HUNTOON PRONGHORN TRAP COMPLEX
MINERAL COUNTY, NEVADA

KARA JONES
CALIFORNIA STATE UNIVERSITY, BAKERSFIELD

Subsistence patterns of hunter gatherer groups of the Great Basin often focus on plant gathering and solo or small band level big game drives or hunts. Little attention is paid to trap complexes and the technical aspects of game drives, as well as the community that drives them. These drive complexes have remained unchanged from the Archaic to late Prehistoric times. This is an in-depth analysis of a pronghorn drive complex in Mineral County, Nevada with supporting comparative analyses from the Great Basin of Nevada and California. This paper is an adaptation of Robert Parr's 1989 Master's thesis for UC Riverside.

Solitary and small band hunting styles are some of the most popular resource subsistence patterns that have prevailed in Great Basin literature. Some of this is emphasized by Steward (1938) as well as Bettinger and Baumhoff (1982), painting Great Basin groups as relative isolationists, experiencing limited and infrequent contact between other small and wandering bands. The importance of big game hunting has been minimized in this view. Since the introduction of bow and arrow technology approximately 1,600 years ago, and the subsequent Numic expansion or Numic spread 1,000 years ago (Sutton 1993), the role of communal hunting in the Great Basin has been downplayed in cultural significance.

Investigations of a multi-component pronghorn trap complex south of Huntoon Valley, Mineral County, Nevada carried out by Robert Parr as a thesis project for University of California, Riverside led to the discovery of an intricate big game drive complex that permeates Great Basin subsistence from the Archaic to late prehistoric remaining unchanged through its tenure (Parr 1989; Figure 1). Data from this investigation and subsequent studies reveals that communal big game hunting remained of vital importance to Great Basin groups as a staple of subsistence in the area. This narrative runs contrary to the work currently relied on by Great Basin anthropologists which is namely the work of Julian Steward (1938). Steward frequently argues that big game was of minimal importance compared to plant foods citing the lack of skins used as clothing by Great Basin groups and goes further to say that regional migrations were based solely on the patterns of plant foods rather than game resources (Steward 1938:33). Many researchers have capitalized on Steward's lack of faith in a big game pattern of subsistence, furthering the narrative that plant resources were most vital to Great Basin groups. The weakest point of Steward's research is the time it was conducted; Steward interviewed informants who were born between 1850 and 1900 which is too late to have been immersed in aboriginal subsistence practices (Parr 1989:2). Parr argues that Steward's data is based off of memory culture rather than first person accounts (1989:2). This is of no fault to Steward, the only fault here is that of time. Steward's work was essentially salvage ethnography, just like the majority of work done in California and the west coast at large.

Some precursory studies of big game drives in the Great Basin had been completed around the time of Parr's thesis. Some of these are studies by Jack Rudy (1953) of Hendry's Creek, Thomas and Mckee (1974), Pippin (1980), Pendleton and Thomas (1983) of the Fort Sage Drift Fence, and Raymond (1982). Around the same time of Parr's thesis, the literature changed with many researchers either publishing work or presenting at conferences (Arkush 2014:4). Some of this work is that of Arkush (1986), Murphy and Frampton (1986), and Wilke (1986). Some similar sites that may have been pronghorn trap complexes but have lost integrity are documented by Stearns and Pearson (1997) and Hall (1990). Bettinger and Baumhoff (1982) as well as Pendleton and Thomas (1983) argue that the decrease in big game dependence over time is due to the influx of Numic speakers into the Great Basin. This argument plays in to the replacement theory that presides over the Numic expansion. These authors argue that the processing culture of the Numic groups relied heavily on seed exploitation and gave them a competitive edge to the big game hunters in the

