

THE COLORADO WICKIUP PROJECT VOLUME VI:

TEST EXCAVATION OF THE BLACK CANYON RAMADA (5DT222)
AND THE
DOCUMENTATION OF FOUR ADDITIONAL PREMIER
ABORIGINAL WOODEN FEATURE SITES IN COLORADO



CURTIS MARTIN
MICHAEL J. BROWN
JOHN E. LINDSTROM

COMPLETED FOR
THE COLORADO HISTORICAL SOCIETY STATE HISTORICAL FUND
AND
THE BUREAU OF LAND MANAGEMENT

DARG Dominquez Archaeological Research Group 

A CONSORTIUM FOR CULTURAL RESOURCES
RESEARCH, PRESERVATION AND EDUCATION
IN THE NORTHERN COLORADO PLATEAU

**The Colorado Wickiup Project
Volume VI:**

**Test Excavation of The Black Canyon Ramada (5DT222)
and the
Documentation of Four Additional Premier
Aboriginal Wooden Feature Sites in Colorado**

Completed for
The Colorado Historical Society
State Historical Fund Project No. 2010-M1-041
and
The Colorado State Office of the Bureau of Land Management

DARG Project # D2902
June 24, 2011

Prepared by
Curtis Martin, Principal Investigator
Michael J. Brown,
and John E. Lindstrom

with contributions by
Nicole Darnell

Dominquez Archaeological Research Group, Inc.
P. O. Box 3543
Grand Junction, Colorado 81503
Cultural Resource Use Permit No. C-67009

Submitted to
The Colorado Historical Society State Historical Fund
1300 Broadway
Denver, Colorado 80203
and
The Bureau of Land Management
Colorado State Office
2850 Youngfield
Lakewood, Colorado 80215

Front cover photograph:
Feature 1, tipi frame, at 5MF5216, the Disappointment Draw Lodge

Acknowledgments

First and foremost, Dominquez Archaeological Research Group (DARG) would like to express their sincere appreciation to Mark Wolfe, State Historical Fund (SHF) Director, Thomas Carr, SHF Staff Archaeologist, and the entire staff of the State Historical Fund and the Colorado Historical Society for their continued support of the Colorado Wickiup Project (CWP) in our efforts to locate, record, and preserve the state's rapidly vanishing wickiups, tree platforms, and other aboriginal wooden features.

Funding for this project was provided by the Colorado Historical Society State Historical Fund (Project # 2010-M1-041) with matching funds from the Bureau of Land Management (BLM). BLM archaeologist Cheryl Harrison initiated the investigations at 5EA2740, brought it to the attention of the CWP, and has been extremely helpful and accommodating throughout the field work and report preparation.

The field work for Phase VI of the Colorado Wickiup Project (CWP) was conducted between July 28th, 2009, and May 28th, 2010. Curtis Martin served as Principal Investigator and he was assisted in the field by subcontractor archaeologists John Lindstrom, Michael Brown, Holly "Sonny" Shelton, Jessica Clarke, and Michelle Mitchell. Brown and Lindstrom were also contracted during the report preparation phase and were responsible for preparation of site and feature maps, artifact tabulations, editing, and numerous other tasks. The hard work and dedication of all of the crew members is greatly appreciated.

Carl Conner, President of DARG; Richard Ott, Project Coordinator; and Michael Berry, Project Administrator provided invaluable service and direction throughout. In the lab Nicole Darnell, DARG's GIS specialist, produced and fine-tuned the project maps and site plans.

A special note of appreciation is due to both George Decker of Grand Junction, and Mike Musick of LaGarita, for respectively bringing sites 5ME469 and 5SH3788 to the attention of the archaeological community and, consequently, the CWP. Thanks to these individuals and others like them who recognize the value of cultural resources—particularly rare and ephemeral features such as wickiups—archaeologists are provided with the opportunity to thoroughly document these sites and to consider whatever preservation options are available.

Valuable volunteer work was provided in the field by archaeologist Paul Roebuck, from Dykeman Roebuck Archaeology of Farmington, New Mexico, during the recordation of site 5MF5216. Similarly, a crew of U.S. Forest Service archaeologists and employees and volunteers assisted not only in the documentation of 5SH3788, but in making it possible for the CWP to consider it as a project site in the first place. These included Mike Musick, Ken Frye, Angie Krall, Andrew Archuleta, Becky Donlan, Meghan Mulholland, Andrea Moore, Kep Heinitz, Marvin Goad, and Craig Franke.

Phil Born, Assistant Curator of the Museum of Western Colorado in Grand Junction, and Steve Baker of Centuries Research in Montrose, provided valuable insights into the interpretation, description, and dating of the numerous historic trade items recovered, especially in regard to the ammunition components. The dendrochronological analysis was performed by Ron Towner of the Laboratory of Tree-Ring Research at the University of Arizona in Tucson. Thermoluminescent analysis of a sherd from site 5RB2624 was conducted by Sachiko Sakai of the Institute for Integrated Research in Materials, Environments, and Society (IIRMES) at California State University Long Beach.

Special recognition is due to Sam Marso, Crime Scene Reconstruction agent for the Colorado Bureau of Investigation, for volunteering his time to perform an in-depth analysis of the ordnance from the project's sites as well as a comparative collection from the site of the Thornburgh (Milk Creek) Battle of 1879, which was graciously loaned to the project by Brad L. Edwards of Englewood, Colorado.

USFS archaeologist Ken Frye and BLM archaeologists Glade Hadden, Cheryl Harrison, Aline LaForge, Michael Selle, Geoffrey Haymes, Kristin Bowen, and Alissa Leavitt-Reynolds have been extremely helpful and accommodating throughout the field work and report preparation. In this, and in all previous phases of the CWP, our efforts have been aided immeasurably in regard to ethnohistory and landscape archaeology considerations by Betsy Chappoose, Director of Cultural Rights and Protection Department, and Clifford Duncan, Ute Elder and NAGPRA Consultant, of the Ute Indian Tribe of the Uintah & Ouray Reservation.

Abstract

The Colorado Wickiup Project (CWP) is a comprehensive effort to document aboriginal wooden shelters and other features in Colorado. In 2009 and 2010, as Phase VI of the project, Dominquez Archaeological Research Group, Inc (DARG) recorded and compiled data from five sites in Colorado on Bureau of Land Management (BLM) lands in Delta, Eagle, Mesa, and Moffat Counties, and on United States Forest Service (USFS) lands in Saguache County. The sites ranged from a habitation site with a single wooden ramada (5DT222) to a wickiup village consisting of 28 wooden features (5EA2740). A total of 53 wickiups, tipis, and other wooden features were documented. In addition to several types of wooden features that had not been previously documented by the CWP, new categories of trade goods were also encountered and significant advances were made regarding our ability to date wooden feature sites within a very few decades based on artifact assemblages alone (even without the verification of tree-ring dates).

For the first time, the CWP elected to dedicate a phase of the project to what appear to be some of the premier aboriginal wooden feature sites and structures in the state. Phase VI investigations included test excavations at site 5DT222, the Black Canyon Ramada—the only flat-roofed early Historic structure known to the CWP in the state; revisits and documentation of three additional previously-recorded aboriginal wooden feature sites; and the documentation of an unrecorded structure brought to the attention of the project by a private resident. This latter site, 5SH3788, Musick Lodge, consists of a single, large, conical shelter that defies the standard definitions of both “wickiup” and “tipi,” and is in apparent direct association with an eagle trap.

The other three resources consist of two extensive wickiup villages—5EA2740, Pisgah Mountain Wickiup Village, and 5ME469, Decker Big Tank Wickiup Village—and a site containing the best example of a standing wooden tipi frame in an archaeological context known in the state—5MF5216, Disappointment Draw Lodge.

The discussion of findings in this report includes descriptions and evaluations of all aboriginal wooden feature sites recorded during Phase VI, an overview of the Colorado Wickiup Project results to date, a summary discussion of the findings of the Phase VI work and the CWP as a whole, and recommendations for future research and management of aboriginal wooden feature sites including recommendations regarding National Register of Historic Places (NRHP) potential. Of particular interest is the notably early tree-ring date from a wickiup pole at 5ME469 that indicates the presence of metal axes, on the Uncompahgre Plateau by AD1795 or shortly thereafter.

Two pertinent ancillary sites that were independently investigated by the CWP researchers in 2009 and 2010, and not part of the CWP itself, are also discussed in this report: 5DT1538 and 5ME901, the Bella Site. Data from site 5DT1538 has been included in the compilation of wooden feature data for the project (Table 8).

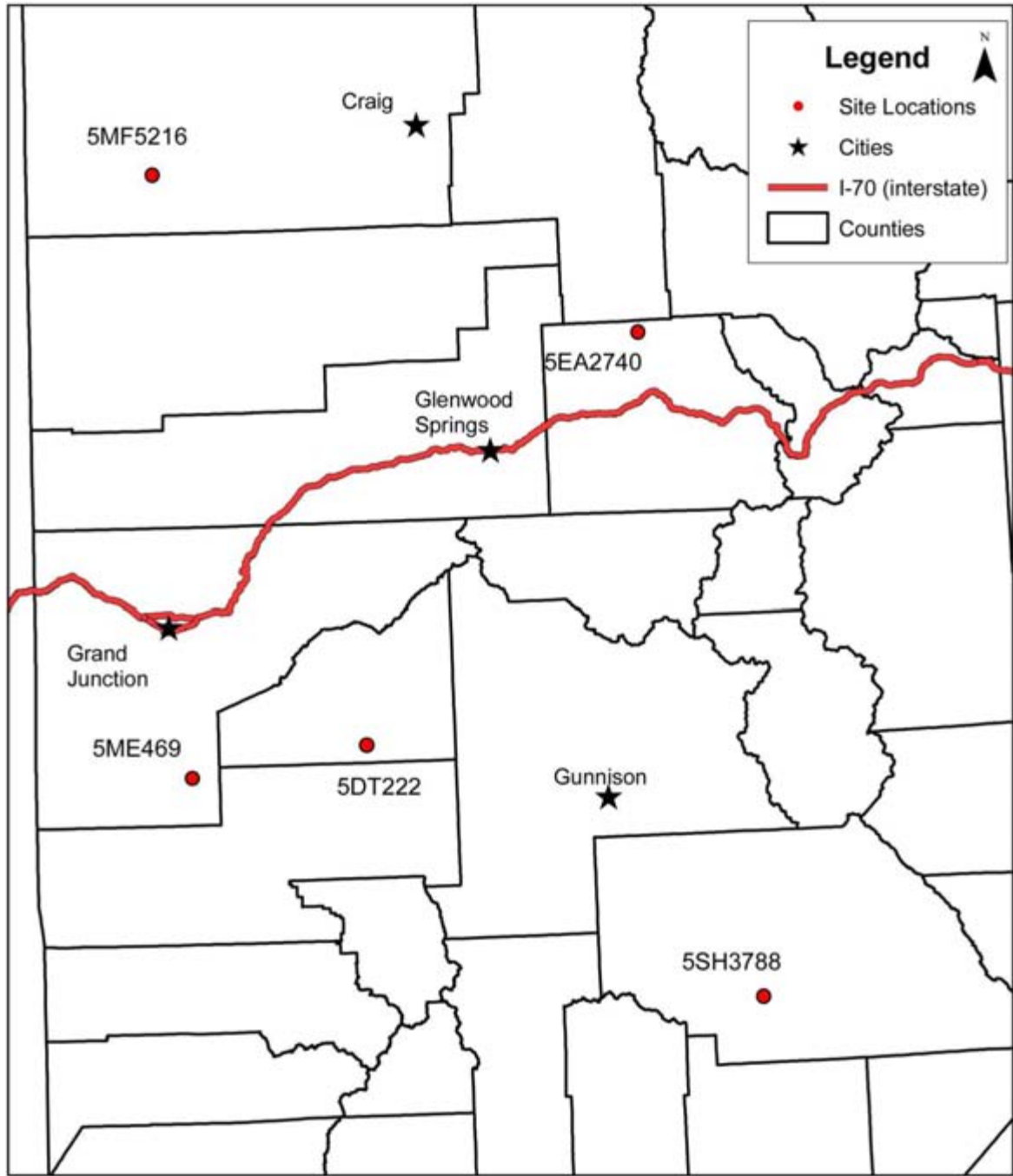


Figure 1: Location Map for Colorado Wickiup Project Phase VI Sites

Table of Contents

Acknowledgments	i
Abstract	iii
OAHP Cultural Resource Survey Management Information	x

PART I: PHASE VI PROJECT OVERVIEW

Colorado Wickiup Project Background	1
Phase VI Project Overview and Summary of Findings.....	3
Location of the Project Areas	4
Environment	4
Project Goals and Objectives	5
Field and Analytic Methodology.....	6
Study Findings for Phase VI	8
Review of Site Significance	9

PART II: TEST EXCAVATION OF 5DT222, THE BLACK CANYON RAMADA

Overview and Background of Investigations	12
Soil Description and Stratigraphy	16
Results of Metal Detection Activities	16
Description and Results of the Test Excavations	17
Feature Descriptions.....	17
Artifact Tabulation and Analysis	21
Metal Wire.....	25
Spent Cartridge Case	25
Vessel Glass	25
Bone Artifact	25
Chipped Stone Debitage and Tools	26
Groundstone	27
Evaluation and Management Recommendations	27

PART III: ADDITIONAL ABORIGINAL WOODEN FEATURE SITES

5EA2740, Pisgah Mountain Wickiup Village.....	29
Site Description	30
Wooden Feature Descriptions	33
The Open Activity Locus (OAL)	41
Descriptions of Non-wooden Features	42
Evaluation, Management Recommendations, and Recommendations for Future Work	43

5ME469, Decker Big Tank Wickiup Village	45
Site Description	45
Feature Descriptions.....	50
Evaluation, Management Recommendations, and Recommendations for Future Work	60
5MF5216, Disappointment Draw Lodge	61
Site Description	62
Wooden Feature Descriptions	67
Descriptions of Non-wooden Features	70
Artifact Tabulation and Analysis	70
Ammunition-related Artifacts	76
Tin Cans	77
Vessel Glass	78
Buttons and Rivets.....	79
Buckle.....	80
Leather Artifacts.....	80
Nails, Tacks, Screws, and Brads	80
Glass and Metal Beads	81
Miscellaneous Metal Artifacts.....	82
Stone Artifacts.....	83
Ancillary Collections.....	83
Evaluation, Management Recommendations, and Recommendations for Future Work	83
5SH3788, Musick Lodge	85
Site Description	86
Wooden Feature Descriptions	88
Description of the Eagle Trap	91
Evaluation, Management Recommendations, and Recommendations for Future Work	91
Pertinent Sites from Ancillary Studies	93
5DT1538.....	93
5ME901, the Bella Site	95
Evaluation and Management Recommendations	99

PART IV: DISCUSSION AND SYNTHESIS

Discussion and Interpretation of Findings.....	101
Pisgah Mountain Wickiup Village (5EA2740)	103
Newly-documented Feature Types.....	107
Flat-roofed Ramadas or Sunshades	107
Lean-tos	107
Brush Room Dividers.....	108
Tipi Frames and "Lodges"	108

Eagle Traps	111
Stone-ring Fire Hearths	113
Interpretation of Quantifiable Aspects of the CWP	113
Artifact Analysis and Interpretation	123
Seed Beads	123
Metal Projectile Points	124
Baking Powder Cans	124
Ammunition.....	125
Dating Protohistoric and Historic Native American Sites.....	128
Tree-ring Dating.....	129
Luminescent Dating	130
Seasonality and Settlement Patterns.....	132
Determinations of Effect and Management Recommendations.....	133
The Black Canyon Ramada (5DT222).....	135
Pisgah Mountain Wickiup Village (5EA2740)	136
Decker Big Tank Wickiup Village (5ME469)	136
The Disappointment Draw Lodge (5MF5216).....	136
The Musick Lodge (5SH3788).....	137
Public and Professional Outreach.....	137
Future Directions and Current and Proposed Field Work.....	138
References	141

Appendices

Appendix A: Site Location Information.....	A-1
Appendix B: Collected Specimens with UTM Location Data	B-1
Appendix C: Dendrochronological Analysis	C-1
Appendix D: Luminescence Analysis	D-1
Appendix E: Ammunition Analysis	E-1
Appendix F: Trade Bead Analysis	F-1
Appendix G: Photographic Plates	G-1
Appendix H: Copy of GV Magazine article.....	H-1
Appendix I: OAHP and Feature Forms [available only to land management agencies] ..	I-1

List of Figures

Figure 1	Location Map of Sites Recorded During Phase VI of the CWP	iv
Figure 2	Site Map of 5DT222, Black Canyon Ramada	14
Figure 3	Detail Map of Feature 1 at 5DT222, Black Canyon Ramada	15
Figure 4	Site Map of 5EA2740, Pisgah Mountain Wickiup Village	31
Figure 5	Site Map of 5ME469, Decker Big Tank Wickiup Village	46
Figure 6	Detail Plan Map of Central Portion of 5ME469.....	49
Figure 7	Plan View of Structure 1, 5ME469, Decker Big Tank Wickiup Village	51
Figure 8	Plan View of Structure 3, 5ME469, Decker Big Tank Wickiup Village	52

Figure 9	Plan View of Structure 4A, 5ME469, Decker Big Tank Wickiup Village	53
Figure 10	Plan View of Structure 6, 5ME469, Decker Big Tank Wickiup Village	55
Figure 11	Plan View of Structure 9, 5ME469, Decker Big Tank Wickiup Village	56
Figure 12	Plan View of Structure 10, 5ME469, Decker Big Tank Wickiup Village	57
Figure 13	Plan View of Structure 12, 5ME469, Decker Big Tank Wickiup Village	58
Figure 14	Plan View of Structure 13, 5ME469, Decker Big Tank Wickiup Village	59
Figure 15	Site Map of 5MF5216, Disappointment Draw Lodge.....	63
Figure 16	Detail Plan Map of the Lodge Locus at 5MF5216.....	64
Figure 17	Detail Plan Map of the Feature 3 Locus at 5MF5216	65
Figure 18	Detail Plan Map of the Feature 5 Locus at 5MF5216	66
Figure 19	Plan View of Structure 1, 5MF5216, Disappointment Draw Lodge.....	68
Figure 20	Site Map of 5SH3788, Musick Lodge.....	87
Figure 21	Plan View of Feature 1, 5SH3788, Musick Lodge.....	89
Figure 22	Site Map of 5ME901, the Bella Site.....	98
Figure A-1	Location Map for 5DT222, Black Canyon Ramada.....	A-3
Figure A-2	Location Map for 5EA2740, Pisgah Mountain Wickiup Village.....	A-4
Figure A-3	Location Map for 5ME469, Decker Big Tank Wickiup Village.....	A-5
Figure A-4	Location Map for 5MF5216, Disappointment Draw Lodge	A-6
Figure A-5	Location Map for 5SH3788, Musick Lodge	A-7
Figure A-6	Site Plan Map of 5DT222 with UTM Data	A-8
Figure A-7	Site Plan Map of 5EA2740 with UTM Data	A-9
Figure A-8	Site Plan Map of 5ME469 with UTM Data	A-10
Figure A-9	Detail Plan Map of Central Portion of 5ME469 with UTM Data	A-11
Figure A-10	Site Plan Map of 5MF5216 with UTM Data.....	A-12
Figure A-11	Detail Plan Map of the Lodge Locus at 5MF5216 with UTM Data	A-13
Figure A-12	Detail Plan Map of the Feature 3 Locus at 5MF5216 with UTM Data.....	A-14
Figure A-13	Detail Plan Map of the Feature 5 Locus at 5MF5216 with UTM Data.....	A-15
Figure A-14	Site Plan Map of 5SH3788 with UTM Data	A-16

List of Photographic Plates (Appendix G)

Feature and Historic Photographs

Plate 1	5DT222 site overview and historic photo of a Ute ramada.....	G-3
Plate 2	5DT222 Feature 1 overview and details.....	G-4
Plate 3	5DT222 Feature 1 from overhead and Feature 3 hearth	G-5
Plate 4	5DT222 Features 4 and 6 hearths.....	G-6
Plate 5	5ME469 Structure 1, leaner wickiup and Structure 3, brush enclosure	G-7
Plate 6	5ME469 Structure 10, leaner wickiup and Structure 13, lean-to	G-8
Plate 7	5MF5216 Feature 1, tipi frame and historic photo of a Ute leaner-tipi	G-9
Plate 8	5MF5216 Features 3 and 5, brush enclosures	G-10
Plate 9	5MF5216 Feature 4, rock ring.....	G-11
Plate 10	Examples of high elevation aspen-pole wickiups similar to 5SH3788.....	G-12
Plate 11	5SH3788 Feature 1, the Musick Lodge.....	G-13
Plate 12	5SH3788 Feature 1 details	G-14

Plate 13	5SH3788 Feature 4, eagle trap	G-15
Plate 14	5DT1538 wickiup/lean-to before and after collapse	G-16
Plate 15	5ME901 wooden features.....	G-17

Artifact Photos

Plate 16	5DT222 and 5ME469 metal and lithic artifacts	G-19
Plate 17	5MF5216 metal and lithic artifacts	G-20
Plate 18	5MF5216 metal and glass artifacts.....	G-21
Plate 19	5ME901 wooden artifacts	G-22

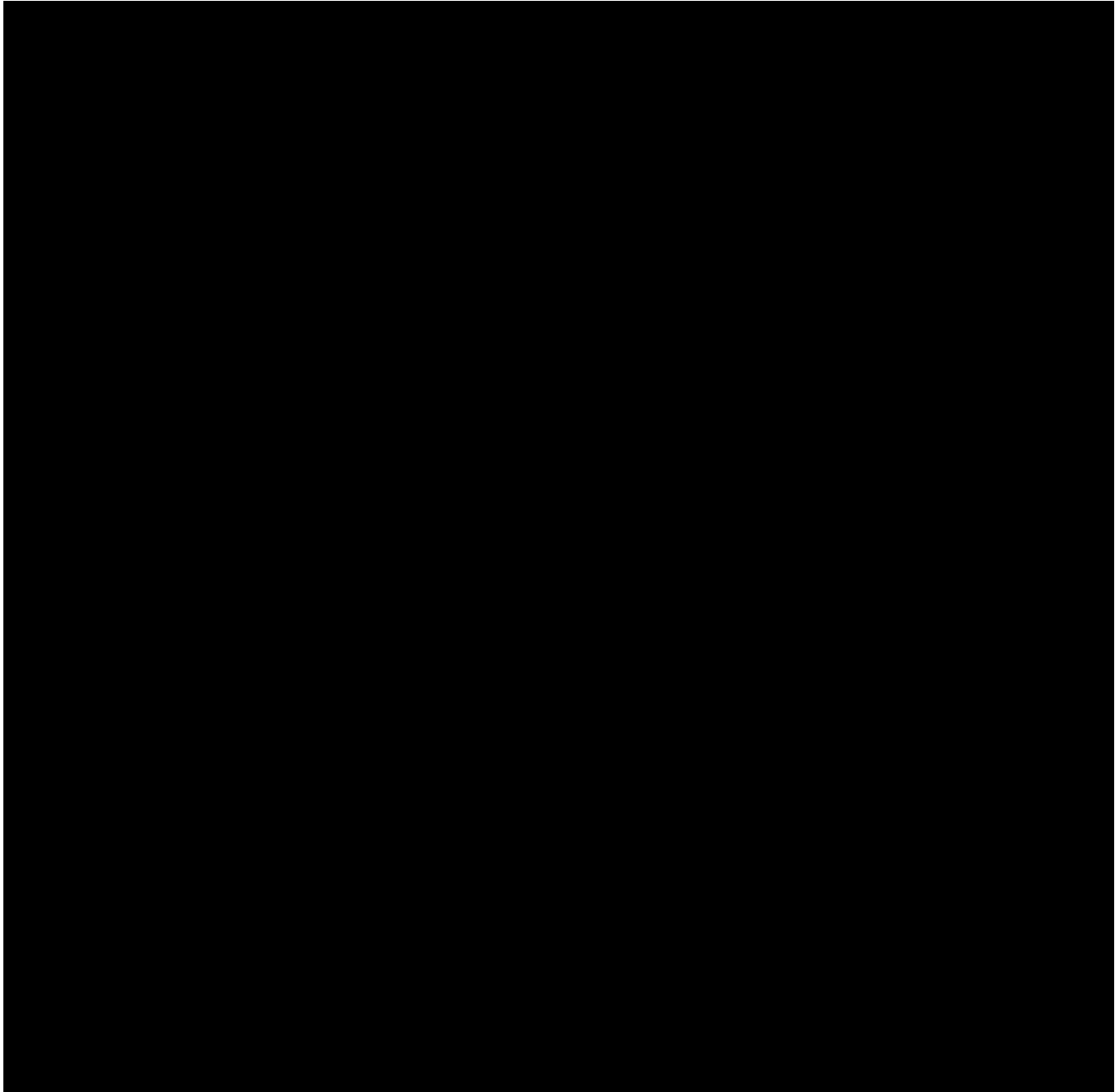
List of Tables

Table 1	Summary Description and Evaluations of the Phase VI Resources	11
Table 2	List of Collected Specimens at the Black Canyon Ramada (5DT222)	22
Table 3	List of Features at Pisgah Mountain Wickiup Village (5EA2740)	32
Table 4	List of Features at Decker Big Tank Wickiup Village (5ME469)	47
Table 5	List of Collected Specimens at Decker Big Tank Wickiup Village (5ME469)	48
Table 6	List of Collected Specimens at Disappointment Draw Lodge (5MF5216).....	71
Table 7	Tabulation of the Glass Seed Beads from 5MF5216	81
Table 8	Tabulation of Quantifiable Data from the CWP	117
Table 9	Species of Wooden Elements and Support/Canopy Trees	118
Table 10	Selected Aspects of Wickiups and Other Shelters	119
Table 11	CWP Sites with Metal Projectile Points.....	124
Table 12	Luminescence Dates from Ceramic Sherds from the CWP	132
Table A-1	Site Summary and Location Information	A-2
Table B-1	Field Specimens from 5DT222 with Location Information	B-2
Table B-2	Field Specimens from 5ME469 with Location Information	B-6
Table B-3	Field Specimens from 5ME5216 with Location Information	B-7
Table C-1	Results of the Phase VI Dendrochronological Analyses.....	C-4
Table F-1	Tabulation of Glass Seed Beads from 5EA2740.....	F-3
Table F-2	Tabulation of Glass Seed Beads from 5RB563.....	F-4
Table F-3	Tabulation of Glass Seed Beads from 5MF5216	F-9
Table F-4	Tabulation of Glass Seed Beads from 5RB4338.....	F-10
Table F-5	Tabulation of Glass Seed Beads from 5RB18.....	F-11

Colorado Office of Archaeology and Historic Preservation
CULTURAL RESOURCE SURVEY MANAGEMENT INFORMATION

Please complete this form and attach a copy behind the Table of Contents of each survey report.

Project : The Colorado Wickiup Project Volume VI: Test Excavation of The Black
Canyon Ramada (5DT222) and the Documentation of Four Additional Premier
Aboriginal Wooden Feature Sites in Colorado.



PART I: PHASE VI PROJECT OVERVIEW

Colorado Wickiup Project Background

More than three hundred archaeological sites containing nearly eight hundred aboriginal wooden structures and features are known to exist in Colorado (Martin, Ott, and Darnell 2005). The text accompanying an exhibit in the Ute Museum in Montrose in which a field-collected wickiup has been reconstructed reads, in part:

Wickiups are widely known but rarely well-preserved in the state's archeological record. Compared to archeological sites dating to the Archaic and Formative eras of prehistory on Colorado's Western Slope, wickiups of the late prehistoric period and that just following are very rare. Almost no undisturbed wickiups have been recorded. Few exist in partial remains and even fewer have been archeologically tested. Site inventory data in the Colorado Historical Society's Office of Archeology and Historic Preservation list [relatively few] known wickiup sites of any level of preservation or archeological integrity in the whole state. This [structure in the display case] is the only early example known to survive in an educational institution.

Although the on-going research of the Colorado Wickiup Project (CWP) is beginning to make obsolete some of the above statements, the point is well taken: ephemeral aboriginal wickiups and other wooden features are “regarded as among Colorado's rarest and most fragile Native American sites” (Baker, Carrillo, and Spath 2007:104).

Almost universally attributed to the Utes, the state's wooden features represent the cultural heritage of the only indigenous people to reside within Colorado from prehistory to the present (ibid:29). Unfortunately, a preponderance of such sites and features have yet to be fully documented and they are increasingly threatened by disintegration from natural processes, fire, and destruction by livestock, wildlife, and human actions, particularly in areas of rapid energy development and population growth such as the Western Slope.

Dominquez Archaeological Research Group, Inc. (DARG), with funding from the Colorado State Historical Fund and the Bureau of Land Management (BLM), initiated the Colorado Wickiup Project (CWP) in 2003. The primary objective of the project is to mitigate the threat to Colorado's aboriginal wooden features to the extent possible by thoroughly recording all known wooden feature sites, collecting materials for chronometric analysis, and conducting extensive data recovery—including excavation—of significant sites. Long-range goals of the project include the development of a dedicated aboriginal wooden feature knowledge base and facilitation of collaborative research and education through information sharing and professional and public outreach.

Phase I of the CWP, conducted during 2004 and 2005, consisted of a review and assessment of existing knowledge regarding aboriginal wickiups and other wooden features located in Colorado, and the development of an archaeological context and a strategic plan for future investigations. Results were published in 2005 as *The Colorado Wickiup Project Volume I: Context, Data Assessment and Strategic Planning* (Martin, Ott, and Darnell 2005).

Phase II of the project, also conducted during 2004 and 2005, comprised the first in a series of field investigations. The Phase II survey recorded a concentration of varied and well-preserved wooden feature sites in the Gunnison Gulch area of Mesa County. A total of 29 wooden features were recorded, including 21 wickiups, a brush corral, an apparent windbreak, a culturally scarred juniper, a limbed tree (apparent wickiup pole production site), a juniper pole cache, and several standing utility poles. The project also served as a pilot test for proposed recording protocols, including an extensively re-designed wooden structure component form, GPS mapping, plan and elevation view drawings of significant structures, comprehensive photography, metal detection, collection of significant surface artifacts, and sampling of materials for chronometric analysis. Results were published in 2005 as *The Colorado Wickiup Project Volume II: Cultural Resources Class II Reconnaissance Inventory for the Gunnison Gulch Area of Mesa County, Colorado* (Martin, Conner, and Darnell 2005).

Phase III recorded and compiled data from a total of twelve sites in west central and northwest Colorado during 2005 and 2006. A total of 81 wooden features were documented, ranging in scope from single wickiups and tree platforms to a village containing 43 wooden features. Several new types of wooden features were identified during this study, as were some newly recognized patterns within known structure types, including: low tree platforms, ax-split/shaped "boards," a storage "shelf," and a number of wickiups with integrated "utility" poles. As a result of these findings, recording protocols were refined during the course of field work and the Aboriginal Wooden Feature Component Form was adapted to facilitate recording of these new data types. Selected collections were made of dendrochronological, radiometric, and macrobotanical samples. Five tree ring samples, one carbon sample, and two flotation samples were submitted to outside laboratories for analysis. Results of Phase III activities were published in 2006 as *The Colorado Wickiup Project Volume III: Recordation and Re-evaluation of Twelve Aboriginal Wooden Structure Sites in Eagle, Garfield, Mesa, and Rio Blanco Counties, Colorado* (Martin, Ott, and Darnell 2006).

Phase IV activities of the Colorado Wickiup Project in 2007 focused primarily on BLM administered lands in Rio Blanco County, Colorado in a region of the northern Piceance Basin within the Yellow Creek drainage. The area, referred to in our reports as the Yellow Creek Study Area, incorporates 44 previously recorded wickiup sites containing at least 114 aboriginal wooden features. During Phase IV fieldwork a total of 15 sites were revisited or newly discovered and 70 aboriginal wooden features were recorded on 14 of these sites. Additionally, sites with wooden features were newly discovered and recorded during independent Class III inventories conducted by Grand River Institute in 2007 that were incorporated into our Yellow Creek Study Area totals (Martin and Ott 2009 and Conner 2007). Also, unaffiliated DARG research and Cultural Resource Management (CRM)

activities in 2007 were included in that report in which aboriginal wooden features were re-visited as well as newly recorded in Moffat, Garfield and Mesa Counties (Martin and Ott 2007a, Martin and Ott 2007b, and Martin and Conner 2007). Phase IV included a baseline assessment of the Yellow Creek Study Area's potential eligibility for nomination to the National Register of Historic Places as an archaeological district, multiple property, or other designation. An assessment of NRHP eligibility for the Study Area was presented in Part II of that report.

Phase V, again, concentrated on aboriginal wooden feature sites in The Yellow Creek Study Area. This region, and the Piceance Basin as a whole, is being impacted by energy development activities from natural gas exploration and development and oil shale research. One of the sites investigated during this phase was the unique and highly productive Ute Hunters' Camp (5RB563), where the occupants were living in canvas wall tents, tending horses, smelting lead, reloading bullets, processing deer carcasses, and possibly working leather. This site became the first site to be test excavated as a part of the CWP. These tests produced nearly 500 Protohistoric/early Historic ~~trade~~" artifacts and our findings there and throughout the CWP, to paraphrase one of the BLM archaeologists overseeing our research, are rewriting the final chapter of the sovereign Ute occupation in western Colorado. The Phase V activities at five other wooden feature sites in the Piceance Basin were also productive, resulting in ~~mitigation level~~" documentation of a total of 21 structures and other wooden features (Martin and Brown 2010a).

Phase VI Project Overview and Summary of Findings

Similar to the investigations at the Ute Hunters' Camp during the Phase V activities, the test excavations at the Black Canyon Ramada (5DT222) as part of the current, Phase VI, field work proved to be highly productive and informative. This unique site consists of a partially collapsed flat-roofed sunshade, or ramada, built against the south side of a sandstone bedrock outcrop face. In addition to the wooden feature, the site has produced nine lithic projectile points and point fragments, other chipped stone tools, lithic debitage, Brown Ware sherds, thermal features, and evidence of metal goods in the form of wire and ax-cut marks on feature elements and nearby trees. Absolute chronometric dates for this site were produced from tree-ring samples from one of the feature's beams as well as nearby ax-cut branches that verify that the ramada was constructed significantly later than the occupation associated with the lithic and ceramic artifacts.

The Phase VI activities at the four other wooden feature sites were also highly productive, resulting in ~~mitigation level~~" documentation of 52 additional wooden features and the collection and analysis of numerous lithic, metal, and glass artifacts—several of which provided examples of artifact classes new to the project. One dendrochronological sample provided the earliest evidence yet procured by the Project for the presence of metal artifacts and, apparently, horses in Colorado—at site 5ME469. A summary of the site and feature data

from the all of the above sites and from all six phases of the CWP is included in Tables 8 through 10 of this report.

Dominquez Archaeological Research Group's programs of public outreach and education continued during 2009 and 2010 in the form of presentations and educational programs for the professional and avocational communities and the general public. During these years, Curtis Martin, Principal Investigator, delivered papers and PowerPoint presentations at the dedication of the Ute Heritage Ethnobotany Garden in Grand Junction, the 2010 Annual Meeting of the Colorado Council of Professional Archaeologists (CCPA) in Montrose, at a monthly meeting of the Grand Junction Rotary Club, at the annual meetings of the New Mexico Archaeological Council in Albuquerque, and at a monthly meeting of the Colorado Mountain Club in Grand Junction.

Project Coordinator, Richard Ott also made presentations at the above-mentioned CCPA meeting, the Northern Ute History Presentation and Mini Pow-Wow at Gateway Canyons, and the Cardiff School Project—Regional History Alliance in Glenwood Springs. A complete list of the Phase VI outreach activities is presented in the Public and Professional Outreach section of this report.

Location of the Project Area

The five sites that were visited during this phase of the CWP, more than ever before, were widespread throughout western and central Colorado (Figures 1 and A-1 through A-5). The sites range in elevation from 6470 feet at site 5DT222 to 9520 feet at 5SH3788 and are located in five separate counties: Delta, Eagle, Mesa, Moffat, and Saguache. Three of these constitute counties new to the project's field work.

Environment

Four of the Phase VI sites—5DT222, 5EA2740, 5ME469, and 5MF5216—are situated within the piñon/juniper habitat of the Upper Sonoran plant zone. In addition to a variety of forbs and grasses, the understory vegetation includes sagebrush, prickly pear and hedgehog cactus, yucca, rabbitbrush, snakeweed, ephedra, mountain mahogany, and serviceberry. Mule deer and coyote are common, as are cottontail rabbits and various rodents. Mountain lion, bobcat, black bear, elk, fox, skunk, badger, and weasel are also likely inhabitants. Bird species observed in the area include the jay, raven, magpie, red-shafted flicker, owls, golden eagle, bald eagle, and various other raptors.

In the present day, these project areas are typified by a cool semiarid climate where temperatures can drop to -10°F or lower during the winters and summer temperatures may reach 100°F or more; there is a maximum of 160 frost-free days and the annual precipitation is about 10 to 16 inches (USDA SCS 1978: 6).

The fifth site, 5SH3788, however, is situated in the Sub-Alpine vegetation zone in forests dominated by Douglas fir, lodgepole pine, ponderosa pine, aspen, and subalpine fir trees. In addition to those species mentioned above, animals in this environment include bighorn sheep, moose, beaver, weasel, marten, marmot, porcupine, snowshoe hare, ground squirrel, and a wide variety of songbirds, jays, grouse, woodpeckers, and other birds.

At this elevation, average annual precipitation ranges from approximately 25 to 40 inches, mostly in the form of fall and early winter rainfall and snowfall. Summers are pleasant with temperatures often reaching above 75°F, however winter temperatures can plunge below -20°F.

Present land use in the above project areas is primarily in the form of natural gas exploration, cattle grazing, timber extraction, firewood and fence post gathering, and recreational activities such as hiking, camping, hunting, and exploring with off-road vehicles.

Thorough discussions regarding the paleoclimate, geology, overall culture history, and Ute culture history were presented in the Phase I through Phase V reports for the Colorado Wickiup Project and will not be reproduced here. It is recommended that the reader refer to those documents for this information (Martin and Brown 2010a; Martin, Conner, and Darnell 2005; Martin and Ott 2009; Martin, Ott, and Darnell 2005; and Martin, Ott, and Darnell 2006) as well as Conner et al (2011).

Project Goals and Objectives

Phase VI of the Colorado Wickiup Project is the fifth in a series of field reconnaissance and documentation projects directed toward known, but insufficiently documented, wooden feature sites and locales. The primary objectives of our field activities are to comprehensively document these cultural resources and continue to develop and refine recording protocols that will—to the greatest feasible extent—mitigate the inevitable disappearance of Colorado’s wickiups and other ephemeral aboriginal wooden features along with the archaeological information they contain.

The CWP’s preservation and cultural resource management objectives include evaluation of resources for eligibility to the National Register of Historic Places (NRHP), assessment of the current condition of wooden structures and sites, as well as the potential effects of continuing natural and human impacts on archaeological integrity, and recommendation of actions for the mitigation of adverse effects. One of the primary long-term objectives of the project is to add significantly to the Late Prehistoric, Protohistoric, and early Historic Ute archaeological database, thereby expanding the body of knowledge available to tribal, management agency, and research community stakeholders concerned with the preservation of Native American heritage values in Colorado landscapes. Short-term project objectives include documentation of additional aboriginal wooden feature sites and

test excavation of significant sites. Specific sites targeted for study in the next phase of the CWP are described in “Future Directions and Proposed Field Activities.”

We feel that the CWP’s strategy of “preservation through documentation” deserves continued, accelerated and expanded effort and commitment of resources. The knowledge we have gained thus far about Colorado’s aboriginal wooden structures has further deepened our appreciation of these fragile archaeological resources and has more than confirmed our original assessment of their immeasurable value not only to Ute/Numic archaeology but to the archaeology of the earlier Formative, Archaic and Paleoindian periods, as well as to the living descendants of the people who created them. We have also come to recognize that we can leverage the results of our efforts by expanding the scope of our studies to include broader research questions and preservation challenges related to aboriginal wooden feature sites in Colorado.

Field and Analytic Methodology

The Project uses standard Office of Archaeology and Historic Preservation (OAHP) and BLM forms as the basis for its field recording protocols, including the Colorado Cultural Resource Survey Management Data Form, the Prehistoric Archaeological Component Form, and the Cultural Resource Reevaluation Form. For detailed documentation of wooden features, our primary recording form is the Aboriginal Wooden Feature Component Form as developed by CWP researchers based on direct field experience and attribute lists originally drawn from Sanfilippo (1998), BLM archaeologist Michael Selle, and others. It has evolved from the former Conical Wooden Structure Form (ibid), and continues to be modified for the purpose of providing a single form for the documentation of all types of ephemeral aboriginal wooden features in archaeological contexts.

All Phase VI work was performed according to the guidelines set forth by the OAHP of the Colorado Historical Society. All cultural resources were recorded to standards set by the BLM and the OAHP utilizing methods established during the initial five phases of field work and research by the Colorado Wickiup Project.

Mapping of site boundaries and the location of selected surface artifacts and features was conducted using Trimble GeoExplorer XT GPS units and USGS 7.5' series topographic maps. Site boundaries were determined by the extent of observable surface artifacts and features and/or a protective buffer zone. However, it was beyond the scope of the project to conduct intensive mapping of all lithic debitage, or the determination of the definitive extent of lithics on site surfaces, when such artifacts were numerous. As a result, in certain cases, the original boundaries of sites as described in previous site inventories were accepted without confirmation, when such boundaries were determined by the extent of lithic scatters.

Lithic tools were mapped (and collected in the case of diagnostics), as were flakes and cores when their numbers were limited. All historic artifacts (“trade goods”), on the other

hand, were mapped and collected as diagnostic artifacts with the exception of small fragments of rusted metal and vessel glass which were briefly described, mapped in place, and left *in situ*. When additional artifacts or features were found during CWP field work outside of previously established site perimeters, the boundaries were expanded. Areas surrounding sites that appeared likely to produce additional wooden features were always surveyed for such occurrences. For each individual wooden feature, crew members constructed maps, made digital photographs, and recorded observations and measurements, including the completion of an Aboriginal Wooden Feature Component Form.

Feature plan maps were constructed for both standing and collapsed structures when warranted. A White's Model M6 metal detector was used on all sites to survey areas within, beneath, and surrounding wickiups, platforms and other significant wooden structures, as well as within areas of the site surface deemed likely to contain buried or concealed cultural resources. Metal detection of Protohistoric and early Historic sites such as those presented herein has proven to be an absolute requirement in our efforts to interpret and date the activities represented. Along with the use of extremely fine mesh sifting screens (window screen and 1mm mesh soil sieves) to isolate bullet primers and minute glass seed beads when warranted during excavation, the metal detection activities have proven invaluable in the location of diagnostic artifacts. Without these two innovations many Protohistoric Native American sites would be misinterpreted as Historic Euro-American resources, or missed altogether, and individual wooden features could similarly be overlooked. A technique that has been established for the metal detection of sites where numerous metallic artifacts exist is to utilize wooden golf tees to mark the locations of metal detector "hits," rather than metal pin flags, which interfere with subsequent metal detection.

In addition to diagnostic lithic, metal, ceramic, and leather artifacts, supplemental collections in the form of charcoal, burnt and unburnt bone, soil, and macrobotanical (flotation) samples were collected as warranted. Dendrochronological (tree-ring) samples were collected from metal ax cut feature poles and associated tree stumps. A total of 31 samples were submitted to the Laboratory of Tree-ring Research at the University of Arizona for analysis. The results of these analyses are presented in Appendix C. A luminescent dating sample was also collected from site 5DT222, however this sample remains unprocessed. When justified, the deposits within wooden shelters were sampled, and occasionally collected, for potential future analysis.

A triangular pattern occasionally results when a conical structure collapses to one side, or a wheel-spoke pattern when one gradually sags and settles directly to the ground surface. A six-foot aluminum step-ladder was often utilized for photographing these collapsed structures from an elevated vantage point in order to reveal the nature of the features.

Accurate plan maps of individual standing wickiups and other types of shelters were constructed by hanging a plumb bob from the apex of the structure to establish a central datum, then, using a metric tape and a Brunton pocket transit, the collapsed poles and the "footprints" of the bases of standing feature elements were plotted on polar-coordinate grid

paper (Figures 19 and 21 are examples of this technique). In all cases a magnetic declination of 12.5° from true north was employed.

Regarding the test excavations at site 5DT222, the Black Canyon Ramada, a datum point (0N0E) was established and an intensive surface map was constructed as excavation and metal detection proceeded. As GPS is not accurate enough for the mapping of artifacts and excavation units as closely-spaced as those at this site, the site map was constructed utilizing a Brunton pocket transit and metric tapes, showing the location of all test units, artifacts, and cultural features in relation to the GPS-mapped datum (Figures 2 and 3). Metal and lithic artifacts were identified on or near the surface through the efforts of both metal detection and the screening of excavated fill. The site boundary was somewhat expanded to incorporate newly discovered artifacts.

Excavation was conducted with trowels, brushes, and whisk brooms in the shallow layers of residual and aeolian soil, utilizing a combination of natural and arbitrary levels as described in the Soil Deposits and Stratigraphy section and in the descriptions of the specific excavation units. All excavated soil was sifted through 1/8" standard shaker screens. A total of 15.5 square meters was excavated in a series of seven 50cm-wide test trenches.

The excavations ranged in depth from a minimum of five centimeters to a maximum of 50 centimeters. Although only diagnostic specimens were collected from the site surface and from the metal detection activities, all excavated artifacts—having been removed from their original *in situ* contexts—were collected. One-by-one meter grid units, when referenced, are named based on the coordinates of their southwest corners (e.g. -4N2W”).

A series of seven dendrochronological samples were collected at 5DT222 and submitted to the Laboratory of Tree-ring Research at the University of Arizona for analysis. The results of the tree-ring analysis are presented in Appendix C and discussed in the description of the tests at the site.

Field notes from Phase VI activities are on file at Dominquez Archaeological Research Group, Inc. (DARG) in Grand Junction. Copies of the report and digital photographs will be submitted to the appropriate BLM and Forest Service offices and to the OAHP. Collected artifacts, chronometric, soil, and macrobotanical samples will be curated at the Museum of Western Colorado (sites 5EA2740, 5ME469, and 5MF5216), and at the Anasazi Heritage Center (site 5DT222).

Study Findings for Phase VI

Table 1 provides a summary of the findings from Phase VI of the CWP and ancillary wooden feature studies from 2010. With one exception—the newly recorded 5SH3788—all of the field work during this phase of the CWP consisted of revisits to previously recorded sites. The project sites comprise two wickiup villages of 16 to 28 wooden features and sub-

features (5ME469 and 5EA2740 respectively), and three smaller sites of one to four features (5DT222, 5MF5216, and 5SH3788). A total of 53 wooden features were recorded including 20 wickiups, three tipi or “ledge” frames, six horizontal beams suspended in tree branches, a sunshade or ramada, two lean-to shelters, nine utility poles and racks, six brush enclosures, a windbreak, a cultural pole cache, three firewood caches, and one culturally modified tree (Table 8).

Additional investigations of wooden features from two sites investigated during non-Colorado Wickiup Project activities are discussed in “Aboriginal Wooden Feature Sites from Ancillary Projects.” The quantifiable data from one of these ancillary projects has been added to the totals in Tables 8 through 10.

Descriptions of each site and evaluations of significance follow. The UTM location data can be found in Appendix A. Table A-1 provides location information USGS Quad maps showing individual site locations. Appendix B contains lists of collected artifacts including locational information. Detailed information for the Phase VI resources is provided in Appendix I, including OAHP Reevaluation, Management, and/or Prehistoric Component forms for each site, and an Aboriginal Wooden Feature Component Form for each wooden feature. Distribution of Appendices A, B, and I are restricted to land managing agencies. Forms are not provided for those resources recorded during ancillary projects not officially part of the Colorado Wickiup Project. These records are also available at the respective BLM field offices and the OAHP.

Review of Site Significance

The National Historic Preservation Act of 1966 (NHPA) directs federal agencies to evaluate the significance of recorded cultural properties and their qualifications for inclusion in the National Register of Historic Places (NRHP). The statements of significance included in this report are field assessments to support recommendations to the BLM and State Historic Preservation Officer (SHPO). The final determination of site significance is made by the controlling agencies in consultation with the SHPO and the Keeper of the Register.

The Code of Federal Regulations was used as a guide for the in-field site evaluations. Titles 36 CFR 50, 36 CFR 800, and 36 CFR 64 are concerned with the concepts of significance and historic value of cultural resources. Titles 36 CFR 65 and 36 CFR 66 provide standards for the conduct of scientific data recovery activities. Finally, Title 36 CFR 60.6 establishes the measure of significance that is critical to the determination of a site's NRHP eligibility, which is used to assess a site's research potential:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and a) that are associated with events that have made a significant contribution to the

broad patterns of history; or b) that are associated with the lives of persons significant in our past; or c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or d) that have yielded, or may be likely to yield, information important to prehistory or history.

Due to the fragile and ephemeral nature of aboriginal wooden features, the relative lack of detailed documentation and study of such resources, and their significant potential to yield valuable information regarding the prehistory, protohistory, and early history of Colorado's aboriginal cultures, a majority of the sites that contain such features are recommended as eligible to the NRHP and Colorado's State Register of Historic Places. "Any potential Ute household site from any phase of cultural change should be eligible for the National or State register unless it has been significantly degraded" (Baker, Carrillo, and Spath 2007:85). Protection and preservation of these resources is paramount. In 2003, Colorado Preservation, Inc. listed "Native American Arboreal Wickiup and Teepee Sites" as one of *Colorado's Most Endangered Places* due to the ongoing impacts of vandalism and natural degradation.

Table 1, below, presents summary descriptions and evaluations of the cultural resources recorded during Phase VI of the Colorado Wickiup Project and the supplemental projects. All five of the CWP-related sites described in this report have been field-evaluated as "eligible" for inclusion in the National Register of Historic Places.

**Table 1: Summary of Cultural Resources Recorded During
Phase VI of the Colorado Wickiup Project and Ancillary Projects**

Site Number	Description	Eligibility
Colorado Wickiup Project Phase VI Sites		
5DT222	-Black Canyon Ramada” 1 wooden feature (1 ramada or sunshade)	Eligible
5EA2740	-Pisgah Mountain Wickiup Village” 28 wooden features and sub-features (13 wickiups, 4 horizontal beams, 1 windbreak, 3 utility poles, 3 brush enclosures, 3 firewood caches, and 1 modified tree)	Eligible
5ME469	-Decker Big Tank Wickiup Village” 16 wooden features (7 wickiups, 1 possible tipi frame, 2 horizontal beams, 1 lean-to shelter, 3 utility racks, 1 brush enclosure, and 1 pole cache)	Eligible
5MF5216	-Disappointment Draw Lodge” 4 wooden features (1 tipi frame, 1 utility pole, and 2 brush enclosures)	Eligible
5SH3788	-Musick Lodge” 3 wooden features (1 tipi or lodge frame and two utility poles)	Eligible
Ancillary Projects		
5ME901	-The Bella Site” 4 wooden features	Eligible
5DT1538	1 wooden combination lean-to/wickiup feature (a wickiup that expands into a 1-sided lean-to)	Not Eligible

PART II: TEST EXCAVATION OF 5DT222, THE BLACK CANYON RAMADA

Overview and Background of Investigations

Site 5DT222, the Black Canyon Ramada, was originally recorded by Colorado Wickiup Project Principal Investigator, Curtis Martin, and occasional DARG volunteer, Paul Roebuck in 1976 as part of the Archaeological Survey of the Gunnison Gorge for the University of Colorado Mesa Verde Research Center (Roebuck 1977). The site was revisited by Martin in 2002 during a reevaluation of sites within the Gunnison Gorge National Conservation Area for Grand River Institute and the Uncompahgre Field Office of the BLM (Conner et al 2002). The site is located in a small northwest-trending drainage approximately 70 meters southeast of the rim of the Black Canyon of the Gunnison, at the northwestern edge of Fruitland Mesa at an elevation of 6470 feet (Figures 1 and A-1). It is within a piñon/juniper habitat with an understory of snakeweed, saltbush, bitterbrush, sagebrush, and bunch grasses.

Martin and Roebuck (Roebuck 1977) described the site as a flat-roofed shelter consisting of a ~~dry~~ masonry cairn 7 courses high across which a beam was laid. The opposite end... apparently supported by a juniper tree... Six beams were laid perpendicularly to the first and were supported on the N by the rock outcropping. There is fire-reddened rubble 1.2m down slope to the S and small bits of charcoal are eroding downslope. A proj pt and a proj pt base were found within 10m of the structure.” No further description of these projectile points was provided and they were not collected, photographed, or illustrated.

Upon revisiting the site in 2002, the Grand River Institute crew found the ramada and site as a whole to be ~~undisturbed~~ other than by natural erosion and a new rodent nest in the southeast corner of the collapsed shelter. The nest appears to be made from the pile of axe-cut branches which Martin and Roebuck recorded atop the outcrop.” During this revisit three mostly complete projectile points, two point fragments, a possibly hafted thumbnail-sized end scraper, and four ceramic sherds were collected. The sherds were identified as Uncompahgre Brown Ware (Ute) and the points were classified as Coal Creek Phase Uncompahgre Complex Type 5 dating from ca. AD700 to 1300 (two points) and Ironstone Phase Type 28 dating from ca. AD0 to 700 (Buckles 1971: 1185, 1220). These artifacts indicate a Formative occupation at the site, which possibly suggests that the sherds are of Fremont origin, rather than Prehistoric Ute.

Although the flat-roofed sunshade or ramada at 5DT222 is likely not unique as a site, it is certainly rare—nothing comparable is known to these researchers in the archaeological record of Colorado—regardless of the age and cultural affiliation of the feature.

In May of 2010, the Colorado Wickiup Project crew returned to 5DT222 for the purpose of conducting test excavations to further analyze the nature and extent of the cultural remains. A datum point was established 12 meters to the south-southwest of Feature 1, the

wooden-beam ramada. A metric grid system, oriented to true north, was constructed from datum for the establishment of the excavation units utilizing a Brunton pocket transit and metric tapes. True north was established using a declination of 12.5° west of magnetic north. The datum point was plotted on the map with a Trimble GPS unit, and marked with a metal spike and aluminum write-on tag. Additional mapping points were established throughout the site that were also marked with metal spikes. At the conclusion of the tests, several of these spikes, including Datum and selected ones immediately adjacent to the various excavation units, were left in place for future orientation in the field if necessary.

As established by the CWP goals, research design, and scope of work, the placement of test trenches was based on the location of Feature 1 as well as surface indications of potential thermal features. One test trench, Test Trench 3 (TT3), was excavated along the base of the sandstone outcrop that formed the northeastern boundary of the site (with the exception of three artifacts found on top of the outcrop). TT3, as a result, is oriented northwest-southeast. No systematic or randomizing strategy was employed in the selection of the excavation units.

An comprehensive plan map was constructed as excavation and metal detection proceeded. As the accuracy of GPS is too inaccurate for the mapping of excavation units and artifacts as closely-spaced as those at this site, the site map was constructed utilizing a Brunton pocket transit and metric tapes, showing the location of all test units, surface artifacts, and cultural features (Figures 2, 3, and A-6).

The entirety of the site area, both in front of and on top of the sandstone outcrop face, was metal detected with a White's Model M6 metal detector. Six metal artifacts and 34 chipped and groundstone artifacts were located on or near the surface through the efforts of both metal detection and the screening of excavated fill. Although numerous artifacts were newly-discovered during the tests, all were within the previous site boundary as defined in 2002, in an area measuring 36m northwest-southeast by 13m northwest-southeast.

Excavated specimens were collected by trench provenience, or fractions thereof, and by natural and arbitrary stratigraphic levels. All artifacts found *in situ* were indicated on the plan map, recorded as to depth below present ground surface (PGS), and bagged as individual field specimens (FSs). Other artifacts and ancillary specimens were bagged in aggregate, and labeled by unit and level, or feature number. Occasionally, as warranted, artifacts were bagged and labeled as portions of excavation units, such as —T1, North ½.”

