

# Over The Edge

## Vore Buffalo Jump Foundation Newsletter

Volume XXXII Number 3  
December 2025

P.O. Box 396  
Sundance, WY 82729

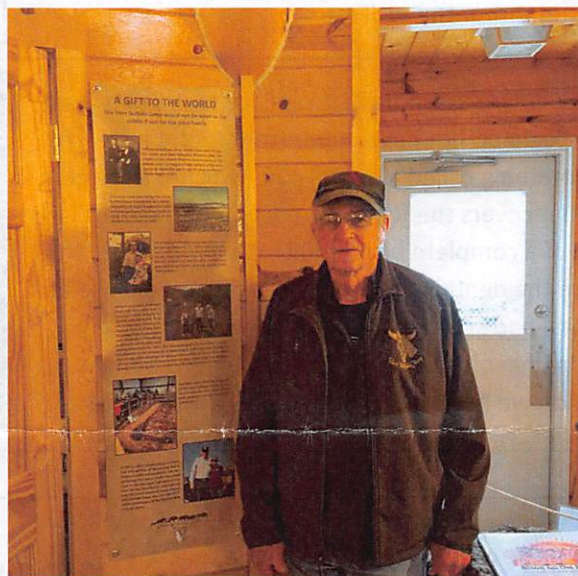
### Report on 2025

By Jacqueline Wyatt, VBJF Board President

Our annual meeting on October 26 served as opportunity to share the state of the Foundation with our members and to honor the Vore family for their contributions to development of the site. Members of the extended Vore family in attendance included Ted Vore; Tom Vore; Josie (Vore) Pearson; Wyatt, Shelby, Sawyer, and Sylas Pearson; and Tally (Vore) Hughes. This meeting was also the grand opening of the exhibit of 17 bison skulls that was funded through a grant from the Wyoming Cultural Trust Fund, donations to the VBJF, and in-kind contributions from VBJF board members and staff at the University of Wyoming Archaeological Repository.

During the annual meeting, I summarized progress made in 2025 toward research and outreach goals. During 2025, the VBJF funded internships for four University of Wyoming students who aided in cleaning and curation of artifacts from the Vore collection, which is housed in the University of Wyoming Archeological Repository (UWAR). These students, Erin Walker, Siofra Thomas Lynch, Heather McKee, and Kassandra Dutro are mentored by Wyoming State Archaeologist Spencer Pelton and Collections Manager Cassidee Thornhill. Updates on their interesting findings are posted weekly to the Vore Buffalo Jump Facebook page.

The VBJF also funded summer work in the UWAR by Erin Kelley who prepared many of the skulls for the new exhibit housed in the tipi at the Vore Site and who is conducting ongoing research on the skulls that have been excavated from the sinkhole. A large portion of the funds granted by the Wyoming Cultural Trust Fund went toward skull preparation. There are now 176 skulls in the Vore Collection. Forty of these skulls were rescued by Jan (Vore) Lund and her husband Jim from a shed on the Vore Ranch; they were left behind by archaeologists from the University of Wyoming, presumably because these skulls were dug up without careful record keeping.



*Ted Vore stands next to a new display in the tipi that acknowledges the contributions of his family members to development of the Vore Site.*

Importantly, these skulls have increased our dataset by about 30%. Erin is studying sex demographics to shed light on herd structures during hunts and the cut marks on the skulls to evaluate butchering practices.

Again in 2025, our field trip program shared the Vore Site and its history with hundreds of students from the region. We hosted about 800 students, as well as their teachers and parents, grandparents, and other special adults, from 21 regional schools. These students ranged in age from 4th graders (the vast majority) to college students.

During the summer, about 3,000 people took guided tours of the Vore Site. This number was down about 15% from the summer of 2024. Despite this, what was paid in admission fees just covered what was paid out for staff salaries and bonuses.

