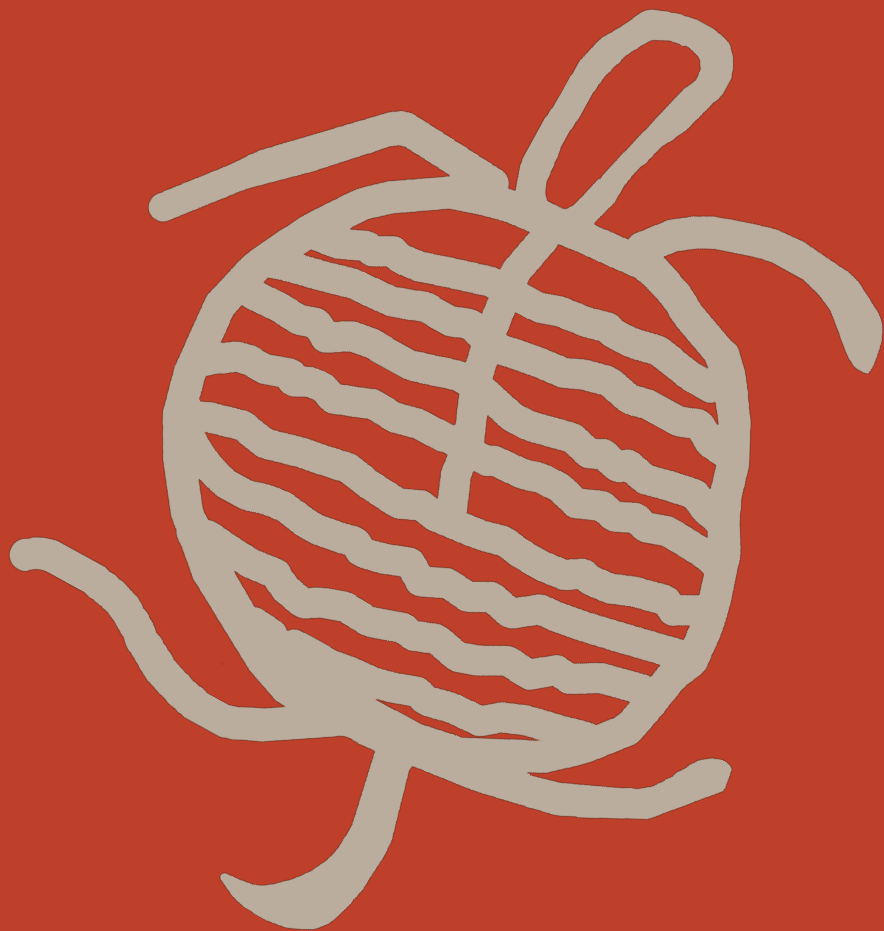


75th Annual Plains Anthropological Conference



Bismarck, North Dakota
October 4-7, 2017



Conference Host:

State Historical Society of North Dakota (<http://history.nd.gov>)

Conference Committee

State Historical Society of North Dakota:

- Amy C. Bleier
- Wendi Field Murray
- Timothy A. Reed
- Fern E. Swenson

Staff – State Historical Society of North Dakota:

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- Guinn Hinman
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- Lisa Steckler
- Richard Fisk and Museum Store

Thank you Chris Johnston, Treasurer of the Plains Anthropological Society, for your invaluable support and assistance.

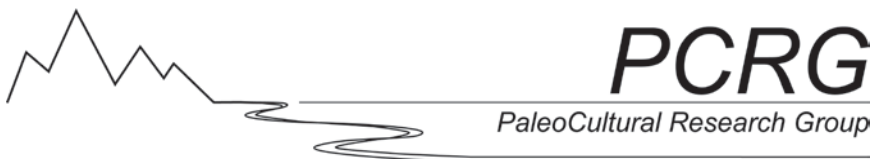
Conference Logo:

The logo of the 75th Annual Plains Anthropological Conference is drawn from a decorated pottery vessel in the On-A-Slant Village archaeological collection. The collection is curated at the State Historical Society of North Dakota, Bismarck.

**The State Historical Society of North Dakota
thanks our conference partners:**



PaleoIndian Research Lab



CONFERENCE VENDORS & EXHIBITS

- Anthropology Department, University of Wyoming
- Arikara Community Action Group
- Beta Analytic, Inc.
- Center for Applied Isotope Studies – University of Georgia
- John Bluemle, Geologist & Author
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- Nebraska State Historical Society
- North Dakota Archaeological Association
- *Plains Anthropologist*, Journal of the Plains Anthropological Society
- St. Cloud State University
- SWCA Environmental Consultants
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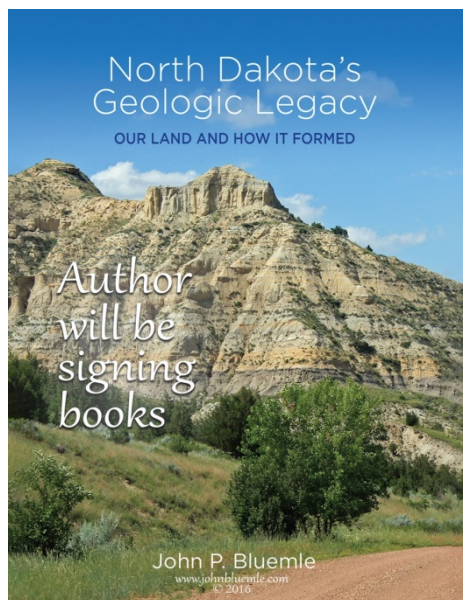
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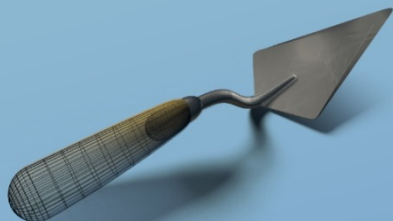


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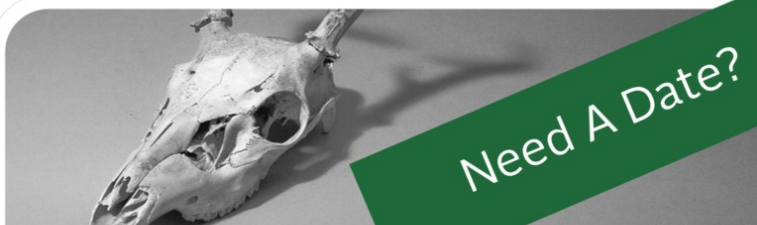
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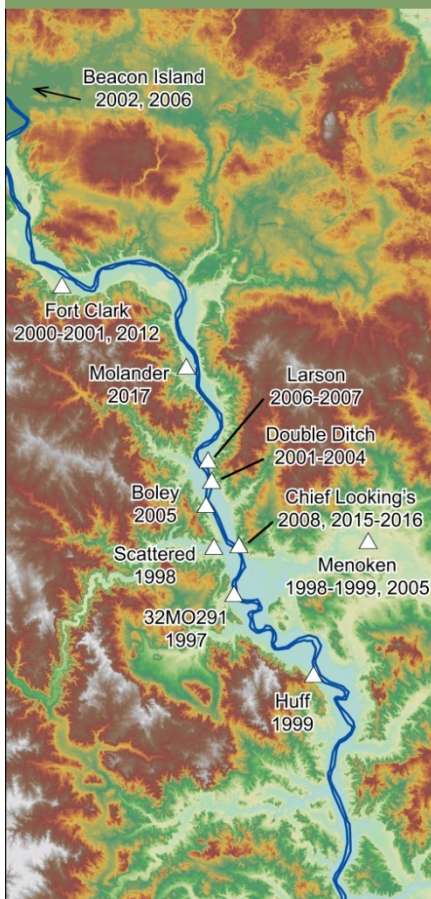
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GENERAL INFORMATION

Conference Headquarters: All conference events, except for the guided tours on Wednesday and Saturday and the reception on Thursday evening, will be held at the Radisson Hotel Bismarck (605 East Broadway Avenue, Bismarck, ND 58501; 701-255-6000 or <https://www.radisson.com/bismarck-hotel-nd-58501/ndbisdt>).

Local Transportation:

- Lyft
- Uber
- Taxi 9000, 701-223-9000
- 2 Man Cab (get yourself and your car home), 701-425-6699

Parking: Free parking is available for guests of the Radisson Hotel in the Radisson Hotel parking ramp. Other parking ramps, within walking distance, may be available for a fee.

Registration: The registration and information table is located in the Ballroom Foyer. Hours of operation: Wednesday, October 4 from 4:00 to 9:00 p.m., Thursday, October 5 from 8:00 a.m. to 5:00 p.m., and Friday, October 6 from 8:00 a.m. to 5:00 p.m.

Presentation Preview Area: Computers are available for use by conference attendees in the hotel Business Center adjacent to the Radisson Hotel lobby on the ground floor.

Sessions: All symposia and paper sessions are in the Rembrandt, Picasso, Da Vinci, and Renoir-Russell rooms.

Poster Sessions: Poster sessions are located in the Van Gogh-Remington Room.

Session Moderators and Presenters:

Session moderators must adhere to the presentation schedule and keep presenters on time. Please give each presenter a two-minute warning before the end of their allotted time. All papers are 20

minutes in length. If a presenter is a “no-show” the session moderator will call a break for the appropriate amount of time. Moderators are asked to remind all attendees to silence cell phones. Presenters and moderators are expected to arrive at the meeting room 20 minutes prior to the beginning of the session in order to load your presentation on to the session computer unless it has been pre-loaded by the moderator. All presentations must be in Microsoft Office format.

Vendors & Exhibits: Vendor and exhibit space is in the New York-New York Room on the ground floor of the conference hotel. The room is open 8:00 a.m. to 5:00 p.m. on Thursday and Friday. The room will be accessible from 7:30 a.m. to 5:30 p.m. for use by vendors/exhibitors.

Conference Merchandise: Conference t-shirts and caps may be purchased at the registration table in the Ballroom Foyer. Supplies are limited.

Silent Auction: Silent Auction items will be available for viewing and bidding in the Ballroom Foyer from 8:00 a.m. to 5:00 p.m. on Thursday and 8:00 a.m. to 3:00 p.m. on Friday. Winners will be notified at the business meeting. Proceeds from the auction will be donated to the Plains Anthropological Society scholarship fund.

Breaks and Refreshments: Coffee and light refreshments will be served in the Wyeth-Rockwell Room.

Early Bird Party: The Early Bird Party is in the Galleria Ballroom on Wednesday, October 4 from 7:00 p.m. to midnight. Free food and drinks are available while they last. A cash bar is also available.

Board Meetings: Two meetings of the Plains Anthropological Society Board of Directors are scheduled. The first meeting is at 6:00 p.m. on Wednesday, October 4 in the Hudson Meeting Room. The second meeting immediately follows the Plains

Anthropological Society business meeting in the Van Gogh-Remington Room on Friday, October 6.

Business Meeting: The annual business meeting of the Plains Anthropological Society is scheduled for 5:00 p.m. in the Van Gogh-Remington Room on Friday, October 6.

Student Workshop Luncheon: In addition to student paper and poster competitions, a career session will be available for students. It is hosted by the Plains Anthropological Society Student Affairs Committee. The workshop includes a pre-ordered box lunch and will be held in the Hudson Meeting Room of the Radisson from noon to 1:00 p.m. on Friday, October 6, 2017.

Thursday Reception: The State Historical Society of North Dakota is hosting a reception for conference attendees on Thursday, October 5 from 5:30 to 8:30 p.m. at the North Dakota Heritage Center & State Museum. The museum is located on the Capitol Grounds (approximately one mile north of the conference hotel). Ample parking is available outside of the main entrance which is now on the east side of the museum (State Street/US-83). Reception highlights:

- Free appetizers and drinks are available while they last.
- NEW galleries and exhibits
- Behind-the-scenes tours of the expanded Archaeology & Historic Preservation Division, including: archaeological curatorial spaces, archaeology lab, multi-media room, and cultural resource research room. Guided tours are available from 6:00-8:00 p.m.
- New Museum Store (open 5:30-8:00 p.m.)

Banquet, Keynote Address: A banquet will be held in the Galleria Ballroom at 7:00 p.m. on Friday, October 6. This year's banquet speaker is Dr. William J. Hunt, Jr. He is an Adjunct Professor in Anthropology at the University of Nebraska, Lincoln and a retired archeologist at the Midwest Archeological Center, National Park Service. Dr. Hunt earned a M.A. in Anthropology from the University of Nebraska, Lincoln in 1974, a M.A. in American Civilization from the University of Pennsylvania in 1982, and a Ph.D. in American Civilization from the University of Pennsylvania in 1989.

Dr. Hunt has been a professional archeologist since 1974 and has had an eclectic career. Initially, he specialized in prehistoric archaeology with a particular interest in the Woodland and Mississippian cultures of the Upper Mississippi River drainage. Since 1983 when he joined the National Park Service's (NPS) Midwest Archeological Center, his work has largely been focused on historic sites. The NPS gave Dr. Hunt the opportunity to conduct small and large scale investigations at 38 National Parks and Monuments from Ohio through Colorado and the Canadian border to the southern tip of Texas. One of his greatest archaeological challenges was born from his interest in the American fur trade – the 1986-1988 large scale excavation of Fort Union Trading Post National Historic Site followed by processing and analysis of hundreds of thousands of artifacts through 2009. This work, in turn, led to an invitation to run a field school at Fort Clark Trading Post State Historic Site in 2001 and a reanalysis of all archaeological data from that site for the State Historical Society of North Dakota. As a team member in the NPS Co-operative Assistance Program, he has led or participated in archaeological investigations for the U.S. Army (Colorado, North Carolina), National Forest Service (Alaska, Idaho), Immigration and Naturalization Service (Texas), Bureau of Reclamation (Colorado), and General Services Administration (Texas). In 1995, he participated in a NPS Office of International Affairs detail to the Sultanate of Oman to prepare a development concept plan for a new archaeological park at Al-Balid, the site of a medieval city on

the Indian Ocean reportedly visited by Marco Polo. In 2003, he received the John Cotter Award for Excellence in National Park Service Archeology for a historical archaeology field project at Yellowstone National Park involving high school students. Since that time, Dr. Hunt has spent six field seasons in Alaska studying Tlingit and Inuit archaeology. Having retired from the NPS in 2011, he has been following his whims and new archaeological interests. For example, he recently completed work as a volunteer crew leader at a Middle Bronze Age cemetery in Hungary. His current interest is the historical and archaeological study of African American homesteaders in Kansas and Nebraska.

Conference Guided Tours: Two guided bus tours are scheduled.

The tour on Wednesday, October 4 will include visits to Chief Looking's (Ward) Indian Village, Double Ditch Indian Village State Historic Site, Fort Clark Trading Post State Historic Site, Knife River Indian Villages National Historic Site, and Garrison Dam. The bus will leave the Radisson Hotel at 8:00 a.m. and return to the hotel at approximately 6:00 p.m. The return trip will feature viewing the documentary, *The People of the Upper Missouri: The Mandans*. The trip includes a box lunch. Please wear outdoor clothing and shoes.

The tour on Saturday, October 7 will include visits to Menoken Indian Village State Historic Site, Huff Indian Village State Historic Site, and On-A-Slant Village/Fort Abraham Lincoln State Park. The bus will leave the Radisson Hotel at 12:30 p.m. and return to the hotel at approximately 6:00 p.m. Please wear outdoor clothing and shoes.

PRESENTATION SCHEDULE

THURSDAY MORNING, OCTOBER 5, 2017

Session 1, Renoir-Russell Room

Symposium: *Recent Archaeological and Geophysical Research at Chief Looking's Village, a Sixteenth-Century Earthlodge Community in Burleigh County, North Dakota*

Mark D. Mitchell, Organizer

- 9:00-9:10** Mark D. Mitchell: *Introduction to the Chief Looking's Village Project*
- 9:10-9:40** Elijah Benson and Justin Deegan: *Chief Looking's Village Project Video*
- 9:40-10:00** Mark D. Mitchell: *Negotiating Household Identity during a Time of Historical Transformation*
- 10:00-10:20** **BREAK**
- 10:20-10:40** Kenneth Kvamme: *Two Decades of Geophysical Research at Chief Looking's Village (32BL3), North Dakota*
- 10:40-11:00** Rinita Dalan, Carly DeSanto, and Amy Woodruff: *Subsurface Magnetic Susceptibility Studies at Chief Looking's Village*
- 11:00-11:20** Jennifer K. Deats: *Style, Identity, and Communities of Practice: A Study of Middle Missouri Ceramics from Chief Looking's Village and the Heart River Region*

Session 2, Da Vinci Room

Symposium: *Student Paper Award Competition*

Laura L. Scheiber, Moderator

- 8:20-8:40** Anna Jansson: *Geoarchaeological Investigations at the Billy Big Spring Site, Montana*
- 8:40-9:00** Corey Yates: *Does Beer Float? Archaeobotanicals at the Brainerd Brewery*

- 9:00-9:20** Alejandro J. Figueroa: *Updating the Record of Paleoindian Human-Environment Relations in the Little Missouri Badlands, North Dakota*
- 9:20-9:40** Abigail Fisher: *When is a Wolf a Dog? Combined Geometric Morphometrics and Stable Isotope Analyses for the Differentiation of Wild and Domestic Canids on the Northern Plains*

Session 3, Rembrandt Room

General Session: *Paleoindian and Archaic*

Brooke M. Morgan, Moderator

- 8:40-9:00** George Zeimens and George Frison: *Continuing Investigations at the Powars II Paleoindian Red Ochre Mine in Southeastern Wyoming*
- 9:00-9:20** George Frison and George Zeimens: *Blade Tools and Clovis Projectile Points from the Powars II Red Ochre Quarry 48PL330 in Southeastern Wyoming*
- 9:20-9:40** Heidi Van Etten, Rachael Shimek, Alix Piven, Mary Lou Larson, Marcel Kornfeld, Justin Garnet, Zach Garhart, Tony Fitzpatrick, Darlene Carreto, Jacob Batisky, and Sage Wall: *The 2017 Field Season at a National Historic Landmark Site: Hell Gap*
- 9:40-10:00** Edward Knell: *The Lamb Spring Cody Complex Component*
- 10:00-10:20** **BREAK**
- 10:20-10:40** Leland Bement, Kristen Carlson, and Brian Carter: *Bull Creek: A Stratified Late Paleoindian Camp in the Oklahoma Panhandle*
- 10:40-11:00** Zach Garhart, Mary Lou Larson, and Marcel Kornfeld: *Early Plains Archaic: A Micro Look at Laddie Creek*
- 11:00-11:20** Maria Nieves Zedeño, Francois Lanoë, Danielle Soza, Anna Jansson, and Ashleigh Thompson: *The Middle Archaic on the Rocky Mountain Front: A View from the Billy Big Spring Site, Montana*

Session 4, Van Gogh-Remington Room

General Poster Session: *Great Plains Anthropology, Part I*

8:00-9:50

- A. Margaret Beck and Adrien Hannus: *Mississippian Interaction and Red-slipped Ceramics in the Middle Missouri Tradition*
- B. Emma Behling and Adrien Hannus: *Experimental Recreation of Shell Fishing Implements at Mitchell Indian Village in South Dakota*
- C. Morgan Beyer: *What to Expect When You're Collecting: Tips for Processing Legacy Collections*
- D. Jeffrey T. Bunch and Benjamin D. Banks: *Bank Stabilization of the Double Ditch Indian Village Historic Site*
- E. Alison Hadley: *Pipestone Artifacts at Three South Dakota Sites*
- F. Jakob Hanschu: *Quantifying the Qualitative: Locating Burial Mounds in North-Central Kansas*
- G. Wendi Field Murray: *Community and Coalescence on the Missouri River: A Space Syntax Analysis of Like-A-Fishhook Village*
- H. Robert Speakman, Travis Jones, Carla Hadden, and Victor Thompson: *The Reality of Faculty Jobs in Archaeology*
- I. Joseph Zeleznik: *Towards a Master Chronology for Bur Oak in the Northern Great Plains*
- J. Melanie McKay-Cody: *The Interconnection between Rock Art and Sign Language: An Important Recognition for Indigenous Deaf Peoples*

Session 5, Picasso Room

General Session: *Great Plains Archaeology, Part I*

Susan Quinnell, Moderator

8:00-8:20

Gerald Oetelaar: *Niche Construction Theory in Plains Archaeology: A New Perspective on Subsistence and Settlement Strategies*

- 8:20-8:40** Erik Gooding and Melissa Foley: *Conceptualizing the Meskwaki Universe: Place, Space, and Time in Meskwaki Physical and Cultural Worlds*
- 8:40-9:00** Linda Scott Cummings, R.A. Varney, Thomas W. Stafford, Jr., Robert Speakman, and Donna Roper: *Charred Food Crust and Mixed Carbon Reservoirs: Integrating Carbon from Freshwater Reservoirs and the Atmosphere*
- 9:00-9:20** William Green, James B. Stoltman, George R. Holley, Joseph A. Tiffany, and Cynthia Strong: *Reanalysis of a Fine-Engraved Vessel from Northwest Iowa: Implications Regarding Caddo and Mississippian Contacts*
- 9:20-9:40** Richard Krause: *The First New Archaeology: An Explication of the Cultural Historical Theory of Archaeological Things*
- 9:40-10:00** **BREAK**
- 10:00-10:20** Kent Buehler: *Right in Your Own Backyard: Why Forensic Archaeology is More Than Just Recovering Remains*
- 10:20-10:40** Brad Logan: *An Unquixotic Quest: Excavation of the Quixote Site (14JF420), a Late Woodland Occupation in the Delaware River Drainage, Northeastern Kansas*
- 10:40-11:00** Greg Pierce: *Assessing Disparities in Site Densities in the Wyoming Black Hills*
- 11:00-11:20** Chris Loendorf: *Arrow Point Reworking: An Experimental Study of Projectile Point Use Life*

Session 6, Da Vinci Room

Focus Group: *WyoARCH: Increasing the Impact of Archaeological Repositories through Spatially-Enabled Collections Management*

Marieka Arksey, Moderator

10:20-12:00

Session 7, Van Gogh-Remington Room

General Poster Session: *Great Plains Anthropology, Part II*

10:10-12:00

- A. Mary Adair and Alexandra Kern: *The Linden Collection of Great Bend Materials from Rice County, Kansas*
- B. Sara Anderson, Amy Neumann, Catherine Elliot, Effie Athanassopolous: *Campus Archaeology: Historic Ceramics from an Early Lincoln Neighborhood*
- C. Brandi Bethke: *Vertebrate Faunal Remains from the 2013 Excavations at the Boarding School Site, Glacier County, MT*
- D. Steven De Vore, Ashley Barnett, Holly Staggs, Gosia Mahoney, and Blair Schneider: *Magnetic Survey of the Fort Union Trading Post National Historic Site, North Dakota*
- E. Erik Gooding, Bret Quickbear, and Michael Pittman: *Understanding Tribal Relationships of the Prairies and Plains through the Study of Tribal Ethnonyms: A Poster in Honor of Douglas R. Parks*
- F. Erik Gooding and Carra Strader: *Biocultural Meanings of Symbolic Elements of Prairie/Plains Material Culture*
- G. Holly Staggs: *Homesteading in the Black Hills: Preliminary Results of Excavations at the Sanson Ranch Site (39CU2) at Wind Cave National Park*
- H. LuAnn Wandsnider and Megan L. Wilson: *Pioneer Population Demography: How Were Fertility and Mortality in Custer County (NE) Homesteaders Impacted by Extreme Weather Events?*
- I. Jade Robison and Effie Athanassopolous: *From the Outhouse and Back Again: Analysis of a Ceramic Assemblage from the Privy of a Late 19th-Century Lincoln Household (25LC181)*

THURSDAY AFTERNOON, OCTOBER 5, 2017

Session 8, Renoir-Russell Room

Symposium: *Knife River Flint Quarries: New Research in the Primary Source Area*

Damita Engel, Organizer

- 1:00-1:20** Michael Metcalf and Kimball Banks: *Oh, Look What a Hole I'm In: A History of Archaeological Research in the Knife River Flint Quarry*
- 1:20-1:40** Ronald Rood, Andrea Kulevsky, Kimberly Troendle, Matthew Radermacher, and Daan Meens: *Archaeological Investigations at 32DU2216: A Knife River Flint Quarry Near Killdeer, North Dakota*
- 1:40-2:00** Ronald Rood: *What is the Best Thing about a Knife River Flint Quarry? The Bone and Antler Digging Tools of Course.*
- 2:00-2:20** **BREAK**
- 2:20-2:40** Craig Lee, Michael Neeley, Mark Mitchell, and Marcel Kornfeld: *Exploring Microcores and Microliths in Northwestern Plains Lithic Assemblages*
- 2:40-3:00** Kimball Banks and Dante Knapp: *This Is the Pits: Modeling Site Distribution in the Knife River Flint Quarry Area, North Dakota*
- 3:00-3:40** **DISCUSSION**

Session 9, Da Vinci Room

General Session: *Historical Archaeology*

Lorna Meidinger, Moderator

- 1:00-1:20** Donald Blakeslee: *Fieldwork at Etzanoa, 2017*
- 1:20-1:40** Tricia Waggoner: *Preliminary Investigations at Kaw Mission*
- 1:40-2:00** Dawn Rutecki: *Colonial Expectations: Intersectionality and Material Culture*