Dendrochronological and botanical samples, charcoal, and bone fragments were collected as well as all metal and lithic artifacts. Macrobotanical (bulk soil/flotation) samples and pollen samples were collected as warranted. The results of the dendrochronological analysis are discussed in this section and reported in full in Appendix C. Although radiocarbon specimens in the form of charcoal were collected throughout the excavations, none are being processed at this time as this type of analysis is beyond the scope of the

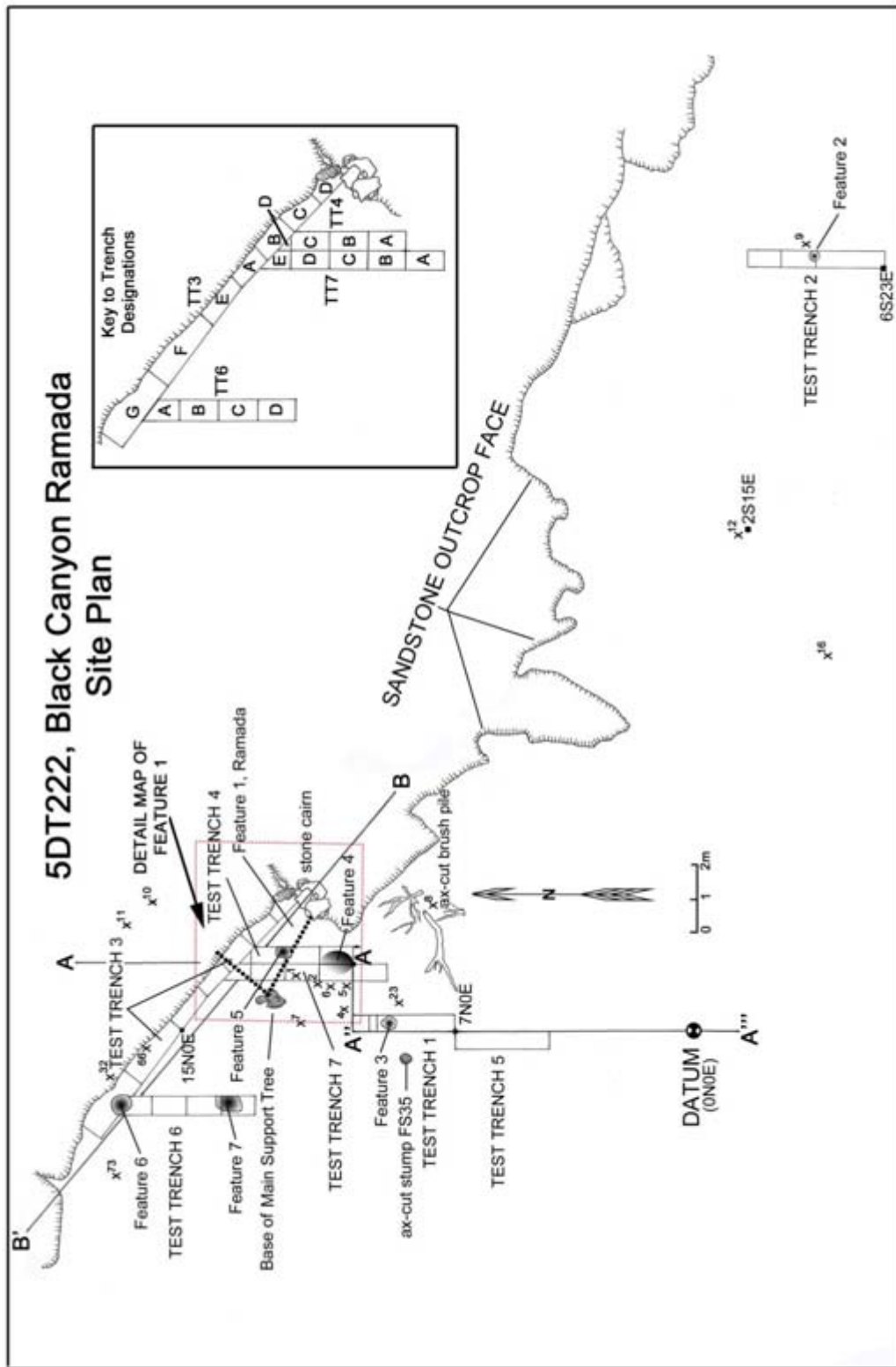


Figure 2. Overall Site Plan View of 5DT222, Black Canyon Ramada

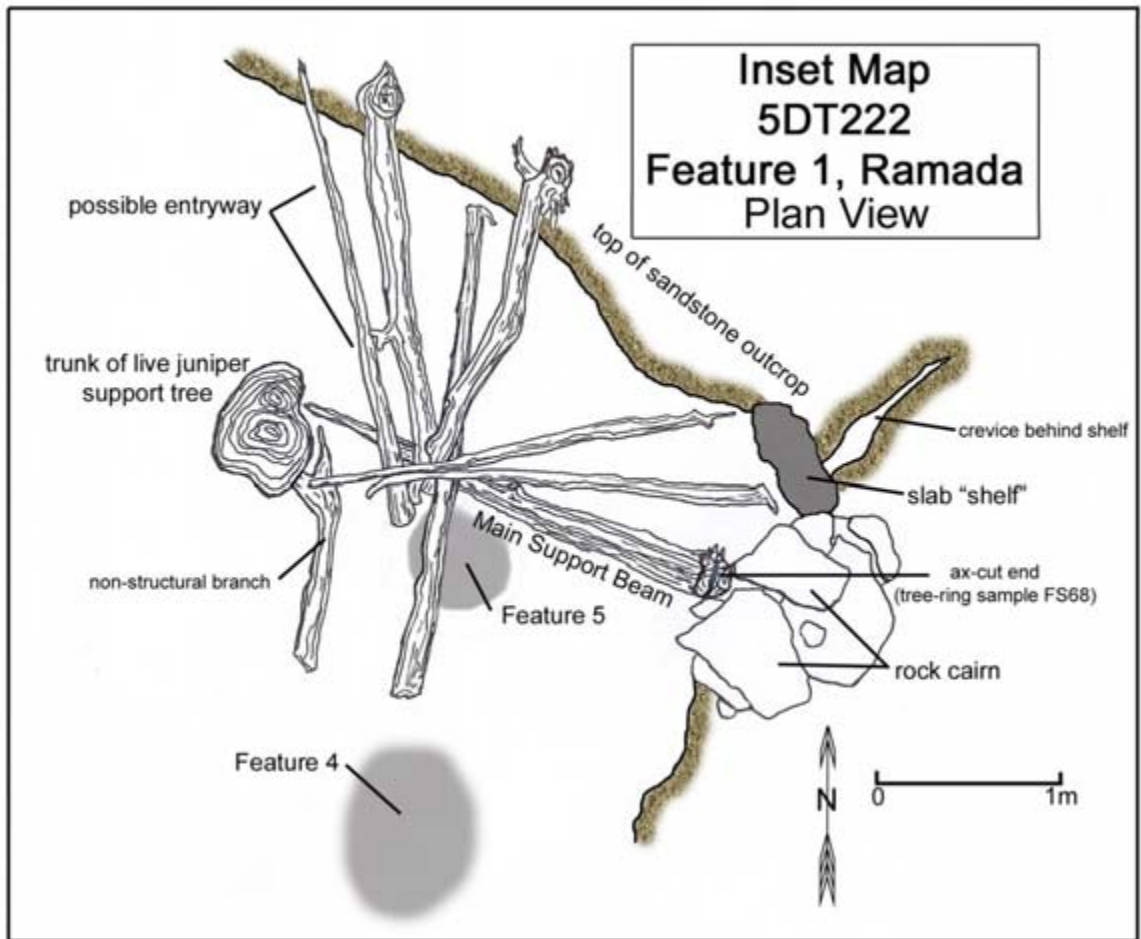


Figure 3. Detail Plan View of the Feature 1 Locus at 5DT222, Black Canyon Ramada

project. Additionally, the fact that the two occupations reflected by the cultural remains can be fairly accurately dated by the projectile points, ceramics, and tree-ring dates. In the laboratory, artifacts were sorted according to morphological category and material type. Tables 2 and B-1 provide a list of the collected artifacts and samples.

The test excavations consisted of a series of seven 50cm-wide test trenches; Test Trenches TT1 through TT7 (Figure 2). A total of 15.5 square meters was excavated. The excavations ranged in depth from a minimum of five centimeters to a maximum of 20 centimeters—with the exception of a sub-sterile soil test that extended to 50cm below PGS. Although only diagnostic specimens were collected from the site surface and from the metal detection activities, all excavated artifacts—having been removed from their original *in situ* contexts—were collected.

Soil Deposits and Stratigraphy

In Test Trenches 1, 2, 4, 5 and 7, the upper few centimeters of soil consisted of unconsolidated, brown sandy loam. In these proveniences Level 1 was defined as the shallow, loose fill that could be easily removed with a paint brush or light whisk broom. It varied from 4cm to 8cm in depth below the present ground surface (PGS), at which point it contacted a notably more consolidated grayish-brown sandy loam—Level 2—which required trowels for effective removal. The base of Level 2—at depths varying from 15 to 20cm below PGS—was defined by the contact with Level 3. Level 3 consisted of a less-rocky sandy loam that ranged in color from yellowish-brown to very light gray. The differentiation between Level 1 and Level 2 quite likely represents no more than the natural tendency for the upper few centimeters of soil to remain unconsolidated due to environmental and animal disturbances.

Within Test Trenches 3 and 6 the surface deposits were more densely compacted and excavation was conducted utilizing arbitrary levels of 0-10cm and 10-20cm. In certain instances this methodology resulted in the removal of the upper few centimeters of the Level 3 deposits. Elsewhere, contact with bedrock prevented excavation of the entirety of the 10-20cm level.

Artifactual materials, including charcoal, were recovered from throughout Levels 1 and 2. The excavations that extended into the Level 3 deposits, including the 50cm-deep “sub-sterile” test near the north end of Test Trench 1, suggest that Level 3 is devoid of cultural materials. The cultural materials at the Black Canyon Ramada represent a multi-component occupation—a Formative age Native American component and a Historic component—as evidenced by the presence of metal, lithic, and ceramic materials.

Results of the Metal Detection Activities

Prior to the initiation of the testing activities at the site it was presumed that 5DT222 would produce a significant number of metal artifacts—based on the presence of metal ax-cut elements within Feature 1 and on nearby trees, and by the results at other wooden feature sites investigated by the CWP. This proved to be not the case, as only five fragments of rusted wire and a modern .22 caliber cartridge casing were recovered. The only other historic artifact found was a modern Coors Light beer bottle, stamped with what appears to be an expiration date of January 2009 that had been placed in a crotch of the juniper support tree at Feature 1. These artifacts are described in the Artifact Tabulation and Analysis section for 5DT222, and their possible age and cultural affiliation is discussed in the Discussion and Synthesis section. As evidenced by the results of the tree-ring dates, it is obvious that the metal wire fragments and the metal ax-cut wood samples, including the main support of the ramada roof, post-date the lithic and ceramic artifacts by perhaps several hundred years.

Description and Results of the Test Excavations

Test Trenches 1, 4, 5, and 7 were established for the purpose of investigating the nature and extent of the sub-surface deposits within, and down slope to the south of, the wood-frame ramada itself—Feature 1. Test Trench 2, over 20 meters to the southeast of Feature 1, was opened to investigate Feature 2, a concentration of ash and charcoal exposed on the site surface. Test Trench 3 was excavated along the base of the southwest-facing vertical outcrop of Dakota Sandstone that forms the 1.75m high “back wall” of the site. The final excavation unit, Test Trench 6, extends north-south from near the west end of TT3 and was established to investigate the fill surrounding hearth Feature 6 as well as the nature and extent of the cultural deposits at the northwest end of the site. In addition to the ramada, six thermal features were discovered and investigated—Features 2 through 7—as described below.

Surface collections and test excavations resulted in the collection of a total of 90 field specimens (FSs). The artifacts are tabulated in Tables 2 and B-1.

Feature Descriptions

Feature 1, the only wooden feature at the site with the exception of a brush pile, consisted, prior to collapse, of a flat-roofed ramada, arbor, or sunshade constructed against a southwest-facing outcrop face of Dakota Sandstone that forms the rim of a small drainage (Figures 2, 3, and A-6 and Plates 1-3). By definition, a ramada is a shelter that is constructed with a roof but no walls, or is only partially enclosed. Contemporary freestanding, flat-roofed ramadas on the Ute and Navajo reservations are typically referred to as “sunshades” (Plate 1). Rather than being supported by four or more vertical posts set into the ground, as in these modern examples, the shelter at 5DT222 is nestled into a corner where the sandstone outcrop face makes a right-angle turn—the roof beams being supported by the upper edge of the vertical, 1.7m high rock face, which forms the northeast and southeast walls of the shelter.

Initially, to construct the ramada, a cairn of sandstone slabs was built atop the east side of the outcrop (where it angles to the south). The cairn was intentionally stacked to within a few centimeters of the height of the back (northeast) wall of the outcrop so as to facilitate a level, horizontal roof. Next, a large, 3.8m-long ax-cut “Main Support Beam” of juniper was suspended from the top of the cairn—1.75m above the ground surface—westward to a crotch in a still living juniper tree. The crotch that apparently had supported the tip end of the beam is approximately 15cm higher than the top of the cairn, some of which is likely attributable to tree growth. Nonetheless, the finished roof was apparently within a few centimeters of level on both the north-south and east-west axes.

A tree-ring core sample from the support beam produced a date of 1903+vv and additional, quite obviously related dendrochronological dates from ax-cut tree branches near the feature produced dates ranging from 1900+G to 1904+G. During this time in history—the

early 20th Century—it is difficult to assign with certainty the presumed ethnicity of the architects of a wooden feature in western Colorado. Although Euro-Americans are not known for constructing flat-roofed, open-sided sunshades or ramadas, the possibility cannot be ruled out. Likewise, the presence of Numic peoples in the region at this time has been documented elsewhere by the CWP, however none of the diagnostic projectile points recovered at the site appear to date from the Protohistoric or Historic periods.

The cairn consists of a 7-course, 64cm high stack of approximately 25 to 30 sandstone slabs (Plate 2). The individual stones range from approximately 15cm to 85cm in diameter and up to 12cm in thickness. Lichen has grown on most of the exposed upper surfaces of the rocks.

The next phase of construction consisted of laying six additional beams, all apparently of juniper, northeast to southwest between the top of the Main Support Beam and the top of the sandstone outcrop, forming a series of substantial roof vigas or rafters. Presumably these beams, which range in length from 1.8 to 2.9m, were then covered with brush, boughs, and possibly even hides, fabric, or canvas. Four of these rafters had their butt ends resting atop the sandstone and the other two had their butts atop the Main Support Beam. At some point prior to 1976 the tip of the support beam deteriorated sufficiently to cause it to collapse, leaving its tip on the ground near the base of the juniper support tree and its butt resting against the interior face of the rock cairn. When this occurred, the rafter beams also came down, sliding to the west across the upper surface of the now leaning support beam, coming to rest in somewhat of a wheel spoke pattern within the interior of the shelter (Figure 3 and Plates 2 and 3). Three of the rafters have completely collapsed to the ground and three still have their northeastern ends resting against the top of the stone wall.

The shelter itself was roughly rectangular in floor plan, measured approximately 2.9m northwest-southeast by 1.7m northeast-southwest, and had a floor area of approximately 4.7 square meters and a headroom of 1.4 to 1.7m. No brush or other evidence remains to suggest walls of any kind for the northwest or southeast sides of Feature 1, however, again, it is possible that they had been covered with hides, blankets, or canvas.

An eighth branch, also apparently of juniper, rests on the ground surface in what would have been the western corner of the shelter, however its function as a structural element, if any, is undetermined.

Where the two angles of sandstone wall meet and form a corner at the west end of the shelter interior, a flat sandstone slab has been suspended diagonally across the gap formed by this corner on a ledge that is 1.2m above the ground surface. This horizontal slab, which measures 30 x 70cm, has been interpreted simply as an interior shelf for keeping items off of the ground, as no other purpose can be construed for its presence. Although it also may have served as an altar for ceremonial objects, however, this remains purely conjecture.

Although no direct evidence exists as to the nature or location of the entry to Feature 1, presupposing that walls of some type had enclosed the shelter during occupation, a potential entryway is formed by an overhanging trunk of the juniper support tree at the northwest end of Feature 1 that extends to the top of the sandstone outcrop, forming an archway between the tree trunk and the rock face approximately 90cm wide and 1.6m high. However, if no walls had been constructed, access could occur freely from the southwest as well.

In 1976 Martin and Roebuck described and mapped a pile of small ax-cut branches atop the stone outcrop immediately to the south of the support cairn (Roebuck 1977). In 2002, when the site was revisited by Martin, the pile had been disassembled and redeposited as an apparent “rodent nest” on the ground surface to the southeast of the shelter (Conner et al 2002), where it remained in 2010. These branches are too small for consideration as structural poles and likely were gathered as firewood, however it is somewhat unusual to find ax-cut marks on firewood that typically would have been collected as dead wood. Five dendrochronological samples from these branches resulted in dates ranging from 1900+G to 1904+G (Appendix C).

A total of six cultural thermal features (Features 2 through 7) were recorded during the test excavations at the Black Canyon Ramada. Most, if not all, of these hearths are either sufficiently buried in fill, or are basin-shaped suggesting that they are affiliated with the prehistoric occupation of the site, however, two of these—Features 4 and 5—are directly to the south of Feature 1 and possibly associated with the historic structure. All but Feature 2 are within 5m of the ramada and the sandstone outcrop wall. Based on the number of thermal features uncovered by the test excavations, it is quite apparent that additional thermal features remain buried in the shallow fill.

Feature 2 was a rodent-disturbed surficial ash stain approximately 23 meters to the southeast of Feature 1, at the southeast corner of the site (Figure 2). Test Trench 2 (TT2) was established in order to investigate this feature. Upon excavation of the west half of grid unit 4S23E, a roughly circular, 35-40cm diameter concentration of ashy soil with occasional small fragments of charcoal was revealed that extended to a maximum of 10cm below PGS. No excavated basin, rock ring, fire-cracked rock (FCR), soil oxidation or discoloration, or any other evidence of an *in situ* hearth was found. It is possible that the concentration of ash and charcoal is the result of natural causes; however, a chalcedony flake and a fragment of chert angular shatter were recovered in the upper 5cm of fill within 80cm of Feature 2. Charcoal samples FSs 14 and 17 were collected.

The 50cm wide excavation that began with the west half of unit 4S23E was expanded an additional 1m to the north and 2m to the south as Test Trench 2 (Figure 2). The north half of the resultant 4m-long by 50cm wide trench was excavated to an arbitrary level of 20cm below PGS. Only Level 1, the loose upper fill that was readily removed with whisk brooms, was cleared from the south half of TT2. Although some additional ash staining was noted within Level 1 near Feature 2, no other artifacts or features were located at this locus.

Feature 3 consists of a roughly circular, basin-shaped hearth situated 3m to the southwest of the ramada within Test Trench 1 (Figure 2). It measures 40 to 45cm in diameter and extends from 15 to 19cm below PGS (Plate 3), although charcoal and ash was initially contacted at 8cm below surface. Its fill consisted of moderately-dense ash and charcoal, including a number of sizable fragments. Several small fragments of heat-reddened sandstone were present within the hearth. Charcoal samples FSs 26 and 27 were collected and a single interior quartzite flake—FS28—was recovered from the base of the hearth.

Feature 4 consisted of an eroded and root-disturbed, ill-defined, roughly circular, basin-shaped hearth situated less than a meter to the southwest exterior of the ramada within Test Trenches 4 and 7 (Figure 3). Although apparently a basin-shaped hearth originally, it has deteriorated significantly. What remains of the feature consists of a moderately dense concentration of ash-stained soil, charcoal—including fragments up to 1cm in diameter, small fragments of burnt and calcined bone (FS37), and occasional small fragments of oxidized sandstone. The concentration measures up to 50cm in diameter and extends from 12 to 26cm below PGS (Plate 4). Charcoal samples FSs 50 and 52 - 54 were collected from the feature fill as well as a pollen sample, FS55, and a macrobotanical flotation sample, FS65. Other artifactual materials, primarily lithic flakes and rusted wire, were found nearby as shown in Figure 3.

Feature 5, situated 1.5m to the north of Feature 4 in TT4 and within the interior of the ramada (Figure 3). It consisted of another poorly-defined concentration of dense ash and charcoal fragments up to 1cm in diameter, and small fragments of burnt bone (FSs 40 and 60). The hearth measured up to 45cm in diameter with a depth of up to 13cm below PGS. Charcoal samples FSs 62 and 64 were collected from the feature fill. Other artifactual materials, primarily lithic flakes and rusted wire, were found nearby as shown in Figure 2.

Feature 6, by far the best preserved hearth uncovered at 5DT222, was discovered at the northwest end of the site during the excavation of TT3 along the base of the sandstone outcrop (Figure 2). TT6 was opened to the south of this feature to further investigate the nature of the subsurface fill at this locus. The feature consisted of the base of a circular, shallow basin hearth that had been built directly on top of the sandstone bedrock (Plate 4). Apparently, the upper portion of the feature is missing as a result of natural causes including wind and sheet erosion and animal disturbance. What remains of the side wall of the basin is atypically vertical, as opposed to sloping outwards, at least at the basal portion of the hearth.

The exposed hearth measured 56cm east-west by 65cm north-south. Its northern rim was 9cm in front of the sandstone rock face. The hearth fill consisted of only moderately ash-stained, but notably darkened soil, however it contained a high density of charcoal in addition to approximately 28 fragments of FCR that ranged in size from 3 to 8cm in diameter. Bedrock was contacted at 11 to 20cm below PGS, and it is likely that the original rim of the hearth basin, prior to erosion, was initially this far above the bedrock, if not more so. Charcoal sample FS80, macrobotanical sample FS88, and pollen sample FS89 were collected from the hearth fill.

Feature 7, 3m to the south of Feature 6 in TT6, consisted of an amorphous ash stain 3.5m to the southeast of the outcrop face and measured approximately 75cm in diameter. No FCR or evidence of an *in situ* hearth remained, however the stain was well defined and appears to indicate the former location of a now completely deflated or eroded hearth. FS85, an interior quartzite flake was recovered from within the hearth fill.

Artifact Tabulation and Analysis

At the Black Canyon Ramada a total of 90 separate Field Samples (FSs) were collected. Further discussion of several of these classes of artifacts is presented in the Artifact Analysis and Interpretation section. Of the Field Specimens, 47 are ancillary collections. These consist of 11 collections of burnt and calcined bone fragments, 16 samples of charcoal from thermal features and cultural levels, seven dendrochronological samples, two pollen samples, three macrobotanical or flotation samples, four soil samples for a variety of purposes, one collection of fresh water snail shells, one fragment of artiodactyl tooth enamel, and two liners from the tunnels of trapdoor spiders (collected prior to ascertaining what they were!).

The artifactual collections consist of 29 lithic flakes and pieces of angular shatter (collected as 27 separate FSs), five fragments of rusted wire, a wire clasp, a cartridge case, a fragment of beer bottle, two projectile points, a mano fragment, two butchering tools, a uniface, a chopper, a pebble man-u-port, and a fragment of worked bone (possibly a bead or bone tube). One Field Specimen (FS87) was discarded during the analysis phase of the project as being non-artifactual.

Individual artifact classes are discussed below. Tables 2 and B-1 summarize the artifacts and ancillary collections from the Black Canyon Ramada site..

Table 2: Field Specimen List for the Black Canyon Ramada (5DT222)

Field Specimen (FS #)	Provenience & Associated Feature	Description
FS1	Feature 1, TT7C (metal detected at 0-3cm)	Two fragments of wire twisted together
FS2	Feature 1 (metal detected at 0-3cm)	Length of wire
FS3	TT1	Length of wire
FS4	Feature 1	Length of wire
FS5	Feature 1	Fragment of amber beer bottle
FS6	Feature 1	Wire bent into a -safety-pin-like” clasp

Field Specimen (FS #)	Provenience & Associated Feature	Description
FS7	Feature 1	Flake
FS8	Near Feature 1	.22 caliber cartridge case
FS9	Near Feature 2	Flake
FS10	Atop sandstone outcrop above Feature 1	Flake
FS11	Atop sandstone outcrop above Feature 1	Lithic butchering tool
FS12	General Surface	Flake
FS13	General Surface	Fresh water snail shells
FS14	TT2 (4S23E, W ½) Near Feature 2	Charcoal
FS15	TT2 (4S23E, W ½), 0-8cm Near Feature 2	Lithic angular shatter
FS16	General Surface	Projectile point midsection
FS17	TT2 (4S23E, W ½). 0-8cm, Near Feature 2	Charcoal
FS18	TT1, Level 1, 0-8cm	Lithic angular shatter
FS19	TT1, Level 1, 0-8cm	Burnt bone fragments (3)
FS20	TT1, Level 1, 0-8cm	Flakes (2)
FS21	TT1, Level 1, 0-8cm	Charcoal
FS22	TT1, N ½, Lev 2, 15cm	Flake
FS23	Near Feature 1	Flake
FS24	TT2 (4S23E, W ½). 10-20cm Feature 2 fill	Charcoal
FS25	TT1, N ½, Lev 2, 15cm	Flake
FS26	TT1, Lev 2, 8-13cm Feature 3 fill	Charcoal
FS27	TT1, Lev 2, 13-15cm Feature 3 fill	Charcoal
FS28	TT1, Lev 2, 19cm (<i>in situ</i>) Feature 3 fill	Flake
FS29	TT3A, Lev 1, 0-10cm	Unburnt bone fragment
FS30	TT3A, Lev 1, 0-10cm	Charcoal
FS31	TT3B, Lev 1, 5cm (<i>in situ</i>)	Lithic butchering tool
FS32	Atop sandstone outcrop above Feature 1	Lithic angular shatter
FS33	TT3B, Lev 1, 0-10cm	Charcoal
FS34	TT3B, Lev 1, 0-10cm	Charcoal
FS35	South of Feature 1	Dendrochronological sample: metal ax-cut tree stump
FS36	TT3B, Lev 1, 0-10cm	Flake

Field Specimen (FS #)	Provenience & Associated Feature	Description
FS37	TT4B, Lev 1, 0-4cm Feature 4	Burnt and calcined bone fragments (18)
FS38	TT3A, Lev 2, 10-20cm	Unburnt bone fragment
FS39	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut branch
FS40	TT4C, Lev 1, 0-6cm	Burnt bone fragments (4)
FS41	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch
FS42	TT3C, Surface	Trapdoor spider tunnel lining
FS43	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch
FS44	TT3A, Lev 2, 12cm (<i>in situ</i>)	Water-worn pebble man-u-port
FS45	TT3A, Lev 2, 7cm (<i>in situ</i>)	Mano fragment
FS46	TT4C, Lev 1, 0-6cm	Flake
FS47	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch
FS48	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch
FS49	TT3A, Lev 1, 0-10cm	Artiodactyl tooth enamel
FS50	TT4A, Lev 2, 6-10cm, Feature 4 fill	Charcoal
FS51	TT3A, Lev 2, 10-20cm	Flake
FS52	TT4A, Lev 2, 13cm, Feature 4 fill	Charcoal
FS53	TT4A, Lev 2, 6-15cm, Feature 4 fill	Charcoal
FS54	TT4A, Lev 2, 13cm, Feature 4 fill	Charcoal
FS55	TT4A, Lev 2, 6-15cm, Feature 4 fill	Pollen sample
FS56	General Surface Near TT1	Surface soil sample (to accompany ceramic sherds from 2002 as a thermoluminescence sample)
FS57	TT3A, Lev 2, 10cm to bedrock	Flake
FS58	TT4C, Lev 1, 7cm	Calcined bone fragment
FS59	TT4B, Lev 2, 6-15cm Near Feature 4	Burnt and calcined bone fragments (19)
FS60	TT4C, Lev 1, 0-10cm Feature 5 fill	Burnt and calcined bone fragments (5)
FS61	TT4B, Levs 1 & 2	Trapdoor spider tunnel lining
FS62	TT4C, Lev 1, 0-10cm, Feature 5 fill	Charcoal
FS63	TT4B, Lev 2, 6-15cm	Lithic uniface fragment
FS64	TT4C, Lev 1, 0-10cm, Feature 5 fill	Charcoal

Field Specimen (FS #)	Provenience & Associated Feature	Description
FS65	Feature 1 interior (between leaning beams & support tree)	Macrobotanical soil sample
FS66	TT3F, Surface	Flake
FS67	General Surface, Near TT1	Bulk soil sample
FS68	Feature 1 ramada	Dendrochronological sample: metal ax-cut Main Support Beam
FS69	TT1, 5-10cm	Bulk soil sample
FS70	TT1, 20-30cm	Bulk soil sample
FS71	TT3F, Lev 1, 0-10cm	Flake
FS72	TT3F, Lev 1, surface	Flake
FS73	General Surface at extreme northwest end of site	Projectile point base
FS74	TT6A, Lev 1, 0-5cm, Near Feature 6	Calcined bone fragment
FS75	TT6A, Lev 1, 0-5cm, Near Feature 6	Flake
FS76	TT4A, Lev 2, Feature 4 fill	Macrobotanical sample
FS77	TT6B, Surface	Lithic core chopper
FS78	TT6B, Lev 1, 0-10cm	Flake
FS79	TT6B, Lev 1, 0-10cm	Burnt bone fragment
FS80	TT3G, Lev 1, 0-10cm, Feature 6 fill	Charcoal
FS81	TT7C, Lev 1, 0-6cm	Burnt and calcined bone fragments (12)
FS82	TT6B, Lev 1, 0-10cm	Flake
FS83	TT6C, Lev 1, 0-10cm	Flake
FS84	TT7A	Flake
FS85	TT6D, Lev 1, 9cm (<i>in situ</i>), Near Feature 7	Flake
FS86	TT6D, Lev 1, 0-10cm	Flake
FS87	-----	(discarded: non-artifactual)
FS88	TT3G, Lev 2, 8-14cm Feature 6, East ½ fill	Macrobotanical sample
FS89	TT3G, Lev 2, 8-14cm (bedrock) Feature 6, SE ¼ fill	Pollen sample
FS90 (found in FS60)	TT4C, Lev 1, 0-10cm Feature 5 fill	Worked bone: two fragments of calcined mammal long bone, one end of one fragment ground & polished

Metal wire

Five fragments of rusted metal wire were located with the metal detector (FSs 1-4 and 6), all of which were within a meter or two of Feature 1, the ramada, and likely associated with it (Figure 2). The wire artifacts were of two different gauges, or diameters: FSs 1 and 3 are 1/16th-inch in diameter and FSs 2, 4, and 6 are a heavier gauge at 3/32nd-inch (Plate 16).

- FS1 consists of two pieces of wire that have been twisted together. The twist, or wrap, is very uniform and regular apparently having been accomplished by a machine such as a hay baler.
- FS2 is a 2 inch long segment of wire with one end bent at a right angle.
- FS3 would be approximately 11¾ inch long if straightened out, however it contains numerous bends and the artifact as is measures 5 x 2¾ inches.
- FS4 is 8-7/8 inch long and appears to have once been twisted or wrapped around some object.
- FS6 consists of a crude safety pin-like latch or clasp made of wire. The center of the wire fragment had, at one time, been wrapped around an oval object that measured approximately 5/8th inch by 3/8th inch and the two ends of the wire bent so as to form an overlapping clasp (Plate 16). The exact purpose of this clasp remains undetermined.

Spent cartridge case

A single artifact from the Black Canyon Ramada is related to ordnance or firearms: FS8, a modern spent .22 gauge rimfire cartridge case that was found by the metal detector near the ramada. The headstamp is that of the Cascade Cartridge, Inc. of Lewiston, Idaho. This particular design of headstamp dates from the early years of the corporation, somewhere from the late 1960's to the early 1970's (Kass 1980, C-11). Its length, 5/8th inch (0.6"), indicates that it is either a .22 long or .22 long rifle casing.

Vessel glass

Initially, a small fragment of a brown screw-top beer bottle rim (FS5) was found on the site surface approximately 2m to the south of Feature 1. At a later date the rest of the bottle was found cached in a crotch of the juniper tree that had held up the Main Support Beam of the ramada. This bottle (not collected) consisted of a modern Coors Light beer bottle, with "AN09 012/19E" stamped on the neck of the bottle, apparently indicating an expiration date of January 2009, as an indication of a very recent visit to the site by an unknown person or persons.

Bone artifact

Eleven samples of burnt, calcined, and unburnt faunal bone were collected from various proveniences at 5DT222 (see Table 2). None of the small fragments appear to be identifiable as to species and no butchering marks or use-wear could be found on the specimens with one exception. During the analysis of FS60, a collection of burnt and calcined

bone fragments from within the fill of hearth Feature 5, a worked fragment of hollow, small mammal long bone was discovered. This artifact was assigned Field Specimen number FS90.

One end of the calcined long bone fragment has been thoroughly ground and smoothed, either intentionally—to create a large bead or tube—or through use. The exterior diameter of the bone is 1.5cm and the interior diameter of the hollow bone is 1.0cm. The remaining length of the specimen is 0.9cm. An additional fragment of bone found in FS60 appears to be from the same long bone and has been added to FS90. No wear or other alteration is visible on this second fragment.

Chipped stone debitage and tools

A total of 29 specimens of lithic debitage were found on the surface and in excavated proveniences of the site encompassing 26 separate Field Specimens (there are two flakes each in FSs 20, 72, and 75). Of these, all were artifactual flakes with the exception of three fragments of angular shatter (Table 2). Notably, four of the flakes from various proveniences possess characteristics of biface-thinning flakes, indicating that the production, modification, and/or maintenance of such tools had taken place on the site. Only the proximal ends of biface-thinning flakes show evidence of use-wear, however, one flake exhibits remnants of an intentionally retouched edge

Sixteen of the specimens were of quartzite ranging from light gray and gray to light brown, brown, dark brown, and yellowish-brown. Four specimens each were of chert (brown, mottled gray, and mottled red-and-brown) and translucent white to light gray chalcedony. Three of the artifacts were of gray and yellowish-brown siltstone or porcellanite, and the final flake was categorized as a yellowish-brown quartzitic sandstone. Two specimens were considered “micro flakes” (minute pressure flakes generally less than 2mm x 5mm), 11 were “small” (less than 5mm in diameter), and 15 were “medium” (between 5mm and 5cm in diameter). No flakes larger than 5cm in diameter were found.

In addition to the debitage, six chipped stone artifacts were collected on the site (Table 2). Two consist of relatively large, unifacially trimmed tools that have been categorized as butchering tools based on their size, tool stone type, and relatively dull cutting edges. They range in size from 5.5 x 3.9 x 1.2cm (FS11 from the surface above and to the north of the ramada) to 10.4 x 6.1 x 1.9cm (FS31 from within Feature 1, Level 1 of Test Trench 3B). These tools are made from gray siltstone and yellowish-brown quartzite respectively. FS31 is shown in Plate 16.

Field Specimen 77, from the surface of Test Trench 6B, between hearth Features 6 and 7, consists of a chopper in the form of an un-shaped angular chunk of siltstone (porcellanite). Five or six flakes have been removed bifacially along one angular edge of the cobble. That edge and one other un-flaked edge exhibit small utilization flake scars and edge-rounding. The artifact measures 11.3 x 7.9 x 5.6cm.

Field Specimen 63, from Level 2 of Test Trench 4B, also within the ramada, consists of a fragment of an ovate uniface made from gray siltstone flake. It has been unifacially trimmed along a portion of one edge. A significant amount of unmodified ventral flake surface remains. The artifact measures 4.4 x 3.1 x 0.7cm.

The final two lithic tools are projectile point fragments. Field Specimen 16 is a midsection of a small, well-made, apparently Formative or Late Prehistoric arrow point (Plate 16). The hafting element and tip are missing, however the extreme distal ends of both notches remain, indicating that it had been either corner-notched or stemmed. Other than its size, the projectile point is considered non-diagnostic. It is made of light gray quartzite and measures 1.4+ x 1.4 x 0.3cm. It was found on the surface near the southeast boundary of the site.

Field Specimen 73 is a basal fragment of a broad corner-notched or stemmed projectile point, or possibly a drill or perforator with a convex-base. The artifact, because of its fragmentary nature, is considered non-diagnostic. It is made of light gray quartzite and measures 1.2+ x 1.8 x 0.4cm. It was found on the surface at the extreme northwest edge of the site, approximately 2m to the west of hearth Feature 6.

An additional five projectile points and point fragments were reported during the 2002 site revisit: a small corner-notched specimen that was compared to Uncompahgre Complex Type 8 Formative age points, two small stemmed points comparable to Type 5 Formative Era points, and two small, broad specimens that resembled Type 28 points similar to earlier Formative points (Conner et al 2002). Although “a projectile point and a projectile point base” were noted in the initial site report (Roebuck 1977) as having been found within 10m of the ramada, no illustrations, photographs, or descriptions are available.

Groundstone

Field Specimen 45, consists of a mano fragment found at a depth of 7cm below PGS in Test Trench 3A at the back of the ramada, near its apparent entryway. The grayish-brown quartzite tool exhibits heavy bifacial grinding and polish and measures 6.1+ x 4.7+ x 3.6+cm.

Evaluation and Management Recommendations

Site 5DT222 was field recommended as eligible for listing on the National Register of Historic Places (NRHP) in 1976 and again in 2002, and was declared to be officially eligible by the SHPO in 2003. As a representative of a Formative age Native American component hunting and butchering camp with a Historic component, its integrity and undisturbed nature, the presence of a unique and fragile wooden structure, securely dated wooden elements, the probability of numerous undisturbed thermal features, the potential for thermoluminescent ceramic dates, and diagnostic lithic and metal artifacts, all strongly substantiate this assessment and recommendation that this site should be listed on the NRHP.

Preservation of this unique site is highly recommended. The wooden feature and site continue to be threatened by deterioration, wildfire, livestock grazing, and intentional or inadvertent vandalism.

PART III: ADDITIONAL ABORIGINAL WOODEN FEATURE SITES

5EA2740, THE PISGAH MOUNTAIN WICKIUP VILLAGE

Site 5EA2740 was initially brought to the attention of BLM Wildlife Biologist, Bob Elderkin, when he was with the Glenwood Springs Field Office, by George Decker. Mr. Decker grew up as a cowboy in the McCoy area and had first seen the site when he was a boy (sometime between 1910 and 1920). A rebar datum was placed on the site during a revisit by Elderkin and BLM archaeologist Patti Walker-Buchanan (date unknown). In August of 2008 the site was investigated by BLM Archaeologist, Cheryl Harrison; DARG Research Associate, Brian O'Neil; and Mr. Elderkin for the purpose of performing a general reconnaissance, obtaining GPS readings on several of the wooden features, taking photographs, and making an overview assessment of the artifact assemblage to provide preliminary age determinations for its occupation. At this time it was estimated that there were 15 to 20 aboriginal wooden features on the site. Also noted were a sparse lithic scatter, ground stone, thermal features, and calcined bone fragments. Three artifacts were collected during that revisit: a metal object tentatively interpreted as a concho from a saddle, a fragment of obsidian angular shatter, and a chert end-scraper—Field Specimens 1, 2, and 3 respectively.

Based on the evidence from this reconnaissance, the site was included in the list of “premier” wooden feature sites proposed for documentation as part of Phase VI of the Colorado Wickiup Project (CWP). The site was investigated by the CWP in the fall of 2009 during which time 20 wooden features and eight associated sub-features were identified, photographed, and mapped with a Trimble GPS unit. Due to the unexpectedly high number of features, the substantial results from the initial metal detection, and the winter closing of the Pisgah Mountain Wilderness Study Area, it became obvious that a full recordation of the site and features was well beyond the time and budgetary restrictions of Phase VI, and work on the site was terminated for the season.

During that phase of work, Aboriginal Wooden Feature Component Forms were completed for eight of the features, sketch plans were drawn for three, detail plan views were constructed for two, and the area within and surrounding six of the features was metal detected—with significant positive results.

In the spring of 2010 an Archaeological Assessment grant application was submitted to the Colorado State Historical Fund (SHF) seeking additional funding for the completion of the work. This grant, along with additional assistance agreement money from the BLM, was awarded in June, 2010 (State Historical Fund Project No. 2010-AS-04) and a DARG crew returned to the site from July 12th to 16th, 2010 for the purpose of cully recording the site and providing an NRHP assessment.

A summary of the findings at 5EA2740 follows, however, the full description of the research activities and findings is presented under separate cover in *A Further Assessment of*

5EA2740, *the Mount Pisgah Wickiup Village* (Martin and Brown 2010b). Table 3 presents a list of the aboriginal wooden features at the Mount Pisgah site. A short description of each feature follows. Location information for individual features and artifacts is provided in Martin and Brown 2010b.

Site Description

The Pisgah Mountain Wickiup Village is a large open village of lithic, metal, and glass artifacts as well as aboriginal wooden features including leaner and freestanding wickiups, horizontal beams supported in the branches of trees, utility poles, brush enclosures, firewood caches, and a bark-peeled tree. The site measures 115m in diameter.

The wickiup village is located in Eagle County, south of the Colorado River and southwest of the town of McCoy, in a valley formed by a series of unnamed, intermittent, north-flowing tributaries (Figures 1 and A-2). Pisgah Mountain, the namesake of the wickiup village, lies to the southwest. The site is in a piñon/juniper forest with an understory of big sagebrush, prickly pear cactus, bitterbush, mountain mahogany, Indian ricegrass, and other sparse bunch grasses. The soil consists of decomposed granite and brownish-red sandy gravelly loam of varying depths of up to 30 or more centimeters.

The wooden features at the Pisgah Mountain site are roughly arranged in a crescent shape, open to the northeast (Figures 4 and A-7). The wickiups and other features cluster in four loose groupings: Features 15, 16, 17, and 20 are separated from the rest of the site by a low saddle and are associated with the Open Activity Locus (OAL) in the extreme southeastern corner of the site. Features 1, 2, and 18 are situated at the opposite “point” of the crescent—the northeastern end of the site. More centrally located are clusters containing Features 3 through 7 and 19, and Features 8 through 14. Detailed plan maps of portions of the site, showing locations of the wooden features and other site details, are presented in the Pisgah report (*ibid*).

The cultural affiliation of the site has been identified as Protohistoric Ute. The results of the dendrochronological analysis (Appendix C) indicate that the site was occupied in the fall or winter of AD1853. This date correlates with the presence of metal projectile points and a muzzle-loader percussion cap on the site, suggesting that it was occupied after the invention of percussion cap technology in the 1830s, but prior to the possession of fixed-ammunition firearms by the site’s occupants, which were commonplace among the Ute in western Colorado by the middle of the Nineteenth Century. For in depth discussions on the cultural history of western Colorado in general, and the Utes specifically, the reader is referred to the series of previous reports produced by the Colorado Wickiup Project (Martin and Brown 2010a; Martin, Conner, and Darnell 2005; Martin and Ott 2009; Martin, Ott, and Darnell 2005; and Martin, Ott, and Darnell 2006).

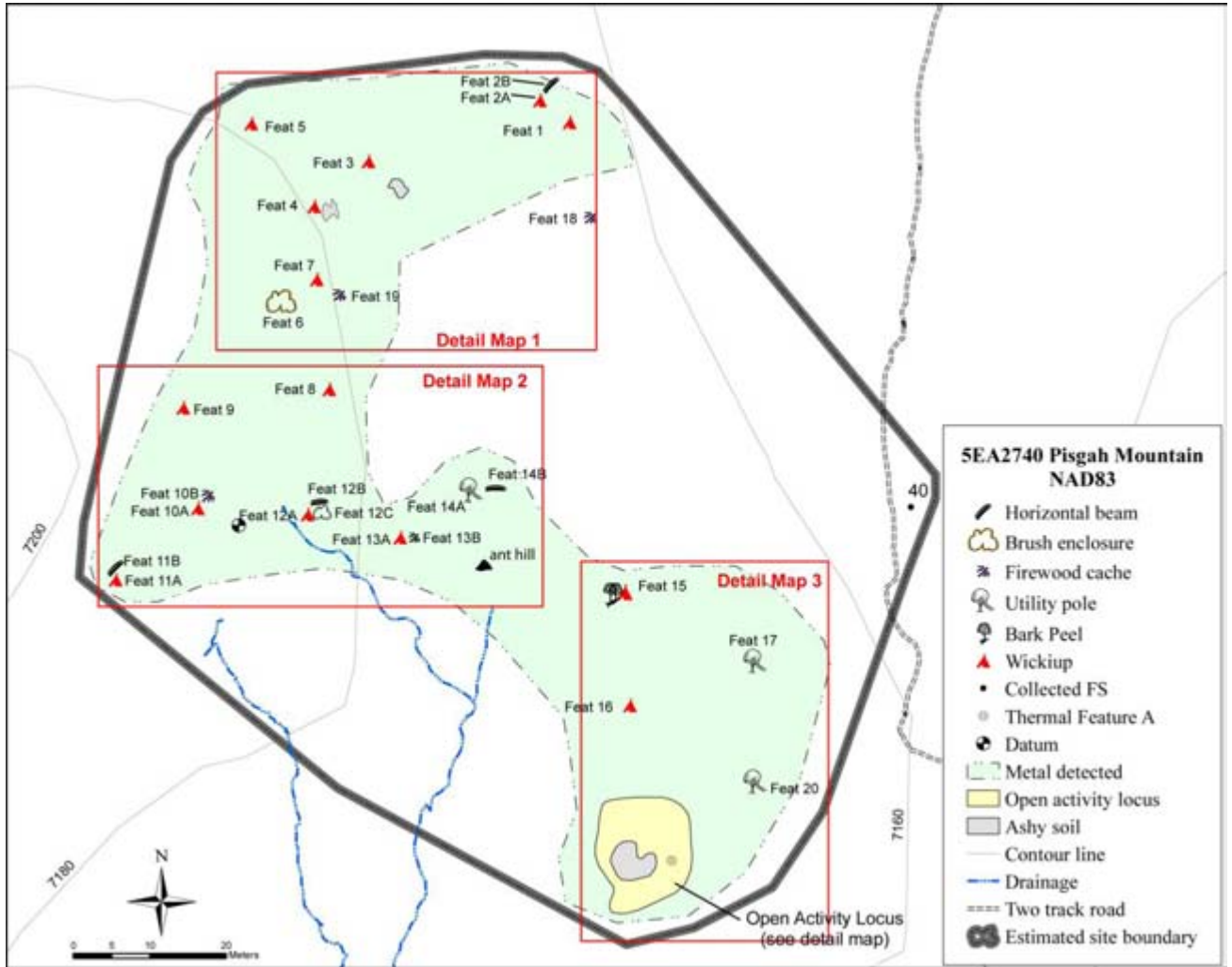


Figure 4: Site Plan Map of 5EA2740, the Pisgah Mountain Wickiup Village

The location of each aboriginal wooden feature was mapped using a Trimble GeoXT GPS unit and USGS 7.5 minute quad maps. All features were thoroughly documented photographically, measured, and fully recorded utilizing Aboriginal Wooden Feature Component Forms. Detailed plan views were constructed of features with standing elements. A full description of the field methodology employed by DARG and the Colorado Wickiup Project is presented in elsewhere in this report. Table 3 presents a summary of the cultural features at the site; wooden and otherwise.

Table 3: List of Features at 5EA2740, Pisgah Mountain Wickiup Village

PISGAH MOUNTAIN WICKIUP VILLAGE (5EA2740)	
Designation	Description
Feature 1	Collapsed Freestanding Wickiup
Feature 2A	Possible Collapsed Wickiup
Feature 2B	Horizontal Beam
Feature 3	Leaner Wickiup
Feature 4	Leaner Wickiup
Feature 5	Collapsed Possibly Cultural Poles
Feature 6	Brush Enclosure
Feature 7	Leaner Wickiup
Feature 8	Leaner Wickiup
Feature 9	Leaner Wickiup
Feature 10A	Leaner Wickiup
Feature 10B	Firewood Cache
Feature 11A	Leaner Wickiup with Utility Pole
Feature 11B	Horizontal Beam
Feature 12A	Leaner Wickiup
Feature 12B	Horizontal Beam
Feature 12C	Brush Enclosure
Feature 13A	Leaner Wickiup
Feature 13B	Windbreak or Firewood Cache
Feature 14A	Utility Pole
Feature 14B	Horizontal Beam
Feature 15A	Collapsed Cultural Poles of Undetermined Function
Feature 15B	Bark Peeled Piñon Tree
Feature 16	Leaner Wickiup
Feature 17	Utility Pole
Feature 18	Firewood Cache
Feature 19	Possible Firewood Cache
Feature 20	Utility Pole with Cobble Concentration

PISGAH MOUNTAIN WICKIUP VILLAGE (5EA2740)	
Designation	Description
Cobble Concentration A	Tight Arrangement of Seven Unmodified Cobbles (in the OAL)
Cobble Concentration B	Four Unmodified Cobbles (in the OAL)
Cobble Concentration C	Two Cobbles, Polishing Stone, and Flake Tool Cached in Tree
Cobble Concentration D	Ten Unmodified Cobbles (Beneath Feature 20)
Thermal Feature A	Basin-shaped Hearth (in the OAL)
OAL	The Open Activity Locus

In addition to the features, numerous individual portable artifacts were recorded which are fully tabulated, described, and analyzed in the Pisgah assessment report (Martin and Brown 2010b). Although lithic debitage and tools, groundstone, a wooden artifact, and glass seed beads were found, a majority of the recovered specimens were metal. Metal detectors (a White's Matrix Series M6, a Fisher M-Scope 1236-X2, and a hand-held White's Bullseye II Pinpointer for isolating individual specimens) were utilized to scan the majority of the site area with special emphasis within and surrounding each of the wooden features.

Additional evidence of metal trade goods on the site was observable in the form of numerous metal ax-cut feature elements and ax-cut tree stumps and branch stubs. Although recent fence post cutting was also evident within the site and throughout the area in general, in the form of ax- and saw-cut juniper trunks, particularly along the trail that runs along the eastern boundary of the site, there is little doubt that some of these ax-cut trees are the result of wood gathering by the Native American inhabitants of the wickiup village.

Also, ancillary specimens were collected in the form of tree-ring samples (21 total), macrobotanical samples, charcoal, bone, pollen, and juniper bark matting.

Wooden Feature Descriptions

This section provides a summary description of each of the 28 expedient aboriginal wooden features and sub-features at Pisgah Mountain Wickiup Village. Complete descriptions and measurements of the wooden features, tabulation and analysis of the artifactual materials, feature plan views, and photographs of selected features and artifacts are presented in the aforementioned report (Martin and Brown 2010b), and detailed descriptions and measurements of each feature are provided in the Aboriginal Wooden Feature Component Forms in Appendix I of that report. Also, thorough digital photographic documentation of each feature is on file at the Museum of Western Colorado and at Dominquez Archaeological Research Group; both in Grand Junction, Colorado.

Feature 1 appears to be a collapsed freestanding-style wickiup situated at the extreme northeast corner of the site. It consists of six long, limbed poles resting on the ground surface

oriented in the same general direction, with their butt ends roughly to the west. One of the poles has an ax-cut end. These piñon and/or juniper poles range in length from 2.7 to 3.2 meters in length. Found in association with this feature was a utilized fragment of obsidian angular shatter (FS2), a metal tinkler (FS17), a white glass seed bead (FS15), and six fragments of sheet metal.

Feature 2A consists of what was apparently a leaner-style (or possibly freestanding) wickiup. The 15 or more collapsed poles are situated on the ground five meters to the northwest of Feature 1. The poles range in length from 1.55 to 3.55 meters. An unshaped limestone netherstone, or lapstone, was recorded on the surface at the southern edge of the collapsed poles that measures 23.5 x 17 x 9cm and is characterized by peck marks on one face and narrow cut marks on the obverse, possibly made by a sharp metal tool such as a knife. Dendrochronology sample FS109 was collected from an ax-cut juniper stump two meters to the north of the feature, which produced a date of 1921+rGBcomp, indicating that this tree was cut historically, along with several others on the site, at a much later date than that represented by the Numic artifacts.

Feature 2B, three meters to the northeast of Feature 2A, is a horizontal beam suspended between the branches of a live piñon and a dead juniper tree. The 2.35m long pole is 1.1m above the present ground surface and is oriented northwest-southeast.

Feature 3 is a partially-collapsed leaner-style wickiup consisting of four standing and two collapsed poles that measure from 1.3 to 2.9 meters in length. It is situated approximately 25 meters to the west-southwest of the Feature 1/Feature 2 cluster and rests against the southwest side of the trunk of a dead juniper tree. The wickiup has a floor area of approximately 3.3 square meters and an interior headroom of 1.6 meters. In addition to bone and three sheet iron fragments, a limestone chopper, and a possible iron projectile point (FS18) were found near this shelter. Dendrochronology sample FS 106 was taken from an ax-cut pole lying on the ground to the north of the wickiup. Surprisingly, it produced a date of 1919+vv, indicating that this branch or small tree was cut historically, along with several others on the site, at a much later date than that represented by the Numic artifacts.

Feature 4 is a partially-collapsed leaner-style wickiup consisting of five standing and seven collapsed poles that measure from 1.62 to 3.30 meters in length. It is situated approximately nine meters to the southwest of Feature 3 where it is supported by branches on the east-southeast side of a live juniper tree. The shelter's floor area is estimated at approximately 2.1 square meters and it has an interior headroom of 1.45 meters. A trowel test near the center of the wickiup produced charcoal at 2-4cm below PGS and juniper bark matting at 5cm (FSs 4 and 5 respectively). An apparent entryway exists on the north side of the feature.

Feature 5 consists of eight or more apparently cultural poles resting on the ground surface near an amorphous area of ash-stained soil. It is relatively isolated at the northwest edge of the site; 13 meters to the northwest of Feature 4. The poles range in length from 1.3

to 3.5 meters in length and, although it is difficult to conjecture as to the original nature or function of the poles, they are quite apparently cultural in nature. It has been entered into the project database (Table 8) as a freestanding wickiup for quantification purposes. A small metal rod, apparently a pin used to attach a knife handle to the blade (FS6), as well as burnt and unburnt bone fragments, were recorded near this feature.

Feature 6 consists of a roughly square brush enclosure on the southeast side of a live juniper tree 14 meters to the south-southwest of Feature 4. It is made up of 24 un-limbed piñon and juniper branches. Three narrow limbs were partially axed at their contacts with the support tree and then bent down to form an “archway” over the apparent entryway, which is on the north side of the enclosure. Two of these limbs are still connected to the tree and the third has fallen to the ground. It is possible that these pull-down branches supported some type of covering, mat, blanket, etc. to act as a closeable “door,” however this is purely conjecture. Tree-ring samples FSs 67 and 68 were collected from these ax-cut elements and produced dates, respectively, of AD1868±B and 1850v. The 1868 date is somewhat difficult to interpret as a number of other features at the site produced solid cutting dates of 1853. It is possible that it represents a re-visit to the site by Utes at a later date—a practice that has been documented ethnographically.

The enclosure’s interior measures 2.6 by 3.1 meters and the maximum height of the “wall” is 50cm. The brush enclosure does not appear substantial enough to contain horses or other large livestock. Hypothetical uses for this feature include a lambing pen, children’s “playpen,” or an activity area for food preparation. Trowel tests within the feature were negative, however, some charcoal and FCR were present on the ground surface, and an unmodified quartzite cobble was found resting on top of one of the brush wall elements near the entry. FS53, a modern bullet jacket, was found within Feature 6.

Feature 7 is a standing leaner-style wickiup consisting of seven standing poles that measure from 1.4 to 2.8 meters in length. It is situated approximately five meters to the northeast of Feature 6 and rests against the east-northeast side of a live piñon tree. The poles are supported by the trunk and branches of this tree. The wickiup has a floor area of approximately 3.7 square meters and an interior headroom of 85 centimeters. No portable artifacts were found in association with this feature, however dendrochronology sample FS 105 was taken from an ax-cut feature pole and produced a date of 1853vv, quite clearly the year of the construction for several of the wooden features, and the primary occupation of the site. Firewood cache Feature 19 is approximately four meters to the southeast, and is likely associated with this wooden shelter, having produced a non-cutting date of 1849vv.

Feature 8 is a partially-collapsed leaner-style wickiup and associated windbreak that consist of eight standing and one collapsed pole that measure from 1.15 to 4.14 meters in length. It is situated approximately 12 meters to the southeast of Feature 6. The wickiup and windbreak (to the northeast of the shelter) are supported by three standing juniper trees (one of which is dead). The rather large wickiup, on the west side of its support tree, has a floor area of approximately 6.7 square meters and an interior headroom of 1.2 meters. A two meter

diameter ash and charcoal scatter to the northeast of the features suggests the presence of an exterior hearth.

A decorative brass tack head (FS51) and a tinkler blank (FS52) were found in association with this feature, and dendrochronology samples FS63 through 66 were taken from ax-cut poles at Feature 8. These samples produced two non-cutting dates of 1836vv and 1851++vv and two apparent cut dates, both at 1853rB comp.

Feature 9 is a partially-collapsed leaner-style wickiup and possible utility pole that consist of four standing (including the utility pole) and three collapsed poles that measure from 1.5 to 3.4 meters in length. It is situated approximately 19 meters west-southwest of Feature 8. The wickiup and utility pole are on the east side of a live juniper support tree (two partially pulled-down limbs provide support for the standing poles). The wickiup has a floor area of approximately 5.9 square meters and an interior headroom of 1.56 meters. A calcined mammal bone fragment (not collected) was found near the wickiup along with two curved fragments of iron rod (FSs 100 and 102). Tree-ring sample FS69 was taken from one of the feature poles and produced a cut date of 1853rB comp.

Feature 10A is a standing leaner-style wickiup consisting of four standing poles that measure from 1.8 to 3.2 meters in length. It is situated approximately 13 meters to the south of Feature 9 and rests against the east side of a barely living juniper support tree. The wickiup has a floor area of approximately 5.1 square meters and an interior headroom of 1.5 meters. An interior concentration of dense ash and charcoal strongly suggests the presence of an interior hearth, as does the adjacent woodpile, Feature 10B. Artifacts found in association with this feature consist of a fragment of thick, oxidized sheet iron (FS47) and three metal tinklers (FSs 48, 50, and 95).

Feature 10B is a cache of firewood situated immediately outside of wickiup Feature 10A on the northeast side. It consists of 12 partially limbed pieces of piñon and juniper resting roughly parallel to each other on the ground surface that measure from 61 to 156 cm in length.

Feature 11A is a partially-collapsed leaner-style wickiup and possible utility pole that consist of three standing wickiup poles, one standing utility pole, and three collapsed poles. The wickiup poles measure from 2.4 to 3.0 meters in length and the apparent leaner utility pole is 3.5 meters in length and 14 centimeters in mid-pole diameter (compared to the wickiup poles that range from six to ten cm in diameter). It is situated approximately 14 meters to the southwest of Feature 10A. The wickiup and utility pole are located on the west side of a live juniper support tree. The wickiup has a floor area of approximately 5.2 square meters and an interior headroom of 96 centimeters. A chert flake, a burnt bone fragment, and a modern bullet casing (FS78) were found nearby, and several fragments of charcoal were noted inside the wickiup. Dendrochronology sample FS77, taken from a collapsed ax-cut feature pole, produced a non-cutting date of 1826vv.

Feature 11B, one meter to the northeast of Feature 11A, is a horizontal beam suspended between the branches of two live juniper trees. The 1.45m long pole is 1.2m above the present ground surface and is oriented northeast-southwest.

Feature 12, situated approximately 15 meters to the east of Feature 10A, consists of a distinctive complex of three associated wooden features. Feature 12A is a wickiup, open to the south, that forms the northwestern portion of a brush enclosure—Feature 12C. The third feature, 12B, is a horizontal beam suspended in the branches of a juniper tree that is incorporated into the eastern portion of the brush enclosure. This notably unique feature complex should be considered highly significant and test excavations are recommended.

Feature 12A is a partially-collapsed leaner-style wickiup consisting of three standing and two collapsed poles that measure from 2.5 to 2.9 meters in length. The standing poles are supported by an overhanging branch of a live juniper support tree, which is to the southeast of the shelter. The wickiup's semi-circular floor area is approximately 2.7 square meters and it has an interior headroom of 1.7 meters. Directly in front of the south-facing entryway is an ash and charcoal filled, basin-shaped hearth that is situated within the brush enclosure of Feature 12C. Charcoal (FS44), a flotation sample (FS45), and a pollen sample (FS46) were collected from the hearth. Also collected at Feature 12 were a fragment of burnt bone (FS49) and a metal tinkler (FS99).

Feature 12B, incorporated into the brush wall of Feature 12C and one meter to the southeast of the wickiup, is a horizontal beam suspended between the branches of two live juniper trees. The 1.61m long pole rests 1.56m above the present ground surface and is oriented northwest-southeast.

Feature 12C consists of an oval-shaped brush enclosure that encompasses a domestic activity area to the southeast of the Feature 12A entry. It is composed of up to 50 or more unlimbed piñon and juniper branches. The enclosure's interior measures 3.7 by 4.8 meters and the maximum height of the "wall" is 20cm. The brush enclosure does not appear substantial enough to contain horses or other large livestock. Apparent use was as an activity area for domestic activities/food preparation as implied by the directly associated wickiup and hearth. An apparent entryway for this feature consists of a relatively brush-free break in the south-southeast portion of the wall.

Feature 13A is a partially-collapsed leaner-style wickiup that is associated with a windbreak or firewood cache (Feature 13B). The wickiup consists of four standing and one collapsed pole that measure from 0.76 to 2.16 meters in length. It is located approximately 13 meters to the east-southeast of Feature 12. The wickiup is situated on the east side of a live piñon support tree. It has an interior headroom of 1.7 meters, however it is impossible to accurately determine the shape or size of what would have been the floor area of the shelter. The only possible artifact found in association with this feature is a calcined mammal rib bone near the center of the interior of the feature.

Feature 13B is an apparent windbreak or firewood pile that was constructed immediately to the north of the Feature 13A wickiup. It consists of approximately 10 unlimbed piñon and juniper branches, one of which is partially burned, that range in length from 1.0 to 2.1 meters and from 5 to 13 cm in mid-branch diameter. The lengths of wood are longer, in general, than the typical firewood pieces that the CWP has recorded in the past, and they appear to have been intentionally distributed in an east-west arrangement, rather than a single pile, which suggest that it was formally designed as a windbreak. It is possible, of course, that it served both purposes.

Feature 14A is a single-element, standing, utility pole, 3.4 meters in length, that is resting against a limb of a live piñon support tree, which is to the north of the feature. The forked upper end of the pole is interlocked with the tree branch. A horizontal beam, Feature 14B is supported by the same tree. A shallow concentration of ash-stained soil—which may or may not be a cultural thermal feature—was found at 1.3 meters to the south of the support tree. The head of a decorative brass tack was recovered from beneath the utility pole (FS62) and found nearby were FS59 (a metal pick, awl or needle), FS60 (a metal knife blade fragment), and FS61 (a blue glass seed bead).

Feature 14B is a horizontal beam suspended between the branches of the same piñon support tree as Feature 14A and a barely alive juniper tree. The small twig on this juniper that supports the northwest end of the utility beam is dead and collapse is imminent. The 2.85 meter long pole rests 1.3 meters above the present ground surface and is oriented northwest-southeast.

