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THE RESULTS OF USING ASSOCIATED RECORDS TO FACILITATE NEW RESEARCH:
RECENT EXCAVATIONS AT THE ELK MOUNTAIN SITE (48CR301)
Society of American Archaeologists Annual Conference 2015, J. Clauter

[SLIDE 1]

A primary goal of an archaeological repository is the care and preservation of assemblages so they are available to future researchers for re-analysis or investigation with new methods or techniques. It is not uncommon for studies to reevaluate already excavated sites, or simply to do an analysis that was never completed after the initial excavation. But there are many orphaned collections in repositories that lack reports or a researcher to study them. Additionally, on old collections that are studied, many times we think of “new research” as restricted solely to laboratory-based undertakings. Yet there is probably a direct correlation between the time elapsed since the original fieldwork and the difficulty of completing a reanalysis, it is sometimes necessary to begin new excavations at a site in order to help interpret and understand the previous work.

[SLIDE 2] Integral to starting new fieldwork based on old collections is the presence, quality, and condition of the associated records, and also the detail and completion of a catalog inventory. These records are the only primary data which document original provenience or context, discuss methods or methodology, and to which we can gauge the results. However, many orphaned collections have an incomplete suite of records or lack them entirely, and the artifact inventories are partially complete or nonexistent. The question becomes: How can

archaeologists use old collections to facilitate new field research if we are missing so many pieces?

[SLIDE 3] This is a question we asked when the University of Wyoming Archaeological Repository (UWAR) began a project to inventory artifacts from the Elk Mountain site. Also known as Garrett Allen, Elk Mountain is located in south-central Wyoming in the Carbon Basin along Halleck Ridge. It is found in a sheltered arroyo near Quealy Springs surrounded by sagebrush and grassland. The Wyoming Archaeological Society (WAS) excavated there from 1969 until 1978, and then the University of Wyoming (UW) in 1979 and 1980. The excavations were highly productive and many different types of artifacts were recovered including both cordmarked and plain surfaced ceramics, groundstone; large amounts of lithic debris and tools, tang knives, points representing time periods from the Archaic onwards; and faunal remains including bison, elk, pronghorn, turtle, opossum, and various avian species. **[SLIDE 4]** A large biface made with an unknown non-local material and a drilled marine shell sourced to the Gulf of Mexico were also found nearby by collectors. Despite its productivity, a site report, site map with datum that detailed all excavations, and artifact analyses were never completed.

[SLIDE 5] The current UWAR inventory was implemented to enable more detailed site evaluations, but the project was hampered by the incomplete nature of the associated records. Field notes and excavation forms are missing for the 1969 excavations, and only a partial record exists for the later excavations. Additionally, some levels and units are not discussed in concrete provenience like cmbs or X-Y coordinates, but in terms understandable only to researchers at the time. Designations like “Craig’s Test Unit” or “Level 3” are common. As the early excavations were dug in natural levels, “Level 3” could have a wide range of possible depths. Also, investigators did not use the same terminology. Sometimes a level was called “Woodland”, and

in other units the level may be called “Lower Ceramic.” We are not sure whether these two descriptions refer to the same component or cultural strata. **[SLIDE 6]** Catalog cards exist for about half the collection, but there are numerous excavation pictures. Unfortunately, there are no photologs and photoboards are difficult to read in most pictures.

[SLIDE 7] Eventually, we decided it was necessary to revisit Elk Mountain in order to understand the site structure and soil stratigraphy in greater detail. We entered the 2014 field season with four interrelated goals:

- 1) Generate a test unit and topographic site map that details and plots all previous and current investigations.
- 2) Excavate an area outside the perimeter of the original excavations on the northeast side of a large rill that runs through the site. Old catalog cards and recent site visits document FCR, eroding features, and artifacts on the surface there, but no subsurface testing. The 2014 test units were placed along the rill edge to see how far cultural materials extended away from Quealy Spring.
- 3) Assess the feasibility and magnitude of future field research. Site limits are unknown and the field investigation can detail the potential for archaeological deposits in areas both within and outside the previous excavation grid. Further, field-testing determines if mechanized excavation is essential to reach the more deeply buried Archaic components. Also, the Elk Mountain site was well known to local collectors even before the 1969 excavations. A concern was whether or not there would be enough intact deposits to warrant more research at all.

- 4) Evaluate a collections-based approach to new fieldwork. We sought to examine the productivity of using partially present associated records from older collections to complete the previous three goals while facilitating the new fieldwork.

[SLIDE 8] Goal 1: Generate Site Maps

A site map was completed on two scales: a test unit location map, and then also topographic and aerial maps that show the excavations on the larger landscape. We compiled a test unit map using provenience located on catalog cards and artifact tags. However, we can't tie these test units to an exact location on the landscape. Interviews with excavation personnel on earlier projects indicated that there was one rebar datum for all years, but repeated searching in 2014 could not relocate it.

[SLIDE 9] Given these uncertainties, we turned to candid photographs taken by students and volunteers at the older excavation. Many of the official field school photographs are pictures of test unit walls or feature plans. Pictures taken by volunteers, however, often are more crew-oriented and focus on people. Through comparing the modern landscape to the old volunteer photographs that show people and terrain markers, like Halleck Ridge or the main field road, we were able to estimate the perimeter of the previous investigations. Also, we found the remains of discarded excavation screens in this area so we figured we were near the right place. We still do not know the exact location of particular test units, but at least we have a general idea of where the excavations should be.

[SLIDE 10] We then used a total station to map the earlier excavations as well as surface finds, eroding features, landscape details, and the 2014 test units and datum to generate a topographic site map. **[SLIDE 11]** Finally, these data were linked to a WYDOT benchmark and overlaid into an aerial view.

[SLIDE 12] Goal 2: New Excavation

Associated records helped to hone the 2014 strategy. The 1979 paperwork indicated most units were not dug beyond 2 feet. At this point, they sometimes found features including large FCR-lined basins. The 2014 project therefore focused only on excavating the upper 50-60 cm as our limited one week timeframe negated the possibility of excavating down to sterile levels.

[SLIDE 13] Surface walkovers in 2014 documented eroding features and diagnostic artifacts. The Late Archaic point base, Hartville chert biface fragment, and cordmarked bodysherd were all found eroding out of cutbanks near the springs. The pink chert Besant-like point was found on the hillside to the west of the earlier excavations, while the mano fragment was found in the camp area to the south.