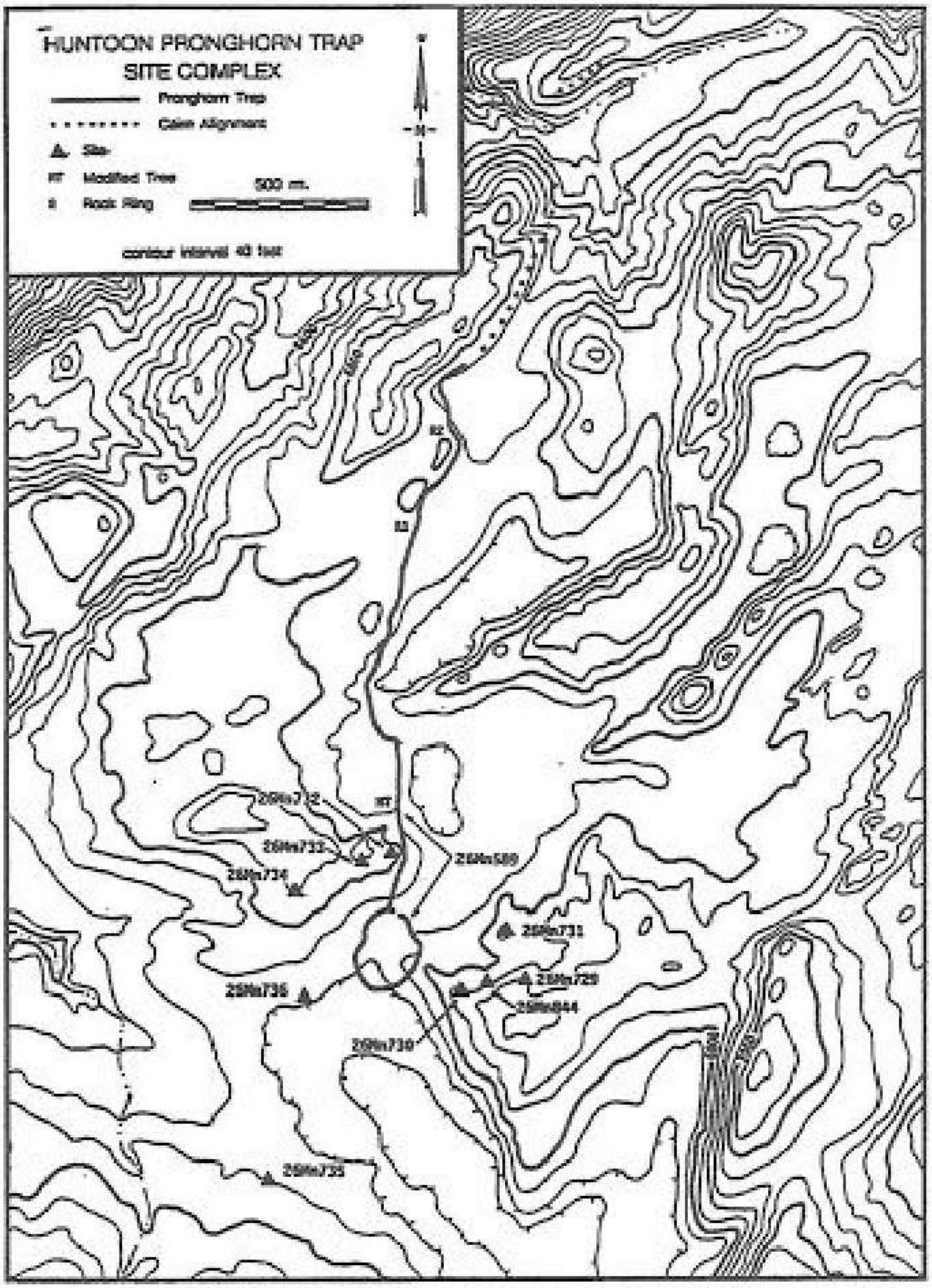

Figure 1. Map of the Huntoon Pronghorn Trap 26Mn589 and Satellite Sites.

area. Even though many studies, including those at Danger Cave (Jennings 1957), show that milling technology was essential to Great Basin peoples for over 900 years, the Numic replacement model is still widely accepted. Parr argues that up to European contact, "vigorous exploitation" of big game animals was a common and communal endeavor, along with communal drives for smaller game such as rabbits and waterfowl (Parr 1989:5).

NON-CULTURAL QUALITIES OF THE HUNTOON VALLEY COMPLEX

Project Beginnings

At the time of Parr's study beginning in 1986, no detailed descriptions of pronghorn trap complexes had been in print. This study was completed in the remote uplands south of Huntoon Valley in Mineral County, Nevada. This study was a portion of a trapping locality that comprised other satellite sites as well. The location was discovered during a helicopter survey conducted by the Forest Service in Toiyabe National Forest for fire management. The Forest Service records indicated the presence of a corral and drift fence, lithic scatters, projectile points, and other flaked stone tools (Parr 1989:5). Rock walls containing standing wooden posts were also present in photographs.

Climate and Geology

The Huntoon Valley was so named by McLane (1978, cited in Parr 1989) as a solution to the predicament of USGS topographic and geologic maps failing to ascribe a name to the mountains and valleys in this region. The name so ascribed to this area is not formally adopted, so it is still legally nameless. The Huntoon Valley is bound by the Excelsior Mountains and Adobe Hills to the north and west, and by the Queen and Benton Valleys, White Mountains, Volcanic Hills, and Candelaria Hills to the south and east (Figure 2). The area is composed of northeast-trending volcanic ridges due to Pliocene and Pleistocene basalt flows (Ferguson and Muller 1949; Gilbert 1941; Ross 1961). The surrounding mountains are low, flat hills and basalt ridges coupled with shallow depressions and canyons. The low-lying areas are comprised of Quaternary alluvium composed of tephra. There are numerous northeast-trending faults in the area including one that passes beneath the southeast portion of the site complex (Gilbert et al. 1968; Parr 1989:9)

The climate of this area of western Nevada is continental consisting of dry air, sparse precipitation, and wide-ranging temperatures diurnally and seasonally. This is due in part to the presence of the Sierra Nevada mountain range 30 miles to the west, blocking the moisture rich air from the Pacific Ocean. The area of the site complex is a mid-latitude steppe, deficient of precipitation for most of the year. Moderate winter snowfall and spring and summer showers account for most of the precipitation and watershed.