Feature 15A consists of 15 cultural poles—three standing and the rest collapsed—between and among a series of live standing canopy trees. It is located 22 meters to the southwest of Feature 14. The poles range in length from 1.0 to 3.8 meters in length and, although it is difficult to conjecture as to the original nature or function of the poles, they are quite obviously cultural in nature. The partially-limbed poles and branches are arranged in a roughly linear, east-northeast to west-southwest pattern. Several of the elements show evidence of having been cut with metal axes and three of the poles rest against the lower portion of the trunks of live piñon trees. For the purposes of tabulation and quantification, this feature has been entered into the database (Table 8) as a brush fence. Feature 15B, a culturally bark-peeled piñon tree stands at the eastern end of this feature.

Collected from within the feature and in the immediate vicinity were: a metal tinkler (FS79), a muzzle-loading firearm percussion cap (FS80), a cut sheet metal fragment (FS81), a large mammal bone fragment (FS97), and another bone fragment (FS101). Tree-ring samples FS70 and 73 through 75 were collected from ax-cut elements. One of these samples failed to produce a date, but the others produced dates of 1852+v, 1853vv, and, surprisingly, 1918+vv, which indicates that at least some of the “feature poles” resting on the ground surface at this location are associated with the later wood cutting episode at around AD1920. Also a deer molar, mandible, and scapula fragment were found but left uncollected, as they are likely recent in age and post-dated the occupation of the wickiup village.

Feature 15B is a rare example of a culturally bark-peeled piñon tree. Two dendrochronology core samples were collected from the feature; one (FS71) from within the ax-cut scar which produced an outer-ring date of 2005±vv, apparently indicating very recent visitation to the site by hunters, wood cutters, or hikers who apparently cut the “slash” onto the tree. The function for the modern Feature 15B remains undetermined, however it is obvious that the metal ax-cut section of missing bark was an intentional act. The scar from the bark peel measures 35 centimeters in height, 13 centimeters in width, and 8 centimeters in depth below the present bark surface. It is 1.9 meters above the ground surface on the south-southeast side of the tree trunk.

The only culturally bark-peeled piñon tree thus far noted by the CWP and likely attributable to the Ute, was at one of the ancillary sites reported on in the Phase V report (Martin and Brown 2010a) at site 5ME974 in Mesa County. Such manifestations are typically found on ponderosa pine trees that were bark-peeled by the Ute for nutritional and/or medicinal utilization of the inner bark or cambium. No references have been found for peeled piñons in the ethnographic or archaeological literature in Colorado.

Feature 16, 15 meters south of Feature 15, is a partially-collapsed leaner-style wickiup consisting of four standing and four collapsed poles that measure from 1.75 to 3.12 meters in length. The standing poles are supported by the branches of a live piñon support tree, which is to the northeast of the shelter. The wickiup’s oval floor area is approximately 3.7 square meters and it has an interior headroom of 1.7 meters. A southwestern entryway to the shelter is quite possibly indicated by the 2.4 meter-wide space between Poles #2 and #3, and the artifacts, charcoal, and burnt bone found directly outside the shelter at this location.

A notable assemblage of artifacts were found in direct association with Feature 16. Collected from within the feature itself were a chert end scraper (FS3), a metal tinkler (FS37), a spent bullet lead (FS38), and a perforated circular metal disk or “washer” (FS39). Within seven meters south and southeast of the wickiup four sheet metal strip fragments were also collected (FS32, 54 and 56), along with three metal projectile points in various stages of production (FS33 through 35), a fragment of cut triangular sheet metal with a concave edge (FS43), an elongated diamond-shape piece of cut sheet metal that is possibly a fourth projectile point (FS55), and a small fragment of wire possibly a tack shank (FS57). Additionally, a number of uncollected artifacts were discovered beneath or within seven meters of the shelter including two apparent knife handle pins, a possible headstall fragment, two chert flakes, a burnt bone fragment, and 11 fragments of rusted sheet metal.

Although the leaner-style wickiup represented by Feature 16 is unexceptional, in and of itself, being similar to numerous others recorded by the CWP, the number and array of artifacts in direct association makes this feature one of the premier examples of an undisturbed Protohistoric wickiup known to the Colorado Wickiup Project. In addition to a tinkler, headstall fragment, two apparent knife fragments, burnt bone, and other metal artifacts, the feature produced three and possibly four Native-made iron projectile points in

various stages of manufacture, a spent bullet lead, a ~~washer~~,” and, notably, *lithic* flakes & tools. This feature is highly recommended for excavation by a future project.

Feature 17, 18 meters east-northeast of Feature 16, is a single-element, standing, juniper utility pole, 3.1 meters in length. It is resting against the trunk and limbs of a live piñon support tree, which is to the east of the feature. There are six branches on the ground nearby that possibly represent additional former feature elements of what could have been a utility rack, however, with two exceptions, they are short or bifurcated and unlikely as feature poles. Notably, seven tinklers were found within two meters of this feature (FSs 82 through 88). Additionally, a small, reddened quartzite pebble (7 x 6 x 3cm)—a possible boiling/cooking stone—was found 28cm to the SE of the base of the support tree and a fragment of burnt bone (FS36) was collected five meters to the east of the pole. The concentration of metal tinklers within several meters of each other implies that either an article of clothing, or other artifact decorated with tinklers, decomposed here, or that tinklers were being manufactured here (as is implied elsewhere on the site by FS52, a tinkler ~~blank~~”).

Sixty centimeters south of the support tree is a dead juniper tree. One of the sub-trunks of this tree was removed with a metal ax, possibly to clear it from interfering with the activities at Feature 17 (hide-treatment? hanging personal items? wickiup habitation?). Dendrochronology sample FS76 was collected from this trunk, however no date could be ascertained from its analysis.

Feature 18, 13 meters to the south of Feature 1 in the northern part of the site, is a somewhat isolated cache of firewood. It consists of 20 or more partially limbed pieces of piñon and juniper wood resting roughly parallel to each other on the ground surface that measure from 55 to 175 centimeters in length—too short to have been used as feature poles.

Feature 19, four meters to the southeast of Feature 7, and likely associated with it, is another firewood cache. It consists of approximately 73 partially limbed pieces of piñon and juniper wood, seven of which were harvested using a metal ax and one of which was saw-cut. The sticks measure from 0.50 to 2.77 meters in length and are piled on the ground to the southeast of two canopy trees, one juniper and one piñon. Within four meters of the feature were found a copper ~~hawk~~” bell (FS89), a fragment of lead (FS90), a fragment of apparent copper (FS103), a large metal tinkler (FS104), and an uncollected quartzite uniface. Dendrochronology samples FS107 and FS108 were collected from ax-cut pieces of wood within the feature. Field Specimen 108 produced a date of 1849vv—likely associated with the Ute occupation of the site. Field Specimen 107, however, was harvested by saw, rather than ax, and the resultant tree-ring date of AD1979+rGB demonstrates that the site has been visited by wood cutters at least twice in modern times; in 1920 and again around 1979. Additionally, several ax-cut and sawn tree trunks were noted near Feature 19; the apparent result of modern fence-post gathering activities.

Feature 20, situated to the northeast of the Open Activity Locus at the extreme southeast corner of the site and 16 meters south of Feature 17, is a single-element, standing

utility pole, 1.94 meters in length. The bifurcated piñon or juniper pole is resting against the trunk and limb on the south side of a live piñon support tree. An unusual aspect to this utility pole is that directly beneath the pole, on the ground surface, rests part of Cobble Concentration D (see description below); six angular, possibly fire-cracked granitic cobbles. Also, there are four other possible fragments of fire-cracked rock (FCR) between 90 cm and 2m from the base of the tree to the southwest, northwest, north, and southeast. Within three meters of this feature were a link from a small iron chain (FS91), a fragment of sheet metal with a hole drilled through it (FS92), another large metal loop (uncollected) and a small fragment of sheet metal that has been rolled into a loose cylinder shape (not collected).

The Open Activity Locus (OAL)

What has been designated as the Open Activity Locus, or “OAL,” encompasses the southeastern extremity of the Pisgah Mountain site. It is situated in a gently southwest-sloping, relatively treeless, sage-dotted clearing on a south-facing prominence that drops off in all directions other than to the north. The shallow, gravelly, residual soils consist of sandy reddish-brown decomposed granite containing a significant amount of quartz sand and angular pebbles. A majority of the clearing is taken up by the OAL—a locus of ash-stained soil, charcoal and burnt bone fragments, a hearth, two cobble concentrations, metal tools, and lithic flakes and tools that measures 14 meters east-west by 18 meters north-south.

The densest area of ashy soil forms a kidney-shaped concentration at the southwest corner of the locus, with Thermal Feature A and Cobble Concentration A located at its eastern edge (see descriptions below). Within this area were noted scores of small fragments of burnt bone, apparently large mammal, and 12 interior flakes of white, light gray, mottled gray, and laminated gray chert. A secondary core and two interior flakes of the laminated gray chert were found adjacent to two pounding/grinding stones resting atop an anvil stone near the southwest edge of the OAL. Three additional flakes were noted directly north of the ash concentration.

The anvil or netherstone measures 34 x 25 x 10 centimeters and is of a locally-common gray limestone, whereas the two pounding/grinding stones are water-worn granitic cobbles. Approximately 12 to 20 very indistinct, linear impact marks or short scratches are present on one face of the anvil in an area measuring approximately 6 by 9 centimeters. These marks range from 3 to 8 millimeters in length and 1 millimeter wide. One of the handstones that rests atop the anvil measures 12 by 8 by 3.5 centimeters and exhibits a high polish on one face and several 2.5 to 3 centimeter-diameter areas of heavy impact marks near the center of both faces.

The other handstone measures 13 x 6.5 x 6 centimeters and evidences no pecking or polish, however has slight grinding or rounding on the perimeter edges of a naturally-flat surface and on a very flat end of the cobble.

In addition to the collections at nearby wooden Features 15, 16, and 20, artifacts collected from within the OAL included an apparent saddle concho or saddle tack (FS1), a metal tinkler (FS7), a glob of melted lead (FS8), a metal horse headstall jingle (FS9), burnt and unburnt bone fragments (FSs 24 and 26), a triangular sheet metal ferrule with the corners bent over (FS 25), small metal rods (FSs 28 – 30), and a bucket bail (FS31).

Descriptions of Non-wooden Features

Three of the Cobble Concentrations are in direct association with the Open Activity Locus at the southeastern corner of the site—Concentrations –A”, –B”, and –D.” Concentration –C” is situated six meters to the southwest of wooden Feature 8 near the center of the site. Additionally, there is another single cobble fragment cached in the crotch of a live juniper tree on the eastern edge of the Open Activity Locus.

Cobble Concentration A consists of a tight, round arrangement of seven unmodified granitic, water-worn cobbles situated near the south-central portion of the Open Activity Locus. This feature, which measures 19 by 26 centimeters, is 2.2 meters to the west-southwest of Thermal Feature A, a shallow, basin-shaped hearth, and is likely directly associated with the activities there. The cobbles range in size from 8.5 by 6.5 by 4 centimeters to 10 by 8 by 3 centimeters. Although the cobbles are reddish, it is difficult to ascertain whether they have been oxidized or otherwise heat-altered due to the natural redness of the native decomposed granitic rock. However, a pot-lidded chert flake of gray chert, and a pot lid itself, were found near these cobbles.

Cobble Concentration B is a group of four unmodified cobbles and cobble fragments placed near the northeast side of the base of a live juniper canopy tree at the northwest corner of the Open Activity Locus.

Cobble Concentration C is a collection of two unmodified cobbles and two stone tools cached in a live juniper tree near the center of the site. An igneous water-worn cobble that is apparently a polishing stone or hide-rubbing stone was found on the ground surface to the southwest of the tree trunk. An unmodified metamorphic river cobble was found at 94 centimeters above the present ground surface on the east side of the cache-tree. It rests atop an ax-cut sub-trunk of the tree (dendrochronology sample FS110 which produced a date of 1920vv, indicating that at least this cobble, and possibly the other artifacts at this location, had been placed into the tree by the wood cutters who worked at the site location around 1920). It measures 19 by 13 by 8 centimeters. Immediately to the south of this specimen was found another unmodified river cobble that has been jammed between two other ax-cut sub-trunks of the tree. The tree bark has grown partially around the cobble, however it can still be moved or lifted from its position. It measures 14 by 13 by 8 centimeters. Below, and to the west of, the unmodified cobbles, at a height of 58 centimeters above the ground, is a unifacially-worked quartzite flake tool cached—again, at an undetermined time—in the crotch of the three sub-

trunks of the tree. The polishing stone and flake tool are described in full in the Artifact Description and Analysis section.

Cobble Concentration D consists of ten possibly heat-altered, but otherwise unmodified, granitic cobbles arranged around the live piñon support tree for utility pole Feature 20 (see description above). Six of these cobbles are tightly arranged in a group directly beneath the feature pole—between its base and the base of the tree trunk. The four other possible fragments of FCR are situated between 90 cm and 2m from the base of the tree to the southwest, northwest, north, and southeast. Hypothetical purposes for the presence of these cobbles in conjunction with the leaner-pole range from simply a cache of cobbles, to a solar observatory, to a sundial, to a directional indicator; however these all remain strictly conjecture.

Thermal Feature A, consists of an ash and charcoal-filled, shallow basin hearth of undetermined diameter. It is located 2.2m east-northeast of Cobble Concentration A within the OAL. On the surface this feature consisted of a thirty centimeter diameter gray ash stain with numerous nearby fragments of burnt bone. A trowel test 40 centimeters long (east-west) and 10 centimeters wide was excavated into the stain and what is obviously the western portion of a densely ash-filled basin was exposed with numerous charcoal fragments resting on, and near, the floor of the basin. At the east end of the trowel test, the floor of the basin was at a depth of 8.5 centimeters below PGS; at this point excavation was discontinued, and therefore, the actual size and nature of Thermal Feature A remains undetermined.

A sample of the fill from Thermal Feature A was collected as FS27 and several fragments of the nearby burnt bone were collected as FS26. One bone fragment from the OAL (FS24) appears to have butchering marks on one face.

Evaluation, Management Recommendations, and Recommended Future Work

Site 5EA2740 was originally field evaluated as Eligible according to National Register Criteria A (associated with events that have made a significant contribution to the broad pattern of our history—namely the Protohistoric period and the final chapter of the sovereign, off-reservation Ute), C (embodies the distinctive characteristics of a type, period, or method of construction—the ephemeral wooden features themselves), and D (has yielded information important in prehistory and history). This recommendation has been greatly substantiated by the findings during the 2010 investigation.

The Pisgah Mountain Wickiup Village, is a unique and valuable resource with tree-ring dates identifying at least the primary residence at the site to the fall or winter of AD1853. All efforts should be made to preserve, protect, and periodically monitor the site in the future. It is recommended that access to the valley in which the village lies be controlled by periodic or permanent locking of the gate that already exists to the south and east of Pisgah Mountain. Furthermore, it is suggested that the BLM address the possibility of fencing the entire site, and

installing educational signage, to protect the features from additional impacts by wildlife, livestock, and human intrusion.

Test excavations, particularly in the Open Activity Locus and at the locations of wooden Features 6, 8, 10, 12, 16, and 17, are highly recommended. This could augment the significant findings thus far by fine tuning the information on this very important early contact period between the Native Americans and the Euro-American settlers. It has been demonstrated by the results of the dendrochronological analysis at Pisgah that the site has been visited at least twice in modern times by wood cutters. It is anticipated that numerous, non-metallic artifacts, and other valuable data, remain *in situ* at this fragile, vulnerable, and tightly-dated site.

5ME469, DECKER BIG TANK WICKIUP VILLAGE

Site Description

5ME469 is a large open village of 16 aboriginal wooden features and sub-features including wickiups, horizontal beams in the branches of trees, utility poles, and a brush enclosure (Figures 5, 6, A-8, and A-9). Lithic and metal artifacts were recovered. The metal artifacts and the condition of the wooden cultural elements suggest a Protohistoric to early Historic Numic (likely Ute) affiliation, dating from approximately AD1800 to 1920. An tree-ring date from one of the wooden feature elements, at 1795[±]B, suggests an occupational component at the very onset of this time frame. The metal artifacts from the site are possibly contemporaneous with this date, or could reflect a later re-occupation.

The village is located on the Uncompahgre Plateau on a broad, southeast-sloping terrace known as Spring Basin at an elevation of 7840 feet (Figures 1 and A-3). The vegetation consists of piñon/juniper forest with a sparse understory of sagebrush, prickly pear cactus, hedgehog cactus, snakeweed, fendler bush, Gamble oak, mountain mahogany, snowberry, and various forbs and grasses including needle-and-thread grass, Indian paintbrush, wild onion, groundsel, lupine, and vetch. The soil consists of brown sandy loam of varying depths of up to 30 or more centimeters.

The site was brought to the attention of the CWP by George Decker of Grand Junction and was originally recorded by Alan Reed of the BLM in 1978 (Reed and Scott 1980) as a wickiup village consisting of eight structures (“six of which are still standing”). The CWP investigations relocated the site to the east of its previously recorded location and greatly increased the site size from its original dimensions of 20m by 50m to 170m northwest-southeast by 410m northeast-southwest based upon the discovery of a number of previously unrecorded aboriginal wooden features. Following the phraseology of the original site form, the features are herein designated as “Structures” and numbered from 1 to 15 (including sub-features “4A” and “4B”). The original structure numbers have been retained for those features described in the initial recordation.

Structures 5, 6, 8, and 12 were fenced at some point in the past. These barbed wire fences were somewhat crudely constructed—attached to metal posts with T-post clamps and looped around some standing tree trunks. One version of the history of these protective fences is that they were constructed by the Mussers, a local family of ranchers, however the original site form states that they were built by the BLM. The fence surrounding Structures 5 and 6 is falling down, has been crushed by fallen trees in three places, no longer affords protection from livestock or wildlife, and is sorely in need of repair. Those around Structures 8 and 12 are in a better state of repair, however could also use maintenance. Fencing of the entire central area of the site is recommended in the management recommendations below, as well as separate protective barriers for outlying Structures 9, 10, and 11.

The DARG field crew was able to relocate what appears to be each of the previously recorded features and an additional seven features; all of which were photographed, measured, and mapped with the GPS unit. Aboriginal Wooden Feature Component Forms were completed for each.

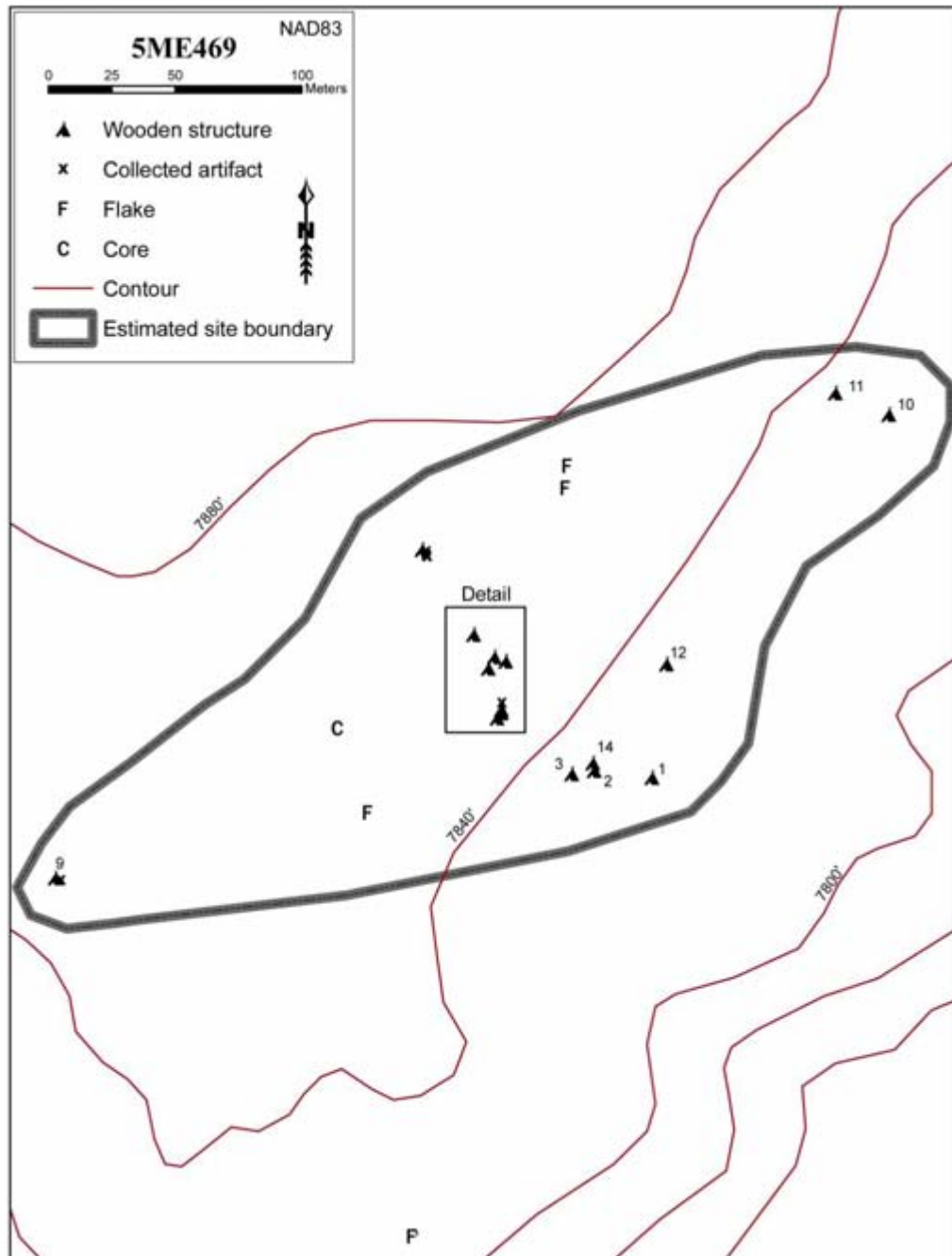


Figure 5. Plan map of 5ME469, Decker Big Tank Wickiup Village

Table 4 presents a list of the features, and Figure A-3 in Appendix A provides location information. Descriptions of each feature are presented below.

Table 4: List of Features at 5ME469, Decker Big Tank Wickiup Village

DECKER BIG TANK WICKIUP VILLAGE (5ME469)	
Designation	Description
Structure 1	Partially Collapsed Leaner Wickiup
Structure 2	Pole Cache
Structure 3	Brush Enclosure with Standing Utility Pole
Structure 4A	Partially Collapsed Leaner Wickiup
Structure 4B	Standing Utility Pole
Structure 5	Collapsed Freestanding Wickiup
Structure 6	Partially Collapsed Freestanding Wickiup (possible tipi frame)
Structure 7	Standing Utility Rack
Structure 8	Collapsed Freestanding Wickiup
Structure 9	Standing Leaner Wickiup
Structure 10	Partially Collapsed Leaner Wickiup
Structure 11	Standing Utility Rack
Structure 12	Partially Collapsed Leaner Wickiup
Structure 13	Lean-to
Structure 14	Horizontal Beam/Utility Rack
Structure 15	Horizontal Beam/Utility Rack

A metal detector was utilized to scan the areas within and surrounding each of the wooden features. In addition to cut can and sheet metal fragments and unidentifiable scraps of metal, the CWP crew located a bridle jingle, two conical tinklers, a modern .22 caliber bullet case, and a .22 caliber spent lead of undetermined age (Plate 16). The Field Specimen list is presented in Table 5 and, with UTM location data, in Table B-2 in Appendix B.

Table 5 : Field Specimen List for the Decker Big Tank Wickiup Village (5ME469)

Field Specimen (FS #)	Provenience & Associated Feature	Description
FS1	Structure 5 (metal detected: 0-5cm)	Metal headstall jingle
FS2	Structure 13 (within duff on surface)	Modern .22 caliber expended case
FS3	Structure 5, within stone ring (upper 1cm of duff)	Chert flake
FS4	Structure 8 (metal detected: 0-4cm)	Cut can fragment
FS5	Structure 8 (metal detected: 2cm)	Two cut can fragments
FS6	Structure 8 (metal detected: 0-2cm)	Cut non-ferrous sheet metal fragment
FS7	Structure 8 (metal detected: 3cm)	Cut non-ferrous sheet metal fragment
FS8	Structure 8	Bone fragment
FS9	Structure 8 (metal detected: 6cm)	Cut can fragment
FS10	Structure 8 (metal detected: 5cm)	Metal tinkler (likely made from the same can as FSs 4, 5, and 9)
FS11	Structure 8 (surface)	Bone
FS12	Structure 8 (metal detected: 5-8cm)	Cut non-ferrous sheet metal fragment
FS13	Structure 13 (metal detected: 4-10cm)	Metal tinkler
FS14	Structure 9 (metal detected: 5-7cm)	.22 caliber spent bullet lead
FS15	Structure 8, hearth area at east edge of wickiup (5-8cm)	Burnt bone
FS16	Structure 8, hearth area at east edge of wickiup (5-8cm)	Charcoal
FS17	Structure 1, Pole # 9	Tree-ring sample from ax-cut pole
FS18	Structure 1 (branch on ground, 2m SW of wickiup)	Tree-ring sample from ax-cut branch
FS19	Structure 1, Pole # 15	Tree-ring sample from saw-cut pole

The main cluster of features is concentrated near the center of the site and consists of Structures 4 through 7, 13, and 15—three wickiups, a lean-to, two utility racks, and a horizontal beam (Figures 6 and A-9). Approximately 50 meters to the southeast of these, is another cluster consisting of Structures 2, 3, and 14—a brush enclosure around a utility pole, a pole cache, and a horizontal beam. Structures 1, 8, and 12 are additional wickiups within 70 meters of the two main clusters of features (to the north, east, and southeast). The remaining three features are notably isolated from the rest: wickiup Structure 9 nearly 200 meters to the southwest, wickiup Structure 10 nearly 200 meters to the northeast, and utility rack Structure 11 to the northwest of Structure 10. The placement of these two outlier shelters, equidistant from the main body of the site and on either side, suggests the possibility of their function as either menstrual huts, “dg camps” or guard stations, isolation of social outcasts (Look 1972), or perhaps for ceremonial usage.

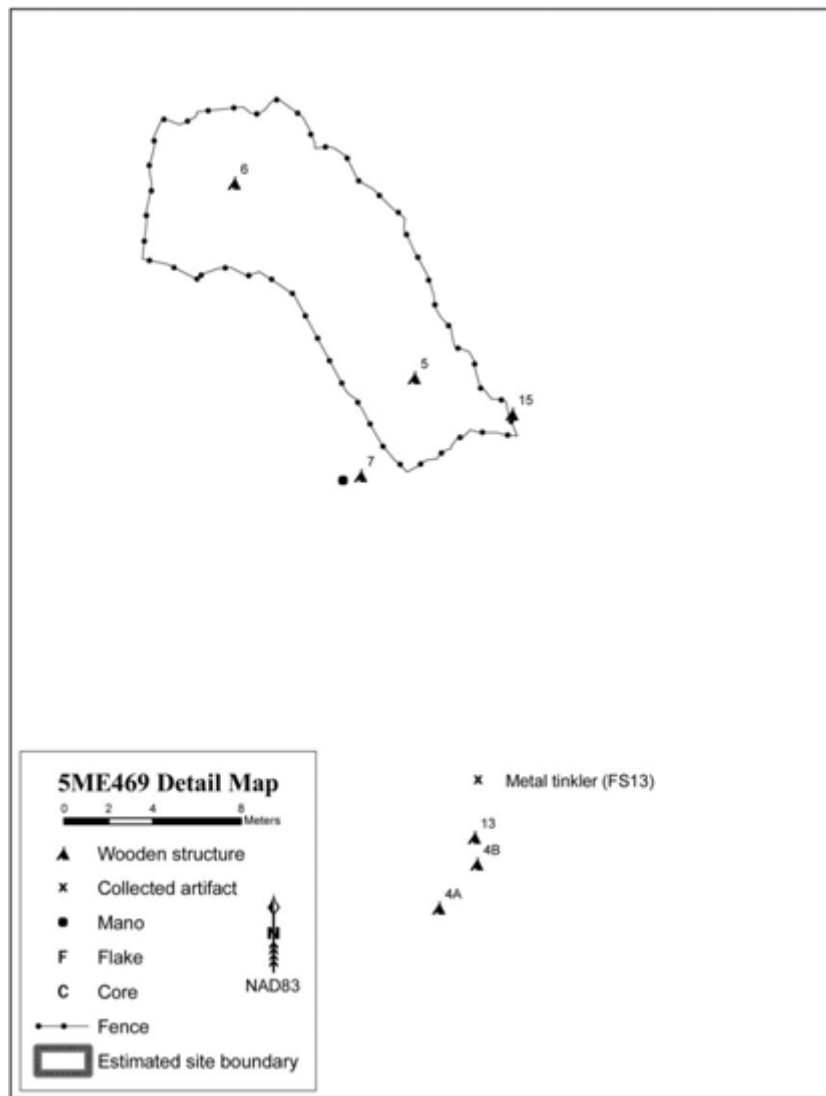


Figure 6. Detail of the Main Cluster of Features at 5ME469

Several unusual and notable aspects of the Decker site deserve particular comment. One of these is the presence of four hearths of typical “cowboy fire ring” design within wickiups. These consist of a simple ring of stones with no excavated basin or pit; a style that is traditionally considered of historic or recent Euro-American construction by archaeologists in the West. Additionally, the CWP noted a similar thermal feature in the interior of Feature 1, the Musick Lodge, at site 5SH3788.

Another feature type on the site that is typically recorded as being of Euro-American affiliation is Structure 13, a one-sided lean-to. Similar lean-tos have also been recorded at sites 5DT1538 (discussed elsewhere in this report), 5RB18, and 5RB469.

Additionally, despite the fact that juniper trees were obviously favored over piñons as support and canopy trees on the Numic wooden feature sites thus far documented by the CWP (88% juniper in sites within the piñon/uniper habitat), for unknown reasons 15 out of the 18 support/canopy trees at Decker Big Tank are piñons. Piñons were definitely the dominant species at the site, however there were numerous juniper trees present as well.

Feature descriptions

Structure 1 consists of an unusual, partially collapsed leaner wickiup situated to the southeast of the main body of the site. Five of the fifteen feature poles are still standing and are leaned onto the trunk and a limb of a dead standing juniper support tree (Figure 7). Several of the sub-trunks of the tree have been removed by ax cuts near the base, leaving a single, narrow, remaining support trunk (Plate 5). Photographs of the wickiup taken by avocational archaeologist Randal Shepard in 2001 and 2007 shows that a sixth standing pole (Pole #3) collapsed at some point during this time span.

The oval floor of the shelter measures 3.3m by 2.2m and the internal height (headroom) is 1.4m. In addition to the unusually extensive alteration of the support tree, another atypical characteristic of Structure 1 is the presence of a circular stone fire ring within the shelter. Although thermal features of this design have traditionally been recorded as “cowboy hearths” of recent Euro-American construction by the archaeological community, the CWP has recorded several in direct association with Ute wickiups—including four such features on this site. No ash or charcoal was apparent within the fire ring. Another ash stain was noted to the south of the structure.

Three dendrochronological samples (FSs 17, 18, and 19) were secured from wood at Structure 1—two from ax-cut feature poles and one from a possibly associated ax-cut branch about two meters to the southwest. Two of these samples, FS17 and FS18, failed to produce dates, however the analysis of FS19 proved extremely interesting. This sample is from one of the ax-cut standing wickiup poles (Figure 7) and produced a date of 1795++B—the earliest date yet identified by the CWP other than ones with unknown numbers of missing outer rings.

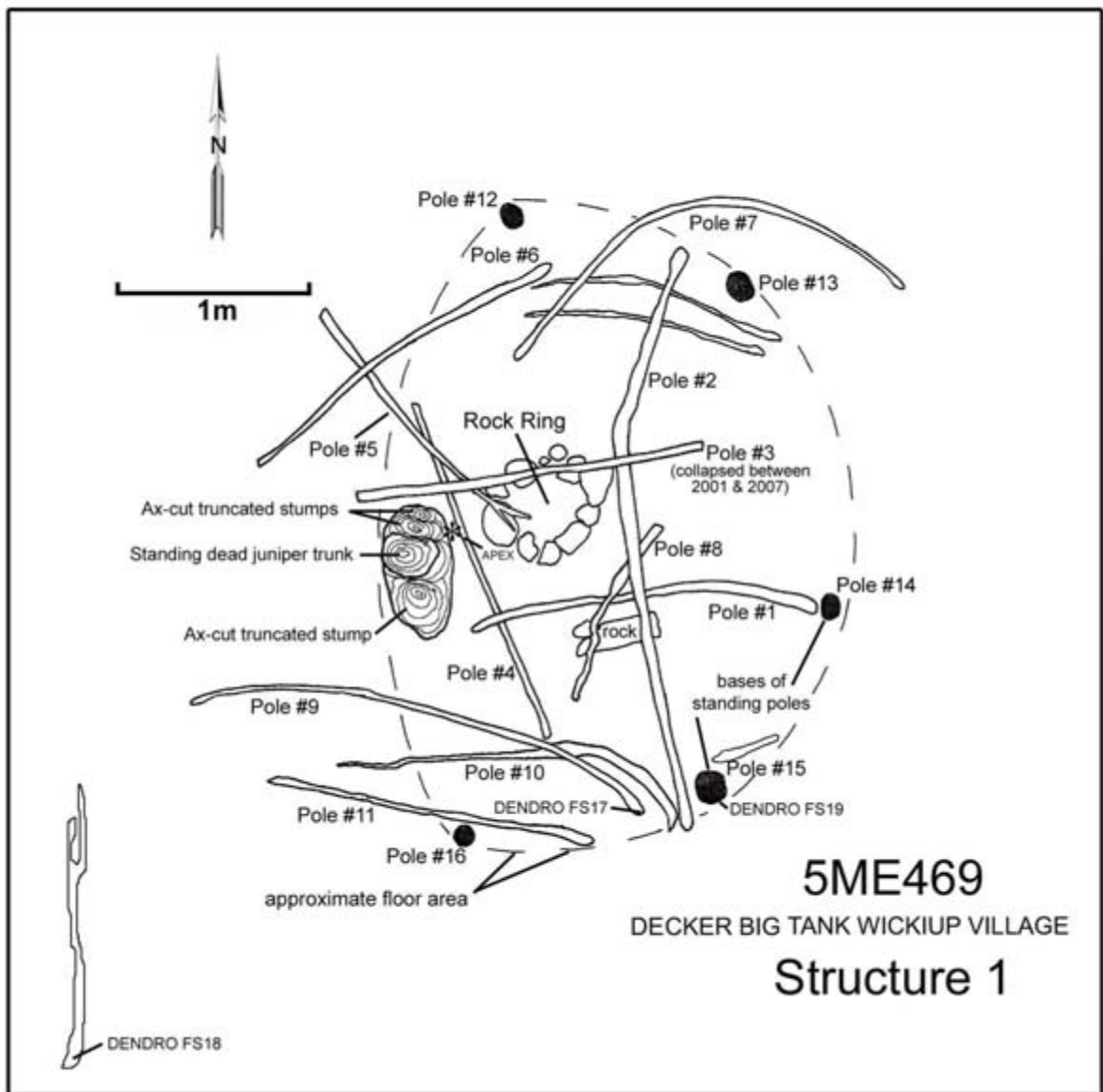


Figure 7. Plan map of Structure 1 at 5ME469

Although the simple presence of bark on this tree-ring sample does not necessarily signify that it is the cutting date of the wooden element. The “-++” in the dating result suggests that a number of growth years may not actually be represented in the count. However, one can assume that the date is within a few years of the occurrence.

Structure 2 consists of what appears to be a cache of 10 cultural poles resting on the ground on the north side of a piñon canopy tree to the south of the main concentration of wooden features. Although it is possible that the collection of piñon and juniper branches and trunks is a firewood pile, the length and overall size of the elements suggests other uses, such

as structural element poles. Additionally, they are oriented on the ground with all of the butt ends to the north-northwest, and the tapered ends to the south-southeast—which would be somewhat unusual for casually collected firewood.

Structure 3 is an unusual structure consisting of a circular brush enclosure with an interior diameter of 1.3 meters constructed of approximately 50 stacked and intertwined piñon and juniper branches on the east side of a pair of live piñon canopy trees (Figure 8 and Plate 5). The side-by-side trunks of these trees have been incorporated into the enclosure. Although the logical interpretation of the feature is that of an animal containment pen, the presence of a single utility pole within the feature suggests that the enclosure possibly served as a storage facility of some type. The base of this standing utility pole rests on the ground in the northeastern portion of the interior of the enclosure, and the upper end rests against the crotch of a limb extending from one of the support tree trunks at a height of 1.4 meters above the ground.

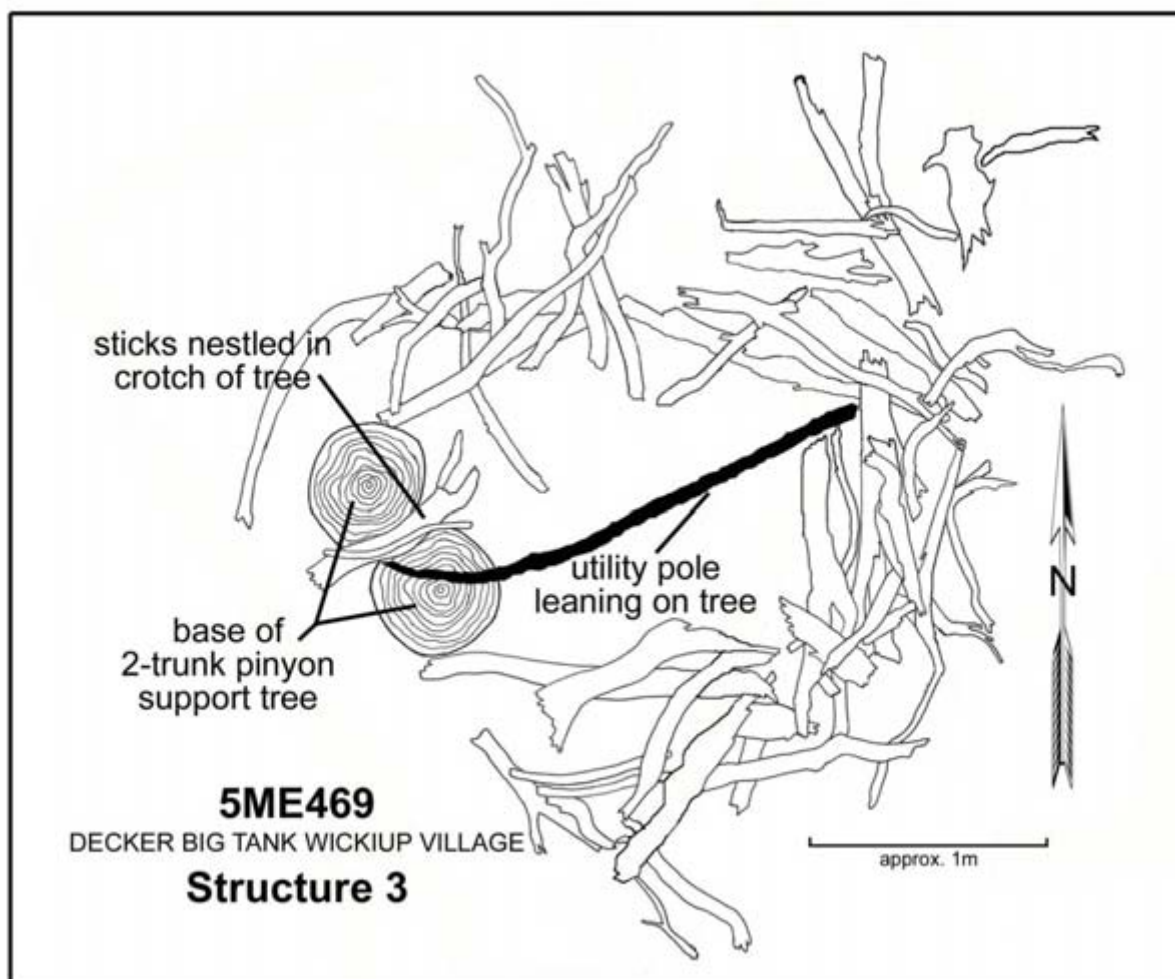


Figure 8. Plan map of Structure 3 at 5ME469

Structure 4, at the southern edge of the main concentration of features has been recorded as two associated sub-features. Structure 4A is a leaner-style wickiup consisting of three collapsed and four standing poles supported by the branches of a live piñon tree to the south-southeast (Figure 9). The floor area measures from 1.7 to 1.9 meters in diameter, and the interior head room is 1.7 meters in height. Atypically, a stone ring is situated near the center of the interior of the shelter, however trowel testing of this presumed thermal feature failed to produce any evidence of ash, charcoal, or a basin-shaped feature. Structure 4B consists of a single-element utility pole situated to the northeast of the wickiup, between Structure 4A and Structure 13. This 4.2 meter long pole leans to the west where it is supported by two live piñon trees at a height of 1.25 meters above the ground.

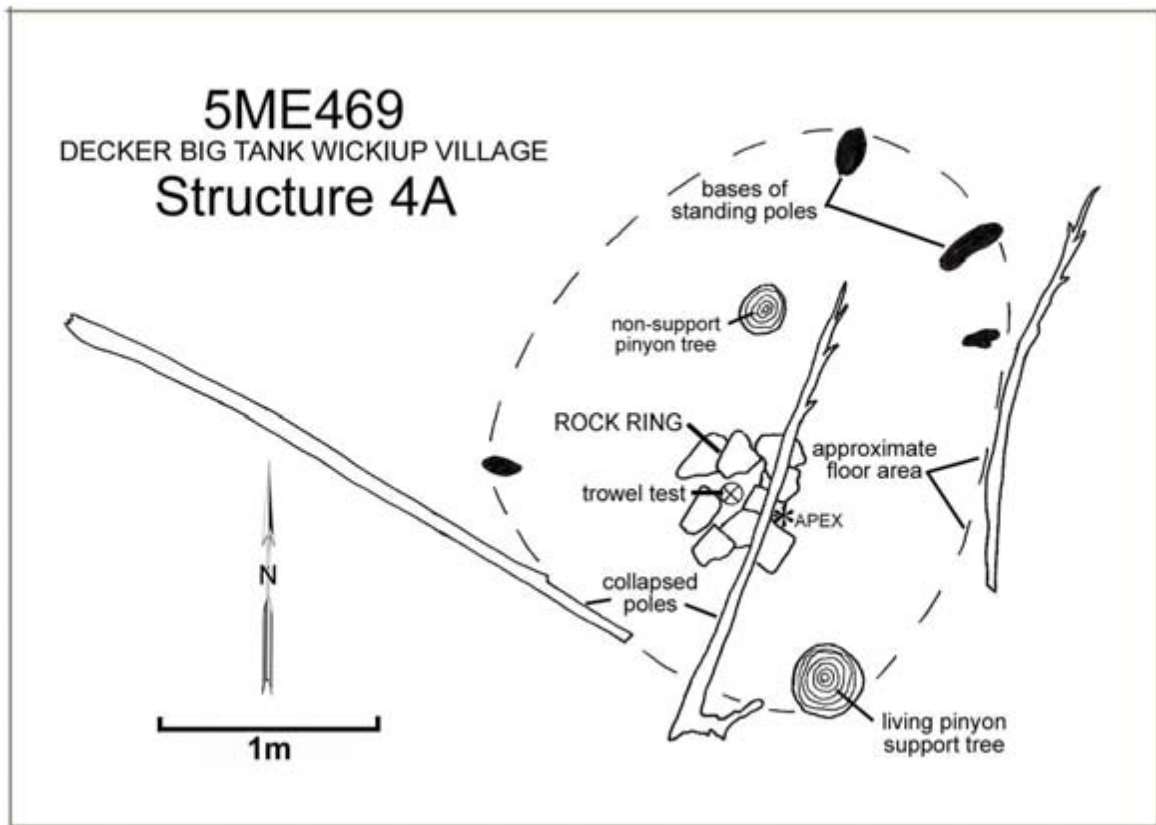


Figure 9. Plan map of Structure 4A at 5ME469

Structure 5 is a collapsed, freestanding-style wickiup consisting of 13 poles that have settled into somewhat of a wheel-spoke pattern on the ground. The feature is situated at the center of the main cluster of features. Structure 7, a two-pole utility rack, is immediately to the west of this wickiup, and Structure 15, a horizontal beam resting in the branches of two trees, is immediately to the east. Structures 5 and 6, several meters to the north, are within a partially collapsed protective barbed wire fence.

The current area covered by Structure 5 is notably large, at 10.5 meters by 4.5 meters, however it is difficult to ascertain the original size of the shelter before collapse. One of the poles is notably longer than the others—3.9 meters—and possibly represents a utility pole that had extended from the apex of the conical wickiup, as has been noted elsewhere by the CWP. A centrally located stone fire-ring rests beneath the poles. Trowel tests were conducted both within the hearth—which revealed a single small fragment of charcoal at 10 centimeters depth and compact soil with several small, apparently fire reddened sandstone pebbles at 12 centimeters—and in a scattered wash of charcoal to the south-southeast of the hearth where numerous charcoal fragments and fragments of deteriorated bone were found in the upper 8 centimeters of fill.

Also beneath the structural poles were found a slightly ground sandstone “mano” or rubbing stone, a large possible netherstone, a metal headstall (bridle) jingle (FS1) from a Spanish style horse bit known to be popular among Ute horsemen (Fike and Phillips 1984), and a flake (FS3) which was found upper 5 cm of duff within the fire ring.

Structure 6, several meters to the north of Structure 5, is within the main concentration of features and also within the protective fence. It is a partially collapsed, freestanding-style wickiup consisting of nine standing and six collapsed poles (Figure 10). The floor area, as defined by the standing poles is roughly circular in shape and measures 3.4 meters in diameter, and the current interior height is 1.7m. Because the poles are slumping, it is likely that Structure 6 had originally been even taller. The fact that the poles have been completely limbed, that five of them were forked to provide stability, and the feature’s notable size and apparent original height possibly suggests that the shelter had been a canvas-covered tipi, however, if this feature is contemporary with the early dendrochronological date at Structure 1, this would be somewhat unlikely.

Similar to at Structure 5, there is an interior stone ring of 15 unmodified sandstone cobbles. This presumed thermal feature was trowel tested but only produced only one tiny fleck of charcoal beneath one of the hearthstones. Otherwise there was no evidence of heat or fire in the feature.

Portions of a large, dead, partially collapsed tree on the feature’s northwest side appear to have fallen into Structure 6, possibly contributing to its current state of partial collapse. The remainder of the standing trunk further threatens the wickiup. Consideration was given by the DARG crew to remove the threat by pushing the tree over, but it was decided that the act itself might cause further damage, and it was left untouched.

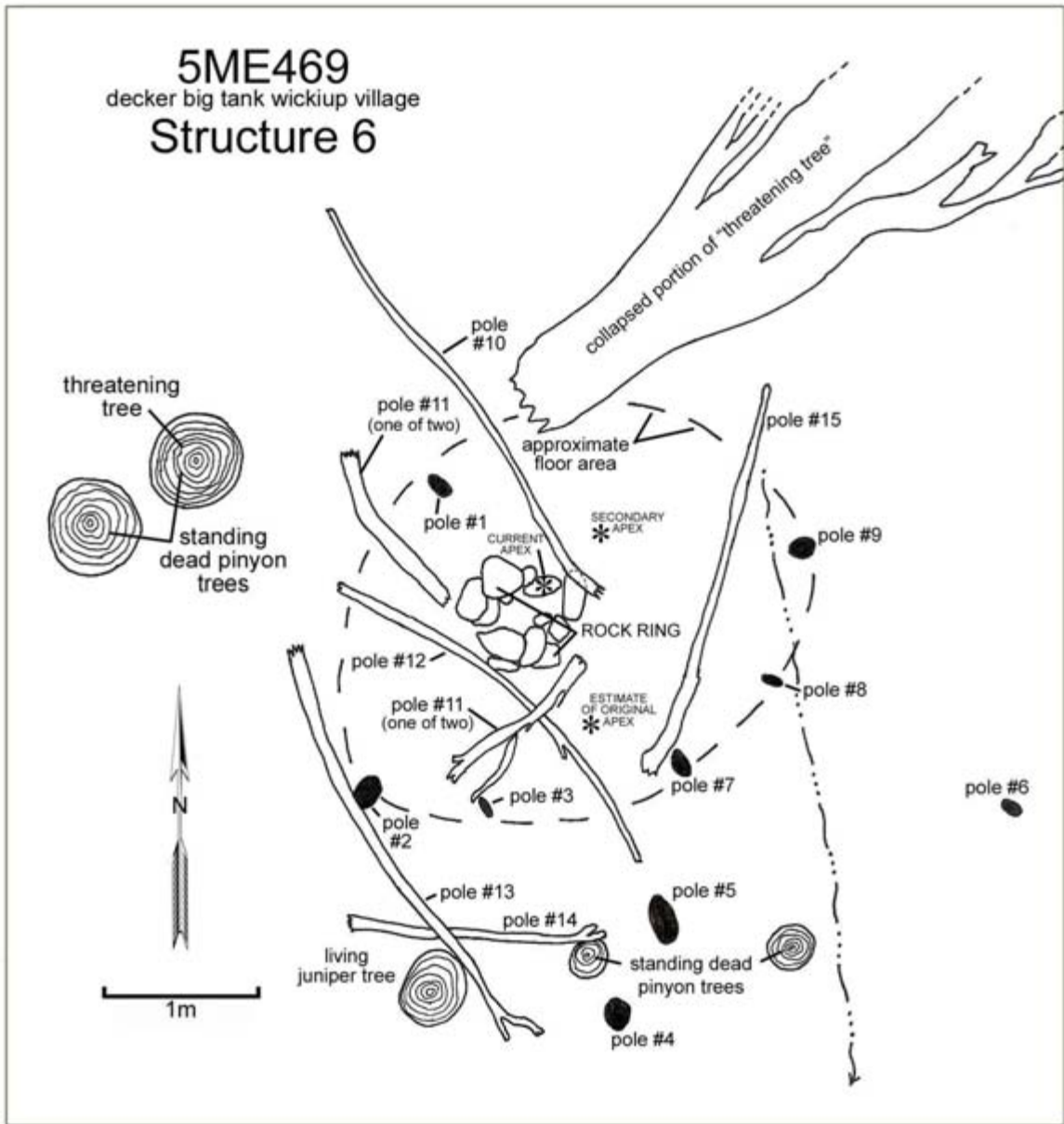


Figure 10. Plan map of Structure 6 at 5ME469

Structure 7 consists of a two-pole utility rack situated several meters to the west of the wickiup Structure 5, but outside of the barbed wire fence. The poles each measure 1.6 meters in length, range from 13 to 14 centimeters in diameter, and rest against the trunk and branches of a live piñon tree to their west at heights of less than a meter above ground.

Structure 8 is a collapsed wickiup isolated to the north-northwest of the main cluster of wooden features. It also has had a protective barbed wire fence constructed around it at some

point in the past. Similar to Structure 5, it consists of 13 poles that have settled into a wheel-spoke pattern on the ground. Due to the interlocking of two of the forked poles, several of the wooden elements remain slightly raised above the ground surface.

The current area covered by Structure 8 is 4.8 meters in diameter, however, again, it is difficult to ascertain the original size of the shelter before collapse, and it can be assumed that it was somewhat smaller. Although no formal hearth can be seen on the surface within or near the wickiup, fire-cracked rock and small fragments of charcoal and burnt bone were found in association with several sandstone rocks situated near the south-southeast perimeter of the feature. A metal tinkler, several pieces of oxidized sheet metal, and bone fragments were found beneath the collapsed poles.

Structure 9, another wickiup, is very isolated from the rest of the site, at a distance of nearly 200 meters to the southwest of the main body of features. It is a leaner-style wickiup consisting of six standing poles supported by a live juniper tree, which forms the south-southeast edge of the shelter (Figure 11). One of the poles is supported by a short, forked branch of the support tree, and the other five are leaned against it and each other. The oval floor of the feature measures 2.6 by 1.9 meters, and the interior height at the apex of the poles is notable at 2.2 meters.

As noted earlier, the detachment of individual wickiups is sometimes considered evidence of their having functioned as shelters for the isolation of women during their menstrual cycle, or as “dog camps” where, typically, younger men spent nights separated from the rest of the camp and served as guards or lookouts, however, dog camps were typically in topographic situations that would afford a wider-ranging vantage point than what is offered by either Structure 9 or Structure 10 which is isolated on the opposite side of the site.

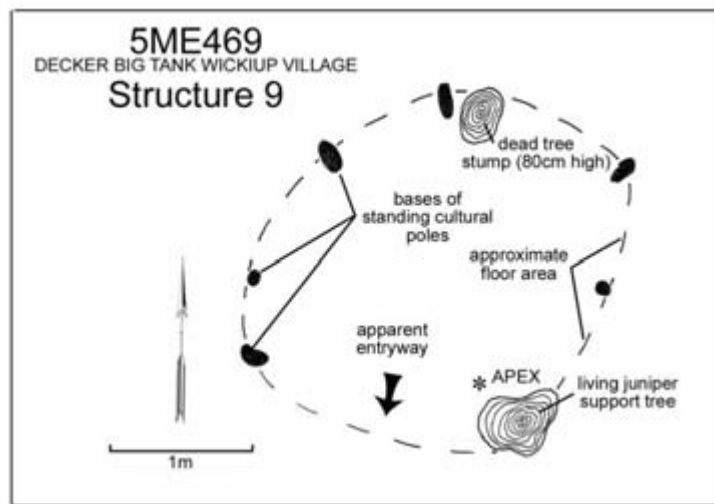


Figure 11. Plan map of Structure 9 at 5ME469

Structure 10, a large leaner wickiup, is also separated from the main body of the site by approximately 180 meters—to the northeast—from the main concentration of features; again suggesting that it could possibly have served as a “dog camp” or menstrual hut. In addition to its isolation, the feature is notable in that the structural poles are supported by a horizontal limb that extends to the east of the large, dead piñon support tree, rather than leaning against the tree trunk itself (Figure 12 and Plate 6). Eight of the 13 structural poles are still standing, defining a floor area that measures 4.1 by 3.5 meters. The headroom measures 1.5 meters. It is likely that the entryway was to the west, on either side of the trunk of the support tree, however a large gap also exists between the standing poles on the east side of the wickiup.

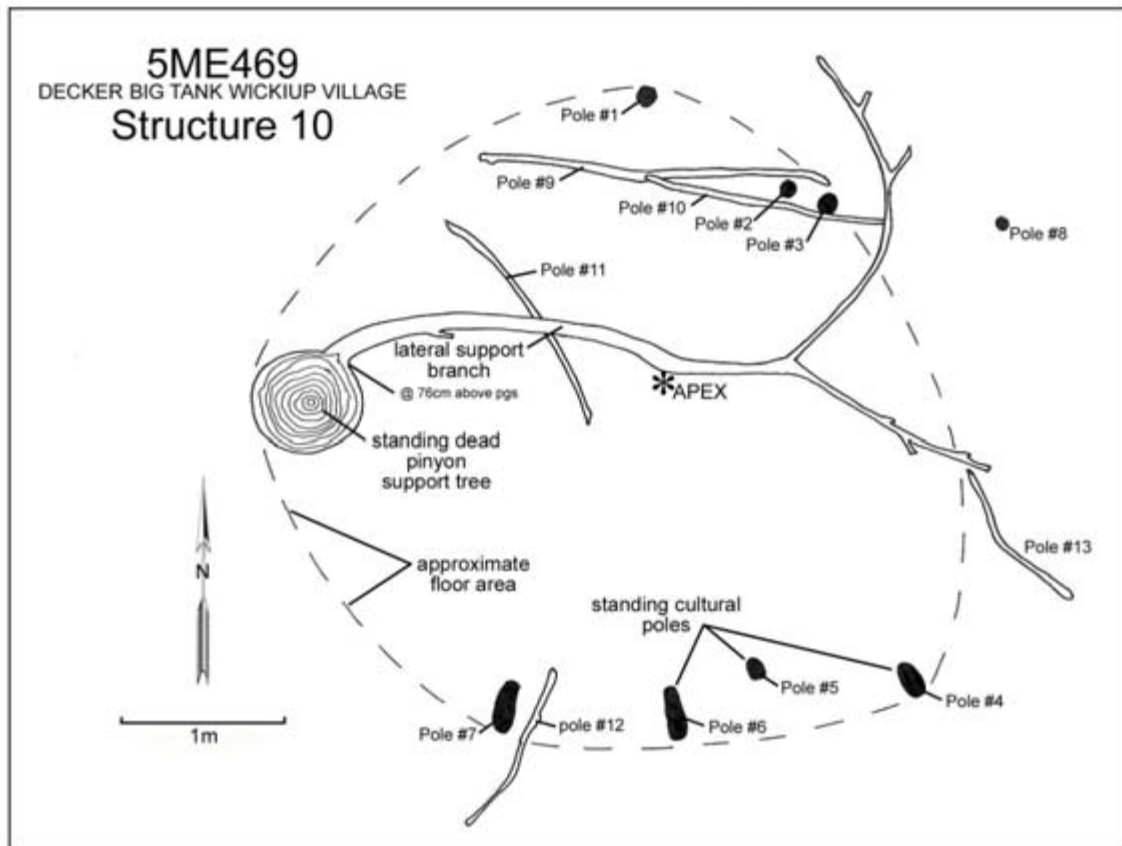


Figure 12. Plan map of Structure 10 at 5ME469

Structure 11 consists of two un-limbed piñon or juniper poles leaned against the west side of a live piñon tree. This apparent utility rack stands 3.3 meters high at the point where one of the poles contacts the support tree. The other pole is supported by the first pole. The bases of the poles are 2.1 and 3.0 meters from the base of the tree.

Structure 12, although somewhat isolated, is within 70 meters to the east of the main block of wooden features. It is a leaner wickiup that consists of ten standing and four collapsed poles supported by two live trees to the west of the feature; one piñon and one

juniper. At some time in the past a barbed wire fence strung on metal —T posts was constructed around the feature to keep livestock and wildlife away from structure. One account that has been passed down suggests that it, and others on the site, were built by the Mussers, a local ranching family, however, the original site form states that it was the work of the BLM. The fence is crudely constructed but remains in a fairly good state of repair. Periodic fence maintenance is recommended to continue to protect this well-preserved wickiup.

The bases of four of the standing feature poles (Poles 4-6) are somewhat further from the apex of the wickiup and its support tree than the others (Figure 13). It appears as if Poles 4, 5, and 6 have slumped over time and slid outwards to their present positions, making the observable floor area appear larger than it probably was during occupation. Pole 7, however, appears as if it possibly had always extended beyond the framework of the shelter as a utility pole on which to suspend items off the ground, as also found at Structures 3 and 13 on this site (and possibly at Structure 5), as well as at several wickiups at other sites (5ME6908, 5ME14071, 5RB53, 5RB266, 5RB2624, 5RB4543, and 5EA2740).

Taking the natural pole-slumping into account, an estimated floor size for Structure 12 is 2.6 by 1.8 meters, with an interior headroom of 2.0 meters.

