suitable location for the new light post, ERCI identified several historic period items associated with the presence of historic Chinatown. The artifacts from 45JE408 are a physical reminder of this often overlooked presence of Chinese-Americans in Port Townsend history. This poster illustrates how these artifacts contribute to our understanding of the lives and experiences of Chinese-Americans in the coastal United States during the historic era.

Co-author: Kelly R. Bush (Equinox Research and Consulting International)

T

Taber, Emily Applied Archaeological Research, Inc.; Portland State University

Development and Application of an Economic Model of Fish Rank for Late Nineteenth-Century Pacific Northwest Households

Studies of historic fish archaeofaunas can contribute to our understanding of Victorian-era consumer choice and agency. The Pacific Northwest is an ideal setting for such studies, given the importance of fish to the regional economy and identity. Our project used detailed archival research of newspapers (1880-1910) to determine 1) which fishes were part of the market economy, 2) what portions available for sale, and 3) how cultural values impacted fish consumption. Over 60 different fish taxa were sold. We used fish prices to create a simple 2-part cost rank for fishes with multiple listings. Nonnative fish (e.g., bass) were the highest ranked, while Chinook salmon and catfish were among the low-priced fish. Archival results were used to contextualize findings from zooarchaeological analysis of fish remains recovered from features associated with a mostly middle-class neighborhood in Vancouver, WA. Results suggest residents purchased some fish but also acquired fish through sport and subsistence activity.

Co-author: Virginia L. Butler (Portland State University)

Taylor, Breanne Simon Fraser University/Willamette Cultural Resources Associates, Ltd.

Material Culture and the Social Dynamics of Residential Life at a Company Town: Archaeological Investigations at the Fairfax Townsite (45PI918), Pierce County, Washington

Fairfax, Washington was a thriving, company-owned coal mining and lumber town that operated between the late 1890s and 1941 in eastern Pierce County. The documentary record and material culture of Fairfax substantiate that, like most company towns in the western United States the place was an ethnically diverse, male-dominated, and isolated settlement under paternalistic management. The town was shaped by the social dynamism of its residents and their access to opportunity and to the material world. Initial archaeological investigations at Fairfax in the summer of 2018 unearthed more than 4,000 artifacts that reflect the everyday lives of working people, including a large foreign-born population from over twenty countries, including Italy, Germany, Greece, Norway and Japan. Work at the Fairfax Townsite (45PI918) addressed themes of community and division on the basis of race, ethnicity, gender, and class which are visible through demographic and archaeological analysis. At the intersection of these constructs lies a story previously untold about the peoples of Fairfax.

Thiel, Samantha Eastern Washington University

A Hard Kind of Labor: An Archaeological Analysis of Small-Scale Hard Rock Mines in Northeast Washington

Small-scale mining sites are found throughout the Colville National Forest, but relatively few have been explored archaeologically. This paper presents the preliminary results of investigations at the Road 306 Mining Camp, a site comprised of two standing structures, three open cuts, and a scattering of surface artifacts. This ongoing research compares the Road 306 Mining Camp to nine other mines that operated in the forest and its environs during the early 20th century. GIS was used to compare the sites based on spatial location, scale, and types of artifactual materials present to create a hierarchy of mining types in the region. The results place the Road 306 Mining Camp in context with the early industrial use of the Colville National Forest and helps to fill a gap in our understanding of the mining history of the region.

Tipton, Katherine Portland State University

Archaeologists, the Public, and Collectors: Establishing a Regional Database of Archaeological Sites on Private Land and Collections in Private Hands in the Portland Area

Over the course of daily life, people encounter and engage with archaeology in various ways, including experience with archaeology on their own land and as part of family collections. As a result, members of the public can hold considerable knowledge and insight regarding the location, character, and larger significance of archaeological sites relative to their lives. As a result, the public is a key source of heritage knowledge. Because of the complexities of professional-public relationships in the Portland area, it is critically important that we actively facilitate collaboration to systematically gather information about archaeological sites and collections in this region. The goal of my research is to establish a systematic process for collecting and investigating information about archaeological sites on private land and collections in private hands. My thesis research will build mutual professional-public understanding of local heritage while addressing several questions that surround public archaeology and professional-public collaborations in archaeology.