- 2:00-2:20** Mark L. Howe, Todd Ahlman, and William A. Cloud: *The Search for the Lost Spanish Missions on the Rio Grande*
- 2:20-2:40** Paul Picha: *Thundersticks, Ponies, and the Horse-and-Gun Frontier: Secoy and Champlain Revisited*
- 2:40-3:00** Rob Wondrasek, Rachel Lindemann, and Elsa Perry: *Intermingling Influences in the Fort Macleod, AB Artifact Assemblage*
- 3:00-3:20** **BREAK**
- 3:20-3:40** Todd Ahlman and Mark L. Howe: *Fort Brown, Sunken Ships and the Search for the Lost Dump*
- 3:40-4:00** Joe Artz: Using GIS to Rediscover and Reimagine the 1846-1847 Route of the Mormon Trail across Southern Iowa
- 4:00-4:20** Danny Walker and Carolyn Buff: *Working to Preserve the Red Buttes Battlefield Landscape in Central Wyoming*
- 4:20-4:40** William Kurtz: *"Some of our Friends have been Killed." Lakota and Cheyenne Little Big Horn Battle Casualty Locations Documented by Rock Cairns*
- 4:40-5:00** Cody Newton, John Kennedy, Scott Phillips, and Sarah Jennings: *Privy to the Information: Archaeology of the Quimby Section House (5AM2111), Adams County, Colorado*

Session 10, Rembrandt Room

Forum: *A Tribute to the White-Bearded Plainsman: Reminiscences on the Life and Career of W. Raymond Wood*

Fred Schneider and Kacy Hollenback, Organizers

1:00-5:00

Session 11, Van Gogh-Remington Room

Organized Poster Session: *Into the West(ern Plains): Results of the 2017 Bighorn Archaeology Field School, Park and Fremont Counties, Wyoming*

Mackenzie J. Cory, Laura L. Scheiber, Emily C. Van Alst,
Organizers

1:00-2:50

- A. Sam Christian, Laura L. Scheiber, and Makinzie Hoagland:
“Wyoming Wildfire Reveals ‘Massive’ Shoshone Camp, Thousands of Artifacts”: Results of Bighorn Archaeology’s 2017 Work in the Caldwell Creek Drainage, Fremont County, Wyoming
- B. Mackenzie J. Cory: *Embracing Pedagogy: Why the Archaeological Field School Matters in Today’s University System*
- C. Kirsten M. Hawley and Laura L. Scheiber:
Photogrammetric Documentation of Site Features in the Bighorn Basin, Wyoming
- D. Madison Salomon, Josef Renton, Mackenzie J. Cory, and Peyton Lindley: *There is No “I” in Archaeology: BIGHorn Archaeology’s Public Collaboration during the 2017 Field Season*
- E. Cally Steussy: *Potatoes to Sage: Formation Processes at Work on Two WWII Japanese-American Root Cellars*
- F. Emily C. Van Alst, Laura L. Scheiber, and Mackenzie J. Cory: *Into the West(ern) Experience – They Ain’t From These Parts: Using Fiction to Help Teach a Wyoming Archaeology Field School*
- G. Emily C. Van Alst, Laura L. Scheiber, and Mackenzie J. Cory: *Surveying the Buffalo’s Heart: Results of Bighorn Archaeology’s 2017 Work on Heart Mountain*

Session 12, Renoir-Russell Room

Roundtable: *Digital Lithic Raw Material Reference Collections:
Join the Roundtable Discussion*

Sara Anderson, Moderator

4:00-5:00

Session 13, Van Gogh-Remington Room

General Poster Session: *Paleoindian and Archaic*

3:10-5:00

- A. Paul Burnett: *A Possible Celestial Rock Alignment in the Scoria Hills of Northeastern Wyoming*
- B. Debra Green: *Archaeological Survey along the Tributaries of the Canadian River, Dewey County, Oklahoma*
- C. Sarah A. Jacobs, Alix S. Piven, and Jacob Batisky: *Visualizing Hell Gap in 3D: A Stratified Model of the Hell Gap National Historic Landmark Site*
- D. Tressa Munger, Caitlyn Stellmach, Laura Peck, K.C. Carlson, and Leland Bement: *The Butchering Patterns Present at the Bull Creek Camp: A Late Paleoindian Site in Oklahoma*
- E. Kirsten Tharalson and Leland Bement: *Certain Death: Butchering Patterns at the Certain Site, Western Oklahoma*

FRIDAY MORNING, OCTOBER 6, 2017

Session 14, Renoir-Russell Room

General Session: *Cultural Resource Management and Tribal Consultation*

Amy Munson, Moderator

- 8:40-9:00** Alice M. Tratebas: *Failure of CRM Archaeology to Recognize and Consider Cultural Landscapes*
- 9:00-9:20** Kelly Morgan: *DAPL: What Really Happened?*
- 9:20-9:40** Sebastian Braun: *A Pipeline for Your Thoughts. Plains Anthropology and What We Can Learn from the Standing Rock Protests*

9:40-10:00 Kelly Morgan: *Building Relationships and Trust: Traditional Cultural Specialists and Archaeological Field Technicians*

Session 15, Rembrandt Room

General Session: *Ethnography and Ethnohistory*

Wendi Field Murray, Moderator

8:20-8:40 Michael Scullin: *The Three Sisters: An Enduring Horticultural Metaphor*

8:40-9:00 Candace Greene: *Recent Discoveries of Three Affiliated Tribes Materials in Ethnographic Collections*

9:00-9:20 Fred Schneider: *Good Guys vs. Bad Guys? : The Story of the Loss of the Hidatsa Water Buster Bundle in 1907*

9:20-9:40 W. Raymond Wood: *Joseph Graveline: Unsung Fur Trader on the Missouri River*

9:40-10:00 Birgit Hans and Jeanne Eder: *An Uneasy Alliance: Parents, Students, and Administrators at the Bismarck Indian School*

Session 16, Van Gogh-Remington Room

Student Poster Competition

8:00-10:00

- A. Joshua Davis, Leland Bement, and Dakota Larrick: *Cold Springs Creek: A Lithic Quarry and Rock Gong Site in the Oklahoma Panhandle*
- B. Samantha Nadel, Cynthia Strong, and Lynn M. Alex: *An XRF Analysis of Ceramics from the Huston-Fox Site (39MD133), Meade County, South Dakota*
- C. Evelyn Pickering: *Reaching Sovereignty through Persistence: The Blackfeet Water Compact*
- D. Heidi L. Van Etten: *Making Collections Accessible: Problems and Solutions from the University of Wyoming Bead Collections*

- E. David Ahumada, Dominic Mugavero, Karl Leonard, Aishat Olowoshile, and George Holley: *The Development of the Landscape at the MSUM Regional Science Center and its Influence on the Occupation of Indigenous Peoples: Interpreted from Lake Agassiz Shoreline and Recent Deposits*
- F. Dakota Larrick, Leland Bement, K.C. Carlson, and Joshua Davis: *Black Bear Cache in the Oklahoma Panhandle: An Example of Quartzite Workmanship*

Session 17, Picasso Room

Symposium: *Taking a Closer Look: Archaeometry and Statistical Analyses on the North American Great Plains*

Whitney A. Goodwin, Abigail E. Fisher, and Kacy L. Hollenback, Organizers

- 8:20-8:40** Alejandro J. Figueroa: *Updating the Record of Paleoindian Human-Environment Relations in the Little Missouri Badlands, North Dakota*
- 8:40-9:00** Ian Jorgeson, Abigail Fisher, and Ryan Breslawski: *Using Old Dates to Answer New Questions: An Example from Hell Gap*
- 9:00-9:20** Ryan Breslawski, Bonnie Etter, Ian Jorgeson, and Matthew Boulanger: *The Atlatl to Bow-and-Arrow Transition: What Can We Learn from Modern Recreational Competition Data?*
- 9:20-9:40** Amanda Burtt: *Friend or Foe: A Statistical Approach to Analyzing Dental Microwear Data of Domestic Dogs and Wild Canids*
- 9:40-10:00** Abigail Fisher: *When is a Wolf a Dog? Combined Geometric Morphometrics and Stable Isotope Analyses for the Differentiation of Wild and Domestic Canids on the Northern Plains*
- 10:00-10:20** **BREAK**
- 10:20-10:40** Matthew Boulanger, Kacy L. Hollenback, and Fern E. Swenson: *Revisiting and Integrating*

*Compositional Ceramic Datasets on the Northern
North American Great Plains*

- 10:40-11:00** Brooke M. Morgan, Fern E. Swenson, and Richard E. Hughes: *Geochemical Source Analysis of Obsidian from Seven Missouri River Communities in North Dakota*
- 11:00-11:20** Whitney A. Goodwin, Kacy L. Hollenback, William Hockaday, and Fern E. Swenson: *Changing Foodways in Culture Contact Contexts on the Northern Great Plains: Lipid Residue Analysis at the Double Ditch (32BL8) Site, North Dakota*
- 11:20-11:40** William Hockaday, Whitney A. Goodwin, Emily Blackaby, Fern E. Swenson, and Kacy L. Hollenback: *Molecular Characteristics of Organic Matter in Sediments from Trench and Pit Features at Double Ditch Historic Site (32BL8), North Dakota*

Session 18, Rembrandt Room

General Session: *Cultural Anthropology*

Wendi Field Murray, Moderator

- 10:20-10:40** Flint Devine: *Decolonizing Gender and Sexuality: Cultural Education as a Tool to Improve Mental and Physical Wellness Associated with Discrimination*
- 10:40-11:00** Sashay Schettler: *Identity and Culture: Decolonizing American Indian Identity through Culture Camp*
- 11:00-11:20** Tori L. Plant: *Adaptive Healing Techniques in Native American Communities*
- 11:20-11:40** Caitlyn Shoulder: *Bridging the Gap: Incorporating Lakota Cultural Knowledge and Traditions into Everyday Life among Natives and Non-natives*

Session 19, Da Vinci Room

Roundtable: *Honoring Our Past and Building Our Future: Arikara Youth Expressions*

Brad Kroupa (Arikara Community Action Group), Lead Discussant
Youth Discussants: Gardner Deegan (11th Grade), Trey Everett (12th Grade), Clevelyn Standing Alone (12th Grade), Houston White Bear (12th Grade)

11:00-12:00

Student Workshop Luncheon, Hudson Meeting Room

12:00-1:00

FRIDAY AFTERNOON, OCTOBER 6, 2017

Session 20, Renoir-Russell Room

Symposium: *Tribal Consultation and Section 106: A Tribal Perspective*

Jon Eagle, Ben Rhodd, Dianne Desrosiers, Calvin Grinnell, Kelly Morgan, Steve Vance, Erich Longie, and Mary Ann Black Bull, Organizers

Jeani Borchert and Stephanie Stoermer, Moderators

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| 1:00-1:20 | Dianne Desrosiers and Stephanie Stoermer:
<i>Examining Historic Preservation Laws and Regulations through Different Cultural Lenses</i> |
| 1:20-1:40 | Jeani Borchert and Kelly Morgan: <i>Tribal Consultation: Building Relationships in the Field</i> |
| 1:40-2:00 | Jon Eagle: <i>Use of Tribal Knowledge in Identification and Evaluation</i> |
| 2:00-2:20 | Calvin Grinnell and Elijah Benson: <i>The Second Lodge of Grandmother Who Never Dies: The Significance of Stone Circles and Rock Cairns to the Mandan Hidatsa Arikara Nation</i> |
| 2:20-2:40 | Ben Rhodd: <i>Eligibility of Stone Feature Sites: The Argument for a 5th Eligibility Criterion</i> |
| 2:40-4:00 | Tribal Consultation Committee Panel Discussion |
| 4:00-5:00 | Tribal Consultation Committee Q & A |

Session 21, Da Vinci Room

Workshop: *Archaeological Interpretation of Multi-Method Geophysical Surveys: A Hands-On Workshop*

Lewis Somers, Moderator

*Software and data files are provided for participants' personal laptops.

1:00-4:00

Session 22, Rembrandt Room

Symposium: *At the Crossroads of Plains American Indian Culture, History, and Language: Exploring Contributions of Raymond J. DeMallie and Douglas R. Parks in Anthropological and Archaeological Discourse*

Laura L. Scheiber and David Posthumus, Organizers

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| 1:00-1:20 | David Posthumus: <i>The Social Organization of Contemporary Oglala Lakota Ceremonial Life</i> |
| 1:20-1:40 | Emily C. Van Alst: <i>Iglake S'a (to be nomadic): Maintaining a Hunter-Gatherer Lifestyle within Lakota Culture through Time</i> |
| 1:40-2:00 | Amanda Burtt: <i>Animals Understood: Ethnohistoric Investigations into Indigenous Peoples and the Perceived Powers of the Natural World</i> |
| 2:00-2:20 | Mackenzie J. Cory: <i>Creating Childhood: Comparing an Idealized Childhood of High Plains Oral History with Early European Reports</i> |
| 2:20-2:40 | BREAK |
| 2:40-3:00 | Indrek Park: <i>Tribal Autonyms of the Northern Plains</i> |
| 3:00-3:20 | Brad Kroupa and Whirl Wind Bull: <i>Empowerment through Community: The Arikara Community Action Group</i> |
| 3:20-3:40 | Sebastian Braun: <i>Seeing with Open Ears. An Afternoon in Cannon Ball with Parks and DeMallie and What it Taught Me about their Work (and Mine)</i> |
| 3:40-4:00 | Laura L. Scheiber: <i>Anthropology Genealogies, Generations, and Heritage</i> |

Session 23, Van Gogh-Remington Room

Symposium: *Rock Art Research and Current Issues on the Plains*
Mavis Greer and James D. Keyser, Organizers

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| 1:00-1:20 | Jack W. Brink: <i>New Discoveries in Vertical Series Rock Art in Alberta</i> |
| 1:20-1:40 | Lawrence Loendorf: <i>Hole in the Wall Rock Art Sites</i> |

- 1:40-2:00** Bob Dawe: *An Interpretation of the Rock Art Panel in the Haven Site at Writing-on-Stone*
- 2:00-2:20** Linea Sundstrom: *Wind River to Oaxaca: A Uto-Aztec Macrotradition Expressed in Western Wyoming Rock Art*
- 2:20-2:40** **BREAK**
- 2:40-3:00** Mavis Greer and John Greer: *Pinnacle Rocks, the Newspaper Rock of Eastern Wyoming*
- 3:00-3:20** James D. Keyser: *Late Blackfoot Art on the Kevin Rim*
- 3:20-3:40** Bonnie Smith: *The Return of Greybull South: An Illustration of Good Museum Stewardship*

Session 24, Picasso Room

Symposium: *Central Plains Tradition East of the Missouri River: History, Current Assessments, Implications, and Future Research Directions*

John Hedden and Larry Grantham, Organizers

- 1:00-1:20** John Hedden: *A Brief History of Central Plains Tradition Research in the State of Iowa: If 140 Years is Brief*
- 1:20-1:40** Joseph Tiffany: *The Glenwood Locality Settlement System Reviewed*
- 1:40-2:00** Joe Artz: *GIS Analysis of Nebraska Phase House Floor Plans on the Missouri River in Nebraska and Iowa*
- 2:00-2:20** Seraphina Carey and Warren Davis: *Central Plains Tradition Sites in Fremont, County, Iowa: The Nebraska Phase outside of the Glenwood Locality*
- 2:20-2:40** **BREAK**
- 2:40-3:00** Larry Grantham: *The Cobb Site, Atchison County, Missouri: Nebraska Phase in Northeast Missouri*
- 3:00-3:20** Warren Davis: *The Architecture of the Steed-Kisker Phase and Its Connections to the Central Plains Tradition*

3:20-3:40 John Hedden and Dan Horgen: *Nebraska Phase Steed-Kisker Cultural Relationships in the Glenwood Locality of Iowa*

SATURDAY MORNING, OCTOBER 7, 2017

Session 25, Da Vinci Room

General Session: *Great Plains Archaeology, Part II*

Amy Bleier, Moderator

- 8:00-8:20** Cherie Haury-Artz: *Iowa in the Time of Shakespeare: Partnering Outside the Box to Expand the Range of Archaeology Education*
- 8:20-8:40** Rob Bozell, Phil Geib, Matthew E. Hill, Jr., Adam Wiewel and Courtney Ziska: *New Archeological Investigation of Apache Life in the Nebraska Sand Hills*
- 8:40-9:00** William Eckerle and Dan Eakin: *Geoarchaeology of the Fort Laramie 1851 Horse Creek Treaty Site, Morrill, Nebraska*
- 9:00-9:20** Rachael Shimek: *A Dog's Life: The Archaeological Record of Canids in Wyoming*
- 9:20-9:40** Delaney Cooley: *A Lithic Analysis Examining Possible Ute Emergence in Western Colorado*
- 9:40-10:00** **BREAK**
- 10:00-10:20** George Holley and Michael Michlovic: *New Perspectives on the Late Prehistoric Period of the Northeastern Plains*
- 10:20-10:40** Lowell Blikre: *Results of Excavations at the Monte Site, 21CP68*
- 10:40-11:00** Bob Dawe, Carmen Li, and Darren Tanke: *The Recovery, for Museum Display, of a 1,600 Year Old Roasting Pit Feature from Head-Smashed-In Buffalo Jump*

11:00-11:20 Lauren W. Ritterbush and Jakob Hanschu:
*Researching and Preserving Burial Mounds: An
Investigation in the Flint Hills*

Session 26, Rembrandt Room

General Session: *Village Archaeology*

Fern E. Swenson, Moderator

- 8:00-8:20** Susan Vehik, Sarah Trabert, Stephen Perkins,
Richard Drass, and Sheila Savage: *Twin Villages?
The Bryson-Paddock and Deer Creek Sites*
- 8:20-8:40** Rigden A. Glaab: *Fortification Hill: The History
and Evaluation of a Mandan Defensive Structure*
- 8:40-9:00** Jo Ann Kvamme and Kenneth Kvamme:
*Geophysical Investigations at Molander Earthlodge
Village in Oliver County North Dakota*
- 9:00-9:20** Dennis Toom: *The Role of the Field Camp in Heart
River Phase Settlement and Subsistence Patterns*
- 9:20-9:40** **BREAK**
- 9:40-10:00** Kerry Lippincott: *Ornamentation on Northern
Plains Marine Shell Face Gorgets*
- 10:00-10:20** Adam Wiewel and Rebecca Fritsche Wiewel:
*Remote Sensing Investigations of the Arzberger Site
(39HU6)*
- 10:20-10:40** AmySue Greiff, William Green, and Erica
Rodenbeck: *Osteometric Analysis of Canid Remains
from the Cheyenne River Site*
- 10:40-11:00** Faith Macdonald, Kevin Braun, and William Green:
*Mapping Subsistence Patterns at an Arikara Site
Using GC/MS Pottery Lipid Residue Analysis*

SYMPOSIA ABSTRACTS

Recent Archaeological and Geophysical Research at Chief Looking's Village, a Sixteenth-Century Earthlodge Community in Burleigh County, North Dakota

Symposium 1 (Thursday morning)

Organized by Mark D. Mitchell (Paleocultural Research Group)

In 2015 and 2016, a multi-institution research team led by Paleocultural Research Group carried out a study of household variability—the first of its kind in the Heart River region—at Chief Looking's Village, a sixteenth-century Mandan community currently owned and managed by the City of Bismarck, North Dakota. In addition to its research goals, the project also sought to engage a variety of local communities through regularly scheduled public tours, volunteer participation, student internships, and a video that illustrates the site and the research process. Participants in this symposium premiere the project video, outline the project's research goals, describe the geophysical results, and present data on household material variability.

Knife River Flint Quarries: New Research in the Primary Source Area

Symposium 8 (Thursday afternoon)

Organized by Damita Engel (Metcalf Archaeological Consultants, Inc.)

Since the oil boom began in 2011 in Dunn County, archaeologists have had the opportunity to conduct new survey, testing and mitigation research within the Knife River Flint Quarry primary source area (PSA). These CRM-based projects have expanded our understanding of the nature and composition of the quarry areas, including new temporal data. This symposium will cover the new archaeological, geoarchaeological, and predictive model research conducted in the PSA as well as the larger Dunn and Mercer County areas. We will explore what we have discovered and where the research diverges from previous studies. Finally, we will have an open-forum discussion of where future KRF quarry research will be headed.

Taking a Closer Look: Archaeometry and Statistical Analyses on the North American Great Plains

Symposium 17 (Friday morning)

Organized by Whitney A. Goodwin, (Southern Methodist University), Abigail E. Fisher (Southern Methodist University), and Kacy L. Hollenback (Southern Methodist University)

Archaeometry, essentially archaeological science, uses scientific techniques to answer anthropological research questions. Similarly, statistical analyses draw on fields beyond archaeology to interpret our complex and fragmentary datasets. While certain techniques have a long history of application on the Great Plains, recent advances take advantage of new datasets and, in some cases, entirely new methods. Statistical analyses are also rapidly changing, enabling us to better model and understand human behavior. This symposium brings together researchers using varied scientific and statistical analyses to address a wide range of topics across the Plains. Archaeological materials analyzed also vary – from ceramics and obsidian to faunal materials and soils. The papers are united by their commitment to answering questions about life on the Plains using the best available tools from archaeology and beyond.

Tribal Consultation and Section 106: A Tribal Perspective

Symposium 20 (Friday afternoon)

Organized by Jon Eagle (Standing Rock Sioux Tribe Tribal Historic Preservation Office), Ben Rhodd (Rosebud Sioux Tribe Tribal Historic Preservation Office), Dianne Desrosiers (Sisseton-Oyate Tribal Historic Preservation Office), Calvin Grinnell (Mandan Hidatsa Arikara Nation), Kelly Morgan (Standing Rock Sioux Tribe Tribal Historic Preservation Office), Steve Vance (Cheyenne River Sioux Tribe Tribal Historic Preservation Office), Erich Longie (Spirit Lake Sioux Tribe Tribal Historic Preservation Office) Tribal Historic Preservation Office), Mary Ann Black Bull (Spirit Lake Sioux Tribe)

Moderated by Jeani Borchert (North Dakota Department of Transportation) and Stephanie Stoermer (Federal Highway Administration)

The Tribal Consultation Committee (TCC) of the Federal Highway Administration/North Dakota Department of Transportation has determined that a direct approach addressing the anthropological/archaeological community to discuss tribal consultation and its significance to indigenous people is warranted at this time. This symposium will present the tribal perspective on consultation requirements, functions and processes, and their obligations to the past, the living people, and their future. They will speak to their perspective and commitment to protection of sites of religious and cultural significance. They will give an example of sites of concern to the tribes with a presentation on Grandmother's Lodge. Lastly, a dialogue and discussion of the perspective on eligibility and the National Register of Historic Places criteria will ensue. The presenters and panel members represent the Sisseton-Wahpeton Oyate, Standing Rock Sioux Tribe, Mandan Hidatsa and Arikara Nation, the Rosebud Sioux Tribe, Cheyenne River Sioux Tribe, Spirit Lake Sioux Tribe, Federal Highway Administration, and the North Dakota Department of Transportation.

At the Crossroads of Plains American Indian Culture, History, and Language: Exploring Contributions of Raymond J. DeMallie and Douglas R. Parks in Anthropological and Archaeological Discourse

Symposium 22 (Friday afternoon)

Organized by Laura Scheiber (Indiana University) and David Posthumus (University of South Dakota)

The influence of Indiana University's Raymond DeMallie and Douglas Parks on Plains American Indian anthropology and linguistics is pervasive and significant. Their work is distinctive but complementary. DeMallie focuses on the Lakotas or Western (Teton) Sioux, conducting fieldwork on various Lakota reservations and exploring kinship, spirituality, economy, and language from ethnohistorical perspectives. Parks's work centers on Caddoan languages and cultures, specifically the Pawnees and Arikaras, among whom he conducted fieldwork for nearly 50 years. This panel explores the legacies and contributions of these

well-respected scholars from diverse viewpoints, illustrating the continuing relevance and impact of DeMallie and Parks on Plains American Indian anthropology and ethnohistory. Their synthetic approaches are also salient for archaeologists who reconstruct the past using their own combination of narrative and analysis. In order to remain a vibrant field, anthropologists should embrace their differences in methodologies and scale and continue to work together and with stakeholder communities.

Rock Art Research and Current Issues on the Plains

Symposium 23 (Friday afternoon)

Organized by Mavis Greer (Greer Archeology) and James D. Keyser (Oregon Archaeological Society)

Rock art is the focus of a variety of projects ranging from locating and recording for purposes of expanding the database of known sites to in-depth analyses contributing to our understanding of the many past and present Plains cultures. Presentations of different projects occurring in the region provide insights for an informed and inclusive understanding of regional cultures and provide comparable data for current directions in recording and preservation. The variety of work occurring on this site type across the Plains informs on the progress being made in conservation, preservation, and interpretation.

