

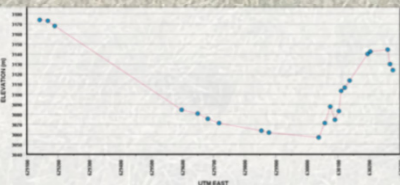


During the 2025 field season, in addition to recording chipped stone clusters, the GRSLE project recorded several constructed features in our inventory area. These included stone circles, cairns, and walls. The usual sort of features. But we also spent time recording objects that had more recently introduced onto the landscape – barb wire fences.

Although several were recorded, only the two highest elevation fences in a key mountain pass transected by both Forest trail system and documented ungulate migration corridors are described here.

**2008 48PA3807**  
This fence was first noted due to the scatter of interesting barb wire in 2008, but then we'd not considered documenting it other than as background.

By 2025 after becoming better informed about the roll that fences play in shaping migratory ungulate movement pattern, the role that such "ghost fences" can play in understanding past movement impacts was clearer, and the old, no longer functioning fences became more that just interesting photo topics.



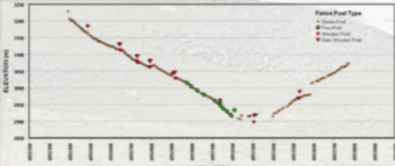
48PA3807 has no functional segments. It's origin at the northwest end of the feature consists of wire wrapped around bedrock outcrops and then either down or a few still standing wooden fence posts and wire strands along a definite linear pattern to the southeast. The remaining wooden posts all seem to be of locally chopped pine. The double strand un-galvanized barb wire matches descriptions of Ross' Four Point type, which was patented in 1879 (Clifton 1970:152). Although available during the early 20<sup>th</sup> century, galvanized wire did not become standard until the 1930s. The wire type and ungalvanized nature of the wire at 48PA3807 suggests construction in either the late 19<sup>th</sup> or early 20<sup>th</sup> centuries and most likely before the 1930s.



*Fences. Archaeologists usually dislike them, and they often obstruct fieldwork. But what if we treat fences not only as obstacles, but as evidence? During the 2025 GRSLE field season we expanded our inventories to include systematic documentation of fence posts and barbed wire. Inspired by ecological research on the impacts of fencing on wildlife movement, we asked how such features might serve as archaeological data for assessing human influence on high-elevation landscapes. Several fences documented above 3,000 m (>9,800 ft) directly intersect known elk migration routes, yet do not align with current Forest boundaries or historic grazing allotments. Why were these boundaries established, and what do they reveal about past land use? This poster describes our documentation methods and argues that incorporating "recent" boundary features into archaeological inventory provides new perspectives on the interplay of human practices, wildlife ecology, and long-term cultural landscapes.*

## 48PA3808

This 48PA3808 fence is a distinctive feature that Forest Trail 209.4D passes through (although the gate at the trail is in poor condition and non-functional with several of the posts down). It begins from the crest of the ridge between Piney Creek and Pickett Creek at an elevation at nearly 3230m (~10600 feet), passes down slope to the drainage bottom and then about halfway up the ridge to the south of South Fork of Pickett Creek. Although segments of the fence are up and in functional condition, key segments along the drainage and the ridge crest are down and don't interfere with large mammal movements.



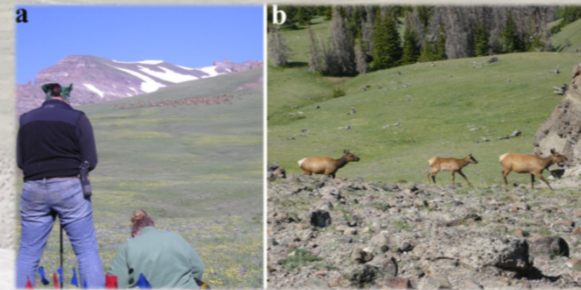
Unlike 48PA3807, all posts in this fence have been packed into the area. They include a combination of commercial wooden posts and steel posts. Of the 238 posts recorded, most are steel (N=195) with most of the wooden posts (N=32) being components of gate complexes. In addition, where the fence passes through the timbered south slope of Piney Creek Ridge, some of the standing trees have been used as posts (N=11) with the barb wire wrapped around and nailed to the trees (photos below).

An unusual feature of this fence is that two of the seven gates have posts set in concrete as shown in the photo to the right. Another unique gate is shown at a place where an informal trail passes through the fence and rather than building a gate, the gap between two trees was used for a small (~2m wide) opening that has a wire closure (image a to the right).

Wire used here is generally younger galvanized and seems to be Glidden's coil variant (shown to the right). Interestingly, some of the older wire probably scavenged from the 48PA3807 area has been used in some of the structural (e.g., gates) portions of this fence (images b and c).