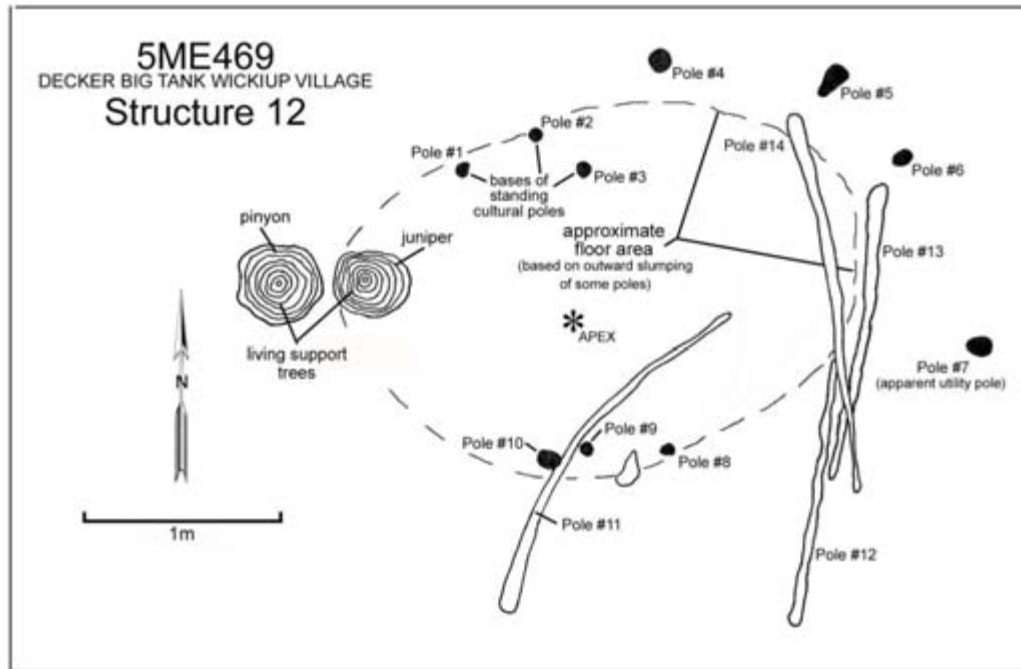


Figure 13. Plan map of Structure 12 at 5ME469

Structure 13, although a commonly known structure type in historic contexts, is exceedingly rare on aboriginal sites. It consists of a “classic” one-sided lean-to (Plate 6). It is

situated immediately to the northeast of utility pole Structure 4B, which is immediately to the northeast of wickiup Structure 4A. FS2, a modern .22 caliber cartridge case, was found within the shelter and FS13, a metal tinkler, was found approximately two meters to the north.

The lean-to was constructed by leaning 16 relatively short poles—15 of which are still standing—against the north side of a low, sloping trunk of a partially collapsed tree (Figure 14). This support tree is a dead piñon that has fallen to the east-northeast and its upper branches came to rest on a live standing live piñon tree, leaving the support angled up from ground surface at its base at the west-southwest end, to 1.5 m high at its east-northeast end. The westernmost two meters of this trunk supports the structural poles. Although it appears likely that the support tree was rooted where its base now rests, the buried butt of the trunk is highly deteriorated and no distinct evidence of roots or root-flare remain. Therefore, it is *possible* that it was moved to its present situation by the architects of the feature. The roughly rectangular floor of the shelter measures 2.3m east-west by 1.7m north-south, and is open to the south. The resultant floor area is approximately 3.9 square meters, and the interior headroom ranges from 45cm high at the west end to 65cm at the east end.

Curiously, a relatively large, collapsed dead tree trunk, oriented east-northeast by west-southwest, rests with its butt inside the lean-to. By its position, it is obvious that it was either on the ground when the feature was constructed, or it was intentionally *placed* there by the site occupants or at some later date—neither scenario making sense if Structure 13 was intended as a sleeping shelter. This leads these authors to consider an alternate option; that it functioned as a storage unit, possibly utilizing a brush, skin, or canvas cover, for sheltering possessions from the sun or weather.

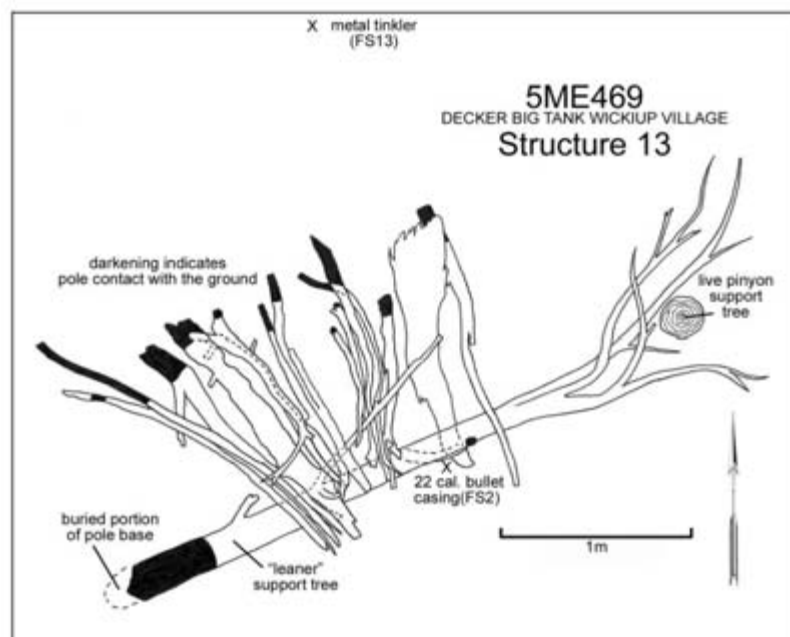


Figure 14. Plan map of Structure 13 at 5ME469

Structure 14 is a horizontal beam suspended between two live piñon trees. The beam is 1.35m in length, 5cm in diameter at mid-beam, and is suspended at a height of 115 to 125cm above the ground surface. The beam is oriented north-northeast by south-southwest. Three additional branches rest on the ground that possibly could have been additional elements of a tree platform, along with the suspended beam, however no direct evidence of this remains. Its implied function is that of a utility beam for suspending food or other possessions off of the ground.

Structure 15 is a single, un-limbed beam suspended horizontally between one live and one dead piñon trees. The beam is 3.2m in length, 6cm in diameter at mid-beam, and is suspended at a height of 1.29 to 1.34m above the ground surface. The beam is oriented north-northeast by south-southwest. Its implied function is that of a utility beam for suspending food or other possessions off of the ground.

Evaluation and Management Recommendation

This site was field recommended for eligibility to the National Register of Historic Places in 1978. The documentation of the site, and the newly discovered wooden features and other artifacts during the present project have greatly substantiated this site's eligibility. Test excavations at several of the wickiup features are recommended, including Structures 10, 12, and 13. As noted earlier, fencing of the entire central area of the site is recommended, as well as separate protective barriers for outlying Structures 9, 10, and 11.

5MF5216, DISAPPOINTMENT DRAW LODGE

The remarkable wooden feature that constitutes the namesake for site 5MF5216 was originally discovered in 1979 by occasional DARG researcher, Paul Roebuck, while taking a shortcut back to his field vehicle at the end of a day's field work for Grand River Institute. He photographed the tipi frame (Structure 1), placed its location on a USGS map, and, upon return to the office, notified then Craig District BLM Archaeologist, Beth Walton about its existence.

In 2002 B. Mueller and J. Brown of the White River Field Office of the BLM returned to the site and recorded it as a "large wickiup or lodge structure... comprised of ten long poles." They also noted the presence of "three other possible structures" nearby, describing them as possible "eaches." They mention "what may be a horse corral... within 30m of the structure... composed of brush and trees arranged around a natural depression or cut in the bedrock." To their credit, they also noted a subtle "pole leaning into a juniper tree [that] may be a flensing or fleshing pole"—presumably what this project has recorded as Feature 2. The crude sketch maps of the site were of little use in attempting to locate these other wooden features, or in determining their exact nature. At this time the site was assigned its Smithsonian number and its name. They described the tipi frame as possibly "one of the few remaining structures of its type still in existence"; a claim to which the CWP concurs.

Their Management Data Form mentions an "area of high artifact concentration around the conical structure and the area around the possible corral." Artifacts that were noted by them include purple bottle glass, a possible baking soda tin, a fragment of saddle or harness, and an "extensive lithic scatter" that included flakes, cores, and groundstone.

In August and September of 2009, a field crew from the Colorado Wickiup Project returned to the site for the purpose of carrying out a full-scale documentation of the site, including metal detection. Feature 1 (formerly "Structure" 1) indeed remains as possibly the only, or if not, one of only a few, extant examples of this type of structure in western Colorado in an archaeological context, and possibly in a much wider geographic area. It is unquestionably the best example of a standing leaner-tipi known to the project.

5MF5216, in Moffat County, is situated on White River District BLM land in northwest Colorado (Figures 1 and A-4). It is to the west of Disappointment Draw, an intermittent blue-line tributary of Indian Water Canyon Draw, which, in turn, flows into the Yampa River, which is approximately 7km to the north-northeast of the site. The nearest water source, however, is an active spring and series of five bedrock potholes at the head of an unnamed, steep-walled drainage (Figures 15 and A-10). This spring is quite likely a dependable source during all but the driest of periods—it was dripping steadily and the potholes brimming with water on both August 18th and September 10th, 2009. Vegetation surrounding the spring included ferns and ash trees. The inclusion of the spring, as well as newly discovered features and artifacts has expanded the size of the site to 180m northeast-southwest by 95m northwest-southeast.

The site itself is located at an elevation of from 6480 to 6560 feet on a gently to moderately-sloping bench overlooking the broad open valley of Disappointment Draw to the northeast. A series of sandstone outcrops and ledges form level, to almost basin-shaped, terraces across the site that step down slope to the northeast. It is on these terraces that the three main loci of the site are situated. The mix of residual, colluvial, and aeolian soil, overall, is shallow—30cm or less where probed with wire—and consists of yellowish-brown, silty sand. The vegetation consists of piñon/juniper forest with an understory of Mormon tea, prickly pear cactus, sagebrush, saltbush, snakeweed, groundsel, and mountain mahogany.

During the reanalysis of the site by the CWP in 2009, the tipi frame was found to be unaltered compared with the photographs from 1979 and three other wooden features were identified, photographed, and mapped with a Trimble GPS unit. Two of these are brush fences—one of which is likely the “horse corral” mentioned on the 2002 site form—and the other is the aforementioned utility pole. The “eaches” described in 2002 are no longer in evidence. Aboriginal Wooden Feature Component Forms were completed for each of the features, a detail plan view was constructed of Feature 1, and the area within and surrounding all three of the site’s main artifact loci was metal detected—with significant positive results.

Site Description

The Disappointment Draw Lodge site is an open campsite of lithic, metal, and glass artifacts as well as several features including a leaner tipi frame (Feature 1), a single-element utility pole (Feature 2), two brush enclosures (Features 3 and 5), a stone circle (Feature 4) within Feature 3, and a concentration of cobbles (Feature 6) and hearth area (Feature 7) both, and within Feature 5. The site measures 170m north-south and 120m east-west. The three main loci of the site are situated on three relatively open terraces. The locus where Features 1 and 2—the tipi frame and utility pole—are located encompasses the southernmost and highest portion of the site. The next terrace to the north is enclosed by a brush corral, Feature 3. The lowest terrace, in the northeast portion of the site, contains a brush corral, Feature 5 (Figures 15 through 18 and A-10 through A-13).

The cultural affiliation of the site has been identified as early Historic Ute, or possibly Shoshone based upon its location this far north. The results of the dendrochronological analysis (Appendix C) indicate that the site was occupied shortly after AD1883 and the analysis of the ordnance from the site further refines this date to an occupation in 1894 at the earliest (Appendix E). The dates correlate with the metal and glass trade-ware artifacts on the site, including a variety of historic cans, buttons, primers and cartridges, amethyst bottle glass, and small seed beads. For an in-depth discussion on the cultural history of western Colorado in general, and the Utes specifically, the reader is referred to the series of reports produced earlier by the Colorado Wickiup Project (Martin and Brown 2010a; Martin, Conner, and Darnell 2005; Martin and Ott 2009; Martin, Ott, and Darnell 2005; and Martin, Ott, and Darnell 2006).

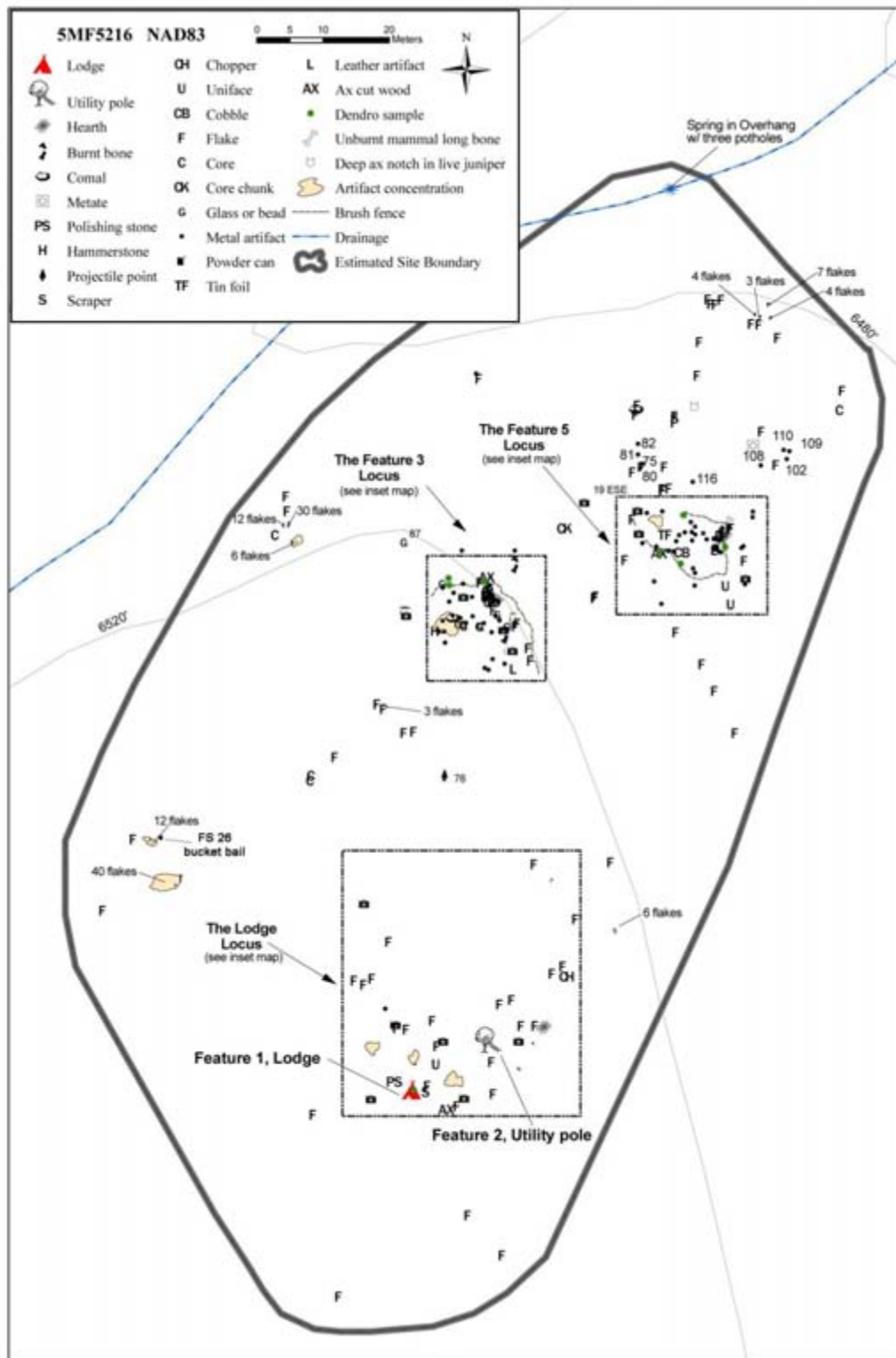


Figure 15: Plan Map of 5MF5216, the Disappointment Draw Lodge Site

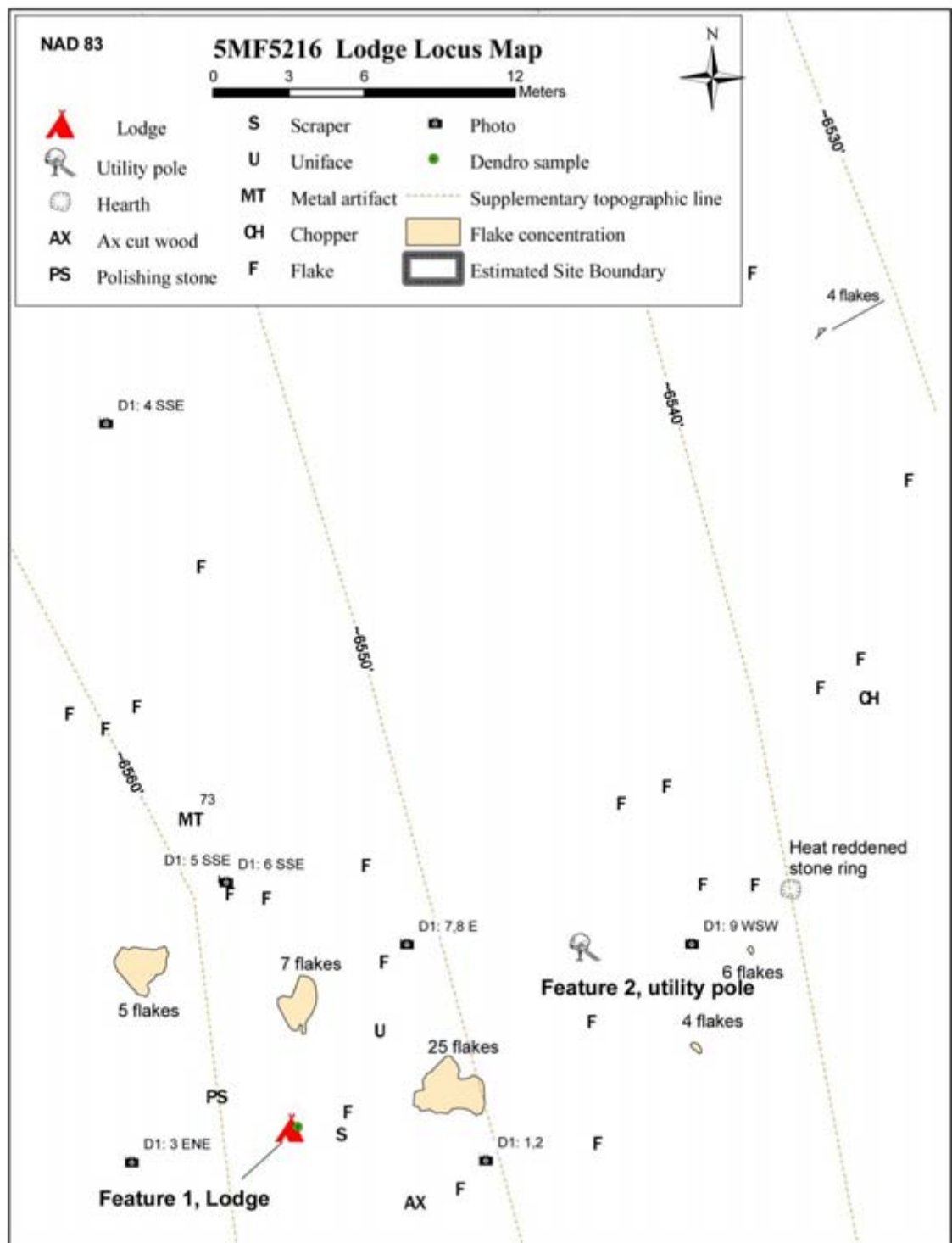


Figure 16: Detail Plan of the Lodge Locus at 5MF5216

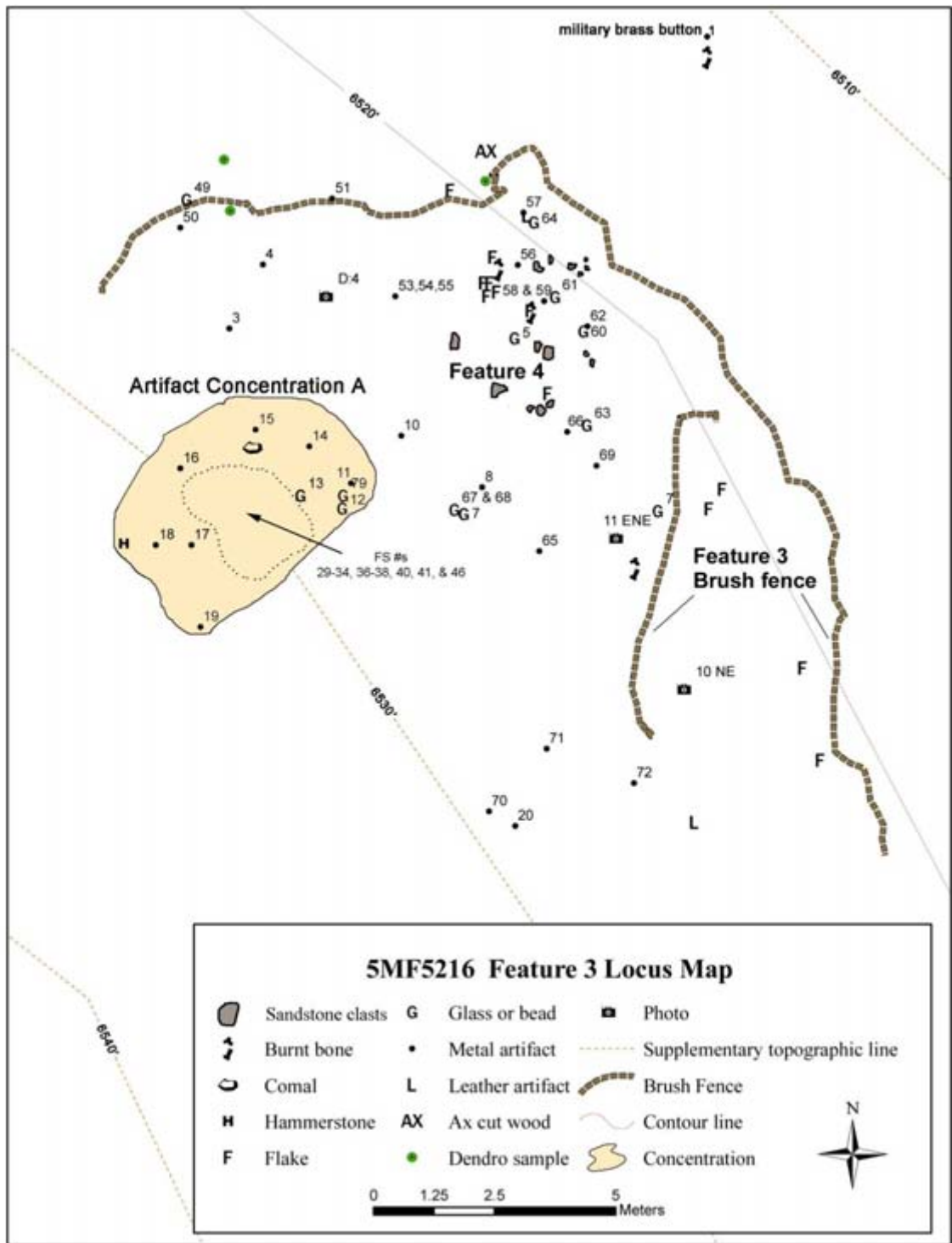


Figure 17: Detail Plan of the Feature 3 Locus at 5MF5216

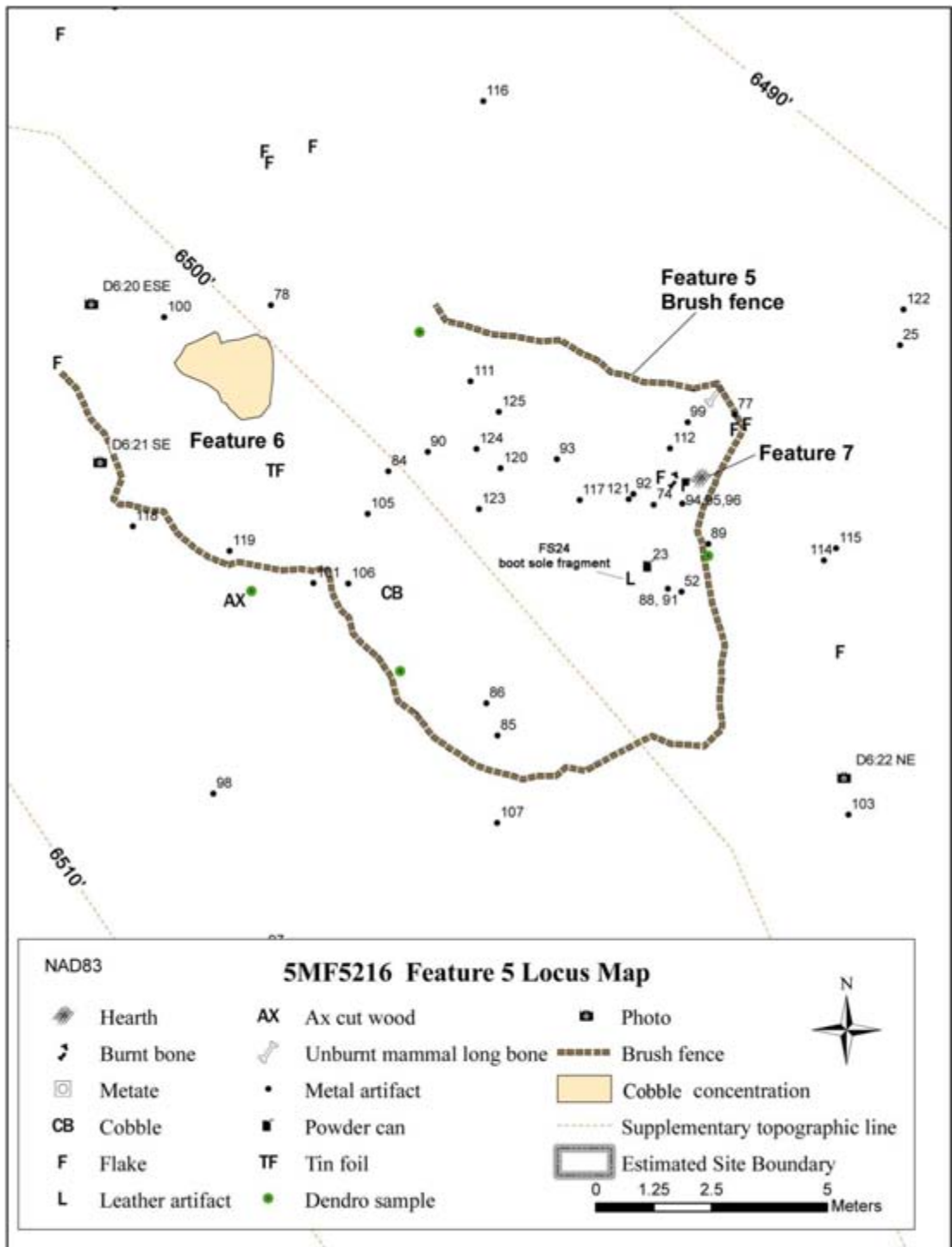


Figure 18: Detail Plan of the Feature 5 Locus at 5MF5216

In addition to the features, which are described below, a flake scatter (not collected) exists throughout the site, however a majority of the trade goods—numerous metal, glass, and leather artifacts—were found in the Feature 3 and Feature 5 loci. Metal detectors (a White's Matrix Series M6, a Fisher M-Scope 1236-X2, and a hand-held White's Bullseye II Pinpointer for isolating individual specimens) were utilized to scan a majority of the site area with special emphasis within and surrounding each of the wooden features. Additional evidence of metal trade goods on the site was observable in the form of a number of metal ax-cut feature elements and ax-cut tree stumps and branch stubs. Also, ancillary specimens were collected in the form of nine tree-ring samples from ax-cut elements, and two burnt or calcined faunal bone fragments.

Wooden Feature Descriptions

This section provides a summary description of each of the expedient aboriginal wooden features at the Disappointment Draw Lodge site. Detailed descriptions and measurements of each feature are provided in the Aboriginal Wooden Feature Component Forms in Appendix I. Also, thorough digital photographic documentation of each feature is on file at the Museum of Western Colorado and at Dominquez Archaeological Research Group; both in Grand Junction, Colorado.

Feature 1 is a standing tipi frame with the upper ends of the poles sustained by the overhanging limbs of a live juniper tree (Figure 19 and Plate 7). As stated earlier, no similar extant archaeological feature is known to the CWP in terms of being characterized by a small number of straight and narrow poles, a round floor plan, and being supported by a tree in the traditional style of a "leaner-style" wickiup. Although it is well documented that the Ute and Shoshone adopted the tipi upon obtaining the horse as a beast of burden, classic narrow-poled, conical structures such as this are indeed rare in the archaeological record. The definition of tipis, as opposed to the more expedient wickiups, as adopted by the CWP (Martin, Ott, and Darnell 2005:15) reads in part:

—conical pole frameworks covered with sewn bison, or occasionally elk hides, and, later canvas. Although smaller hide tents existed...prior to the introduction of the horse, the classic, formal shelters—larger in size than wickiups—became common...upon the arrival of the horse. Tipi poles typically consisted of long, straight, peeled trunks of lodgepole pine, fir, cedar, tamarack, etc. The Utes...began to use tipis, in addition to the smaller wickiups, following their acquisition of horses as beasts of burden. Smith (1974) describes the typical Ute tipis as having a foundation of four poles and a framework of eight to 20 poles, coverings of sewn elk or bison hides, and central interior hearths. Other descriptions of Ute tipis mention a three-pole foundation (Pettit 1982:22)."

At least a certain percentage of Ute tipis, as documented in historic photographs (Plate 7), were “*daner-style*”—supported by live tree trunks and branches, as is the case with Feature 1, which likely explains why the poles remain standing to this day. The framework consists of ten standing poles—one of which exhibits metal ax-cut scars on its base—in a nearly perfect circular arrangement beneath the overhanging branches of a live juniper support tree. The poles, although they appear to be of juniper, are notably narrower, straighter, and more completely limbed than any of the other 2,200-plus wooden structural elements thus far documented by the Colorado Wickiup Project. The poles range in length from 1.6 to 4.6m in length, but are only 4.0 to 5.5cm in diameter at mid-pole. Although the poles are slightly sagging, the structure remains stable, and the wood solid. A tree-ring sample from Pole #10, the only element with evidence of having been harvested live and with a metal ax, produced a non-cutting date of AD1857vv.

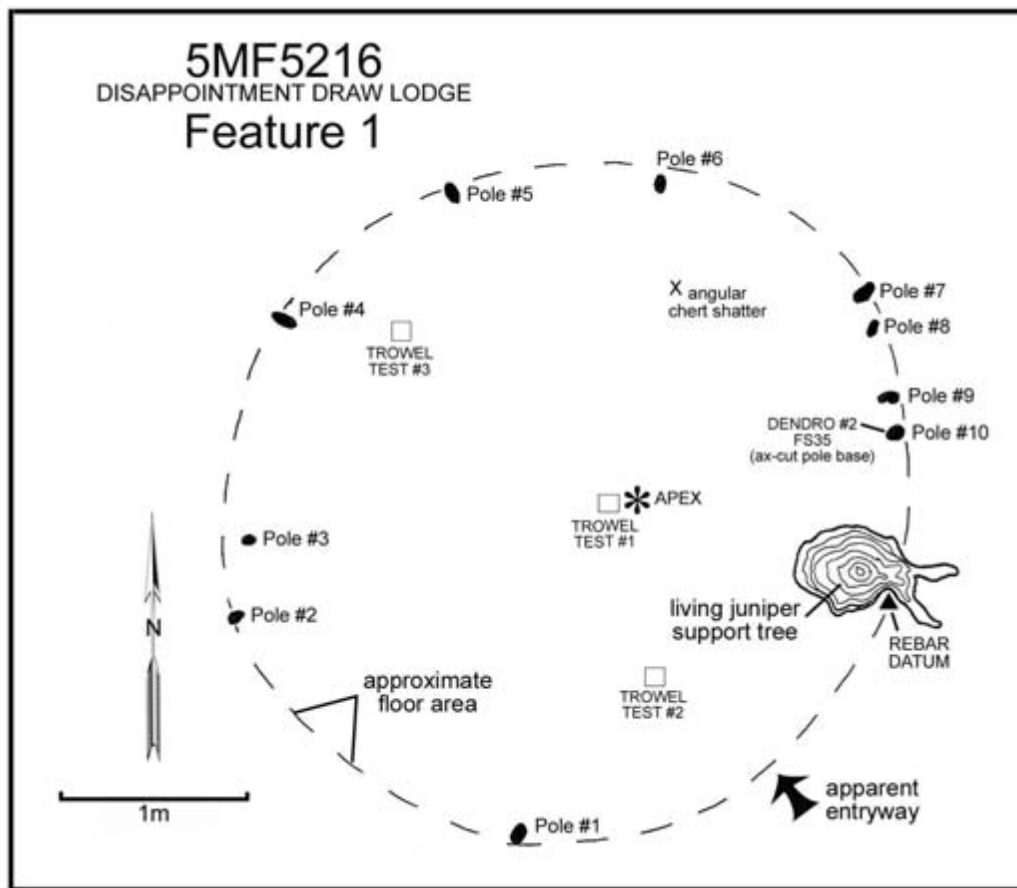


Figure 19: Plan Map of Feature 1, the Disappointment Draw Lodge at 5MF5216

The circular floor area measures 3.6m in diameter (nearly 12 feet—a common diameter for historic tipis) and the shelter has an interior height, or headroom, of 1.9m. The resultant floor area is approximately 10.2 square meters. The largest gaps between support elements, and therefore likely locations for the entryway, are between the support tree and

Pole #1, which would place the opening to the southeast, and between Poles #1 and #2, facing west. Although these gaps are both approximately two meters in width, historic photographs of other leaner-style tipis show that the support tree was at least sometimes utilized as one side of the entryway for this type of shelter.

Although three small trowel tests were conducted within the interior of Feature 1 (Figure 19), no evidence of a formalized floor treatment or hearth area was found. In addition, no surface ash, charcoal, fire-cracked rock, or other hearth stones were noted within the area around the feature. The cultural deposits at this locus are very shallow, as is typical for Protohistoric and early Historic aboriginal sites in western Colorado, and it is likely that a hearth of any substance would be visible on the surface in some manner.

Interestingly, considering the large number of artifacts found elsewhere on the site, the only artifacts found in the immediate vicinity of Feature 1 were FS27, a sandstone polishing stone/abrader (Figures 16 and A-11) and an unmodified chert chunk found within the interior of the shelter. Despite the dearth of surface and metal-detected artifacts at this location, test excavations are highly recommended at Feature 1.

Feature 2 is a single-pole utility pole that leans against the limbs of a live piñon tree approximately 13m to the northeast of Feature 1 (Figures 16 and A-11). It is leaned into the south side of the tree at a 40° angle to the ground and it measures 3.78m in length and 8cm in diameter at mid-pole. As with other such utility poles or racks, its exact purpose is difficult to ascertain, however it was likely used as either a hide flensing or fleshing pole, a rack for drying meat, or simply as a rack for keeping possessions off of the ground. No artifacts were found within the vicinity of this feature.

Feature 3 is located on an open terrace to the north of the Features 1 and 2 (the “Lodge Locus”), and approximately 30 vertical feet lower in elevation. It consists of a loosely-arranged brush fence measuring 20m in length (Figures 17 and A-12). Numerous branches and uprooted trees were used to create the semi-circular enclosure that is open to the southwest. Some of the brush elements have been leaned against standing live trees (Plate 8). There is no evidence that the enclosure had ever been substantial enough to act as an effective corral—as a barrier to contain or control the movements of livestock such as horses—since gaps appear in the wall at a number of places. Tree-ring samples from three ax-cut juniper elements produced non-cutting dates of 1834vv, 1870vv, and 1883vv. Feature 4, an apparently cultural rock ring is located at the north end of the brush enclosure.

Both this feature and Feature 5 are apparently merely boundary walls for activity areas, as has been recorded elsewhere by the Project at sites including the Pisgah Mountain Wickiup Village (Martin and Brown 2010b) and the Decker Big Tank Wickiup Village (described elsewhere in this report).

Feature 5 is located on another open terrace to the northeast of the Feature 3 locus, and, again, approximately 30 feet lower in elevation. It also consists of a loosely-arranged

brush enclosure that measures 14m east-west by 10m north-south. Branches and uprooted trees were used to create the “U”-shaped enclosure that is open to the northwest (Figures 18 and A-13 and Plate 8). Similar to Feature 3, the enclosure appears to be too insubstantial to act as an effective livestock corral. Feature 6, a concentration of cobbles, is situated in the northwest end of the enclosure, and Feature 7, an apparent hearth area consisting of charcoal fragments and ash-stained soil, is in the east end of the feature. Four ax-cut piñon tree-ring samples were collected however only one produced a non-cutting date: 1852±vv

Descriptions of Non-wooden Features

Feature 4 is a somewhat jumbled, roughly circular arrangement of 13 sandstone clasts in the extreme north end of the Feature 3 brush enclosure (Plate 9). Four additional stones rest within the circle itself (Figures 17 and A-12). The circle measures approximately 3.3m north-south by 2.2m east-west. Found within and adjacent to Feature 4 were FS5, a seed bead; FS6, a burnt bone fragment; FSs 56 and 58, three globules of melted lead; FS59, two primers; FSs 60 and 61, five seed beads; FS62, a globule of melted lead; and FS64, a fragment of purple amethyst bottle glass. The purpose of the rock ring remains unknown, however the possibility exists that it is served as a tipi ring to hold down the bottom of a canvas or hide cover. Test excavations are recommended at this location.

Feature 6 consists of a concentration of 15 to 18 cobble-sized fragments of sandstone in an area measuring approximately 1.5m in diameter at the northwest portion of brush enclosure Feature 5. Although there is no distinct patterning to the arrangement of the stones, and no apparent evidence of thermal alteration to the rocks or the ground surface nearby, their proximity to one another is notable, and the cultural nature of the concentration is evident.

Feature 7 is an area of charcoal and ash-stained soil at the eastern edge of Feature 5 that measures approximately 3m in diameter. Artifacts found within this apparent hearth area consist of two spent Boxer primers, an unspent Berdan primer, a cartridge case, a miscast bullet lead, three fragments of melted lead sprue, and a calcined deer vertebra. It is apparent from these findings that at least one of the activities associated with this thermal feature was the melting of lead and casting of bullets in one or more bullet molds.

Artifact Tabulation and Analysis

Of the 125 collected field specimens from Disappointment Draw Lodge, 11 are ancillary collections (two samples of unidentified bone and nine tree-ring samples), two are stone tools (a projectile point fragment and an abraded or polishing stone), and the remaining 112 samples (209 individual artifacts) consist of metal, glass, and leather items. Table 6 presents a summary of these collections, and Table B-3 in Appendix B provides UTM locations for each FS. Individual classes of artifacts are discussed below.

Table 6 : Field Specimen List for the Disappointment Draw Lodge Site (5MF5216)

Field Specimen (FS #)	Locus, Associated Feature and Depth Below PGS	Description
1	Feature 3 Locus, Surface	Military brass button
2	Feature 3 Locus, Surface	Spent Boxer primer
3	Feature 3 Locus, Surface	Two-piece stamped metal —ble jeans” button
4	Feature 3 Locus, Surface	Metal —ble jeans” rivets (2)
5	Feature 3 Locus, Feature 4, 3cm	Blue glass seed bead
6	Feature 3 Locus, Feature 4, 3cm	Burnt medium-to-large mammal bone fragments (4)
7	Feature 3 Locus, Surface	Amethyst bottle glass fragments (13) with remnants of screw top threads
8	Feature 3 Locus, 6cm	.44 caliber fired bullet lead
9	Feature 3 Locus, Surface	Amethyst bottle glass fragments (13) with remnants of screw top threads
10	Feature 3 Locus, Surface	Spent Boxer primer
11	Feature 3 Locus, Artifact Concentration A, Surface	Baking powder can lid (12 oz)
12	Feature 3 Locus, Artifact Concentration A, Surface	Amethyst bottle glass fragments (21) with remnants of screw top threads
13	Feature 3 Locus, Artifact Concentration A, Surface	Amethyst bottle glass fragment with polygonal base
14	Feature 3 Locus, Artifact Concentration A, Surface	Lead sprue globule
15	Feature 3 Locus, Artifact Concentration A, 2cm	Spent Berdan primer
16	Feature 3 Locus, Artifact Concentration A, 2cm	Spent Boxer primer
17	Feature 3 Locus, Artifact Concentration A, 0-2cm	Spent Boxer primer
18	Feature 3 Locus, Artifact Concentration A, 8cm	Two-piece stamped metal button with 2 half-moon shaped holes
19	Feature 3 Locus, Artifact Concentration A, Surface	.32 caliber Winchester cartridge case
20	Feature 3 Locus, Surface	Baking Powder can lid (6oz)
21	Feature 3 Locus, Surface	Boot or shoe sole fragments (6) with screw shanks in place
22	Feature 3 Locus, Surface	Leather (horse tack?) fragments (5)
23	Feature 5 Locus, Surface	Gun powder can

Field Specimen (FS #)	Locus, Associated Feature and Depth Below PGS	Description
24	Feature 5 Locus, Surface	Boot or shoe sole fragments (10)
25	Feature 5 Locus, Surface	Friction-lid style can (same diameter as FSs 102 and 103)
26	Lodge Locus, Surface	Bucket bail (possibly associated with FS104)
27	Lodge Locus, Feature 1, Surface	Sandstone abrader/polishing stone
28	Lodge Locus, Surface	Dendrochronology Sample #1 (ax-cut stump)
29	Feature 3 Locus, Artifact Concentration A, 0-6cm	Miscast lead bullet
30	Feature 3 Locus, Artifact Concentration A, 0-3cm	.30-40 Krag full metal bullet jacket
31	Feature 3 Locus, Artifact Concentration A, 1cm	Glass seed bead
32	Feature 3 Locus, Artifact Concentration A, Surface	Lead sprue globule
33	Feature 3 Locus, Artifact Concentration A, 0-3cm	Spent Boxer primer
34	Feature 3 Locus, Artifact Concentration A, 0-2cm	Spent Boxer primers (2)
35	Lodge Locus, Feature 1, Pole #10	Dendrochronology Sample #2
36	Feature 3 Locus, Artifact Concentration A, 0-2cm	Metal fragment: possible cartridge case fragment
37	Feature 3 Locus, Artifact Concentration A, 0-2cm	Decorative 2-pronged brass stud
38	Feature 3 Locus, Artifact Concentration A, 0-3cm	Lead sprue globule
39	Feature 3 Locus, Feature 3 element in northwest portion of enclosure	Dendrochronology Sample #3
40	Feature 3 Locus, Artifact Concentration A, Surface	Small splinter of clear glass
41	Feature 3 Locus, Artifact Concentration A, 0-3cm	.30-40 Krag full metal bullet jackets (2)
42	Feature 3 Locus, Feature 3 element in northwest portion of enclosure	Dendrochronology Sample #4
43	Feature 3 Locus, Feature 3 element in north portion of enclosure	Dendrochronology Sample #5
44	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #6
45	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #7

Field Specimen (FS #)	Locus, Associated Feature and Depth Below PGS	Description
46	Feature 3 Locus, Artifact Concentration A, 0-4cm	Spent Boxer primers (3)
47	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #8
48	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #9
49	Feature 3 Locus, 0-2cm	Glass seed bead
50	Feature 3 Locus, 0-2cm	Tack with domed head
51	Feature 3 Locus, 2-4cm	Square nail
52	Feature 5 Locus, 0-1cm	Concentration of 4 nails and 2 screws
53	Feature 3 Locus, 2-4cm	Lead sprue globule
54	Feature 3 Locus, 0-2cm	Sheet iron fragment
55	Feature 3 Locus, 0-4cm	Spent Boxer primer
56	Feature 3 Locus, Feature 4, 0-2cm	Lead sprue globule
57	Feature 3 Locus, Feature 4, 1cm	Spent Boxer primer
58	Feature 3 Locus, Feature 4, 0-1cm	Lead sprue globules (2)
59	Feature 3 Locus, Feature 4, 0-1cm	Spent Boxer primer (2)
60	Feature 3 Locus, Feature 4, 1cm	Glass seed beads (3)
61	Feature 3 Locus, Feature 4, 0-1cm	Glass seed beads (2)
62	Feature 3 Locus, Feature 4, 0-1cm	Lead sprue globule
63	Feature 3 Locus, Feature 4, Surface	Glass seed beads (3)
64	Feature 3 Locus, Feature 4, Surface	Amethyst bottle glass fragment
65	Feature 3 Locus, 3-4cm	Fired bullet lead
66	Feature 3 Locus, Surface	Decorative brass tack head
67	Feature 3 Locus, 0-3cm	Amethyst bottle glass fragments (7), possibly from 2 vessels
68	Feature 3 Locus, 0-3cm	Wire nails (2)
69	Feature 3 Locus, 0-2cm	Spent Boxer primer
70	Feature 3 Locus, 0-2cm	Sheet iron (can?) fragments (5)

Field Specimen (FS #)	Locus, Associated Feature and Depth Below PGS	Description
71	Feature 3 Locus, 0-5cm	Two-piece stamped metal button
72	Feature 3 Locus, 0-2cm	Square nails (2)
73	Lodge Locus,	Wire fragment
74	Feature 5 Locus, Surface	Spent Boxer primer
75	Feature 5 Locus, Surface	Spent Boxer primer
76	Feature 3 Locus, Surface	Lithic corner-notched or stemmed projectile point mid-section
77	Feature 5 Locus, Surface	Apparent lead sprue globule
78	Feature 5 Locus, 6cm	Pointed and deliberately bent metal wire fragment
79	Feature 3 Locus, Artifact Concentration A, Surface	Amethyst bottle glass fragment
80	Feature 5 Locus, 0-1cm	Spent Boxer primer (missing)
81	Feature 5 Locus, 0-2cm	Spent Boxer primer
82	Feature 5 Locus, 0-2cm	Shotgun pellet
83	Feature 5 Locus, 7cm	Metal gold-colored foil fragment
84	Feature 5 Locus, 4cm	Spent Boxer primer
85	Feature 5 Locus, 0-3cm	.44-40 Winchester cartridge case
86	Feature 5 Locus, 8cm	.44-40 Winchester cartridge case
87	Feature 3 Locus, Surface	Amethyst bottle glass fragment
88	Feature 5 Locus, 0-1cm	Wire nails (3)
89	Feature 5 Locus, 3cm	.44-40 Winchester cartridge case
90	Feature 5 Locus, Feature 7, 16cm	.44 caliber Henry rimfire cartridge case
91	Feature 5 Locus, 0-2cm	Square-shank tacks (5)
92	Feature 5 Locus, Feature 7, 4cm	Miscast lead bullet
93	Feature 5 Locus, 0-2cm	Spent Boxer primer
94	Feature 5 Locus, Feature 7, 2-4cm	Spent Boxer primer
95	Feature 5 Locus, Feature 7, 2-4cm	Lead sprue globule
96	Feature 5 Locus, Feature 7, 2-4cm	Unburnt, calcined deer vertebra and podial fragment
97	Feature 5 Locus, Surface	.45-70 Springfield cartridge case

Field Specimen (FS #)	Locus, Associated Feature and Depth Below PGS	Description
98	Feature 5 Locus, Surface	Fired bullet lead fragment
99	Feature 5 Locus, 0-3cm	Decorative 2-pronged brass stud (one prong missing)
100	Feature 5 Locus, 5-7cm	Cylindrical metal bead
101	Feature 5 Locus, 2-3cm	.44 caliber fired bullet lead
102	Feature 5 Locus, Surface	Friction-lid style can (same diameter as FSs 25 and 103)
103	Feature 5 Locus, Surface	Friction lid for can (same diameter as FSs 25 and 102)
104	Feature 5 Locus, Surface	Lard (?) bucket (apparent match for bail, FS26)
105	Feature 5 Locus, 10cm	.44 caliber fired bullet lead
106	Feature 5 Locus, 0-5cm	.44 caliber fired bullet lead
107	Feature 5 Locus, 5-7cm	.44-40 Winchester cartridge case
108	Feature 5 Locus, 0-12cm	.32 caliber Winchester cartridge case
109	Feature 5 Locus, 0-5cm	.44-40 Winchester cartridge case
110	Feature 5 Locus, 0-8cm	.44 caliber Henry rimfire cartridge case
111	Feature 5 Locus, 0-9cm	.44-40 Winchester cartridge case
112	Feature 5 Locus, Feature 7, 0-3cm	Lead sprue globules (2)
113	Feature 5 Locus, Feature 7, 0-12cm	Unspent Berdan primer
114	Feature 5 Locus, 0-10cm	.44 caliber fired bullet lead
115	Feature 5 Locus, 0-8cm	Fired bullet lead fragment
116	Feature 5 Locus, 0-6cm	Spent Boxer primer
117	Feature 5 Locus, 0-4cm	Spent Boxer primer
118	Feature 5 Locus, 2-4cm	.44 caliber Henry rimfire cartridge case
119	Feature 5 Locus, 7-9cm	Two-tongue, center-bar metal buckle
120	Feature 5 Locus, 19cm	.44 caliber Henry rimfire cartridge case
121	Feature 5 Locus, Feature 7, 0-7m	Spent Boxer primer
122	Feature 5 Locus, Feature 7, 1-5cm	Flattened metal can
123	Feature 5 Locus, 12-15cm	.44-40 Winchester cartridge case

Field Specimen (FS #)	Locus, Associated Feature and Depth Below PGS	Description
124	Feature 5 Locus, 10-13cm	.44 caliber Henry rimfire cartridge case
125	Feature 5 Locus, 15-18cm	.44-40 Winchester cartridge case

Ammunition-related Artifacts

Similar to what was found by the Colorado Wickiup Project at 5RB563, the Ute Hunters' Camp (Martin and Brown 2010a), it is obvious that bullet reloading was one of the primary activities taking place at the Disappointment Draw Lodge. This is not surprising considering the extensive harvesting of mule deer that the Ute were reportedly conducting in northwest Colorado during the late 19th and early 20th Centuries; not only for their own use but for the burgeoning trade in hides and meat to the Euro-American market. As discussed by Martin and Brown (ibid), it is also likely indicative of the restive times that were prevalent between these two populations at this time, and most likely a combination of the two factors.

Of the 209 historic artifacts recovered, 71 (34%) are ammunition related. This percentage is even higher (approximately 50%) if the 58 fragments of amethyst bottle glass are considered to be from only two or three separate vessels and the 16 boot or shoe fragments to be from two separate articles of clothing. Of these 71 artifacts, 27 are spent primers of three distinct types, 17 are brass cases, 13 are bullet leads or full metal jackets, 12 are globules of melted lead (sprue) from bullet casting activities, one is an apparent shotgun pellet, and one is a gun powder can. At least five and possibly as many as six separate weapons are represented by these collections: .44-caliber Henry rimfire, .44-caliber Winchester center-fire, .32-caliber Winchester center-fire, and the .45-70 Springfield, and .30-40 Krag (Appendix E). A full analysis of the ammunition components by Phil Born of the Museum of Western Colorado, including apparent dates of manufacture, is also presented in Appendix E.

In general, it is evident that the munitions at 5MF5216 indicate an occupation date of 1894 or later based on the presence of the .30-40 bullets. The 1887 head stamp on the .45-70 case also indicates a post-removal" date.

The 27 primers consist of 25 Boxer type (of both brass and copper) and two Berdan type (one unspent). One additional *unspent* primer remained in place in a cartridge case suggesting that the case had been newly primed in camp. These specimens consist of centerfire primers—a small metal cup and enclosed anvil containing a volatile substance that ignites when struck by a firing pin, detonating the powder charge in the cartridge case. These ignition systems are described more fully in Martin and Brown (2010a). With the exception of those still in place, these items have been removed from the cases and discarded during reloading activities; characterized by a dent or impact mark from the firing pin of the weapon from which they were

fired. As is evident in Table 6, the primers, and other ammunition-related artifacts, were concentrated in two locations—the Feature 3 Locus and the Feature 5 Locus—indicating the areas where the bullet re-loading activities took place.

In addition to primers, there were 17 cases and 13 leads or bullets found, as described in Appendix E. Several calibers, styles, and manufacturers are represented indicating that at least five weapons were present at the site; or at least the ammunition that had been fired from them. Three of these consisted of full metal jackets; where a copper-brass coating is drawn over the lead point of a bullet—the first such artifacts found by the CWP (Plate 17).

Field Specimen FS23 consists of a flattened gun powder can, again similar to one found at the Ute Hunters' Camp in the Piceance Basin. The rusted oval ferrous metal (iron) can, similar in design to a tobacco tin only larger, measures 4-5/8 inches in width and 5-3/8 inches in height (in its flattened condition). One end of the can is missing—apparently the top, as the end that remains attached along one side to the body of the container is solid and does not have the typical screw-cap opening. The oval end that is intact measures 1-3/8 by 4 inches. It is interesting to note that the top of the powder can from the Ute Hunters' Camp had also been partially removed and re-utilized as a powder scoop.

Tin Cans

In addition to the gun powder can, eight other cans or portions of cans were recovered. Although “tin cans” were invented and manufactured much earlier, they are not common on Ute sites, or in western Colorado in general, until the 1860s or later (Baker, Carrillo, and Spath 2007). Two of the specimens (FSs 11 and 20) are external friction lids from baking powder cans, found in the Feature 3 Locus (see the Artifact and Analysis portion of the Discussion and Synthesis section for additional historic and dating information about these can lids). FS11 measures 2¾ inches in diameter and is from a 12-ounce can, FS20 is fragmentary, measures approximately 2-3/8 inches in diameter, and is from a 6-ounce can. No cans matching these lids were found, and it is presumed that they were either utilized for other purposes (a common practice among the early historic Ute), or removed from the site by the occupants. Other than the indication of weight, the lids are embossed with identical lettering, as follows:

THE MOST PERFECT
MADE
DR. PRICE'S CREAM
BAKING POWDER
12OZ
FULL WEIGHT

Three other external friction-lid cans or lids were found. FS25 is the base of a small, partially flattened, crimp-sealed can that measures approximately 2 inches in diameter. The can appears to be identical to FS102, a complete can, which is 3 inches in height. There is a raised, exterior band ¼ inch below the rim of this can to serve as a “stop” for the lid. FS103, a metal

friction lid found nearby, is the same diameter (2 inches) and they are presumably associated. All three artifacts were found on the surface of the Feature 5 Locus. The nature of their original contents remains undetermined.

Specimen FS122 is a rusted fragment of a flattened metal can that was found at the extreme northeast edge of the Feature 5 Locus.

The final two can elements from 5MF5216 are a lard (?) can or bucket from the surface of the Feature 5 Locus (FS104) and an apparently associated bucket bail to the west of the Lodge Locus. Although the spread of the bail matches the diameter of the can—4½ inches—it is noteworthy that they were separated on the surface of the site by nearly 100 meters. The presence of baking powder and, apparently, lard suggests that open-fire baking was taking place—possibly biscuits, pan bread, or fried bread.

FS104 consists of approximately 2/3 of the can, plus four smaller fragments found nearby. The can is crimp-sealed and has a raised band ½ inch below the rim as a “stop” for a friction lid. Four small globs of molten lead adhere to the exterior sides of the bucket, which possibly suggests that it had been used as a container for melting lead over a fire for bullet manufacture, however there is no lead residue on the interior of the can. Three roughly round, but deformed, holes exist on one side of the container near the rim. They average approximately 5/16 inch in diameter and have been punched through from the exterior surface. A recessed, or debossed, circular ring exists around one of the holes, suggesting that it was the original hole for supporting a bail, however the hole no longer gives the impression of being machined, and shows irregular flashing of metal on the interior from being punched (or enlarged) from the exterior.

FS26, the bucket bail, is 4 inches in height, 5 inches across at its widest flair (4½ inches at the hooked ends of the handle), and is constructed of iron wire that is 5/32 inch in diameter. The last ¼ inch of each end of the wire have been bent inwards at acute angles as hooks for inserting into holes in the sides of the bucket or can (possibly FS104).

Five additional pieces of sheet iron, that are possibly can fragments, were collected together from the Feature 3 Locus as FS70.

Vessel Glass

A total of 58 fragments of “sun-purpled” amethyst bottle glass were found in the Feature 3 Locus. Forty-seven of these were collected from three separate concentrations (FSs 7, 9, and 12). The fragments appear to represent two, three, or more individual vessels as the thicknesses of the sherds range from 1/16 inch, to 3/32 inch, to 5/32 inch, to ¼ inch. All three concentrations include rim fragments that retain remnants of screw-threads. Isolated specimen FS13 is a portion of a polygonal bottle base. No attempts have been made to reconstruct the vessel, or vessels.

FS40, also from the Feature 3 Locus, is a small splinter of clear glass of unidentifiable nature or origin.

Buttons and Rivets

Four metal buttons and two rivets were found by metal detection at the Feature 3 Locus (Plate 17). Considering the fact that none of the buttons are of the same style or material, it is obvious that a number and variety of articles of clothing were present at Disappointment Draw Lodge and either were discarded or the occupation of the site lasted long enough for at least six fasteners to become detached from their respective garments and subsequently lost (assuming that the detached buttons were of some value to their owners and were afforded at least a cursory search).

FS1 is a three-piece brass U.S. Union military button with an embossed eagle and a wire alpha loop-shank. The button matches the style of an enlisted man's, or "general service" button from the Civil War era that began manufacture in 1854 (Army Military Uniform Button Manufacture Date Guide, treasurefish.com/buttonback.htm, accessed 8/19/2009), however the raised nature of the shield on the eagle's chest indicates a post-war manufacture of 1875 or later (Lanham 2009). The Civil War eagle design, with clutches of arrows and olive branches in the talons, was replaced by the Great Seal of the United States after 1902.

The small, 5/8 inch, diameter of the specimen denotes that it was made for use on a uniform cuff, vest, or possibly military cap, rather than on a coat front, which would have utilized larger buttons. The backmark on the button reads: "HORSTMANN BROS & CO - PHIL"; one of several U.S. companies producing similar military buttons during the era. Treasurefish.com (2009) lists this particular backmark as being used by Horstmann from 1859 to 1863, however, this contradicts Lanham's statement regarding the raised chest shield.

FS3 is a pressed metal, two-piece, "recessed center" button with a raised nipple in the center of the recess, of the style used as fly-buttons on riveted pants or coveralls. Although this specimen does not have a company identifier (or it has been masked by rust), the first such pants were patented by Levi-Strauss and Company in San Francisco in 1873. Competitors, from which this button apparently originated, were manufacturing riveted pants with similar buttons by 1874, and by 1879 blue denim pants (also known as "wrist-high overalls") were widely worn throughout western America (Levi-Straus & Co., accessed 2/4/2011). The button is 5/8 inch in diameter on the front and 5/16 inch diameter on the back brad.

FS4, two rivets from riveted pants, were found nearby; presumably from the same article of clothing as FS3. These non-ferrous fasteners are flat on one face, have a central nipple on the other face, and measure 5/16 inches in diameter. Remnants of fabric remain in place in the 1/16 inch channel between the two halves of the rivets on both specimens.

FS18 consists of a round, two-hole, pressed metal button (post-1870) embossed with a decorative hachure that measures 1/2 inch in diameter. The holes of the button are half-circle

shaped slots on either side of a central bar of metal. The front of the button is of non-ferrous brass, copper, or bronze, which is fitted and crimped over an iron backing.

FS71 is a ½ inches diameter pressed metal button with embossed hachure very similar to FS18, however it has no holes for sewing the button to fabric. Instead, there remain the remnants of a central tube for a brad fastener on the back. As with FS18, a non-ferrous cover has been crimped in place over an iron backing. The cross-hatching pressed into the recessed area on the front of this specimen consists of raised, radiating, curvilinear ridges, whereas those on FS18 are formed of straight ridges. It is possible that the two buttons are from the same piece of clothing.