[SLIDE 14] A total of four test units were placed in 2014: Three 1x1 m units, and one 1x2 m unit. Almost 600 artifacts were recovered this year including 351 flakes, 8 lithic tools, 229 bone fragments, and 5 small ceramic bodysherds. No units were sterile, though certain test units were more productive. **[SLIDE 15]** Test Unit 1 contained a high proportion of bison bone, a small biface preform of brown chalcedony, and point tip fragment made of dendritic agate in the top 10 centimeters. A possible quartzite core and pronghorn metapodial tool were found 15 cmbs.

[SLIDE 16] Only lithics were recovered in Test Unit 2 and a gray chert end scraper was found at 10 cm below surface. However, in comparison to the shallow components noted in Test Unit 1, the artifacts in Test Unit 2 were concentrated at lower levels. Over half the flakes were found at 35 cmbs or below and four flakes were found at 75 cmbs, the deepest level, indicating the possibility of more, lower occupations than could be reached in the excavation timeframe.

[SLIDE 17] Test Unit 3 was the most southern test unit and also the farthest one away from the spring. It was placed adjacent to a cut bank with two dark strata which both had large bone fragments eroding from the wall. **[SLIDE 18]** Though far from the spring, it still had a high artifact density and produced material culture at 60 cm below surface. However, artifacts were concentrated between 15 and 25 cmbs with a sparse spread in other levels. Forty-one bone fragments, all ceramics recovered this year, 270 flakes, and two lithic tools were discovered at this depth.

The final square, Test Unit 4, was almost sterile with only seven bone fragments found spread evenly between seven levels of excavation. The result is surprising because the unit was located closest to the earlier excavation areas, which were highly productive, and closest to the spring.

[SLIDE 19] Goal 3: Assess feasibility and magnitude of future research

The 2014 excavations at Elk Mountain and the UWAR inventory project demonstrate the potential for future work at the site. The cultural deposits are not limited to directly adjacent to the spring, and that the site has not been completely destroyed by artifact collection over the past half-century. There are artifacts present in both surface and subsurface deposits outside the earlier excavations. There may be archaeological remains as far south as the camp area and to the hillside to the southwest of the site.

As different 2014 test units had a greater density of artifacts at different depths, it is possible that cultural components are not evenly spread across the landscape. Rather, different people used different areas around the spring as the waterflow changed courses during stream development, resulting in the stratigraphic lenses present in unit and rill cutbank profiles. This hypothesis can only be examined through more intensive excavations with wider blocks in

multiple areas. None of the 2014 test units found Archaic diagnostics and it is likely these occupations are found much deeper than what could be excavated by hand. Mechanized testing is needed to reach these components.

[SLIDE 20] With the completion of the site maps, it is easier to visualize what areas inside the perimeter of the earlier excavations could also be explored, and recommendations from earlier excavation are easier to comprehend. The 1979 notes detail where a large concentration of pottery was found, the Star on the slide, and also where investigators thought they could find more, the Circle on the slide. **[SLIDE 21]** Plotting these symbols shows that the area suggested has not yet been explored. Also, the test unit map shows an area marked by the green dashed oval that was largely not investigated even though it was between two very productive excavation blocks.

[SLIDE 22] Goal 4: Examine a collections-based approach to fieldwork

The associated records were integral in every step of the process of completing the 2014 season. Paperwork and photographs helped us to compile a site map, to set up an excavation strategy for the fieldwork, and to assess the extent of future research. The research demonstrates the importance of placing associated records in a secure repository environment so they are accessible, available, and usable. Unfortunately, accessioning documentation is often seen as an onerous, often boring task that should be minimized, or that documents do not need to be accessioned at all because they are a researcher's personal property and they have sole proprietary rights to the information. Yet obtaining replicable results is undermined if these types of documentation do not exist, are not shared, or have deteriorated.

[SLIDE 23] The use of the associated records has certainly helped us understand how much more work we need to do to at Elk Mountain. Surveys are necessary to delimit a new site

perimeter. We need mechanized, large block testing to explore the deeper components, and to assemble a better understanding of site formation and site usage around the spring. We should explore the areas where hearths and artifacts are eroding out of cutbanks. Further laboratory analyses are needed for material cultural classes including the ceramics and faunal remains. The Elk Mountain site is also a good candidate to help us further understand how Wyoming prehistoric peoples utilized natural springs. Were they part of a seasonal round, used for ritual activities, or simply short-term campsites used sporadically?

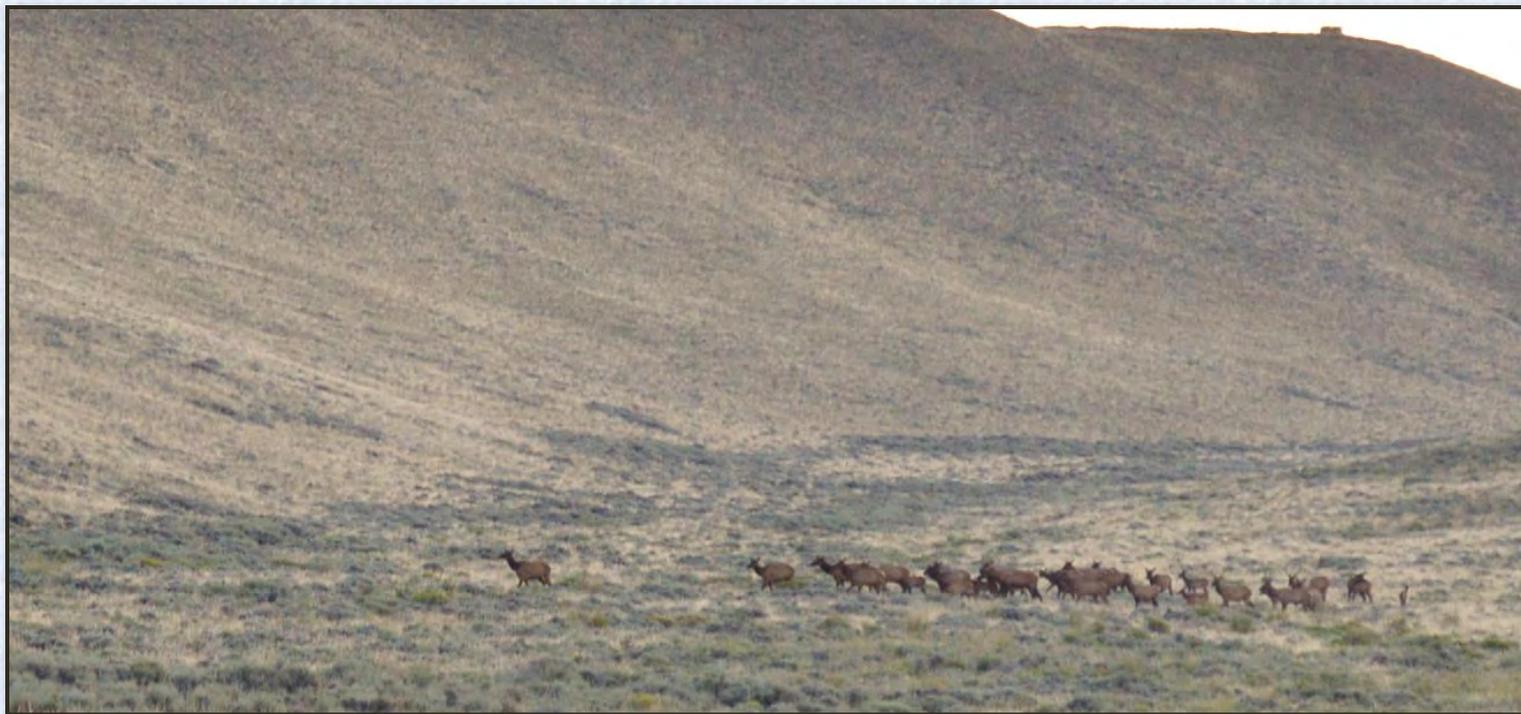
Finally, the associated records research at Elk Mountain offers a chance to study how archaeologists go about our business when there isn't a site report or collections are not fully analyzed. We started terming this the Archaeology of Memory as our interviews with previous excavators revealed that people remembered the site in vastly different ways. Without a site map, people thought the previous excavations were dug in different places. Some people recall artifacts that others don't, like the eagle humerus or human occipital fragment. There was also disagreement on whether the site offered great potential for future research, or if anything was there which would justify such an undertaking. Investigating the practice of archaeology brings collections-based research out of a reflexive, secondary approach conducted only when we note a portion of the original analysis is missing. It lets us actively engage in theories of how we do archaeology, and how our biases and perceptions come to be all with the backing of data from inventories, interviews, and new excavations. Importantly, this research needs the lens of curation to come to fruition and lets us say with confidence that there is still so much work to be done on older collections.