Central Plains Tradition East of the Missouri River: History, Current Assessments, Implications, and Future Research Directions

Symposium 24 (Friday afternoon)

Organized by John Hedden (University of Iowa) and Larry Grantham (Gauss Archaeology LLC)

In 1943 Waldo Wedel noted that “There is no longer any question, that the Missouri River bluffs zone between Kansas City and Omaha was the habitat at one time to one or more peoples contemporaneous with the Nebraska Culture. It is evident too that considerable intercourse must have taken place between the various groups concerned, though it is not now possible to appraise its extent and its effects on the participating peoples” (Wedel

1943:214). After 75 years archaeologists are still appraising the extent and effects of the interactions between the populations that occupied this region early in the last millennium. Sites associated with the Central Plains tradition are widespread throughout Kansas and Nebraska along the west side of the Missouri River. To the east of the river however, these sites cluster in the Glenwood Locality in Iowa and occur sporadically near the Missouri River in extreme southwestern Iowa and northwestern Missouri. This symposium will examine the nature and extent of sites associated with the Central Plains tradition located east of the Missouri River, and what these sites can inform us on concerning the interactions of populations that inhabited the region.

FOCUS GROUP

WyoARCH: Increasing the Impact of Archaeological Repositories through Spatially-Enabled Collections Management

Session 6 (Thursday morning)

Organized by Marieka Arksey (University of Wyoming Archaeological Repository)

The University of Wyoming Archaeological Repository (UWAR) is the largest archaeological collection and the only federally-regulated repository in Wyoming, providing an unprecedented centralized location for researchers and the public to discover and engage with the over 14,000 years of human occupation in this part of North America. However, the current collections management system at UWAR does not facilitate public dissemination of this data, nor does it enable curatorial staff the ability to properly support researchers, educators, or the public in making effective use of the collections. The Wyoming Archaeological Research and Community Hub (WyoARCH) project seeks to resolve this situation through a collaboration between UWAR and the Wyoming Geographic Information Science Center (WyGISC) to develop a public access interface to interact with a new spatially-enabled collections management system.

FORUM

A Tribute to the White-Bearded Plainsman: Reminiscences on the Life and Career of W. Raymond Wood

Session 10 (Thursday afternoon)

Organized by Fred Schneider (University of North Dakota) and
Kacy L. Hollenback (Southern Methodist University)

Dr. W. Raymond Wood has a record of research, publication, teaching, mentoring, and friendship that is wide reaching and significantly influential, especially on the North American Great Plains. This forum is not a festschrift. There are no formal papers. This is a means by which the Plains Anthropological Society membership can say “thank you” and honor the man, the myth, the legend. Individuals are invited to briefly speak (10 minutes or less) about how or in what manner Dr. Wood has influenced their lives, such as experiences in the classroom, the field, at conferences, etc. PowerPoint presentations with photographs are welcome. Proceedings will be video recorded. This and a special gift from all will be presented to Dr. Wood.

ROUNDTABLES

Digital Lithic Raw Material Reference Collections: Join the Round Table Discussion

Session 12 (Thursday afternoon)

Moderated by Sara Anderson (University of Nebraska)

Over the past decade, several lithic raw material reference collections from the upper Midwest have been organized and made available for archaeological research. These resources vary from web-based assemblages to CD resources to paper copies and all have proved effective and useful. Participants at four upper Midwest lithic workshops have agreed that providing lithic raw material information and access through current and expanding digital media is the most effective way to reach the widest audiences. These biannual gatherings have yielded a loose set of guidelines regarding collection contents and displays that would be useful to archaeological research on a variety of lithic topics. Functional standards for digital dissemination have yet to be established. This round table will be devoted to discussing deployment via extant media, best practices, and issues around creation, management and sustainability. Join your lithic colleagues and help produce a working document that will guide the construction, establishment, and continuation of lithic raw material reference enabling current and future archaeological research.

Honoring Our Past and Building Our Future: Arikara Youth Expressions

Session 19 (Friday morning)

Organized by Brad Kroupa (Arikara Community Action Group)

This round table will discuss a broad range of historical and modern events and issues among the Arikara Indians that are of relevance to current White Shield area high school students.

WORKSHOP

Archaeological Interpretation of Multi-Method Geophysical Surveys: A Hands-on Workshop

Session 21 (Friday afternoon)

Moderated by Lewis Somers (Archaeophysics LLC)

As we work with larger area multi-method geophysical surveys there is opportunity to better characterize features based on their spatial and geophysical context and properties with benefit to overall site understanding, research designs and opportunity for post-survey savings with highly targeted testing and excavation. We demonstrate a two-step protocol which initially examines and codifies the recognizable geophysical features in each multi-method survey. These “preprocessed” features are next examined in their spatial and geophysical context to develop a feature by feature site interpretation. A three-method geophysical survey case study of room blocks at a California Mission is used to illustrate the data processing and interactive graphical interpretation protocols and details. Architecture, feature integrity and activity areas are reported.

Software and data files are provided for participants’ personal laptops.

PAPER & POSTER ABSTRACTS

Adair, Mary (University of Kansas) and **Alexandra Kern** (University of Kansas)

Session 7: *The Linden Collection of Great Bend Materials from Rice County, Kansas*

In the 1970s, Jim and Clara Linden of Sterling, Kansas became fascinated with archaeological materials in Rice County. The fascination led to excavation and the Lindens focused their attention on two Great Bend sites: 14RC301 (Saxman) and 14RC420 (Crandal), excavating a total of 9 cache pits. They received advice and training in excavation techniques from the Kansas State Historical Society and corresponded on several occasions with Waldo Wedel of the Smithsonian Institution. In 2016, the children of the late Jim and Clara Linden donated the extensive collection to the University of Kansas. This poster introduces the collection and highlights artifacts indicative of trade with the Southwest, the use of exotic lithic raw materials, the notable bone tool assemblage, and the presence of Spanish chain mail. The collection provides data for new and significant research on the Great Bend culture.

Ahlman, Todd (Texas State University) and **Mark L. Howe** (International Boundary and Water Commission, United States Section, U.S. State Department)

Session 9: *Fort Brown, Sunken Ships and the Search for the Lost Dump*

Fort Brown was a United States Army installation from 1846 until 1944, located in Brownsville, Texas along the Rio Grande River across from Matamoros, Mexico. Investigations in 2012 were to locate a dump that was said to consist of military equipment and other trash buried along the river after the Fort was abandoned. Our survey and testing found only 1950 to today's trash. Recently, work has been conducted on our river levee for repairs due to slippage. We know of the location of the Gunboat Rio Bravo and a Civil War artillery position near old Fort Brown. Analysis of maps have also found locations of six unknown sunken

boats near the current river levee and a local park. This paper will discuss the area of Fort Brown and the historical significance of this area from 1846 to today.

Ahlman, Todd, see Howe, Mark L.

Ahumada, David (Minnesota State University Moorhead), **Dominic Mugavero** (Minnesota State University Moorhead), **Karl Leonard** (Minnesota State University Moorhead), **Aishat Olowoshile** (Minnesota State University Moorhead), and **George Holley** (Minnesota State University Moorhead)

Session 16: *The Development of the Landscape at the MSUM Regional Science Center and its Influence on the Occupation of Indigenous Peoples: Interpreted from Lake Agassiz Shoreline and Recent Deposits*

This is part of an interdisciplinary project to study the influence of landscape evolution on the occupation and activities of indigenous people in the area that is now occupied by the MSUM Regional Science Center. Archeological sites have recently been discovered at the RSC, and the sites involved in this study are associated with a buried horizon that has been dated using OSL (optically stimulated luminescence) to be 8,340 years old. Core samples taken in close proximity to the archeological sites are currently being analyzed and used to correlate this horizon to other potential sites in the area. The preservation of remnant topography appears to play a role in the study horizon, so these methods may aid in the discovery of new sites, and provide new insights about the relationship of ancient indigenous people and the environment.

Alex, Lynn M., see Nadel, Samantha

Anderson, Sara (University of Nebraska, Lincoln), **Amy Neumann** (University of Nebraska, Lincoln), **Catherine Elliot** (University of Nebraska, Lincoln), and **Effie Athanassopoulos** (University of Nebraska, Lincoln)

Session 7: *Campus Archaeology: Historic Ceramics from an Early Lincoln Neighborhood*

In May 1997 a cistern filled with household debris was exposed during the expansion of the University of Nebraska, Lincoln's Student Union. The recovered artifacts consist of various historic materials, especially a wide variety of ceramics. In 2016, UNL students began reassessing the assemblage to create a digital exhibit. Here, we are presenting a summary of the diagnostic tableware ceramics.

The ceramics found in this cistern suggest the moderate wealth of at least one the households in the area (e.g. porcelains and a Chinese teapot). While the majority of the ceramics in the assemblage are white-bodied wares with minimal to no decoration, many of the undecorated ceramics share common diagnostic features but come from different manufacturers. In addition, there are several transfer printed whitewares with various floral designs with little evidence of them belonging to sets. The cistern provides a glimpse at daily life in an early Lincoln neighborhood.

Athanassopoulos, Effie, see Anderson, Sara

Athanassopoulos, Effie, see Robison, Jade

Artz, Joe (EarthView Environmental, Inc.)

Symposium 24: *GIS Analysis of Nebraska Phase House Floor Plans on the Missouri River in Nebraska and Iowa*

About 30 floor plans of excavated, Nebraska Phase houses were scanned from “gray literature” reports from the Omaha vicinity and across the Missouri River in the Glenwood Locality. Plans were georeferenced to a single scale for spatial analysis of floor area, floor plans, and the spatial distribution of posts and pits. Locations of the house localities were also digitized as precisely as possible using LiDAR imagery to match locations and landscape positions shown on site maps. The association of each house with defined localities were coded in the tabular data. Results indicate potentially significant patterning in the distribution of large lodges; pit diameter and estimated storage capacity; and idiosyncrasy of wall patterns and entry ways.

Artz, Joe (EarthView Environmental, Inc.)

Session 9: *Using GIS to Rediscover and Reimagine the 1846-1847 Route of the Mormon Trail across Southern Iowa*

From 1846-1847, thousands of Mormons, members of the Church of Jesus Christ of the Latter Day Saints, emigrated from Nauvoo, Illinois, on the Mississippi River, to a new home in Salt Lake City, Utah, blazing a series of trails across southern Iowa. The route is remarkably well-documented. GLO surveyors recognized traces of the trail and mapped its route across most of the state, accurately plotting where the trail crossed section lines. In addition, modern LiDAR imagery has revealed many instances of preserved road ruts, as well as providing a detailed model of the terrain traversed by Mormon wagon companies. This paper uses least cost analysis and other GIS techniques to attempt to identify specific pathways the caravans may have followed in traversing the Iowa wilderness.

Banks, Benjamin D., see Bunch, Jeffrey T.

Banks, Kimball (Metcalf Archaeological Consultants, Inc.) and

Dante Knapp (Metcalf Archaeological Consultants, Inc.)

Symposium 8: *This Is the Pits: Modeling Site Distribution in the Knife River Flint Quarry Area, North Dakota*

The Knife River Flint Quarry Area in western North Dakota is arguably the largest Native quarry in North America. The material was actively quarried from the Paleoindian period into the Protohistoric. Quarry sites are distinguished by the presence of numerous pits of varying sizes. Although a considerable amount of work has been done in the quarry area, the distribution of such sites is still poorly understood. Metcalf Archaeological Consultants, Inc. is in the process of completing a project that models the distribution of sites, both surface and buried, and natural KRF in the quarry area. This study was undertaken at the behest of the North Dakota Department of Transportation so that project managers and planners can assess the potential of projects to encounter significant resources.

Banks, Kimball, see Metcalf, Michael

Barnett, Ashley, see De Vore, Steven

Batisky, Jacob, see Jacobs, Sarah A.

Batisky, Jacob, see Van Etten, Heidi

Beck, Margaret (University of Iowa) and **Adrien Hannus** (Augustana University)

Session 4: *Mississippian Interaction and Red-slipped Ceramics in the Middle Missouri Tradition*

In the mid-continental U.S., red-slipped ceramics first appeared in the American Bottom before A.D. 1000. These ceramics and the technology to produce red slips spread to adjacent areas, including parts of the Great Plains. This study focuses on the spread of slipping technology to the Northern Plains, evaluating slip attributes and paste attributes (using petrographic analysis) of red-slipped ceramics to distinguish locally produced ceramics from American Bottom imports. Petrographic samples come from the Initial variant of the Middle Missouri tradition, including eastern (Mill Creek in Iowa) and western (Lower James River in South Dakota) sites. Red slips, like other American Bottom ceramic traits, spread alongside exchange relationships and other interactions. The use of slips seems to have spread differently than (and separately from) the use of shell temper.

Behling, Emma (Augustana University) and **Adrien Hannus** (Augustana University)

Session 4: *Experimental Recreation of Shell Fishing Implements at Mitchell Indian Village in South Dakota*

Over the years of excavation at the Prehistoric Indian Village at Mitchell, several similar shell artifacts were discovered. Excavators came to the hypothesis that the shell items had been fishing lures, and set out to test it. The shell artifacts were replicated and used as lures on several fishing expeditions. These

shell items functioned as lures, and we are led to believe that the artifacts found at Mitchell could indeed have been fishing lures.

Leland Bement (Oklahoma Archeological Survey), **Kristen Carlson** (Augustana University), and **Brian Carter** (Oklahoma State University)

Session 3: *Bull Creek: A Stratified Late Paleoindian Camp in the Oklahoma Panhandle*

This presentation outlines the results of four years of excavation at the Bull Creek, Late Paleoindian camp, in the panhandle of Oklahoma. Dominated by bison in the lower camp level, an upper camp occupation indicates a more general diet, challenging presumptions concerning Paleoindian diet. Spatial analysis of surrounding sites provides a broader picture of the overall landscape in which the Bull Creek region was inhabited. We provide further data including new dates and isotope results, as well as detailed bone tool analysis.

Bement, Leland, see Davis, Joshua

Bement, Leland, see Larrick, Dakota

Bement, Leland, see Munger, Tressa

Bement, Leland, see Tharalson, Kirsten

Benson, Elijah (Mandan Hidatsa Arikara Nation) and **Justin Deegan** (Thunder Revolution Studio)

Symposium 1: *Chief Looking's Village Project Video*

Community outreach and engagement through multiple media is a central goal of the Chief Looking's Village project. Video is one of the most effective ways to communicate a sense of place and to illustrate the process of scientific research. The Chief Looking's Village Project video introduces viewers to the site and its history and immerses them in the process of archaeological discovery. Produced by members of the Mandan Hidatsa Arikara

Nation, the video brings a fresh perspective to Northern Plains archaeology that is designed to engage a diverse audience.

Benson, Elijah, see Grinnell, Calvin

Bethke, Brandi (Oklahoma Archeological Survey)

Session 7: *Vertebrate Faunal Remains from the 2013 Excavations at the Boarding School Site, Glacier County, MT*

This poster presents results from the analysis of the vertebrate faunal assemblage recovered from the 2013 excavations at the Cut Bank Creek Boarding School Site (24GL302), located on the Blackfeet Indian Reservation in Glacier County, MT. Excavations at the site took place following the inadvertent discovery of a large bone bed initially unearthed by the construction of the foundation for a new school being built on the site. Specimens identifiable to species indicate that the assemblage is made up primarily of bison remains, followed by cow, deer, wolf/dog, and elk. The assemblage most likely represents contexts associated with both the adjacent Late Precontact period bison kill site first excavated by Thomas Kehoe in the 1950s and the historic occupation of the site during its use as a boarding school for Blackfeet children during the first half of the 20th century.

Beyer, Morgan (Midwest Archeological Center)

Session 4: *What to Expect When You're Collecting: Tips for Processing Legacy Collections*

Legacy collections are something that many museums and collections centers will have to deal with over the course of their existence. These types of collections are often poorly stored, dirty, and infested with both bugs and rodents. Knowing where and how to start processing these collections, especially if they are large, can be very difficult and the roadblocks that can come up are numerous. In this poster I will outline some of the steps that need to be taken in order to effectively take on the processing of one of these collections, from its arrival at the center to its curation and storage. Each legacy collection presents a unique set of issues, but

having them in your larger curated collection can be easier than you think.

Blackaby, Emily, see Hockaday, William

Blakeslee, Donald (Wichita State University)

Session 9: *Fieldwork At Etzanoa, 2017*

Etzanoa is a native name for a town visited by Juan de Oñate in 1601. In 2017, the Wichita State field school concentrated its efforts in the excavation of a midden mound and associated features in a portion of the site that has never been plowed. We were joined for two weeks by the University of Colorado field school in this effort. The excavation units encountered a dense concentration of features, all of which were pits. This presentation illustrates the features and some of their contents. New information about the scale of the town(s) in the Walnut River valley is discussed.

Blikre, Lowell (Bear Creek Archeology)

Session 25: *Results of Excavations at the Monte Site, 21CP68*

The Monte site (21CP68) is located at the downstream side of the confluence of the Chippewa River with the Minnesota River in southeastern Minnesota. Corps of Engineers-sponsored archeological excavations conducted by Bear Creek Archeology at the Monte site resulted in the identification and sampling of six cultural component bearing soils. At this stratified site, Fox Lake components are present in the lower excavated soils, with Lake Benton materials above that, and Cambria and Oneota components in the upper soils. This presentation will describe the geomorphological context of the site, detail some of the artifacts and features, and summarize the results of the various analyses.

Borchert, Jeani (North Dakota Department of Transportation) and **Kelly Morgan** (Standing Rock Sioux Tribe Tribal Historic Preservation Office)

Symposium 20: *Tribal Consultation: Building Relationships in the Field*

This paper will discuss the current method of tribal consultation used by the North Dakota Division of Federal Highway Administration and the North Dakota Department of Transportation. This process was initially designed by eight regional tribes (currently 16 tribes are actively participating) and the agencies from 2004 to 2006. Since that time we have met at least twice a year at meetings hosted by the NDDOT. At these meetings we discuss NDDOT projects and cultural resource topics of regional interest and concern. This group setting has allowed tribes to formulate solutions to a variety of cultural resource issues. The tribes have worked together and come to consensus on recording and evaluating stone feature sites and the agencies have worked with them to have tribal specialists in the field. In this process tribes are not observers or commenters, but full partners with the agencies, directing protection of cultural resources tied to the ancestors.

Boulanger, Matthew (Southern Methodist University), **Kacy L. Hollenback** (Southern Methodist University), and **Fern E. Swenson** (State Historical Society of North Dakota)

Symposium 17: Revisiting and Integrating Compositional Ceramic Datasets on the Northern North American Great Plains

Numerous compositional ceramic datasets now exist for the Great Plains, making intra-, sub-, and inter-regional comparisons possible. Here, we report on the compilation and analysis of all available neutron activation results from ceramic and clay studies carried out on the northern Plains between 1996 and 2015. Initial findings reveal meaningful variability related to selection and use of clay sources as well as the amount of temper added to these clays. We propose that this variability may reflect behavioral differences in ceramic traditions. Looking forward, we present suggestions for future sampling strategies and studies.

Boulanger, Matthew, see Breslawski, Ryan

Bozell, Rob (Nebraska State Historical Society), **Phil Geib** (University of Nebraska, Lincoln), **Matthew E. Hill, Jr.** (University of Iowa), **Adam Wiewel** (National Park Service, Midwest Archeological Center), and **Courtney Ziska** (Nebraska State Historical Society)

Session 25: New Archeological Investigation of Apache Life in the Nebraska Sand Hills

By the 1600s and perhaps earlier, Apache groups (aka Dismal River Aspect) settled into the Nebraska Sand Hills and Panhandle. Initial excavations of Dismal River sites in Nebraska took place in the 1930s and 1940s (covered in extensive syntheses by Gunnerson, then Trabert) with only limited fieldwork since then. In 2017, the Nebraska State Historical Society, the National Park Service, and the University of Iowa teamed up to complete test excavations at the Humphrey site located in the central Nebraska Sand Hills. Geophysical work suggested domestic structure floors are buried at the site and test excavations confirmed it. Excavations focused on testing three ‘lodges’ which revealed a diverse lithic, ceramic, botanical, and bone inventory, prepared sandy clay floors, and complex architectural debris. Clearly, some Apaches were calling the Sand Hills home and not just using the region for transitory hunting and gathering expeditions. We anticipate this new work will add detail to understanding the life of Sand Hills Apaches.

Braun, Kevin, see Macdonald, Faith

Braun, Sebastian (Iowa State University)

Session 14: A Pipeline for Your Thoughts. Plains Anthropology and What We Can Learn from the "Standing Rock" Protests

While it is too early to draw historical conclusions about the Dakota Access protests, plains anthropology can draw several conclusions from the events and their larger contexts. This paper will make an initial attempt to put the discussions into an anthropological perspective, focusing on what anthropologists can and perhaps should learn from them. The focus will not be on the pipeline itself, and the ongoing litigation, but on the response by

anthropologists and the larger public, as well as the impacts on communities and anthropology.

Braun, Sebastian (Iowa State University)

Symposium 22: *Seeing with Open Ears. An Afternoon in Cannon Ball with Parks and DeMallie and What it Taught Me about Their Work (and Mine)*

Douglas Parks' and Raymond DeMallie's work obviously stands out in contemporary Plains anthropology. This paper tries to examine an aspect beyond academic, published work; as important, or more, and laying the foundation of their academic careers were their personal interactions with people in communities and students. Taking as an example an afternoon during the last Plains Anthropology meetings in Bismarck, a trip to Cannon Ball, this paper attempts to explain the larger impact of Ray DeMallie and Doug Parks from a personal aspect. The invaluable aspect of their work that has been and continues to be their personal example is often forgotten, yet remains a shaping force in plains anthropology and beyond.

Breslawski, Ryan (Southern Methodist University), **Bonnie Etter** (Southern Methodist University), **Ian Jorgeson** (Southern Methodist University), and **Matthew Boulanger** (Southern Methodist University)

Symposium 17: *The Atlatl to Bow-and-Arrow Transition: What Can We Learn from Modern Recreational Competition Data?*

The transition from the atlatl to the bow-and-arrow happened numerous times in prehistory and often in tandem with changing social complexity. Recent work relying on longitudinal scores from recreational archery and atlatl competitions suggests that changes in social complexity arose due to between-technology differences in learning rates: bows take more time to master, and thus their benefits are not as easily obtained as those of atlatls. We show that the learning curves underpinning this conclusion do not account for inter-competitor variability in learning rates and that critical sources of uncertainty were omitted from the analysis. We use multilevel models to carry out an analysis of the score data that

circumvents these problems. The multilevel models indicate that at best, the modern recreational data are consistent with similarly modest score gains for both technologies. These modest gains are probably unrelated to learning.

Breslawski, Ryan, see Jorgeson, Ian

Brink, Jack W. (Royal Alberta Museum)

Symposium 23: *New Discoveries in Vertical Series Rock Art in Alberta*

A small amount of Vertical Series rock art has been known in Alberta for many decades. Recently new VS sites have been discovered and several known sites have been revisited. The use of D-Stretch has led to new discoveries and interpretations of older sites. New VS art has been discovered on the glacially transported boulder known as the Glenwood Erratic, which is in keeping with other VS art located on glacial erratics. More surprising, a VS panel has been found mixed with Plains-style petroglyphs at Writing-on-Stone. The long-known site of the Okotoks Erratic has been extensively studied with D-Stretch and a number of unknown motifs were recorded. A few Alberta sites have only VS art, but VS style also co-occurs with Foothills Abstract style art, especially handprints, finger smears, thunderbirds, humans, and unknown objects. Although the age, tribal origins, and meaning of VS rock art remain uncertain, the shape and arrangement of specific characters in Alberta are similar to characters at other VS sites, including those more than 1200 km away in the Black Hills.

Buehler, Kent (CSARG, LLC)

Session 5: *Right In Your Own Backyard: Why Forensic Archaeology is More Than Just Recovering Remains*

Over the past 25 years, American forensic anthropologists have incorporated archaeological principles and field procedures into their case work fundamentally altering what had previously been largely a laboratory-based discipline. Unlike Great Britain where forensic anthropology and forensic archaeology are recognized as related but distinct subfields, forensic archaeology in

the U.S. is usually considered a component of forensic anthropology. Unfortunately, the archaeological “component” is sometimes looked upon as merely a set of principles/techniques whose purpose is to recover the remains, albeit precisely, so that the main objective of analyzing the remains can begin. Indeed, only recently did the Physical Anthropology Section of the American Academy of Forensic Sciences become the Anthropology Section and allow the inclusion of archaeologists. Forensic archaeology offers unique and important contributions integral to forensic investigations apart from its role as a recovery process. Using actual cases, this presentation explores some of those contributions.

Buff, Carolyn, see Walker, Danny

Bull, Whirl Wind, see Kroupa, Brad

Bunch, Jeffrey T. (Atwell, LLC) and **Benjamin D. Banks** (Atwell, LLC)

Session 4: *Bank Stabilization of the Double Ditch Indian Village Historic Site*

Following the flooding events of 2011, the bank of the Missouri River at the Double Ditch Indian Village Historic Site has been actively slumping and severely eroding at an accelerated rate. In 2015, the Atwell team commenced a multifaceted in-depth study of the site to determine the primary cause for this linear bank failure and erosion, and developed alternative stabilization solutions. The study consisted of a geotechnical investigation, lineation study, block analysis, slide analysis, and Missouri River gauge analysis. Given the cultural importance of the site, a natural bioengineered approach was proposed – proving to be less costly than a traditional hard-engineered approach, as it provided a lower, long-term maintenance and upfront cost, and restored the aesthetic integrity of this significant cultural resource. Due to the sensitivity of this significant site, all work was restricted to the west of the walking trail (old 1804 Highway bed) to the river bank’s edge.