The climate during Parr's fieldwork in August and September 1986 were warm and sunny with midday thunderstorms coming in from the west. These were usually a series of two to six storms. On one occasion Parr and researchers were able to witness a heavy cloudburst that filled the canyon of Huntoon Spring and turned it into a "raging torrent" flowing for 16 hours after precipitation had ceased (Parr 1989:12).

Flora and Fauna

The vegetation of Huntoon Valley uplands is Pinyon-Juniper Woodlands with Sagebrush Flats. The area of the trap complex is comprised of shallow depressions filled with sagebrush (*Artemisia tridentate*) and rabbitbrush (*Chrysothamnus viscidiflorus*). The low and broken basalt ridges contain single-leaf pinyon (*Pinus monophyla*) and Utah juniper (*Juniperus osteosperma*). The transition from dominant woodland to sagebrush flats occurs at 2,070 meters, or 6,800 feet.

Diurnal animal life was largely absent from the study area during the work conducted in August and September 1986. However, the fauna observed during fieldwork consisted of pinyon jay, mourning dove, jackrabbit, cottontail rabbit, Great Basin rattlesnake, and about 15 wild horses (Parr 1989:14). A follow up visit conducted in spring of 1988 showed a different environment full of mule deer. Other animals

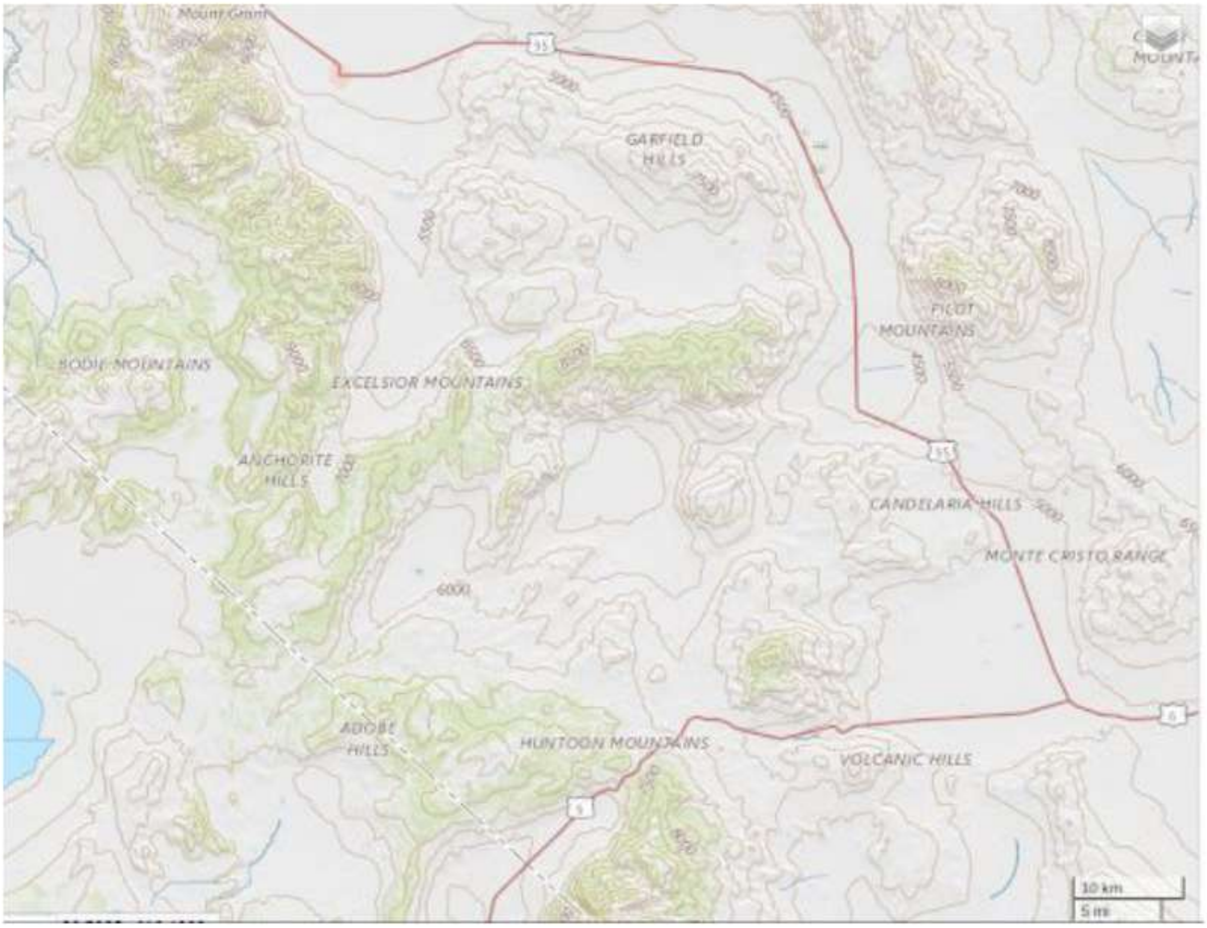

Figure 2. Google Map of Huntoon Area Topography.

that were not seen but are known to be inhabitants of the area are badger, coyote, gray fox, pocket mouse, Townsend ground squirrel, woodrat, kangaroo rat, pinyon mouse, spotted skunk, striped skunk, and porcupine (Hall 1946).