[SLIDE 24] Thank-you.

The Result of Using Associated Records to Facilitate New Research: Recent Excavations at the Elk Mountain Site (48CR301)

Jody A. Clauter

Wyoming Department of State Parks and Cultural Resources



P.C.

Specimen: Pottery Sherd No. 39426

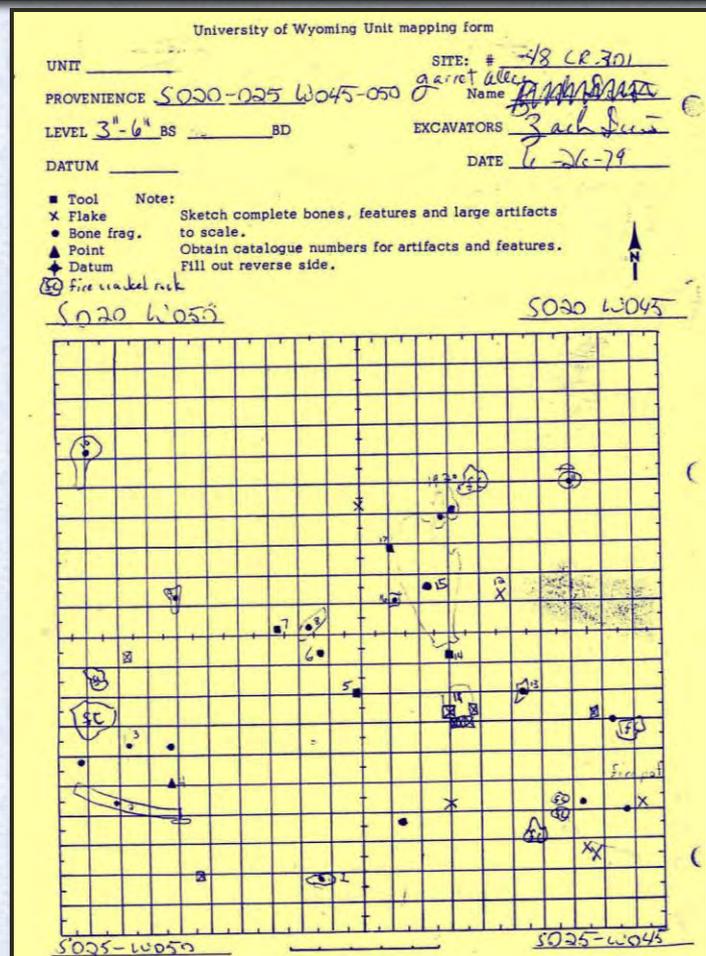
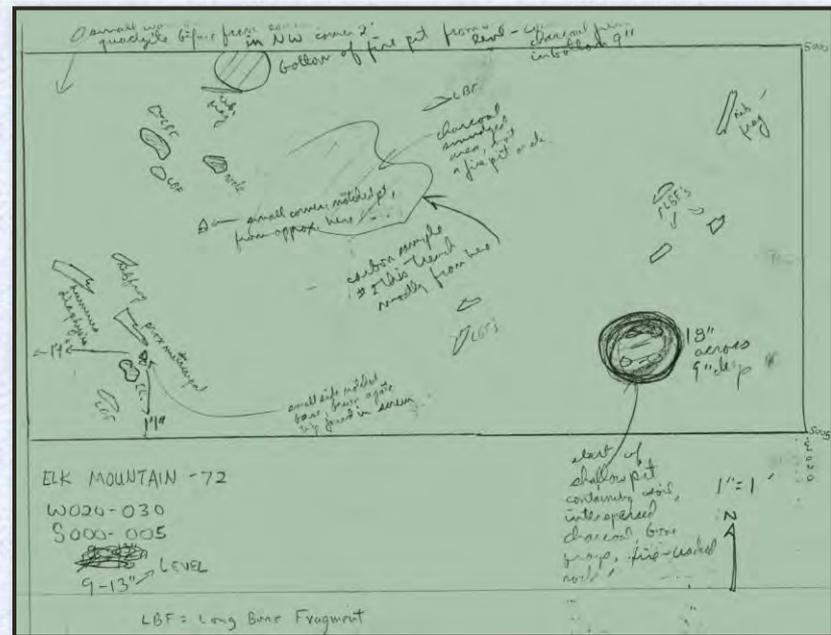
Locality: Elk Mountain - 48CP301 Storage:

Provenience: Nine body sherds
S 20-25
W 20-25
Screen Level II
SE Quad 2.5¹¹-411

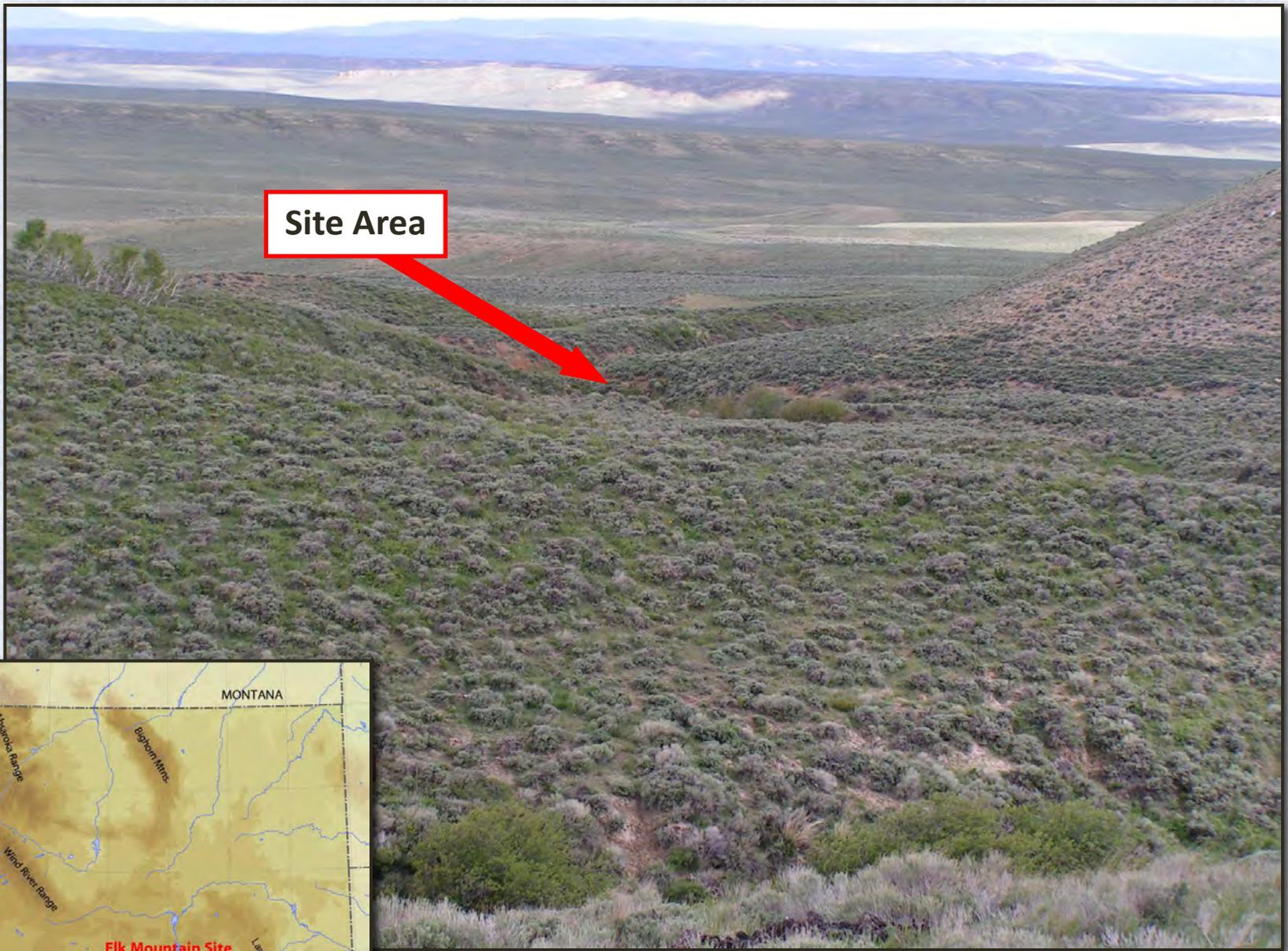
Collector and Date: 1979

Ownership: BIM9 Private

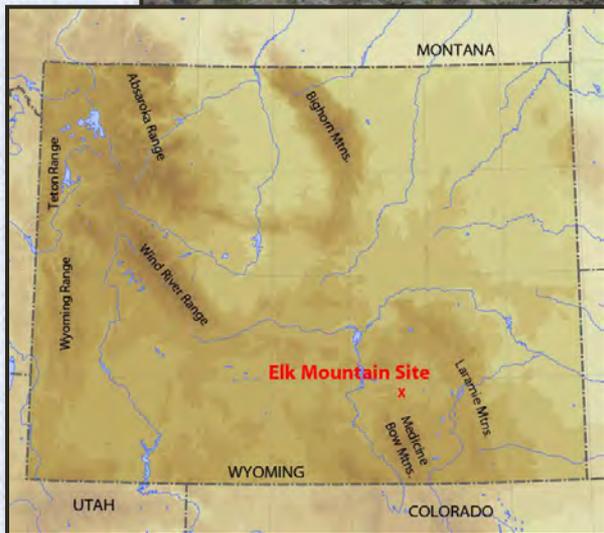
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ANTHROPOLOGICAL COLLECTION



**ARTS. PARKS.
HISTORY.**



Site Area





WY 101
38120



**ARTS. PARKS.
HISTORY.**

Wyoming Department of State Parks & Cultural Resources

University of Wyoming Unit mapping form

UNIT Craig's Test

SITE: # 48CR301

PROVENIENCE _____

Name Garrett Allen
CRAIG JOHN & LAVON

LEVEL 20" BS _____ BD _____

EXCAVATORS CASNER & Bradley

DATUM _____

DATE 20 July 1980

University of Wyoming Unit mapping form

UNIT _____

SITE: # 48CR302

PROVENIENCE W 30-35/S 15-20

Name Elk Mtn

LEVEL 3 BS _____ BD _____

EXCAVATORS _____

DATUM _____

DATE 6/26

- Tool Note:
- ✕ Flake Sketch complete bones, features and large artifacts
- Bone frag. to scale.
- ▲ Point Obtain catalogue numbers for artifacts and features.
- ◆ Datum Fill out reverse side.