Burnett, Paul (SWCA Environmental Consultants)

Session 13: *A Possible Celestial Rock Alignment in the Scoria Hills of Northeastern Wyoming*

Recent surveys in the Scoria Hills north of Gillette, Wyoming resulted in the documentation of an unusual rock alignment site. The site, 48CA7272, is located around a red clinker-covered knoll, on a prominent bench overlooking the Horse Creek valley to the south. Four small rock piles, each containing at least one bright red clinker nodule, are aligned with the red bedrock outcrop capping the knoll. Combined, this alignment corresponds to the angle of the sunrise of the winter solstice and the sunset of the summer solstice. Also present is a well-defined, multi-coursed stone circle, a Late Archaic corner-notched dart point, and an associated lithic scatter featuring predominantly local porcellanite.

Burt, Amanda (Indiana University)

Symposium 22: *Animals Understood: Ethnohistoric Investigations into Indigenous Peoples and the Perceived Powers of the Natural World*

One of the legacies of Raymond DeMallie and Douglas Parks' work for archaeologists is that they taught us the importance of incorporating Native language and perspective to gain a more textured understanding of the past. From taboos to traditions, animals have remained a cornerstone of Native American beliefs. In this paper, I use ethnohistoric data to examine the ways that Indigenous groups perceived animals in relation to the natural world. I explore the concept of value placed on animals beyond subsistence and the fulfillment of basic human needs. Routine and complex activities of Indigenous peoples often required mediation between humans and their environment. These negotiations are better understood by investigating ways that animals were conceived by Native Americans on both real/natural landscapes and in the spiritual world. I end by summarizing my own archaeological research exploring the role of dogs among past Plains and Midwest peoples.

Burt, Amanda (Indiana University)

Symposium 17: *Friend or Foe: A Statistical Approach to Analyzing Dental Microwear Data of Domestic Dogs and Wild Canids*

In this paper, preliminary statistical analysis is used to compare tooth wear of domestic dogs to wild dogs using Dental Microwear Texture Analysis (DMTA). Research has shown that DMTA can determine the correlations and differences between tooth wear of carnivores in different ecological niches. Therefore, domestic dogs should present microwear that may be linked to the provisioning practices of their human caregivers. Understanding feeding programs as a proxy for the value of dogs among indigenous groups will contribute to ongoing investigations about human-canine interdependence. Statistical analysis is used to compare data collected from the wear textures of mandibular first and second molars of wild canids and dogs recovered from various archaeological sites. These sites represent diverse human activities including rock shelters, buffalo jumps, butchering sites, and open air camp sites of Native American groups on the Northwestern Plains and Rocky Mountains.

Carey, Seraphina (Office of the State Archaeologist, University of Iowa) and **Warren Davis** (Office of the State Archaeologist, University of Iowa)

Symposium 24: *Central Plains Tradition Sites in Fremont, County, Iowa: The Nebraska Phase outside of the Glenwood Locality*

A total of 171 archaeological sites have been recorded in Fremont County, in the far southwest corner of the state of Iowa. Of these recorded sites, 15 are attributed to the Nebraska phase of the Central Plains tradition. This cluster of Nebraska phase sites is the only known concentration of Central Plains tradition sites outside of the Glenwood locality within the state. While mentioned briefly in previous studies a detailed analysis of these sites has never been conducted. This paper will examine the identified Central Plains tradition sites in Fremont County in an attempt to provide a better understanding of the types of occupation that are represented and the variety of artifacts that have been recovered.

Carreto, Darlene, see Van Etten, Heidi

Carlson, K. C., see Larrick, Dakota

Carlson, K. C., see Munger Tressa

Carlson, Kristen, see Leland Bement

Carter, Brian, see Leland Bement

Christian, Sam (Indiana University), **Laura L. Scheiber** (Indiana University), and **Makinzie Hoagland** (Indiana University)
Symposium 11: “*Wyoming Wildfire Reveals ‘Massive’ Shoshone Camp, Thousands of Artifacts*”: *Results of Bighorn Archaeology’s 2017 Work in the Caldwell Creek Drainage, Fremont County, Wyoming*

Bighorn Archaeology has worked in the Caldwell Creek drainage of the Washakie Wilderness of the Shoshone National Forest for four years, following the Norton Point wildfire that exposed numerous previously concealed prehistoric and historic campsites. During three field seasons, we collected attribute data on tens of thousands of artifacts and conducted limited excavations. Substantial artifact analysis is ongoing. In January of 2017, an online science news site published an article based on our work, shared widely through social media. Despite the sensationalized title, the information allowed us to share our research with multiple stakeholders. We returned to the area in July to monitor potential impacts to the area. We also shifted our focus to other Late Prehistoric sites in the drainage. In this presentation, we summarize the results of site monitoring and testing, as well as discuss the implications of public archaeology and site disturbance.

Cloud, William A., see Howe, Mark L.

Cooley, Delaney (University of Oklahoma)

Session 25: *A Lithic Analysis Examining Possible Ute Emergence in Western Colorado*

To explain the historic distribution of Numic speakers across the American West, researchers hypothesized the Numic Expansion, a large-scale movement of people between A.D. 900 and 1300. Despite evidence to support this narrative, it remains difficult to identify the arrival of specific groups like Ute of Colorado. This research expands on previous investigations by re-examining two excavated sites: Christmas Rockshelter (5DT2) and Shavano Spring (5MN40). In my analysis, I compare lithic procurement and production strategies through time and between the two sites to characterize the degree of continuity or lack thereof. My results identify changes to projectile point and biface production and raw material selection strategies that are unique to occupations occurring during and after the Numic Expansion. I argue these differences represent changes in the area and broader region and may reflect the movement of people, development of new communities, and exchange of materials, ideas, and knowledge.

Cory, Mackenzie J. (Indiana University)

Symposium 22: *Creating Childhood: Comparing an Idealized Childhood of High Plains Oral History with Early European Reports*

Much of the legacy of Dr. Raymond DeMallie and Dr. Douglas Parks' research in the Northern Plains comes from their careful documentation and translation of traditional stories of the Sioux and Arikara. In this paper I make use of their respective works to examine a largely neglected aspect of Plains ethnography: the imagining of childhood. I suggest that the collected histories and legends point to an idealized version of childhood. This concept can in turn be compared to how children were treated in the late 19th and early 20th centuries based on both early European ethnographies and early native biographies. An understanding of the differences between the idealized belief of childhood and the actual practice of it will allow us to further our understanding of

how all people made use of physical and cultural landscapes, which in turn has utility in our interpretation of anomalous features in the archaeological record.

Cory, Mackenzie J. (Indiana University)

Symposium 11: *Embracing Pedagogy: Why the Archaeological Field School Matters in Today's University System*

Although archaeological field schools are widely accepted as a prerequisite for employment, a disconnect has developed between universities sponsoring these courses and the instructors who teach them. Field schools are unique experiential learning opportunities, the value of which can be difficult to communicate to university administrators. Instead of thinking of field schools as a means to teach skills necessary for future employment, we need to engage with critical pedagogies that help us to better translate the utility of field schools in an era of financial shortfalls and Responsibility Centered Management budget models in higher education. In this presentation, I discuss how the Bighorn Archaeological Field School not only trains students in field techniques but also embraces a more critical approach by taking into account students' experiences and preconceptions. We focus discussions around media, ideology, race, and other factors that shape perceptions of the western plains and mountains where we work.

Cory, Mackenzie J., see Salomon, Madison

Cory, Mackenzie J., see Van Alst, Emily C.

Cummings, Linda Scott (PaleoResearch Institute), **R. A. Varney** (PaleoResearch Institute), **Thomas W. Stafford, Jr.** (Stafford Research, LLC), **Robert Speakman** (CAIS, University of Georgia), and **Donna Roper** (Kansas State University [deceased])
Session 5: *Charred Food Crust and Mixed Carbon Reservoirs: Integrating Carbon from Freshwater Reservoirs and the Atmosphere*

Sources of carbon in the northern and central Plains represent unique challenges for interpreting the archaeological radiocarbon record. Carbon sources include, at least, carbon dioxide from the atmosphere—the obvious carbon source upon which radiocarbon dating is predicated. Other sources of carbon include dissolved inorganic carbon (DIC), which is part of the freshwater reservoir system and has been discussed in the literature for decades. Dating charred food crust obtained from ceramics has yielded age-appropriate and discrepant dates. In addition to reviewing data from both charred food crust and reference materials, we present an invitation to submit samples for an NSF-funded study that continues examination of charred food crust radiocarbon dates. Existing charred food crust, ceramic residue, and annual dates from the Northern and Central Plains are reviewed by geographic area. Goals of the NSF-funded study are presented, with guidelines for submitting archaeological samples to be included (free) in the study.

Dalan, Rinita (Minnesota State University Moorhead), **Carly DeSanto** (Minnesota State University Moorhead), and **Amy Woodruff** (Minnesota State University Moorhead)

Symposium 1: *Subsurface Magnetic Susceptibility Studies at Chief Looking's Village*

Subsurface geophysical investigations were conducted at Chief Looking's Village (CLV) as part of a project comparing material practices within the village's long-rectangular and circular four-post lodges. Surface and subsurface geophysics were used to select houses for excavation and precisely position excavations within these houses. Subsurface geophysics included downhole magnetic susceptibility tests of geophysical anomalies and transects and grids across houses, as well as magnetic susceptibility surveys within excavations. Subsurface geophysical results proved complimentary to multi-method geophysical surveys and excavations. Subsurface magnetic susceptibility investigations, although limited in areal extent, allowed mapping of thin surfaces at depth and yielded information on gradual and abrupt soil changes. They corroborated and provided precise depths and

thicknesses for lodge floors and other features, and revealed floors and features not always detected through surface geophysics or excavations. In cases of lodge rebuilding, combining these three approaches is crucial to understanding this village in transition.

Davis, Joshua (University of Oklahoma), **Leland Bement** (Oklahoma Archaeological Survey), and **Dakota Larrick** (University of Oklahoma)

Session 16: *Cold Springs Creek: A Lithic Quarry and Rock Gong Site in the Oklahoma Panhandle*

The Cold Springs Creek site is a cupule site in the panhandle of Oklahoma. This poster will cover auditory data and potential ethnographic explanations for this hard rock cupule phenomenon. Analysis includes: frequency, duration, loudness (relative), timbre, and distance (area of effect). Results suggest supported quartzite boulders create a gong-like tone. This tone could be heard at nearby archaeological sites approximately 1 km away. Cupule formation occurred prior to the use of the site for lithic procurement.

Davis, Joshua, see Larrick, Dakota

Davis, Warren (Office of the State Archaeologist, University of Iowa)

Symposium 24: *The Architecture of the Steed-Kisker Phase and Its Connections to the Central Plains Tradition*

The Steed-Kisker phase of northwestern Missouri and northeastern Kansas represent a population at a crossroads between the Central Plains tradition and those of the Mississippian cultures to the east. There has been much discussion regarding Steed-Kisker's affiliation to each of these groups, and what these sites may culturally represent. Architectural variation from these sites may provide a clue by comparison with those of nearby, temporally similar Central Plains sites. The Nebraska phase earth lodges of the Glenwood locality in southwestern Iowa present an excellent opportunity for comparing and analyzing Steed-Kisker structures with those of the Central Plains tradition.

Davis, Warren, see Carey, Seraphina

Dawe, Bob (Royal Alberta Museum)

Symposium 23: *An Interpretation of the Rock Art Panel in the Haven Site at Writing-on-Stone*

One of the largest concentrations of rock art on the Plains can be found at Writing-On-Stone on the Milk River in southern Alberta, just north of the Sweetgrass Hills in Montana. Thousands of petroglyphs have been identified here at over a hundred rock art sites. Most of these glyphs occur along the Milk River and its major tributary valleys, and have been characterized as principally of two types: either ceremonial or biographical art. At the Haven site, DgOw-79, a small rockshelter in a minor tributary valley, a sandstone panel bearing a different type of rock art has been identified. This panel incorporates what appears to be two stylistic motifs in a repetitive lattice-like geometric pattern. One of these repetitive design elements may be interpreted as a vulvaform. It is proposed here that this panel represents women's art, and the rock art style represents a marked departure from the ceremonial and biographical art found in more conspicuous locations elsewhere at Writing-On-Stone.

Dawe, Bob (Royal Alberta Museum), Carmen Li (Royal Alberta Museum), and **Darren Tanke** (Royal Tyrrell Museum)

Session 25: *The Recovery, for Museum Display, of a 1,600 Year Old Roasting Pit Feature from Head-Smashed-In Buffalo Jump*

Dozens of pre-contact pit features have been recorded during the excavations of the processing area at Head-Smashed-In Buffalo Jump. In 1990 a largely intact 1,600 year old roasting pit feature was located and left in situ as it was considered a good candidate for future display, should an opportunity present itself. In 2016 that opportunity was realized with the planned development of the new Royal Alberta Museum in Edmonton. The feature was relocated, excavated, and enclosed in a plaster jacket using a technique commonly used by paleontologists for fossil recovery. After transport, the final excavation of the feature was accomplished in the museum, allowing optimal excavation

conditions that produced some unusual results. This methodology allows the preservation and long term interpretation of archaeological material, and provides an alternative to dismantling these features as a consequence of standard research investigations.

De Vore, Steven (National Park Service), **Ashley Barnett** (National Park Service), **Holly Staggs** (National Park Service), **Gosia Mahoney** (National Park Service), and **Blair Schneider** (University of Kansas)

Session 7: *Magnetic Survey of the Fort Union Trading Post National Historic Site, North Dakota*

Dr. John Weymouth conducted the first proton magnetometer survey at Fort Union in 1977. Since then several magnetic surveys have been conducted at the park including magnetic surveys for water lines and for other compliance projects. Between 2002 and 2017, the National Park Service conducted several magnetic surveys of the terrace surrounding the Fort Union Trading Post in order to have a more complete understanding of the buried archaeological resources on the terrace. The magnetic surveys were conducted by contractors and by NPS staff. Both single and dual fluxgate gradiometers were used. A total of 353,940 m² or 87.46 acres were surveyed during a five year period. The results identified interior features within the trading post, the location of the Fort William stockade, fort-period dumps, Native American/Euroamerican campsites, the Crow-Flies-High village site, the Larpenteur's trading post, and more recent park activity areas.

Deats, Jennifer K. (University of Colorado, Boulder)
Symposium 1: *Style, Identity, and Communities of Practice: A Study of Middle Missouri Ceramics from Chief Looking's Village and the Heart River Region*

Chief Looking's Village (32BL3), an ancestral Mandan community, was occupied for a brief period in the mid-1500s, a time of change in the Heart River region. Groups from different regions were coming together to form integrated settlements, evidenced by the two contrasting housing styles found at CLV. My

goal is to identify changes in style and the construction of identity during this period of change using pottery as a proxy. I compared decorative techniques, patterning, and construction elements of CLV pottery to those of ceramics from other Heart River sites, both from contemporaneous contexts and the early 1600s, after CLV was abandoned. The diversity and patterning of designs show site-specific ties to particular motifs and wares. The more visible construction elements are variable, tied to quality of wares and the potter's skill, yet the less visible aspects of construction are more uniform, supporting the theory of intra-regional artisan communities.

Deegan, Justin, see Benson, Elijah

DeSanto, Carly, see Dalan, Rinita

Desrosiers, Dianne (Sisseton-Wahpeton Oyate Tribal Historic Preservation Office) and **Stephanie Stoermer** (Federal Highway Administration Resource Center)

Symposium 20: *Examining Historic Preservation Laws and Regulations through Different Cultural Lenses*

Historic preservation laws and regulations that explicitly require consideration of sites of religious and cultural significance and associated issues of concern for Indian tribes have only been in place for less than three decades. Although initially crafted with honorable intent, many of these laws and regulations seem to reflect the inherent biases of the dominant culture rather than the perspectives of those whose cultures, lifeways, and beliefs are most often put at risk by agency actions. By acknowledging that various processes and outcomes associated with consultation are viewed through different cultural lenses, this paper will examine the dynamics of working together within the current regulatory framework and will also explore how best to utilize existing historic preservation compliance processes to achieve the most equitable outcomes for Tribes.

Devine, Flint (University of North Dakota)

Session 18: *Decolonizing Gender and Sexuality: Cultural Education as a Tool to Improve Mental and Physical Wellness Associated with Discrimination*

American Indian and First Nations LGBTQ/Two Spirit people face multiple facets of discrimination from both inside and outside their community. Along with racial discrimination from non-Native individuals, homophobia and transphobia within the American Indian and First Nations communities, on and off the reservation, lead to a variety of health issues and harmful coping skills for Two Spirit/LGBTQ American Indians due to the mental and physical violence based on their gender and/or sexual identity. However, healthy coping skills that involve decolonization such as language revitalization and cultural education may be able to help combat the symptoms associated with historical trauma and discrimination with gender and/or sexual identity.

Drass, Richard, see Vehik, Susan

Eakin, Dan, see William Eckerle

Eagle, Jon (Standing Rock Sioux Tribe Tribal Historic Preservation Office)

Symposium 20: *Use of Tribal Knowledge in Identification and Evaluation*

This paper will discuss the Northern Plains tribal perspective on sites of religious and cultural significance under 54 U.S.C. 302706. I will discuss the tribe's ability to identify these sites. It is important to understand that we use our language, our oral histories, and our sacred knowledge to identify these resources. Further, we can evaluate these sites without having to disturb the ground. Another important aspect of this discussion is to understand our ancestral lands and how, even though we have been removed from access to many of our sacred lands, we have not forgotten the names of the creeks, lakes and rivers that cross them. Our languages were the first spoken on this land and we retain our connection to these places.

Eckerle, William (Western GeoArch Research) and **Dan Eakin** (Office of the Wyoming State Archaeologist [retired])

Session 25: *Geoarchaeology of the Fort Laramie 1851 Horse Creek Treaty Site, Morrill, Nebraska*

In early September, 1851, approximately 10,000 Native American Indians and a much smaller U.S. government contingent gathered at the Horse Creek-North Platte River confluence to sign a treaty. Contemporary accounts indicate that the signing ceremony occurred in a shade-arbor situated on the North Platte River valley bottom at the confluence of the two drainages. Geoarchaeological investigations were undertaken for the National Park Service to document the extent of post-treaty confluence migration and fluvial erosion in order to inform archaeological inventory efforts. Field results suggest that North Platte River flooding during the historic-era has reworked the river valley, potentially destroying part, or all, of the signing locus. The spatial extent of the event-campgrounds and horse pastures is estimated from NRCS mapped forage production needed to feed upwards of 10,000-20,000 horses under loose-herded management. An assessment of landform preservation and archaeological potential for the camp area is made.

Eder, Jeanne, see Hans, Birgit

Elliot, Catherine, see Anderson, Sara

Etter, Bonnie, see Breslawski, Ryan

Figueroa, Alejandro J. (Southern Methodist University)
Symposium 17 and Session 2: *Updating the Record of Paleoindian Human-Environment Relations in the Little Missouri Badlands, North Dakota*

This paper presents the latest results of a multi-year collaborative project between the U.S. Forest Service, State Historical Society of North Dakota, and Southern Methodist University centered on the Little Missouri National Grasslands (LMNG) in southwestern North Dakota. Since 2012, our project

has conducted archival research and interdisciplinary field and laboratory investigations with the goal of integrating and updating our knowledge of the human-environment relations during the Paleoindian period in the LMNG. Our work thus far has identified materials which suggest this area was occupied during the entirety of the Paleoindian period. In addition, geoarchaeological coring of upland areas of the LMNG has confirmed the presence of intact Paleoindian-age surfaces, which can provide insights into the paleoenvironmental and geomorphological history of the area. All of this suggests the badlands of southwestern North Dakota contain a rich and relatively unknown Paleoindian record which deserves increased attention.

Fisher, Abigail (Southern Methodist University)

Symposium 17 and Session 2: *When is a Wolf a Dog? Combined Geometric Morphometrics and Stable Isotope Analyses for the Differentiation of Wild and Domestic Canids on the Northern Plains*

Domesticated canids were an important resource for many Plains people, especially for their use in hauling materials (e.g., timber, meat, water). Their identification, however, is complicated by their large size, their hybridization with wild wolves (*Canis lupus*), and the presence of other wild canids in the archaeological record (e.g., wolves, coyotes (*Canis latrans*)). By combining stable carbon, nitrogen, and oxygen isotope analyses with a series of geometric morphometric studies of canid mandibles from Plains Village sites in North Dakota, this paper presents a new methodology for the differentiation of wild and domestic canids. This research is part of a larger effort to gain a better understanding of the interaction between Late Woodland foragers and Plains Village farmers.

Fisher, Abigail, see Jorgeson, Ian

Fitzpatrick, Tony, see Van Etten, Heidi

Foley, Melissa, see Gooding, Erik

Frison, George (University of Wyoming) and **George Zeimens** (Western Plains Historic Preservation Association)

Session 3: *Blade Tools and Clovis Projectile Points from the Powars II Red Ochre Quarry 48PL330 in Southeastern Wyoming*

Clovis lithic technology at the Powars II red ochre quarry is present in the form of blade cores and blades used to provide tools used in the procurement of red ochre and biface reduction used to manufacture projectile points used to procure animals. Blade tools were used to produce a wide range of scraping tools and the only modifications were either a deliberate or use-retouch that can be observed on the dorsal edges. Clovis biface technology is seen on the projectile point preforms from the early to final production stages. The tools may have gone directly into the ochre mining but the projectile points show no evidence of tool use and when completed were taken to animal kill locations, subsequently collected and then left in the red ochre quarry. Evidence from animal kill sites and experimental work support these ideas.

Frison, George, see Zeimens, George

Garhart, Zach (Paleoindian Research Lab, University of Wyoming), **Mary Lou Larson** (Paleoindian Research Lab, University of Wyoming), and **Marcel Kornfeld** (Paleoindian Research Lab, University of Wyoming)

Session 3: *Early Plains Archaic: A Micro Look at Laddie Creek*

In 1976 when the Laddie Creek was first investigated, it was one of a few sites that filled the cultural hiatus between the Early Prehistoric and Early Middle Prehistoric periods. Many sites have filled these shoes since, perhaps most often housepit sites that have now become common from southern Montana to northern Colorado and essentially cluster in the basins of the Rocky Mountains. None or very few analyses of these sites have included chipped stone tool microware. We return to Laddie Creek some 40 years after its first mention in the literature to ask what use-wear analysis might add to the unfolding story of the Early Plains Archaic period.

Garhart, Zach, see Van Etten, Heidi

Garnet, Justin, see Van Etten, Heidi

Geib, Phil, see Bozell, Rob

Glaab, Rigden (Juniper Environmental Consulting)

Session 26: *Fortification Hill: The History and Evaluation of a Mandan Defensive Structure*

Fortification Hill (32MO199) is a poorly understood yet potentially significant aspect of Scattered Village (32MO31), a Mandan village site overlain by the modern city of Mandan, North Dakota. High on a hill above Scattered Village, the site is visible today as a shallow, curving ditch, probably constructed to be a defensive fortification with a series of bastions. These earthworks are reminiscent of the defensive structures that surrounded the nearby sites of Double Ditch and Huff Village. The history of Fortification Hill will be examined using historical accounts and archaeological data. This presentation includes updates from a 2016 surface inventory conducted by Juniper, LLC.

Gooding, Erik (Minnesota State University Moorhead) and
Melissa Foley (Minnesota State University Moorhead)

Session 5: *Conceptualizing the Meskwaki Universe: Place, Space, and Time in Meskwaki Physical and Cultural Worlds*

This paper explores how the Meskwaki, a central Algonquian people, conceptualize their Universe. It proposes a model for understanding based on Meskwaki constructions of their physical and cultural worlds, and their perceptions of Place, Space, and Time. It seeks to contextualize human beings and living things within these worlds and explicate their various experiences in relation to Place, Space, and Time. This paper will illustrate the integration of Meskwaki physical geospatial understandings with key cultural symbols, and will discuss how these concepts have shaped and guided the Meskwaki since their arrival on the Prairies in the early 1800s.

Gooding, Erik (Minnesota State University Moorhead), **Bret Quickbear** (University of New Mexico), and **Michael Pittman** (Minnesota State University Moorhead)

Session 7: *Understanding Tribal Relationships of the Prairies and Plains through the Study of Tribal Ethnonyms: A Poster in Honor of Douglas R. Parks*

Drawing upon the influential work of Douglas R. Parks on the tribal synonymies for the Plains volumes of the Smithsonian's *Handbook of North American Indians*, this poster seeks to understand intratribal, intertribal, and external relationships of the native peoples of the Prairies and Plains through the explication of tribal ethnonyms. Tribal ethnonyms will be categorized by either as exonyms or endonyms, analyzed for meaning, and contextualized to determine various relationships. Examples will be drawn primarily from Caddoan, Algonquian, and Siouan languages.