Co-author: Shelby Anderson (Portland State University)

Triplett, Mallory Central Washington University

Preliminary Study on the Context and Movement of Tachylyte, a Unique Volcanic Glass in Washington State

Tachylyte is the name for a volcanic glass derived from basalt, as distinguished from obsidian which is rhyolitic. There are six known tachylyte source locations in Washington, but these are underrepresented in the Pacific Northwest toolstone literature, leaving an incomplete picture of the pre-contact toolstone landscape. Due to this lack of literature, my proposed thesis research will address this data gap and compile what is known about tachylyte both in geologic and archaeological contexts. This poster will provide preliminary results. Additional thesis work will include laboratory work identifying characteristics of tachylyte, an analysis of tachylyte occurrence in archaeological assemblages, and potentially identification of tachylyte sources. It is expected that this study will add to the sparse information on tachylyte and help contribute to the literature on the toolstone geography of the Pacific Northwest.

Tushingham, Shannon Washington State University

Women and Leadership in the Columbia Plateau

Women played a critical role in storage based hunting, gathering, and fishing economies throughout western North America, yet the archaeological literature rarely acknowledges the full reach of their economic contributions "beyond processors" as well as the active role of women in decision making in these societies. In the Columbia Plateau, ethno-historic data clearly show that women filled important leadership roles, were independent property owners, and were key players in household production dynamics, not only in terms of their economic contributions but also as leading actors in the direction of surplus production and settlement. In this paper we argue that women were huge drivers of the pre-contact system as well, and that they fundamentally influenced the development of small autonomous social units and household fluidity in the region. Evolutionary perspectives on leadership, decision making, and the opportunity costs of childcare are discussed, as well as why such dynamics are important to understanding intensification and house-related developments particularly in the late Holocene.

Co-author: Tiffany Fulkerson (Washington State University)

Tveskov, Mark Axel Southern Oregon University

Scorched Earth: The Military Campaign on the Lower Rogue River, 1856

On February 22, 1856, the Tututni, Joshua, and Mikonotunne of the lower Rogue River of southern Oregon joined the larger rebellion against settler colonialism known as the Rogue River War. After initial successes, the indigenous forces were finally defeated by the United States Army, and most of the survivors were removed to the Coast Indian Reservation. This paper presents the results of ethnohistoric, cartographic, and archaeological research at several sites associated with the lower Rogue Campaign, including a settler fortification and the site of the Battle of Big Bend, where the rebellion ended. Among other insights, this research challenges the long standing trope of this and other indigenous wars as irrational "uprisings" against the advance of the frontier.

U

V

Vance, Emma University of Montana

Investigating Mobility and Subsistence Organization through Lithic Technology at 48PA551

The well-known Middle Archaic site, 48PA551, in northwestern Wyoming, was originally described as a single McKean Complex occupation. New data from 2018 now suggest the possibility of two occupations. This provides the opportunity to consider the connection between the organization of lithic technology and mobility/subsistence organization between the two occupation periods. Current data imply a high degree residential stability and likely use of logistical mobility during the early occupation followed by a shift to much less stable residential pattern in the latter occupation. Lithic assemblages excavated in 2018 can provide detailed insight into technological decision-making associated with these alternative organizational scenarios. Thus, this poster explores new insights into Middle Archaic/McKean Complex socio-economic strategies drawing data from analyses of tool manufacture, use, and transport patterns for a variety of raw material sources.