All rock is fired unless otherwise specified @

University of Wyoming Unit mapping form

UNIT _____

SITE: # 48CR 301

PROVENIENCE W 40-45', S 23-30'

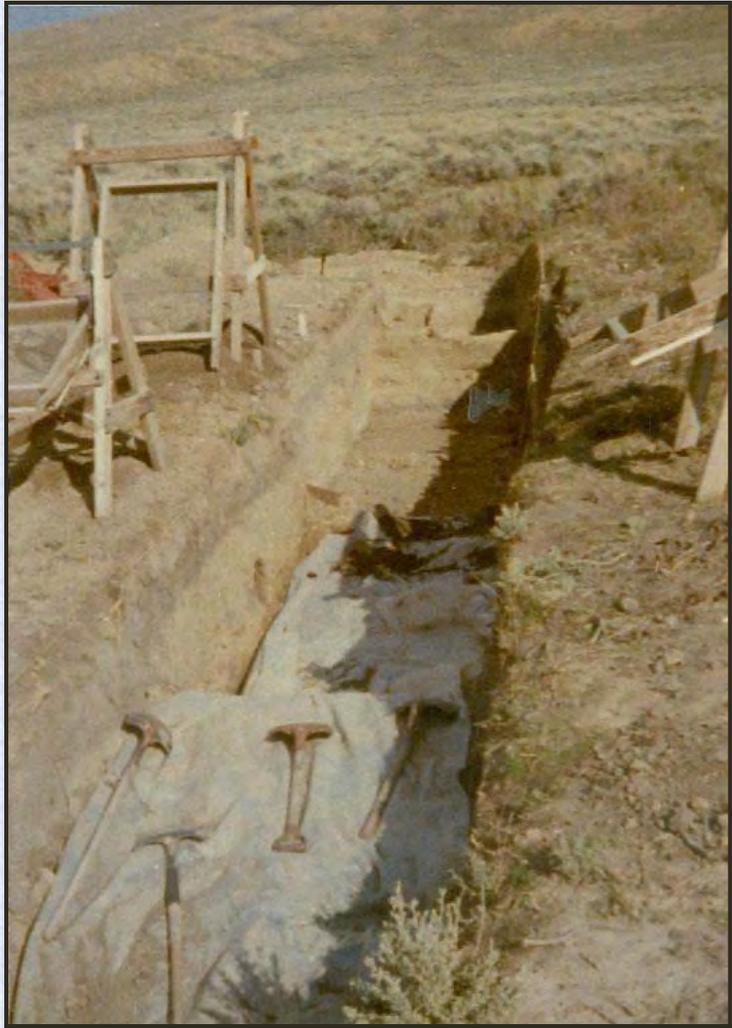
Name GARRETT ALLEN

LEVEL 3 - WOODLAND BS _____ BD _____

EXCAVATORS G. ALLEN

DATUM _____

DATE 6-28-80



Elk Mountain 2014 Field Research Goals

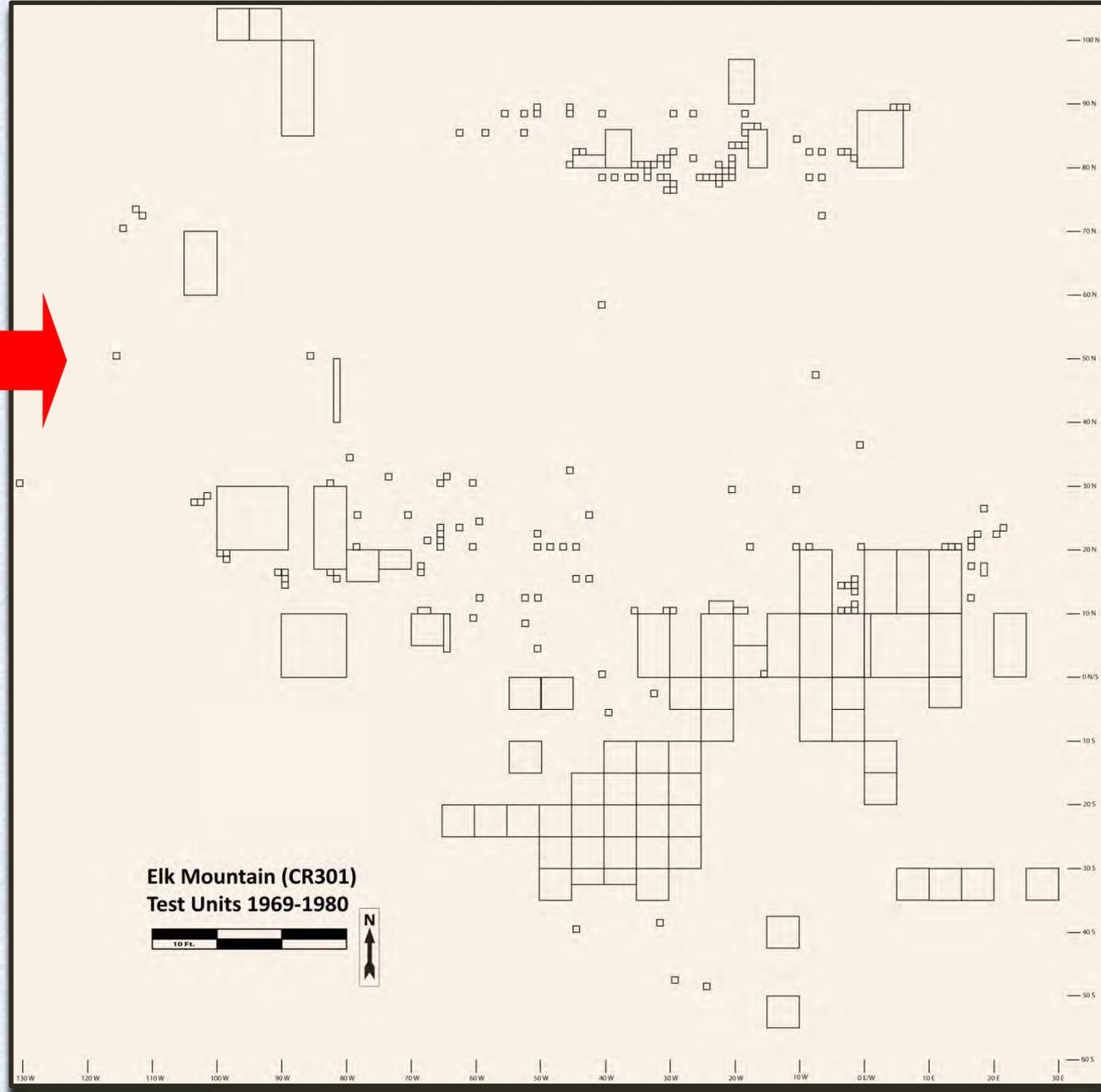
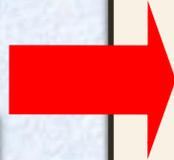
- 1) Generate a site map which details and plots all previous and current investigations
- 2) Excavate areas northeast of earlier excavations
- 3) Assess the feasibility and magnitude of future research
- 4) Evaluate a collections-based approach to new fieldwork



Goal 1) Generate Site Maps

48CR 301
5-30-35
E-25-35 #1
Level 3
7/20/80 ~~one~~ one
screen

Plot number S010-W010
Type of artifact found S020-W015 Arrowhead
Distance of artifact from datum point North or South ~~15"~~ S010'3"
Distance of artifact from datum point East or West ~~35"~~ W010'2"
Depth of artifact below original surface 2H.
Found in situ in screen (circle one)
Photographed by whom? Shirley R.
Date Aug. 2
Finders name Shirley R. Hanson
Enclose this form with the artifact found.