Gooding, Erik (Minnesota State University Moorhead) and **Carra Strader** (Minnesota State University Moorhead)

Session 7: *Biocultural Meanings of Symbolic Elements of Prairie/Plains Material Culture*

This poster explores the biological and cultural meanings of symbolic elements in Prairie/Plains material culture. It investigates the adoption and adaptation of symbolic elements from the physical world (e.g. plants and animals) into material culture, it explores the symbolic connections from the physical to the cultural world, and discusses the importance and use of those symbolic elements in Prairie/Plains material culture. The two types of symbolic elements will be examined, realistic and abstract, and the relationship between these two types to their larger cultural/linguistic groupings (Algonquian and Siouan) will be studied. Historic and contemporary examples will be discussed.

Goodwin, Whitney A. (Southern Methodist University), **Kacy L. Hollenback** (Southern Methodist University), **William Hockaday** (Baylor University), and **Fern E. Swenson** (State Historical Society of North Dakota)

Symposium 17: *Changing Foodways in Culture Contact Contexts on the Northern Great Plains: Lipid Residue Analysis at the Double Ditch (32BL8) Site, North Dakota*

Culture contact studies have identified complex indigenous technological changes after the introduction of Euroamerican trade goods. On the northern Plains, historic accounts suggest that villagers may have abandoned ceramic containers for certain activities by the early 19th century. The veracity of these observations, as well as the timing, nature, and reasons for changes need further investigation. We present here on an interdisciplinary pilot project that analyzes lipid residues from ceramics and associated midden sediments from the Double Ditch Village State Historic Site, North Dakota. Our aim is to (1) demonstrate the viability of lipid residue analyses on existing archaeological collections, and (2) build a GC-MS reference collection of lipid signatures from modern plants and animals of the northern Plains to improve identification abilities of this and future studies. Future research will examine changes in ceramic use over time, particularly through comparable analyses of assemblages from protohistoric and historic Mandan villages.

Goodwin, Whitney A., see Hockaday, William

Grantham, Larry (Gauss Archaeology LLC)

Symposium 24: *The Cobb Site, Atchison County, Missouri: Nebraska Phase in Northeast Missouri*

Excavations at the Cobb site were part of the mitigation of the proposed route of Interstate 229 in Atchison County, Missouri. The excavations were the only major undertaking at a Nebraska phase site in northwest Missouri. While there are many Nebraska phase sites in the four northwest counties, there have been no further excavations at any of these. The distribution of houses and features at the Cobb site reveal that it was a relatively large site

containing at least two houses and perhaps several more. There were both Steed-Kisker as well as Nebraska phase ceramics at the site. The distribution of the ceramics is telling about the nature of Steed-Kisker vessels on the site. Steed-Kisker and Nebraska phase sites will be examined and the nature of Nebraska and Steed-Kisker in relation to each other will be determined.

Green, Debra (University of Oklahoma-Oklahoma Archeological Survey)

Session 13: *Archaeological Survey along the Tributaries of the Canadian River, Dewey County, Oklahoma*

An intensive pedestrian survey combined with geoarchaeological investigations will be conducted along select tributaries of the Canadian River in Dewey County, Oklahoma to develop a predictive model that will help identify buried prehistoric sites. There have been no systematic surveys in Dewey County; therefore, the data generated from this project will contribute to our knowledge about the history of landscape evolution of the Canadian River drainage basin in this western portion of Oklahoma. The development of this predictive model will also help guide preservation issues and development projects in this portion of western Oklahoma that is subjected to increasing threats from the energy sector and other modern development activities that should yield evidence of prehistoric occupations.

Green, William (Logan Museum of Anthropology, Beloit College), **James B. Stoltman** (University of Wisconsin, Madison), **George R. Holley** (Minnesota State University Moorhead), **Joseph A. Tiffany** (University of Iowa), and **Cynthia Strong** (Cornell College)

Session 5: *Reanalysis of a Fine-Engraved Vessel from Northwest Iowa: Implications Regarding Caddo and Mississippian Contacts*

In 1987, Duane Anderson and Joseph Tiffany reported on a fine-engraved vessel from the Siouxland Sand & Gravel site (13WD402), a Mill Creek (Initial Middle Missouri) cemetery in northwest Iowa. Similarities to the Holly Fine-Engraved type led them to conclude it was a Caddo trade vessel. They further

suggested it was transported from East Texas to Iowa via Cahokia. We reexamined the specimen to test those propositions and to assess the possibility the vessel was made in the Cahokia region rather than the Caddo area. We conducted stylistic and petrographic studies as well neutron activation and X-ray fluorescence analyses. We conclude that the vessel was not made in the Caddo area and that it is most similar to Caddo-inspired fine-engraved ceramics that were probably American Bottom products. Our study highlights Caddo connections with early Cahokia as well as relationships between Mississippian people of the Cahokia region and Mill Creek groups.

Green, William, see Greiff, AmySue

Green, William, see Macdonald, Faith

Greene, Candace (Smithsonian)

Session 15: *Recent Discoveries of Three Affiliated Tribes Materials in Ethnographic Collections*

Our understanding of the historic material culture of the Three Affiliated Tribes of the Upper Missouri has been heavily reliant on the brilliant images of artists Karl Bodmer and George Catlin, who encountered these people in the early 1830s. Their images are strongest for the Mandan (Numakiki), but reveal little about the Arikara. This paper presents recent museum-based research on a previously unrecognized collection assembled at Ft. Buford ca. 1872-76, which is associated with the Arikara (Sahnish) scouts and a nearby village of the Hidatsa (Minitari). These objects provide a broader view of material culture of the 1870s; they reveal change and continuity over time, suggest patterns of trade, and reveal some of the mechanisms of collecting.

Greer, John, see Greer, Mavis

Greer, Mavis (Greer Archeology) and **John Greer** (Greer Archeology)

Symposium 23: *Pinnacle Rocks, the Newspaper Rock of Eastern Wyoming*

Like the famed Newspaper Rock State Historic Monument in eastern Utah, this site is one of the largest known collections of petroglyphs in eastern Wyoming. Petroglyphs were carved during prehistoric and early historic periods and include animals (especially horses and bears) and humans (especially V-neck and shield-bearing warriors, but also females). Some humans are tethered to animals with speech scrolls, a historic characteristic not found elsewhere in the region. There are riders on horses, and an armored horse being chased by a shield-bearing pedestrian warrior. The variety of glyphs on this prominent sandstone outcropping in the open plains suggests it functioned as a public message board for several centuries.

Greiff, AmySue (Beloit College), **William Green** (Beloit College), and **Erica Rodenbeck** (University of Wisconsin, Milwaukee)

Session 26: *Osteometric Analysis of Canid Remains from the Cheyenne River Site*

Dogs were important draft animals in Plains Indian societies before the horse. Even after horses were domesticated, dogs were still used for simple, short distance tasks, such as collecting water and firewood. We examined canid remains from the Cheyenne River site (39ST1), a Post-Contact Coalescent (probably Arikara) site located Stanley County, South Dakota, dating to 1725-1775 CE. The site is located on high ground, advantageous for defense, overlooking the confluence of the Cheyenne and Missouri Rivers. We conducted craniometric analysis of 22 canids excavated by Alfred W. Bowers in 1931 to identify species and other salient characteristics. Preliminary results suggest domestic dogs were prevalent and the assemblage also includes wolves and coyotes.

Grinnell, Calvin (Mandan Hidatsa Arikara Nation) and **Elijah Benson** (Mandan Hidatsa Arikara Nation)

Symposium 20: *The Second Lodge of Grandmother Who Never Dies: The Significance of Stone Circles and Rock Cairns to the Mandan Hidatsa Arikara Nation*

The Second Lodge of Grandmother Who Never Dies is a stone circle marking the last known lodge of the Mandan and Hidatsa counterpart for Mother Earth before she left this country for the Gulf of Mexico. This video will illustrate selected scenes in oral tradition using animation and aerial photography of the site showing how the circle accurately describes the floor plan of an earth lodge, with a 12-foot entryway. Its relationship to another sacred rock site several miles away called the Seven Stones will also enter the narrative through the historic record. Dramatic videography will highlight the significance of these traditional milestones in our history. This video is produced entirely by enrolled members of the Mandan Hidatsa Arikara Nation; Calvin Grinnell, Elijah Benson and Justin Deegan.

Hadden, Carla, see Speakman, Robert

Hadley, Alison (Texas A&M International University)

Session 4: *Pipestone Artifacts at Three South Dakota Sites*

Pipestone artifacts from three sites in South Dakota were analyzed using an infrared spectrometer. A groundstone analysis was also conducted. The artifacts were from the Talking Crow (39BF3), the Deerfly (39LM39), and Clarkstown (39LM47) sites. This research was conducted in order to gain insight into the manufacturing processes and the geological sources for the pipestone at these sites. The groundstone analysis revealed a production trajectory that is similar to what was described for pipestone artifacts at Eagle Ridge (Bleed 2010). The results of the geological sourcing found that the pipestone used at these South Dakota sites is significantly different from the material typically used by groups living in present-day Kansas. Pipestone at these sites represents material from Minnesota, Wisconsin, and possibly South Dakota.

Hannus, Adrien, see Beck, Margaret

Hannus, Adrien, see Behling, Emma

Hans, Birgit (University of North Dakota) and **Jeanne Eder**
Session 15: *An Uneasy Alliance: Parents, Students, and
Administrators at the Bismarck Indian School*

Bismarck Indian School opened in 1908 and closed its doors in 1937. Throughout its history it drew primarily on the student population of the northern Plains, especially on the school age children of the four reservations in North Dakota. However, the parents of the children refused to give up their agency; they demanded better living conditions and treatment for their children, they withdrew their children from the school without the superintendents' permission, and they advocated for an enriched learning experience during the last decade of the school's existence. The administrators of the Bismarck Indian School, in turn, sometimes found themselves at a loss on how to respond to the parents while, at the same time, trying to maintain discipline and order as prescribed by federal guidelines among the students who demanded attention and change by running away and writing inflammatory letters to their parents. The history of the Bismarck Indian School was a complex and sometimes turbulent one.

Hansch, Jakob (Kansas State University)

Session 4: *Quantifying the Qualitative: Locating Burial Mounds in North-Central Kansas*

Scattered through parts of north-central Kansas are prehistoric burial sites in the form of low rock and earthen mounds located atop bluffs overlooking stream valleys. Using Geographic Information System (GIS) software, a map was created pinpointing the locations of recorded burial mounds in five north-central Kansas counties. Associations of known mounds relative to topographic and hydrologic features were highlighted to recognize spatial patterns, and statistical operations were used to create models that predicted areas with high potential for past use as burial sites. Samples of these areas were targeted for pedestrian

survey to identify and record sites with the overall goal of helping protect prehistoric burials in Kansas. Results of the limited survey suggest that the models accurately located areas where mounds were likely to be discovered. Thus, they succeeded in quantifying the qualitative geographic setting of the sites.

Hansch, Jakob, see Ritterbush, Lauren W.

Haury-Artz, Cherie (University of Iowa, Office of the State Archaeologist)

Session 25: *Iowa in the Time of Shakespeare: Partnering Outside the Box to Expand the Range of Archaeology Education*

The University of Iowa Office of the State Archaeologist has formed a partnership with the Spencer, Iowa School District and the Lakeside Labs Conservation Education program which has brought archaeology education to all of the 9th graders in the district every spring for the past four years. In order to accomplish this I was tasked with incorporating Iowa archaeology into a day-long Shakespeare Camp. From this challenge arose the program “Iowa in the Time of Shakespeare” comparing the culture of Elizabethan England to the Late Prehistoric Oneota. The program includes lecture with a power point presentation and an activity that challenges students to match Elizabethan artifacts with replicas of Oneota materials. The comparisons prove to be very interesting and emphasize our common humanity. Students leave with an understanding of the goals and methods of archaeology and new knowledge of the people who lived in Iowa before they did.

Hawley, Kirsten M. (Indiana University) and **Laura L. Scheiber** (Indiana University)

Symposium 11: *Photogrammetric Documentation of Site Features in the Bighorn Basin, Wyoming*

During the summer of 2017, participants in Indiana University’s Bighorn Archaeology Field School used on-the-ground photogrammetric methods to document site features at four different sites throughout the Bighorn Basin and surrounding

foothills. We took hundreds of photographs of stone features and rock art at four sites in the Southfork of the Shoshone River Valley, Heart Mountain, and Ten Sleep canyons. These features include stone circles (tipi rings), a cairn/driveline system, and pictograph rock shelter overhand panels. In this presentation, we discuss our improved methodology and the resulting three-dimensional models and orthomosaics, along with implications for future uses of these techniques. The applied methodology highlights the potential of this emerging technology to rapidly document and assess site features when on-site time is limited. We also discuss issues related to processing, affected by proprietary software availability and computer memory capacity, especially for preparing models while in the field.

Hedden, John (University of Iowa)

Symposium 24: *A Brief History of Central Plains Tradition Research in the State of Iowa: If 140 Years is Brief*

Archaeological research into earth lodge sites associated with the Central plains tradition in the state of Iowa extends back to the 1870s. This early work preceded Gilder's definition of the Nebraska Culture in the early twentieth century. Major investigations in the Glenwood locality occurred during the WPA era, and again in the 1960s and 1970s associated with major public works projects (Pony Creek Watershed, U.S. 34 reconstruction). While the Glenwood locality of the Nebraska Phase is well-known much of this work has never been formally published.

Hedden, John (University of Iowa) and **Dan Horgen** (University of Iowa)

Symposium 24: *Nebraska Phase Steed-Kisker Cultural Relationships in the Glenwood Locality of Iowa*

The close proximity and partial contemporaneity, as well as material culture similarities, have led to many questions concerning the connections between Steed-Kisker and the Central Plains tradition. Contact between these groups within the Glenwood locality in Iowa has been reported, but the extent of this contact is tenuous. Collections at the Iowa Office of the State

Archaeologist indicate that contact between these groups may not have been as extensive as in other localities to the south and west. The nature of the identified Steed-Kisker materials in the Glenwood locality offers another avenue to speculate on potential relationships between Steed-Kisker, the Nebraska phase and other groups outside of the Central Plains.

Hill, Jr., Matthew E., see Bozell Rob

Hoagland, Makinzie, see Christian, Sam

Hockaday, William (Baylor University), **Whitney A. Goodwin** (Southern Methodist University), **Emily Blackaby** (Baylor University), **Fern E. Swenson** (State Historical Society of North Dakota), and **Kacy L. Hollenback** (Southern Methodist University)

Symposium 17: *Molecular Characteristics of Organic Matter in Sediments from Trench and Pit Features at Double Ditch Historic Site (32BL8), North Dakota*

The fidelity of molecular and isotopic tools for reconstructing diet and changing subsistence strategies depends largely upon the degree of preservation of organic residues in archeological features. Organic matter in midden sediment could provide insight to changing lifeways, but preservation biases remain understudied. Oxygen exposure time is a primary control on organic matter preservation. Therefore, we examine the molecular composition of two contemporaneous midden sediments from Double Ditch site (32BL8) with differing oxygen exposure times. Midden sediment from a cache pit (Block 102D, Feature 701) represent a rapid burial context, whereas fortification trench 4 (Block 215, feature 205N) is more likely an open-air depositional context. Bulk components (lipid, carbohydrate, protein, lignin, and charcoal) were quantified using nuclear magnetic resonance spectroscopy. Lipid molecules were identified by gas chromatography-mass spectrometry. Established molecular proxies were used to compare the extent of organic matter preservation across depositional contexts.

Hockaday, William, see Goodwin, Whitney A.

Hollenback, Kacy L., see Boulanger, Matthew

Hollenback, Kacy L., see Goodwin, Whitney A.

Hollenback, Kacy L., see Hockaday, William

Holley, George (Minnesota State University Moorhead) and
Michael Michlovic (Minnesota State University Moorhead)
Session 25: *New Perspectives on the Late Prehistoric Period of the
Northeastern Plains*

The past few decades have witnessed attempts to update the characterization of the Northeastern Plains (NEP) originally offered by Wedel. Still, many mounds, earthen enclosures, and even some large settlements dating from the Late Prehistoric are poorly understood. Here we expand on the study of these features and more securely position them into a regional context. The 11th through 12th centuries were characterized by Cahokia-centered forces that only indirectly reached the margins of the NEP. A hybridized Cambria expression emerged that flourished after this date, particularly in southern Minnesota, and the later emergence of Oneota involved a tradition with roots closer to the NEP. By the 1400s we witness well-defined regional traditions such as Oneota and Middle Missouri exerting influence, along with the Sandy Lake tradition which intrudes from the east. What results is a blended NEP area that is both culturally and historically more complex than present understanding admits.

Holley, George, see Ahumada, David

Holley, George, see Green, William

Horgen, Dan, see Hedden, John

Howe, Mark L. (International Boundary and Water Commission, United States Section, United States State Department), **Todd Ahlman** (Texas State University), and **William A. Cloud** (Sul Ross State University)

Session 9: *The Search for the Lost Spanish Missions on the Rio Grande*

In 1683-1684, Spanish missions were established at La Junta de los Ríos, the area surrounding the confluence of the Rio Grande and the Río Conchos of Mexico. After a few years, these missions were abandoned, a result of a Native revolt that spread down the Rio Grande; they were re-established in 1715 and persisted through the mid- to late eighteenth century. Archaeologists have been working at La Junta since the 1930s, finding artifactual evidence of the missions, but have yet to discover any of the mission locations. Recent efforts have included geophysical investigations at several sites (Polvo/Tapacolmes and Millington/San Cristobal) and intensive surveys in advance of construction projects. Importantly, a recent Memorandum of Understanding between the Center for Big Bend Studies of Sul Ross State University and the Instituto Nacional de Antropología e Historia of Mexico will allow this search to occur on both sides of the Rio Grande.

Howe, Mark L., see Ahlman, Todd

Hughes, Richard E., see Morgan, Brooke M.

Jacobs, Sarah A. (St. Cloud State University), **Alix S. Piven** (Boston University), and **Jacob Batisky** (Ohio State University)
Session 13: *Visualizing Hell Gap in 3D: A Stratified Model of the Hell Gap National Historic Landmark Site*

Documentation of in situ artifacts and stratigraphic sequences at the newly registered National Historic Landmark Paleoindian site, Hell Gap, is highly accurate. However, visualizing stratigraphic sequences is challenging once cultural artifacts and the surrounding matrix are removed. With access to 3-Dimensional modeling software, documented data can be

presented by means of newer visualization techniques. At the conclusion of the 2017 field season we took stereo-overlapping photos of cross-section stratigraphy and plan view elevations of the excavation blocks at Hell Gap Locality I. We then overlaid our resulting 3-D model with a rendered triangulated irregular network image depicting the surfaces of stratigraphic sequences, as designated from recovered cultural artifacts. We present our methodology used in creating 3-D imagery and the modeled surface overlay, and present a case study discussing 3-D imaging as a data visualization technique at the Hell Gap site.

Jansson, Anna (University of Arizona)

Symposium 2: *Geoarchaeological Investigations at the Billy Big Spring Site, Montana*

This work reconstructs the paleolandscape of the Billy Big Spring Site (24GL304 located in north-central Montana) from the last glacial maximum to present through the analysis of soil samples collected from auger tests. Data from stratigraphy, laboratory soil tests, and radiocarbon dating combine to reconstruct past depositional environments and their temporal extents. These results show that this site existed as a wetland during the early-Holocene that later experienced drying with the onset of the Altithermal. The first occupation of this site occurred during the Altithermal, just after the eruption of Mount Mazama. This is significant because this occupation shows the use of a landscape throughout regional environmental change. The Altithermal has been viewed as a period with harsh environmental conditions that caused people to leave this region. This analysis shows that this site was in use even when occupations diminished elsewhere, making it an important data point in paleoclimate studies.

Jansson, Anna, Zedeño, Maria Nieves

Jennings, Sarah, see Newton, Cody

Jones, Travis, see Speakman, Robert

Jorgeson, Ian (Southern Methodist University), **Abigail Fisher** (Southern Methodist University), and **Ryan Breslawski** (Southern Methodist University)

Symposium 17: *Using Old Dates to Answer New Questions: An Example from Hell Gap*

There are obvious shortfalls in the use of extant data to answer modern questions, such that many researchers choose to ignore the large radiocarbon datasets of the past, especially when these datasets were generated before AMS dating. Instead of rejecting these problematic datasets, we endeavor to identify and rectify these shortfalls to save time, resources, and money. However, these datasets often require extensive culling and cleaning to provide useful information. We argue that recent computational advances, especially Bayesian calibration, provide opportunities to utilize previously published radiocarbon dates to answer new questions. We demonstrate these opportunities with 144 radiocarbon dates from the Hell Gap site (Wyoming), which were initially obtained by multiple researchers over a 40 year period. A Bayesian calibration of these dates provides new insights into broader issues.

Jorgeson, Ian, see Breslawski, Ryan

Kennedy, John, see Newton, Cody

Kern, Alexandra, see Adair, Mary

Keyser, James D. (Oregon Archaeological Society)

Symposium 23: *Late Blackfoot Art on the Kevin Rim*

Painted on the roof and wall of two small adjacent rockshelters hidden in a deep coulee cutting into a high sandstone rimrock, the Kevin Rim site is a Late Prehistoric period Blackfoot pictograph containing both Biographic and Ceremonial elements. Charcoal drawings on one shelter's roof show humans, horses, and animals structured in two Biographic compositions drawn by different artists. In a separate small shelter, red ochre pictographs on the back wall show a beaver and what is likely an otter

juxtaposed with six long vertical lines. This is a Ceremonial tradition composition, possibly associated with the Beaver Bundle ceremony.

Knapp, Dante, see Banks, Kimball

Knell, Edward (California State University, Fullerton)

Session 3: *The Lamb Spring Cody Complex Component*

The Late Paleoindian Cody complex component at Lamb Spring, near Littleton, Colorado was recently reanalyzed. While best known for its possible association with Late Pleistocene fauna, the Lamb Spring Cody component with its nearly 2,000 bison bones, seven projectile points, Cody knife fragment, and two flakes has largely been overlooked and incompletely described in the literature (excepting McCartney's study of the bison bones). To remedy the situation I: (1) use prior publications, reports and the original field notes to describe and interpret the component, (2) describe the recently analyzed chipped stone assemblage, and (3) compare Lamb Spring to other Cody complex sites in the region. Analyses reveal two spatially discrete occupation levels distinguished by variations in projectile point technology, raw material preference, and breakage patterns. Two (or more) small groups of Cody hunters used a stream channel to trap, kill and process some 27 bison between the late fall/early winter and mid-spring.

Kornfeld, Marcel, see Garhart, Zach

Kornfeld, Marcel, see Lee, Craig

Kornfeld, Marcel, see Van Etten, Heidi

Krause, Richard (Tennessee Valley Archaeological Research)

Session 5: *The First New Archaeology: An Explication of the Cultural Historical Theory of Archaeological Things*

The first new archaeology was developed and refined by cultural historians in the waning years of the 19th and first half of

the 20th century. It was designed to identify, describe and sequence the phenomena of import, namely artifacts, artifact types and deposits. The early years of American archaeology were spent debating and refining the understanding and use of each. A series of archaeological constructs, namely attribute, mode, artifact, artifact by-product, feature, component and site emerged from these debates. When understood as elements of a general theory of Culture History, attributes, modes, artifacts, artifact by-products, features, associations, components and sites form a logically consistent paradigm of archaeological things. They are crucial to an understanding of archaeology because they are essential elements of the theory of Culture History that generated them. It is for this reason that processualists, post-processualists, neo-Darwinians and landscape archaeologists use them and will continue to do so.

Kroupa, Brad (Arikara Community Action Group) and **Whirl Wind Bull** (Arikara Community Action Group)

Symposium 22: Empowerment through Community: The Arikara Community Action Group

This narrative will provide the framework for a discussion of nation building efforts among the Arikara led by the Arikara Community Action Group (ACAG), a newly created nonprofit organization aimed at engaging and empowering the Arikara community. The presentation will begin with a brief history of the Arikara beginning in the eighteenth century, when the tribe was arguably at its peak, through centuries of survival amidst oppressive and devastating forces, culminating with the modern era of cultural recovery and community building. Contemporary hardships, such as isolation, lack of formal education, alcohol and drug abuse, among others, make progress much more challenging in a reservation community. Within this context, ACAG's activities highlight the Arikara people's continued endurance, demand for cultural autonomy, and livelihood in such difficult times. What arises is a story of hope and promise for the future.

Kulevsky, Andrea, see Rood, Ronald

Kurtz, William (Bureau of Indian Affairs, Midwest Region)

Session 9: *"Some of our Friends have been Killed": Lakota and Cheyenne Little Big Horn Battle Casualty Locations Documented by Rock Cairns*

After the Rubbing Out of Long Hair fight (Phehin Hanska Kasota), the Lakota and Cheyenne dead were remembered through songs, drawings, oral history, and rock cairns commemorating the locations on the battlefield where they had fallen. This presentation will look at the history of those rock cairns (inyan wokiksuye) that were left by friends and relatives of the fallen warriors. The National Park Service has now placed red granite monuments at some of these locations.