Co-author: Anna Prentiss (University of Montana)

W

Wallen, Dakota Washington State University

Inhabiting the Impassable: The Archaeology of Precontact Houses in Hells Canyon

Hells Canyon is one of the most rugged places in North America and was deemed impassable by Euro-Americans visiting the area in the early 1800s. Despite the rugged terrain, Hells Canyon was extensively occupied before Euro-American contact. At the northern mouth of the canyon at Hells Gate State Park is located the largest house on the plateau. There are more than 550 reported house depressions within the National Recreation Area that encompasses the area from Hells Canyon Dam to China Gardens at the Idaho, Oregon, Washington borders. Many more house depressions and villages are located between the town of Asotin and the Washington/Oregon state line. Because much of Hells Canyon was never dammed, relatively few excavations have been carried out in the canyon. What excavations have been carried out, such as at Kirkwood Bar, Pittsburg Landing, and Hells Canyon Creek have been fruitful in providing details about the precontact architecture of the southeastern Columbia Plateau.

Welch, John Simon Fraser University & Archaeology Southwest

Landscapes, Consultations, Archaeologies: Global Dynamics, Local Leadership, and the Promise of Full-Spectrum Heritage Resource Management

The greatest innovations in historic preservation and cultural resource management have come not from academic or applied archaeologists, but from Indigenous people. Consistent and creative insistence on true consultation and on attention to geographical and social site contexts have been especially consequential, as reflected in federal legislation, in archaeological theory, and in many spheres of professional practice. These advances have positioned archaeology to lead a new era of cultural resource management, a mode of practice dedicated to conserving the full spectrum of values embedded in the full spectrum of cultural resources on the basis of inclusive consultations that leave open options for deploying the full spectrum of management options to engage cultural resources in addressing real-world problems in education, land management, job creation, intercultural reconciliation and whatever else needs attention.

Wessen, Gary Wessen & Associates, Inc.

Exploring Faunal Assemblages to Identify Ethnic Groups: Makahs, Quileutes, and Shell Middens on the Northwestern Olympic Peninsula of Washington

Ethnographic descriptions of the Makah and Quileute peoples indicate that there were differences in the resources base used by each group which should be detectable in the archaeological record. While a significant amount of data from coastal shell middens is available for this area, the latter are constrained by a number of significant chronological, geographic, and methodological biases. This paper reports initial efforts to address such problems and preliminary findings suggesting that there may be faunal assemblage characteristics which reflect the ethnic identities of their creators. Both bone densities and the relative proportions of some animals - - or groups of animals - - appear to be different in the two territories.

Co-author: Stephen Samuels (Wessen & Associates, Inc.)

Weygint, Conner University of Idaho

Tools of the Trade: Hand tools from a Chinese mining site in Idaho's Boise Basin

During the summer of 1987, Sagebrush Archaeological Consultants conducted archaeological test excavations and minor surface collection at a historic Chinese mining camp near Idaho City, Idaho, at the request of the Boise National Forest. This excavation was conducted to evaluate site integrity and determine the extent of damage done by modern mining efforts at an adjacent parcel. Although much of the site's surface had been destroyed,

several undisturbed subsurface deposits were discovered. Excavations in the undisturbed area of the site revealed a concentrated amount of material culture consisting of Chinese porcelain and stoneware sherds, opium tin fragments, and a small assemblage of tools associated with the camp and mining operations. Among the tools found were shovel blades, wedges, and other hand tools that are poised to yield additional insights into the lives of Chinese immigrants in the mining industry and the technology they used in the process. This poster presents an analysis of the recovered tool assemblage.

Co-Author: Josh Krause (University of Idaho)

Williams, Scott WSDOT

The National Register Eligibility of a Transportation Icon

The Type 2 Transporter is an engineering marvel and an icon of various counterculture movements in what was perhaps one of the most turbulent periods of cultural change in US history. This paper examines the NRHP eligibility of a unique Type 2 Transporter and what that determination of eligibility means in the broader field of cultural resources management and the application of Criterion A of the National Register to sites, structures, or objects of routine engineering or occurrence.