1979



2014



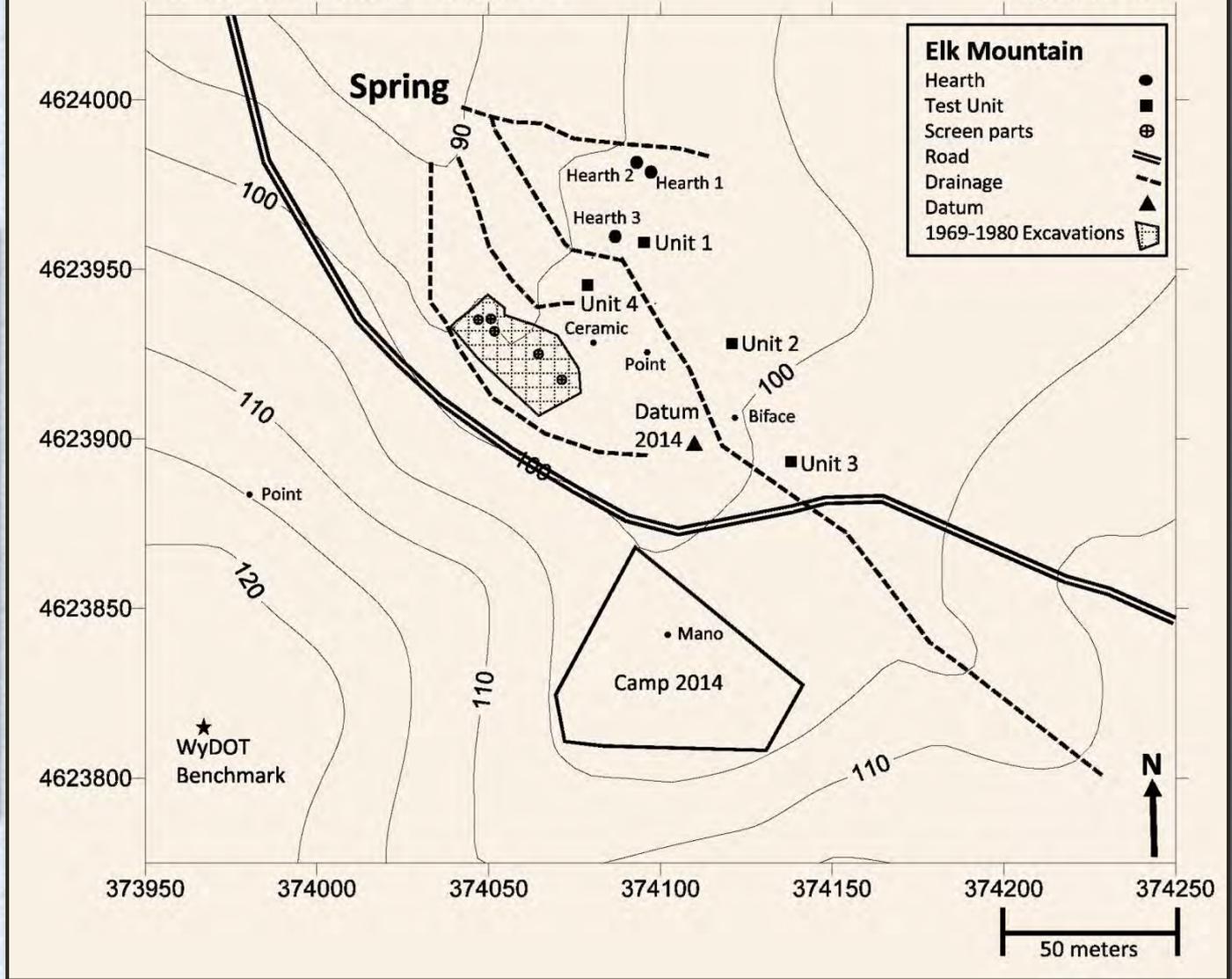
**ARTS. PARKS.
HISTORY.**

Wyoming Department of State Parks & Cultural Resources

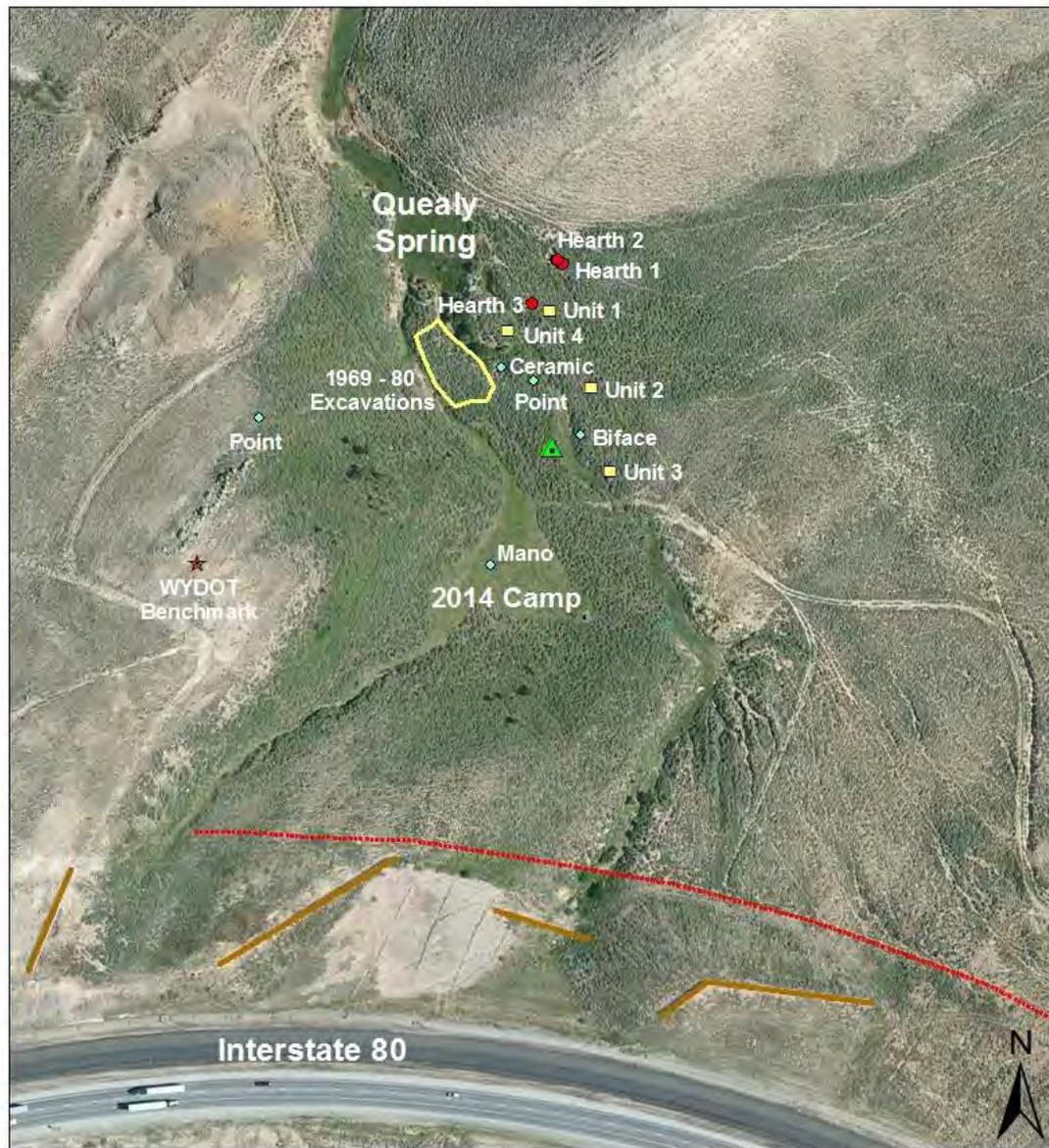


48CR301 ELK MOUNTAIN SITE

August 2014



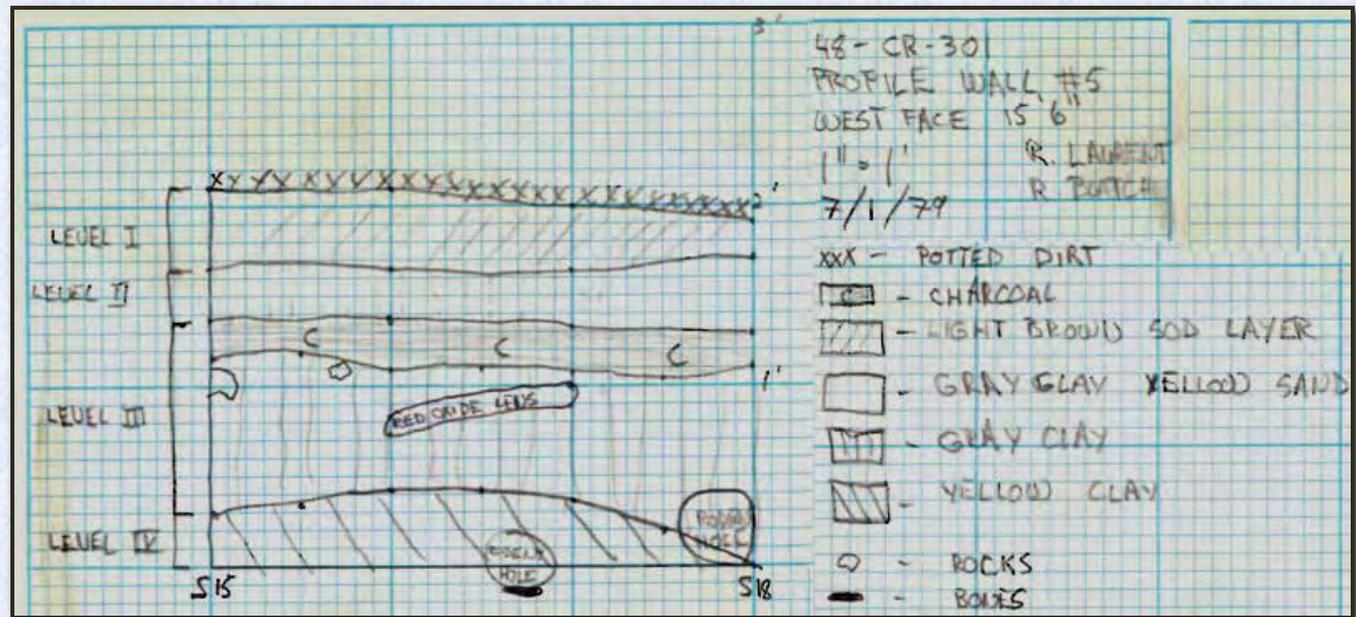
48CR301 The Elk Mountain Site



48CR301

- | | | |
|---------------------|-----------------------|-------------------------|
| ★ Benchmark | ◇ 1969-80 Excavations | - - - Barbed-wire Fence |
| ◆ Surface Artifacts | ● Surface Hearths | — WYDOT Snowfence |
| ▲ 2014 Datum | ■ 2014 Test Units | |

Goal 2) New Excavation



Surface Artifacts



TU 3



TU 2



TU 1



Test Unit 1

Biface preform
and point tip



Quartzite Core



Bone Awl



ELK MOUNTAIN CR301
TU2 N1030 E 1011
WEST wall profile
8/2/17



Test Unit 2

End scraper





Test Unit 3



Smoothed surface bodysherds



End Scraper and point tip

48CR301 The Elk Mountain Site



Goal 3) Assess Future Research Possibilities

48CR301

- ★ Benchmark
- ◇ 1969-80 Excavations
- Barbed-wire Fence
- ◆ Surface Artifacts
- Surface Hearths
- WYDOT Snowfence
- ▲ 2014 Datum
- 2014 Test Units