GREAT BASIN PRONGHORN TRAPS

Pronghorn (*Antilocapra americana*) are a cautious sort of animal. Stalking this creature independently was a surefire way to miss the next meal. Pronghorn possess phenomenal eyesight, a general sense of caution, and a preference for open spaces, making them difficult to stalk with true stealth. Due to the curiosity of the pronghorn, it is possible to “charm” them through the use of flag waving or a hunter in a supine position flailing their arms and legs (Parr 1989:19). Communal drives are more efficient in terms of energy expenditure as well as success and are much more reliable. Pronghorn drives often lead into corrals through the use of drift fences, or “wings” to funnel them in, and corrals with a small opening to keep them inside the complex. Animals in the corral could then be contained until it was necessary for them to be processed, ensuring the meat stays fresh as it remained alive.

According to the work of Steward (1938, 1941) and Raymond (1982), communal pronghorn drives may have been held around once or twice a year. However, individual pronghorn traps did not need to be used as frequently and could be maintained at different locations through a large area, rotating year to year. This allowed for the resource of pronghorns to not be depleted as traps were used on a rotating and seasonal basis, giving pronghorn herds time to recover after being exploited.

A pronghorn drive entailed the construction or maintenance of a "V-wing" or drift fence to either side of the corral with the corral itself at the apex of these "wings." The animals were driven in a herding manner into the corral through the wing fences and the corral was subsequently closed. According to Parr's fieldwork, both fences and corrals were built of sagebrush, juniper posts, and stone, depending on the availability of each resource (Parr 1989:20). The herds were driven over many miles by hunters, coalescing in numbers at the mouth of the enclosure at the bottom of the valley. After the animals were corralled, they were slain with clubs and arrows. Some primary source documents exist of early Euroamerican explorers witnessing these drives, such as those by Captain Bonneville in southern Idaho in 1834 (Irving 1986). According to this source:

> The most curious circumstance in this chase is, that an animal as fleet and agile as the antelope, and straining for its life, should range round and round this fated inclosure, without attempting to overleap the low barrier which surrounds it [Irving 1986:255].

In Northern Utah by the Bear River, Captain Bonneville witnessed another pronghorn drive with chiefs preparing "medicines or charms" with some "consulting with entrails" of animals they had killed, a reference to shaman practices by the Numic groups in the area (Irving 1986:353).

Some ethnographic records state that this form of shamanism and "charming" of the animals was common; however, there are some gaps in the ethnographic record regarding this. Wilke (2013) argues that a record by Egan (1917) did not state that the drive was organized by a shaman who charmed the pronghorn and "stole their souls" such as is stated in much of the ethnographic record (Wilke 2013:88). The role of shamanism in pronghorn drives is much contested through conflicting stories in the ethnographic record. This is mostly in regard to how the trap complexes were closed, a topic of much debate. According to Steward (1938), the shaman captured the souls of the pronghorn, allowing them to be corralled. Steward (1941) also stated that the corral was closed by the shaman placing his pipe at the opening, or by lighting a fire at the mouth of the corral. In the same work, Steward also stated that there was no need to close the corral because the animals were "charmed" and Steward (1941:423) said that the pronghorn were powerless to resist after the shaman pointed his pipe at the pronghorn leader, rendering the rest of the herd helpless. The list of conflicting information and jumbled meanings grows. Although the data is obviously exaggerated, the significance of shamanism and ritual in pronghorn drives is readily apparent.

Flaked Stone Tools in the Huntoon Pronghorn Assemblage

Flaked stone artifacts make up most of the material remains collected in Parr's 1986 fieldwork in Huntoon Valley. Artifacts included in this assemblage are projectile points, point blanks and preforms, bifaces, drills, perforators, gravers, scrapers, modified or used flakes, and debitage (Parr 1989:22). Of the projectile points, the following typeable classes were present: Desert Side Notched, Cottonwood Triangular, Rose Spring, Eastgate, Humboldt, and Elko series points (Parr 1989:22).

Corral

Site and Survey

The site designation for Parr's investigation of the Huntoon Valley Pronghorn trap complex is 26Mn589, which is a multi-component site consisting of a large late prehistoric trap overlying an older and smaller trap complex (Parr 1989:32). Both of these complexes contain a corral as well as drift fence. The drift fence of this corral follows natural landform contours on the western edge of a depression that borders it. Smaller features are present inside of the corral and in close proximity to the drift fence, these include two small corrals, crescent-shaped hunting blinds, rock rings, cairns, and rock alignments (Figure 3; Parr 1989:32).

The survey methods used for the site were east-west transects 5 meters apart with surface artifacts flagged, mapped, and later collected. The area around the site was surveyed in a radius of 50 meters, and the area between the drift fence on the west to the eastern hills was intensely surveyed to 200 meters north of the corral entrance (Parr 1989:32).