Kvamme, Jo Ann (University of Arkansas) and **Kenneth Kvamme** (University of Arkansas)

Session 26: *Geophysical Investigations at Molander Earthlodge Village in Oliver County North Dakota*

The Molander Site is an Hidatsa earthlodge village managed by the North Dakota State Historical Society. It was constructed in the 1700s when the Hidatsa moved to this area from the east, but was abandoned by 1781-1782 due to a smallpox epidemic that killed half its population. Early examinations of the site mapped over 30 shallow earthlodge depressions along with a fortification ditch that includes six bastions plus historic ranch buildings built on the site in the 1880s. Geophysical surveys of the site were conducted by the Archeo-Imaging Lab of the University of Arkansas during the summer of 2017, completely mapping the village and adjacent areas with magnetic gradiometry. Smaller surveys of electrical resistivity and ground-penetrating radar were also performed. Preliminary results from these surveys are discussed.

Kvamme, Kenneth (University of Arkansas)

Symposium 1: *Two Decades of Geophysical Research at Chief Looking's Village (32BL3), North Dakota*

Exploratory geophysical investigations of Chief Looking's village undertaken in 1997 included magnetic gradiometry (MG)

and electrical resistivity (ER). Work in 2008 saw survey of the entire village by MG, updated in 2014 with resurvey of about 20% after several hundred pieces of walkway anchoring rebar were removed. In 2015 the entire village was surveyed by ER and about 30% by ground-penetrating radar (GPR) with additional GPR survey conducted in 2016. Heavy rainfall in 2015 permitted ER and GPR methods to better define house forms compared to drier years (1997, 2016). Findings include relocation of reconstructed lodges built on-site by the National Park Service in the 1930s, a clustered neighborhood of 7-10 Middle Missouri-style long rectangular houses, houses distributed elsewhere with a more circular form suggestive of four-post structures, and evidence of superimposed houses. A low-resolution Lidar elevation model suggests an unforeseen defensive ditch on the village's steep western side.

Kvamme, Kenneth, see Kvamme, Jo Ann

Lanoë, Francois, see Zedeño, Maria Nieves

Larrick, Dakota (University of Oklahoma), **Leland Bement** (Oklahoma Archeological Survey), **K. C. Carlson** (Augustana University), and **Joshua Davis** (University of Oklahoma)
Session 16: *Black Bear Cache in the Oklahoma Panhandle: An Example of Quartzite Workmanship*

This poster presents the analysis of the Black Bear Cache found in the far northwestern region of the Oklahoma panhandle. The cache consists of three large quartzite artifacts deposited on a narrow ledge along a sandstone precipice. The significance of this cache is seen when the cached objects are compared to quarry blanks available at nearby Dakota quartzite sources. In addition, this study documents the use of Dakota quartzite in an area where few fine-grained cherts are available. The age of the cache is yet to be determined.

Larrick, Dakota, see Davis, Joshua

Larson, Mary Lou, see Garhart, Zach

Larson, Mary Lou, see Van Etten, Heidi

Lee, Craig (Metcalf Archaeological Consultants, Inc.), **Michael Neeley** (Montana State University), **Mark Mitchell** (Paleocultural Research Group), and **Marcel Kornfeld** (University of Wyoming)

Symposium 8: *Exploring Microcores and Microliths in Northwestern Plains Lithic Assemblages*

Chipped stone microcores and microliths have been identified in archaeological sites in Montana, Wyoming, and North Dakota. While microcores yield roughly parallel-sided microliths, the flakes are not especially regular, suggesting a high degree of variability in the manufacturing process. Irregular patterns of reduction contrast with classic microblade cores from higher latitudes, where uniformity in microblades was necessary for their use in composite tools. Archaeologists have variously described microcores as conical or circular scrapers as well as microcores or microblade cores. They occur in low frequencies in several time periods and are seldom identified with associated production debitage or even the microliths. This paper examines microlith manufacture and microcore discard in the Northwestern Plains and adjacent regions, including one example made of Knife River Flint, and proposes these tools may have fulfilled a specialized role in the organization of lithic technology linked to the infrequent manufacture of specialty items.

Leonard, Karl, see Ahumada, David

Li, Carmen, see Dawe, Bob

Lindemann, Rachel, see Wondrasek, Rob

Lindley, Peyton, see Salomon, Madison

Lippincott, Kerry (Consulting Archaeologist)

Session 26: Ornamentation on Northern Plains Marine Shell Face Gorgets

Marine shell face gorgets are relatively to absolutely rare artifacts in the Later Prehistoric, Protohistoric, and even Historic Period contexts for the Northern Plains. There are currently about two dozen known to have been recovered from Manitoba, Montana, South and North Dakota. They are much better represented in archaeological assemblages from the Midwest, Northeast, and, especially, Southeast. They are impressive and unmistakable representations of a human face in shape and detail wherever they are found. The obverse, “face,” surface may have various kinds of elaboration, including eyes, a nose, a mouth, hair, and particularly variable eye surrounds. In the Southeast, the reverse, inner surface is seldom decorated. However, on the Northern Plains inner surface decoration markings occur in a higher proportion. This presentation will illustrate these markings and provide a tentative identification for the significance of one of them.

Loendorf, Chris (Gila River Indian Community)

Session 5: Arrow Point Reworking: An Experimental Study of Projectile Point Use Life

This paper reports the results of controlled experiments in which flaked stone arrow points were fired at four different uniform target media with varying elasticity. The points were made from four materials that varied substantially in impact toughness. Our results show that when impacting inelastic materials such as bone, damage to arrow points was generally catastrophic, especially for low fracture toughness materials including obsidian. Furthermore, in those rare instances when broken arrow tips could be reworked, they did not perform as well as the initial artifact. Our results suggest that contrary to a common assumption, conditions of use are such that fired points can only occasionally be reworked, and reworked arrow points in archaeological collections are more likely artifacts that were damaged in the quiver or otherwise accidentally broken. This conclusion is

supported by multiple lines of data including physical constraints that indicate why used arrow points were rarely reworked.

Loendorf, Lawrence (Sacred Sites Research, Inc.)

Symposium 23: *Hole in the Wall Rock Art Sites*

Rock art sites on the Hole in the Wall Ranch, Wyoming are best known for stenciled hands and arms. Less known are the shield-bearing warriors, v-neck anthropomorphs, vertical series with associated tobacco plants, and an image of Spring Boy, in association with the Hidatsa-Crow mythological character Long-arm. Spring Boy appears to be fastened to the top of the sun dance lodge as he was in the original mythology.

Logan, Brad (Kansas State University)

Session 5: *An Unquixotic Quest: Excavation of the Quixote Site (14JF420), a Late Woodland Occupation in the Delaware River Drainage, Northeastern Kansas*

Quixote was investigated in June 2017 by the Kansas Archaeological Training Program (KATP) of the Kansas Anthropological Association and Kansas Historical Society. Testing in 1988 to evaluate the site for NRHP eligibility revealed a relatively undisturbed horizon of Late Woodland age below an 8-10cm sterile surface zone to 60-62cm at two habitation mounds. The KATP excavated a 64m² block on one mound and ~5m² each at non-mound areas, both geophysical anomalies. The former revealed a cultural horizon 40-60cm in depth. The magnetic field gradient anomalies marked roasting pits with massive amounts of burned limestone above charcoal rich zones from ~40 to 65cm, the charcoal zone at one including remnants of a lattice pattern of burned timbers. The mound reflects prolonged occupation (lodge and/or midden) with much lithic and ceramic material and a modest biological assemblage. The features are compared to extramural burned rock concentrations at other Late Woodland house sites in the Delaware River watershed once interpreted as hearths that may have been pits associated with feasting activities.

Macdonald, Faith (Beloit College), **Kevin Braun** (Beloit College), and **William Green** (Beloit College)

Session 26: *Mapping Subsistence Patterns at an Arikara Site Using GC/MS Pottery Lipid Residue Analysis*

In the absence of written documentation and excellent preservation, reconstructing subsistence practices can be difficult. Lipid residue analysis applied to pottery offers an opportunity to investigate food sources in these cases. However, current methods can be costly, and use chemicals that potentially bias results. I developed a more cost effective acid catalyzed transesterification method, evaluated its utility using a model system, and then used it to analyze potsherds from the Greenshield site (32OL17) in North Dakota. Plant based lipids, from corn and squash, would be expected from the agricultural lifestyle of the Arikara with animal fat also contributing to the diet. European contact may have decreased dietary diversity. The results of the methodology study show that an efficient acid catalyzed transesterification method is viable, and lipids were successfully extracted from the Greenshield potsherds. Degradation, especially in polyunsaturated fatty acids, complicated food source identification and requires further study.

Mahomey, Gosia, see De Vore, Steven

McKay-Cody, Melanie (University of Oklahoma)

Session 4: *The Interconnection between Rock Arts and Sign Language: An Important Recognition for Indigenous Deaf Peoples*

My dissertation is an interdisciplinary work using four anthropological subfields. For this presentation, I will focus on the archaeological finding of tribal sign language being interconnected with Rock Arts. The Indigenous Deaf peoples are keepers of the tribal sign language, thus they are interested in finding their tribal past through historical events and narratives. Due to the lack of archaeological recognition of a connection between Rock Arts and sign language, this important work needs to be inclusive of Rock Arts studies. My study commences with rock-art, building on the work of LaVan Martineau, a fluent Paiute signer and cryptanalyst, and Dr. Carol Patterson, a rock art archaeologist and cultural

anthropologist. In their research, they have explored the connection between tribal sign language, rock writing, linguistic transcription and tribal pictographic culture. My research conducts Indigenous Methodologies beginning with a study of tribal narratives and historical events through tribal historian(s), which allows us to see the connection to sign language on rock panels using my linguistic anthropological work. This work provides a historical anchor to which Indigenous Deaf people can look back to for a sense of connectivity to the past.

Meens, Daan, see Rood, Ronald

Metcalf, Michael (Metcalf Archaeological Consultants, Inc.) and **Kimball Banks** (Metcalf Archaeological Consultants, Inc.), Symposium 8: *Oh, Look What a Hole I'm In: A History of Archaeological Research in the Knife River Flint Quarry*

The Knife River Flint Quarry Area is one of the more important sources of lithic raw material in North America. Prehistoric use was both intensive and continuous from Paleoindian times to the historic era. The primary source area has received considerable archaeological attention since the 1970s and several excellent summaries of the earlier studies have been published. Yet archaeological attention to the primary source area has continued with attention shifting from research driven archaeology to cultural resource management, longer range planning studies, and heritage interpretation. As a result, the KRF Quarries in the heart of the Primary Source Area has been recommended eligible as a district to the National Register of Historic Places, the Crowley Quarry is designated as a State Historic Site, and the Lynch Knife River Flint Quarry is now a National Historic Landmark. Additionally, the geological context and distribution of Knife River Flint is better defined. This paper explores the history of archaeological investigations in the quarry area and potential for future research.

Michlovic, Michael, see Holley, George

Mitchell, Mark D. (Paleocultural Research Group)

Symposium 1: *Introduction to the Chief Looking's Village Project*

In 2015 and 2016, a multi-institution research team led by Paleocultural Research Group carried out a study of household variability—the first of its kind in the Heart River region—at Chief Looking's Village, a sixteenth-century Mandan community currently owned and managed by the City of Bismarck, North Dakota. In addition to its research goals, the project also sought to engage a variety of local communities through regularly scheduled public tours, volunteer participation, student internships, and a video that illustrates the site and the research process. Participants in this symposium premiere the project video, outline the project's research goals, describe the geophysical results, and present data on household material variability.

Mitchell, Mark D. (Paleocultural Research Group)

Symposium 1: *Negotiating Household Identity During a Time of Historical Transformation*

A wave of transformative change, marked by increasing population density, expanding trade, economic intensification, and more frequent warfare, swept through the Heart River region between A.D. 1400 and 1600. However, little is known about the social processes operating within individual communities during that period. The Chief Looking's Village project seeks to fill that gap by comparing the material lives of families living in the two distinctly different types of houses that occur at the site, one that was recognized at the time as "local" and another that was recognized as "foreign." The primary aim is to determine whether architectural choices were motivated by households' differing communities of origin, status, ideological affiliation, or some combination of those factors and thereby understand how social identity influenced and was influenced by broader historical forces.

Mitchell, Mark, see Lee, Craig

Morgan, Brooke M. (State Historical Society of North Dakota),
Fern E. Swenson (State Historical Society of North Dakota), and
Richard E. Hughes (Geochemical Research Laboratory)
Symposium 17: *Geochemical Source Analysis of Obsidian from
Seven Missouri River Communities in North Dakota*

This paper presents the results of energy dispersive X-ray fluorescence (xrf) analysis of 62 obsidian artifacts from seven archaeological sites in the Knife-Heart River region of North Dakota. These Middle Missouri Plains Village sites (AD 1300-1785) were occupied by Nu'eta, or Mandan, people. Previous obsidian source analysis in this region focused on Late Archaic, Woodland, and Hidatsa Plains Village sites; this study represents the first systematic investigation of obsidian use at Mandan sites. Results indicate obsidian originated from two sources: Obsidian Cliff, Wyoming and Bear Gulch, Idaho. We examine obsidian source exploitation through time, presence in east versus west bank communities, and circulation of raw cobbles and curated tools in this region. Concentrating on the Terminal Middle Missouri and Pre-Contact Coalescent variants, we consider the impact that small group coalescence may have had on the use and exchange of this exotic lithic resource.

Morgan, Kelly (Standing Rock Sioux Tribe)
Session 14: *DAPL: What Really Happened?*

The Dakota Access Pipeline brought a considerable amount of attention to the archaeological and traditional cultural properties world in the United States. What occurred has been recorded by filmmakers, authors, and discussed by professionals and laymen. Every individual interprets the events that occurred in their own way. How do we as professionals decipher our own way of looking at what happened and incorporate the lessons into our daily work in our respective professional careers? To what degree did DAPL change the way we do our jobs in North Dakota? How can we take the experiences and build on what we learned and bring solutions to the table when dealing with traditional cultural properties in North Dakota? Is there a need to address the North Dakota Century Code in reference to burials? What went wrong with DAPL? What

went right with DAPL? What lessons can we take away from the experience?

Morgan, Kelly (Standing Rock Sioux Tribe)

Session 14: *Building Relationships and Trust: Traditional Cultural Specialists and Archaeological Field Technicians*

There is a level of respect and understanding that develops when fieldwork is performed by Traditional Cultural Specialists and Archaeological Field Technicians. The culture which has developed over the last two decades has led to tenuous situations in the field where there are issues impacting relationships between Tribal Historic Preservation Offices (THPO) within tribes and Cultural Resource Management (CRM) firms. There are opportunities to build on levels of understanding and respect so that fieldwork is productive. Training of staff is critical in building strong relationships. This paper will address some of the issues and opportunities in an effort to stimulate a conversation to continue building on relationships between THPO offices and CRM firms.

Mugavero, Dominic, see Ahumada, David

Munger, Tressa (Augustana University), **Caitlyn Stellmach** (Augustana University), **Laura Peck** (Augustana University), **K. C. Carlson** (Augustana University), and **Leland Bement** (University of Oklahoma)

Session 13: *The Butchering Patterns Present at the Bull Creek Camp: A Late Paleoindian Site in Oklahoma*

Bull Creek, located in the panhandle of Oklahoma, is a rare, late Paleoindian camp on the Southern Plains. Two separate occupation levels apparent at the camp indicate two seasons of habitation. The lower camp, dominated by bison bone, is the focus of this analysis. Bone tools and distinct butcher marks provide evidence of butchering behavior 9,000 years ago on the Southern Plains of Oklahoma. This poster describes the findings of butchering processes at the site. Large sections of bison are apparent at the camp as well as articulated leg elements broken into tools. The evidence provided in this poster indicates that the

kill is likely not far away and that bone tools were frequently used during this occupation of the site.

Murray, Wendi Field (State Historical Society of North Dakota)
Session 4: *Community and Coalescence on the Missouri River: A Space Syntax Analysis of Like-A-Fishhook Village*

In the aftermath of the 1837 smallpox epidemic, the Mandan, Hidatsa, and Arikara people coalesced at Like-A-Fishhook Village in North Dakota for mutual defense against enemy groups. Historical records often frame their co-residence as a “uniting” of the three tribes, implying a sense of community that has never been critically examined. A space syntax analysis of this earthlodge village investigates the role of architecture and space in structuring interactions between the Arikara and their Mandan and Hidatsa co-residents. Archaeological and ethnographic data suggest that the Arikara configured their space to prioritize local (Arikara) integration, and that interaction between the sections of the village was likely infrequent and controlled. The resulting “community” was likely a political one mediated by tribal leaders in the interest of village defense, rather than a social one mediated by frequent or meaningful interaction between ethnically diverse residents.

Nadel, Samantha (Cornell College), **Cynthia Strong** (Cornell College), and **Lynn M. Alex** (University of Iowa, Office of the State Archaeologist)

Session 16: *An XRF Analysis of Ceramics from the Huston-Fox Site (39MD133), Meade County, South Dakota*

Huston-Fox (39MD133) is one of multiple sites in western South Dakota geographically within the Northwestern Plains but culturally distinct. The late Dr. Robert A. Alex, Director of the South Dakota Archaeological Research Center, supervised limited excavations at the site in 1984 and 1985. Pottery from the site is of particular note, as 24 rim sherds have been identified as various types of Riggs Ware and, to a lesser extent, Fort Yates Ware. This diagnosis creates a connection with the Extended Middle Missouri, especially the Bad Cheyenne region, but the reasons for this

connection are unclear. An X-ray fluorescence (XRF) analysis of sherds and clay from Huston-Fox was conducted to determine if the pottery was made at Huston-Fox or elsewhere. The analysis revealed that most sherds, including most diagnostic sherds, belonged to the same cluster as the clay, but the limitations of XRF demand caution before asserting their definite local origin.

Neeley, Michael, see Lee, Craig

Neumann, Amy, see Anderson, Sara

Newton, Cody (University of Colorado, Boulder; SWCA Environmental Consultants), **John Kennedy** (SWCA Environmental Consultants), **Scott Phillips** (SWCA Environmental Consultants), and **Sarah Jennings** (SWCA Environmental Consultants)

Session 9: *Privy to the Information: Archaeology of the Quimby Section House (5AM2111), Adams County, Colorado*

The section house at Quimby, Colorado (5AM2111) was built in the early 1900s and was part of a railroad that served the eastern agricultural periphery of Denver. The section house, along with the railroad fell out of service in the 1950s. As part of mitigation due to new construction and use of the existing railroad grade, the section house and associated features were tested and excavated in 2015. Several important features were located and excavated resulting in a bevy of artifacts related to the workers who built and maintained this section of the railroad. This presentation will discuss these findings, particularly as related to the socioeconomic aspects of the railroad workers.

Oetelaar, Gerald (University of Calgary)

Session 5: *Niche Construction Theory in Plains Archaeology: A New Perspective on Subsistence and Settlement Strategies*

For almost six decades, our models of subsistence and settlement strategies have been based on ecological principles relating to the biology and ecology of bison populations. The basic framework stipulates that climate, topography and soils impose

constraints on the nature of the vegetation which, in turn, influences the nature and behavior of bison populations. In this structured world, group survival depends on the acquisition and transmission of knowledge relating to the seasonal movement of bison herds. Today, niche construction theory is a more robust evolutionary framework for understanding ecosystem structure and function. This theoretical framework views organisms as active participants in the creation of selective environments and incorporates biological, cultural and ecological inheritance in its models of ecosystem development. In this presentation, I propose to apply niche construction theory as an alternative framework for understanding the development of the subsistence and settlement strategies of Plains bison hunters.

Olowoshile, Aishat, see Ahumada, David

Park, Indrek (Indiana University)

Symposium 22: *Tribal Autonyms of the Northern Plains*

Most tribes on the Northern Plains had tribal names (exonyms) for all their neighbors, yet no tribal-level self-designation (endonym) for themselves. As a rule, endonyms on the Plains were largely restricted to tribal subdivisions on a band and village level. This paper examines the reasons why linguistically and culturally close groups, who were often also politically united, failed to identify themselves as an “ethnic group” in linguistic terms even if they were perceived as such by all the surrounding groups. Raymond DeMallie’s inventory of Sioux tribal organization and Douglas Parks’s contribution in the Plains volume of the *Handbook of North American Indians* provide extensive work on tribal synonymies that trace different names used to refer to the same group or groups, which inform the background for this work.

Peck, Laura, see Muger, Tressa

Perkins, Stephen, see Vehik, Susan

Perry, Elsa, see Wondrasek, Rob

Phillips, Scott, see Newton, Cody

Picha, Paul (State Historical Society of North Dakota)

Session 9: *Thundersticks, Ponies, and the Horse-and-Gun Frontier: Secoy and Champlain Revisited*

Anthropologist Frank Raymond Secoy introduced the concept of a horse-and-gun frontier to a broad audience in a classic American Ethnological Society monograph. Secoy had completed his 1951 Columbia University doctoral dissertation under the tutelage of William Duncan Strong. An impetus for revisiting the role of guns and horses in cultural change in historical and archaeological research on the Northern Great Plains was spurred by recent book-length publications. Equine and firearm data from archaeological contexts have not played a significant role in furthering the frontier concept in these discussions. The “out of circulation” thesis is thought to be germane in partly understanding taphonomic and site-formation processes that have affected the archaeological record.

Pickering, Evelyn (University of Arizona)

Session 16: *Reaching Sovereignty through Persistence: The Blackfeet Water Compact*

The Blackfeet Tribe has negotiated with the U.S. government over land and resource rights for generations. These enduring efforts have materialized in a recent settlement. On April 20, 2017, the Blackfeet Tribe voted in agreement with the proposed compact. The Blackfeet now have a quantified water right and have been awarded federal funding for water-related projects. This new water compact is important for the Blackfeet because it restores control of 95% of their water and will support many development projects. These efforts will improve ecosystems, infrastructure, and community water supplies, as well as provide economic opportunity for the tribe. This research will investigate how the Blackfeet Water Compact has emerged as part of a long-term historical trajectory of the Blackfeet Tribe, how

cultural principles and practices of resource management have influenced the content of the legislation, and how historic and contemporary governmental interactions have affected Blackfeet perceptions of water rights.

Pierce, Greg (Office of the Wyoming State Archaeologist)
Session 5: *Assessing Disparities in Site Densities in the Wyoming Black Hills*

Recent fieldwork by the Office of the Wyoming State Archaeologist in the Black Hills sought to investigate the apparent disparity in site densities between lowland and upland locations. Wyoming State Historic Preservation Office records reveal hundreds of sites in the upland regions of the Black Hills while sites in the Red Valley number in the dozens. This disparity may be due to differences in public versus private land ownership and the intensity of cultural resource compliance investigations between the two. However, there are other possible explanations. The valley floor contains numerous stream channels, causing some to question whether the lack of identified sites comes as a result of fluvial erosion or from archaeological deposits which have been deeply buried from flooding. This paper will relate recent fieldwork to these phenomena as a means of exploring differential site densities in the Wyoming Black Hills.

Pittman, Michael, see Gooding, Erik

Piven, Alix S., see Jacobs, Sarah A.

Piven, Alix S., see Van Etten, Heidi

Plant, Tori L. (University of North Dakota)
Session 18: *Adaptive Healing Techniques in Native American Communities*

It has been reported that American Indian women report more domestic violence than men or women of any other ethnic group and are twice as likely to be physically or sexually abused by a partner as the average woman (CDC 2004). Native American

men are four times more likely, and women three times more likely to attempt suicide than any other race (CDC 2004). American Indian adolescents and children are reporting suicidal ideation and depression at an alarming rate (Bigfoot and Schmidt, 2010). Mental health disparities among Native Americans are due, in large part, to the cultural incompetence of the mental health professionals who serve the Native American population. Bigfoot and Schmidt (2010) stress that cultural competence and integrity is essential in the development and distribution of mental health treatments because cultural norms and beliefs are significant factors in the therapeutic process. Treatments must be adapted to better serve diverse populations, non-adapted or poorly adapted treatments results in distrust and reluctance to seek mental health care (Bigfoot and Schmidt 2010). In cases involving incorporation of Native American cultural components to contemporary therapy the client became more receptive to therapy, they found the activities more meaningful, and the client's spiritual and relational connectedness was reinforced.

Posthumus, David C. (University of South Dakota)

Symposium 22: *The Social Organization of Contemporary Oglala Lakota Ceremonial Life*

Kinship and religion or spirituality are the two pillars of Raymond J. DeMallie's exemplary studies of Lakota or Western (Teton) Sioux culture and history. This paper builds on the foundations laid by DeMallie and incorporates additional insights from Marshall Sahlins's recent work on kinship and themes from the so-called ontological turn in anthropology. Based on the author's ethnographic fieldwork at Pine Ridge Reservation since 2008, this paper explores transformation and continuity in Oglala Lakota kinship and ceremonial life, particularly the significant role played by belief and ritual as a force for kinship and social organization. This paper seeks to articulate the deep-seated relational ontology common among various Lakota communities, separated by both time and space, expressed by the Lakota axiom *mitákuye oyás'ĭ* (all my relatives, we are all related).

