



Loveland Archaeological Society, Inc.
A Colorado Non-Profit Corporation

Arrowheadlines



The Newsletter of the Loveland Archaeological Society

JULY 2020



Club Minutes

A July meeting of the Loveland Archaeological Society was not held due to the pandemic. We cannot have our annual August picnic meeting due to City of Loveland restrictions on gatherings of more than ten people at the city parks. Also, the City of Loveland as of this date has not responded on availability of *any* venue for our September meeting.

The Ranch will not be able to accommodate the Loveland Stone Age Fair under the current conditions and has offered to allow us to use our deposit and re-book for September 2021. We had a very surprising suggestion from George Zeimens and the group that runs the POWARS II paleo site at Sunrise, Wyoming. They have been running a fund raising event on the same weekend as the Stone Age Fair for the last several years with a dinner and auction on Friday night that many of our Stone Age Fair exhibitors attend. They offered the Sunrise POWARS II site as an alternative venue for our Stone Age Fair this year. Although the Loveland Archaeological Society completely supports their mission, the idea to hold this year's Fair in Wyoming required much deliberation on the part of our officers and past Stone Age Fair Chairmen and long-time members. The issues of security, liability (both normal and pandemic), the LAS sponsoring an event out of the jurisdiction of our Charter among others were brought up. It was decided that the Loveland Archaeological Society could not sponsor the event due to liability. However, since we believe in supporting the archaeological work being done at Sunrise, we are allowing the event being held by the Western Plains Historic Preservation Association (the POWARS II group) to be called the **86th Annual Stone Age Fair Sunrise Edition**. They are modeling the event after the Stone Age Fair: non-commercial, free public admission, no table charge for exhibitors, and an archaeological lecture series. It will be held September 26th & 27th at Sunrise, Wyoming. WPHPA is handling all aspects of the event, insurance, security, and COVID-19 health and safety standards set by State of Wyoming. They will be displaying the amazing paleo artifacts found at the site. Everyone is invited to display and although the venue is rustic, they have camping available for a small fee. The POWARS II site may prove to be the most important paleo archaeological site in the country. Dr. George Frison believes it will be. They are sponsoring the event to generate interest from the public and the archaeological community in order to continue funding the work into the future. We are offering our scholarships this year and may present them at Sunrise event. *Best, Andy and Sandy Coca*



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LAS Finds of the Month

Some of our members' recent finds...

Left: From Garry Weinmeister- *“Attached are pics of a point I found a few weeks ago. According to Noel Justice's book, it's a Sudden Side Notched point, 4,000 to 6,500 years old, part of the Northern Side Notched cluster. I found it in my Anasazi ruins (600 to 1100 AD). It's 1-3/4 inches long with a tip ding”.*

Right: From Andy Coca-*“My finds since the last newsletter. The longest McKean is 1-5/8 inches”.*



Archaeology in the News

Arrowheads and Other Points: Myths and Little Known Facts

Here are some common misconceptions about arrowheads, and some things that archaeologists have learned about these ubiquitous objects.

Myth Number 1: All triangular stone objects found on archaeological sites are arrowheads

Arrowheads, objects fixed to the end of a shaft and shot with a bow, are only a fairly small subset of what archaeologists call projectile points. A projectile point is a broad category of triangularly pointed tools made of stone, shell, metal, or glass and used throughout prehistory and the world over to hunt game and practice warfare. A projectile point has a pointed end and some kind of worked element called the haft, which enabled attaching the point to a wood or ivory shaft.





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There are three broad categories of point-assisted hunting tools, including spear, dart or atlatl, and bow and arrow. Each hunting type requires a pointed tip that meets a specific physical shape, thickness, and weight; arrowheads are the very smallest of the point types.

In addition, microscopic research into edge damage (called 'use-wear analysis') has shown that some of the stone tools that look like projectile points may have been hafted cutting tools, rather than for propelling into animals. In some cultures, and time periods, special projectile points were clearly not created for a working use at all. These can be elaborately worked stone objects such as the so-called eccentrics or created for placement in a burial or other ritual context.