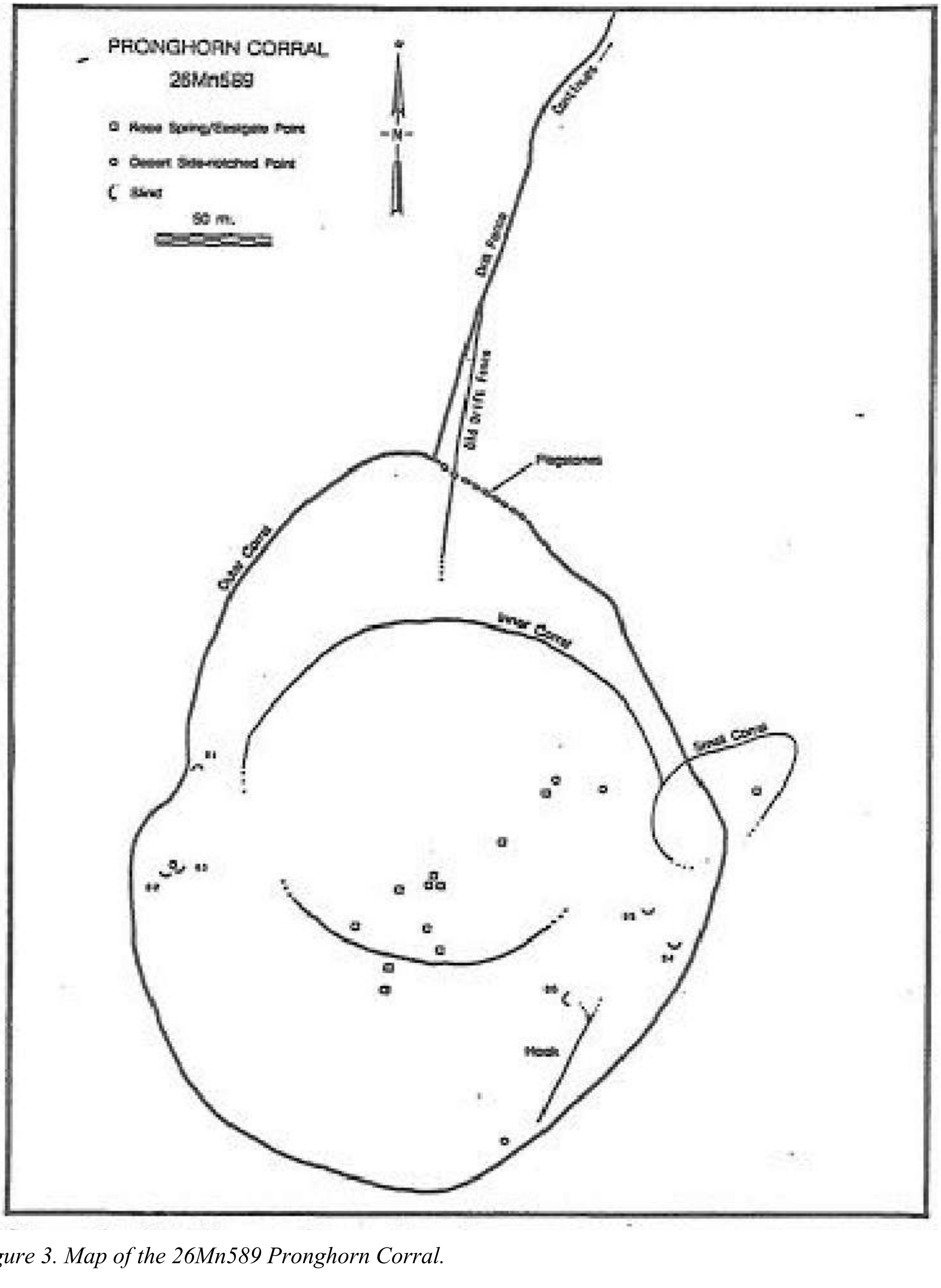

Figure 3. Map of the 26Mn589 Pronghorn Corral.

Outer Corral

The outer corral of the site is egg-shaped and is 335 meters in length by 260 meters in width. The materials for the corral are juniper posts and basalt boulders, likely collected from nearby. Parr hypothesizes that sagebrush shrubs may have been present in the structure at a time as a visual barrier to the pronghorn. The basalt boulders are present as a low wall lining the corral perimeter. The wall is about 0.75 meters in height. The posts for the fence are sunk into the ground or propped up with rocks. Two posts that have been removed for dendrochronology were sunk into the ground to about 28 centimeters. Unfortunately, no chronology for *J. osteosperma* exists and dating was not possible at the Laboratory of Tree-Ring Research at the University of Arizona (W. J. Robinson, personal communication 1988 in Parr 1989:37). The posts were fire cut, with no indication of hand tool use for felling. Parr (1989:33) noted that while juniper trees are very common in the area, no mature trees were present within 200 of the corral.

The corral is composed of 797 posts that were counted. The corral resides at the northern portion of a shallow and sandy depression southwest of a pass connecting the site with a larger depression. This landform renders the corral invisible to incoming animals until they are close to the corral entrance. The corral was mapped by Parr and colleagues using a compass and 100-meter tape. Points at the site were taken by 4-foot laths placed in the ground along the wall, about 20 to 25 meters apart. Measurement for the corral started at the north point by the drift fence, near the western portion of the corral entrance. Points were taken along this route by compass bearings and distance was measured between each by tape. A total of 39 points on the corral were plotted.