EIK Mtn Site

June 15, 1979

DATUM - rusty coffee can

Tested UNIT W-35-55

S-20-25

w/ Garrett Allen

Pottery (upper repub) came from units ^w35-40, ^w40-45

" Found in context ; several rim sherds + side + bottom

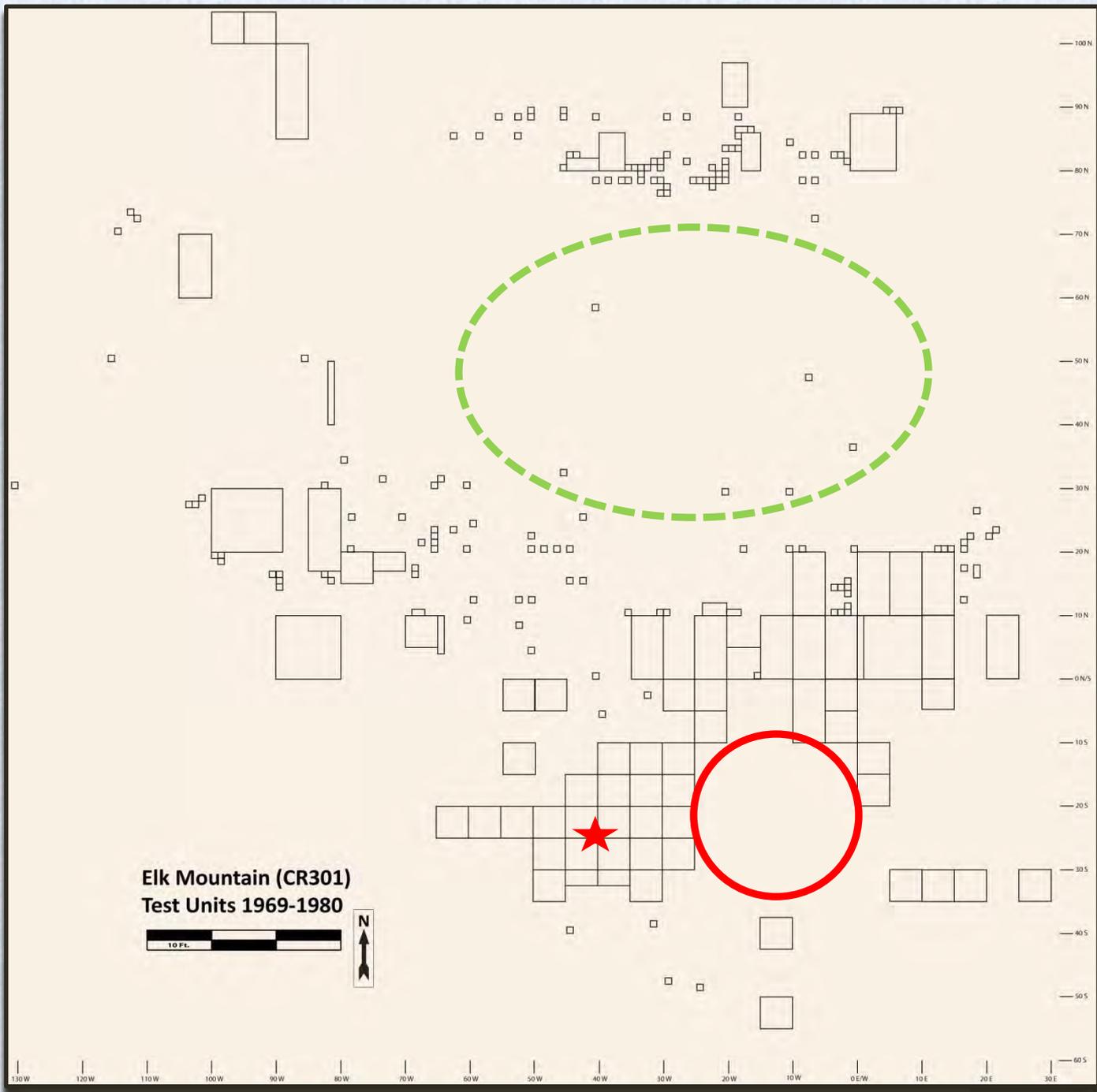
Most of pottery came from around and on top of rocks w/in a firepit
burned bone also found w/in the pit

Possible suggestion - pot containing meat or bones broke
while in firepit (cooking?) Much charcoal

Pit located in W 35, S 25 corner of unit

Further work : W-20, 25 ; S. 25, 30 . . .

Photos taken of site area - including pottery in place
from W 35-40, S. 20.25 2nd level



Elk Mountain (CR301)
Test Units 1969-1980



Goal 4) Examine a collections-based approach to fieldwork

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L.A. Specimen: *Projectile Point* No. *38357*
Locality: *Elk Mountain - 48CP301* Storage:
Provenience:
S 20-25
W 35-40
Level I 0-3" BS
mapped
Chert

Collector and Date: *6/25/79*
Ownership: *BIM & Private*



UNIVERSITY OF WYOMING ANTHROPOLOGICAL COLLECTION

L.A. Specimen: *BONE AWL* OC# *BT29* No. *38146*
Locality: *48CP301 Elk Mountain Site* Storage:
Provenience: *NORTH access Draw*
Found in Situ

Collector and Date: *G. Allen 9-14-74*
Ownership:



Where do we go from here?

- 1) **2015 field work:** delineate site boundaries, limited testing
- 2) **Ceramic analysis:** Petrography, Typology
- 3) **Faunal analysis:** Procurement and processing studies; bone tool use studies, Species identification
- 4) **Model building:** Natural spring use
- 5) **Archaeology of Memory:** What happens to how we remember and interpret sites when the site isn't published or there are orphaned collections?

UNIVERSITY OF WYOMING ANTHROPOLOGICAL COLLECTION

Specimen: Eagle Humerus No. 38048
Locality: Elk Mountain Storage: _____
Provenience: _____
W020-030
5009-005
~~13-15"~~
13-15"

Collector and Date: G. Frison
Ownership: U. of Wyo.

UNIVERSITY OF WYOMING ANTHROPOLOGICAL COLLECTION

Specimen: Occipital Bone H. Sapien No. C3515
Locality: ELK Mtn 48 CR 301 Storage: _____
Provenience: None??

Collector and Date: Rec. Comm No Coll. Date
Ownership: _____



Thanks due to the Palm Family, Wyoming Association of Professional Archaeologists, Wyoming Archaeological Society Volunteers, Wyoming State Historic Preservation Office, Office of the Wyoming State Archaeologist Survey Division, University of Wyoming George C. Frison Institute, R. Adams, C. Bupp, C. Dukeman, D. Eckles, G. Frison, J. Laughlin, M. Miller, and D. Walker