Myth Number 2: The smallest arrowheads were used for killing birds

The smallest arrowheads are sometimes called "bird points" by the collector community. Experimental archaeology has shown that these tiny objects—even the ones under half an inch in length—are sufficiently lethal to kill a deer or even larger animal. These are true arrowheads, in that they were attached to arrows and shot using a bow. An arrow tipped with a stone bird point would easily pass right through a bird, which is more easily hunted with nets.

Myth Number 3: The hafted tools with the round ends are meant for stunning prey rather than killing it

Stone tools called blunt points or stunners are actually regular dart points that have been reworked so that the pointy end is a long horizontal plane. At least one edge of the plane might have been purposefully sharpened. These are excellent scraping tools, for working animal hides or wood, with a ready-made hafting element. The proper term for these kinds of tools is hafted scrapers. Evidence for reworking and repurposing older stone tools was quite common in the past—there are many examples of lanceolate points (long projectile points hafted onto spears) that were reworked into dart points for use with atlatls.

Myth Number 4: It takes a really long time to make an arrow point

While it is true that making some stone tools (e.g., Clovis points) requires time and considerable skill, flintknapping, in general, is not a time-intensive task, nor does it necessarily require a great amount of skill. Expedient flake tools can be made in a matter of seconds by anyone who is capable of swinging a rock. Even producing more complicated tools is not necessarily a time-intensive task (though they do require more skill). If a flintknapper is skilled, they can make an arrowhead from start to finish in less than 15 minutes. In the late 19th century, anthropologist John Bourke timed an Apache making four stone points, and the average was only 6.5 minutes.



Myth Number 5: All arrows (darts or spears) had stone projectile points attached, to balance the shaft

Stone arrowheads are not always the best choice for hunters: alternatives include shell, animal bone, or antler or simply sharpening the business end of the shaft. A heavy point actually destabilizes an arrow during launch, and the shaft will fly out from the bow when fitted with a heavy head. When an arrow is launched from a bow, the nock (i.e., notch for the bowstring) is accelerated before the tip. The greater velocity of the nock when combined with the inertia of a tip of higher density than the shaft and on its opposite end, tends to spin the distal end of the arrow forward. A heavy point increases stresses that occur in the shaft when rapidly accelerated from the opposite end, which can result in "porpoising" or fishtailing of the arrow shaft while in flight. In severe cases, the shaft can even shatter.

Myth Number 6: The reason we so many projectile points is that there was a lot of warfare between tribes in prehistory

Investigation of blood residues on stone projectile points reveals that the DNA on the majority of stone tools is from animals, not humans. These points were thus, most often, used as hunting tools. Although there was warfare in prehistory, it was far less frequent than hunting for food. The reason there are so many



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projectile points to be found, even after centuries of determined collecting, is that the technology is a very old one: people have been making points to hunt animals for over 200,000 years.



Myth Number 7: Stone projectile points are far more effective a weapon than a sharpened spear

Experiments conducted by the Discovery Channel's "Myth Busters" team under the direction of archaeologists Nichole Waguespack and Todd Surovell reveal that stone tools only penetrate about 10% deeper into animal carcasses than sharpened sticks. Also using experimental archaeology techniques, archaeologists Matthew Sisk and John Shea found that the depth of point penetration into an animal might be related

to the width of a projectile point, not the length or weight. Archaeologists have been studying projectile making and use for at least the past century. Studies have expanded into experimental archaeology and replication experiments, which includes making stone tools and practicing their use. Other studies include microscopic inspection of the wear on stone tool edges, identifying the presence of animal and plant residues on those tools. Extensive studies on truly ancient sites and database analysis on point types have given archaeologists a great deal of information about the age of projectile points and how they changed over time and function.



Did You Know?

Disney's 1995 movie, Pocahontas, is a beautiful love story where a Native American princess saves John Smith's life, falls in love with him much to the disapproval of her father, and moves to England to live happily ever after, albeit a short lived life. The truth, however, is far different, even by Hollywood standards. Many historians, as well as oral Powhatan history, believe the story to be much different and darker involving kidnapping, abuse, and maybe even the murder of Pocahontas to prevent her from returning to Virginia.



Pocahontas' real name was Amonute although she was called Matoaka, which means "flower between two streams". She was born around 1596 in Virginia; her mother was named Pocahontas but died giving birth to her. Her father was the Paramount Chief of the Powhatan tribe, Wahunsenaca. Because of his lingering grief and due to the reminder, she gave him of her mother, Wahunsenaca often called his

daughter the endearing name of Pocahontas. According to Mattaponi oral history, little Matoaka was possibly about 10 years old when John Smith and English colonists arrived in Tsenacomoca in the spring of 1607. John Smith was about 27 years old. They were never married nor linked romantically.