The corral was constructed to contour the surrounding landforms, with the fence line indenting and reversing to accommodate a basalt outcrop. After the fence passes through the shallow sand depression, the fence climbs uphill and enters a new vegetation zone of the pinyon woodland. The fence intersects a smaller corral feature about 18 meters from the sandy slope and continues for a last 150 meters to the eastern corral entrance.

The entrance to the corral is a 50-meter gap in the fence opening just east of north. A total of 63 tabular basalt flagstones are laid end to end across the entrance. The purpose of these flagstones is unknown, but Wilke (2013) notes these flagstones as part of a regional pattern including the sites of the *Mono basin pronghorn traps* (CA-MNO-2122; Arkush 1995), a set of three prehistoric to historic age pronghorn wing traps (Figure 4). Trap 4 of this complex employs flagstones at the entrance which measures 60 meters wide (2013:86). The *Aldrich Gate trap* employs flagstones and is about 42 kilometers northwest of Wilke's *Whisky Flat trap* complex which also employs flagstones (Wilke 2013:86). Parr (1989:39) notes that the flagstones may have functioned as anchors for nets as an exit barrier for the trapped pronghorn.

Small Corral

A small and enigmatic corral measuring 73 x 36 meters intersects the main corral complex near its furthest eastern end. This feature lies on both the northern slope as well as a sandy hillside. Fire spalling on a nearby basalt outcropping notes that this area has burned and explains the lack of posts on the western portion of this corral. No opening between the small corral and the larger corral is present. According to work carried out at *Whisky Flat* by Wilke, the smaller corral may have functioned as a holding pen for easy slaughter (Parr 1989:41).

Inner Corral

A second corral feature is present within the boundaries of the larger corral previously described. The inner corral is oval in shape measuring 156 meters north/south by 186 meters east/west. The inner corral is composed of no organic material and instead is represented only by basalt boulders. The boulders are *in* the ground rather than *on* the ground and may suggest an earlier working of the trap complex. Due to soil deposition, the older feature would be more deeply buried than the newer one.