Buckle

FS119 is a small, heavily rusted, two-tongue, center-bar iron buckle (Plate 17). It would have accommodated a ¾ inch-wide strap with two parallel sets of holes. It appears to be too light and delicate for use on horse tack, and was more likely in service on a neck or shoulder strap for an article such as a canteen, bullet pouch, or gun sling, or for the strap on a pair of coveralls—possibly the article of clothing represented by Field Specimens 3 and 4. It is 3/32 inch thick and measures 1-1/8 inch by ¾ inch.

Leather artifacts

Field Specimens 21 and 24 are highly deteriorated, black leather boot or shoe fragments. FS21 consists of two large and four small pieces of sole. A series of holes extends along the edge of the sole, four of which still contain small, non-ferrous, threaded screw shanks (3/32 inch in diameter and ½ inch to 9/16 inch in length). The leather sole is 11/32 inch in thickness. FS24 consists of two large and eight small fragments similar in nature to FS21. Again, a series of small round holes can be seen along the edge of what appears to be an 1/8 inch-thick heel fragment, however no screw shanks remain.

FS22 possibly represents the only evidence of horses at the Disappointment Draw Lodge site. Two large and three small fragments of brittle, heavily weathered, 1/8 inch-thick black leather were found on the surface of the Feature 3 Locus that are too large to be from footwear. The largest piece has curled into a roll as it aged but would be approximately 8" in diameter if flat. Several round, rectangular, and keyhole-shaped holes exist in the leather. Several finished edges remain visible. It is difficult to determine what the article had been, however the size and thickness of the piece suggests possible saddle or saddlebag fragments.

Nails, Tacks, Screws, and Brads

A total of 21 nails, tacks, and screws, as well as two brass studs, were recovered from both the Feature 3 and the Feature 5 loci (Table 6 and Plate 18). The collected artifacts consist of six machine-cut square-shanked and six wire nails ranging in length from ¾ inch to 1¼ inch (4d) to 2 inches (6d); seven tacks, one of which is the head of a decorative brass tack (FS66);

and two comparable 7/8 inch-long, flat-head wood screws. Two of the wire nails, two of the square nails, and the two screws were found in a tight concentration in the Feature 5 Locus in an area measuring 30cm by 15cm (FS52). Machine-cut square nails indicate manufacture from post-1830s (IMACS 1992) and wire (round-shanked) nails are typically considered to post-date AD1850 (IMACS 1992) or 1890 (Greene and Scott 2004:159), depending on the reference consulted.

The dome-headed, square shanked, “embroidery” tacks, such as the FS66 specimen, were used frequently by Native Americans in the Protohistoric and early Historic periods to decorate gun stocks, knife handles, saddles, pipe stems, mirrors, cradle boards, and other artifacts by hammering or pressing them into the wood or leather in designs and patterns. Numerous similar tacks were recovered at the Ute Hunters’ Camp and are discussed in that report (Martin and Brown 2010a).

FS37 and FS99 are small (¼ inch diameter), two-pronged brass studs of a type that were often used by Native Americans to decorate clothing and other personal items. The sharpened prongs were forced through the front of a piece of fabric and then folded over on the back to secure them in place. One of the prongs is missing from FS99.

Glass and Metal Beads

Eleven European-manufactured glass seed beads were collected, as six separate field specimens, from sub-surface deposits in the Feature 3 Locus (Table 7 and Plate 18) and one metal bead was found at 5 to 7cm depth in the Feature 5 Locus. Taking into consideration how extremely difficult it is to find these minute seed beads without isolating them in fine-mesh shaker screens or soil sieves, the fact that this many were found while sifting small amounts of soil at the locations of “hits” on the metal detector, it can be hypothesized that there are hundreds, if not thousands, yet undiscovered at 5MF5216.

Bead totals for the Disappointment Draw site consist of five white, four greenish-blue, one translucent clear/white, and one red-on-white beads (also known as “white hearts” or “coralined Aleppo”). These are tabulated in Table 7.

**Table 7: Glass Seed Beads from 5MF5216 (Disappointment Draw Lodge)
(total of 11 drawn glass seed beads)**

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color*
5	1.80	0	greenish-blue (“turquoise”)
31	2.11	1	clear/white

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color*
49	1.79	1	Red-on-white (cornaline d' Aleppo)
60	1.75	0	greenish-blue (-turquoise")
60	1.93	0	greenish-blue (-turquoise")
60	1.90	0	white
61	1.73	0	greenish-blue (-turquoise")
61	1.63	0	white
63	1.93	0	white
63	1.94	0	white
63	1.91	0	white

*The classification scheme for this analysis is based on research by Chris von Wedell (personal communication). The main color classifications for glass trade beads suggested by Wedell include: blue, greenish-blue, bluish-green, dark/navy blue, white, black, green, dark green, pink, yellow, orange, and red-on-white.

The final bead from the site is FS100, which consists of a cylindrical, machine-made, non-ferrous metal bead that measures ¼ inch in length and 9/32 inch in diameter (Plate 18). The hole is 5/32 inch in diameter. Similar beads are often seen as spacers between the bone tubes on hair-pipe breast plates and necklaces both in modern Native American craftwork as well as in historic photographs. This specimen was found in the Feature 5 Locus.

Miscellaneous Metal Artifacts

Other artifacts from the investigations at 5MF5216 include FS54, a small fragment of sheet iron that exhibits curvilinear cut edges; FS73, a curved fragment of 1/16 Inch diameter wire—5¼ inches in length if straightened out; FS78, a 1/32 inch diameter wire, pointed at one end, that has been intentionally bent into a shape not unlike a capital —G (Plate 17); and FS83, a small piece of thin, fragile, non-ferrous, gold-colored metal foil. The original nature and uses for these three specimens are unknown.

Stone Artifacts

Although a sparse scatter of lithic debitage exists on the surface of the site (Figures 15-18), only two stone tools were recovered. FS76 is a midsection of a corner-notched or stemmed projectile point of light gray quartzite with the tip and base missing. The tangs and the distal ends of the notches, or stem, remain, however the fragment cannot be considered diagnostic other than that it appears to be comparable to the generalized Elko Series of Archaic dart points. It measures 1.6+cm in length by 2.1cm in width by 0.5cm in thickness (Plate 17). It is notable that projectile point types traditionally identified as being of Archaic age have been found on 14% (eight of 58) of the Protohistoric/early Historic sites thus far recorded by the CWP (Table 8).

FS27, the only other stone tool noted at 5MF5216, is a small fine-grained sandstone abrader or polishing stone found near the Feature 1 tipi frame and made from an unshaped, water-worn pebble. One facet of the pebble is heavily ground into a slightly convex transverse profile. Longitudinally, the grinding surface is nearly flat. This surface exhibits “sharpening” peck marks and the high surfaces are highly polished. At least two other facets of the pebble have also been ground smooth. The specimen measures 5.4 x 4.8 x 3.2cm.

Ancillary Collections

Two collections of medium-to-large mammal bone were made during the investigations: FS6 consists of four unidentifiable burnt bone fragments from the Feature 4 rock circle in the Feature 3 Locus, and FS96 consists of unburnt, but calcined, deer vertebra and podial fragments from near the Feature 7 hearth area in the Feature 5 Locus.

For dating purposes, nine tree-ring samples were taken from metal ax-cut wooden feature elements and an ax-cut tree stump as Dendrochronology Samples #1 through #9 (FSs 28, 35, 39, 42-45, 47, and 48). The dating results from these samples, as analyzed by the Laboratory of Tree-ring Research at the University of Arizona in Tucson, concur with and substantiate the temporal indications from the diagnostic metal and glass artifacts recovered from the site. The results demonstrate that trees and limbs were being harvested at 5MF5216 at some point after 1883. One ax-cut tree stump (FS28) produced a near-cutting date of 1893v. A full description of the dendrochronological samples and their analysis is presented in Appendix C.

Evaluation, Management Recommendations, and Recommended Future Work

Site 5MF5216 was field evaluated as Need Data in regards to its eligibility for placement on the National Register of Historic Places (NRHP) during the 2002 documentation, despite the fact that the recorders considered Feature 1 as possibly “one of the few remaining examples of a type or method of construction and a period of prehistory as defined under Criterion C of the NRHP guidelines.” The OAHHP Compass website, however, lists the site as

field eligible” in that same year. It is clear now, as it was then, that this structure and its associated features and artifact assemblage should be highly recommended as eligible according not only to National Register Criteria C, as outlined above, but also according to Criteria A (associated with events that have made a significant contribution to the broad pattern of our history—namely the Protohistoric and early Historic periods and the final chapter of the sovereign, off-reservation Ute), and D (has yielded information important in prehistory and history).

The Disappointment Draw Lodge site is a unique and valuable resource. All efforts should be made to preserve, protect, and periodically monitor the site in the future. Test excavations in all three of the primary artifact loci are highly recommended to augment and further substantiate the findings thus far as a result of the “mitigation-level” documentation of the wooden features and the metal detection activities. It is anticipated that numerous, non-metallic, artifacts, and other valuable data, remain *in situ* at this fragile and vulnerable site. It is also strongly recommended that a fence be constructed around Feature 1 to protect it from potential impacts from livestock and wildlife. Collection and preservation of the entire feature in a museum is a possibility which should be discussed with members of the Ute tribe.

5SH3788, MUSICK LODGE

5SH3788, on the southeastern slopes of Storm King Mountain in Saguache County, is situated on Rio Grande National Forest land in south central Colorado at an elevation of from 9520 to 9620 feet (Figures 1 and A-5). It is to the southwest of an intermittent blue-line tributary of the North Fork of Carnero Creek, which, in turn, flows into the San Luis Valley and disappears. It was originally discovered by local resident, Mike Musick in 2006. In the interest of having the site recorded and protected he contacted Ken Frye, archaeologist for Rio Grande National Forest in Monte Vista. Frye, via Jon Horn of Alpine Archaeology in Montrose, was put in touch with the Curtis Martin and the Colorado Wickiup Project and, in August of 2009, DARG archaeologists Martin, John Lindstrom, and Michael Brown were taken to the site by Mr. Musick. In addition to Frye, personnel who aided in the logistics and recordation of site 5SH3788 included US Forest Service archaeologists and employees Meghan Mulholland, Becky Donlan, Angie Krall, Andrea Moore, Kep Heinitz, Marvin Goad, Barbara Maat, and Andrew Archuleta, and volunteer Craig Franke.

The wooden feature locus of the site is situated on a moderately northeast-sloping talus at an elevation of 9520 feet. The residual soil on the site is shallow, rocky, light grayish-brown sandy loam. Vegetation consists of an aspen and Douglas fir forest with occasional Ponderosa pine, and an understory of kinnikinnick or bearberry. In addition to the Musick Lodge itself (Feature 1), there are two nearby multi-pole utility racks supported by fir trees (Features 2 and 3). At 110 meters to the southeast of these features, situated on the eastern prominence at the end of a ridge top 100 vertical feet above Feature 1, is Feature 4—a masonry enclosure that has been interpreted as an eagle trap. No portable artifacts of any description were found on the site.

The field crew conducted a full-scale documentation of the site, including metal detection and the completion of Aboriginal Wooden Feature Component Forms. Although many-poled conical shelters similar to Feature 1 have been recorded in the higher elevations of Colorado and Wyoming, and photographs of several others have been obtained by the CWP, nothing that truly matches this feature—specifically taking into account the bundles of sticks suspended over the entryway—has been seen by the project in the archaeological record of the state or elsewhere.

As the numerous-poled, high elevation features do not fit the standard definitions of either “wickiup” or “tipi” as used by the CWP, we have elected to refer to Feature 1, and other similar, typically high elevation, conical wooden shelters as “lodges”—borrowing the term from the nearby, and strikingly similar, feature from 5SH242, the Elk Track War Lodge. Similarly, photographs of other high-altitude conical shelters in northern Colorado show structures that appear to be constructed of 80 to 100 aspen poles (Plate 10).

Several archaeologists, upon seeing photographs of Feature 1 prior to the evaluation by the CWP, expressed concerns that the structure, because of its overall style and condition,

appeared to be of recent construction. The phrase “built by boy scouts” was heard more than once. However, upon thorough examination, all of the DARG Research Associates involved in the recording of the site, as well as the other archaeologists present, were convinced of the authenticity and apparent antiquity of the shelter as a feature. As described in detail below, the structure is extremely well thought-out, skillfully built, and too labor-intensive to be considered a modern structure built simply for fun or educational purposes. Several ancillary structural elements of Feature 1 substantiate this determination in addition to the proximity of associated utility poles at the site (Features 2 and 3), a nearby eagle trap (Feature 4), reputedly, a substantial number of culturally-peeled Ponderosa pine trees, and other examples of aboriginal wooden features found in the vicinity of the Musick Lodge including the very similar Elk Track War Lodge (5SH242).

Site Description

The Musick Lodge site consists of a concentrated locus of three ephemeral wooden features (Features 1 through 3) that encompass an area measuring approximately 25m in diameter and an apparently associated dry-laid masonry eagle trap (Figures 20 and A-14). The eagle trap, Feature 4, is situated on a ridge top 110m to the southeast of the wooden features. No portable artifacts were found on the site surface, or as a result of thorough metal detection in the wooden feature locus. A possibly cultural alignment of rocks, of undetermined purpose, was also recorded on the surface to the east of the wooden features. This north-south oriented, 5m-long, curvilinear alignment of approximately 20 to 25 volcanic cobbles is located 19m to the northeast of Feature 1.

The cultural affiliation of the site is postulated as Protohistoric or early Historic Native American. A large number of historically documented ethnic groups are known to have occupied and utilized the Rio Grande basin and San Luis Valley including the Mouache and Kapote Ute, Comanche, Apache, Navajo, Arapaho, Cheyenne, and Northern Puebloans (Martorano et al 1999:138). As a result, it is difficult to assign tribal affiliation to Protohistoric and early Historic Native American sites such as 5SH3788 in the southern Rocky Mountain area (Scott 1988). Similarly, without artifacts of any kind, and no evidence of trade goods at the site, including the lack of ax-cut wooden elements, it is difficult to establish the age of the features, other than to say that the condition of the wooden elements suggests that it is no more than 150 to 200 years of age, and most likely at the later end of that time bracket, or less.

Dead standing aspen and fir trees are commonplace in the surrounding forest and it is unlikely that the architects of Feature 1 would have gone to the extra effort of securing live trees for utilization in the construction of the lodge when a source of easily obtainable straight and narrow dead poles was readily available. Accordingly, no tree-ring samples were collected by the project as they would likely produce dendrochronological dating results significantly earlier than the target date of when the shelter was constructed.

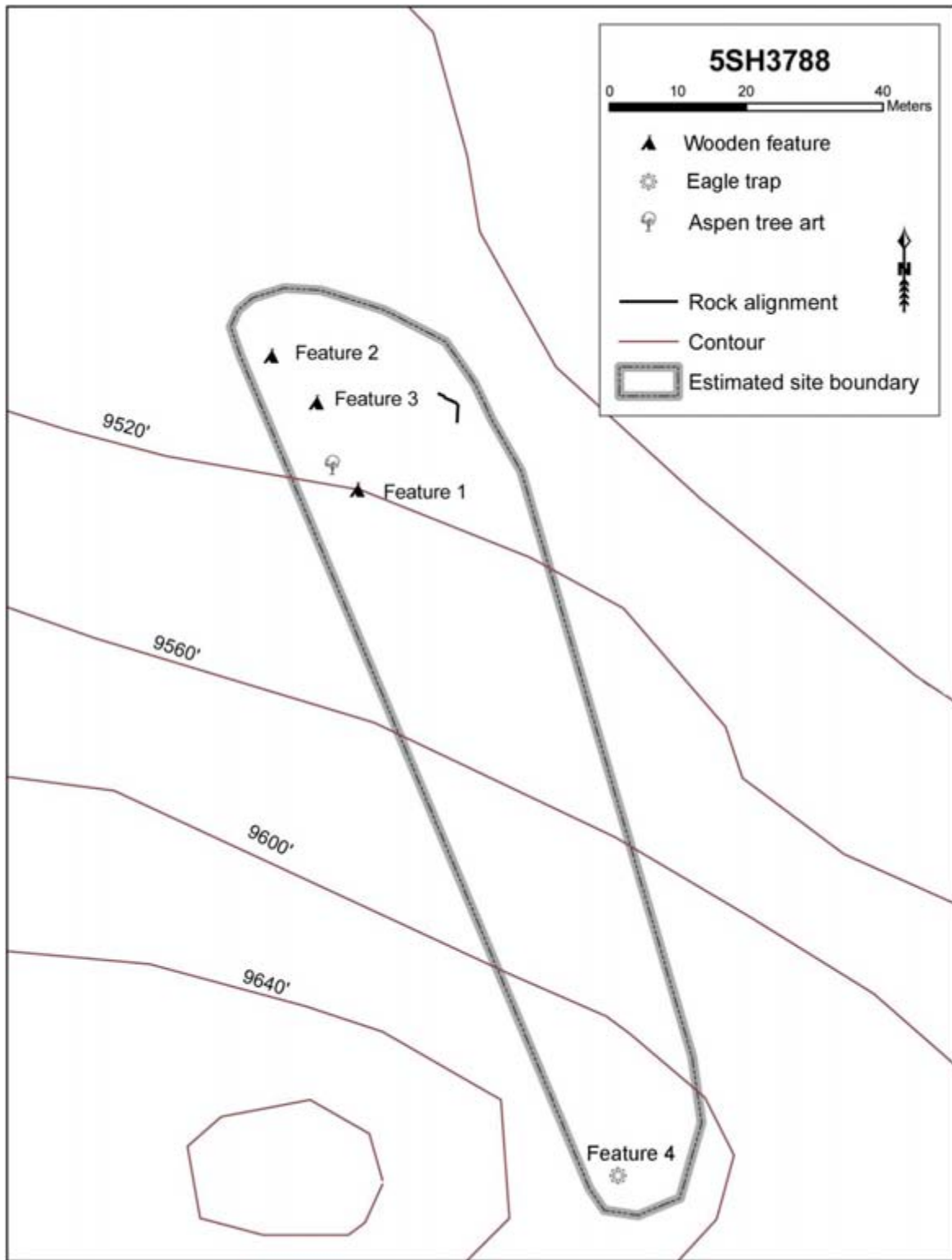


Figure 20: Site Plan Map of 5SH3788, the Musick Lodge Site

Wooden Feature Descriptions

This section provides a summary description of the aboriginal wooden features at the Musick Lodge site. Detailed descriptions and measurements of each feature are provided in the Aboriginal Wooden Feature Component Forms in Appendix I. Also, thorough digital photographic documentation of each feature is on file at the Museum of Western Colorado and at Dominquez Archaeological Research Group; both in Grand Junction, Colorado.

Feature 1, the Musick Lodge itself, is a freestanding conical framework of at least 89 poles, several of which have collapsed into the interior of the lodge and become mixed with the wooden elements of an interior framework or utility rack. Eighty-eight of the poles remain standing in place, forming the exterior of the lodge frame (Figure 21 and Plate 11). One additional standing pole on the interior of the shelter, that is clearly *in situ*, is situated with its base at a point 87cm inside the entryway. The purpose of this pole, whose upper tip merges with the other poles at the apex of the cone, remains undetermined. At least four of the other collapsed poles within the interior of the lodge appear long enough to have also once been framework elements.

The roughly circular floor measures 3.2m north-south by 2.7m east-west and has a notable interior headroom of 2.85m. The resultant floor area is approximately 6.8 square meters. The entryway faces to the west-northwest. Curiously, there is a sizable, live standing Douglas fir tree directly in front of the entry at a distance of only 45 to 50cm from the door. It is likely that this 50cm diameter tree was standing at the time of the lodge's construction and it remains unclear as to why the architects would place the doorway in a position where the tree would be in the way of persons entering or exiting the lodge. Its position could have been intentional although for undetermined purposes, or possibly it was simply not of concern to the occupants.

Approximately seven to nine of the poles resting on the ground surface on the inside of Feature 1 are not collapsed lodge poles but appear to be the collapsed remains of a secondary interior feature. No distinct evidence remains of the nature of this feature other than that the poles are arranged in three clusters of roughly parallel elements: one set of three to four east-west poles on the north side of the floor, two to three on the south side, and the last two oriented north-south and on the east side (Figure 21). This arrangement suggests that an upright framework of some description originally stood inside the lodge. Although numerous purposes can be hypothesized for such a rack—hanging clothing or bedding to dry over the fire, jerking strips of meat, stretching or smoking animal hides, etc.—other suggestions include ceremonial uses such as an alter or a roost for captive eagles.

As is discussed in the Newly Documented Feature Types section of this report, there is a strong likelihood that Feature 1 served in one capacity or another as a ceremonial structure associated with the capturing of eagles based on the presence of the nearby eagle trap, Feature 4, and analogy with ethnographic accounts of Navajo and Plains Indian eagle trapping. Wooden shelters of various descriptions found near eagle traps, including conical wickiups or lodges,

have been documented historically as both shelters for the eagle hunters, and for live eagles themselves, while the hunt continues for additional birds.

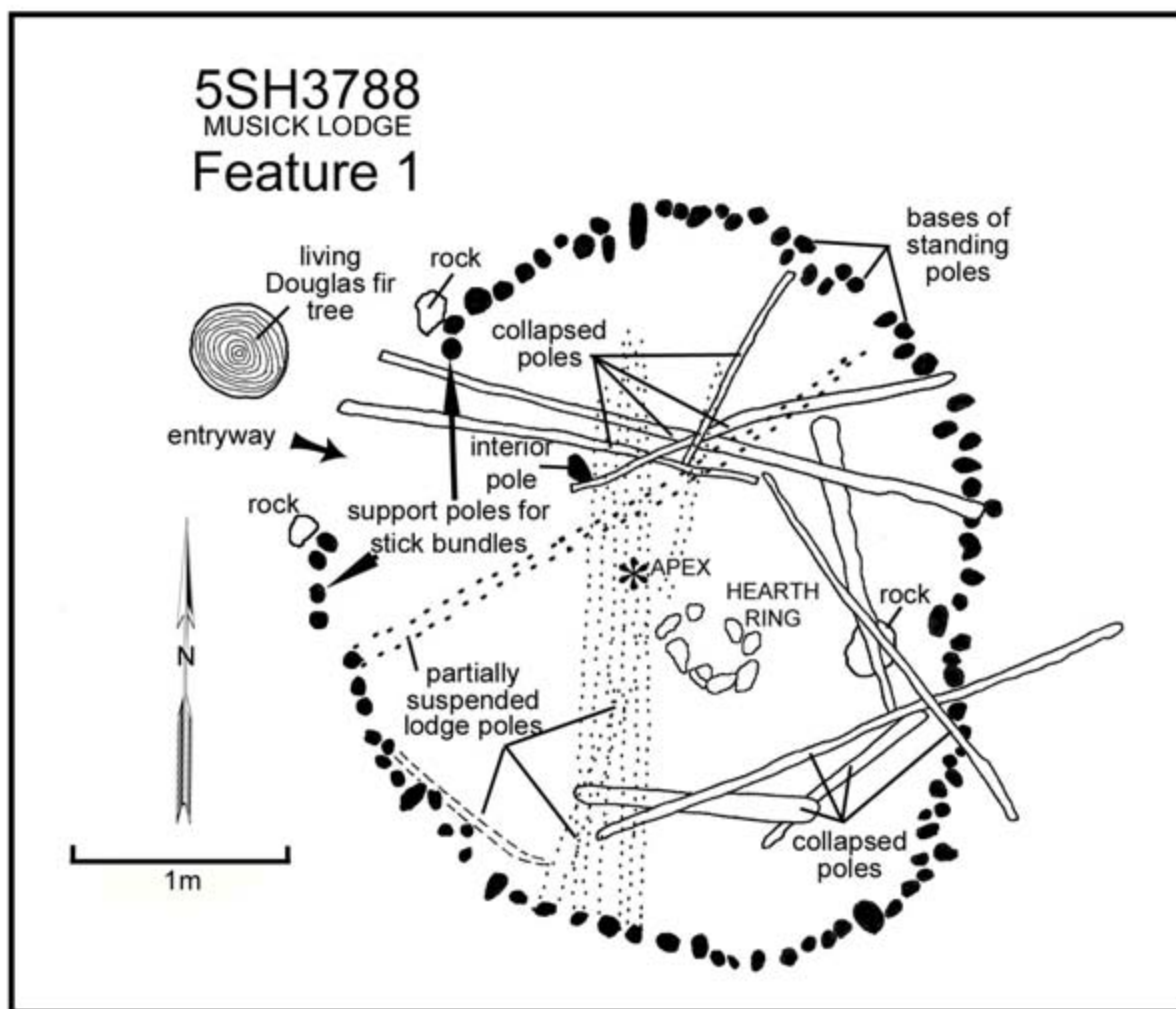


Figure 21: Plan View of the Feature 1, the Musick Lodge, at 5SH3788

Two bundles of sticks are suspended above the entryway in the shape of a “sideways V” pointing to the left as viewed from outside (Plate 12). Opposite ends of these bundles are situated 1.8 m and 2 m above the present ground surface. The approximate lengths of these sticks range from 1 to 2m, with mid-point diameters ranging from 2 to 6cm. There are approximately 15 sticks in the upper bundle and 10 in the lower. These bundles are supported by two small limbs extending from each of two lodge poles, one on either side of the entryway. It is clear that these two poles were purposefully selected for supporting the stick bundles, and that they were the final poles to be incorporated into the construction. One of the vertical uprights is the first pole on the left side of the entry, and the other is the third pole to the right of

the entry. Again, there is no doubt that that their selection was premeditated in that they are both forked at nearly the same height above the ground (for supporting the upper bundle of sticks), and both have branch stubs at nearly the same height (that support the lower bundle).

The function of the stick bundles is undetermined and nothing similar has been seen by the CWP in the past, or can be found in the literature or historic photographic record. One suggested purpose was firewood being held off of the ground, however, the sticks were all apparently selected because they were straight and of similar size, and besides, the wood would still be outside in the weather as opposed to sheltered inside the lodge. Another possibility is that they were used to cover the upper portion of the entry opening, above whatever had presumably covered the lower portion, and have slumped downwards from what was originally a stacked lattice or “Venetian blind” type of arrangement. Similar horizontal sticks, in a much less formal arrangement, had been positioned so as to block the upper gap in the entryway in Feature 1 (a piñon/juniper wickiup) at site 5RB18 in the Piceance Basin (Martin and Ott 2009).

Sixty to seventy twigs and small branches, that range in length from 28 to 106cm and have mid-pole diameters of from 1 to 9cm, rest on the ground around the exterior base of the lodge poles and perpendicular to the outline of the shelter (Plate 12). Although one possibility regarding the purpose for these sticks would be to hold down the bottom of an exterior hide or canvas covering, their small size suggests that they would be too light for this purpose and it is possible that they simply served to block the cold air draft from entering below a cover. In addition, a single lichen-covered stone rests on the ground on either side of the exterior base of the entryway, again possibly for the purpose of holding down a cover or door flaps (Plate 11).

An interior hearth consisting of a ring of nine cobbles of local volcanic rock is situated 50cm to the southeast of the center of the lodge floor. It has an exterior diameter of 45 by 60 cm. and an interior area of 22 by 35cm. The hearth stones range from 20 x 13 x 4cm to 12 x 9 x 5cm. A trowel test within the hearth to a depth of 15cm below PGS proved negative in terms of charcoal or ash, however, one of the hearth stones was scraped with a trowel and exhibited an orange coloring, apparently as a result of oxidation/heat-alteration and a single small piece of partially charred wood was found on the ground surface beneath the eastern-most hearth stone. It is apparent that, if the hearth was used as a thermal feature at all, it was minimal—one of several characteristics of the feature that possibly suggest a ceremonial rather than utilitarian function for the shelter. Another trowel test near the center of the Feature 1 floor uncovered an additional small fragment of charcoal at a depth of approximately 10cm.

Another notable aspect of Feature 1 is that, although the structural poles all reach almost exactly the same height at the peak of the lodge, the poles selected for placement on the uphill side are shorter than those on the downhill in order to compensate for the slope of the ground and keep the structure symmetrically conical and with the apex of the poles centered (Plate 11). Also, for the same reason, the tilt angle of the poles is steeper on the uphill side at approximately 71°, compared to downhill pole angles of roughly 68°.

Many of the aspects and details of this feature, including the premeditated nature of pole selection and the overall construction, add credence to the interpretation of the feature as being

the product of a highly experienced Protohistoric or early Historic aboriginal architect as opposed to a modern “boy scout” exercise in the re-creation of a “tipi.” As one of the archaeologists stated during the recording of the site: “It was not this tipi-builder’s first rodeo.”

Feature 2 is a three-pole standing utility rack that leans against the trunk and limbs on the northwest side of a live Douglas fir tree 14m to the northwest of Feature 1. The poles are leaned into the tree at angles of 50° to 67° they measure from 3.7 to 4.7m in length and 7 to 9cm in diameter at mid-pole. The heights at which the poles rest against their support elements are clustered at 3.3 to 3.5m above the ground. As with other such utility poles or racks, its exact purpose is difficult to ascertain, however it was likely used as either a hide flensing or fleshing pole, a rack for drying meat, or simply as a rack for keeping possessions off of the ground.

Feature 3 is another possible five-pole standing utility rack that leans against the trunks on the northeast side of two Douglas fir support trees. It is located 9m to the northwest of Feature 2. The poles are leaned into tree at angles of 54° to 75° they measure from 3.0 to 6.1m in length and 4 to 7cm in diameter at mid-pole. The heights at which the poles rest against their support elements range from 4.0 to 5.3m above the ground.

Description of the Eagle Trap

Approximately 100 vertical feet above, and 110m to the south-southeast of Feature 1, is Feature 4, an apparent eagle trap. The feature consists of an oval, dry-laid masonry enclosure built on the northeast-facing edge of a rocky prominence (Plate 13). Steep, rocky cliffs fall off in all directions from the feature with the exception of the ridge top to the northwest. The wall of the enclosure is constructed of approximately 100 or more cobble-to-small-boulder sized slabs and blocks of volcanic rock. The cliff rim itself is formed of an outcrop of the same local Tertiary age andesitic lavas, breccias, tuffs, and conglomerates (Tweto 1979). A section of this outcrop of bedrock is incorporated into the western portion of the wall of the enclosure.

The exterior of the feature measures approximately 3m north-south by 1.8m east-west. The uphill, western side of the wall is adjacent to the bedrock outcrop and only two to three courses high—approximately 30cm. The down-slope exterior face of the eastern wall, however, is up to 10 courses and a meter high. The interior of the enclosure is approximately 1.5m north-south by 0.8m east-west and 1.1 to 1.3m in height. Two angular blocks of stone within the enclosure appear to have been intentionally placed there, likely to serve as seats for the trappers while hiding under a brush covering, awaiting the arrival of eagles (Plate 13). A discussion of eagle traps is presented in the Discussion and Synthesis section of this report.

Evaluation, Management Recommendations, and Recommended Future Work

Site 5SH3788 is field evaluated as eligible for placement on the National Register of Historic Places (NRHP). Both the unusual and fragile Feature 1, and the possibly associated

eagle trap, Feature 4 qualify for listing according to Criteria A (associated with events that have made a significant contribution to the broad pattern of our history—namely the Protohistoric period and the final years of off-reservation Native Americans), Criteria C (one of the few remaining examples of a type or method of construction), and D (has yielded information important in prehistory and history). The Musick Lodge site is a unique and valuable resource. All efforts should be made to preserve, protect, and periodically monitor the site in the future. Possibly Feature 1, the standing lodge, should be fenced in order to protect it from livestock and wildlife impacts. Collection and preservation of the entire feature in a museum is a possibility which should be discussed with members of the Ute tribe.

PERTINENT SITES FROM ANCILLARY PROJECTS

Two aboriginal wooden feature sites that were independently investigated by Martin and DARG associates during the field season of 2010, and not part of the Colorado Wickiup Project itself, are discussed here: 5DT1538 and 5ME901, the Bella Site. Both of these sites produced valuable information of import to the Colorado Wickiup Project and our studies of aboriginal wooden features as summarized below. Only the quantitative data from 5DT1538 has been included in the compilation of wooden feature aspects for the project in Tables 8, 9, and 10, as no detailed measurements have yet been taken on the Bella Site features.

5DT1538

Site 5DT1538, is an open architectural site consisting of an isolated and unique lean-to/wickiup structure, was revisited and reevaluated in June of 2010 by archaeologists from Grand River Institute (GRI), including Curtis Martin, Colorado Wickiup Project Principal Investigator, as part of a Class III Cultural Resources Inventory for Bowie Resources, LLC (Conner, Martin, Brown, and Davenport 2010).

The isolated wooden structure, in Delta County, was initially found and recorded by Martin in 2004 (Martin, Conner, and Darnell 2004) on the southeast slopes of Grand Mesa to the north of Paonia, Colorado at an elevation of 7560 feet. At that time the feature was standing. Upon revisiting the site in 2010, however, the lean-to had completely collapsed (Plate 14). At that time the shelter was considered of possible early Historic Ute affiliation (post-1870), Navajo shepherd (post-1900), or recent Euro-American.

Despite its condition, during this revisit an Aboriginal Wood Feature Component Form was completed for the feature. In addition, the surrounding area was intensively surveyed for artifacts, an activity which included the use of a metal detector. No artifacts or thermal features of any kind were found, and there is no apparent depth of cultural fill. The vegetation consists of Gambel oak, serviceberry, rabbitbrush, Russian thistle, mules ears, and low ground cover. Soil on the site is brown clay loam of undetermined, yet significant depth.

Three dendrochronological samples were taken from feature poles and were submitted for dating to the Laboratory of Tree-Ring Research at the University of Arizona, however the analysis produced no dates.

Despite the possible recent age, and likely non-Native affiliation of the structure, the feature itself proved to be a remarkable amalgamation of two distinct architectural styles—a one-sided “lean-to” and a conical wickiup—into a single shelter: worthy of extensive recording and comment in the context of this report, and the CWP as a whole.

In 2004, site 5DT1538 consisted of a brush lean-to with a conical pole structure, or wickiup, incorporated into one end. A site boundary was established measuring approximately 30 meters in diameter surrounding the structure for the purpose of protection and management.

The sole feature on the site consisted of a southeast-facing lean-to shelter constructed of approximately 70 to 75 Gambel oak, poplar (presumably aspen), and possibly some serviceberry branches leaned against the northwestern side of a 4.8 meter long ridge pole made of a Gambel oak trunk. The lean-to's covering branches range in size from 80 to 275 centimeters in length and from approximately two to ten centimeters in diameter. When standing, the lean-to rose from ground level at the northeastern end to approximately 1.7 meters in height at the tops of poles of the conical structure's apex at the southwestern end. The exterior of the body of the structure (excluding the ends of the ridge pole), measured 3.9 meters in length (northeast-southwest) and from 80 to 1.5 meters in width. The shelter provided an interior area that measures 1.9 meters in length, a maximum of 1.9 meters in width, and a maximum of 80 centimeters in height within the conical portion. The shelter undoubtedly stood higher at the time of construction as the ridgepole had sagged notably over the years, even by 2004. The diameter of the ridge pole at its base was 12 centimeters.

The diameter of the ridge pole was 12cm at its base and it was supported at the southwest end by a bi-pod of two forked poles. The conical pole structure, or wickiup, that partially encloses the southwestern portion consisted of nine poles (including the two support poles). Two open spaces at the high (southwest) end provided possible entryways, one in the extreme southwest end, the other on the southeast side at the location of where the open end of the lean-to joined the conical structure. The structure was in good condition at the time, and appeared fairly stable, with the exception of the sagging and deteriorating ridge pole. The remainder of the poles were dry, cracking, and decomposing where in contact with the ground, but otherwise quite sturdy. None of the branches used in the construction of the shelter showed evidence of axe or saw cutting; rather, all were simply broken off or uprooted at their proximal ends.

The lean-to could have comfortably accommodated one reclining person and possibly two side-by-side. In addition, the partially enclosed southwestern end was large enough to shelter a fire hearth, gear, child, or dog. No evidence of a fire hearth could be found within or outside of the structure.

No portable artifacts or other features were found on, or near, the site, and it was therefore difficult to speculate as to the age of the structure. The relatively un-weathered nature of the individual branches, and the overall stability of the lean-to as a whole suggested to the researchers that it is of historic construction, and probably dating to within the last 70 years or less. Although firewood and fence post cutting activities are evident in the area, the lack of evidence of axe or saw use in the construction of the lean-to implied that it was not associated with the people involved in these endeavors. In the 2004 report, the site was considered to be possibly affiliated with sheep herding activities (Native American? Basque? Other Euro-American?), or possibly ranching or hunting. Those authors did admit, however, the possibility

that the structure is an unusual Protohistoric Ute wickiup. Based on the deteriorated condition of the feature (lack of integrity), and its lack of chronometric indicators (thermal features), this site was field evaluated as not eligible for listing on the NRHP. No further work was recommended.

5ME901, the Bella Site

Also in 2010 Principal Investigator Martin and DARG Research Associate Michael Brown, during a project for an unaffiliated CRM company, were afforded the opportunity to spend a few hours at another of the most pristine and significant aboriginal wooden feature sites in the state, 5ME901, the Bella Site. This site is an exceptionally well-preserved and undisturbed Late Prehistoric sheltered camp in the McInnis Canyons National Conservation Area of west central Colorado. The site was initially recorded by DARG President Carl Conner in 1978 (Conner 1978). Conner and a crew of DARG archaeologists revisited and reevaluated the site in 1989 and again in 2006 (Conner, Darnell, Ott, and Davenport 2007) and found the site, remarkably, almost unaltered from how it was left in 1978. The same was the case in 2010. The 1989 authors mention the partial collapse of one brush wall between 1978 and 1989, and evidence of disturbance to the surface of the site by bighorn sheep.

As with site 5DT1538 discussed above, it was resolved to include a summation of this cultural resource in this report based on the uniqueness and integrity of its wooden features. Initially, and in certain photographs, the wooden features within the large overhang appear to be a series of standing conical wickiups, however, upon closer inspection, they are actually four wooden divider walls, perpendicular to the entrance and back wall of the overhang, that separate the living area into four individual domestic or activity areas (Plate 15).

As only a few hours were available to spend at the site, a majority of the time was utilized in photographing the wooden features and in searching for additional diagnostic artifacts on the site surface. As a result, detailed measurements and descriptions have not been made of these features, and Aboriginal Wooden Feature Component Forms have not been completed. However, an excellent overview of the site, including a plan map and analysis of the prehistoric artifact assemblage found *in situ* on the site's surface, are presented in Conner, Darnell, Ott, and Davenport (2007). The descriptions of the site, the artifacts, and the features from that report are reproduced below as is the plan map (Figure 22).

The site is located within an alcove overhang that measures approximately 85 x 10m, and has a ceiling that ranges up to 3.0m above the floor. The shelter contains several features including structures for occupation and for defense.

Structures for occupation are defined by outlines of rock foundations in association with fallen or standing walls of wood branches, with a hearth

feature in their approximate center. Four hearth features are exposed on the surface. Three and possibly four "room" structures (based on the occurrences of the hearth features) are present. Three include a foundation of 1-2 courses of drylaid sandstone clasts (arranged or redistributed roof fall) and two have standing walls of interlocked juniper and pine logs. They are apparently grouped into two blocks of two rooms, each of which are separated by an open area that was possibly used for community gatherings or as a work space. Within the eastern room block, three standing walls define two rooms (numbered 1 and 2). The walls enclose an occupation area of approximately 4.5m². Stone tools were found *in situ* in the hearths and at the base of the walls or among the sandstone clast foundations.

The east boundary of Room #1 is formed by roof fall and three juniper poles. The south is open along the overhang edge. Separating Rooms #1 and #2 is a single course rock wall foundation and a wood wall created by the solidly intertwined branches of four juniper trees, one small ponderosa, and a I tree, which are leaned into each other. Gray ash and charcoal is present throughout the room.

Hearth Feature #1, outlined in sandstone rocks and mud-lined, is roughly centered in Room #1. It originally contained a small side-notched point of chalcedony (collected) and a large flake of red jasper. A comparative analysis of the projectile point indicated that it is a Uinta Side-notched type that is attributed to the late Fremont Era, ca. AD 950-1250 (Holmer 1986:108). Notably, this point type was dated 980±80 BP (Beta-42349) at site 5RB2828, Feature 1, in the Douglas Creek area (Hauck 1993:43). Also, a comparative type was recovered from sites 5MT5560 and 5MT6688, during the Dolores Archaeological Project, and identified as Type S-54, which has a high statistical occurrence in that project's collections from sites dating ca. AD 980-1250 (Phagan 1988:84,125).

Within Room #1, fragments of mountain mahogany sticks that were in various stages of arrow shaft production (fore and aft pieces) were found scattered about and in the hearth. Two were collected. Also, bone fragments of a small and large mammal were found around this hearth. Just north of the fire-pit was a burned pelvis of a small mammal. A mandible fragment of a large mammal was found just northeast of the hearth. It was collected as .s8 and since identified as modern bison. Also, about a meter south of the hearth under a rock was found some basketry material and a burned skull fragment (collected as .s6) of a large mammal (presumably bison).

Located between two rocks in the dividing wall was a finely crafted green porcellanite biface, which measured 12 x 4cm. In Room #2, an unlined fire-hearth [Hearth Feature #2] is evident near the center of the structure and just

north of the edge of the roof fall slab that covers the floor of the shelter. An ash pit [or dump from that feature] is located just north of the hearth. Three portions of arrow shafts were found in the ash pit, on the floor, and near the wall. In the NE edge of the room, an arrow shaft smoother made of sandstone was located and collected. Also, teeth and a related mandible from a large mammal (bison) were found in Room #2 (collected as .s7).

Along the southwest edge of the room lie two burned stones (probably removed from the hearth feature) and another possible arrow shaft smoother of local sandstone. The west wall of this room is similar to the east wall with poles made of I and juniper.

The area to the west of Room #2 is fairly open and might represent a work area. An arrow shaft smoother of sandstone and a core of white quartzite were found near the west wall of Room #2. To the west of this area lies Room #3. The walls of Room #3 are defined by a horseshoe-shaped coursing of dry-laid rocks (1-2 levels) around the south, east and west sides of the structure, forming its perimeter, with evidence of similar wood walls as the other two rooms, but which have collapsed. A fire pit with ash and charcoal, Hearth Feature #3, is present near the center of this room. Bone fragments of a large mammal (likely bison) are distributed near that hearth and to its southwest including a lower left mandible and rib. A biface fragment was found in the northeast corner.

West of Room #3 lies an area which is possibly another room (Room #4) as indicated by the upright slabs on the south cliff side and a possible coursed wall on the west side. It was also considered as a room feature due to the presence of Hearth Feature #4 because the previously identified hearths all occur in the interiors of rooms.

The area southwest of this suspected room is eroded. The area to the northwest of the eroded area contains a structure of interest. A large roof fall on the floor has left a meter wide, meter deep, and four meters long trench along the back wall. The occupants stacked slabs upright along the roof fall to form an almost completely walled area (designated Rock Structure #1). Its function is unknown but it could have been used for storage. Another small possible room is located at the west end of the alcove. It is formed by a clearing in the roof fall and bounded on the south by a few upright slabs. Designated Rock Structure #2, it could have simply been used as a defensive position.

East of Room #1, sandstone slabs and large rocks follow the perimeter of the roof fall for nearly 50m to the east end of the shelter. These apparently form defensive walls for the protection of the site, or are positioned to throw



Figure 22. Plan View of the Bella Site, 5ME901 (Conner et al 2007:36)

or push off the edge of the shelter onto attackers. In this portion of the site and near the shelter's center is a drylaid wall that again appears to be a defensive structure (designated Rock Structure #3). It occurs in a hollow between roof fall segments, and is about 1.5m at its highest. A cluster of I and juniper tree trunks and poles occur in the extreme east portion of the shelter that apparently represent another collapsed wall or two—but again, their positioning may be part of a defensive wall.

This site is one of the rare finds in this day as it probably has not been disturbed since occupation, as evidenced by the *in situ* artifacts and mammal bone throughout the site. As yet, no grinding or milling stones have been found in the site, nor were there any ceramics. Notably, of the poles brought up for walls, some still had their needles and cones in place, and there was no evidence of brush being piled against them, so they were likely covered with animal hides.

During a 1989 reevaluation of the site by Carl Conner, it was found to be ~~in~~ pristine condition and essentially undisturbed since being recorded in 1978.” The changes noted at that time were the log wall between Hearth Features #3 and #4 was no longer standing and desert bighorn sheep were causing some disturbance to the deposits by trampling and scuffing out beds. At that time, a radiocarbon sample (wood chunk) was collected from Hearth Feature #1. It was processed by the BLM-GJFO through Beta Analytic, Inc. of Coral Gables, Florida and yielded a date of 1020 +/- 80 BP (Beta-32041).

Revisiting the site in 2006 also found it to be in relatively good condition. A new site map was made that better defines the site boundary and location of its structures. Also, a radiocarbon sample (bone fragment) was secured during this revisit from Hearth Feature #1. It was sent to Beta Analytic, and produced an AMS date of 980±40 BP (conventional radiocarbon age), or about AD1030 (Beta-218199). A second bone sample, a large mammal mandible fragment, was collected just outside of this feature, which has been identified as modern bison. Other large mammal bones collected from or observed at the site are likely also bison.

Evaluation and Management Recommendation

This site was originally evaluated as eligible. Due to the unique nature of the site, the *in situ* features with datable charcoal, depth of cultural fill, and the site's potential to yield additional valuable information regarding the area's prehistory, this project concurs with the original recordation. Protection and preservation are recommended (Conner, Darnell, Ott, and Davenport 2007:35-42).

During the short visit to the site in 2010 by Martin and Brown they rediscovered an uncollected sandstone shaft smoother, flakes, burnt bone, and several of the aforementioned uncollected fragments of worked sticks that were in various stages of arrow shaft production. Additionally, in a rodent nest at the back of the east end of the overhang Martin discovered several previously un-described worked wooden sticks including a complete arrow shaft—with no point or hafting element—that retained the nock (or notch), remnants of paint or adhesive, and fragments of sinew wrap for attaching the fletching (Plate 19).

Although Conner et al do not actually suggest a Formative or Fremont Era occupation at the Bella Site, they compare the stone enclosures at 5ME901 to structures at Fremont sites and they compare the small side-notched point from the site to Unita Side-notched points from Fremont components elsewhere. However the photograph of the fragmentary point in Conner et al (ibid) appears to the current authors to be well within the parameters of later, Ute-affiliated, Desert Side-notched points.

The two radiometric dating results from the site, both at about 1000 years ago, imply pre-Ute occupation. Although the old wood problem could be cited as an issue with the charcoal date, this would not be the case with the bison bone. As a result, even though re-occupation at a later date cannot be discounted, it appears likely that the brush divider-walls at 5ME901 are the first prehistoric, pre-contact expedient wooden features encountered in the field by Colorado Wickiup Project personnel.

Also notable is the presence of at least one stone-circle style fire hearth—a design that has routinely been relegated by archaeologists to historic or recent Euro-American construction, as discussed elsewhere in this report.

PART IV: DISCUSSION AND SYNTHESIS

Discussion and Interpretation of Findings

As a continuation of the previous five years of research and data collection, Phase VI of the Colorado Wickiup Project has served to elucidate the final decades of the sovereign Ute occupation of western Colorado. As with previous work by the CWP, this phase of our studies has given rise to new understandings and insights regarding the continued occupation, or reoccupation, of traditional homelands by the Northern Ute peoples—the White River (Yampa and Grand Valley or Parusanuch), Uncompahgre or Tabeguache, and Uintah bands—during the Late Contact Post-Removal and Recent Contact Phases, and after the removal of a majority of their tribal members to the Uintah and Ouray reservations in northern Utah in 1881, or 1882 in the case of many of the northern White River band (Steve Baker, personal communication and Baker, Carrillo, and Spath 2007).

The number of wooden features and diagnostic metal artifacts at three of the Phase VI sites greatly exceeded what was anticipated based upon preliminary reports and informal accounts of the sites. This has provided the CWP with a wealth of data above and beyond our expectations in regards to the wooden features themselves, the extent and variety of trade goods recovered, and insights into the land use, social organization, and external relations patterns of the Protohistoric and early Historic, off-reservation Native occupants of western Colorado.

As demonstrated by the results of our research, over half (53%) of the sites recorded thus far by the project produced evidence of trade goods and, of those that produced accurate tree-ring dates, 53% were occupied during post-removal times, i.e. after 1881, as illustrated in Table 8. Further discussion regarding the age of aboriginal wooden feature sites in Colorado, and the dating methodology utilized to arrive at these conclusions, is presented below.

Additionally, as a result of our investigations at unique wooden feature sites in the extreme northwestern part of the state at Disappointment Draw Lodge, and in south central Colorado at Musick Lodge, we have also acquired knowledge regarding the Protohistoric or early Historic occupations of possible Shoshone, Comanche, Apache, Navajo, Arapaho, Cheyenne, or even Northern Puebloan peoples.

As in previous years, the CWP's sixth year of research, has proven to be not only highly productive in terms of additions to the database relating to the aboriginal wooden features of the state, but also new insights have been gained into the nature and variety of these structures, the seasonality of their manufacture and use, the artifactual assemblages, and the utilization of the landscape by the indigenous peoples who produced them. Including ancillary sites 5DT1538 and 5ME901, at least five types of aboriginal wooden features previously unrecorded by the CWP were recognized for the first time—a flat-roofed ramada or sunshade, an obvious tipi frame, a large and possibly ceremonial —loge,” a combination lean-to/wickiup, and room dividers” in an overhang. Also, although a one-sided lean-to structure (Feature 10) was

recorded on site 5RB18 during Phase IV of the project, the lean-to at the Decker Big Tank site (Feature 13), as well as the wickiup/lean-to at 5DT1538, represent much more meticulously constructed one-sided brush shelters than any seen before on Native American sites.

Additional insights regarding the age of wooden features, and the Numic occupation itself, were also made. Four of the sites from this phase of the project (5DT222, 5EA2740, 5ME469, and 5MF5216) produced evidence of trade goods, and numerous temporally-sensitive and culturally-informative diagnostic metal and glass artifacts. Three of these sites yielded tree-ring dates associated with the Numic occupations—5EA2740, 5ME469, and 5MF5216. The latter site, the Disappointment Draw Lodge, produced firm “post-removal” dendrochronological dates. As in the past, only those wooden elements that exhibited signs of having been harvested live with metal axes have been sampled and dated, in order to avoid old wood confusion.

Although the data regarding the very last years of occupation in the state by Native American peoples continues to be enlightening, two of the Phase VI sites have *also* served to push the age of extant aboriginal wooden features on Colorado’s archaeological landscape further back into the early Protohistoric. The artifactual assemblages and dendrochronological dating results from both the Pisgah Mountain Wickiup Village (5EA2740) and the Decker Big Tank Village (5ME469) reveal these resources to be among the earliest wooden feature sites thus far documented by the CWP. The presence of lithic tools, metal projectile points, and a muzzle-loader percussion cap on the Pisgah Mountain site served as indicators that these forms of technology had not yet been abandoned in favor of more recent fixed-ammunition firearms and iron cookware as is the case on many of the Project’s other sites. The early tree-ring date of 1795++B from Big Tank suggests that this is possibly one of the earliest wooden feature sites thus far documented by the Project.

The relatively large size of the glass seed beads from Pisgah, in comparison to the extremely small specimens from later, turn of the century, sites such as Disappointment Draw and the Ute Hunters’ Camp (5RB563), provides further evidence of the several decades earlier occupation Pisgah (see Appendix F). The results of the tree-ring dating substantiate these conclusions, providing evidence that the wooden features at 5EA2740, despite their high level of preservation, are also among the earliest recorded thus far by the Wickiup Project.

Concepts discussed in earlier volumes of the CWP included our approaches to validating the cultural origins of wooden features, potential dating methods, and the attendant problems associated with each (such as the ineffectiveness of using dead-collected old wood for radiocarbon or dendrochronological dating on sites this recent in the archaeological record), and the inferred functions of aboriginal wooden features. These topics will not be reiterated here, but rather the reader is referred to these previous documents.

Additionally, thorough discussions of Numic settlement patterns, site selection, site structure, intra-site spatial analysis, seasonality, and the dating of Protohistoric and early Historic Native American sites were presented in the Phase V report (Martin and Brown 2010a) as well as earlier volumes of the project and will not be reproduced here except in the case of

new evidence acquired during Phase VI investigations, especially in regards to the unique, high elevation Musick Lodge site.

Once again, the Phase VI activities produced additional refinements to the field methodology and analytical understanding of ephemeral aboriginal wooden feature sites. In addition to the new categories of wooden features that are reported herein, new categories of non-wooden features, such as stone-ring fire hearths and stone tool caches within the branches of living trees, were documented. In response to these findings, field techniques and recording protocols were again refined and the Aboriginal Wooden Feature Component Form has been adapted to facilitate the recording of these new data types in the future.

Pisgah Mountain Wickiup Village (5EA2740)

The following synthesis of the findings at 5EA2740 is taken from the report on the further assessment of that site (Martin and Brown 2010b). As this site was originally investigated as part of the Colorado Wickiup Project, Phase VI, the discussion and analysis of the site is reproduced here in its entirety with several edits made based on the fact that the results of the tree-ring analysis have been received since the publication of that report (Appendix C). For photographs, feature maps, and a thorough description of the site, features, artifacts, and investigations at Pisgah Mountain Wickiup Village, refer to that report.

Site 5EA2740 has been assigned a Ute affiliation based solely on its location in the mountain region of west central Colorado, where these were the only Native peoples documented in the area at the point in history represented by the artifacts and tree-ring dates found at the site. The site represents a temporary domestic camp that was quite apparently inhabited for more than a few days—most likely weeks or months based on the number of discarded or lost artifacts. The primary occupation of the village appears to have been in the fall/winter of 1853 based on the “complete” nature of the terminal, or outer, rings of several of the dendrochronological samples taken. Additional indicators of seasonality, subsistence, and environment undoubtedly exist at the site, however would require further investigations, such as macrobotanical and pollen analysis, and test excavation which hopefully would produce additional environmental information such as faunal remains. The valley in which the site is situated provides a modicum of protection from westerly storms, and the relative proximity of the Colorado River and a nearby spring would assure year-round open water during all but the most extreme of weather conditions. Deer and elk herds also were likely present in the area year-round.

Activities represented at the site, in addition to those predictable at all camp sites such as hunting, gathering, food preparation, and shelter construction, included lithic and metal tool manufacture and maintenance—as evidenced by the unfinished metal projectile points at Feature 16, the un-rolled tinkler blank from near Feature 8, the numerous cut fragments of iron and non-ferrous metal, and possible bullet or minié ball casting as evidenced by the lead sprue globules.

It remains unclear as to the gender make-up of the occupants of the camp, although the significant number of wickiups suggests that one or more entire extended families were in residence. Although, in the present day, tinklers or jingle cones have become the property primarily of women and girls for the adornment of pow wow jingle dresses, this does not necessarily reflect the cross-gender nature of their use in early historic times. These items can be seen decorating all manner of male and female articles of clothing, armaments, and personal items in historic Native American photographs. As hypothesized elsewhere in this report, the low-walled brush enclosures represented by Features 6 and 12C are potential indicators of the presence of infants or small children—as “paly pens”—however, particularly Feature 6 also possibly represents a lambing pen or other domestic animal containment. The presence of horses at the site is indisputable, based on the artifacts described in the Equine-related Artifacts section.

In 1973 the Duck Creek Wickiup Village (5RB53) in the northern Piceance Basin region of northwest Colorado, with only eight collapsed and partially collapsed wickiups and other features, was placed on the National Register of Historic Places (NRHP) as being the “largest reported village of this type in Colorado having standing wickiups” (Martin and Ott 2009:48). Based on newly-discovered sites and the past seven years of research by DARG and the CWP, it is apparent that aboriginal wooden feature sites such as the Pisgah Mountain Village could hardly be imagined by the archaeologists and cultural resource managers of that time.

Modern investigative and recordation techniques such as those being developed by the CWP—most notably metal detection and the tree-ring dating of metal ax-cut feature elements—have brought to light data and insights regarding the final years of the sovereign Ute in western Colorado that had heretofore remained undocumented, or at least under-documented. 5EA2740, with its 28 wooden features; scores of associated lithic, metal, and glass, artifacts; and its solid dating results, stands to become one of the type-sites regarding the Colorado Protohistoric—the period of first contact between Native peoples and Euro-American immigrants.

As outlined in the Feature Descriptions section, the features at Pisgah Mountain are roughly arranged in a crescent shape. The wickiups and other features and artifacts cluster in four loose groupings: Features 15, 16, 17, and 20 are separated from the rest of the site by a low saddle and are associated with the Open Activity Locus in the extreme southeastern corner of the site. At the opposite, northeast, —point of the crescent are found Features 1, 2, and 18. More centrally located are clusters containing Features 3 through 7 and 19, and Features 8 through 14. There is, however, no direct evidence that these groupings represent separate occupations at the site as diagnostic artifacts and tree-ring dates indicate a contemporaneousness throughout. There is ethnographic evidence that the Ute sometimes built new wickiups each time they reoccupied a site on a seasonal basis, and this may be the case at Pisgah Mountain, however it remains evident that, if this were the case, the reoccupations apparently represent a limited time span—that of the early Protohistoric. Another possibility, of course, is that these household clusters represent clan or extended family groupings, as has been hypothesized at other wickiup sites such as Raders’ Wickiup Village (5RB2624) in the Piceance Basin (Martin, Ott, and Darnell 2006).

A number of types of both wooden features and portable trade-ware artifacts not previously documented by the CWP were encountered at Pisgah. Feature 6, for instance, consists of a roughly square brush enclosure built on the southeast side of a juniper tree. Three narrow limbs were partially axed at their contacts with the support tree and then bent down to form an “archway” over the apparent entryway, on the north side of the enclosure. It is possible that these pull-down branches supported some type of covering, mat, blanket, etc. to act as a closeable “door.” Hypothetical uses for this feature include a lambing pen, children’s “playpen,” or an activity area for food preparation. Both the square nature of the enclosure and the archway over the entry are new to this project.

Feature 12 consists of a distinctive complex of three associated wooden features: a wickiup within a brush enclosure and a horizontal beam suspended in the branches of a juniper tree. This notably unique feature complex should be considered highly significant and test excavations are highly recommended. Directly in front of the south-facing entryway of the wickiup is an ash and charcoal filled, basin-shaped hearth that is situated within the brush enclosure.

Feature 15B is a rare example of a culturally bark-peeled piñon tree, albeit an apparently modern ax-cut “blaze.” The only other bark-peeled piñon tree thus far noted by the CWP was at one of the ancillary sites reported on in the Phase V report (Martin and Brown 2010a) at site 5ME974 in Mesa County. Such manifestations are typically found on ponderosa pine trees.

Cobble Concentration C, a collection of unmodified cobbles and stone tools cached in a live juniper tree, is in-and-of itself an unusual and noteworthy cultural resource. Again, based on the tree-ring dating results, at least one of these cobbles was obviously placed in the tree during modern times.

However, what possibly makes 5EA2740 stand out as a Protohistoric site is the integrity of the cultural resources. The only signs of modern intrusion at the site are several incidences of apparent fence post cutting—including the ax blaze at Feature 15B and some saw cuts—and the three modern ammunition components. Feature 12, as noted above, is an example, however wickiup Feature 16 produced a remarkable number and variety of associated artifacts. Collected from within the feature itself were a chert end scraper, a metal tinkler, a spent bullet lead, and a perforated, circular metal disk or “washer.” Within seven meters of the wickiup were also collected four sheet metal strip fragments, three metal projectile points in various stages of production, a fragment of cut triangular sheet metal with a concave edge, an elongated diamond-shape piece of cut sheet metal that is possibly a fourth projectile point, and a small fragment of wire—possibly a tack shank. Additionally, a number of uncollected artifacts were discovered at the shelter: two apparent knife handle pins, a possible bridle fragment, two chert flakes, a burnt bone fragment, and 11 fragments of rusted sheet metal.