Withee, Katee US Forest Service, Malheur National Forest

Stacked Rock Features: Archaeological Evidence of Chinese Occupied Sites on the Malheur National Forest

Chinese immigrants found opportunity in the Blue Mountains of Eastern Oregon, including placer mining for gold and residing in nearby camps. Many of these locations are now archaeological sites where stacked rock features have been successfully used for site identification. These features are often archaeological remains of hearths and have associated materials suggestive of 19th century Chinese habitation, including ceramic fragments, canned goods, and other imported items. These features appear unique to Chinese habitation. The volume of these sites indicate that the majority of historic placer mining habitations on the Malheur were occupied by Chinese groups. Western tropes often portray the mining population as solitary white prospectors, when in actuality the majority of placer miners in this area were members of organized Chinese labor and mining companies. The recognition of these unique stacked rock features should contribute to the identification of additional Chinese occupied archaeological sites.

Wu, Shuxi University of Oregon

Transient Professionals: Asian employees and the American Transnational Corporation

This paper examines skilled migration of corporate employees from developing Asian countries to the United States, using two athletic footwear corporations in Portland, OR as examples. I aim to contextualize this migration in the field of the global commodity chains (GCC) of athletic footwear and point out how this field conditions the identities of migrants by shaping migration channels, with critical implications for post-migration experiences. Drawing on twelve interviews and ethnographic fieldwork conducted over four months, I first examine migrants' motivation and migration process, pointing out how interpretations of mobility is tightly linked to the GCC field. I then interrogate post-migration experiences and show that migration in the GCC generates unique, post-migration identities and thus distinct challenges in the new workplace. These findings shed light on experiences of skilled corporate migrants from developing countries, rarely discussed in current literature but nevertheless constituting interesting contrast to experiences of "traditional" expatriates.

Wyatt, Noella Central Washington University

Sustaining Collections Research and Management: Tryon Creek House 2 (35WA288), Hells Canyon National Recreation Area

The USFS continues to provide support for curating the collection generated by two summers of PIT project (1991-92). CWU students and volunteers continue to rehouse the collection and create digital records for the project. Two example research problems are presented: 1) yellow and red ochre use, and 2) red glassy basalt point production and maintenance. Students continue to learn best practices in collection and data management while developing critical thinking needed to test alternative working hypotheses. Both examples show discrete activity areas within different occupation layers within the house (circa A.D. 500 to 1500). Ongoing work with the collection demonstrates the value of sustained curation activity for improving the organization of materials and quality control for data. Management problems and recommendations are also outlined.

Co-Author: Cindy Morales (Central Washington University)

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Zavala, Brisa Sanchez Washington State University

A Motley Crew of Experimentors: Preliminary Residue Analysis of Created Molcaxitl Artifacts

There is ongoing research focused on the contemporary and past use of traditional medicine in indigenous communities of the Americas; however, there are few comparative studies. This research aims to identify Psidium guajava L. (a medicinal plant presently used by Nahua communities in Mexico) in experimental molcaxitl artifacts. Identification of key compounds done through gas chromatography-mass spectroscopy (GC-MS) and liquid chromatography-mass spectroscopy (LC-MS). Positive results could lead to an analysis of additional medicinal plants, the inclusion of additional materials, and analysis of artifacts dated pre-contact to modern times. Residue analysis of a timeline of molcaxitl could lead to determining medicinal plant usage over time. With this knowledge, we could deduce what illnesses and medicinal practices were most prevalent across different periods ultimately leading to theories of varying plant usage due to epidemics, loss of flora, or other internal and external factors, which can then aid in the preservation of traditional medicine in Mesoamerica and beyond.

Co-authors: Shannon Tushingham (Washington State University), Anna Berim (Washington State University), Jorgen Gang (Washington State University), and David Gang (Washington State University)


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The 2019 Cultural Resource Protection Summit marks our 12th gathering. A dozen years of Summiting! We are still hard at work fulfilling the mission we have had since the Summit's inception: *The primary goal in organizing the annual Summit has been to facilitate amongst all affected parties an open, frank discussion about the intersection between cultural resources and land use. The Summit is designed to promote collaborative cultural resource planning as an effective means of finding resolution to issues before they escalate into emotionally-charged, divisive, and expensive stalemates or law suits.*

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