When she was a child, John Smith and English colonists stayed near the Powhatan on the nearby Jamestown Island, but later began to explore outlying areas.

Smith was feared by many Native people because he was known to enter villages and put guns to heads of chiefs demanding food and supplies. In the winter of 1607, the colonists and Smith met with Powhatan warriors and Smith was captured by the chief's younger brother. Because the English and Powhatan feared the actions of the Spanish, they formed an alliance.



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Eventually Wahunsenaca grew to like Smith, eventually offering him the position of ‘werowance’ or leader of the colonists as well as a much more livable area for his people with great access to game and seafood. Years later, Smith alleged that Pocahontas saved his life in the four-day process of becoming a werowance.

She could not have thrown herself in front of John Smith to beg for his life for two reasons: Smith was being honored, and she would not have been allowed to be there. Some historical accounts claim Pocahontas defied her father to bring food to the colonists of Jamestown. Jamestown was 12 miles from Werowocomoco and the likelihood that a 10-year-old daughter would travel alone are inconsistent with Powhatan culture. She as well as other tribal members did travel to Jamestown, but as a gesture of peace. Additionally, travel to Jamestown required crossing large bodies of water and the use of 400-pound dugout canoes. It took a team of strong people to lift them into the water.

It is likely Pocahontas served as a symbol of peace by simply being present as a child among her people to show no ill intentions when her people met with the Jamestown settlers. In 1608 and 1609, John Smith’s role as the werowance (chief) of the colonists had taken an ugly turn. The colonists made inadequate attempts to plant crops to harvest, and Smith violently demanded supplies from surrounding villages after once again holding a gun to the heads of village leaders. Smith claimed Wahunsenaca wanted to kill him, and asserted he knew of the plot because Pocahontas had come to warn him. It wasn’t until Smith published his book *General Historie of Virginia* in 1624 that he claimed Pocahontas had twice saved his life. Any of the people who could have refuted Smith’s claims by that time were no longer alive. Pocahontas married a young warrior at about 14 and soon became pregnant. When Pocahontas was about 15 or 16, the rumors of a possible kidnapping had become more of a threat and she was living with her husband Kocoum at his Potowomac village. An English colonist by the name of Captain Samuel Argall sought to find her, thinking that a captured daughter of the chief would thwart attacks by Natives. Hearing of her whereabouts, Argall came to the village and demanded Chief Japazaw, brother of Pocahontas’ husband, to give up Pocahontas or suffer violence against his village. Overcome with grief at a horrible choice, he relented with a hopeful promise that she would only be gone temporarily. That was a promise Argall quickly broke. Before Argall left the village, he gave Chief Japazaw a copper pot. He later claimed to have traded it for her. Before leaving the village, Pocahontas had to give her baby (referred to as little Kocoum) to the women of the village. Trapped onboard an English ship, she was not aware that when her husband returned to their village, he was killed by the colonists. The tribal chiefs of the Powhatan never retaliated for the kidnapping of Pocahontas, fearing they would be captured and that the beloved daughter of the chief and the “Peace Symbol of the Powhatan” might be harmed. While a prisoner, and against her will, Pocahontas became pregnant and had a son out of wedlock, Thomas, prior to her marriage to John Rolfe. Prior to that marriage, the colonists pressed Pocahontas to become “civilized” and often told her that her father did not love her because he had not come to rescue her. Eventually, Pocahontas was converted to Christianity and took the name Rebecca.



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Pocahontas as Rebecca Rolfe

In the midst of her captivity, the English colony of Jamestown was failing. John Rolfe was under a 1616 deadline to become profitable or lose the support of England. Rolfe sought to learn tobacco curing techniques from the Powhatan, but curing tobacco was a sacred practice not to be shared with outsiders. Realizing the political strength of aligning himself with the tribe, he eventually married Pocahontas. After the two were married, the Powhatan spiritual leaders and family to Pocahontas shared the curing practice with Rolfe. Soon afterwards, Rolfe's tobacco was a sensation in England, which saved the colony of Jamestown, as they finally found a profitable venture. Rebecca "Pocahontas" Rolfe traveled to England with John Rolfe, her son Thomas Rolfe, Captain John Argall (who had kidnapped her) and several Native tribal members, including her sister Mattachanna. According to the accounts of Mattachanna, she realized that she was being used and desperately desired to return home to her father and little Kocoum.