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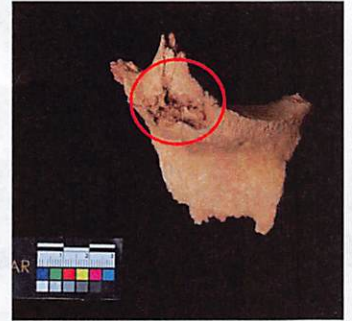




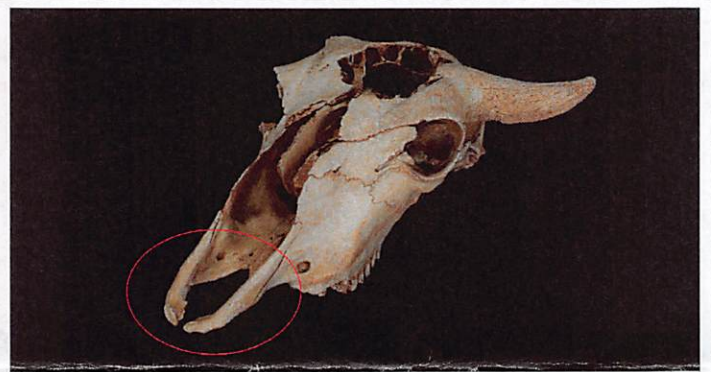
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This brings me to my yearly request to you. The VBJF operates on a shoe-string budget. In order to fund exhibit development and research and site upkeep or improvements, we rely on donations. In the coming year, we plan to install better lighting in the tipi in order to highlight the beautiful skulls. We are hoping to pull together a new exhibit of the projectile points soon, and casting of those points will be expensive. We would also like to revise a number of displays that are currently either on poster board or pinned up laminated sheets of paper. Past board member Gene Gade recently told me that the Vore Site is a work in progress – and will likely continue to be for a long time. Please help if you can by renewing your membership in the non-profit VBJF or by volunteering! Each \$50 contribution will enter you in a drawing for a Vore Buffalo Jump photo blanket. Thanks very much for your support of the VBJF!

Vore Scholar Heather McKee shared this photo to our Facebook page. She was cleaning a vertebra with the description “vertebra w/spinous process”, and she was thinking about bison humps. Unlike a camel’s hump, which is made up of primarily fatty tissue, a bison’s hump consists of dense muscle built up over extended vertebrae. In the winter, these muscles work as a snowplow. The hump also increases the strength of a bison by adding more force and momentum to their heads, which is useful when bulls fight for dominance in the rutting season.



One of Vore Scholar Cassandra Dutro’s Facebook posts was about teeth. Bison do not have upper front teeth, instead they have something called a dental pad, which is thick gum-like muscle that covers the forefront portion of the maxilla. This photo is of a complete bison skull with a red circle around where the dental pad would be located. Because of how the dental pad sits, this part of the maxilla is rarely preserved in archaeological sites, but in the Vore Buffalo Jump Collection we have six skulls with this portion intact.



## The Magic Time Window for Buffalo Jumping

By Gene Gade

Communal buffalo hunts were not easy, spur-of-the-moment events. They required detailed planning, lots of people, knowledge of bison ecology and behavior, favorable landscapes, proximity to water, and many other variables.

The region around the Vore Site was ideal for communal hunts. Located at the interface of the Great Plains and the Black Hills, bison had abundant space, grass species, and forest cover when needed. The Red Valley provided a natural migration route through the northern Black Hills between the eastern Plains and the Powder River Basin for both the bison and the hunters.

Water was potentially available in three directions from the VBJ. The most reliable year-round water is the cool, clear, spring-fed Sand Creek a couple of miles to the east. Most use of the VBJ was during a cooler, wetter period, the so-called Little Ice Age. In favorable years water may have been available from Redwater Creek to the north of the sinkhole and Sundance Creek on the south. Stone

suitable for construction of tools and projectile points was also available in the Bear Lodge Mountains to the northwest of the Vore Site.

Archaeological evidence from the Vore Site indicates that nearly all of the “jumps” occurred in the late-fall, early-winter season. There were good reasons for that, based on both the biology of the bison and the needs of the hunters.

The yearly cycle of the bison was predictable. Because they are more fat and tender, meat from cows and calves were the most desirable as meat. However, the cows are usually thin after a hard winter and having calves in the spring requires them to produce milk. In the spring, grass is at its peak nutrition. Even if the grass is lush, lactation requires a lot of energy which means it takes time for the cow to put on fat and recover their general condition. Cows with their calves are not easy to drive. So, “jumps” sometimes occurred in the spring, but it was not the optimal season.