Although the leaner-style wickiup represented by Feature 16 is unexceptional, in and of itself, being similar to numerous others recorded by the CWP, the number and array of artifacts in direct association makes this feature one of the premier examples of an undisturbed

Protohistoric wickiup known to the Colorado Wickiup Project. This feature is highly recommended for excavation by a future project.

Other intriguing and edifying loci at the site include Features 14 and 17. These subtle “utility poles,” of a type often completely overlooked by field archaeologists both in the past and present, when thoroughly investigated with metal detection can provide significant information. For example, at Feature 14, the head of a decorative brass tack, a metal pick or awl, a metal knife blade fragment, and a blue glass seed bead were recovered. At Feature 17, notably, seven tinklers were found within two meters of the utility pole.

The Pisgah Mountain Wickiup Village also has provided enough additional data to make it statistically valid to add several new categories to the Colorado Wickiup Project’s ongoing tabulation of “quantifiable aspects of aboriginal wooden features.” New categories regarding indications of the presence of horses, metal projectile points, and ordnance on sites has been added to Table 8, which includes data from all phases of the project. Separate tables (Tables 9 and 10) have been created for the tabulation of additional new categories—wickiup entryway orientation, floor size, interior headroom, orientation of features from their support/canopy trees, and the presence of interior and exterior hearths.

Because of the substantial results at 5EA2740, in terms of the number, nature, and condition of wooden elements, the wide variety of diagnostic metal trade ware artifacts, and the significant dendrochronological dating results, it is highly recommended that this site be further investigated in the near future. Not only are the wooden features themselves at risk from further decay, fire, collapse, vandalism, and livestock impact; it can also be assumed that a substantial number of non-metallic artifacts remain *in situ* at the site, and in danger of collection or disturbance from visitation by hunters, hikers, and recreationalists. Test excavations at several of the features and loci are recommended, and will be pursued as a future State Historical Fund grant proposal.

Of interest, pertaining to the numerous metal jingles discovered at the Pisgah Mountain site, the following story of the origin of wearing tinklers as adornments on the clothing of women at Native American dances was found on the *Ancient Voices* website:

As the story goes, a medicine man’s granddaughter was very ill. He had a dream in which a spirit wearing the jingle dress came to him and told him to make one of these dresses and put it on his daughter to cure her. When he awoke, he and his wife proceeded to assemble the dress as described by the spirit of his dream. When finished, they and others brought his granddaughter to the dance hall and she put on the dress. During the first circle around the room, she needed to be carried. During the second circle around the room, she could barely walk and needed the assistance of several women. The third circle around the room she found she could walk without assistance and during the fourth circle around the room, she danced.

The jingle dress is made of a cloth, velvet or leather base adorned with jingles made out of a shiny metal. Traditionally and still common today, the jingles are made from the lids of snuff cans. These are bent and molded into triangular bell shapes and attached to the dress with ribbon or fabric in a pattern designed by the dancer. It takes between 400 and 700 jingles to make an adult jingle dress. (Some versions of this story say 365 jingles for each day of the year.) www.ancient-voices.com/clothing (accessed 8/7/09).

Newly Documented Feature Types

Flat-roofed Ramada or Sunshade

Although Feature 1 at the Black Canyon Ramada (5DT222) is likely not unique as a site, it is certainly rare—regardless of the age of the feature and cultural affiliation, nothing comparable is known to these researchers in the archaeological record of Colorado. Feature 19 at the Wenger Camp (5RB266) was recorded as a possible sunshade based on the perpendicular arrangement of the collapsed poles (Martin, Ott, and Darnell 2006), however the exact nature of the structure when standing is difficult to ascertain. It is possible that it actually had been a utility framework for jerking meat or drying foodstuffs, rather than as a shelter for humans.

Prior to the initiation of the testing activities at the site it was presumed that 5DT222 would produce a significant number of metal artifacts—based on the presence of metal ax-cut elements within Feature 1 and on nearby trees, and by the results at other wooden feature sites investigated by the CWP. This proved to be not the case as only five fragments of rusted wire and a modern .22 caliber cartridge casing were recovered.

As evidenced by the results of the tree-ring dates, the ramada appears to have been constructed in 1903 or shortly thereafter. Based on these dates, and the presence of lithic tools and debitage and the plain gray or brown ware ceramics, it is obvious that there are at least two components represented at the site—a Formative or Protohistoric aboriginal occupation and a Historic occupation of undetermined ethnic affiliation. As mentioned earlier, it is recommended that one or more of the previously collected sherds be submitted for thermoluminescent analysis.

Lean-tos

Structure 13 at the Decker Big Tank Wickiup Village (5ME469), consists of a “classic” one-sided lean-to. Although a commonly-recorded structure type in historic, Euro-American contexts, they are exceedingly rare on aboriginal sites. A similar, yet much more rudimentary, feature was recorded at 5RB18, the Two Tall Pole Wickiup Village, as Feature 10 (Martin and Ott 2009). Also, although quite possibly of more recent, non-Native construction, the structure

at ancillary site 5DT1538 is another example of a one-sided shelter sustained by a horizontal support element—a unique feature that incorporates a conical wickiup at one end of the lean-to.

Brush Room Dividers

At ancillary site 5ME901, the Bella Site, four wooden divider walls separate the living surface within a large occupied overhang into four individual domestic or activity areas, or “rooms.” Again, this is a newly-documented type of wooden feature for the Project, and it is hoped that the CWP will be afforded the opportunity to revisit the site to formally and thoroughly record what are potentially extremely rare *prehistoric* expedient wooden features.

Tipi Frames and “Lodges”

Feature 1 at the Disappointment Draw Lodge (as previously named by the BLM) has been recorded as a tipi frame due to the uniquely straight and narrow poles that make up the framework of the conical shelter.

The reason that not only the Ute, but other Native American peoples as well—including the tribes of the Plains—did not produce full-sized tipis prior to the acquisition of the horse, was that, compared with wickiup structures that were expediently constructed and meant to be left behind when the occupants moved to a different encampment, it was significantly more labor intensive to secure and prepare tipi poles and coverings. Tipis were built with the intention of dismantling and carrying away the entire framework and covering whenever the owners moved to a different location. This fact alone explains one of the primary reasons for there being less Protohistoric and early Historic tipis left in the archaeological record; they were removed, again and again, from the sites on which they stood—typically until they were “used up,” destroyed, or cached away in a museum or ethnographic collection.

In addition, at least among Plains Indians, the conical frameworks were freestanding and thus more susceptible to collapse and, consequently, more rapid decay. At least some Ute tipis, however, as documented in historic photographs (Plate 7), were supported by live tree trunks and branches, as is the case at Feature 1 at 5MF5216, the Disappointment Draw Lodge. It is very likely that, had Feature 1 been a freestanding structure, its wooden framework would have long since collapsed and decomposed. It is also likely that this tipi frame is the last remaining “leaner-style” Numic tipi in Colorado—if not the entire culture area—in an archaeological context.

Although it is difficult or impossible to ascertain with certainty why this particular tipi frame had been abandoned, it is potentially a reflection on the nature of the turbulent times for Native peoples in northwest Colorado in the late Nineteenth and early Twentieth Centuries. Off-reservation Utes at this period in history were making every effort to avoid or limit contacts with Euro-American settlers and military personnel. It is easy to imagine that Native Americans’ camps, and their belongings, were not uncommonly abandoned in favor of a hasty withdrawal for fear of capture, imprisonment, or return to the despised reservations in Utah.

This same scenario can be envisioned at the Ute Hunters' Camp (5RB563), where a number of potentially valuable personal belongings were left behind at the site (Martin and Brown 2010a). It is even conceivable that the occupants of these sites *had* been taken captive by the U.S. Government and removed; leaving many of their possessions behind.

Six other collapsed or partially standing structures recorded by the Colorado Wickiup Project have been analyzed as possible tipi frames: Structure 6 at Decker Big Tank Wickiup Village, Feature 1 at the Musick Lodge site, Feature 2 at the Two Tall Pole Wickiup Village, Features 11 and 12 at the Duck Creek Wickiup Village, and Feature 1 at 5RB5611. The categorization of these features as “tipis” has been based on factors such as length or straightness of poles or overall floor size, however it has been difficult to ascertain as to whether these other features truly appear to have been constructed of framework elements that had been intended for transport and re-use—one of the key components regarding the definition of the term “tipi” as used by this project—as seems evident with the well-made poles of the Disappointment Draw Lodge. In fact, a majority of the elements in these other features are obviously unsuitable for utilization as travois poles, however it is speculated that shelters of this size had utilized hide or canvas coverings rather than merely branches or brush.

For structures on the Colorado Plateau, the term wickiup, as used by the CWP, refers to expedient (advantageous and opportunistic), ephemeral (transient or temporary), quickly-constructed, typically conical, stick shelters—ones that are intended to be left behind when the occupants move to a new location. The nature of Feature 1 at 5SH3788, the “Musick Lodge,” however, belies the use of the terms “expedient” or “ephemeral” to describe it. Also, Sanfilippo (1998) presents data from 430 Colorado wickiups; none of which contained more than 22 poles. Out of 205 conical shelters thus far documented by the CWP, the maximum number of framework poles in a single wickiup or tipi frame is approximately 23 (Feature 1 at site 5RB18). Feature 1 at the Musick Lodge site not only contains significantly more poles (89 to 93 in the framework itself), but it is notably taller than a vast majority of wickiups.

On the other hand, the term “tipi” is typically used to describe hide or canvas covered shelters that were designed to be dismantled and carried away as a travois when camp was moved to a new location. It is quite apparent that, with or without an outer covering, the Musick Lodge was never intended to be gathered up and moved by its architects. Smith (1974) defines typical Ute tipis as having a foundation of four poles and a framework of eight to 20 poles. A number of many-poled (typically aspen trunks), high elevation features are known to the Project primarily through a series of recent and historic photographs, that do not fit the standard definitions of either “wickiup” or “tipi” as used by the CWP (Plate 10). Therefore, we have elected to refer to Feature 1, and other similar high elevation conical wooden shelters utilizing 50 to over 100 poles, as “loges”—borrowing the term from the nearby feature at site 5SH242, the Elk Track War Lodge.

The Elk Track War Lodge was located approximately 15 to 17 miles to the northwest before it was collected and moved to a display case at the Ute Museum in Montrose. Intriguingly, the Musick Lodge has remarkable similarities to this wooden feature. Based on the

descriptions by the Huschers in the 1930s to 1940s (Huscher and Huscher 1939 and Terry and Gilchrist 1988), and the site records from 1976 (Martorano et al 1999), the Elk Track War Lodge reportedly had over 70 framework poles, an entry to the west (west-northwest at Musick), spruce or pine bark gathered around the base of the structure, a central interior hearth, no associated artifacts, and “large pieces of bark” near the doorway (analogous to the stick bundles over the doorway at Musick?). Also, similar to the interior pole within the Musick Lodge, what appears to be a small interior pole, standing upright directly inside of the entryway of the Elk Track War Lodge, can be seen in a photograph of that feature (Plate 10). Although the War Lodge was not positioned with a standing tree directly outside of the entry as at Musick Lodge, the same photograph shows what appears to be a long “utility pole” extending in front of the doorway, which possibly served a similar, yet to be determined, purpose.

Although at this point based primarily on only a few documented features and a series of photographs, there is quite apparently a tendency for high elevation alpine or sub-alpine “lodges” to be taller, and to have been constructed with significantly more poles than the wickiups found in the upper Sonoran piñon/juniper habitat at lower elevations. The high-elevation structures’ poles also tend to be placed adjacent to each other, rather than spaced at intervals as in piñon and juniper pole wickiups.

The greater height of the montane/subalpine shelters is easily explained by the readily-available dead-standing, long, straight aspen, fir, spruce, and pine trunks in the forests in which they are found, as opposed to the shorter, bulkier, and less-straight piñon and juniper elements. Similarly, one of the possible reasons that aspen appears to be the species of choice for shelter poles at these elevations is based on how relatively easy it is to uproot the dead standing trunks of these trees (or break them off at ground level).

Two potential explanations for the high pole count phenomena both pertain to the climatic differences between the piñon/juniper and the subalpine habitats: temperature and snowfall. Needless to say, closely-spaced poles, particularly if covered with brush, bark, hides, or canvas, will provide a more effective barrier against wind, cold, and precipitation than a widely-spaced framework—presumably of more importance at high elevations. The presence of bark and twigs lining the exterior bases of both of the “lodges” discussed above also further suggests that protection from the cold was a matter of concern.

However, a comparison of the average low *summer* temperatures in the mountains of Colorado (presumably the season represented by a majority of Native American sites at those elevations) with those at lower elevations (in the zone generally accepted for *winter* occupations for the Ute and other prehistoric mobile hunting and gathering peoples), one finds that this hypothesis does not hold up. Average July lows in Telluride, Dillon, Leadville, and Wolf Creek Pass (between 8,745 feet and 10,850 feet) range from 39°F to 41°F. Average January lows in Craig, Cortez, Meeker, Durango, and Pagosa Springs (between 6,185 feet and 7,079 feet) range from 2°F to 12°F (information courtesy of the Colorado Climate Center, Colorado State University, Ft. Collins). In other words, there actually exists a notably greater need for efficient

shelter from the elements in the winter occupation areas of the state (piñon/juniper habitat) than at the high elevation summer areas.

Regarding snowfall, a replicative experiment by the principal author of this report demonstrated that, even without a covering of any type, a conical framework constructed of straight, closely-spaced aspen and evergreen poles succeeded in keeping nearly all snow from reaching the ground within the shelter. Similar to the consideration of temperature, however, it remains unclear as to whether this would have been a determining factor: summer snowfall amounts in the mountains are not significantly greater than winter amounts in the piñon/juniper forests below during the winter months.

Another option as to a potential benefit for having a shelter's poles placed closely together is suggested by Matthews' (1877) in his description of a Hidatsa conical —"hunting lodge" in which the poles had been leaned against one another —so closely as to render [the shelter] bullet proof." Closely-spaced poles would also make it easier to conceal an interior fire from the eyes of unwanted company, but, again, this was also a concern at lower elevations.

Considerations such as the amount of protection afforded by multi-poled structures against potential threats and annoyances such as bears and mosquitoes in the mountains versus bears and gnats in the canyon/plateau country appear to be of little or no relevance. Therefore, at this time, it remains the belief of these authors that the major factor contributing to the higher pole counts in the pine/spruce/fir/aspen habitat is simply the more readily available and more easily collected supply of dead, straight, standing tree trunks.

As discussed elsewhere, Feature 1, the Musick Lodge, is considered as possibly a ceremonial shelter for either the eagle hunters or the eagles themselves, in relation to Feature 4, the nearby eagle trap (see below for a discussion of these features). The remains of what appears to have been an interior pole rack of some type and the possibly symbolic fire circle further suggest this possibility. Although historical accounts exist of these types of uses for wickiups, lodges, and hogans paired with eagle traps, no references to interior eagle roosts, alters, etc. has been found. Bowers (1950), however, does mention in his description of conical lodges used to house eagle hunters that —at the conclusion of the eagle-trapping season the altar (a buffalo skull) was removed from the lodge and the bundle closed, the lodge was no longer considered sacred. The leader's family could then move into the former eagle-trapping ceremonial lodge for the remainder of the winter." No further descriptions of the —altar" or —bundle" were provided.

Eagle Traps

Although the wooden elements that presumably once formed a roof for the stone enclosure eagle trap at site 5SH3788 are no longer present, this is the first of such structures recorded by the Colorado Wickiup Project. What is known about these rare features, and their use, comes primarily from ethnographic research. They are not unique to the Ute culture, however, their style varies significantly from one area to another based on the topography, soils,

and building materials available at a particular site. In some cases, rather than utilizing above-ground stone walls, the traps were constructed by digging a sub-surface pit (Hill 1938).

In general, however, the purpose of the traps, and the methodology applied by the eagle hunters in securing their quarry, is similar cross-culturally. It is well documented in the ethnographic literature regarding Native American peoples in the western United States that, for ceremonial purposes, feathers shed or plucked from live eagles have special significance over ones obtained from dead birds (White 1913). The practice of keeping live eagles for feather procurement is still known among Native Americans (personal observation by the senior author) and there are references to eagles being tethered on the roof tops of Hopi pueblos during the ceremonial season (Adams 2002). One of the hypothesized functions for the horizontal beams high in the branches of trees that have been recorded on a number of the CWP sites, as suggested by Timothy Ryder of the Southern Ute Museum in Ignacio (personal communication), is as roosts for tethering captive eagles. Mr. Ryder is in possession of a photograph, of unknown date, showing an eagle tethered to horizontal tree beams. The practice of erecting simple platforms of poles in trees for this purpose was also documented among the Navajo by Clyde and Lucy Kluckhohn (1971).

Accordingly, eagle traps are created for the entrapment of live eagles primarily for the purpose of procuring ceremonial feathers. Although the style of the traps varies, as mentioned above, the methodology of attracting and catching the live birds appears to have been universally similar. A roof or covering of wood or brush was placed over the enclosure or pit to conceal one or two persons hidden within. A piece of raw meat or a live rabbit or other rodent was tied to, and placed on top of, the roof to attract the raptors. When an eagle alighted on the trap, or swooped low to secure the bait, the hunter would reach up through the brush covering and grab the bird by the legs.

Apparently a great deal of ritual preparation was typically involved for such hunts, and in the treatment of the animals after they were captured. Among the Navajo, at least, there are descriptions in the literature of special “houses” being built to accommodate the captive eagles while the hunt continues for additional birds. As discussed in the description of Feature 1 at the “Musick Lodge”, it is possible, however speculative, that this is the case for that structure. The collapsed poles from what was apparently an internal rack of some sort at this feature tends to support this hypothesis. Ethnographically, at least among the Navajo, perches were built inside of cages to prevent captive eagles from soiling their features on the ground (ibid).

An apparent eagle trapping complex in the drainage of the Little Missouri River in North Dakota, reputedly of Mandan-Hidatsa origin, includes nine conical “tipi-shaped wooden lodges” in association with the remains of eagle trapping pits (Allen 1983). The structures consist of 20 to 60 remaining poles and were built in sheltered areas, while the trapping pits are situated on or near the tops of hills and ridges. The author suggests that the wooden structures are hunting lodges occupied during fall meat procurement trips and as “ceremonial lodges necessary for completion of the proper rituals required to insure success in capturing eagles.” Allen alludes to

ethnographic accounts of these conical shelters, and their association with eagle trapping, by Frances Laroque, Meriwether Lewis, William Clark, and others.

Stone-ring Fire Hearths

A number of hearths characterized by rock rings, which have been almost universally recorded as “cowboy fire rings” of recent Euro-American construction by archaeologists in the western U.S., were found on Decker Big Tank Wickiup Village (4), within Feature 1 at Musick Lodge, and at the Bella Site. It is obvious from these findings, therefore, that this type of hearth feature should not automatically be ignored or written off as being of non-Native affiliation on the archaeological landscape of western Colorado, and presumably a much wider geographic area. It is noteworthy, and somewhat difficult to interpret, that most of these features found by the CWP exhibit scant evidence, if any, that they had actually contained fire or coals.

Interpretation of Quantifiable Aspects of the Colorado Wickiup Project (Tables 8 – 10)

With the completion of Phase VI, the Colorado Wickiup Project (including ancillary studies) has documented in detail a total of 59 aboriginal wooden feature sites and 370 individual features. A summary of various quantifiable aspects of the data from all phases of the project is presented in Tables 8, 9, and 10.

In order to quantify new categories of data of interest to the project, and categories that have been of interest throughout but were previously considered to be represented by too small of a sample to be of significance, this tabulation has been revised since it was last presented in the Phase V report (as Table 7). The data is now presented in three separate tables. Table 8 (structure types, artifactual hallmarks, and chronometric information), Table 9 (species-specific information regarding feature elements and support/canopy trees), and Table 10 (new categories of interest regarding wickiups and other types of shelters). The new categories that have been added to the database consist of:

1. The presence of rock-ring style fire hearths—added due to the fact that five “cowboy-style” hearths were discovered in direct association with wooden features during Phase VI at two separate sites: 5ME469 and 5SH3788 (Table 8). Also, at least one additional such thermal feature, of obvious prehistoric age, was noted at the ancillary Bella Site, 5ME901, however it has not been incorporated into the Table 8 data.
2. Deciduous and conifer structural elements, and conifer support trees for leaning feature elements—added due to the presence of such at both the Musick Lodge, 5SH3788, and ancillary site 5DT1538 (Table 9). These later categories will, with certainty, expand upon the completion of our on-going Phase VII work in the high elevations of Rocky Mountain National Park during the field season of 2011.

3. The presence of metal projectile points on sites—five specimens were found on 5EA2740 (Table 8). Table 11 also provides a list of the Colorado Wickiup Project sites that have produced metal projectile points.
4. The presence of ordnance (guns or ammunition) on sites—numerous specimens were recovered in Phase VI at 5EA2740, 5ME469, and 5MF5216 (Table 8).
5. Indications of horses on sites such as headstall jingles, bridle parts, a concha, horseshoe nails, or large corrals—new evidence was found during this phase of the project at 5EA2740 and 5MF5216 (Table 8).
6. New tabulations for selected aspects of wickiups and other forms of shelters (tipis/lodges, lean-tos, ramadas, and wall tents): the orientation of entryways and support/canopy trees, floor areas, interior headroom, and the presence of interior and exterior hearths (Table 10). In this latter category it is surmised that the presence of interior versus exterior hearths is exaggerated as significantly more trowel tests have been conducted within the interiors of shelters (in search of charcoal, ash, and so forth) as compared to the exterior—in a number of cases indication of hearth presence was only revealed upon trowel testing.

As in the past, whenever a range of possible cultural poles or beams was recorded (e.g.: 9 to 11 poles”), the larger number was used. The number and species of tree branches that were utilized in the construction of brush fences and the larger corrals or animal pens do not appear in the totals. The same is true for the non-structural wood recorded as firewood piles.

Several observations are apparent, and of particular interest, from the data in Tables 8 and 9. Of the 370 features, 212 (57%) are shelters—including three lean-tos, two ramadas, two wall tents, and seven structures listed as “possible tipi frames.” Of these, 196 (53% of the total number of features) are wickiups. Exactly two-thirds (66%) of the wickiups are categorized as “leaners” (supported by standing trees) rather than freestanding or “pull-downs.” Taking into consideration the variety of factors outlined in Phase III (Martin, Ott, and Darnell 2006), primarily the additional reinforcement offered by support trees that forestall collapse, it remains the contention of the CWP that freestanding wickiups may have originally been as prevalent as leaner wickiups on Ute sites, perhaps even more so. Within the piñon/juniper habitat, the dominant use of juniper wood rather than piñon for the structure poles (94%), and for juniper trees as feature support/canopy trees (88%) continues to be indisputable.

Thirty-one of the 59 sites (53%) provide evidence of post-contact trade goods (often in the form of metal-ax scars) and eight of the 15 sites (53%) that have produced tree-ring dates, demonstrate post-removal” occupation (after the fall of 1881). If the questionable date of AD1815 from the wickiup pole at 5RB4331 is removed from the equation this percentage increases to 57%. It is surmised that even more of the sites date to post-contact times based on the overall condition of the feature wood and the assumption that a percentage of post-contact sites simply have not yet produced evidence of trade wares. Similarly, it can be assumed that a

higher percentage of the tree-ring dated sites are post-1881, but cannot be demonstrated as such due to the absence of an unknown number of outer rings on the dendrochronological samples due to natural or cultural attrition.

The newly-tabulated aspects of wickiups and other forms of human shelter (tipis, lean-tos, ramadas, and wall tents) presented in Table 10 substantiate and quantify several of the Project's previous assertions that Numic peoples were much more opportunistic, and less rigid and ritualistic, regarding the design and construction of their shelters than has been previously suggested in the literature by Sanfilippo (1998) and others. Entryways, when discernable, have been found to be oriented literally in every compass direction. The number of exterior versus interior hearths is roughly equal—38 versus 35—however, as explained elsewhere, the ratio of interior hearths is likely overstated due to the practice of trowel testing the floor areas of the features. Similarly, no evidence has yet come to light that the precise location of these hearths in relation to the structures themselves is socially prescribed. Obviously many of the shelters, especially those that have at least partially collapsed, do not retain evidence of some or all of these aspects of construction and design.

The mean average floor size of the documented shelters is 5.2 square meters. Five of them stand out as having significantly large interior areas of 10.2 square meters or more (5GF308 Feature 3, 5RB53 Feature 11, 5RB2624 Feature 2, 5ME469 Structure 10, and 5MF5216 Feature 1), and possibly could be considered community gathering places or "council lodges." If these features are taken out of the equation the average floor size falls to 4.6 square meters. The mean average interior height or "headroom" of the standing shelters is 1.4 meters.

Regarding the orientation of entryways, the following numbers appear to make it clear that factors such as sun and wind direction, weather conditions at the time of construction, the location of nearby vegetation, direction of slope, and other topographic and climatological factors appear to have played a more important role in the decision-making process than social or ritual decree. The data suggests that entries facing to the south and east were favored over those to the north and west—not unexpected as this would provide warmth from the sun in the mornings and throughout much of the day, as well as protection from the prevailing westerly winds. A total of 73% of the recorded entries can be said to face "to the southeast" (from northeast to southwest), and only 55% face "to the northwest" (from southwest to northeast). In this tabulation entries facing to the northeast and the southwest are counted in both categories rather than discarding them from the equation.

Entryway orientation:

North: 4
Northeast: 4
East: 7
Southeast: 5
South: 3
Southwest: 5
West: 4
Northwest: 1

Conversely, upon tabulating the direction of the support or canopy trees from the structures, the opposite appears true—that there was a tendency to build wickiups and other features with the sheltering trees to the north and west (83% of the time) as opposed to the south and east (49%). Again, this bias suggests that the sites' inhabitants were simply taking advantage of natural shelter from westerly winds, and an open aspect to the sunny south and east. Several of the features utilize more than one support or canopy tree, as shown in Table 10. In these cases, each tree is taken into account and quantified as a separate entity. As with the entryway orientation data, trees that are to the northeast and southwest of features have been counted in both the "northwesterly" and the "southeasterly" categories.

Direction of support/canopy trees from features:

North: 15
Northeast: 12
East: 14
Southeast: 2
South: 8
Southwest: 7
West: 28
Northwest: 10

For the information above, the compass readings reported on the Aboriginal Wooden Feature Forms have been rounded to the nearest of the eight key directions (N, E, S, W, NE, SE, SW, and NW). In cases where the table presents readings such as "NNE," the direction has been rounded to the nearest *cardinal* point (in this case, north).

LEAVE THIS PAGE BLANK FOR INSERTION OF TABLE 8---AN 11 X 14 FOLD OUT

SITE	Wooden Features	Juniper Elements	Piñon Elements	Undet. Piñon/ Juniper Elements	Aspen Elements	Conifer Elements	Undet. Deciduous/ Conifer Elements	Juniper Support/ Canopy Trees	Piñon Support/ Canopy Trees	Aspen Support/ Canopy Trees	Conifer Support/ Canopy Trees
5EA439	1			11					1		
5EA2436	1			16				1			
5GF308	80			480				74	7		
5GF2333	5			36				3			
5GF2914	1			24				1			
5GF3003	1			11				1			
5GF3415	1			13							
5GF3442	1			17							
5ME974	2	17	1					2	1		
5ME6908	4			23				2			
5ME14044	1			15				1			
5ME14071	4				111					4	
5ME14256	1			1				1			
5ME14258	8			64				5	5		
5ME14259	2			16				1			
5ME14260	10			89				5	1		
5ME15280	1			2				1			
5ME15281	1			1					1		
5ME15282	1			10				1			
5ME15283	2			8				1			
5ME15284	1			2					1		
5ME15794	1			3				1			
5ME15907	1			12							
5MF2631	10			?				7			
5MF3737	4			16				4			
5MF3993	1			18					1		
5MF4368	5			57				4			
5MF6404.1	1			?				?	?		
5MF6408	2			?				?	?		
5RB18	13			92				8			
5RB53	8	9	3	41				12			

SITE	Wooden Features	Juniper Elements	Piñon Elements	Undet. Piñon/ Juniper Elements	Aspen Elements	Conifer Elements	Undet. Deciduous/ Conifer Elements	Juniper Support/ Canopy Trees	Piñon Support/ Canopy Trees	Aspen Support/ Canopy Trees	Conifer Support/ Canopy Trees
5RB58	1			4				1			
5RB129	1			4				1			
5RB266	24			159				14	4		
5RB509	3	4						3			
5RB530	4	2		29				3	1		
5RB563	7			12				1	2		
5RB568	4			43				2			
5RB2624	42			317				26	1		
5RB2929	1			7				1			
5RB2930	7			28				3			
5RB2932	1			4							
5RB4027	14			76				5	3		
5RB4331	1			14					1		
5RB4338	10			14				2			
5RB4543	12	6		56				7			
5RB4799	1			8					1		
5RB5609	3			9				3			
5RB5611	1			9							
5RB5620	1			1				1			
5RB5623	1			2				1			
5RB5941	2			17							
5RB6555	1	1						1			
PHASE VI SITES											
5DT222	1	7						1			
5DT1538	1						75				
5EA2740	28	8		126				18	15		
5ME469	16	2		128				3	15		
5MF5216	4	10		1				1	1		
5SH3788	3				106		31				3
TOTALS	370	66	4	2146	217	0	106	234	31	4	3

Table 9: Tabulation of Wood Species for CWP Features

Table 10: Selected Aspects of Wickiups and Other Shelters for the Colorado Wickiup Project
(210 total structures)

Feature Number	Entryway Orientation	Floor Size (sq. m)	Interior Headroom (m)	Direction of Support/Canopy Trees from Features	Presence of Hearths		
					Exterior	Interior	Both Int. &
5GF308 (Rifle Wickiup Village)							
Feature 1	SW?	7.5	1.6	E	X		
Feature 3	SW?	12.5	1.1	NE		X	
Feature 4	E?	9.6		W		X	
Feature 20	NE?	2.9	1.1	W		X	
Additional hearth data from 5GF308 without reference to specific feature:					8	4	3
5GF3003							
(unnumbered)	WSW?	4.1	1.3				
5GF3442							
(unnumbered)	SSE						
5ME6908 (Black Ridge Wickiup Site)							
Feature A	E	6.6			X		
5ME14071 (Singing Wickiup Site)							
Feature 1	N	4.5	1.2	S			
Feature 3	E	5.3	1.5	S			
5ME14258							
Structure 1		5.0	1.4	NW	X		
Structure 2	SE?	1.6	1.9	ENE			
Structure 4				SW			
Structure 5		1.0	1.7	SW			
Structure 6		2.0	1.6	WSW			
Structure 7		3.0	1.3	NE			
5ME14259							
Structure 1		1.8	0.8	NE			
Structure 2					X		
5ME14260							
Structure 3		3.5	1.3	NNE			
Structure 4	NE?	4.0	1.8	E			
Structure 6		6.0	1.4	NW			
Structure 7			1.0	W			
5ME15282							
(unnumbered)			1.7	W/SW/NE			
5ME15283							
Structure 1		5.7	1.2				
Structure 2		3.1	1.0	SW		X	
5ME15284							
(unnumbered)					X		

Feature Number	Entryway Orientation	Floor Size (sq. m)	Interior Headroom (m)	Direction of Support/Canopy Trees from Features	Presence of Hearths		
					Exterior	Interior	Both Int. &
5ME15794							
Feature 1				NE		X	
5ME15907							
Feature 1	WSW	7.2	1.7			X	
5MF4368							
Feature 4				E/W		X	
5RB18 (Two Tall Pole Wickiup Village)							
Feature 1	NE	3.2	1.3	NW			
Feature 2		9.6	2.2	N		X	
Feature 4			0.9	WSW		X	
Feature 7				SE			
Feature 8				NW			
5RB53 (Duck Creek Wickiup Village)							
Feature 2						X	
Feature 11	N	18.0	2.1	SW			
Feature 12	SE	4.5	2.0	N			X
Feature 13	SE	8.2	1.3	NW			
5RB58							
Feature 1			0.6	NW			
5RB129 (Smirnoff Site)							
Feature 1		1.3	0.7	E			
5RB266 (Wenger Camp)							
Feature 2			1.5	W			
Feature 3B				E		X	
Feature 5A					X		
Feature 6A			1.5	NW			
Feature 7					X		
Feature 10				WNW			
Feature 12			1.1	SW			
5RB530							
Feature B				NE	X		
Feature C				N	X		
5RB563 (Ute Hunters' Camp)							
Feature 6	N				X		
5RB568							
Feature 1				W			
5RB2624 (Rader's Wickiup Village)							
Feature 2	E?	11.6	1.8				
Feature 3A	E?		1.4	S			
Feature 3B		2.0	1.1	E			
Feature 4B		4.2					

Feature Number	Entryway Orientation	Floor Size (sq. m)	Interior Headroom (m)	Direction of Support/Canopy Trees from Features	Presence of Hearths		
					Exterior	Interior	Both Int. &
Feature 5A		6.2					
Feature 6						X	
Feature 7		6.6				X	
Feature 8		3.0	1.7	S			
Feature 11		6.2				X	
Feature 12A	SSE	3.0	1.2	N	X		
Feature 13		2.5		W	X		
Feature 14A				N	X		
Feature 15				N			
Feature 16				WNW		X	
Feature 17A		5.3				X	
Feature 18A	SE	4.5	1.1	W/SSW			
Feature 19				NW			
Feature 20			1.5	NE			
Feature 26				E			
Feature 27A					X		
Feature 28		4.9				X	
Feature 29				ESE	X		
Feature 30A					X		
Feature 30B					X		
5RB2929							
Feature 1				NW	X		
5RB2930							
Feature 1					X		
Feature 6			1.2	SSW			
5RB4027							
Feature 1		6.1	1.9	NNE		X	
Feature 4				NNW		X	
Feature 7				SW/N			
Feature 8						X	
Feature 12						X	
Feature 14					X		
5RB4331 (Black Sulphur Creek Wickiup)							
Feature 1	WNW	2.1	1.3	WNW			
5RB4338 (Bead Village)							
Feature 1A				WNW	X		
Feature 2				W			
5RB4543 (Dancing Cows Wickiup Village)							
Structure 1				W			
Structure 2				W			
Structure 4				WSW			

Feature Number	Entryway Orientation	Floor Size (sq. m)	Interior Headroom (m)	Direction of Support/Canopy Trees from Features	Presence of Hearths		
					Exterior	Interior	Both Int. &
Structure 4A				NW			
Structure 5				W			
Structure 7				NNW			
5RB4799							
(unnumbered)	ENE	6.8	1.7				
5RB5611							
Feature 1		5.7			X		
PHASE VI SITES							
5DT222 (Black Canyon Ramada)							
Feature 1	NW	4.7	1.6	W	X		
5DT1538							
Feature 1	SW	1.8	0.8				
5EA2740 (Pisgah Mountain Wickiup Village)							
Feature 2A				N			
Feature 3		3.3	1.6	NE			
Feature 4	N	2.1	1.5	WNW			
Feature 7	SW	3.7	0.8	WSW			
Feature 8		6.7	1.2	N/NNE/ESE	X		
Feature 9		5.9	1.6	W/NE			
Feature 10A	NE?	5.1	1.5	W/E		X	
Feature 11A		5.2	1.0	NE/E			
Feature 12A	S	2.7	1.7	NE/E	X		
Feature 13A			1.7	W			
Feature 16	SW	3.7	1.7	NE			
5ME469 (Decker Big Tank Wickiup Village)							
Structure 1		5.7	1.0	W			X
Structure 4A		2.5	1.7	SSE		X	
Structure 5				N		X	
Structure 6		9.1	1.7			X	
Structure 9	SSW	3.9	1.9	SE			
Structure 10		11.3	1.5	W			
Structure 12		3.7	2.0	W			
Structure 13	ENE	3.9	0.7	SSE			
5MF5216 (Disappointment Draw Lodge)							
Feature 1	SE	10.2	1.9	ESE			
5SH3788 (Musick Lodge)							
Feature 1	WNW	6.8	2.8			X	
Average Floor Size: 5.2 sq. m		Average Headroom: 1.4m			33	30	5

Artifact Analysis and Interpretation

A number of new categories of trade goods were encountered during the Phase VI investigations including full-metal jacket ammunition, a percussion cap from a muzzle-loading firearm, iron projectile points in various stages of production, a tinkler ~~–blank,~~ a decorative brass hawk bell, datable baking powder cans, a wide variety of screws, nails and tacks, leather boot or shoe sole fragments, a cylindrical metal bead, wire bent into a ~~–safety-pin-like~~ clasp, and several new types of clothing buttons including a brass military uniform button and riveted pants (~~–blue jeans~~) style brad and ~~–fly~~ buttons and a possible overalls strap buckle.

Seed Beads

One of the most significant contributions of the on-going Wickiup Project is the growing database of accurately and tightly dated temporally-sensitive trade artifacts that is being produced as a result of their association with tree-ring dated wooden features. Likely, the two most notable of such artifact categories being documented by the CWP are glass seed beads and metal projectile points. A history and analysis of both European-manufactured drawn glass seed beads and metal projectile points was presented in the Phase V Colorado Wickiup Project report (Martin and Brown 2010a) and will not be repeated here. Regarding beads, suffice it to say that the tiny seed beads, imported from European manufacturers, underwent stylistic changes, particularly in terms of size, during the time period represented on the Protohistoric and early Historic Native American sites in the American west.

As with any other temporally or culturally diagnostic artifact class, particularly under-documented artifact types such as seed beads and metal points, each new incidence within a dated context provides for an increasingly accurate chronology of their occurrence on the archaeological landscape, and their technological and stylistic evolution within that framework.

A total of 235 drawn glass seed beads from five sites documented by the Colorado Wickiup Project were tabulated in terms of size (diameter to 1/100th of a millimeter), color, and opacity or diaphaneity (Appendix F). In general, with one exception, the beads tend to be smaller in size on the sites with later dendrochronological and artifactual dates, and larger on the earlier sites.

It is becoming evermore possible for CWP field crews to anticipate within a few decades the age of occupation at a wooden feature site simply by observing the size of the glass seed beads represented in the collections. This is illustrated by the 24 relatively large beads (with an average diameter of 2.95mm) from the Pisgah Mountain site which dates to 1853 compared, for example, to the 11 smaller specimens (average diameter of 1.86mm) from the Disappointment Draw Lodge site which dates to the 1880s or 1890s, and the 178 from Ute Hunters' Camp from Phase V (average diameter of 1.90mm) which dates to 1881/1882.

Metal Projectile Points

Similarly, new insights are being realized regarding the age, manufacturing process, and stylistic development of metal projectile points in western Colorado. Most of these, on the sites thus far investigated by the project, appear to be “hand-made” rather than commercially mass produced. Particularly informative are sites such as the Pisgah Mountain Wickiup Village where not only are the various stages of production found, often retaining cut and file marks, but discarded scrap sheet metal waste as well. The same can be said of this site in terms of the conical tinklers, of which 18 were found including an unrolled tinkler “blank.” A tabulation of the sites that have produced metal projectile points is presented in Table 11.

Table 11: Sites with Metal Projectile Points from the Colorado Wickiup Project and Ancillary Studies

Site	Number and Style of Metal Points*
<p><u>5EA2740</u> Pisgah Mountain Wickiup Village (five points)</p>	<p><u>FS18</u>: diamond-shaped, unmodified, constricting stem with a pointed base (2.8 x 1.1cm). <u>FS33</u>: unfinished convex blade with perpendicular angled shoulders (Kennedy Group 5) and a straight unmodified stem with a square base (4.6 x 1.7cm). <u>FS34</u>: convex blade with obtuse rounded shoulders (Kennedy Group 2), and an unmodified, constricting stem with rounded base (3.8 x 1.7cm). <u>FS35</u>: unfinished, straight, triangular blade with angled shoulders, no stem (2.9 x 1.7cm). <u>FS55</u>: small leaf-shaped with convex blade (Kennedy Group 2) and an unmodified, constricting stem with a pointed base (3.0 x 1.0cm).</p>
<p><u>5GF308</u> Rifle Wickiup Village</p>	<p><u>FS68</u>: diamond-shaped, straight stem with roughly symmetrical serrations and a rounded base (~5.1 x ~1.8cm).</p>
<p><u>5RB509</u> Perforated Can Site</p>	<p><u>FS22</u>: diamond-shaped, contracting stem with knife-cut barbs and a pointed base (5.8 x 2.0cm).</p>
<p><u>5RB4027</u></p>	<p><u>FS5</u>: apparently heavily re-sharpened, diamond-shaped, unmodified contracting stem and a rounded base (1.9 x 1.0cm).</p>

*Shape and style descriptions are taken from Kennedy (n.d.)

Baking Powder Cans

The baking powder can lids from the Disappointment Draw Lodge site presented an interesting opportunity to date the artifacts and site quite closely, at least in terms of the *terminus post quem* or earliest possible date of occupation—the 1860s. Baking powder is a

leavener that has the action of yeast but acts more quickly—acting immediately upon contact with water. As a result baking soda, cream of tartar, and/or a moisture absorbent such as cornstarch are typically included in the making of baking powder.

Depending on which source is referenced, the first “modern version” of baking powder was manufactured by Alfred Bird, a British chemist, in 1843. Eben Norton Horsford is said to have formulated and patented the first calcium phosphate baking powder in 1865 (History of Baking Powder, www.whatscookingamerica.net, accessed 2/6/2008). Another source (Price 1999) states that Dr. Vincent Clarence Price (the grandfather of the famous actor) invented and patented the first cream of tartar baking powder in the 1850s. At some point after 1860, he and a partner began to manufacture Dr. Price’s baking powder (the brand represented by the two can lids at the Disappointment Draw Lodge site) in Chicago and by the time he was 50 years of age, in 1882, he was a multimillionaire and “Dr. Price became a household name” throughout the United States.

Ammunition

Significant progress has been made regarding the analysis of the ordnance and ammunition-related artifacts from both Phase V and Phase VI of the CWP. A total of 63 specimens of bullet leads, brass cases, primers, etc. from Phase V’s 5RB563 (Ute Hunters’ Camp), Phase VI’s 5DT222 (the Black Canyon Ramada), 5EA2740 (Pisgah Mountain Wickiup Village), 5ME469 (Decker Big Tank Wickiup Village), and 5MF5216 (Disappointment Draw Lodge) were loaned to crime scene reconstruction agents Sam Marso and Wayne Bryant of the Colorado Bureau of Investigation (CBI), and Phil Born, weaponry expert and Assistant Curator of Archaeology at the Museum of Western Colorado, for identification and microscopic analysis. In addition to descriptions of the ammunition components (including identification of manufacturers, calibers, dates of manufacture, etc.), preliminary counts of the numbers and types of individual weapons represented by the artifacts have been ascertained. A full analysis of the ordnance-related artifacts is presented in Appendix E.

Twenty-six additional pieces of spent ammunition were borrowed by the CWP from amateur historian Brad Edwards which were collected at the 1879 Thornburgh (Milk Creek) Battle site (Edwards 2007), and also loaned to the CBI for analysis. It is conceivable that individual weapon “signatures” (unique marks left on the ordnance by the firing pins, barrels, and extraction mechanisms of the weapons) obtained from our 1879-1881 Ute Hunters’ Camp ammunition (as well as other northwestern Colorado sites) will match those from spent ammunition at the Thornburgh Battle site. Although this connection has yet to be made, ordnance from at least ten individual weapons have been recognized at the Thornburgh site and from at least five at the Ute Hunters’ Camp. The analysis of the munitions from the Phase VI investigations is presented in Appendix E.

Three types of ordnance-related artifacts new to the Colorado Wickiup Project were recovered during this phase of the investigations. The first evidence of muzzle-loading weaponry was found in the form of a percussion cap on site 5EA2740, the first direct evidence

of a shotgun on a site was found in the form of a pellet from a shotgun—either cartridge or muzzle-loading—at site 5MF5216, and the first full-metal jacket bullets were also found at 5MF5216.

Of specific interest are the findings as summarized below:

5MF5216

The ordnance recovered from 5MF5216 falls into three groups—primers, cartridge cases, and bullets. The artifacts demonstrate that the inhabitants of this site were reloading ammunition. Among the empty cartridge cases found are four different calibers. Further enhancing the idea that ammunition reloading took place here, three types of spent cartridge primers were found in abundance—copper Boxers, brass Boxers, and Berdan.

Born's conclusions regarding the activities at the Disappointment Draw Lodge are that:

- (1) Ammunition reloading did take place at the site based on the presence of large numbers of fired primers, miscast bullets, scavenged lead and lead sprue, and empty cartridge cases.
- (2) There are at least four different firearms represented at the site: the .44 Henry rimfire, 44 W.C.F., .32 W.C.F. and the .45-70 Springfield. It is possible that the .44 W.C.F. and .32 W.C. could have been fired in both a rifle and a revolver by the inhabitants. Thus it is possible that the number of firearms represented could be increased by two if the users of these caliber firearms had both a rifle/carbine and a revolver in the same caliber. All of the .44 Henry cases were fired in either a Henry rifle or Winchester rifle/carbine.
- (3) The occupation of the site dates to post-1894, based on the presence of scavenged .30-40 bullets. The 1887 head stamp on the .45-70 case also points to a post-removal" occupation.

5RB563

The spent primers recovered from the Ute Hunters' Camp (Martin and Brown 2010a) were of three sizes and of two different types of construction. The most common were Boxer primers measuring 0.175 inches diameter. A second, and larger, Boxer type primer measuring 0.210 inches diameter was also present as were representatives of the Berdan type primer which measures 0.250 inches diameter. The bullets recovered from 5RB563 give ample evidence of reloading activities. There are only three cartridge cases from this site, and all three at least seem to be of the same caliber—.44.

Born's conclusions from the ammunition components at 5RB563 include:

- (1) The presence of the spent primers, a miscast bullet, and scavenged bullets again directly indicate that reloading activities were being carried on at the site.
- (2) The .175 inch diameter primers are of the correct size to be used in the .44 W.C.F. cases found at the site and in the .38 W.C.F. that is possibly represented.
- (3) The fired bullet leads may have been collected to be melted down and cast into new bullets. We know from the evidence at hand that bullets were being cast at 5RB563.
- (4) The evidence at least suggests that the majority of the cases reloaded were probably Winchester cases originally primed with Winchester primers.
- (5) Based on the cartridge cases, bullets, and primers, it can be said that there were at least four different firearms being reloaded for at 5RB563. The interchangeability of Boxer and Berdan primed cartridges of the same caliber could indicate reloading for only one large caliber rifle. However, in order to reload both Boxer and Berdan primed cases, two different reloading tools would have been required, contributing to extra expense and additional weight. This is interesting considering that selective buying of ammunition would take care of the problem. Is this evidence that reloading equipment, including primers, were easier for off-reservation Native Americans to obtain at this time in history than the ammunition itself?
- (6) Drawn from the data presented by the ordnance at the site, the occupation of 5RB563 took place in 1879 or later, which is substantiated by the dendrochronological dates recovered which indicate that trees and wooden feature elements were being harvested with metal axes between 1879 and 1881.

The Thornburgh Battle Site

Ordnance from the Thornburgh (Milk Creek) Battle site that is on loan to DARG was also analyzed by Born. These materials were recovered by a private collector from the location where a number of officers, soldiers, and civilian employees of the U. S. Army were pinned down by Utes during an engagement associated with the Meeker Incident in the fall of 1879. As these materials were recovered from the area where the Army was entrenched during the battle it is evident that the bullets represent lead fired by the Native Americans' weapons from the surrounding ridge tops, and that the cartridge cases had been ejected from the firearms of the barricaded Army personnel. Born's conclusions include:

- (1) It is not possible without further, microscopic, analysis to determine exactly how many firearms are represented by the recovered .44 Henry cases or .44 bullets. Additional forensic examination by the Colorado Bureau of Investigation has also addressed this question and signatures from at least ten weapons were identified by that study's examination of the cases (see Part II of this appendix).

- (2) A “.44 Colt” bullet and a .44 Short Rimfire case indicate that at least two handguns were employed at the site.
- (3) Evidently there was at least one muzzle loading rifle in use at this site in spite of the preference for cartridge firearms.
- (4) A possible “shotgun slug” found at the site is most likely of recent origin.

Dating Protohistoric and Historic Native American Sites

Regarding the presence of trade goods on Protohistoric and Historic aboriginal sites, observations from the CWP (Table 8) include the fact that 31 of the 59 sites documented (53%) produced evidence of post-contact trade goods (including evidence of metal-ax scars on wooden features). It can be assumed that even more of the sites date to post-contact times based solely on the well preserved condition of the wooden feature elements. Although horses, and metal and glass trade wares, were entering parts of Colorado from the south as early as 1650, the west central and northwest part of the state was relatively late in acquiring such artifacts. It is reported that a “limited amount of trade goods had reached the northern Utes as early as 1776, but even by 1825 such commerce was limited” (Reyer 2007: 28). The metal ax-cut wickiup pole from 5ME469 that produced a tree-ring date of 1795±B is the earliest solid evidence thus far produced by the Project.

Fort Uncompahgre (aka Fort Robideau) in the Delta area, and its associated trading post, weren't established until around 1828 and, although goods had arrived in limited numbers prior to that date, metal and glass weren't commonplace until at least that time in the west central part of the state. Similarly, other trading posts were established at Fort Robideau (aka Fort Uintah) on the Green River in northeastern Utah by around 1832, at Fort Davy Crocket in extreme northwestern Colorado in 1836, and the White River Ute Agency (formerly the Middle Park Agency) near the present day town of Meeker between 1862 and 1869.

Accurate chronometric dating of Protohistoric and Historic aboriginal sites is critically important in regards to a number of research topics including inter- and intra-site comparisons, regional population migrations, and so forth, yet remains one of the key problems. Dendrochronological dates from wickiup poles, and radiocarbon samples from the same and associated hearths, have been analyzed in Colorado for decades. Unfortunately the radiocarbon samples frequently provide date ranges of several decades; not a significant problem for archaeological contexts that are several thousand years old, but certainly one for the more recent contexts. Tree-ring and radiocarbon dates also share a particular problem in these recent sites; the “old wood problem.”

These aspects pertaining to the absolute dating of late Native American sites is discussed in previous CWP reports and the reader is referred to those documents. In short, until the acquisition of metal axes by the Native peoples (mid-1600s at the very earliest, becoming much

more common in the study area after the 1820s), wood cutting was a highly labor intensive activity. For both fuel wood and shelter poles, long dead wood that could be easily gathered or brought down without tools, and stripped of its branches if necessary, was far more appealing than living trees.

Tree-ring Dating

Reed and Gebauer (2004:101-104) discuss the inherent limitations of dendrochronology and other chronometric techniques with the existing database of Protohistoric/Historic dates, which they consider too imprecise for adequate investigations into current research questions:

The primary limitations of the traditional dating approaches stem from use of long-dead wood for fuel and for habitation structures. As Reed et al (2001) argue, based on ethnographic and archaeological evidence, regional Protohistoric-era peoples lacked an effective technology for cutting large pieces of wood. The Utes had bone wedges and chopping tools that could cut wood (Smith 1974), but such tools required great amounts of labor to topple living trees (see also Mills 1993). Because Protohistoric populations were highly mobile and had low demand for large beams, they probably simply toppled long-dead standing trees when needed. They may have even purposefully killed living trees for future use (Greubel and Cater 2001). I and juniper trees—which are most often represented as wood fuels and as primary structural elements of wickiups—are small enough to be pushed over by an individual if the bases are rotted. Dead trees may stand between 100 and 244 [sic] years in the Southwest before becoming capable of toppling by people (Hobler and Hobler 1978).

Although Baker (1993) suggests adding 300 years to account for the difference between the date of a tree's death and the use of its wood for fuel or construction, this author agrees with Reed and Metcalf (1999) who suggest that too many variables are involved to rely on an arbitrary constant, for example the disparate decay rates of different species of wood in different environments.

After the introduction of metal axes, however, it became more common for the architects of wickiups and other features to cut down live trees and tree branches. These ax-scarred cultural poles can often provide archaeologists with dates within a few years of the cutting year—if the outer ring is present, the actual cut date—and sometimes even the “growing” (summer) or “non-growing” (winter) season of the year.

On-going investigations by the Colorado Wickiup Project, Centuries Research of Montrose, and The Laboratory of Tree-Ring Research in Tucson (Baker 2004 and Baker, Dean, and Towner 2007 and 2008) are working toward the establishment of a database correlating dates from known old wood (from such sources as hearth charcoal) with dates

from known green wood (from such sources as metal ax-cut wickiup poles) from the same features or sites. Hopefully, when a sufficient number of such pairs of correlative dating samples have been processed, a bracket, or calibration curve, of ages can be established regarding the number of years that wood (in particular juniper) has been dead prior to its being utilized as fuel wood and, by extrapolation, to pre-metal ax wickiup poles and other architectural wood that had been collected as dead wood. Ideally, individual features and sites will produce opportunities for correlative dates between live-cut dendrochronological, dead-gathered dendrochronological, radiocarbon or bone collagen, *and* luminescent samples.

The dendrochronological dating results from the Colorado Wickiup Project investigations to date are discussed in Appendix C and summarized in Table C-1. The potential end dates for the occupations of Ute sites proves particularly interesting. The year 1881 is commonly listed for the “final expulsion” of the Ute peoples from western Colorado to the reservations. However, it is known (Stewart, unpublished comments at the Symposium of the Archaeology of the Eastern Ute, Grand Junction, Colorado, 1988; Mehls 1988; Simmons 2000; and period newspaper articles) that some Utes remained in western Colorado for decades after this date. Furthermore, as demonstrated by the results of our dendrochronological research, just over half of the sites (8 out of 15) with evidence of trade goods that have produced tree-ring dates, were occupied during post-“removal” times; after the fall of 1881.

Some of the post-1881 sites were undoubtedly occupied by Utes who never actually made the trek to Utah. In that year there was estimated to be approximately 2,700 Uncompahgre, White River, and Uintah Utes to be removed from Colorado (Baker, Carrillo, and Spath 2007). In 1882 the agent at the Uintah Valley Agency at Whiterocks reported that approximately 250 of the White River Utes who were on the records to be escorted to the reservation did not show up for the initial census (Kessley LaRose, Sr., Northern Ute, personal communication 12/14/09). Further, it was reported that this census could account for only 275 White River Utes (Simmons 2000). In addition, many others obviously returned to Colorado on periodic hunting trips after having initially moved to the reservations, or with aspirations of more permanent residency in their traditional homelands after finding life on the reservations intolerable. The tree-ring dates from Ute sites, particularly in the Piceance Basin, reflect and substantiate this and illustrate that significant numbers of White River Utes were living off reservation in Colorado, at least as late as 1916.

Luminescent Dating

In addition to tree-ring dating, a small number of ceramic sherds from western Colorado have been subjected to thermoluminescent dating by the CWP. The results of these analyses are summarized in Table 12. With the exception of the newly-processed sample from the current phase of the project, discussed below and in Appendix D, the analysis was performed by James Feathers of the Luminescence Dating Laboratory at the University of Washington.

A single sample was submitted as a part of the Phase VI investigations. Site 5RB2624 (Rader's Wickiup Village), documented during Phase III of the project, was revisited during Phase VI for the purpose of collecting a brown ware sherd-and-soil sample from in front of partially collapsed leaner wickiup Feature 20. This sample was submitted to Sachiko Sakai at the Institute for Integrated Research in Materials, Environments, and Society (IIRMES) at California State University Long Beach. The analysis of this sample, presented in full in Appendix D, resulted in a notably late date for the presence of traditional ceramics on a Ute site—AD1891 ± 63 (Appendix D). Assuming that the dating results are accurate, either this represents an incidence of late production of an Uncompahgre Brown Ware vessel—the site produced numerous specimens of metal and glass trade wares as well as a secure tree-ring cut date of 1883rB comp (fall/winter of 1883/1884)—or this date reflects the final “heating event” (cooking fire or wildfire) of a vessel that was retained by the occupants over several decades, despite the presence of trade goods, presumably including metal cookware.

Although Ute-affiliated brown ware sherds are known to be associated with metal and glass trade goods, wickiups, and Desert Side-notched and Cottonwood Triangular lithic projectile points in western Colorado (Reed 1995), several aspects are notable regarding the five sites from which the CWP sherds were recovered. In contrast to a majority of the sites that the project has documented with extant wickiups or other aboriginal wooden features, these sites are characterized by:

- 1) a paucity, or complete absence, of recognizable extant wooden features (four sites),
- 2) the presence of chipped stone (at four sites) and groundstone (three sites),
- 3) a complete lack of evidence of metal axes or other trade wares (four sites).

These factors are not surprising, yet they graphically substantiate how readily the Ute abandoned lithic technology and the creation of traditional ceramics once trade goods such as metal projectile points, firearms, and iron cookware became available, and also how rapidly the ephemeral wooden features have deteriorated and vanished from the surface of these quite apparently earlier sites. All of the resultant luminescent dates, with the exception of the above mentioned sample from 5RB2624, are somewhat early for Ute ceramics, however well within the reported date range (Reed and Metcalf 1999). Three of the dates indicate occupations in the early range of what has traditionally been considered the presence of Numic speakers in Colorado, and one (AD930 at site 5MF3737) is significantly earlier. It is likely, therefore, that the sherds represented at this latter site—crude, thick, undecorated and unslipped brown ware—is of Formative (Fremont) origin. Further analysis is planned for these latter sherds regarding their apparent cultural affiliation.

In addition, it is anticipated that sherds from site 5DT222, the Black Canyon Ramada, that were collected during a previous project and are currently curated at the Museum of Western Colorado in Grand Junction, will be submitted for dating analysis during a future phase of the Colorado Wickiup Project. Although no additional sherds were found at the site during the Phase VI test excavations, a sample of the surface soil was taken for submission with the previously collected sherds.

Table 12: Luminescence Results from the Colorado Wickiup Project and Ancillary Studies

Site	Sample Description and Specimen Number	Results (calendar date —AD ^o)
Phase IV		
5MF3737	<u>FS 6</u> : Unslipped brown ware sherd (possibly Fremont ware?) (found on surface)	930 ± 90
5RB144	<u>FS 10</u> : Uncompahgre Brown Ware sherd (found on surface)	1550 ± 40
5RB2929	<u>FS 4</u> : Uncompahgre Brown Ware sherd (found on surface)	1500 ± 30
Phase V		
5ME16097 Horsethief Canyon Structural Clearing	<u>FS 171</u> : Uncompahgre Brown Ware sherd (Levels ½, 0-5cm below PGS)	1460 ± 60
Site Documented During Phase III (sample processed as part of the Phase VI research—see Appendix D)		
5RB2624 Rader's Wickiup Village	<u>FS5</u> : Uncompahgre Brown Ware sherd (on surface in front of wickiup Feature 20)	1891 ± 63

Seasonality and Settlement Patterns

Evidence concerning the seasonality of occupations at Protohistoric/Historic Ute sites is scant, other than through actual historic documentation, ethnographic analogy, and several of the dendrochronological samples as outlined above. However, a majority of the aboriginal sites identified in the western portion of the state were most likely occupied seasonally during the late fall to early spring at least during the pre-1881 years when the Ute had substantially more political autonomy and sovereignty. Creeks and rivers, both permanent and ephemeral, were the focal points for these occupations and their migrations to and from the higher and lower elevations as attested to by the surface archaeological materials located on the ridges above the drainages and the benches within their canyons. However, again, the settlement and migration patterns were presumably significantly altered during the final decades of the off-reservation Numic peoples as a result of their periodic attempts to avoid contact with cavalry, settlers, and other Euro-Americans.