During her travels in England, Pocahontas did meet John Smith and expressed outrage due to the mistreatment of his position as leader of the colonists and the betrayal to the Powhatan people. After the journey and showing off of Pocahontas to the English elites, plans were made to return to Virginia in the spring of 1617. Shortly after a dinner with Rolfe and Argall on the night before they were set to sail, she vomited and died.

Pocahontas at Court of King James



Those tribal members who were accompanying her, including her sister Mattachanna, said she was in previous good health and assessed she must have been poisoned due to her sudden death. Many of the Native people accompanying Pocahontas were sold as servants or carnival attractions or sent to Bermuda and sold into slavery. Pocahontas was just under 21 at the time of her death. Instead of being taken home and laid to rest with her father, Rolfe and Argall took her to Gravesend, England, where she was buried at Saint George's Church, March 21, 1617. Though Virginia tribes have requested that her remains returned for repatriation, officials in England say the exact whereabouts of her remains are not known. Her grave also brings in tourist dollars, especially after the Disney movie came out. Heartbroken that he had not ever rescued his daughter, her father died from grief less than a year after the death of Pocahontas. Pocahontas' son Thomas Rolfe stayed in England and was educated there.

Pocahontas grave, St. Georges Church Kent, England

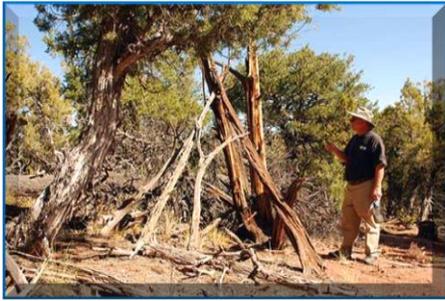


Hundreds of 19th-Century Wickiups Recorded in Colorado Mountains



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In the mountain forests of western Colorado, archaeologists and tribal members have recorded scores of sites that contain the remains of hundreds of wickiups, cone-shaped wooden structures built by the Ute, or Nuche, people more than a century ago. Archaeologists have found and documented at least 366 wooden features at 58 sites so far, along with other structures including tree platforms, ramada-like shade shelters, and brush fences, according to national forest officials. “Wickiups and other aboriginal wooden features, such as tree platforms and brush fences, were once commonplace in Colorado,” said Brian

Ferebee, deputy regional forester for the U.S. Forest Service’s Rocky Mountain Region, in a press statement. “Few examples are still in existence; the majority of the remaining features can be associated with Ute culture and consequently represent the only surviving architecture of the state’s living indigenous peoples.” The sites range from lone timber “shelves” or platforms made from aspen and piñon, to villages with as many as a dozen wooden features, according to researchers. The sites have been found throughout the Nuche’s historic range, from the Uncompahgre Plateau in southwestern Colorado to the drainages of the Colorado River and White Rivers farther north.



The remains of a free-standing wickiup is inspected in Mesa County, Colorado. Wickiups were used by the Ute Mountain Ute Tribe of southwestern Colorado and are still in use for ceremonial purposes.

Based on cues including tree-ring data and artifacts, some of the wickiups date back more than 200 years, but most appear to have been built and used from the mid- to late 19th century. Some of the sites have also continued to be used by modern Utes for ceremonial purposes but had never been documented by forest service archaeologists. The structures were recorded as part of the Colorado Wickiup Project, an effort begun in 2004 by the Forest Service, and the Ute, Southern Ute, and Ute Mountain Ute tribes to find and document historic Nuche structures throughout Colorado. “We study the historic records of native peoples and use this to examine the archaeological documentation of abandoned habitations and campsites,” said Forest Service archaeologist Molly Westby. “What we find helps us to manage these resources as part of our historic and cultural resource preservation goals.” Although sometimes difficult to spot with an untrained eye, abandoned structures and other early historic Nuche features probably number as many as 800 in Colorado’s western forests, according to the Dominguez Archaeological Research Group, a partner in the project. Wickiups - known to the Nuche as *kunnee* - were built either as free-standing structures or as lean-to’s against trees, with narrow poles forming a framework that was covered with brush, bark, hide or, later, canvas. The bases were often secured with stones, and canvas door flaps could be secured with wooden anchors in the ground, some of which remain. The temporary structures were likely used as seasonal shelters such as hunting camps.