Quickbear, Bret, see Gooding, Erik

Radermacher, Matthew, see Rood, Ronald

Renton, Josef, see Salomon, Madison

Rhodd, Ben (Rosebud Sioux Tribe Tribal Historic Preservation Office)

Symposium 20: *Eligibility of Stone Feature Sites: The Argument for a 5th Eligibility Criterion*

In the past two and a half decades the evolution of Native peoples re-establishing their vested relationship to tribal histories has grown rapidly. Sites containing tangible elements of cultural patrimony consistently encompass and retain intangible components associated with creation, climatic and physical elements, flora, fauna or avian condition and migration, celestial constellations, lunar sequences, solar phenomena and seasonal change, dreams, visions, and accomplishments of noted and common individuals. In essence, such sites or features within the cultural homeland landscapes define, validate, and demonstrate the existence or expression of a physical site's integrity and purpose for a living culture. An additional fifth (5th) criterion to the present four eligibility criteria of the NRHP is warranted at this time. This proposed addition would ensure and alleviate sites, landscapes, topographies, and geographies important to the recordation of resources from being destroyed, impacted, or concluded as ineligible, indemnifying that protective measures can be employed.

Ritterbush, Lauren W. (Kansas State University) and **Jakob Hanschu** (Kansas State University)

Session 25: *Researching and Preserving Burial Mounds: An Investigation in the Flint Hills*

Many people consider prehistoric mound building to have been an eastern phenomenon in North America. Yet, artificial mounds are present as far west as the central Plains. In Kansas, much of what we have learned about these features derives from spotty reports of early non-professional explorations and

occasional analyses of curated collections. Recent testing of a mound in the northern Flint Hills, provides insights into its function and structure in addition to comparative data for understanding past human behavior in the Plains. Our investigation confirmed that this subtle feature served as a prehistoric place of burial. Similar to other mounds in this region, it was constructed of natural stone readily available at the site. Cultural materials, including possible offerings, were uncovered separate from human remains. Despite earlier damage to the site, much remains intact arguing for protection of this and other mounds, as well as disturbed remnants of similar features.

Robison, Jade (University of Nebraska, Lincoln; Midwest Archeological Center) and **Effie Athanassopolous** (University of Nebraska, Lincoln)

Session 7: *From the Outhouse and Back Again: Analysis of a Ceramic Assemblage from the Privy of a Late 19th-Century Lincoln Household (25LC181)*

During construction of the Mary Ripema Ross Media Arts Center in Lincoln, Nebraska in 2001, workers uncovered the remains of a household privy, revealing an assemblage of historic ceramics, glass bottles, faunal remains, and other discarded material. The amount of artifacts recovered from the site attests to its intensive use as a refuse pile by a household over the period of a few decades. Present efforts have involved preliminary analysis of ceramic wares and decoration, as well as the creation of a digital database of artifacts and information through Omeka and Scalar for use as research tools. Investigating the ceramic assemblage from the privy sheds light on the daily activities, economic stability, and lifestyle of a Lincoln family at the turn of the 20th century. Based on ceramic trademark identification, the household privy may have been in use most extensively from the 1890s through the 1920s.

Rood, Ronald (Metcalf Archaeological Consultants, Inc.)
Symposium 8: *What is the Best Thing about a Knife River Flint Quarry? The Bone and Antler Digging Tools of Course.*

Recent excavations at 32DU2216 near Killdeer, North Dakota by Metcalf Archaeological Consultants, Inc. resulted in the exposure of several medium size quarry pits and several associated KRF knapping stations. Pre-contact use of bone and antler quarry/digging tools has been discussed in the literature but few examples from archaeological context are available for study. Several bone and antler tools were found at 32DU2216 in association with the quarry that will be discussed in this paper.

Rood, Ronald (Metcalf Archaeological Consultants, Inc.), **Andrea Kulevsky** (Metcalf Archaeological Consultants, Inc.), **Kimberly Troendle** (Metcalf Archaeological Consultants, Inc.), **Matthew Rademacher** (Metcalf Archaeological Consultants, Inc.), and **Daan Meens** (Metcalf Archaeological Consultants, Inc.)
Symposium 8: *Archaeological Investigations at 32DU2216: A Knife River Flint Quarry Near Killdeer, North Dakota*

Data recovery excavations were completed at 32DU2216 during the 2016 field season. Scattered testing and small block excavation resulted in the recovery of several small- and medium-sized quarry pits and associated KRF knapping stations. AMS dates, indicate a narrow range of utilization of this quarry during the Early Woodland/Besant time period.

Rodenbeck, Erica, see Greiff, AmySue

Roper, Donna, see Cummings, Linda Scott

Rutecki, Dawn (Grand Valley State University)
Session 9: *Colonial Expectations: Intersectionality and Material Culture*

Intersectionality arose as a strategy for understanding the ways oppression operates simultaneously on multiple aspects of a person's identity. As such, it provides a key framework for understanding how gender, race, and religion affected interactions

between Europeans and indigenous communities from contact through today. The missionaries of New Spain, as well as later explorers of the Louisiana Territory, proscribed gendered expectations on indigenous peoples that fundamentally altered their societies. Applying an intersectional framework, this paper argues for possible alternative interpretations of cultural materials from the southern Great Plains and central South region, particular those related to Caddo and Wichita peoples. Examining the gendered normalization of indigenous peoples by Europeans through an intersectional lens of racialized, religious discourse provides space to question persistent underlying assumptions about past communities' lifeways that rely on these colonial legacies.

Salomon, Madison (Indiana University), **Josef Renton** (Indiana University), **Mackenzie J. Cory** (Indiana University), and **Peyton Lindley** (Indiana University)

Symposium 11: *There is No "I" in Archaeology: Bighorn Archaeology's Public Collaboration during the 2017 Field Season*

During summer 2017, Bighorn Archaeology engaged with the public via a variety of avenues, both in person and through social media. At Heart Mountain Ranch Nature Conservancy, we hosted the Cody Science Kidz class, "The Heart of the Mountain." Staff and students also participated in a public seminar, hike, and Crow pipe ceremony as part of 7th Annual "Return to Foretop's Father," (featured in The Chicago Tribune), followed by representation at the Buffalo Bill Center of the West's Plains Indian Museum Powwow. At the Heart Mountain Internment Center, students surveyed and recorded sites constructed by incarcerated Japanese-American citizens during World War II, later featured by Tom Brokaw on The Today Show and in the New York Times. The field school then explored rock art at the Nature Conservancy's Ten Sleep Preserve, evaluating the potential for future collaboration at this former Girl Scout National Center West.

Savage, Sheila, see Vehik, Susan

Scheiber, Laura L. (Indiana University)

Symposium 22: *Anthropology Genealogies, Generations, and Heritage*

Professors Raymond DeMallie and Douglas Parks are well-known for their contributions across a wide array of anthropological topics, based on over fifty years of research on Plains Indian language, culture, and history. Inspired by conversations he had with friends such as Waldo Wedel, Mildred Mott Wedel, and Vine Deloria Jr., DeMallie recognized the importance of utilizing ethnohistoric and archaeological research in collaboration with contemporary tribal groups. As part of his call for transdisciplinary scholarship, DeMallie, along with Parks, formed the American Indian Studies Research Institute at Indiana University in 1985. In this paper I will discuss one of the little-known legacies of their impressive scholarship, which is the curation of significant ethnographic and ethnohistoric materials entrusted to them by an earlier generation of anthropologists, such as Preston Holder, Alfred Bowers, and Alexander Lesser. I will highlight recent work with these materials as well as planned collaborations for the future.

Scheiber, Laura L., see Christian, Sam

Scheiber, Laura L., see Hawley, Kirsten M.

Scheiber, Laura L., Van Alst, Emily C.

Schettler, Sashay (University of North Dakota)

Session 18: *Identity and Culture: Decolonizing American Indian Identity through Culture Camp*

The experience of many American Indians is one of disconnect, disconnect with their culture and therefore their identity. Identity for American Indians is often constructed by outsiders, which can result in identity issues. One way for American Indians to decolonize their identity is to attend culture camps. The Three Affiliated Tribes, for example, hosts a science and cultural camp in New Town, North Dakota during the month

of July. This is the time for students to connect with their culture by participating in storytelling, traditional art, tribal community, conversing with elders, learning traditional food practices and much more. This is coupled with contemporary science, to enhance their skills as scholars and improve their community. This has provided many students, on and off the reservation, with the opportunity to reconnect with their heritage in a supportive environment. Culture and education are brought together as tools to decolonize their identity and enable them to find themselves.

Schneider, Blair, see De Vore, Steven

Schneider, Fred (University of North Dakota)

Session 15: *Good Guys vs. Bad Guys?: The Story of the Loss of the Hidatsa Water Buster Bundle in 1907*

The commonly accepted version of this story is that anthropologist Gilbert Wilson pressured Wolf Chief to sell the bundle for a cheap price and quickly sent it back to a museum in New York before others could protest. The reality is considerably different. Much of the misunderstanding about what transpired is the result of Orin G. Libby, Secretary of the Historical Society of North Dakota. Both Wilson and Wolf Chief were accused of wrongdoing. Libby pursued a letter-writing campaign to discredit Wilson, attempted to persuade Indian people to criticize Wilson, wrote letters to Wilson, the Bismarck Tribune, Historical Society officers, and two museums, and attempted to persuade the Commissioner of the Bureau of Indian Affairs and the Superintendent of the Ft. Berthold Reservation to remove Wilson's permit allowing him to conduct field work on the reservation. A great deal of misinformation and confusion was the result of his campaign. Thirty-one years after the bundle was removed it was finally returned to the reservation.

Scullin, Michael (Midwest Ethnohorticulture)

Session 15: *The Three Sisters: An Enduring Horticultural Metaphor*

“The Three Sisters” is a very persistent belief in the mutual beneficence of the triad of corn, beans and squash found in most late prehistoric Native American gardens. Corn provides physical support for the beans that in return provide nitrogen to the corn. Squash/pumpkins cover the garden surface and reduce weed competition as well as keep soil temperature moderate through the shade created by their leaves. Competition is suspended, and the garden is home to the altruistic three sisters. The horticultural reality of the garden, however, is quite different from the metaphor and requires significant human labor to make and maintain order from the otherwise resulting chaos.

Shimek, Rachael (University of Wyoming)

Session 25: *A Dog's Life: The Archaeological Record of Canids in Wyoming*

The archaeological record of canids (wolves, coyotes, dogs, and foxes) is sparse in Wyoming, despite ethnographic and ethnohistoric evidence suggesting the Great Plains were teeming with canids during prehistory and the contact period. This presentation briefly describes the nature of the canid record in Wyoming, including the types of evidence available and its distribution across time and space. I will also offer possible explanations for the nature of the record, focusing on behaviors both prehistoric and contemporary which shape the expression of the archaeological record. Finally, a sample of canid remains from archaeological sites in Wyoming will be highlighted as interesting cases illuminating canid function, care, and health in prehistoric Wyoming groups.

Shimek, Rachael, see Van Etten, Heidi

Shoulder, Caitlyn (University of North Dakota)

Session 18: *Bridging the Gap: Incorporating Lakota Cultural Knowledge and Traditions into Everyday Life among Natives and Non-natives*

The Pine Ridge and Rapid City communities are just two examples of initiatives trying to incorporate Lakota culture, knowledge, and traditions into everyday life. Through the Oceti Sakowin (Seven Council Fires) essential understandings, an educational curriculum, and Thunder Valley, an organization founded by Lakota tribal members, Lakota ideology is slowly being revived and integrated into the communities for all ages. Both projects can be used as a basic platform for incorporating tribal knowledge back into various communities across the nation. This paper will provide an informative look at Lakota culture, how it can be implemented, and its importance, not only to Lakotas, but to the large number of other tribes and non-natives as well.

Smith, Bonnie (Draper Natural History Museum)

Symposium 23: *The Return of Greybull South: An Illustration of Good Museum Stewardship*

In 1962 Harold McCracken of the Buffalo Bill Historical Center, paid \$300.00 to Mr. John Tillard to remove two rock art panels located on his property between Greybull and Basin Wyoming. Unknown to McCracken at the time was that the panels actually rested on Bureau of Land Management property. It was only discovered later that there was a property issue. The panels were taken off exhibit and lost. The search for the panels began in 2014 when Larry Loendorf tasked Bonnie Smith of the Draper to find them. They were not in any vault on Center grounds. But in 2016 they were found in an offsite Quonset hut storage facility. We immediately began the process to return them to Bureau of Land Management via the University of Wyoming Archaeological Repository. The Center of the West having found a mistake in the collection worked proactively to correct it.

Soza, Danielle, Zedeño, Maria Nieves

Speakman, Robert, see Cummings, Linda Scott

Speakman, Robert (University of Georgia, Center for Applied Isotope Studies), **Travis Jones** (University of Georgia, Center for Applied Isotope Studies), **Carla Hadden** (University of Georgia, Center for Applied Isotope Studies), **Victor Thompson** (University of Georgia)

Session 4: *The Reality of Faculty Jobs in Archaeology*

In the past three decades, competition for archaeology faculty jobs at North American colleges and universities has risen significantly. While the numbers of doctorates in anthropology has increased by approximately 70%, the numbers of new faculty positions has remained relatively constant. The present study examines academic job market trends using data derived from the 2014-2015 AnthroGuide. We identify which universities are the most successful at placing Ph.D. graduates into faculty positions by ranking each university based on their market-share trends at the decadal level. We also discuss trends in academic job placement according to gender divisions. Our findings suggest that success in landing a faculty position is largely based on where one ultimately chooses to attend graduate school.

Stafford, Jr., Thomas W., see Cummings, Linda Scott

Staggs, Holly (National Park Service, Midwest Archeological Center)

Session 7: *Homesteading in the Black Hills: Preliminary Results of Excavations at the Sanson Ranch Site (39CU2) at Wind Cave National Park*

In 1882, August Sanson, an immigrant from Sweden, settled on Beaver Creek west of Buffalo Gap, South Dakota. The Sanson homestead originally consisted of 160 acres of land, a two-story house, and a cattle operation. Over the last 100 years, the ranch has expanded 3,700 acres in size and includes breathtaking canyons, pine forests, rolling hills, and open plains. In 2011, the National Park Service acquired the property, also known as the Casey Addition, and added it to Wind Cave National Park. This presentation will focus on the excavations conducted prior to stabilization efforts on four structures at the site: the historic ranch

house, chicken coop, garage, and barn. Preliminary results from excavations at the Sanson Ranch (39CU2) along with a review of historical sources and photographs provide an excellent opportunity to fully understand homesteading and ranching in the Black Hills.

Stellmach, Caitlyn, see Munger, Tressa

Steussy, Cally (Indiana University)

Symposium 11: *Potatoes to Sage: Formation Processes at Work on Two WWII Japanese-American Root Cellars*

During World War II, the third largest city in Wyoming was the Heart Mountain Relocation Center, populated by Japanese immigrants and Americans of Japanese descent who were forcibly relocated from the West Coast. To supplement the minimal rations provided by the War Relocation Authority, the incarcerated completed an unfinished irrigation canal and converted the local desert into successful farmland. To store their crops, they built two large root cellars, which remained after the camp closed at the end of the war. One of the cellars was purposefully collapsed during the 1950s, while the other was abandoned in the 1960s but remains largely intact to this day. This poster shows the result of a preliminary survey conducted in June, 2017, to assess the archaeological potential of the two root cellars and, in particular, to investigate how the differing histories of the two cellars has affected the surface record of each.

Stoermer, Stephanie, see Desrosiers, Dianne

Stoltman, James B., see Green, William

Strader, Carra, see Gooding, Erik

Strong, Cynthia, see Green, William

Strong, Cynthia, see Nadel, Samantha

Sundstrom, Linea (Day Star Research)

Symposium 23: *Wind River to Oaxaca: A Uto-Aztecan Macrotradition Expressed in Western Wyoming Rock Art*

Western Wyoming rock art sometimes referred to as the Dinwoody Rock Art Tradition includes depictions of mythological beings recognized throughout much of the American West and Mexico. As part of a Uto-Aztecan macrotradition, Dinwoody Tradition rock art can best be understood within the context of related oral traditions from the northern Great Plains, Plateau, Northwest Coast, Great Basin, and Mexico. These supernatural beings include a weeping woman associated with childbirth and warfare, water-dwelling babies, cannibal owls, tiny humanlike creatures associated with hunting, and a hideous female monster with sharp talons and a necklace of human bones. This constellation of images confirms that the rock art was made and visited for religious purposes, as supplicants sought to gain supernatural aid in hunting, childbirth, control of weather, foretelling the future, or control over the well-being of others.

Swenson, Fern E., see Boulanger, Matthew

Swenson, Fern E., see Goodwin, Whitney A.

Swenson, Fern E., see Hockaday, William

Swenson, Fern E., see Morgan Brooke M.

Tanke, Darren, see Dawe, Bob

Tharalson, Kirsten (University of Iowa) and **Leland Bement** (University of Oklahoma)

Session 13: *Certain Death: Butchering Patterns at the Certain Site, Western Oklahoma*

This poster presents the documented bison butchering patterns at the Certain site (34BK46). The Certain site is a Late Archaic bison kill site located in western Oklahoma. At least nine kill events took place within the site's six arroyo localities.

Preliminary analysis indicates several seasonalities, largely targeting calf/cow herds. Butchering is varied between seasonalities with extensive butchering during the winter kill events and a more selective, or gourmet, butchering pattern during the summer and fall kills. At least 250 bison are represented in Certain's analyzed assemblage, although the majority of the site has yet to be excavated and an MNI of more than 1000 bison are expected.

Thompson, Ashleigh, Zedeño, Maria Nieves

Thompson, Victor, see Speakman, Robert

Tiffany, Joseph A. (Office of the State Archaeologist of Iowa)
Symposium 24: *The Glenwood Locality Settlement System*
Reviewed

Modeling Glenwood locality settlement systems is a continuing area of study. Glenwood locality and Nebraska variant settlement system reflect the importance of proximity to basic resources and secondarily the influence of trade and exchange. The Nebraska variant sites of which the Glenwood phase is part represents a relatively brief occupation span from A.D. 1200 to 1350. Like the Nebraska variant, the Glenwood phase has a dispersed settlement system primarily of individual farmsteads scattered along ridge summits, low terraces, and foot slopes of the valley walls of major interior drainages in the locality. There are clusters of Glenwood lodge sites where larger alluvial features occur in the locality such as the confluence of Keg and Horse Creeks and where Pony Creek empties into the Missouri Valley. Ceramic seriation suggests three largely contemporaneous site clusters in the locality.

Tiffany, Joseph A., see Green, William

Toom, Dennis (University of North Dakota)

Session 26: *The Role of the Field Camp in Heart River Phase Settlement and Subsistence Patterns*

Much is known about the past human behavior that occurred in the permanent village sites of the Middle Missouri subarea. However, much less is known about activities at satellite sites tethered to these villages, most notably at distant field camps located along the major tributary streams of the Missouri. Field camps recorded on the Heart River and attributable to the Heart River phase of the early Post-Contact Coalescent variant are examined in this regard. It is found that the primary function of these field camps was to process products from bison hunting for transportation to the Missouri River villages. Secondary functions included the production of stone and bone ornaments from locally available materials. One can surmise that the collection of stone tool raw materials and the gathering of wild plant foods were also important tasks carried out at these field camps.

Trabert, Sarah, see Vehik, Susan

Tratebas, Alice M. (Bureau of Land Management)

Session 14: *Failure of CRM Archaeology to Recognize and Consider Cultural Landscapes*

CRM methodologies are frequently set up to deal with cultural resources in a piecemeal fashion. As a result, cultural resources may be segmented into arbitrary units that do not reflect the true nature of a cultural landscape. Examples presented include quarry and ceremonial sites. A consequence of false segmentation is incorrect site evaluations. Small pieces of a cultural landscape may be evaluated as not eligible when in fact they are an important part of the cultural landscape as a whole. Such cases include evaluating the processing area of a bison kill site as not eligible, assessing lithic reduction workshops that are part of a large quarry site as not eligible, and assuming that a cairn on a ridge point that is more than 30 meters from the rest of the cultural landscape is not eligible. In some cases the larger landscape is unknown due to lack of broader surveys. In other cases the larger landscape is

previously identified but the surveyor did not recognize or acknowledge the connection.

Troendle, Kimberly, see Rood, Ronald

Van Alst, Emily C. (Indiana University)

Symposium 22: *Iglake S'a (to be nomadic): Maintaining a Hunter-Gatherer Lifestyle within Lakota Culture through Time*

Culture at its simplest definition is the way of life of a group of peoples, including both beliefs and behaviors, which people pass down to subsequent generations through communication and imitation. Lakota culture is inherently interconnected and complex; every aspect can only exist in a balanced and proper state with the support of other parts. In this paper, I use the *čhangléška* or circle as a framework to show the relationships between Lakota people, their environment, and the spiritual realm. Sociopolitical structure informs kinship, kinship informs religion, and religion informs sociopolitical structure, completing the circle. Lakota social structure and religious ceremonies have helped the Lakota maintain traditional hunting and gathering practices through pre-contact, reservation, and the post-colonial periods. Maintaining traditional social structures coupled with Lakota spirituality have allowed these communities to continue their traditions and pass them down to future generations.

Van Alst, Emily C. (Indiana University), **Laura L. Scheiber** (Indiana University), and **Mackenzie J. Cory** (Indiana University)
Symposium 11: *Into the West(ern) Experience – They Ain't From These Parts: Using Fiction to Help Teach a Wyoming Archaeology Field School*

The West is not just a place; it is also a concept that combines both physical and social landscapes. This concept is one that our students, as lifelong Indiana Hoosiers, do not comprehend when they first arrive in Wyoming. Bighorn Archaeology assigns fiction and non-fiction to help students conceptualize the Old West and the New West. In 2017, we watched the 12-hour miniseries

Into the West and the films *Smoke Signals* and *The Revenant*. We read aloud works of Sherman Alexie, Craig Johnson, Michael Gear, Gretel Ehrlich, and Joe Medicine Crow. Through these accounts of the region's history and culture, we teach students to understand the West from multiple perspectives and to apply them to their personal interactions and experiences. Discussion of unfamiliar concepts communicated through familiar channels allows students more quickly to grasp complexities of the West and to think about them critically, especially in rural conservative American communities.

Van Alst, Emily C. (Indiana University), **Laura L. Scheiber** (Indiana University), and **Mackenzie J. Cory** (Indiana University)
Symposium 11: *Surveying the Buffalo's Heart: Results of Bighorn Archaeology's 2017 Work on Heart Mountain*

For the third year of work at the Heart Mountain Ranch Nature Conservancy, Bighorn Archaeology expanded its previous survey areas, shifting focus away from the easily reachable trailhead cabin toward both less accessible grazing areas near the northern end of the property and more heavily disturbed multi-use areas east of the Heart Mountain Canal. High-quality orthophoto property boundary websites are of great assistance. By expanding the survey area into more remote parts of the property, we hope to better understand prehistoric patterns of landscape use without the biases of modern disturbance. Conversely, our shift towards the more heavily used parts of the property was prompted by a desire to better understand the historic usage of the landscape both as a government administered WWII internment camp and as private ranch land. We identified and recorded several previously undocumented sites including a stone circles, lithic scatters, cairns, and historic ranching features.

Van Etten, Heidi L. (University of Wyoming)
Session 16: *Making Collections Accessible: Problems and Solutions from the University of Wyoming Bead Collections*

Archaeological repositories have a responsibility to make their collections accessible. When collections are inaccessible or

difficult to access, the repository and the public feel the consequences. Issues regarding the location of items are often at the heart of accessibility problems and include out of date systems, misidentification, and misplaced items. The bead and pendant collection at the University of Wyoming Archaeological Repository (UWAR) remained largely inaccessible to research due to questions of location and identification. These concerns were recently addressed during a thorough update of the collection. Items were located, documentation updated, including identifying and fixing cataloging errors, and each item photographed for online digital access to the collection, thus making the collection accessible to a wider audience. Lastly, the repository now has a basic bead identification guide for curation staff and is available to the public on the UWAR website to help mitigate future identification errors.

Van Etten, Heidi (Paleoindian Research Lab), **Rachael Shimek** (Paleoindian Research Lab), **Alix Piven** (Independent Archaeologists, New York, New York), **Mary Lou Larson** (Paleoindian Research Lab), **Marcel Kornfeld** (Paleoindian Research Lab), **Justin Garnet** (University of Missouri, Kansas City), **Zach Garhart** (Paleoindian Research Lab), **Tony Fitzpatrick** (Paleoindian Research Lab), **Darlene Carreto** (Paleoindian Research Lab), **Jacob Batisky** (Ohio State University), and **Sage Wall** (Independent Archaeologist, Denver, Colorado)

Session 3: *The 2017 Field Season at a National Historic Landmark Site: Hell Gap*

The Hell Gap Valley in Goshen County, Wyoming, offered a home to the First American since the end of the Pleistocene. This year's excavations removed the last concrete cap protecting unexcavated deposits and the underlying backfill at Locality I, allowing access to the earliest deposits at the site, Agate Basin and older. Excavations produced a quantity of worked and unworked bone, chipped stone, charcoal, and ochre, and allow for better definition of the stratigraphy and site formation processes. The results are enhancing and broadening our understanding of regional

foragers during the terminal Pleistocene/Early Holocene transition. Additionally, on July 22, 2017, a monument was dedicated to honor the site and its recent (2016) registry as a National Historic Landmark.