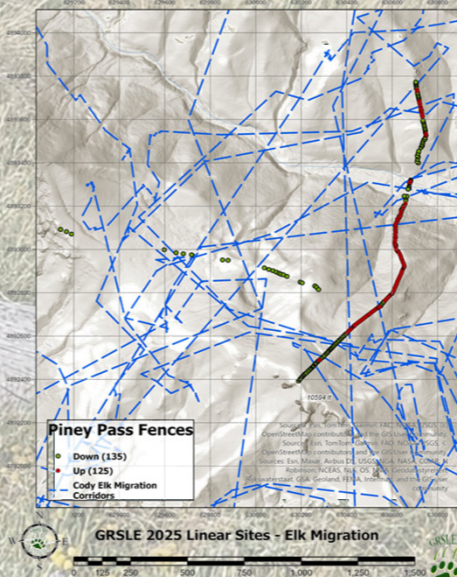
Age of fence construction is unclear, but definitely later than 48PA3807, and likely by at least several decades. The initial labor and material investment in this fence was high, with at least about 650 kg (~1400 lbs) of steel posts and cement in addition to the wooden posts and barb wire itself. It is possible that construction took place after the now abandoned road was bladed in. Although the fence line seems to have been built to control stock movement along the Pickett Creek drainage, it does not follow current allotment boundary and its herd management use is unclear.

*Drawing on disciplines including archaeology, palaeontology, history, geography, environmental science and ecology, the interdisciplinary field of historical ecology provides theoretical and methodological tools to assess long-term interactions between species, ecosystems, the environment and human societies, with a focus on human-nature relationships and anthropogenic impacts (Navarro et al. 2025)*



Regardless of the intended use of these fence lines for livestock control, they probably had several unintended secondary impacts on ungulate movement patterns likely disrupting travel beginning over a century ago. Today neither 48PA3807 nor 48PA3808 show indications of being active parts of mountain grazing management and do not create any significant movement barriers. In fact, as shown below by the GPS collared elk migration corridor tracklogs for 48PA3708 there seems to be a clear relationship between parts of the fence that are damaged and no longer functional and common migratory movements – along both the drainage bottom and the ridge crest.

The documentation of these fence systems was sparked by awareness of the Beyond Yellowstone Living Lab's [Fence Inventory along the Absaroka Front project](#) that seeks to assemble a comprehensive database on existing fence locations to assess fence impacts on wildlife and work toward solutions. While "active fences" are of highest priority for dealing with this current fence related impacts to migrations, the archaeology of "ghost fences" provides a greater time depth for modeling the relationships between last century cattle management and wild ungulate movement interaction.



Cody Elk Herd Migration Corridor Source: Kauffman, M.J., Copeland, H.E., Cole, E., Quizzocro, M., Dewey, S., Fettebert, J., Gagnon, J., Gelzer, E., Graves, T.A., Hershey, K., Kaiser, R., Meacham, J., Merkle, J., Middleton, A., Nunez, T., Oates, B., Olson, D., Olson, L., Sawyer, H., Schraggeder, C., Sprague, S., Steingisser, A., and Thonhoff, M., 2020. *Ungulate Migrations of the Western United States, Volumes 1*. U.S. Geological Survey data release. <https://doi.org/10.5066/P902YMB1>

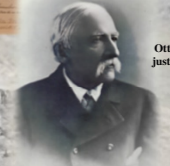
Meetetse Museums Collections 2019.0016.0001  
1894 Land Patent Richard Ashworth (Deselms 2022)



Otto Franc "Franc at the railroad depot in Huntley, Mont., just east of Billings.... Courtesy of the Meetetse Museums" (Beauvais 2022)



A.A. Anderson (Anderson 1933)



Col. William D. Pickett (Grinnell 1913)



A.A. Anderson's Palette 1 Ranch Piney Creek, Wyoming



L. G. Phelps (Edgar & Turnell 1978)

Although both fences are interesting, in terms of longer-term history and impacts 48PA3707 offers hints that it may be related to some of the early shift away from open range in the Big Horn Basin. While at present we can't link this particular fence to any specific ranch, the range of potential that could have been involved are fascinating and include properties such as Otto Franc's Pitchfork Ranch, A.A. Anderson's Palette Ranch, Richard Ashworth's Z-T Ranch, or William Pickett's ranch on the drainage that today bears his name. Any of these could have introduced fencing in the late 1800s or perhaps it was not until the early 1900s when L.G. Phelps acquired and consolidated the Pitchfork and Z-T. The nature of fence construction by these early Big Horn Basin settlers is an under-researched topic.

21 July 2025 10:04



Cattle from Piney Creek allotment grazing on Pickett Creek allotment in proximity to where fence 48PA3807 might have once been in place to separate the two.

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