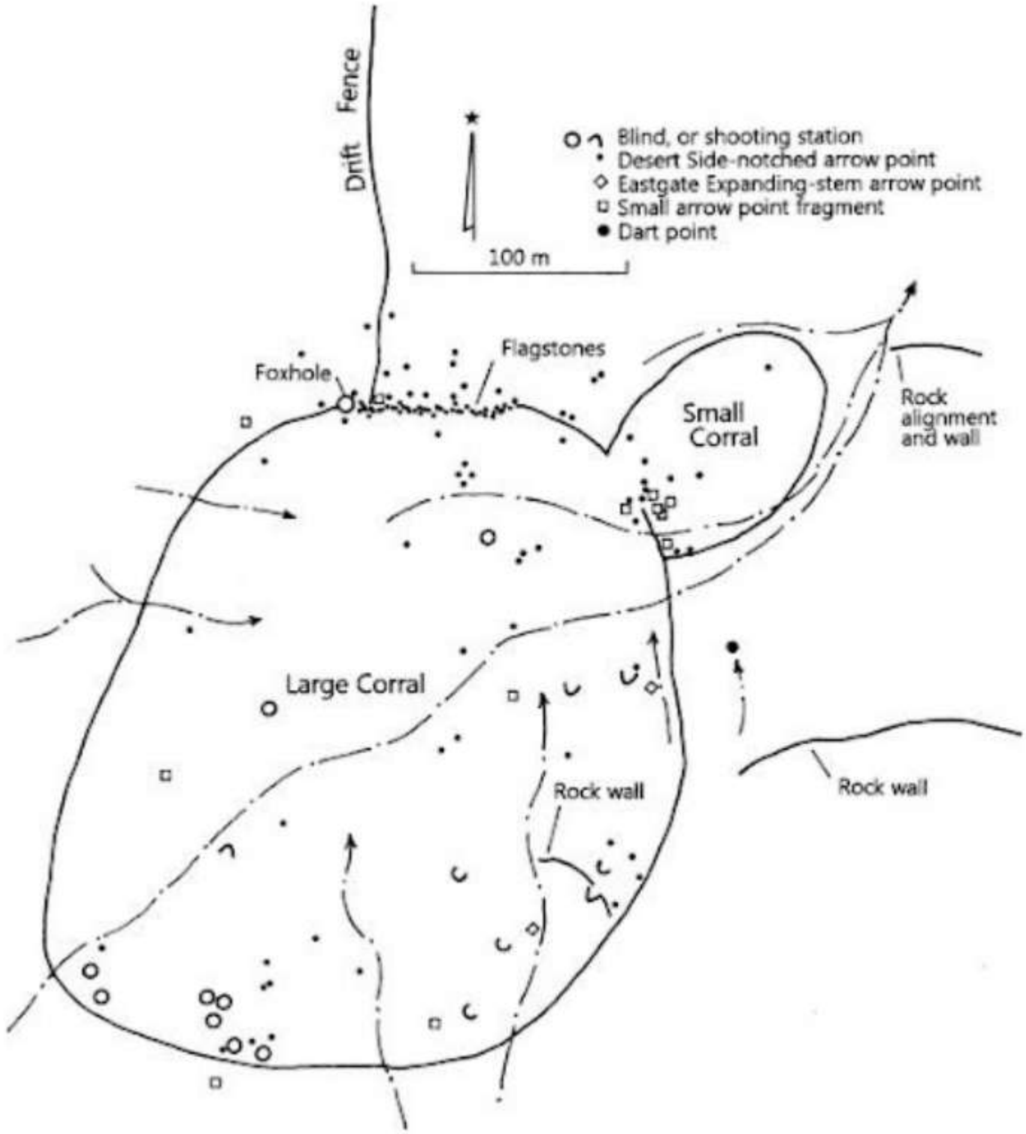

Figure 4. Map of CA-MNO-2122 Trap 4 Pronghorn Corral.

The boulders forming the inner corral wall show high instances of fire spalling while boulders on the outer wall show none. Thus, the inner corral likely burned earlier than the construction of the outer wall. The lack of organic material for this corral could be explained due to a different preference of building materials, or simply due to decay. The pattern of rocks used to prop up the fence posts in the outer wall is also present on the inner wall, suggesting that posts may have once been there.

Hunting Blinds

Inside of the main corral are six crescent-shaped hunting blinds made of basalt boulders. Three blinds are on the basalt outcrop on the western end of the corral, and three are on the east. The western blinds are called features B1, B2, and B3. B1 is on the northern end of the outcrop, close to the entrance. B2 and B3 are on the rim of the outcrop on the southwestern side. Features B4–B6 are on the eastern side of the corral. B6 faced toward the interior of the corral. Five out of six of these blinds view the flat areas both inside and alongside the fence line and were likely convenient ambush points for animals coming around the perimeter.

Drift Fence

The mapping of the drift fence was carried out in the same way as mapping of the corrals. The fence is made up primarily of juniper posts with basalt boulders used sparingly. The only fence remnants are post fragments a few centimeters above the ground propped up between basalt boulders, or decayed posts lying on the ground. The fence crosses the pinyon woodland mentioned in the previous corral survey and is supplemented by frequent rock cairns along the western slope of the fence. Included in the fence are three living junipers that appear to have been in the perfect place, so were not felled and instead were incorporated while living into the fence. A culturally modified fourth juniper lies 30 meters south of these. As the fence enters the pinyon-juniper woodland, the character of the fence changes from widely spaced and isolated posts to continuous juniper posts lying end to end. A set of final hillside cairns marks the northern end of the drift fence and of site 26Mn589.

Culturally Modified Tree

A culturally modified juniper is about 20 meters from the drift fence and 600 meters of the corral and drift fence junction. The tree possesses a single straight trunk and is limbless to about 2 meters above the ground surface. Most junipers in the area grow multiple trunks, so this tree is most unusual. The tree was spared for fence construction because it was used as a "bow tree", a tree whose trunk is utilized for bow staves. On the tree, a strip of bark had been removed from the south-facing portion of the trunk and a "v" notch was cut into the wood. This pattern is seen in other straight-grained junipers in the area. Carving the bow blank into the tree allowed for it to cure naturally so the hunter could collect an already seasoned stave from the tree. The bow was never collected in the case of this juniper. Wilke (1988) has described this tree as Huntoon-3.

DISCUSSION

Parr's work at 26Mn589 reveals that this late prehistoric pronghorn trap was meticulously placed in regard to local topography. The corral is set between the narrowest point of the pass between two sagebrush flats that local pronghorn had to travel in the area. Due to the topographical depression the corral lies in, the pronghorn would not have been able to see the trap until it was unlikely they could escape. The depressions that converge to the north of the corral are a natural channel for the game, and the basalt cliffs that border the site are their own barriers that prevent escape and disbursement. The drift fence acted as a sort of funnel and herding device, preventing pronghorn from escaping in the less obstacle ridden areas. The basalt outcrops and even living trees are worked naturally into the complex construction. The materials used by these hunting groups for construction was what was immediately available.

The local Paiute hunters were intimately aware of the seasonal migration patterns of their prey and modified existing topography to capitalize on their natural movements. This allowed them to concentrate large numbers of the animals in a small space at one time. The construction and operation of these pronghorn trap complexes required a high level of planning, design, and teamwork that is not a common association of Great Basin subsistence. This data provides evidence to support communal game drives as an important and vital tradition of Great Basin subsistence and represents the climax of communal hunting practices that requires a mastery of knowledge of local game behaviors.

These communal big-game drives created an efficient and predictable way to procure meat for a long span of time. Multiple locations ensured that no one herd was driven to extinction and was instead given time to repopulate. The communal drive may more likely represent the essence of hunting in the Great Basin as opposed to the accepted archetype of individual and small band hunting styles.

REFERENCES

Arkush, Brooke S.