In summer, bison usually move onto the Plains. Cows and calves are still a challenge to drive. The bulls often fight as the late-summer breeding season approaches and are very dangerous to approach or to try to manipulate. Insects often damage hides in spring and summer. Moreover, meat from bulls is lean and tough. Finally, if the Indians killed large numbers of animals in the high heat of summer, it would be difficult to butcher and process the meat before it spoiled.

By fall, the calves are much bigger and grazing on their own. They are able to keep up with their mothers and the whole herd is easier to drive. The cows are as fat as they can be. Bulls are recovering from the rut and separate from the cows and calves. Hides heal and get thicker in preparation for winter making them ideal for tanning to make clothes, tipi covers, and the many other products derived from the bison. Fall weather is often pleasant, but cool enough to make the tasks of butchering, and turning the tons of meat into jerky and pemican possible.

Winter in the northern plains and hills can be brutal. The weather can be life-threatening for the hunters. It is definitely not a good season to gather everyone and execute a complex communal hunt. The forage plants are at their lowest nutritional quality and bison body condition slowly deteriorates.

The optimal time for a buffalo jump was late-fall or early winter. All the main factors for success aligned in the fall. The condition of the buffalo herd was optimal, and it was just the time the hunters needed to restock their larder.



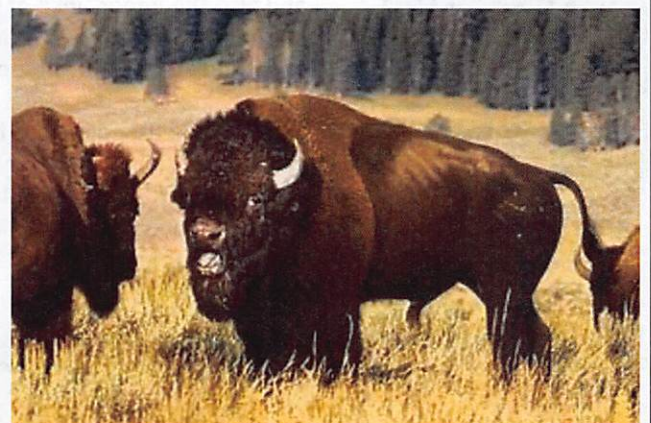
The Vore Site is located in an area optimal for bison hunting between the Black Hills proper to the southeast and the Bear Lodge Mountains to the northwest, which are a source of a quartzite suitable for tool making. Sand Creek, about 3 miles east of the Vore Site would have been a reliable water source and a likely site for a large camp down-wind of the bison herds. The wide, blue arrows indicate potential drivelines suggested by work done by Mackenzie DePlata Peterson.



The spring calving season could be used for communal hunts, but the bison cows may not be in their best physical condition and their calves may not be able to keep up with their mothers during a stressful drive.



Forage is probably not as nutritious in the fall, but the calves are weaned and half grown and the entire herd has recovered from winter stress, calving, and rebreeding. It's prime time for communal hunts.



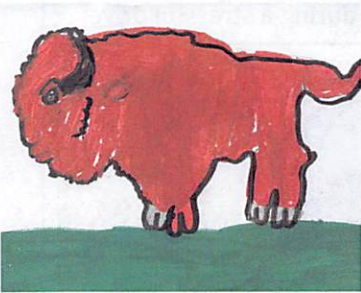
Bison bulls, though very large, are not the best source of meat. Their meat is lean, tough and less tasty, and they can be unpredictable and dangerous.