With the exception of 5ME14071, the Singing Wickiup site, at 8450 feet and 5SH3788, Musick Lodge, at 9520 feet, the elevations represented by the CWP wickiup sites are well within the elevation range of sites that were typically occupied, at least

prehistorically, during the fall, winter, and spring months and during migrations between higher and lower elevations. As discussed elsewhere, for the prehistoric people of the region who followed a seasonal hunter-gatherer life way, the family bands in all likelihood moved to the elevations below 6500 feet (piñon and juniper habitat) above the rivers and streams in the winter to take advantage of comparatively warmer winter temperatures, minimal snow depths, and access to the winter habitat of the deer and elk populations on the mesa tops or open canyon bottoms. In the spring they would move back up toward the higher elevations to take advantage of the emerging floral resources and to follow the retreat of the large game animals.

Although logic suggests that shelters such as wickiups would be more likely constructed during the colder months, when protection from the elements was crucial, this is not necessarily borne out in the archaeological, or ethnographic, records. As discussed in earlier CWP reports, it has been demonstrated that mobile, foraging peoples construct some form of shelter virtually every time they halt to camp, regardless of the season, the weather, or planned duration of stay. Additionally, several of the tree-ring samples from within the piñon/juniper habitat that were procured by the CWP indicate that the cultural wooden elements were cut during the growing season for piñon and juniper (i.e. late spring to early fall) as well as during the non-growth season of fall and winter (see Table C-1 in Appendix C). However, in post-contact times, and obviously during the reservation period (when a number of the dated sites from the CWP were occupied), the mobility of the aboriginal peoples was significantly disrupted and limited and, inherently, some lower elevation sites likely became long-term or year-round habitations. During the current phase of the Project, the tree-ring dating results from the Pisgah Mountain Wickiup Village (5EA2740), for instance, provides strong evidence for an occupation during the fall or winter of AD1853 at an elevation of 7160 feet.

Determinations of Effect and Management Recommendations

In general, with several notable exceptions, the archaeological documentation and analysis of Colorado wickiups and other ephemeral wooden features have been far from adequate in the past, and continue to be unacceptable. This is especially of concern considering the rare and transitory nature of the resource. An additional problem is that, even in areas that have been surveyed for cultural resources in the past, a great many such structures have, in all likelihood, been overlooked even by seasoned archaeologists. This is particularly true of collapsed features, utility poles, and pole caches. In areas of high likelihood for such structures, cultural resource area managers should not assume that all, or even most, such structures have been located and recorded in previously surveyed areas.

Potential negative impacts on aboriginal wooden feature sites can occur as a result of both natural and human causes. Resultant adverse effects on the integrity of these cultural resources range from loss of feature- and structure-specific data, to loss of site context and, in some instances, virtually total loss of the resource and its environmental context.

Natural processes such as wildfires and the inevitable deterioration, collapse, and disappearance of aboriginal wooden structures due to wind, moisture, and decay are ubiquitous threats. Judiciously applied, BLM's fire mitigation and fuels management programs may provide wooden feature sites some degree of protection from wildfires, however, careful implementation of fuel reduction and other vegetation management activities is critically important. We have observed at least one instance of inadvertent damage to the integrity of aboriginal wooden features resulting from tree cutting and dead wood removal which was intended to mitigate the wildfire threat to a wickiup site. The CWP has also documented, within the last five years, five cases of wickiups that have partially collapsed as a result of natural causes.

Also, as reported in the CWP Phase II report (Martin, Conner, and Darnell 2005), no references have been found regarding *in situ* stabilization or reconstruction attempts for aboriginal wooden features similar to the ephemeral resources discussed herein. Wood preservation techniques have been used on wooden architectural components found in more substantial cultural resources throughout the world; however, again, similar mitigation approaches as applied to fragile features such as wickiups remain unstudied.

Further, it is acknowledged that attempts to shore up or preserve aboriginal wooden structures in the field can be only a temporary solution, at best. The value of stabilization and *in situ* preservation efforts on features such as these are debatable, and ethical factors may also apply in sensitive cases such as at burial platform sites, menstrual huts, and other ceremonial structures.

Similarly, only two cases in Colorado are known to the CWP of attempts for the outright collection of ephemeral aboriginal wooden features for curation and preservation within curatorial facilities—the Elk Track War Lodge (Martorano et al 1999) and 5GF519 a hunting blind tree scaffold (Gooding 1981). The former is an aspen-pole wickiup that was collected by the Colorado Historical Museum that is currently on display as an interpretive exhibit at the Ute Indian Museum in Montrose. The latter describes a tree platform constructed of juniper poles among the branches of a living juniper near DeBeque. The entire structure, including the 20 foot-tall living tree in which it was constructed, was dismantled and collected in 1981 and moved to the Denver Museum of Nature and Science (DNMS) for preservation and potential exhibition. Each of the 15 platform poles were measured and the junctures or points of contact of each pole with each other or the tree branches was marked and mapped prior to disassembly. After removal of the platform the tree was sawed off near ground level and collected as well (John Gooding 2005: personal communication). Numerous photographs and drawings were made to aid in the accurate reconstruction of the feature should such an opportunity arise. A note in the site files at CDOT mentions that, although the poles are apparently still in storage, the tree was “inadvertently discarded” several years ago at the DMNS (OD Hand 2005: personal communication).

One of the goals of DARG research associates, and the Colorado Wickiup Project in future grant projects, is to consult with members of the Ute tribes, museums, and the BLM

about their thoughts and concerns regarding similar wholesale collection of one or more structures, wickiups in particular, for preservation, interpretation and/or display in indoor facilities such as the Museum of Western Colorado in Grand Junction, the Ute Museum in Montrose, and the Southern Ute Indian Cultural Center and Museum, which opens in the summer of 2011 on the Southern Ute Reservation in Ignacio.

Human activities such as OHV recreation, artifact pilfering, livestock grazing, and a variety of other impacts due to increased visitation to the site areas by recreationists and people involved in energy exploration increasingly threaten aboriginal wooden feature sites. There are well-known instances of aboriginal wooden features having been inadvertently dismantled by modern visitors for use as fire wood or even fence posts.

As discussed in Archaeological Assessment of the Rifle Wickiup Village (O'Neil et al. 2004), it is difficult to determine the best means of protecting ephemeral wooden features from modern visitors. We continue to recommend that, in currently undisturbed and little-visited areas, sites and structures remain unmarked. However, in areas where negative visitation impacts have begun to occur—from innocent and uninformed individuals, or vandals alike—a program of public education and protection should be implemented as soon as possible. In several cases in this report it has been recommended that fences be constructed around specific features as protection from livestock and wildlife impacts. In certain instances this appears to be the overriding concern relative to the potential negative impacts of drawing attention to the site by the presence of fences.

Therefore, our management recommendations include continued comprehensive documentation of known but incompletely studied wooden feature sites, additional Class III surveys in the areas surrounding these sites, periodic monitoring of specific resources, the creation of fire breaks and fuel reduction programs, protective fencing in select cases, archaeological testing and excavation of selected sites and features that target gaps in the current data, additional dendrochronological, bone collagen, and luminescent sampling, and the consideration of district stewardship programs in cooperation with local land owners, museums, and amateur archaeological associations.

The findings of the current phase of investigations by the Colorado Wickiup Project, as reported herein, have added significantly to the database of the Protohistoric and early Historic ephemeral aboriginal wooden features in the state, and most importantly to our understanding of the last decades of the sovereign Numic peoples of the mountains and western canyon/plateau country of Colorado.

Site 5DT222, the Black Canyon Ramada, was field recommended as eligible in 1976 and again in 2002, and was declared to be officially eligible by the state SHPO in 2003. As an excellent representative of an aboriginal hunting and butchering camp, its integrity and undisturbed nature, the presence of a unique and fragile wooden structure, securely dated wooden elements, numerous undisturbed thermal features, an as-yet unprocessed thermoluminescent ceramic sherd sample, and both lithic and metal diagnostic artifacts, all

strongly substantiate this assessment and recommendation for placement on the National Register of Historic Places (NRHP). Preservation is highly recommended for the entire site area. The wooden feature and site as a whole are threatened by continuing deterioration, wildfire, livestock grazing, and intentional or inadvertent vandalism.

Site 5EA2740, the Pisgah Mountain Wickiup Village, was originally field evaluated as Eligible according to National Register Criteria A (associated with events that have made a significant contribution to the broad pattern of our history—namely the Protohistoric period and the final chapter of the sovereign, off-reservation Ute), C (embodies the distinctive characteristics of a type, period, or method of construction—the ephemeral wooden features themselves), and D (has yielded information important in prehistory and history). This recommendation has been greatly substantiated by the findings during the 2010 reevaluation.

The Pisgah Mountain Wickiup Village, is a unique and valuable resource. All efforts should be made to preserve, protect, and periodically monitor the site in the future. Test excavations, particularly in the Open Activity Locus and at the locations of wooden Features 6, 8, 10, 12, 16, and 17, are highly recommended to augment the findings thus far as a result of the “mitigation-level” documentation of the wooden features and the metal detection activities. It is anticipated that numerous non-metallic artifacts and other valuable data, remain *in situ* at this fragile and vulnerable site.

5ME469, Decker Big Tank Wickiup Village, was field recommended for eligibility for placement on the National Register of Historic Places in 1978. The documentation of the site, and the newly discovered wooden features and other artifacts during the present project have greatly substantiated this site’s eligibility. Test excavations at several of the wickiup features are recommended, including Structures 10, 12, and 13.

5MF5216, Disappointment Draw Lodge, was field evaluated as Need Data in regards to its eligibility for placement on the National Register of Historic Places (NRHP) during the 2002 documentation, despite the fact that the recorders considered Feature 1 as possibly “one of the few remaining examples of a type or method of construction and a period of prehistory as defined under Criteria C of the NRHP guidelines.” It is clear now, as it was then, that this structure and its associated features and artifact assemblage should be highly recommended as Eligible for listing according not only to National Register Criteria C, as outlined above, but also according to Criteria A (associated with events that have made a significant contribution to the broad pattern of our history—namely the Protohistoric period and the final chapter of the sovereign, off-reservation Ute), and D (has yielded information important in prehistory and history).

The Disappointment Draw Lodge site is a unique and valuable resource. All efforts should be made to preserve, protect, and periodically monitor the site in the future. Test excavations in all three of the primary artifact loci are highly recommended to augment the findings thus far as a result of the “mitigation-level” documentation of the wooden features

and the metal detection activities. It is anticipated that numerous, non-metallic, artifacts, and other valuable data, remain *in situ* at this fragile and vulnerable site.

Site 5SH3788, the Musick Lodge, is field evaluated as eligible for placement on the National Register of Historic Places (NRHP). Both the unusual and fragile Feature 1, and the possibly associated eagle trap, Feature 4 represent —one of the few remaining examples of a type or method of construction and a period of prehistory as defined under Criteria C of the NRHP guidelines.” These features should also be recommended as eligible according to Criteria A (associated with events that have made a significant contribution to the broad pattern of our history—namely the Protohistoric period and the final years of off-reservation Native Americans), and D (has yielded information important in prehistory and history). The Musick Lodge site is a unique and valuable resource. All efforts should be made to preserve, protect, and periodically monitor the site in the future.

Public and Professional Outreach

As a part of the on-going public and professional outreach program of the Colorado Wickiup Project, Principal Investigator Curtis Martin and Project Coordinator Richard Ott have produced and delivered numerous lectures and PowerPoint presentations regarding the Ute Indians of Colorado and the findings of the CWP to both the professional archaeological community and the public at large as outlined below. Martin also continues to educate a new generation of archaeologists in regards to aboriginal wooden features and the protohistoric archaeology of western Colorado as part of his Field Methods in Archaeology classes at Mesa State College in Grand Junction.

Wickiup Related Presentations and Activities by Curtis Martin

- Big Meeting at Crow Canyon (Big MACC), Cortez, 2/25/05
- Colorado Council of Professional Archaeologists (CCPA), Grand Junction, 3/5/05
- Colorado Archaeological Society (CAS) Chipeta Chapter, Montrose, 11/16/05
- Colorado Preservation, Inc.’s Historical Preservation Conference, Denver, 2/9/06
- Museum of the West, Grand Junction, 5/19/06
- Colorado Council of Professional Archaeologists (CCPA), Glenwood Springs, 3/31/07
- Ute Ethnohistory Meeting with BLM (GSFO, GJFO, and UFO), Grand Junction, 3/12/08
- Colorado Council of Professional Archaeologists (CCPA), Fort Collins, 4/12/08
- The Old Spanish Trail Re-dedication, Grand Junction, 5/8/08
- Lunchtime Lecture Series, Frisco Historic Park and Museum, Frisco, 7/2/08
- Colorado Preservation, Inc.’s Saving Places —On the Road” lecture series, Glenwood Springs, 9/14/08
- Colorado Council of Professional Archaeologists (CCPA), Alamosa, 4/3/09
- Denver Chapter of the Colorado Archaeological Society (CAS), Denver, 7/13/09
- Dedication of the Ute Ethnobotany Learning Garden, Grand Junction, 9/18/09

- Native American Heritage Month (NAHM), Montrose, 11/14/09
- Native American Heritage Month NAHM, Montrose, 11/28/09
- Horizon Sunrise Rotary Club, Grand Junction, 12/10/09
- Colorado Council of Professional Archaeologists (CCPA), Montrose, 3/26/10
- The Ute Learning Garden –“Mini Pow Wow” of the Tri-River Colorado State University Extension Office at the Mesa County Fairgrounds, Grand Junction (aided Ute spiritual leader Clifford Duncan in the construction of model wickiups and hearths), 6/12/10
- Feature article about the Colorado Wickiup Project entitled –“A Journey in Time” (by John Anglim) in the August edition of *Grand Valley* magazine, Grand Junction, 2010 (see Appendix H)
- Two-day field excursion with Drs. Jeff Dean and Ron Towner of the Laboratory of Tree-Ring Research to Piceance Basin wooden feature sites for dendrochronological sample collection, 8/15 and 8/18/10
- New Mexico Archaeological Council Fall Conference, Albuquerque 11/13/10
- The Colorado Mountain Club, Grand Junction, 12/1/10
- Colorado Council of Professional Archaeologists (CCPA), La Junta, 3/25/11

Presentations by Richard Ott

- Ute Ethnohistory Project, 2008
- Western Colorado Congress Public Lands Committee, 2008
- Colorado Preservation, Inc. ‘s Saving Places –“On the Road” lecture series, Glenwood Springs, 9/14/08
- Ute Ethnohistory Meeting with BLM (GSFO, GJFO, and UFO), Grand Junction, 3/12/08
- Men’s Fellowship, First Baptist Church, Grand Junction, 5/2009
- Native American Heritage Month NAHM, Montrose, 11/28/09
- Colorado Council of Professional Archaeologists (CCPA), Montrose, 3/26/10 The Ute Learning Garden –“Mini Pow Wow” of the Tri-River Colorado State University Extension Office at the Mesa County Fairgrounds, Grand Junction, 6/12/10
- Northern Ute History Presentation and Mini Pow-Wow, Gateway Canyons, 8/30/10
- Cardiff School Project—Regional History Alliance, Glenwood Springs, 4/11/11

Future Directions and Current and Proposed Field Work

Dominquez Archaeological Research Group maintains that the Colorado Wickiup Project’s strategy of –“preservation through documentation” deserves continued, accelerated and expanded effort and commitment of resources. The knowledge we have gained thus far about the state’s aboriginal wooden structures has further deepened our appreciation of these fragile archaeological resources in and of themselves, and confirmed our original assessment of their immeasurable value, not only to Colorado Ute/Numic archaeology, but to the archaeology of the entire western U.S. and the earlier Formative, Archaic, and Paleoindian

inhabitants as well, and to the living descendants of the people who created them. We have also come to recognize that we can increase the value of our efforts by expanding the scope of our studies to include a wider geographic and temporal range and a broader scope of research questions and preservation challenges related to aboriginal wooden feature sites and sites that provide evidence of once having had them.

The Colorado Wickiup Project's Phase VII is well underway. This on-going phase of the CWP is concerned with the documentation and reevaluation of a number of selected wooden feature sites within the boundaries of Rocky Mountain National Park (RMNP) in the north-central part of the state. The sites of concern in the park were selected by a joint effort of both DARG researchers and Park Service archaeologists not only as some of the premier examples of ephemeral wooden shelters within RMNP, but also as an effort to ascertain the temporal and ethnic affiliations of some of these shelters that were originally recorded as being of more recent Euro-American manufacture. Fieldwork on sites 5LR4460, 5LR4499, 5LR4531, and 5LR10229, was completed in November of 2010. During these investigations three previously unrecorded wooden feature sites were encountered and also fully documented and metal detected: 5LR12634, 5LR12635, and 5LR12636, providing evidence that there are substantial numbers of yet undocumented expedient features in RMNP. The completion of the field work has been scheduled for June and July of 2011.

The nature of the Phase VII, Rocky Mountain National Park, segment of the project has provided an opportunity for the CWP to investigate sites within a different part of the state, and at elevations and vegetation zones previously unanalyzed with the exception of site 5SH3788, the Musick Lodge. Additionally, this will allowed the project to widen its scope to include sites occupied by not only by the Ute and Shoshone, but potentially Arapaho, Comanche, Kiowa, Cheyenne, and Apache peoples as well. Already, significant differences have been noted between the sites in the aspen/conifer community and those in the piñon/juniper forests of western Colorado, not only in terms of the wooden features themselves, but also regarding the site structure, artifact assemblages, and potential for dendrochronological dating samples.

Based on the unique and comprehensive data garnered during the initial six phases, the Colorado Wickiup Project looks forward, hoping to continue our long-range goals of developing a dedicated aboriginal wooden feature knowledge database; facilitating collaborative research and education through information sharing and professional and public outreach; disseminating this information to Native Americans thereby providing a cultural continuity that has been lost; and providing land managing agencies with the information needed for the protection for these sites. To this end will strive to re-visit and intensively record all aboriginal expedient wooden feature sites throughout the state.

We recommend the continuation of our on-going efforts to mitigate the threat to Colorado's aboriginal wooden features by thoroughly recording all known wooden feature sites, collecting materials for chronometric analysis, and conducting extensive data recovery, including metal detection, and excavation of selected sites, be continued. Long-range goals of

the project include the continuation of our development of a dedicated aboriginal wooden feature knowledge base and facilitation of collaborative research and education through information sharing and professional and public outreach.

Although a grant proposal for ~~Phase VIII~~ per se was not submitted to the State Historical Fund in the spring of 2011, due to unsuccessful attempts to secure matching funds from the Bureau of Land Management and elsewhere, two Archaeological Assessment grant proposals are being prepared for submission to the SHF for the purpose of investigating previously unvisited wickiup sites in western Colorado. Additionally, Dr. Ronald Towner, principal at the Laboratory of Tree-Ring Research at the University of Arizona has teamed with Curtis Martin of DARG on an extensive three-year proposal to investigate a number of wooden feature sites in the state with an emphasis on further refining the dendrochronological ages of the features, and paleoenvironmental conditions during their occupation. It is anticipated that this grant proposal will be submitted to the National Endowment of the Humanities in 2011 for consideration during the years 2012 to 2015.

References

- Adams, Jenny L.
2002 *Ground Stone Analysis*. University of Utah Press, Salt Lake City.
- Allen, Walter.E.
1983 Eagle Trapping Along the Little Missouri River. In *North Dakota History: Journal of the Northern Plains*, Vo. 50, No. 1.
- Ancient Voices: A museum to honor the least known people in North America, the Original Tribal Women, –Jingle Dress.” <http://dragonflydesignz.50megs.com/Ancient-Voices/clothing.html> (accessed 8/7/09)
- Army Military Uniform Button Manufacture Date Guide
www.treasurefish.com (accessed 8/19/09)
- Baker, Steven G.
1993 Numic Archaeology on the Douglas Creek Arch, Rio Blanco County, Colorado: The Burned Cedar and Corrugated Pot Sites (5RB2926 and 5RB2982). Manuscript on file at Centuries Research, Inc., Montrose, Colorado. Prepared for the Bureau of Land Management, White River Resource Area, Meeker, Colorado.
- 2004 2002-2003 Old Agency Initiative of the Uncompahgre Valley Ute Project, vol. 1, Historical Archaeology Exploration and Assessment of the 2nd Los Pinos Indian Agency on the Uncompahgre (5OR139). Uncompahgre Valley Ute Project, Report No. 5. Manuscript on file at the Colorado Historical Society, Denver.
- Baker, Steven G., Richard F. Carrillo, and Carl D. Spath
2007 Protohistoric and Historic Native Americans. In *Colorado History: A Context for Historical Archaeology*, Church, Minette C., Steven G. Baker, Bonnie J. Clark, Richard F. Carrillo, Jonathon C. Horn, Carl D. Späth, David R. Guilfoyle, and E. Steve Cassells, Colorado Council of Professional Archaeologists, Denver.
- Baker, Steven G., Jeffery S. Dean, and Ronald H. Towner
2007 Rewriting the Prehistory of Western Colorado? The Old Wood Calibration Project: a Progress Report. Paper presented to the Annual Meeting of the Colorado Council of Professional Archaeologists, Glenwood Springs.
- 2008 Final Report for the Old Wood Calibration Project, Western Colorado. Centuries Research, Inc., Montrose, Colorado, in collaboration with The Laboratory of Tree-Ring Research, University of Arizona, Tucson.

Bowers, Alfred

- 1950 Mandan Social and Ceremonial Organization. University of Chicago Press, Chicago.

Buckles, William G.

- 1971 *The Uncompahgre Complex: Historic Ute Archaeology and Prehistoric Archaeology on the Uncompahgre Plateau in West Central Colorado*. Ph.D. dissertation, Department of Anthropology, University of Colorado. University Microfilms, Ann Arbor.

Conner, Carl E.

- 1978 Cultural Resource Inventory of the Colorado River Corridor Tributaries. Manuscript on file at the Bureau of Land Management Grand Junction Field Office, Grand Junction, Colorado
- 2007 Class III Cultural Resource Inventory for the Commercial Heater Test—Ryan Gulch Block Area in Rio Blanco County, Colorado, for Shell Frontier Oil and Gas. Manuscript on file at the Bureau of Land Management White River Field Office, Meeker, Colorado.

Conner, Carl E., Nicole Darnell, Brian O'Neil, Richard Ott, Curtis Martin, Dakota Smith, and Barbara Davenport

- 2011 Class I Cultural Resource Overview for the Grand Junction Field Office of the Bureau of Land Management. Manuscript on file at the Grand Junction Field Office of the Bureau of Land Management
Conner, Carl E., Nicole Darnell, Richard Ott, and Barbara J. Davenport.

Conner, Carl E., Nicole Darnell, Richard Ott, and Barbara J. Davenport

- 2007 Report of an Archaeological Assessment of Twenty-five Prehistoric Sites Within the McInnis Canyons National Conservation Area in Mesa County, Colorado, BLM Project No. 15807-01. Manuscript on file at the Grand Junction Field Office of the Bureau of Land Management.

Conner, Carl E., Curtis Martin, Michael J. Brown, and Barbara J. Davenport

- 2010 Class III Cultural Resources Inventory for Portions of Federal Coal Leases C-37210, C-27432 and D-036955, in Delta County, Colorado for BLM-UFO CRIR #10UN-14 Bowie Resources, LLC. Manuscript on file at the Bureau of Land Management, Uncompahgre Field Office, Montrose, Colorado.

- Conner, Carl E., Curtis Martin, Barbara J. Davenport, Nicole Darnell, and Jim Conner
2002 Cultural Resource Reevaluation of Previously Recorded Sites Within the Gunnison Gorge NCA Administered by the Uncompahgre Field Office Bureau of Land Management. Manuscript on file at the Bureau of Land Management, Uncompahgre Field Office, Montrose, Colorado.
- Edwards, Brad
2007 *Unearthing the Battle of Milk Creek: September 29 – October 5, 1879*. Milk Creek Publications Englewood, Colorado.
- Fike, Richard E. and Blaine Phillips II
1984 A Nineteenth Century Ute Burial from Northeast Utah. Bureau of Land Management Utah Cultural Resource Series No. 16, Utah State Office, BLM, Salt Lake City.
- Gooding, John D.
1981 5GF519 Hunting Blind. Unpublished field notes. Manuscript on file at the State of Colorado Department of Transportation and the Denver Museum of Nature and Science.
- Greene, Jerome A. and Douglas D. Scott
2004 *Finding Sand Creek: History, Archeology, and the 1864 Massacre Site*. University of Oklahoma Press, Norman.
- Greubel, Rand A. and John D. Cater
2001 Schmidt Site (5MN4253). In *The TransColorado Natural Gas Pipeline Archaeological Data Recovery Project, Western Colorado and Northwestern New Mexico*, edited by Alan D. Reed. Prepared by Alpine Archaeological Consultants, Inc., Montrose, Colorado. Submitted to TransColorado Gas Transmission, Lakewood, Colorado, and Bureau of Land Management, Montrose, Colorado.
- Hauck, Richard F.
1993 Archaeological excavations (1988-1992) in the Douglas Creek-Texas Mountain locality of Rio Blanco, CO. AERC, Bountiful, Utah. Manuscript on file, Bureau of Land Management White River Field Office.
- Hill, W. W.
1938 *The Agricultural And Hunting Methods Of The Navaho Indians*. Yale University Press, London.
- Hobler, Philip M., and Audrey E. Hobler
1978 An Archaeological Survey of the Upper White Canyon, Southeast Utah. Antiquities Section *Selected Papers* 13. Salt Lake City.

Holmer, Richard N.

- 1986 Common Projectile Points of the Intermountain West. In *Anthropology of the Desert West*, ed. By Carol G. Condie and Don D. Fowler, pp. 91-115. University of Utah Anthropological Papers No. 110, Salt Lake City..

Huscher, Betty Holmes, and Harold A. Huscher

- 1939 Field Notes for 1939. Ms on file, Department of Anthropology, Denver Museum of Nature and Science, Denver.

Intermountain Antiquities Computer System (IMACS) User's Guide.

- 1992 University of Utah Bureau of Land Management and U.S. Forest Service.

Kass, George G

- 1980 *Rimfire Headstamp Guide, Part I*. George G.. Kass, Spring Arbor, Michigan.

Kennedy, John

- n.d. Metal Projectile Point Survey of the Interior West: Preliminary Numbers and Directions for Future Research. Poster presented at the Colorado Council of Professional Archaeologists annual meeting in 2010.

Kluckhohn, Clyde and Lucy Wales Kluckhohn.

- 1971 *Navajo Material Culture*. Belknap Press, Harvard University, Cambridge.

Lanham, Howard

- Enlisted Men's Buttons. <http://howardlanham.tripod.com> (accessed 8/19/2009)

Levi Strauss & Co.

- www.fundinguniverse.com/company-histories/levi-strauss-amp (accessed 2/4/11)

Look, Alfred A.

- 1972 Utes' Last Stand. Golden Bell Press, Denver.

Martin, Curtis and Michael J. Brown

- 2010a The Colorado Wickiup Project Volume V: Test Excavation of the Ute Hunters' Camp (5RB563) and Documentation of Five Additional Aboriginal Wooden Feature Sites in Rio Blanco County, Colorado. Manuscript on file at the Office of Archaeology and Historic Preservation, Denver, and the Bureau of Land Management Colorado State Office, Lakewood, Colorado.

Martin, Curtis and Michael J. Brown

- 2010b A Further Assessment of 5EA2740, the Pisgah Mountain Wickiup Village in Eagle County, Colorado. Manuscript on file at the Office of Archaeology and Historic Preservation, Denver, and the Bureau of Land Management Colorado State Office, Lakewood, Colorado.

Martin, Curtis and Carl E. Conner

- 2007 A Class III Aboriginal Feature Inventory of Two Parcels in the Black Ridge Area of the McInnis Canyons National Conservation Area in Mesa County, Colorado. Unpublished manuscript on file at the Bureau of Land Management Grand Junction Field Office.

Martin, Curtis, Carl E. Conner, and Nicole Darnell

- 2004 Class III Cultural Resources Inventory of 1520 Acres of Private and BLM Lands Located West of Terror Creek for Bowie Resources. Manuscript on file at the Bureau of Land Management Uncompahgre Field Office, Montrose, Colorado.
- 2005 The Colorado Wickiup Project Volume II: Cultural Resources Class II Reconnaissance Inventory for the Gunnison Gulch Area of Mesa County, Colorado. Manuscript on file at the Office of Archaeology and Historic Preservation, Denver, and the Bureau of Land Management Colorado State Office, Lakewood, Colorado.

Martin, Curtis and Richard Ott

- 2007a Sand Wash Wickiup Survey Phase I: A Class III Cultural Resources Inventory in Moffat County, Colorado. Unpublished manuscript on file at the Bureau of Land Management Little Snake Field Office, Craig.
- 2007b The Little Snake Wickiup Revisits Project, Moffat County, Colorado. A series of unpublished site descriptions, Cultural Resource Reevaluation forms, and Aboriginal Wooden Features Component forms on file at the Bureau of Land Management Little Snake Field Office, Craig.
- 2009 The Colorado Wickiup Project Volume IV: Recordation and Re-evaluation of Twelve Aboriginal Wooden Structure Sites in Eagle, Garfield, Mesa, and Rio Blanco Counties, Colorado. Unpublished manuscript on file at the Office of Archaeology and Historic Preservation, Denver, and the Bureau of Land Management Colorado State Office, Lakewood, Colorado.

Martin, Curtis, Richard Ott, and Nicole Darnell

2005 The Colorado Wickiup Project Volume I: Context, Data Assessment and Strategic Planning. Unpublished manuscript on file at the Office of Archaeology and Historic Preservation, Denver, and the Bureau of Land Management Colorado State Office, Lakewood, Colorado.

2006 The Colorado Wickiup Project Volume III: Recordation and Re-evaluation of Twelve Aboriginal Wooden Structure Sites in Eagle, Garfield, Mesa, and Rio Blanco Counties, Colorado. Unpublished manuscript on file at the Office of Archaeology and Historic Preservation, Denver, and the Bureau of Land Management Colorado State Office, Lakewood, Colorado.

Martorano, Marilyn A., Ted Hoefler III, Margaret (Pegi) A. Jodry, Vince Spero, and Melissa L. Taylor

1999 *Colorado Prehistory: A Context for the Rio Grande Basin*. Colorado Council of Professional Archaeologists, Denver.

Matthews, Washington

1877 *Ethnographic Philology of the Hidatsa Indians*. Johnson Reprints, New York.

Mehls, Steven F.

1988 *The Valley of Opportunity: A History of West-Central Colorado*. Bureau of Land Management Cultural Resources Series No. 12, Denver.

Mills, Peter R.

1993 An Axe to Grind: A Functional Analysis of Anasazi Stone Axes from Sand Canyon Pueblo Ruin (5MT765), Southwestern Colorado. *Kiva* 58(3):393-413.

O'Neil, Brian, Carl E. Conner, Barbara J. Davenport, and Richard Ott

2004 Archaeological Assessment of the Rifle Wickiup Village-5GF308 in Garfield County, Colorado. Unpublished manuscript on file at the Bureau of Land Management Glenwood Springs Field Office.

Pettit, Jan

1982 *Utes: the Mountain People*. Johnson Books, Boulder, Colorado.

Phagan, Carl J.

1988 Projectile Point Analysis, Part I: Production of Statistical Types and Subtypes; and Part II: Comparison of Statistical and Intuitive Technologies. In *Dolores Archaeological Program: Supporting Studies: Additive and Reductive Technologies*, pp. 9-177. United States Department of the Interior Bureau of Reclamation Engineering and Research Center, Denver.

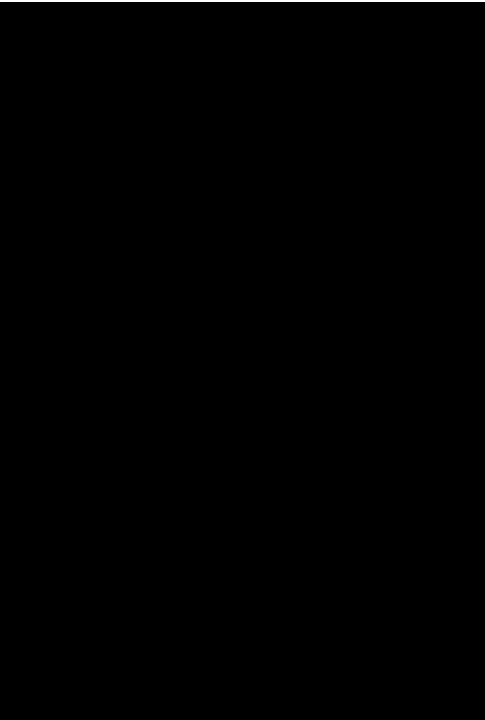
- Price, Victoria
 1999 *Vincent Price: A Daughter's Biography*. St. Martin's Press, New York.
- Reed, Alan D., Rand A. Greubel, Stephen M. Kalasz, Jonathon C. Horn, John D. Cater, and Kimberly Redman
 2001 Synthesis of Project Data. In: *The TransColorado Natural Gas Pipeline Archaeological Data Recovery Project, Western Colorado and Northwestern New Mexico*, compiled by A.D. Reed, pp. 41-1-41-170. Alpine Archaeological Consultants, Inc., Montrose, Colorado.
- Reed, Alan D.
 1995 Ute Ceramics. In *Archaeological Pottery of Colorado: Ceramic Clues to the Prehistoric and Protohistoric Lives of the State's Native Peoples*, Robert H. Brunswig, Jr., Bruce Bradley, and Susan Chandler editors. Colorado Council of Professional Archaeologists Occasional Papers No. 2.
- Reed, Alan D. and Rachel Gebauer
 2004 *A Research Design and Context for Prehistoric Cultural Resources in the Uncompahgre Plateau Archaeological Project's Study Area, Western Colorado*. Manuscript on file at Uncompahgre Plateau Study Project, Montrose, Colorado.
- Reed, Alan D. and Michael D. Metcalf
 1999 *Colorado Prehistory: A Context for the Northern Colorado River Basin*. Colorado Historical Society, Denver.
- Reed, Alan D. and Douglas D. Scott
 1980 The Archaeological Resources of the Uncompahgre and Gunnison Resources Areas, West Central Colorado. Manuscript on file at the Bureau of Land Management, Uncompahgre Field Office, Montrose, Colorado.
- Reyher, Ken
 2007 *Antoine Robidoux and Fort Uncompahgre*. Western Reflections Publishing, Lake City, Colorado.
- Roebuck, Paul
 1977 Archaeological Survey of the Gunnison Gorge. Manuscript on file at the Bureau of Land Management, Uncompahgre Field Office, Montrose, Colorado.
- Sanfilippo, Joanne
 1998 Ute Wikiups or Navajo Forked-Stick Hogans: Determining Ethnicity Through Architecture in the Archaeological Record. Unpublished Master's thesis, Department of Anthropology, Northern Arizona University, Flagstaff. Ms on file at Bureau of Land Management, GSFO

- Scott, Douglas D.
 1988 Conical Timbered Lodges in Colorado or Wickiups in the Woods. In *Archaeology of the Eastern Ute: A Symposium*, edited by Paul R. Nickens, pp 45-53. Colorado Council of Professional Archaeologists Occasional Papers No. 1, Denver.
- Simmons, Virginia McConnell
 2000 *The Ute Indians of Utah, Colorado, and New Mexico*. University Press of Colorado, Boulder.
- Simms, Steven R.
 1989 The Structure of the Bustos Wickiup Site, Eastern Nevada. *Journal of California and Great Basin Anthropology* 11 (1), pp. 2-34.
- Smith, Anne M. (Cooke)
 1974 Ethnography of the Northern Utes. Papers in Anthropology No. 17. Museum of New Mexico, Albuquerque.
- Stradley, Linda
 2004 History of Baking Powder. www.whatscookingamerica.net (accessed 2/6/08)
- Terry, R. T. and C. W. Gilchrist
 1988 The Huscher Photographs of Colorado Ute Sites. In *Archaeology of the Eastern Ute: A Symposium*, edited by P. R. Nickens, pp. 206-217. Occasional Papers No. 1. Colorado Council of Professional Archaeologists, Denver.
- Tweto, Ogden
 1979 Geologic Map of Colorado. The Geological Survey of Colorado, United States Department of the Interior, Geological Survey.
- U.S.D.A. Soil Conservation Service, Colorado
 1978 Technical Guide IIE: Range Site Descriptions.
- Waechter, Sharon A.
 2009 How Old Is —Old? Recognizing Historical Sites and Artifacts. Electronic document, <http://www.indiana.edu/~e472/cdf/suggest/old/index> . Accessed 6/9/09.
- White, James, ed.,
 1913 Handbook of Indians of Canada, Published as an Appendix to the *Tenth Report of the Geographic Board of Canada*, Ottawa, pp. 135-137.

A.

Appendix A: Site Location Information

Table A-1: List of Sites Documented by Phase VI of the CWP with Location Information

SITE NO.	SITE NAME	UTM COORDINATES (NAD 83)
5DT222	Black Canyon Ramada	
5EA2740	Pisgah Mountain Wickiup Village	
5ME469	Decker Big Tank Wickiup Village	
5MF5216	Disappointment Draw Lodge	
5SH3788	Musick Lodge	

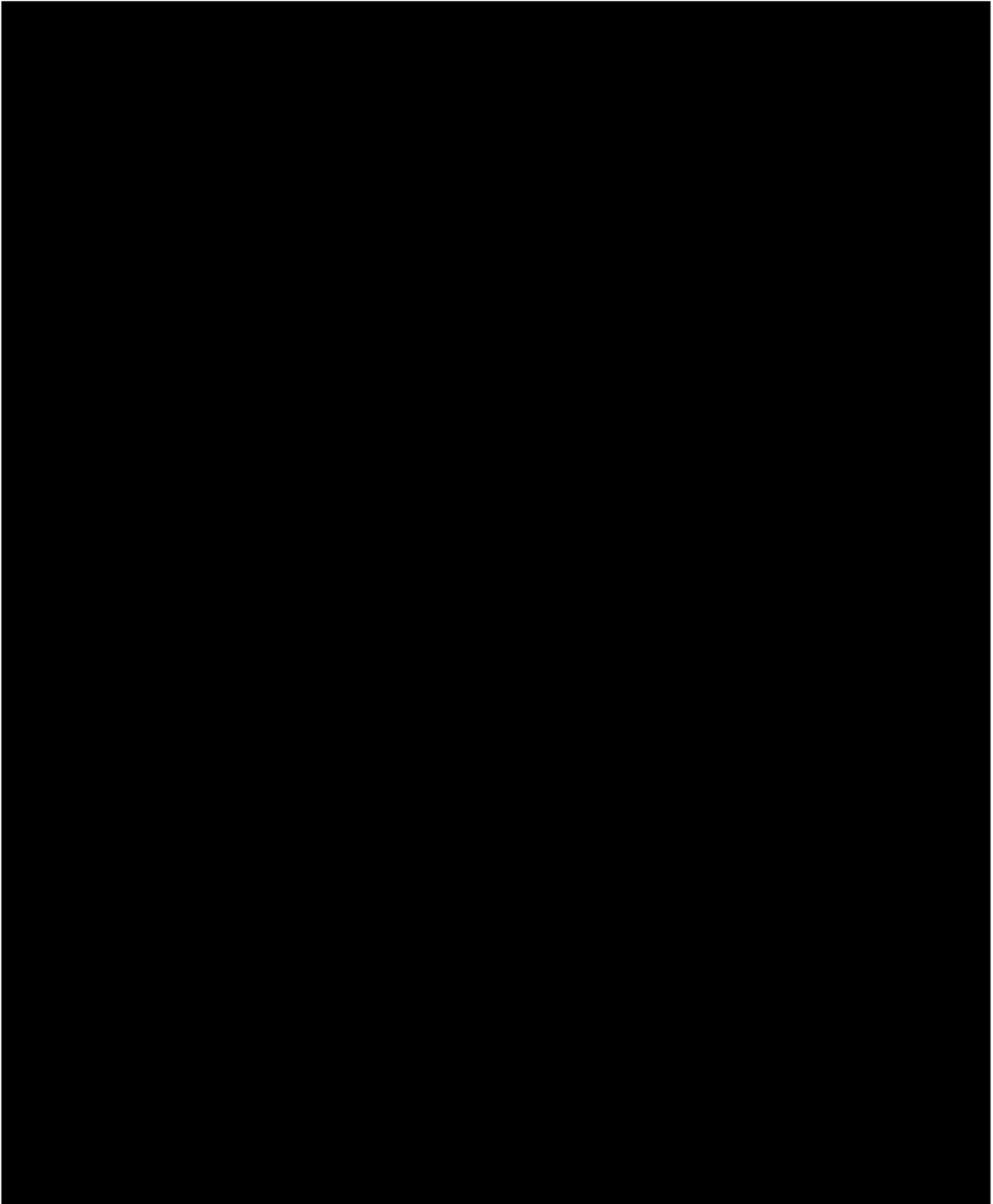


Figure A-1: Location Map for 5DT222, the Black Canyon Ramada

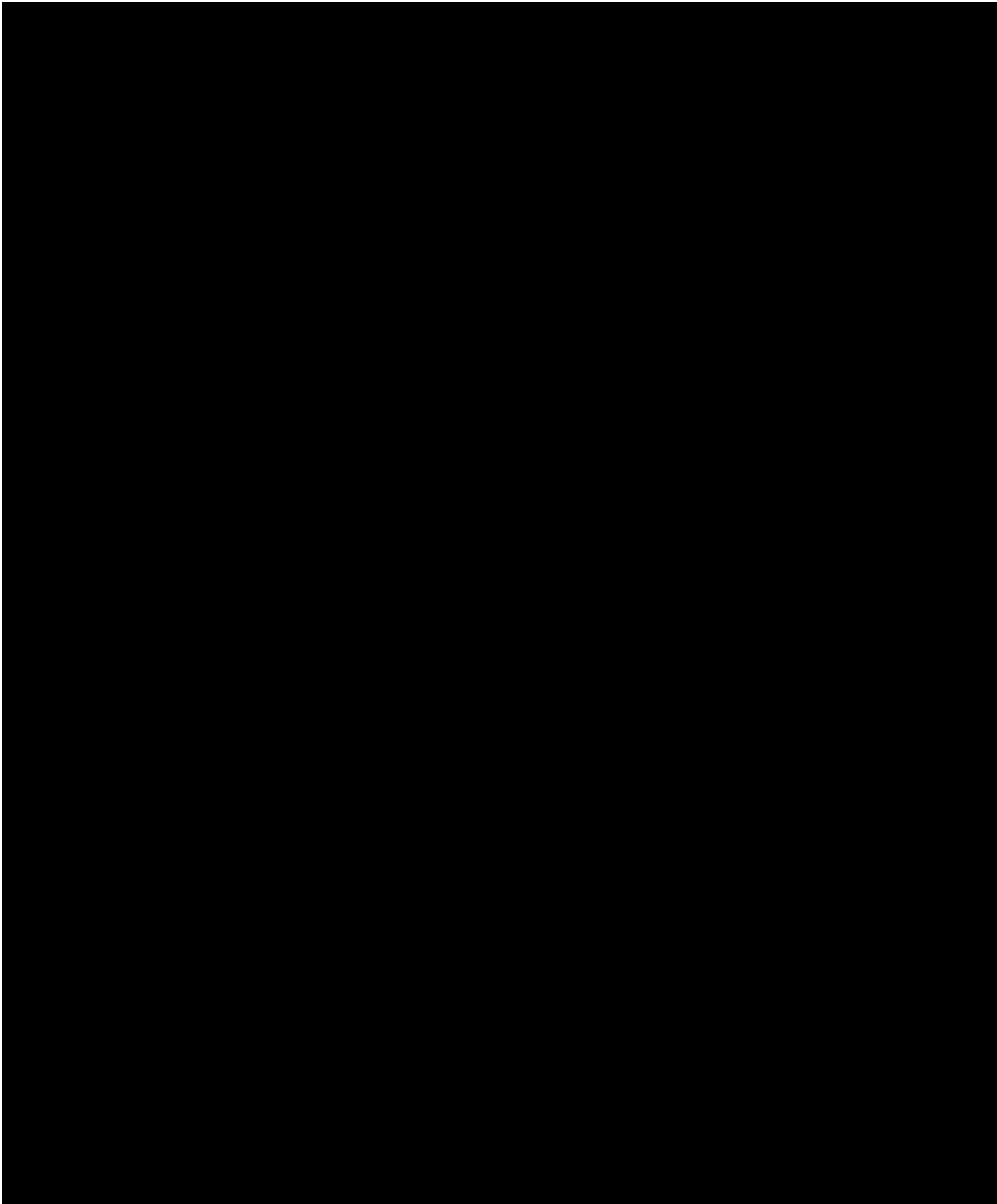


Figure A-2: Location Map for 5EA2740, Pisgah Mountain Wickiup Village

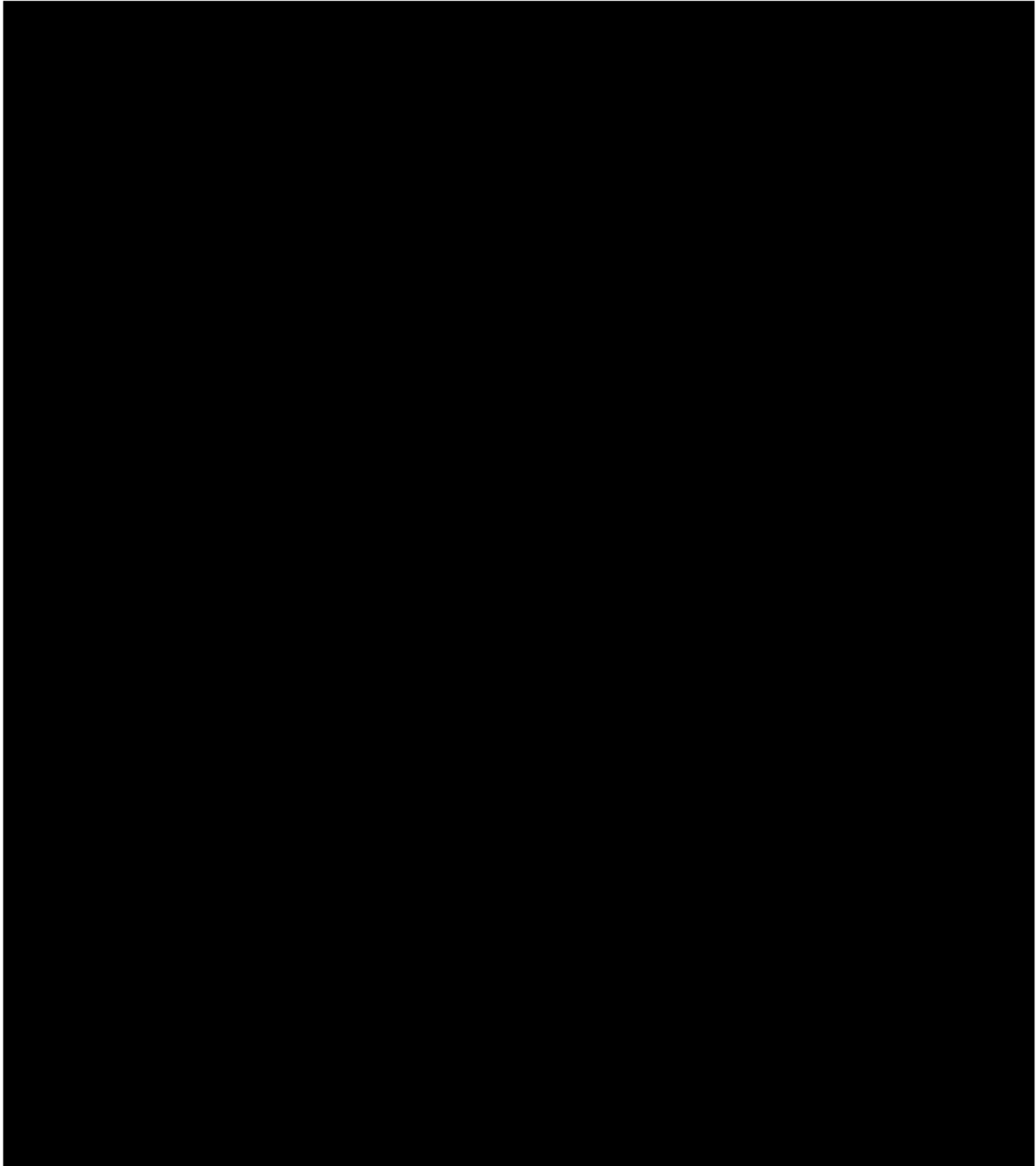


Figure A-3: Location Map for 5ME469, Decker Big Tank Wickiup Village

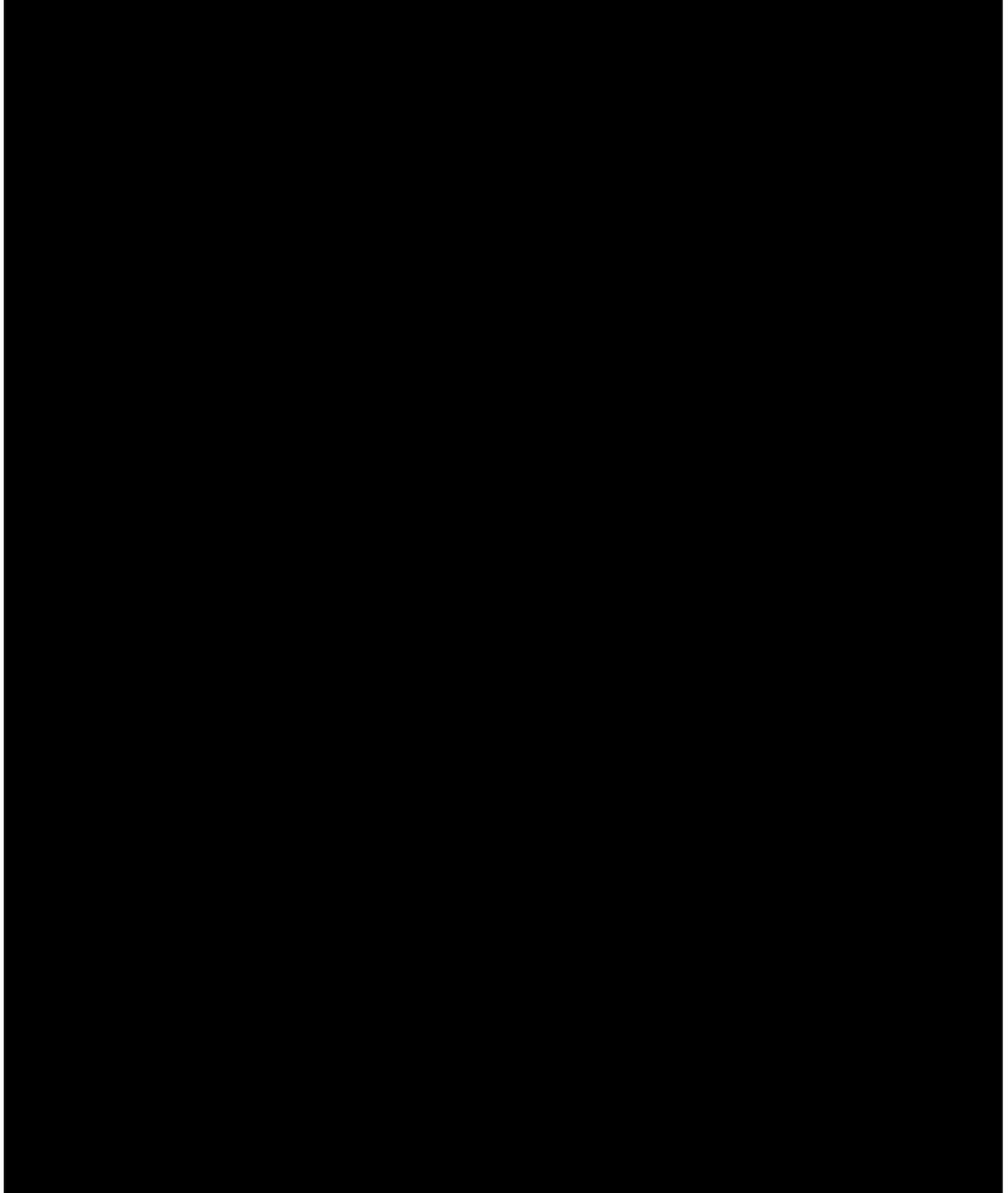


Figure A-4: Location Map for 5MF5216, Disappointment Draw Lodge

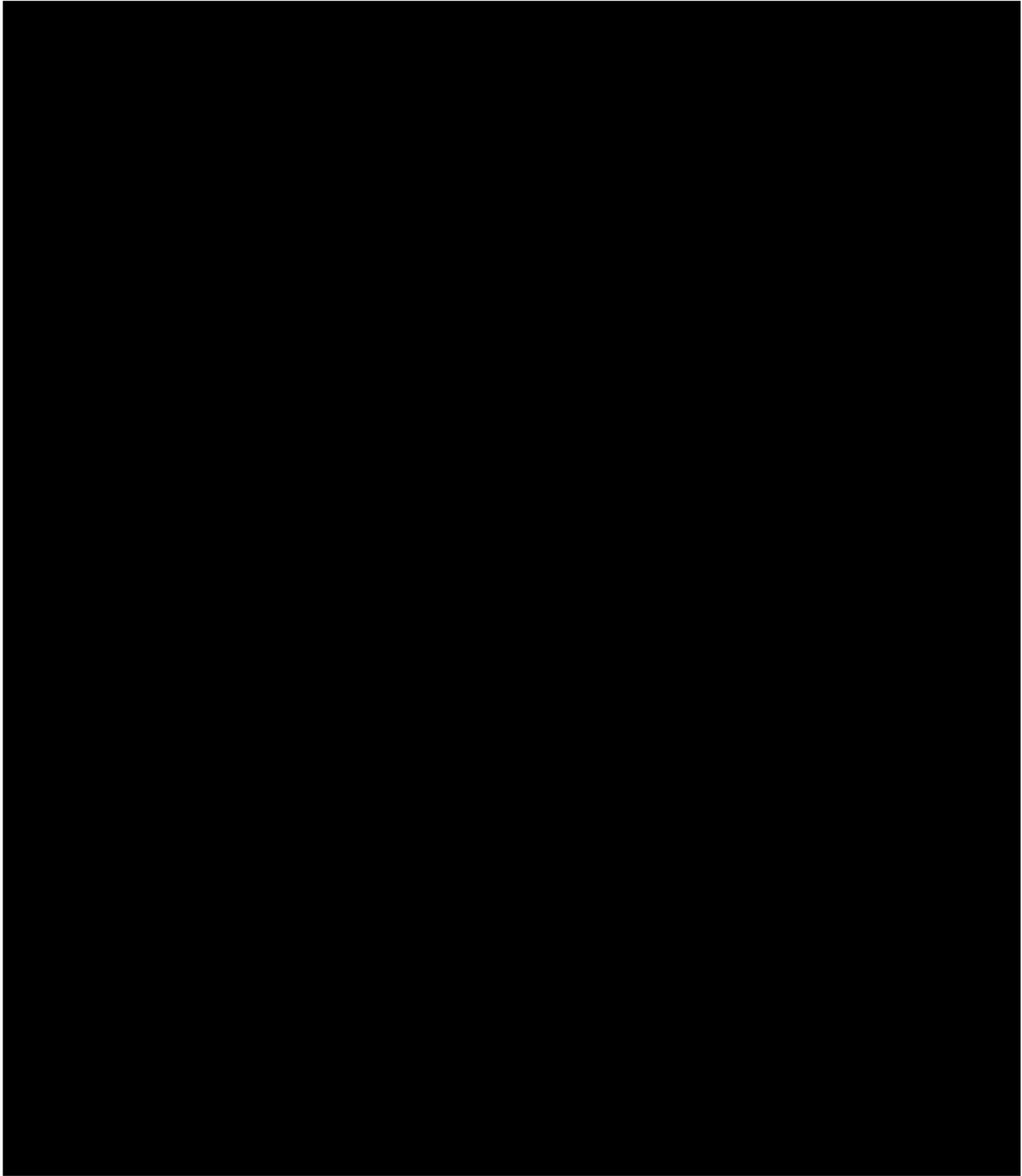


Figure A-5: Location Map for 5SH3788, Musick Lodge

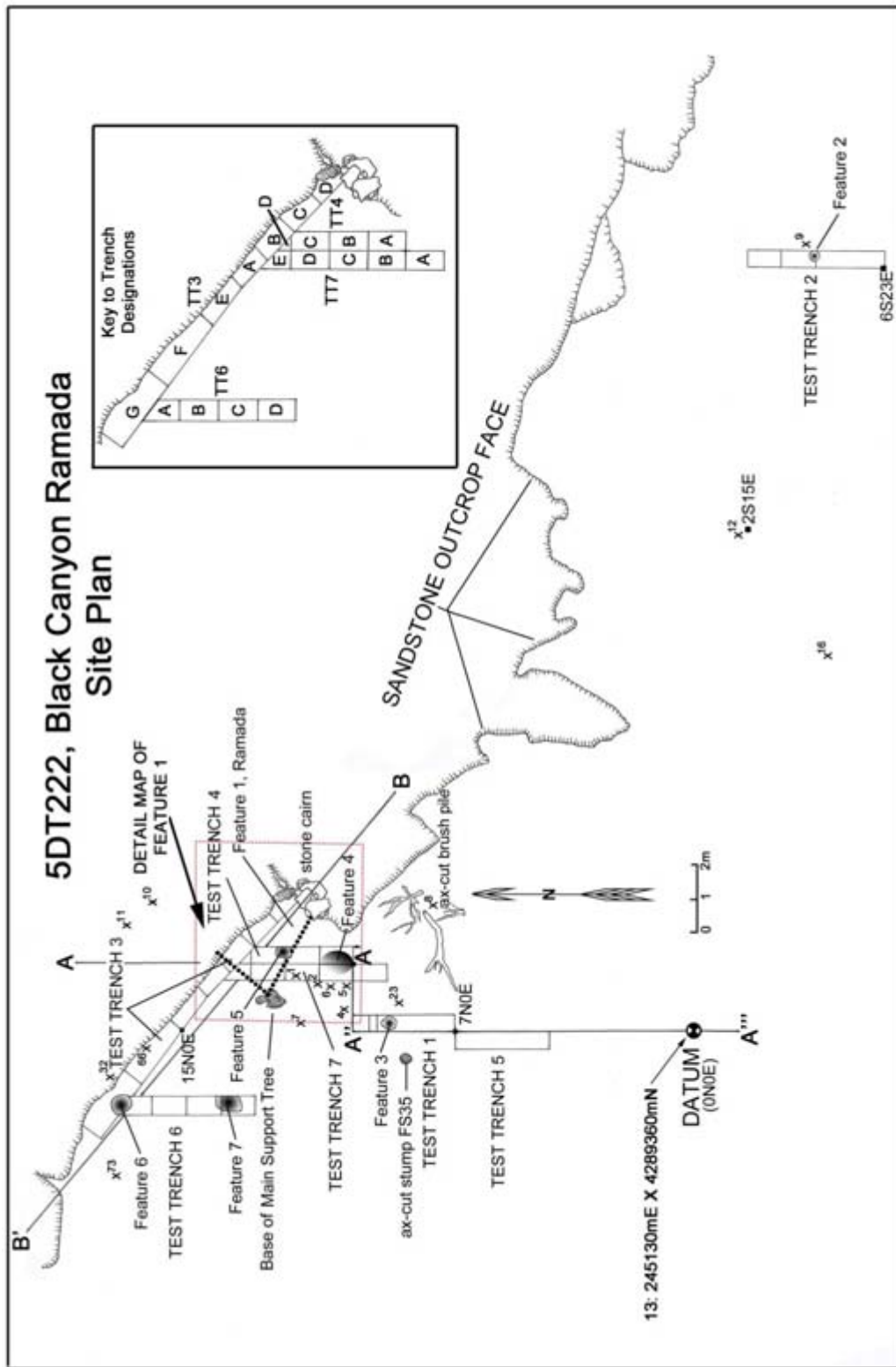


Figure A-6: Site Plan Map of 5DT222, Black Canyon Ramada with UTM Data

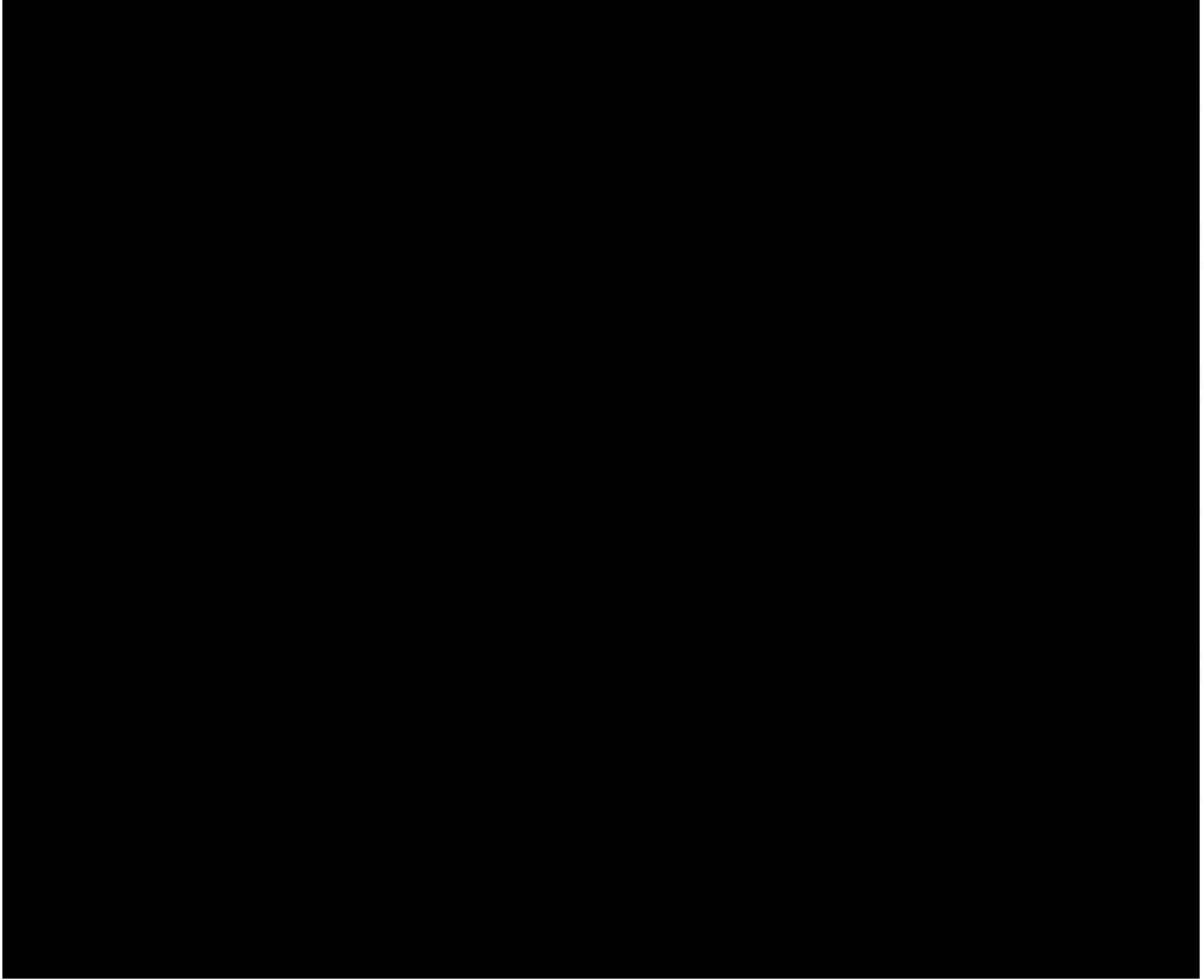


Figure A-7: Site Plan Map of 5EA2740, Pisgah Mountain Wickiup Village with UTM Data