Varney, R. A., see Cummings, Linda Scott

Vehik, Susan (University of Oklahoma), **Sarah Trabert** (University of Oklahoma), **Stephen Perkins** (Oklahoma State University), **Richard Drass** (University of Oklahoma), and **Sheila Savage** (University of Oklahoma)

Session 26: *Twin Villages? The Bryson-Paddock and Deer Creek Sites*

In the 1740s Bryson-Paddock and Deer Creek were described as two fortified Wichita villages involved in trading bison hides to the French. Bryson-Paddock has been excavated off and on for almost a century, but Deer Creek has only recently received work. The two villages have always been assumed similar in their activities. This paper discusses how similar and different the two sites are and the implications for the bison hide trade.

Waggoner, Tricia (Kansas Historical Society)

Session 9: *Preliminary Investigations at Kaw Mission*

The Kaw Mission was constructed in 1851 to serve as a labor school for the children of Kansa Indians on their new reservation. It served in this capacity for four years. After that it served as a school for the white children of the community, a hotel, a place to stop along the Santa Fe Trail, a personal home, and finally a tourist attraction and museum. The property has been owned by the State of Kansas since 1951 and has never had any archeological investigations until now. Starting in the summer of 2016 investigations began and include metal detector survey, test excavations, and geophysical survey. These investigations will guide future work.

Walker, Danny (Wyoming Archaeological Society) and **Carolyn Buff** (Wyoming Archaeological Society)

Session 9: *Working to Preserve the Red Buttes Battlefield Landscape in Central Wyoming*

The location of the Battle of Red Buttes in central Wyoming has been searched for by oil field executives, geologists, avocational historians, professional historians, archaeologists and “other interested persons” since the mid-1920s, with no success until 2016 when geophysical investigations resulted in identification of one US Army defensive position from the battle. Archaeological research is continuing, but it is time to step back and look at preservation. The battlefield landscape has been in the hands of the Rimrock Ranch for well over a hundred years, and the family desires to keep the battlefield safe from development and looters, but during the last 10 years, keeping it safe has not been easy.

Wall, Sage, see Van Etten, Heidi

Wandsnider, LuAnn (University of Nebraska, Lincoln) and **Megan L. Wilson** (University of Nebraska, Lincoln)

Session 7: *Pioneer Population Demography: How Were Fertility and Mortality in Custer County (NE) Homesteaders Impacted by Extreme Weather Events?*

Traditional populations, smaller groups not well incorporated in world economic systems, may be heavily impacted by extreme weather events. Conversely, they may be differentially resilient, accommodating events depending on the spatial scale, severity, and frequency of the event. Extreme weather events, such as droughts, hailstorms, blizzards, affected crops and human populations during the homesteading era. Focusing on families homesteading in Custer County, Nebraska between 1870 and 1900, we investigate fertility and mortality variations in relation to select extreme weather events: the winter of 1880-1881, Sargent township hailstorms of 1883-1884, Arnold township hailstorms of 1884-1885, three years of bountiful crops (1886-1889), the Schoolchildren’s Blizzard of 1888, and the year of severe drought

(1894-1895). Using a longitudinal demographic database under development, we report on a population level analysis of the effects of these severe events on the frequencies and rates of fertility and mortality.

Wiewel, Adam (Midwest Archeological Center) and **Rebecca Fritsche Wiewel** (Arkansas Tech University)

Session 26: *Remote Sensing Investigations of the Arzberger Site (39HU6)*

Arzberger is a fifteenth- or sixteenth-century fortified village located near present-day Pierre, South Dakota. Although it is an important example of an Initial Coalescent settlement, its most intensive study occurred in 1939 when the village was accurately mapped and test excavations were made of four lodges and the fortification. This early work identified a surprisingly low number of houses for such a large settlement. In recent decades, quarrying activities have destroyed substantial portions of the settlement, despite its 1964 designation as a National Historic Landmark. To better understand the site's content and assess its current condition, archeologists from the Midwest Archeological Center recently deployed a six channel SENSYS MAGNETO MX V3 gradiometer system. Besides the magnetic data, the unit's integrated GPS yields accurate topographic information. When combined, the datasets provide a clear view of the remaining portion of the village's fortification, its many lodges, and probable storage pits.

Wiewel, Adam, see Bozell, Rob

Wiewel, Rebecca Fritsche, see Wiewel, Adam

Wilson, Megan, L., see Wandsnider, LuAnn

Wondrasek, Rob (Atlatl Archaeology), **Rachel Lindemann** (Atlatl Archaeology), and **Elsa Perry** (Atlatl Archaeology)

Session 9: *Intermingling Influences in the Fort Macleod, AB Artifact Assemblage*

Excavations at the original Fort Macleod, Alberta town site over the last two years have resulted in the recovery of a substantial 19th-Century community assemblage associated with the first North West Mounted Police post in western Canada. The assemblage affords a unique look at the changing dynamics of the area as the Whiskey Trade comes to an end but yet the traditional robe trade endures, at least until the ultimate decimation of the buffalo herds. This paper will discuss the assemblage and possible interpretations regarding the Europeans, First Nations, and Metis living together in this community.

Wood, W. Raymond (University of Missouri)

Session 15: *Joseph Graveline: Unsung Fur Trader on the Missouri River*

Joseph Graveline was an illiterate French Canadian who settled into the Arikara village at the mouth of the Grand River, in present South Dakota, where he married into the tribe, and where he translated Arikara for Lewis and Clark. After the expedition he accompanied Piaheto, or Too Né, to Washington, where the chief died. Graveline returned to the Arikara villages with this sad news. Sometime during the trip to Washington, Piaheto created a map of the Missouri River, illustrating features from Santa Fe to a North West Fur Company post in Canada.

Woodruff, Amy, see Dalan, Rinita

Yates, Corey (St. Cloud State University)

Symposium 2: *Does Beer Float? Archaeobotanicals at the Brainerd Brewery*

The proprietors of the 19th/20th century Brainerd Brewery in central Minnesota were all first or second generation German immigrants. Their German ancestry coupled with the fact that the brewery suffered several fires, makes the Brainerd Brewery site ideal for exploring whether Reinheitsgebot, or the German purity law for brewing beer was observed here. Investigations at the Brainerd Brewery focused on the recovery of archaeobotanicals in order to determine if grains considered adjuncts, or impurities

according to Reinheitsgebot, were used at the brewery. The methodology relied on the recovery of soil samples from shovel tests and excavation units, which were then processed using a bucket flotation method to recover potential archaeobotanicals. The recovered archaeobotanicals were then analyzed to determine whether or not they were or were not malted barley, the only truly pure grain according to the German Purity law. The preliminary results indicate that Reinheitsgebot was not being followed, which begs the question why not?

Zedeño, Maria Nieves (University of Arizona), **Francois Lanoë** (University of Arizona), **Danielle Soza** (University of Arizona), **Anna Jansson** (University of Arizona), and **Ashleigh Thompson** (University of Arizona)

Session 3: *The Middle Archaic on the Rocky Mountain Front: A View from the Billy Big Spring Site, Montana*

Few archaic-age sites in the northern Plains present the degree of chronological resolution and stratigraphic preservation needed to reconstruct diverse activities. In contrast, the site of Billy Big Springs, located on the Rocky Mountain Front, north-central Montana, has a favorable stratigraphic context with rapid sedimentation and negligible post-depositional disturbance. Recorded occupations span the entire archaic sequence (ca 7,100-2,000 cal. BP). Among these, a Middle Archaic occupation dated to ~3,500 cal. B.P. and associated with the McKean complex presents a particularly high density of features and artifacts. Clusters of archaeological materials surrounding a large hearth result from intensive stone tool making and subsistence activities; their analysis expands current knowledge of Middle Archaic land and resource use in the region.

Zeimens, George (Western Plains Historic Preservation Association) and **George Frison** (University of Wyoming)

Session 3: *Continuing Investigations at the Powars II Paleoindian Red Ochre Mine in Southeastern Wyoming*

A red ochre mine, a toolstone quarry, unique stone circles and stratified terrace deposits constitute a complex of resources at

the Powars II site. Initial analysis of data indicate that those resources are related to procurement and processing of red ochre in addition to other activities.

Zeimens, George, see Frison, George

Zeleznik, Joseph (North Dakota State University)

Session 4: *Towards a Master Chronology for Bur Oak in the Northern Great Plains*

Dendrochronology has been utilized for a century in a number of fields including anthropology, archaeology, climatology and others. In much of the northern Great Plains, dendrochronology studies have been limited due to the paucity of trees found in the largely prairie ecosystem. In recent years, researchers at North Dakota State University have developed chronologies for eastern North Dakota and northwestern Minnesota based largely on bur oak samples from settlement-era log cabins, houses, barns and other structures. Five local chronologies have been developed for an area around Fargo-Moorhead extending 110 kilometers east-west and 97 kilometers north-south. These chronologies provide a good foundation for crossdating samples to the mid-1700s, though all chronologies date to 1717 and earlier; the oldest sample dates to 1567. Will's (1946) 'Master Oak' has been measured and reanalyzed in light of additional data, and new work has begun to create additional chronologies across northern and central North Dakota.

Ziska, Courtney, see Bozell, Rob

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PLAINS ANTHROPOLOGICAL CONFERENCES

2017	Bismarck, ND	1982	Calgary, AB
2016	Lincoln, NE	1981	Bismarck, ND
2015	Iowa City, IA	1980	Iowa City, IA
2014	Fayetteville, AR	1979	Kansas City, MO
2013	Loveland, CO	1978	Denver, CO
2012	Saskatoon, SK	1977	Lincoln, NE
2011	Tucson, AZ	1976	Minneapolis, MN
2010	Bismarck, ND	1975	Lincoln, NE
2009	Norman, OK	1974	Laramie, WY
2008	Laramie, WY	1973	Columbia, MO
2007	Rapid City, SD	1972	Lincoln, NE
2006	Topeka, KS	1971	Winnipeg, MB
2005	Edmonton, AB	1970	Tulsa, OK
2004	Billings, MT	1969	Lawrence, KS
2003	Fayetteville, AK	1968	Lincoln, NE
2002	Oklahoma City, OK	1967	St. Paul, MN
2001	Lincoln, NE	1966	Lincoln, NE
2000	St. Paul, MN	1965	Topeka, KS
1999	Sioux Falls, SD	1964	Lincoln, NE
1998	Bismarck, ND	1963	Ft. Burgwin, NM
1997	Boulder, CO	1962	Lincoln, NE
1996	Iowa City, IA	1961	Lawton, OK
1995	Laramie, WY	1960	Norman, OK
1994	Lubbock, TX	1959	Lincoln, NE
1993	Saskatoon, SK	1958	Lincoln, NE
1992	Lincoln, NE	1957	Lincoln, NE
1991	Lawrence, KS	1956	Lincoln, NE
1990	Oklahoma City, OK	1955	Lincoln, NE
1989	Sioux Falls, SD	1954	Lincoln, NE
1988	Wichita, KS	1953	Lincoln, NE
1987	Columbia, MO	1952	Lincoln, NE
1986	Denver, CO	1951	Lincoln, NE
1985	Iowa City, IA	1950	Lincoln, NE
1984	Lincoln, NE	1949	Lincoln, NE
1983	Rapid City, SD	1948	Lincoln, NE

1947 Lincoln, NE
1940 Norman, OK
1936 Mt. Vernon, IA

1932 Lincoln, NE
1931 Vermillion, SD

PLAINS ANTHROPOLOGICAL SOCIETY PRESIDENTS

2017 Sarah Trabert, University of Oklahoma
2016 Kacy Hollenback, Southern Methodist University
2015 Amy Bleier, State Historical Society of North Dakota
2014 Mark Mitchell, Paleocultural Research Group
2013 Mavis Greer, Greer Services
2012 Mark Miller, Wyoming State Archaeologist's Office
2011 Bob Dawe, Archaeology and Ethnology, Royal Alberta Museum
2010 William Billeck, Smithsonian Institution
2009 Lynelle Peterson, Ethnoscience, Inc.
2008 Joseph Tiffany, Mississippi Valley Archaeological Center
2007 Leland Bement, Oklahoma Archaeological Survey
2006 Marcel Kornfeld, University of Wyoming/Frison Institute
2005 Daniel Amick, Loyola University
2004 William Hartwell, Desert Research Institute
2003 Brian Reeves, Lifeways Canada, Ltd.
2002 Danny Walker, Wyoming State Archaeologist Office
2001 Lori Stanley, Luther College
2000 Joe Artz, Office of the Iowa State Archaeologist
1999 Jack Brink, Provincial Museum of Alberta
1998 Charles Reher, University of Wyoming
1997 William Lees, Oklahoma Historical Society
1996 Dennis Toom, University of North Dakota
1995 Robert Bozell, Nebraska State Historical Society
1994 Christopher Lintz, Mariah Associates
1993 Joseph Tiffany, California State Polytechnic University, Pomona
1992 Adrien Hannus, Augustana College
1991 Jack Hofman, Oklahoma Archaeological Survey
1990 Mary Jane Schneider, University of North Dakota

1989 Mary Jane Schneider, University of North Dakota
 1988 Susan Vehik, University of Oklahoma
 1987 Susan Vehik, University of Oklahoma
 1986 Duane Anderson, University of Iowa
 1985 Thomas Witty, Kansas State Historical Society
 1984 Leigh Sims, Manitoba Museum of Man and Nature
 1983 Amy Harvey, Stephens College
 1982 Douglas Parks, Mary College
 1981 Larry Loendorf, University of North Dakota
 1980 Leslie Davis, Montana State University
 1979 Richard Jantz, University of Tennessee
 1978 Michael Wilson, University of Calgary
 1977 Fred Schneider, University of North Dakota
 1976 Henry Hamilton, Missouri Archaeological Society
 1975 Dale Henning, University of Nebraska
 1974 George Frison, University of Wyoming
 1973 David Gradwohl, Iowa State University
 1972 Richard Krause, University of Missouri
 1971 Waldo Wedel, Smithsonian Institution
 1970 Waldo Wedel, Smithsonian Institution
 1969 Waldo Wedel, Smithsonian Institution

DISTINGUISHED SERVICE AWARD RECIPIENTS

2016 Alice Kehoe
 2015 Donna C. Roper
 2014 no award
 2013 Joseph A. Tiffany
 2012 F. A. Calabrese
 2011 Richard A. Krause
 2010 Leslie B. Davis
 2009 Patricia O'Brien
 2008 no award
 2007 Thomas Witty
 2006 Stanley Ahler
 2005 Dale Henning

- 2004 Thomas Kehoe
- 2003 Mary Jane Schneider and Frederick Schneider
- 2002 Don Wyckoff
- 2001 James Gunnerson and Delores Gunnerson
- 2000 no award
- 1999 Richard Forbis
- 1998 David Gradwohl
- 1997 Larry Tomsyck and Janice Tomsyck
- 1996 no award
- 1995 George Frison
- 1994 Robert Bell
- 1993 William Mayer-Oakes
- 1992 Raymond Wood
- 1991 Waldo Wedel and Mildred Mott Wedel

NATIVE AMERICAN SCHOLARSHIP RECIPIENTS

- 2016 Melanie McKay-Cody, Chickamauga Cherokee, University of Oklahoma
Tyrone Peterson, Navajo Nation and the Pascua Yaqui Tribe, University of Iowa
- 2015 John Reynolds, Rosebud Sioux Tribe, St. Cloud State University
- 2014 Justin Lund, Navajo Nation, University of Oklahoma
- 2013 Melanie McKay-Cody, Chickamauga Cherokee, University of Kansas
- 2012 Royce Freeman, Mandan Hidatsa Arikara Nation, University of Oklahoma
- 2011 Michael B. Catches Enemy, Oglala Nation, St. Cloud State University
- 2010 Donna Longhorn, Delaware, University of Oklahoma
- 2009 Brad Kroupa, Three Affiliated Tribes, University of Indiana
- 2008 Wilena Old Person, Yakama/Blackfeet, University of Montana
- 2007 Brenda Covington, Colville/Spokane, University of Montana

- 2006 Jason Hale, Prairie Band Potawatomi, Washburn
- 2005 La Rae Buckskin, Shoshone-Bannock, University of Idaho
- 2004 Gloria McCarty, Muscogee Creek, University of Oklahoma
- 2003 no award
- 2002 Julie Bartlett, Oglala Lakota, University of Winnipeg
- 2001 Laura Cocker, Manitoba Métis Federation, University of
Winnipeg
Jana Vee Cornelius-Baird, Seminole/Creek, University of
Oklahoma
- 2000 Claudette Rocan, Métis, University of Winnipeg
Martin Earring, Minneconju-Oglala, Cheyenne River
Sioux, University of South Dakota
- 1999 Rebecca Amen, Omaha Tribe, University of Nebraska,
Lincoln
- 1998 Paulette Steeves, Cree/Cherokee/Micmac, University of
Arkansas
Jacquelin St. Clair, Seminole Nation of Oklahoma,
University of Wyoming
- 1997 Florence Whitehorse-Taylor, Kiowa Tribe of Oklahoma,
University of Oklahoma
Alix Reynolds, Manitoba Métis Federation, University of
Winnipeg
Shanna Olinger, Yankton Sioux Tribe, Montana State
University
- 1996 Evelyn Siegfried, Big Cree Band, University of Calgary
- 1995 Michelle Fox, Red Lake Chippewa, University of North
Dakota
- 1994 Dawn Makes Strong Move, Winnebago Tribe of Nebraska,
University of South Dakota

STUDENT PAPER AWARD RECIPIENTS

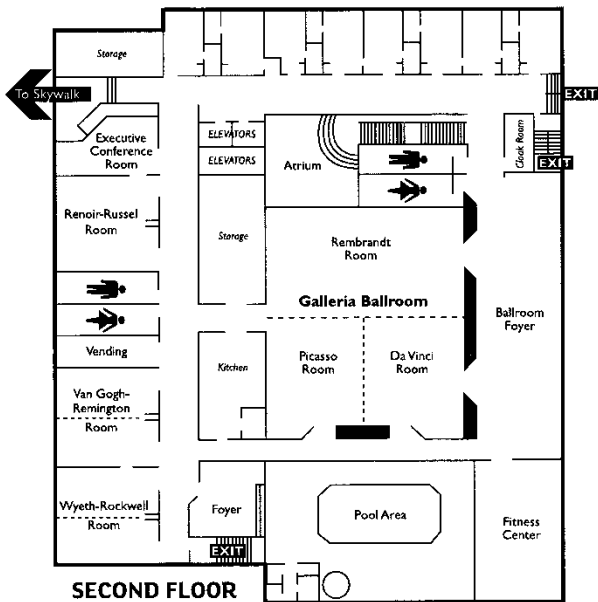
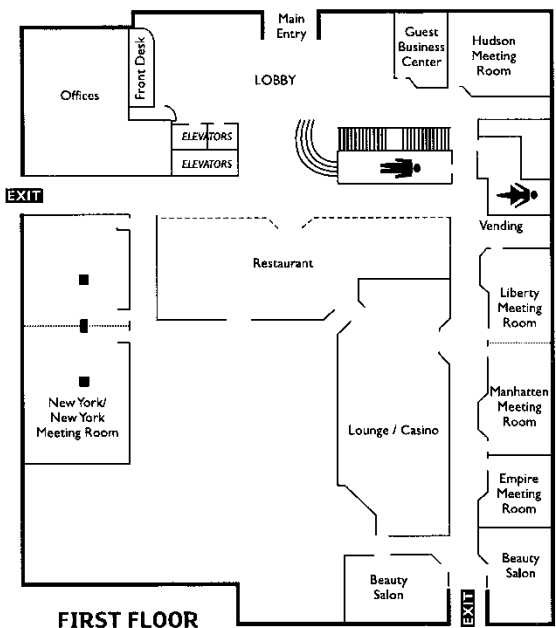
- 2016 Seamus Anderson, Texas Tech University
Ryan Breslawski, Southern Methodist University
- 2015 Whitney A. Goodwin, Southern Methodist University
- 2014 Adam Wiewel, University of Arkansas

2013 Sarah Wolff, University of Arizona
 2012 Elsa Perry, University of Lethbridge
 2011 William Reitze, University of Arizona
 2010 Kacy Hollenback, University of Arizona
 Travis Hill, Colorado State University
 2009 Maureen Boyle, Indiana University
 Wendi Field Murray, University of Arizona
 Brigid Grund, University of Colorado
 2008 Jeremy Planteen, University of Wyoming
 Shana Wolff, Laramie County Community College
 2007 no award
 2006 Michael Jordan, University of Oklahoma
 Jayme Job, Minnesota State University Moorhead
 2005 Patti Kinnear, University of Colorado
 Tomasin Playford, University of Manitoba
 2004 Raven Carper, University of Montana
 2003 Lucy Burris, Colorado State University
 2002 Jodi Jacobson, University of Tennessee
 2001 Charles Egeland, Colorado State University
 Chad Goings, University of Arkansas
 2000 Paula Renaud, University of Wyoming
 1999 Rhonda Fair, University of Oklahoma
 1998 Jesse Ballenger, University of Oklahoma
 1997 Susan Tanner, University of Nebraska
 1996 no award
 1995 Bruce Low, University of Saskatchewan
 1994 no award
 1993 no award
 1992 Elizabeth Miller, University of Nebraska
 1991 no award
 1990 Jeffrey Huebner

STUDENT POSTER AWARD RECIPIENTS

2016 Jennifer K. Deats, University of Colorado, Boulder
 2015 Justin Garnett, University of Missouri

RADISSON HOTEL—DOWNTOWN BISMARCK

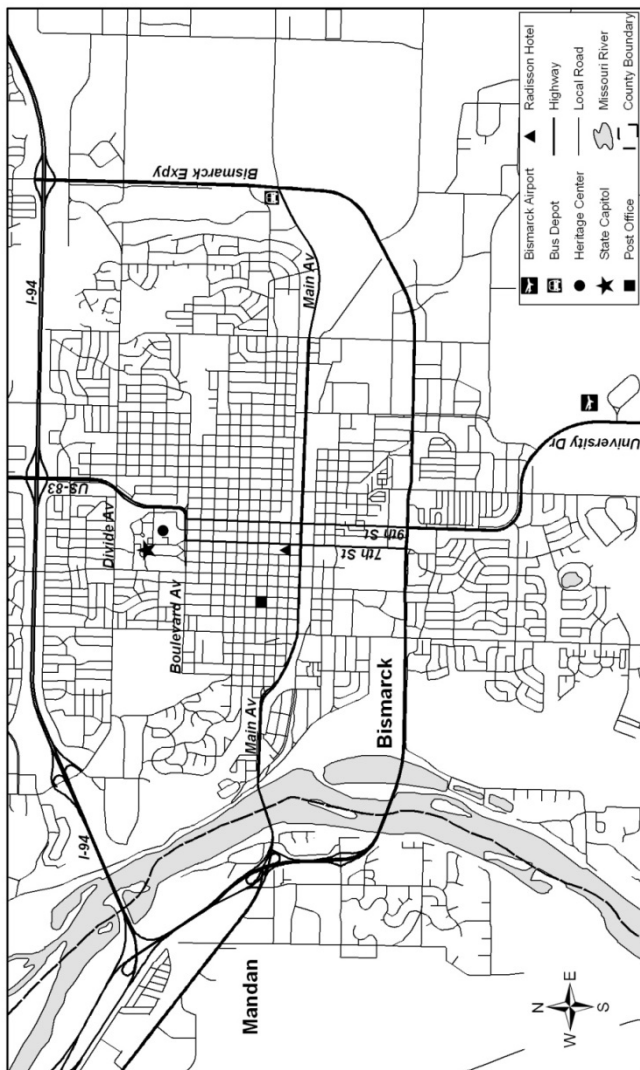


MAP OF BISMARCK & MANDAN

(South of Interstate 94)

7th St is a *one-way* traveling south

9th St is a *one-way* traveling north



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	Renoir- Russell	Da Vinci	Rembrandt	Van Gogh- Remington	Picasso
Thursday Morning	1 Chief Looking's Village	2 Student Papers	3 Paleoindian & Archaic	4 Great Plains Anthropology, Pt. 1	5 Great Plains Archaeology, Pt. 1
		6 WYOArch Focus Group		7 Great Plains Anthropology, Pt. 2	
Thursday Afternoon	8 Knife River Flint Quarries	9 Historical Archaeology	10 Ray Wood Tribute	11 Bighorn Archaeology	
	12 Lithic Roundtable			13 Paleoindian & Archaic	
Friday Morning	14 CRM/Tribal Consultation		15 Ethnography & Ethnohistory	16 Student Posters	17 Archaeometry
		19 Arikara Youth Roundtable	18 Cultural Anthropology		
Friday Afternoon	20 Tribal Consultation and Section 106	21 Geophysical Workshop	22 DeMallie/Parks Tribute	23 Rock Art	24 Central Plains
Saturday Morning		25 Great Plains Archaeology, Pt. 2	26 Village Archaeology		