



## LAS July 2010 Headlines:

### ***CU Researcher Finds 10,000-Year-Old Hunting Weapon in Melting Ice Patch***

News Center, University of Colorado at Boulder, June 29, 2010

To the untrained eye, University of Colorado at Boulder Research Associate Craig Lee's recent discovery of a 10,000-year-old wooden hunting weapon might look like a small branch that blew off a tree in a windstorm.

Nothing could be further from the truth, according to Lee, a research associate with CU-Boulder's Institute of Arctic and Alpine Research who found the atlatl dart, a spear-like hunting weapon, melting out of an ice patch high in the Rocky Mountains close to Yellowstone National Park.

Lee, a specialist in the emerging field of ice patch archaeology, said the dart had been frozen in the ice patch for 10 millennia and that climate change has increased global temperatures and accelerated melting of permanent ice fields exposing organic materials that have long been entombed in the ice.

"We didn't realize until the early 2000s that there was a potential to find archaeological materials in association with melting permanent snow and ice in many areas of the globe," Lee said. "We're not talking about massive glaciers, we're talking about the smaller, more kinetically stable snowbanks that you might see if you go to Rocky Mountain National Park."

As glaciers and ice fields continue to melt at an unprecedented rate, increasingly older and significant artifacts -- as well as plant material, animal carcasses and ancient feces -- are being released from the ice that has gripped them for thousands of years, he said.

Over the past decade, Lee has worked with other researchers to develop a geographic information system, or GIS, model to identify glaciers and ice fields in Alaska and elsewhere that are likely to hold artifacts. They pulled together biological and physical data to find ice fields that may have been used by prehistoric hunters to kill animals seeking refuge from heat and insect swarms in the summer months.

"In these instances, what we're finding as archaeologists is stuff that was lost," Lee said. "Maybe you missed a shot and your weapon disappeared into the snowbank. It's like finding your keys when you drop them in snow. You're not going to find them until spring. Well, the spring hasn't come until these things started melting for the first time, in some instances, in many, many thousands of years."

The dart Lee found was from a birch sapling and still has personal markings on it from the ancient hunter, according to Lee. When it was shot, the 3-foot-long dart had a projectile point on one end, and a cup or dimple on the other end that would have attached to a hook on the atlatl. The hunter used the atlatl, a throwing tool about two feet long, for leverage to achieve greater velocity.

Later this summer Lee and CU-Boulder student researchers will travel to Glacier National Park to work with the Salish, Kootenai and Blackfoot tribes and researchers from the University of Wyoming to recover and protect artifacts that may have recently melted out of similar locations.

"We will be conducting an unprecedented collaboration with our Native American partners to develop and implement protocols for culturally appropriate scientific methods to recover and protect artifacts we may discover," he said.

Quick retrieval of any organic artifacts like clothing, wooden tools or weapons is necessary to save them, because once thawed and exposed to the elements they decompose quickly, he said.

An estimated 10 percent of Earth's land surface is covered with perennial snow, glaciers and ice fields, providing plenty of opportunities for exploration, Lee said. However, once organic artifacts melt out of the ice, they could be lost forever.

"Ninety-five percent of the archaeological record that we usually base our interpretations on is comprised of chip stone artifacts, ground stone artifacts, maybe old hearths, which is a fire pit, or rock rings that would have been used to stabilize a house," Lee said. "So we really have to base our understanding about ancient times on these inorganic materials. But ice patches are giving us this window into organic technology that we just don't get in other environments."

To view a short video on Lee's discovery visit [www.colorado.edu/news/](http://www.colorado.edu/news/) and click on the ice field artifacts story.



## Loveland Archaeological Society, Inc.

A Colorado Non-Profit Corporation

### LAS Find of the Month, July 2010:

Members can bring an artifact to be entered into the competition at the monthly meeting, which will be judged based on the following rules:

1. Must be a member of LAS in good standing.
2. The artifact must be a personal find.
3. It must have been found within the specified time frame, i.e., within the month prior to the meeting.
4. The artifact doesn't have to be a Colorado find—all that matters is that it was found in the last month.

The Find of the Month for July 2010 was made by Rohn Miller

Type: Pelican Lake, slight tip damage

Material: Flattop Chalcedony

Location: Morrill County, Nebraska



### LAS News and Upcoming Events:

- August 3rd, 2010      August Meeting. Annual picnic/potluck at Sharon Lundt's home starting at 6:00 pm. Bring a dish or dessert to share. The address is 905 Willowrock Drive, Loveland. A map is attached.
- City of Fort Collins  
Tracks & Trails  
Program      Visit the City of Fort Collins Natural Areas Program website (<http://www.fcgov.com/naturalareas/>) for a list of programs and guided hikes offered this summer. Programs include "Archaeology of the Soapstone Prairie" and "Through the Eyes of an Archaeologist" with Dr. Jason LaBelle of Colorado State University, among others. Download your copy of the Fort Collins "Tracks & Trails" guide at <http://www.fcgov.com/naturalareas/pdf/tracks-trails2010.pdf>. If you don't have a computer you can pick up a copy at natural area trailheads, at local businesses or at your local library.
- Lamb Spring Tours      Free tours are offered in partnership with the Lamb Spring Archaeological Preserve Board, Douglas County Community Planning and Sustainable Development and the Archaeological Conservancy the first Saturday of each month from May through October. The program begins at 9:30 a.m. with an introductory video explaining the excavations that have occurred at the site. Visitors then drive to the parking area and walk the distance of about two city blocks to the site. Please contact Douglas County at 303.660.7460 if you would like to make a reservation.