1986 Aboriginal Exploitation of Pronghorn in the Great Basin. *Journal of Ethnobiology* 6(2):239–255.

1995 *The Pre-Contact and Post-Contact Archaeology of the Mono Basin Paiute: An Examination of Cultural Continuity and Change*. PhD. dissertation, Department of Anthropology, University of California, Riverside.

2013 Communal Pronghorn Hunting in the Great Basin: What Have We Learned Over the Last Twenty-Five Years? *Pacific Coast Archaeological Society Quarterly* 48(3):1–19.

Bettinger, Robert L., and Martin A. Baumhoff

1982 The Numic Spread: Great Basin Cultures in Competition. *American Antiquity* 47:485–503.

Egan, H. R. Major

1917 *Pioneering the West, 1846 to 1878: Major Howard Egan's Diary*. Howard R. Egan Estate, Richmond.

Ferguson, Henry G., and Siemon W. Muller

1949 *Structural Geology of the Hawthorne and Tonopah Quadrangles, Nevada*. US Geological Survey Professional Paper No. 216.

Gilbert, C. M.

1941 Later Tertiary Geology Southeast of Mono Lake, California. *Geological Society of America Bulletin* 52:781–815.

Gilbert, C. M., M. N. Christensen, Yeha Al-Rawi, and K. L. Lajoie

1968 Structural and Volcanic History of Mono Basin, California. In *Studies of Volcanology*, edited by R. L. Hay and C. A. Anderson, *Geological Society of America Memoir* 116:275–329.

Hall, Raymond E.

1946 *The Mammals of Nevada*. University of California Press, Berkeley.

Hall, Matthew C.

1990 *The OXBOW Archaeological Incident: Investigations of 23 Locations Between Owens Valley, Eastern California and Walker Basin, southwestern Nevada.* Report on file, Eastern California Information Center, University of California, Riverside.

Irving, Washington

1986 *The Adventures of Captain Bonneville, U.S.A, in the Rocky Mountains and the Far West*, edited by Edgeley W. Todd. University of Oklahoma Press, Norman.

Jennings, Jesse David

1957 *Danger Cave.* Memoirs of the Society for American Archaeology. University of Utah Press.

Murphy, Timothy W., and Fred P. Frampton

1986 Aboriginal Antelope Traps on BLM Lands in the Elko Area, Northeastern Nevada. Paper Presented at the 20th Great Basin Anthropological Conference, Las Vegas, Nevada.

Parr, Robert E.

1989 *Archaeological Investigation of the Huntoon Pronghorn Trap Complex, Mineral County, Nevada*. Master's thesis, Department of Anthropology, University of California, Riverside.

Pendleton, Lorann S. A., and David H. Thomas

1983 *The Fort Sage Drift Fence, Washoe County Nevada.* Anthropological Papers of the American Museum of Natural History 58(2). New York.

Pippin, Lonnie C.

1980 *Prehistoric and Historic Patterns of Lower Pinyon-Juniper Woodland Ecotone Exploitation at Borealis, Mineral County, Nevada.* Desert Research Institute Technical Report No. 17. University of Nevada, Reno.

Raymond, Anan

1983 Two Historical Game Drive Enclosures in the Eastern Great Basin. *Journal of California and Great Basin Anthropology* 4:23–33.

Ross, Donald C.

1961 *Geology and Mineral Deposits of Mineral County, Nevada.* Nevada Bureau of Mines Bulletin No. 58. Nevada Bureau of Mines, Reno.

Rudy, Jack R.

1953 *Archaeological Survey of Western Utah.* University of Utah Anthropological Papers No. 12.

Stearns, S., and F. Peterson

1987 *Possible Archaic Antelope Trap, Clover Valley, Nevada.* Carson City: Nevada Department of Transportation Technical Series No. 4.

Steward, Julian H.

1938 *Basin Plateau Aboriginal Sociopolitical Groups.* Bureau of American Ethnology Bulletin 120. Government Printing Office, Washington, DC.

1941 *Culture Element Distributions: VIII, Nevada Shoshone.* University of California Anthropological Records 4(2). University of California Press, Berkeley.

1943 *Culture Element Distributions: XXIII, Northern and Gosiute Shoshone.* University of California Anthropological Records 8(3). University of California Press, Berkeley.

Sutton, Mark Q.

1993 The Numic Expansion in Great Basin Oral Tradition*.* *Journal of California and Great Basin Anthropology* 15(1):111–128.

Thomas, David H., and Edwin H. Mckee

1974 *An Aboriginal Rock Alignment in the Toiyabe Range, Central Nevada.* American Museum of Natural History Novitates No. 2534.

Wilke, Philip J.

1986 Aboriginal Game Drive Complexes at and Near Whisky Flat, Mineral County, Nevada. Paper presented at the 20th Biennial Great Basin Anthropological Conference, Las Vegas.

1989 Bow Staves Harvested from Juniper Trees by Indians of Nevada. *Journal of California and Great Basin Anthropology* 10:3–31.

2013 The Whisky Flat Pronghorn Trap Complex, Mineral County, Nevada, Western United States: Preliminary Report. *Quaternary International* 297:79–92.