ARTIFUNFACTS TRIVIA QUIZ

Last Month’s Trivia Question: *So, you want to be an Archaeologist when you grow up?* According to the US Bureau of Labor Statistics, the average annual salary for an Archaeologist in the United States is?

Answer: Average annual salary is \$63,670 per year.



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This Month's Trivia Question: Which of the following celebrities is a direct descendent of Pocahontas?

- a. Jay Leno
- b. Kevin Costner
- c. Cher
- d. Wayne Newton
- e. Andy Cocahontas



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86TH ANNUAL STONE AGE FAIR SUNRISE EDITION

SPONSORED BY

WESTERN PLAINS HISTORIC PRESERVATION ASSOC. INC. (WPHPA)

5196 Road 72

Torrington, WY 82240

***phone (307) 575-2010 *email: ggzzk@embarqmail.com**

Featuring Displays of Prehistoric Artifacts

DATES & VENUE

Saturday, September 26, 2020

Sunday September 27, 2020

at: SUNRISE WYOMING

Rustic atmosphere

Public is Welcome! Admission is FREE!

Partial funding Platte County Lodging and Tourism

NON-COMMERCIAL - NO BUYING OR SELLING OF ARTIFACTS

This will mark the 86th anniversary of the first Stone Age Fair held in Cornish, CO.

*The Stone Age Fair will adhere to the Covid health & safety standards set by the State of Wyoming

EVENTS/DEMONSTRATIONS

SATURDAY, SEPTEMBER 26

*Artifact Exhibits: 9AM to 7PM

*Free Artifact Identification

Distinguished Lecture Series

(Times are approximate)

1:00 PM Archeologist of POWARS II (TBA)

2:15 PM Archeologist of POWARS II (TBA)

Other Speakers (TBA)

SUNDAY, SEPTEMBER 27

*Artifact Exhibits: 9am to 2pm

*Free Artifact Identification

*Historic Sunrise John Voight, Owner





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*phone (307)575-2010 *email: gqzzk@embarqmail.com *http://stoneagefair.com To assist us in determining space requirements for displays, please return this sheet to the above address on or before September 1, 2020. If you have any questions, you may phone or e-mail George at the above information. We encourage and appreciate early registrations. However, registrations will be accepted after September 1 as long as space is available. Space and entry is free (donations will be appreciated). There will be a free breakfast Saturday and Sunday AM for exhibitors/volunteers. On site no host lunch/coffee/ snacks will be available both days and a no host dinner will be available Saturday evening at Miners and Stockmans in Hartville.

Please Note: All exhibitors are required to sign in at the front desk when they arrive at the Fair, and also to sign out when they remove their exhibits at the conclusion of the Fair.

THE 2020 STONE AGE FAIR - SUNRISE EDITION dates are: SEPTEMBER 26, & 27TH.

_____ YES, I PLAN TO EXHIBIT AT THE 2020 STONE AGE FAIR SUNRISE EDITION

I will need _____ tables (8 ft. each), or _____ feet of display area.

_____ YES, I will need a camping/tenting spot at \$20 per night - (no "hookups", porta pottys available)

_____ (for camping indicate when arrive/ when leave)

_____ Yes, I will need to set up Friday between the hours of 3-6 PM (indicate if other arrangements are needed)

I hereby release the Western Plains Historic Preservation Assoc. Inc. of all liability associated with displaying my artifact collection at the Stone Age Fair - Sunrise Edition. By my signature below, I acknowledge that I understand the non-commercial policy of the Fair, i.e. no buying, selling or trading of authentic artifacts and no soliciting to buy, sell, or trade. I also understand that I'll be asked to leave the Fair for violating that policy.

SIGNATURE: _____

NAME (please print): _____

MAILING ADDRESS: _____

CITY, STATE, ZIP: _____

TELEPHONE/CELL NUMBER: _____ E-MAIL _____