# Volunteers Make It Possible



Both the operation of the Vore Site and our field trip program depend on a dedicated group of volunteers. The eight members of the official VBJF working board are Jackie Wyatt (president), Chris Johnston (vice president), Ted Vore (treasurer) Lynette Wermager (secretary), Adrienne Keller, Curt Wiseman, Matt Stefanich, and Cliff Knesel. Suzanne Boykin also participates in board meetings, although she does not hold an official seat on the board. Gene Gade, who is a past member of the board, continues to volunteer his time to make these newsletters possible. He has contributed another interesting article for this edition. Ted Vore and Adrienne Keller deserve special mention. The Site wouldn't be what it is today without Ted. He's always there for field trips, when things break, when the water needs tested, and when the newsletter needs to go out. Adrienne is in the tipi for every field trip and has made sure that the grounds around the buildings at the Site look beautiful. Those who helped with field trips in 2025 include board members Ted Vore, Adrienne Keller, Lynette Wermager, Chris Johnston, Cliff Knesel, Matt Stefanich, Suzanne Boykin, and Jackie Wyatt and two seasonal employees Michael York and Heidi Johnson (we don't know what we would have done without them!). Additional volunteers came from around the Black Hills and included Kevin Wermager, Jim Viergets, Yvonne Ficek, Donnie Holt, Beth Krueter, Dave Osborne, Jacquie Holt, Hannah Ista, Jaymie Crews, Betty Haiar, and Michelle Pridgeon.



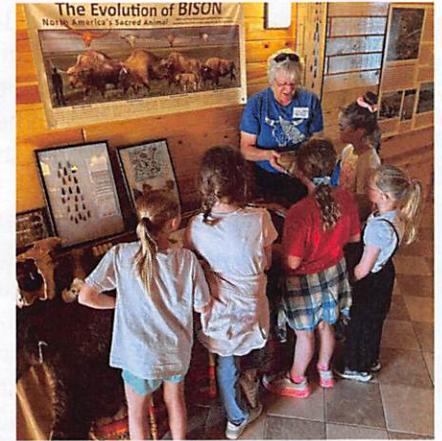
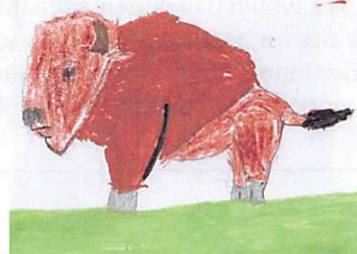
A back of the envelope calculation suggests that this year, our volunteers spent about 110 hours on exhibit development, about 120 hours on site maintenance and accounting tasks, about 80 hours pulling newsletters together, and about 950 hours hosting field trips!

We would like to share some quotes from thank you letters from Rozet, Wyoming 4th graders who participated in field trips this fall. Their teacher Emily Driskill has been bringing students to the Vore Site for over a decade. These letters do an excellent job of explaining what we share with students and also the importance of volunteers! Janon wrote: "I learned that there are 22 layers of bones, families had 6-10 dogs, and lived in a tiny teepee. Also that there were different arrowheads over the years. I had fun doing the atlatl, digging for arrowheads, going into the pit, and going into the tipi." Talla wrote, "Thank you for letting us visit. It felt like I went back in time!" And, finally, from Raleigh, "I love it that you don't get payed (sic) and still do it!" The artworks that adorn this page come from thank you notes sent by Anna Backen's 4th grade class from Hulett, Wyoming.



Thank you for all that knowledge you told me. That was one of the best field trips I have ever been on.

Sincerely, Gary Wood



Adrienne Keller shows a hammerstone that was found on the Vore Ranch to students from Rozet.



Michael York (on the left), who worked as an interpreter this summer and also volunteered at almost every field trip, helps a student from Rozet determine the type of stone her souvenir arrow point was made from.

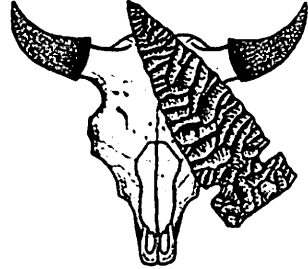




# ***Catch the Dream...***

## ***Become a Vore Buffalo Jump Foundation Member***

**Vore Buffalo Jump Foundation, PO Box 369, Sundance, WY 82729**



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\_\_\_ Please contact me as I would like to volunteer

**Donations also accepted (via PayPal) through “Donate” button at [vorebuffalojump.org](http://vorebuffalojump.org).**

**Contact us by e-mail at [info@vorebuffalojump.org](mailto:info@vorebuffalojump.org).**

*The VBJF is a 501(3)(c) non-profit organization. The Foundation is administered by a volunteer board and has almost no administrative overhead. Membership dollars and contributions go almost entirely to fund site improvements and interpretive programs.*