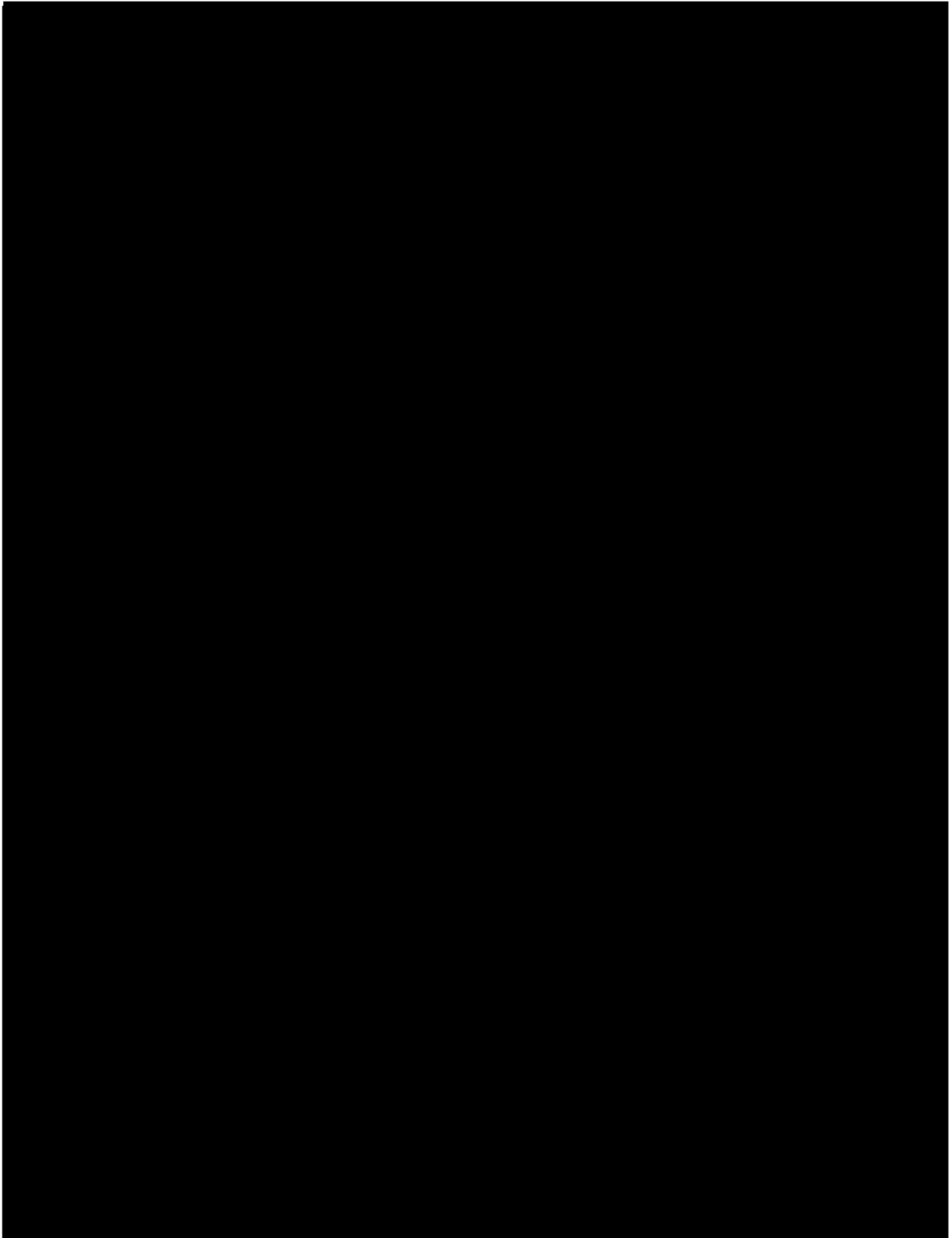


Figure A-8: Site Plan Map of 5ME469, Decker Big Tank Wickiup Village with UTM Data

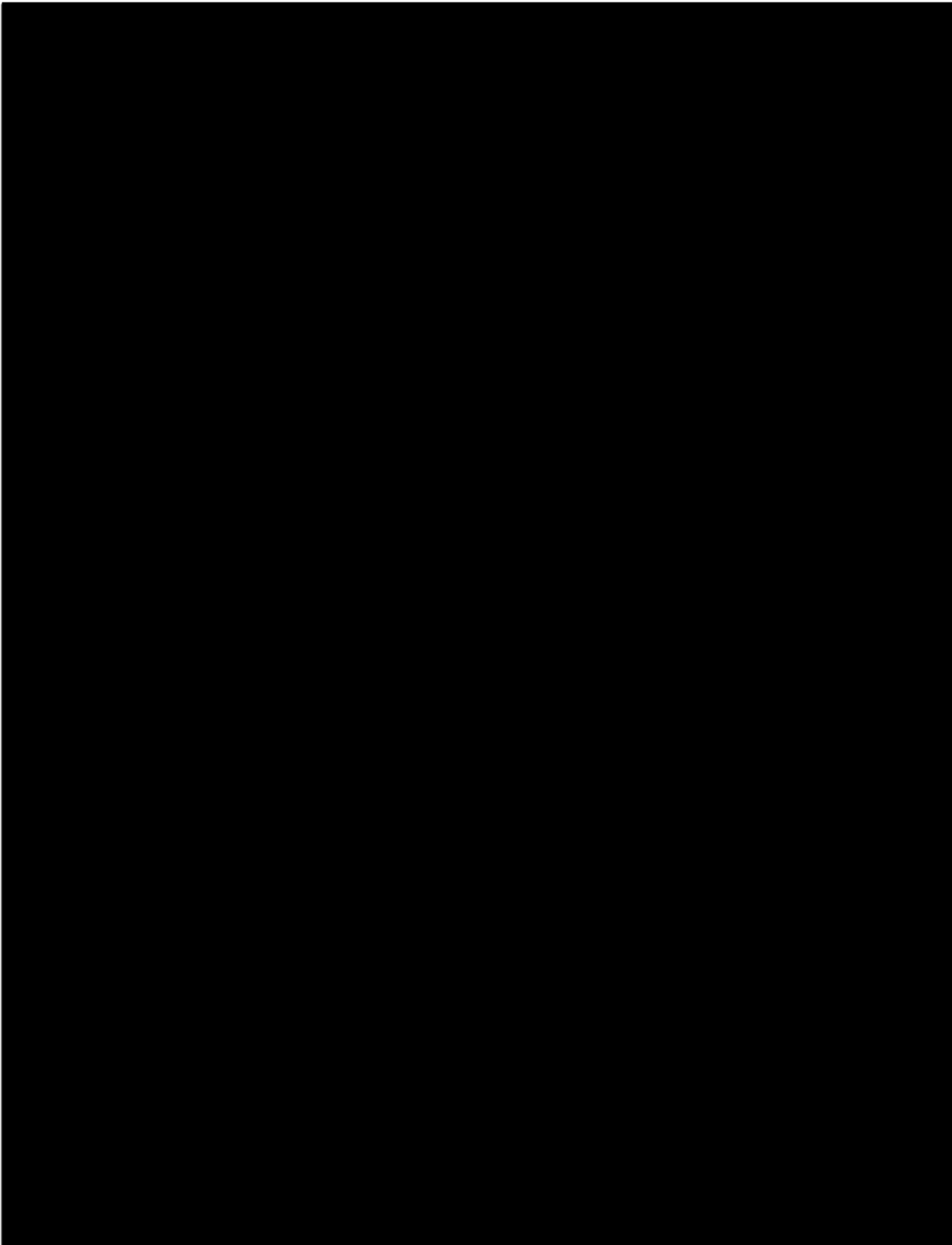


Figure A-9: Detail Plan of the Central Portion of 5ME469, Decker Big Tank Wickiup Village with UTM Data

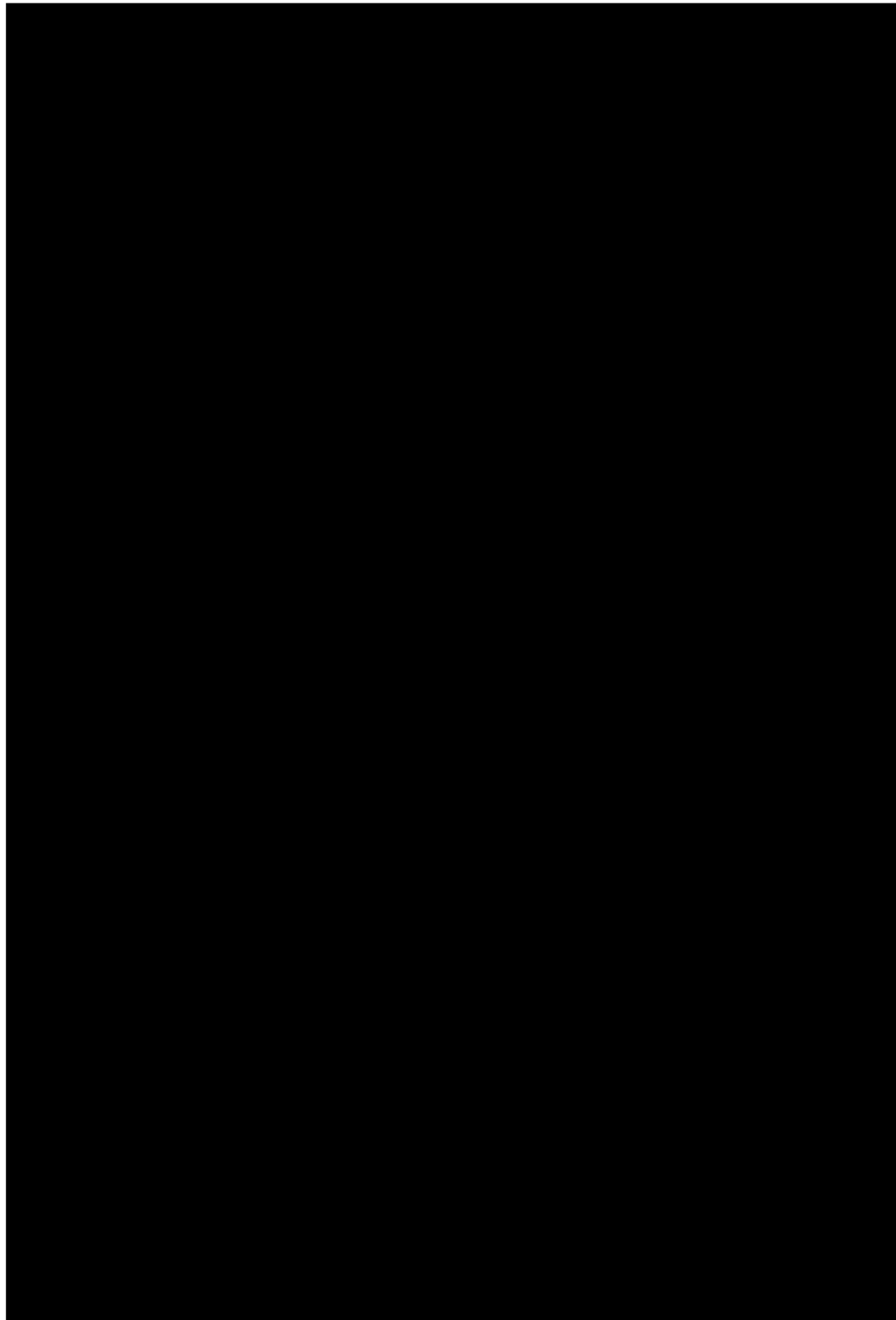


Figure A-10: Site Plan Map of 5MF5216, Disappointment Draw Lodge with UTM Data

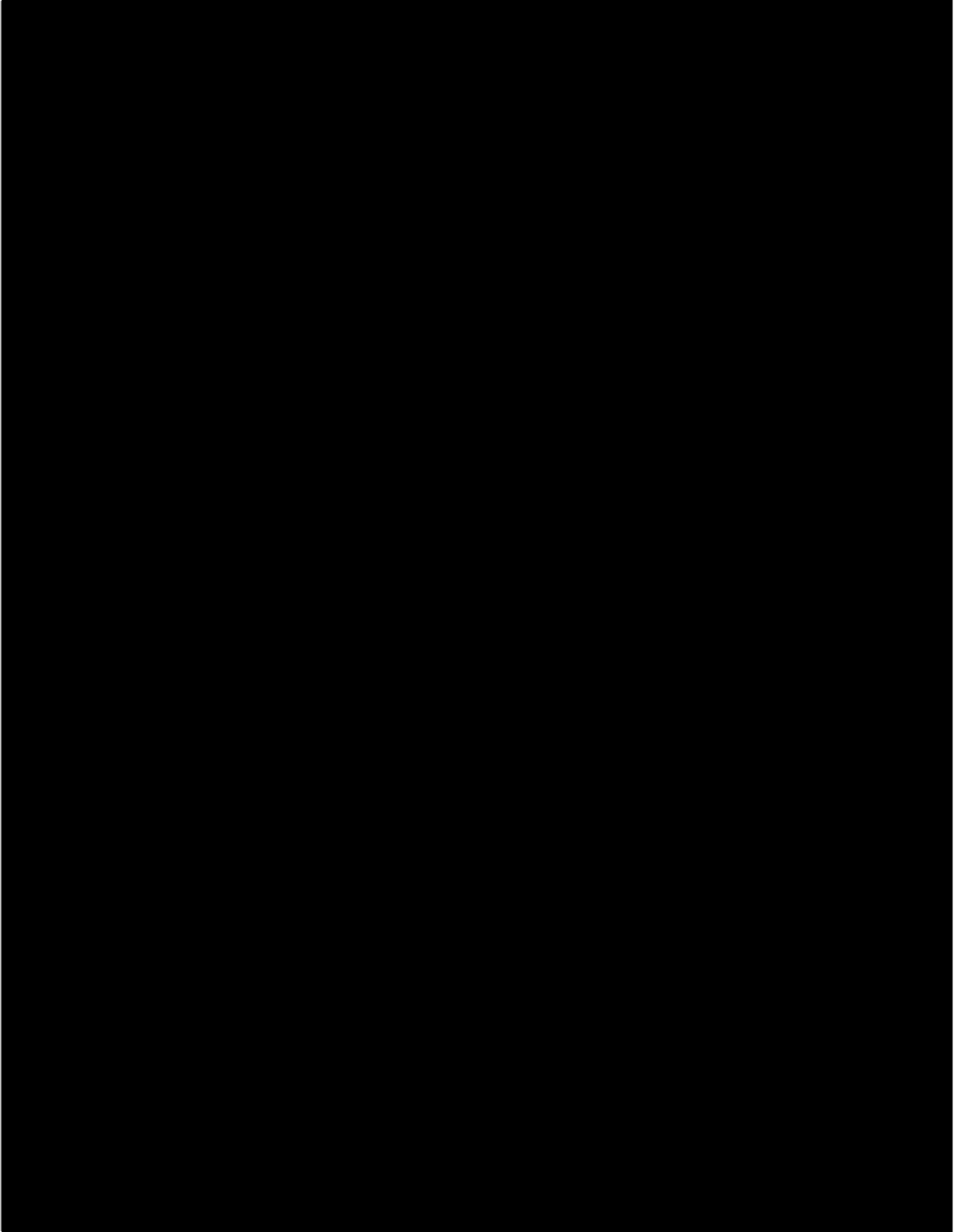


Figure A-11: Detail Plan Map of the Lodge Locus of 5MF5216, Disappointment Draw Lodge with UTM Data

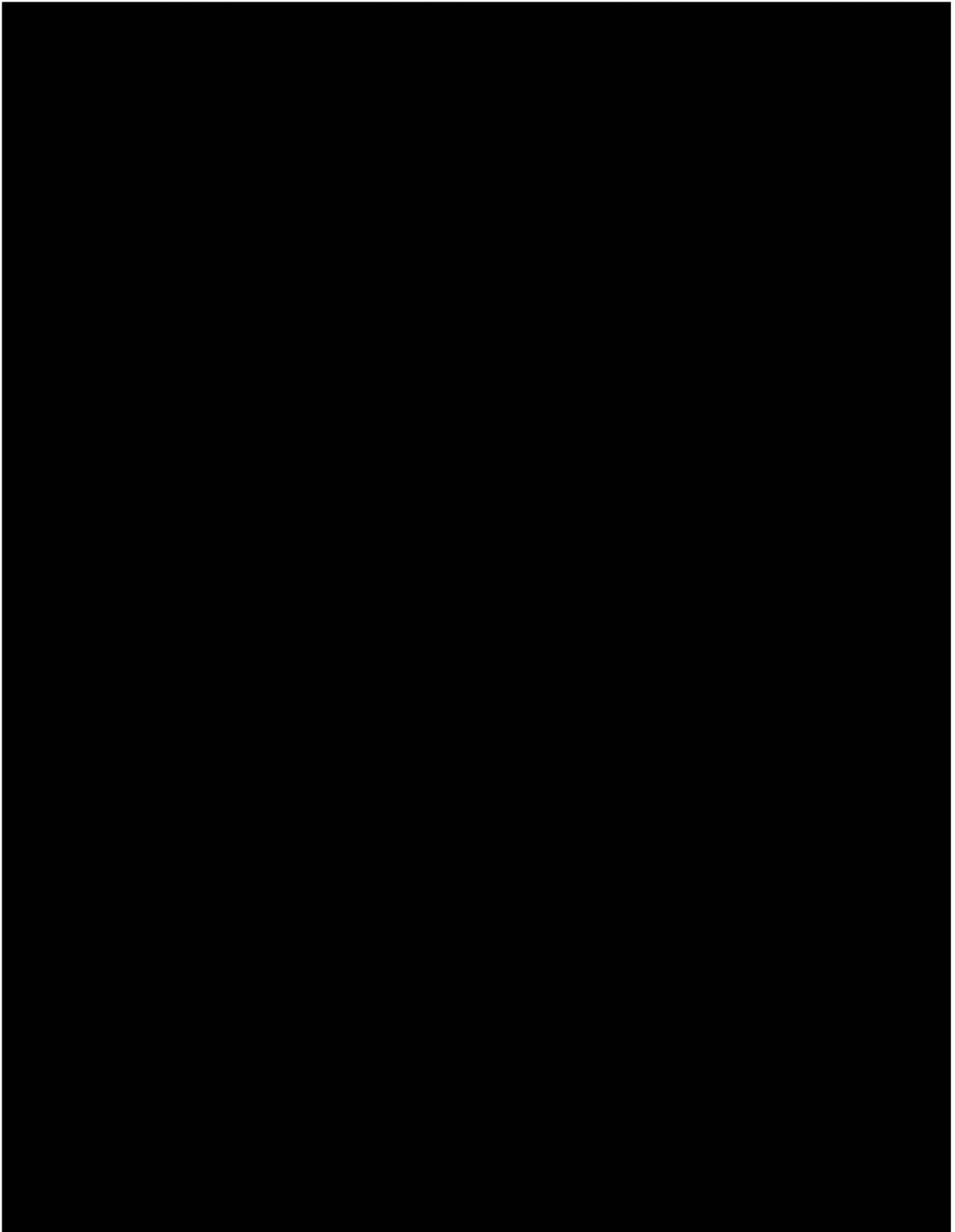


Figure A-12: Detail Plan Map of the Feature 3 Locus of 5MF5216,
Disappointment Draw Lodge with UTM Data

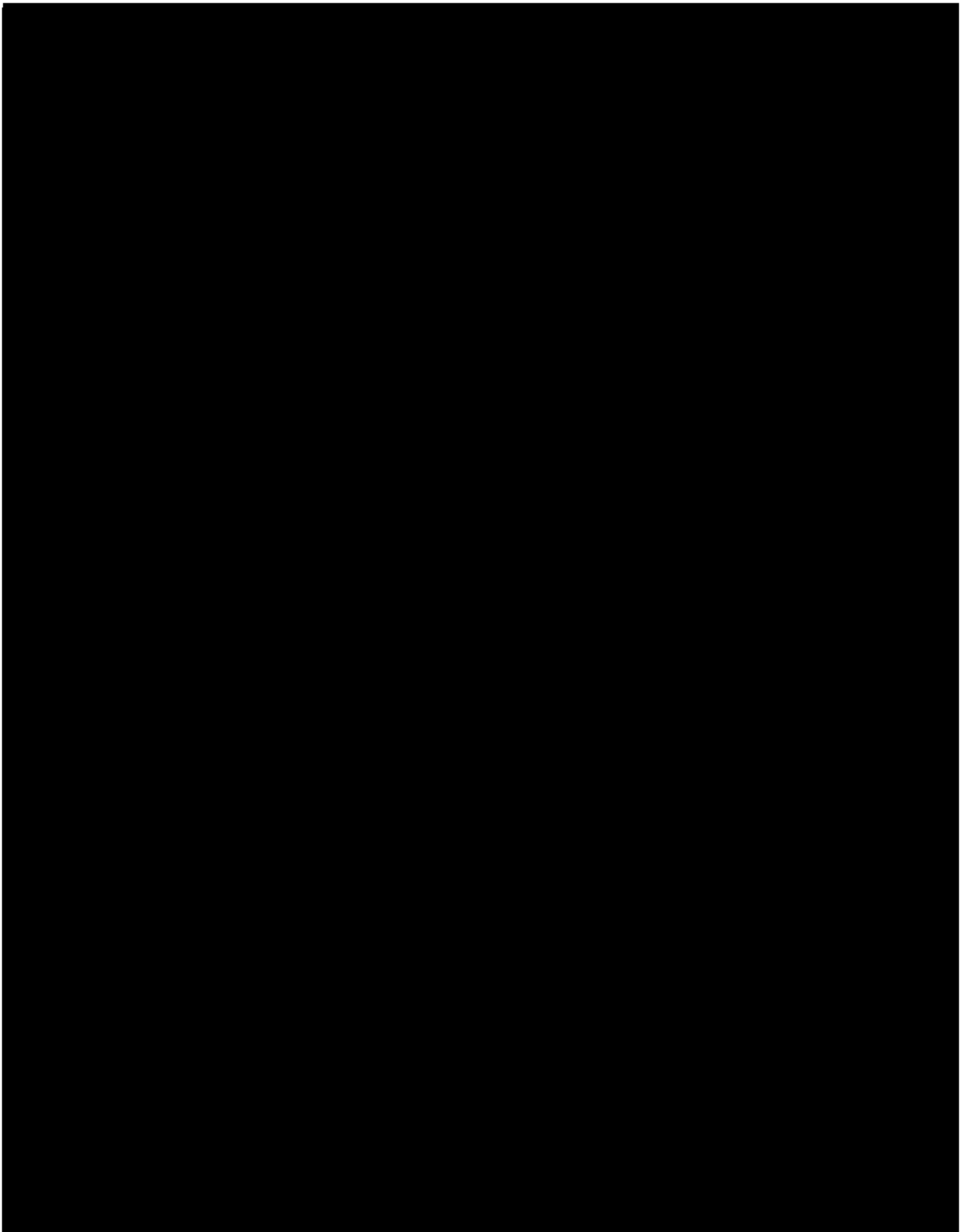


Figure A-13: Detail Plan Map of the Feature 5 Locus of 5MF5216,
Disappointment Draw Lodge with UTM Data

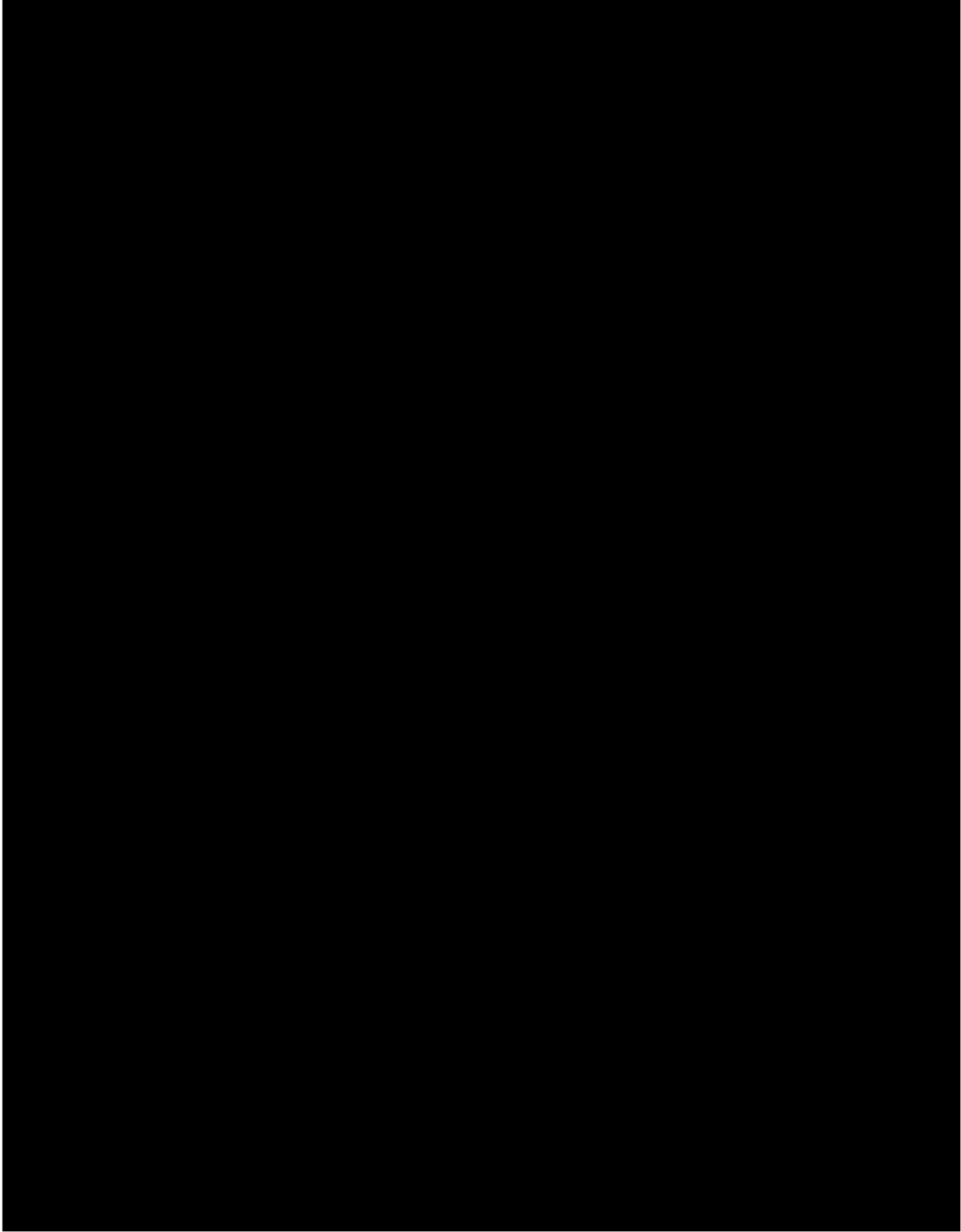


Figure A-14: Site Plan Map of 5SH3788, Musick Lodge with UTM Data
A-16

B.

Appendix B: Collected Artifacts with UTM Location Information

**Table B-1 : Field Specimen List for the Black Canyon Ramada (5DT222)
With UTM Coordinates**

FS #	Provenience and Associated Feature	Description	UTMs (Zone 13, NAD83)
FS1	Feature 1, TT7C (metal detected at 0-3cm)	Two fragments of wire twisted together	
FS2	Feature 1 (metal detected at 0-3cm)	Length of wire	
FS3	TT1	Length of wire	
FS4	Feature 1	Length of wire	
FS5	Feature 1	Fragment of amber beer bottle	
FS6	Feature 1	Wire bent into a — a “safety-pin-like” clasp	
FS7	Feature 1	Flake	
FS8	Near Feature 1	Modern .22 caliber cartridge case	
FS9	Near Feature 2	Flake	
FS10	Atop sandstone outcrop above Feature 1	Flake	
FS11	Atop sandstone outcrop above Feature 1	Uniface	
FS12	General Surface	Flake	
FS13	General Surface	Fresh water snail shells	
FS14	TT2 (4S23E, W ½) Near Feature 2	Charcoal	
FS15	TT2 (4S23E, W ½), 0-8cm Near Feature 2	Lithic angular shatter	
FS16	General Surface	Projectile point midsection	
FS17	TT2 (4S23E, W ½). 0-8cm Near Feature 2	Charcoal	
FS18	TT1, Level 1, 0-8cm	Lithic angular shatter	
FS19	TT1, Level 1, 0-8cm	Burnt bone fragments (3)	
FS20	TT1, Level 1, 0-8cm	Flakes (2)	
FS21	TT1, Level 1, 0-8cm	Charcoal	
FS22	TT1, N ½, Lev 2, 15cm	Flake	

FS #	Provenience and Associated Feature	Description	UTMs (Zone 13, NAD83)
FS23	Near Feature 1	Flake	
FS24	TT2 (4S23E, W ½). 10-20cm Feature 2 fill	Charcoal	
FS25	TT1, N ½, Lev 2, 15cm	Flake	
FS26	TT1, Lev 2, 8-13cm Feature 3 fill	Charcoal	
FS27	TT1, Lev 2, 13-15cm Feature 3 fill	Charcoal	
FS28	TT1, Lev 2, 19cm (<i>in situ</i>) Feature 3 fill	Flake	
FS29	TT3A, Lev 1, 0-10cm	Unburnt bone fragment	
FS30	TT3A, Lev 1, 0-10cm	Charcoal	
FS31	TT3B, Lev 1, 5cm (<i>in situ</i>)	Lithic butchering tool	
FS32	Atop sandstone outcrop above Feature 1	Lithic angular shatter	
FS33	TT3B, Lev 1, 0-10cm	Charcoal	
FS34	TT3B, Lev 1, 0-10cm	Charcoal	
FS35	South of Feature 1	Dendrochronological sample: metal ax-cut tree stump	
FS36	TT3B, Lev 1, 0-10cm	Flake	
FS37	TT4B, Lev 1, 0-4cm Feature 4	Burnt and calcined bone fragments (18)	
FS38	TT3A, Lev 2, 10-20cm	Unburnt bone fragment	
FS39	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut branch	
FS40	TT4C, Lev 1, 0-6cm	Burnt bone fragments (4)	
FS41	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch	
FS42	TT3C, Surface	Trapdoor spider tunnel lining	
FS43	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch	
FS44	TT3A, Lev 2, 12cm (<i>in situ</i>)	Water-worn pebble man-u-port	
FS45	TT3A, Lev 2, 7cm (<i>in situ</i>)	Mano fragment	
FS46	TT4C, Lev 1, 0-6cm	Flake	

FS #	Provenience and Associated Feature	Description	UTMs (Zone 13, NAD83)
FS47	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch	
FS48	Ax-cut brush pile southeast of Feature 1	Dendrochronological sample: metal ax-cut tree branch	
FS49	TT3A, Lev 1, 0-10cm	Artiodactyl tooth enamel	
FS50	TT4A, Lev 2, 6-10cm Feature 4 fill	Charcoal	
FS51	TT3A, Lev 2, 10-20cm	Flake	
FS52	TT4A, Lev 2, 13cm Feature 4 fill	Charcoal	
FS53	TT4A, Lev 2, 6-15cm Feature 4 fill	Charcoal	
FS54	TT4A, Lev 2, 13cm Feature 4 fill	Charcoal	
FS55	TT4A, Lev 2, 6-15cm Feature 4 fill	Pollen sample	
FS56	General Surface Near TT1	Surface soil sample (to accompany ceramic sherds from 2002 as a thermoluminescence sample)	
FS57	TT3A, Lev 2, 10cm to bedrock	Flake	
FS58	TT4C, Lev 1, 7cm	Calcined bone fragment	
FS59	TT4B, Lev 2, 6-15cm Near Feature 4	Burnt and calcined bone fragments (19)	
FS60	TT4C, Lev 1, 0-10cm Feature 5 fill	Burnt and calcined bone fragments (5)	
FS61	TT4B, Levs 1 & 2	Trapdoor spider tunnel lining	
FS62	TT4C, Lev 1, 0-10cm Feature 5 fill	Charcoal	
FS63	TT4B, Lev 2, 6-15cm	Flake	
FS64	TT4C, Lev 1, 0-10cm Feature 5 fill	Charcoal	
FS65	Feature 1 interior (between leaning beams & support tree)	Macrobotanical soil sample	
FS66	TT3F, Surface	Flake	
FS67	General Surface Near TT1	Bulk soil sample	
FS68	Feature 1 ramada	Dendrochronological sample: metal ax-cut Main Support Beam	
FS69	TT1, 5-10cm	Bulk soil sample	

FS #	Provenience and Associated Feature	Description	UTMs (Zone 13, NAD83)
FS70	TT1, 20-30cm	Bulk soil sample	
FS71	TT3F, Lev 1, 0-10cm	Flake	
FS72	TT3F, Lev 1, surface	Flake	
FS73	General Surface at extreme northwest end of site	Projectile point base	
FS74	TT6A, Lev 1, 0-5cm Near Feature 6	Calcined bone fragment	
FS75	TT6A, Lev 1, 0-5cm Near Feature 6	Flake	
FS76	TT4A, Lev 2 Feature 4 fill	Macrobotanical sample	
FS77	TT6B, Surface	Lithic core chopper	
FS78	TT6B, Lev 1, 0-10cm	Flake	
FS79	TT6B, Lev 1, 0-10cm	Burnt bone fragment	
FS80	TT3G, Lev 1, 0-10cm Feature 6 fill	Charcoal	
FS81	TT7C, Lev 1, 0-6cm	Burnt and calcined bone fragments (12)	
FS82	TT6B, Lev 1, 0-10cm	Flake	
FS83	TT6C, Lev 1, 0-10cm	Flake	
FS84	TT7A	Flake	
FS85	TT6D, Lev 1, 9cm (<i>in situ</i>) Near Feature 7	Flake	
FS86	TT6D, Lev 1, 0-10cm	Flake	
FS87	-----	(discarded: non-artifactual)	
FS88	TT3G, Lev 2, 8-14cm Feature 6, East ½ fill	Macrobotanical sample	
FS89	TT3G, Lev 2, 8-14cm (bedrock) Feature 6, SE ¼ fill	Pollen sample	
FS90 (in FS60)	TT4C, Lev 1, 0-10cm Feature 5 fill	Worked bone: two fragments of calcined mammal long bone, one end of one fragment ground & polished	

Table B-2: Field Specimen List for 5ME469 with UTM Coordinates

FS #	Provenience & Associated Feature	Description	UTMs (Zone 12, NAD 83)
FS1	Structure 5 (metal detected: 0-5cm)	Metal headstall jingle	
FS2	Structure 13 (within duff on surface)	Modern .22 caliber cartridge case	
FS3	Structure 5, within stone ring (upper 1cm of duff)	Chert flake	
FS4	Structure 8 (metal detected: 0-4cm)	Cut can fragment	
FS5	Structure 8 (metal detected: 2cm)	Two cut can fragments	
FS6	Structure 8 (metal detected: 0-2cm)	Cut non-ferrous sheet metal fragment	
FS7	Structure 8 (metal detected: 3cm)	Cut non-ferrous sheet metal fragment	
FS8	Structure 8	Bone fragment	
FS9	Structure 8 (metal detected: 6cm)	Cut can fragment	
FS10	Structure 8 (metal detected: 5cm)	Metal tinkler (likely made from the same can as FSs 4, 5, and 9)	
FS11	Structure 8 (surface)	Bone	
FS12	Structure 8 (metal detected: 5-8cm)	Cut non-ferrous sheet metal fragment	
FS13	Structure 13 (metal detected: 4-10cm)	Metal tinkler	
FS14	Structure 9 (metal detected: 5-7cm)	.22 caliber spent bullet lead	
FS15	Structure 8, hearth at east edge of wickiup (5-8cm)	Burnt bone	
FS16	Structure 8, hearth area at east edge of wickiup (5-8cm)	Charcoal	
FS17	Structure 1, Pole # 9	Tree-ring sample from ax-cut pole	
FS18	Structure 1 (branch, 2m SW of wickiup)	Tree-ring sample from ax-cut branch	
FS19	Structure 1, Pole # 15	Tree-ring sample from saw-cut pole	

**Table B-3 : Field Specimen List for the Disappointment Draw Lodge Site (5MF5216)
With UTM Coordinates**

FS	Locus, Associated Feature, Depth Below PGS	Description	UTMs (Zone 12, NAD 83)
1	Feature 3 Locus, Surface	Military brass button	
2	Feature 3 Locus, Surface	Spent Boxer primer	
3	Feature 3 Locus, Surface	Two-piece stamped metal —ble jeans” button	
4	Feature 3 Locus, Surface	Metal —ble jeans” rivets (2)	
5	Feature 3 Locus, Feature 4, 3cm	Blue glass seed bead	
6	Feature 3 Locus, Feature 4, 3cm	Burnt medium-to-large mammal bone fragments (4)	
7	Feature 3 Locus, Surface	Amethyst bottle glass fragments (13) with remnants of screw top threads	
8	Feature 3 Locus, 6cm	.44 caliber fired bullet lead	
9	Feature 3 Locus, Surface	Amethyst bottle glass fragments (13) with remnants of screw top threads	
10	Feature 3 Locus, Surface	Spent Boxer primer	
11	Feature 3 Locus, Artifact Concentration A, Surface	Baking powder can lid (12 oz)	
12	Feature 3 Locus, Artifact Concentration A, Surface	Amethyst bottle glass fragments (21) with remnants of screw top threads	
13	Feature 3 Locus, Artifact Concentration A, Surface	Amethyst bottle glass fragment with polygonal base	
14	Feature 3 Locus, Artifact Concentration A, Surface	Lead sprue globule	
15	Feature 3 Locus, Artifact Concentration A, 2cm	Spent Berdan primer	
16	Feature 3 Locus, Artifact Concentration A, 2cm	Spent Boxer primer	
17	Feature 3 Locus, Artifact Concentration A, 0-2cm	Spent Boxer primer	
18	Feature 3 Locus, Artifact Concentration A, 8cm	Two-piece stamped metal button with 2 half-moon shaped holes	
19	Feature 3 Locus, Artifact Concentration A, Surface	.32 caliber Winchester cartridge case	
20	Feature 3 Locus, Surface	Baking Powder can lid (6oz)	
21	Feature 3 Locus, Surface	Boot or shoe sole fragments (6) with screw shanks in place	
22	Feature 3 Locus, Surface	Leather (horse tack?) fragments (5)	

FS	Locus, Associated Feature, Depth Below PGS	Description	UTMs (Zone 12, NAD 83)
23	Feature 5 Locus, Surface	Gun powder can	
24	Feature 5 Locus, Surface	Boot or shoe sole fragments (10)	
25	Feature 5 Locus, Surface	Friction-lid style can (same diameter as FSs 102 and 103)	
26	Lodge Locus, Surface	Bucket bail (possibly associated with FS104)	
27	Lodge Locus, Feature 1, Surface	Sandstone abrader/polishing stone	
28	Lodge Locus, Surface	Dendrochronology Sample #1 (ax-cut stump)	
29	Feature 3 Locus, Artifact Concentration A, 0-6cm	Miscast lead bullet	
30	Feature 3 Locus, Artifact Concentration A, 0-3cm	.30-40 Krag full metal bullet jacket	
31	Feature 3 Locus, Artifact Concentration A, 1cm	Glass seed bead	
32	Feature 3 Locus, Artifact Concentration A, Surface	Lead sprue globule	
33	Feature 3 Locus, Artifact Concentration A, 0-3cm	Spent Boxer primer	
34	Feature 3 Locus, Artifact Concentration A, 0-2cm	Spent Boxer primers (2)	
35	Lodge Locus, Feature 1, Pole #10	Dendrochronology Sample #2	
36	Feature 3 Locus, Artifact Concentration A, 0-2cm	Metal fragment: possible cartridge case fragment	
37	Feature 3 Locus, Artifact Concentration A, 0-2cm	Decorative 2-pronged brass stud	
38	Feature 3 Locus, Artifact Concentration A, 0-3cm	Lead sprue globule	
39	Feature 3 Locus, Feature 3 element in northwest portion of enclosure	Dendrochronology Sample #3	
40	Feature 3 Locus, Artifact Concentration A, Surface	Small splinter of clear glass	
41	Feature 3 Locus, Artifact Concentration A, 0-3cm	.30-40 Krag full metal bullet jackets (2)	
42	Feature 3 Locus, Feature 3 element in northwest portion of enclosure	Dendrochronology Sample #4	
43	Feature 3 Locus, Feature 3 element in north portion of enclosure	Dendrochronology Sample #5	
44	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #6	

FS	Locus, Associated Feature, Depth Below PGS	Description	UTMs (Zone 12, NAD 83)
45	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #7	
46	Feature 3 Locus, Artifact Concentration A, 0-4cm	Spent Boxer primers (3)	
47	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #8	
48	Feature 5 Locus, Feature 5 element	Dendrochronology Sample #9	
49	Feature 3 Locus, 0-2cm	Glass seed bead	
50	Feature 3 Locus, 0-2cm	Tack with domed head	
51	Feature 3 Locus, 2-4cm	Square nail	
52	Feature 5 Locus, 0-1cm	Concentration of 4 nails and 2 screws	
53	Feature 3 Locus, 2-4cm	Lead sprue globule	
54	Feature 3 Locus, 0-2cm	Sheet iron fragment	
55	Feature 3 Locus, 0-4cm	Spent Boxer primer	
56	Feature 3 Locus, Feature 4, 0-2cm	Lead sprue globule	
57	Feature 3 Locus, Feature 4, 1cm	Spent Boxer primer	
58	Feature 3 Locus, Feature 4, 0-1cm	Lead sprue globules (2)	
59	Feature 3 Locus, Feature 4, 0-1cm	Spent Boxer primer (2)	
60	Feature 3 Locus, Feature 4, 1cm	Glass seed beads (3)	
61	Feature 3 Locus, Feature 4, 0-1cm	Glass seed beads (2)	
62	Feature 3 Locus, Feature 4, 0-1cm	Lead sprue globule	
63	Feature 3 Locus, Feature 4, Surface	Glass seed beads (3)	
64	Feature 3 Locus, Feature 4, Surface	Amethyst bottle glass fragment	
65	Feature 3 Locus, 3-4cm	Fired bullet lead	
66	Feature 3 Locus, Surface	Decorative brass tack head	
67	Feature 3 Locus, 0-3cm	Amethyst bottle glass fragments (7), possibly from 2 vessels	
68	Feature 3 Locus, 0-3cm	Wire nails (2)	

FS	Locus, Associated Feature, Depth Below PGS	Description	UTMs (Zone 12, NAD 83)
69	Feature 3 Locus, 0-2cm	Spent Boxer primer	
70	Feature 3 Locus, 0-2cm	Sheet iron (can?) fragments (5)	
71	Feature 3 Locus, 0-5cm	Two-piece stamped metal button	
72	Feature 3 Locus, 0-2cm	Square nails (2)	
73	Lodge Locus,	Wire fragment	
74	Feature 5 Locus, Surface	Spent Boxer primer	
75	Feature 5 Locus, Surface	Spent Boxer primer	
76	Feature 3 Locus, Surface	Lithic corner-notched or stemmed projectile point mid-section	
77	Feature 5 Locus, Surface	Apparent lead sprue globule	
78	Feature 5 Locus, 6cm	Pointed and deliberately bent metal wire fragment	
79	Feature 3 Locus, Artifact Concentration A, Surface	Amethyst bottle glass fragment	
80	Feature 5 Locus, 0-1cm	Spent Boxer primer (missing)	
81	Feature 5 Locus, 0-2cm	Spent Boxer primer	
82	Feature 5 Locus, 0-2cm	Shotgun pellet	
83	Feature 5 Locus, 7cm	Metal gold-colored foil fragment	
84	Feature 5 Locus, 4cm	Spent Boxer primer	
85	Feature 5 Locus, 0-3cm	.44-40 Winchester cartridge case	
86	Feature 5 Locus, 8cm	.44-40 Winchester cartridge case	
87	Feature 3 Locus, Surface	Amethyst bottle glass fragment	
88	Feature 5 Locus, 0-1cm	Wire nails (3)	
89	Feature 5 Locus, 3cm	.44-40 Winchester cartridge case	
90	Feature 5 Locus, Feature 7, 16cm	.44 caliber Henry rimfire cartridge case	
91	Feature 5 Locus, 0-2cm	Square-shank tacks (5)	
92	Feature 5 Locus, Feature 7, 4cm	Miscast lead bullet	

FS	Locus, Associated Feature, Depth Below PGS	Description	UTMs (Zone 12, NAD 83)
93	Feature 5 Locus, 0-2cm	Spent Boxer primer	
94	Feature 5 Locus, Feature 7, 2-4cm	Spent Boxer primer	
95	Feature 5 Locus, Feature 7, 2-4cm	Lead sprue globule	
96	Feature 5 Locus, Feature 7, 2-4cm	Unburnt, calcined deer vertebra and podial fragment	
97	Feature 5 Locus, Surface	.45-70 Springfield cartridge case	
98	Feature 5 Locus, Surface	Fired bullet lead fragment	
99	Feature 5 Locus, 0-3cm	Decorative 2-pronged brass stud (one prong missing)	
100	Feature 5 Locus, 5-7cm	Cylindrical metal bead	
101	Feature 5 Locus, 2-3cm	.44 caliber fired bullet lead	
102	Feature 5 Locus, Surface	Friction-lid style can (same diameter as FSs 25 and 103)	
103	Feature 5 Locus, Surface	Friction lid for can (same diameter as FSs 25 and 102)	
104	Feature 5 Locus, Surface	Lard (?) bucket (apparent match for bail, FS26)	
105	Feature 5 Locus, 10cm	.44 caliber fired bullet lead	
106	Feature 5 Locus, 0-5cm	.44 caliber fired bullet lead	
107	Feature 5 Locus, 5-7cm	.44-40 Winchester cartridge case	
108	Feature 5 Locus, 0-12cm	.32 caliber Winchester cartridge case	
109	Feature 5 Locus, 0-5cm	.44-40 Winchester cartridge case	
110	Feature 5 Locus, 0-8cm	.44 caliber Henry rimfire cartridge case	
111	Feature 5 Locus, 0-9cm	.44-40 Winchester cartridge case	
112	Feature 5 Locus, Feature 7, 0-3cm	Lead sprue globules (2)	
113	Feature 5 Locus, Feature 7, 0-12cm	Unspent Berdan primer	
114	Feature 5 Locus, 0-10cm	.44 caliber fired bullet lead	
115	Feature 5 Locus, 0-8cm	Fired bullet lead fragment	
116	Feature 5 Locus, 0-6cm	Spent Boxer primer	

FS	Locus, Associated Feature, Depth Below PGS	Description	UTMs (Zone 12, NAD 83)
117	Feature 5 Locus, 0-4cm	Spent Boxer primer	
118	Feature 5 Locus, 2-4cm	.44 caliber Henry rimfire cartridge case	
119	Feature 5 Locus, 7-9cm	Two-tongue, center-bar metal buckle	
120	Feature 5 Locus, 19cm	.44 caliber Henry rimfire cartridge case	
121	Feature 5 Locus, Feature 7, 0-7m	Spent Boxer primer	
122	Feature 5 Locus, Feature 7, 1-5cm	Flattened metal can	
123	Feature 5 Locus, 12-15cm	.44-40 Winchester cartridge case	
124	Feature 5 Locus, 10-13cm	.44 caliber Henry rimfire cartridge case	
125	Feature 5 Locus, 15-18cm	.44-40 Winchester cartridge case	

C.

Appendix C: Dendrochronological Analysis
by
Ron Towner
Laboratory of Tree-Ring Research
University of Arizona

Report on Accession A-1946
Tree-ring Samples from Various Aboriginal Wooden Feature Sites in Western Colorado

By Ronald H. Towner
Associate Professor of Dendrochronology and Anthropology
Agnese and Emil Haury Endowed Chair of Archaeological Dendrochronology
Laboratory of Tree-ring Research and School of Anthropology, University of Arizona

Of the 41 samples submitted, 38 are juniper, 5 are piñon, and 3 are *Populus* spp. (probably aspen). Of these, 35 samples (30 junipers and all the piñons) yielded dates. This is a great proportion (our long-term average is 35-40%), so maybe we are on to something here!

The 22 samples from 5EA2740 yielded 20 dates, ranging from 1826vv to 2010v (although I'm sure the inside date of 1890 on sample UTE-152 is of most interest to you). Separated by Feature, it looks like Feature 8 was constructed in the fall of 1853—two 1853rB cutting dates (UTE-143 and 144) supported by two earlier noncutting dates of 1836vv and 1851++vv.

Feature 6 may be slightly earlier with an 1850v cutting date (UTE-148), but also contains an 1868++B noncutting date, probably a piece of dead wood (UTE-147).

The only sample from Feature 9 (UTE-149) yielded an 1853rB comp cutting date, indicating absolute contemporaneity with Feature 8.

Features 15A and 15B are a little harder to interpret. Feature 15A may be contemporary with Features 8 and 9, with a near cutting date of 1852+v (UTE-153) and noncutting date of 1853vv (UTE-154), but the much later cutting date of 1918v (UTE-155) suggests either reuse of the structure or recycling of previously used elements into a new structure. Feature 15B appears to be a late 1880s/1890s construct, assuming the inside dates of 1886 (UTE-151) and 1890 (UTE-152) are relevant; neither are pith dates, however, and the limbs could have been growing much earlier than those dates.

Feature 7 yielded a single noncutting date of 1853vv (UTE-158), which suggests contemporaneity with Features 8, 9, and 15A.

The two samples from Feature 19 (UTE-160 and UTE-161) yielded very disparate dates, 1979+rLB and 1849vv, respectively; the 1849 date suggests structure use at the same time as many of the other site features.

The single sample from Feature 2A (UTE-162) yielded a 1921+rGB comp date, indicating beam procurement in the fall of 1921.

The two samples from Feature Cobble Concentration C (UTE-163z and 163b) yielded noncutting dates almost a century apart—a sort of abject lesson in the number of rings that can be lost to weathering.

A final note on 5EA2740. It is interesting that all of the samples with cutting dates for which we were able to identify terminal ring attributes, all were cut in the fall after the piñon/juniper growing season ended. Granted, the sample size (n=4) is small, but this might suggest fall and/or winter use of that site.

Unfortunately, none of the samples from 5DT1538 yielded dates. All are *Populus* spp., probably aspen. We may be able to develop an aspen chronology at some future date, but right now, that species doesn't date well.

The six samples from 5DT222 all dated, and form a pretty significant cluster in the early 1900s. With three near cutting dates of 1900+G, 1901+G, and 1904+G, as well as three noncutting dates in the same time frame, I infer that Feature 1 was built in 1901 and repaired in 1904.

I am very pleased with these results and think they bode well for continued success of the Colorado Wickiup Project.

Table C-1: Results of the Phase VI Dendrochronological Analysis

CWP FS #	Feature #	Feature Description	Inside (pith) Date	Outside Date	Tree Species	LTRR #
5EA2740						
63	Feat. 8	Wickiup	1696p	1853rB comp	PNN	UTE-143
64	Feat. 8	Wickiup	1608+/-p	1853rB comp	JUN	UTE-144
65	Feat. 8	Wickiup	1635+/-p	1836vv	JUN	UTE-145
66	Feat. 8	Wickiup	1780	1851++vv	JUN	UTE-146
67	Feat. 6	Brush enclosure	1668+/-p	1868++B	JUN	UTE-147
68	Feat. 6	Brush enclosure	1686+/-p	1850v	JUN	UTE-148
69	Feat. 9	Possible wickiup	1703+/-p	1853rB comp	JUN	UTE-149
70	Feat. 15A	Brush alignment	No date		JUN	UTE-150
71	Feat. 15B	Bark-peeled tree	1886	2005+vv	PNN	UTE-151
72	Feat. 15B	Bark-peeled tree	1890	2010v inc	PNN	UTE-152
73	Feat. 15A	Brush alignment	1686+/-p	1852+v	JUN	UTE-153
74	Feat. 15A	Brush alignment	1685+/-p	1853vv	JUN	UTE-154
75	Feat. 15A	Brush alignment	1637+/-p	1918v	JUN	UTE-155
76	Feat. 17	Tree stump	No date		JUN	UTE-156
77	Feat. 11A	Wickiup	1744	1826vv	PNN	UTE-157
105	Feat. 7	Wickiup	1737	1853vv	PNN	UTE-158
106	Feat. 3	Collapsed poles	1725p	1919+vv	JUN	UTE-159
107	Feat. 19	Wood cache	1859p	1979+rLB	JUN	UTE-160
108	Feat. 19	Wood cache	1663+/-p	1849vv	JUN	UTE-161
109	Feat. 2A	Tree stump	1648+/-p	1921+rGB comp	JUN	UTE-162
110	Cobble Conc. C	Tree stump	1729	1822vv	JUN	UTE-163a
110	Cobble Conc. C	Tree stump	1855	1920vv	JUN	UTE-163b
5DT1538						
1	Feat. 1		No date		POP	UTE-175
2	Feat. 1		No date		POP	UTE-176
3	Feat. 1		No date		POP	UTE-177
5DT222						
35	South of Feat. 1	Ax-cut branch	1355+/-p	1904+vv	JUN	UTE-178
39	SE of Feat. 1	Ax-cut branch	1760+/-p	1901+vv	JUN	UTE-179
41	East of Feat. 1	Ax-cut branch	1774+/-p	1901+G	JUN	UTE-180
43	Near Feat. 1	Ax-cut branch	1660+/-p	1901vv	JUN	UTE-181
47	Near Feat. 1	Ax-cut branch	1664p	1900+G	JUN	UTE-182
48	East of Feat. 1	Ax-cut branch	1546+/-	1904+G	JUN	UTE-183
68	Feat. 1	Ramada Main Support Beam	1694+/-p	1903+vv	JUN	UTE-184

5MF5216						
35	Feat. 1	Tipi frame	1694+/-p	1857vv	JUN	UTE-131
39	Feat. 3	Brush enclosure	1720	1870+vv	JUN	UTE-132
42	Feat.3	Brush enclosure	1495	1834vv	JUN	UTE-133
43	Feat.3	Brush enclosure	1679+/-	1883++v	JUN	UTE-134
44	Feat.5	Brush enclosure	1512	1852++vv	PNN	UTE-135
45	Feat.5	Brush enclosure	No date		PNN	UTE-136
47	Feat.5	Brush enclosure	No date		PNN	UTE-137
48	Feat.5	Brush enclosure	No date		PNN	UTE-138
28	Lodge Locus	Tree stump	1785p	1893v	PNN	UTE-139
5ME469						
17	Structure 1	Wickiup	No date			UTE-128
18	Structure 1	Wickiup	No date			UTE-129
19	Structure 1	Wickiup	1661	1795++B	JUN	UTE-130

Key to the Outer Ring Codes as Presented in Table C-1
(after Jeff Dean and Ron Towner n.d.)

- vv** Indicates the possibility of missing exterior rings and lack of terminal ring attributes such as bark. There is no way of estimating how far the last ring is from the true outside.
- V** A subjective judgement that, although there is no direct evidence of the true outside ring on the specimen, the date is within a very few years of being a cutting date.
- R** Less than a full section is present, but the outermost ring is continuous around the available circumference.
- L** A characteristic surface patination and smoothness that develops on beams stripped of bark.
- B** Bark is present. The sample retains the bark and the last ring grown by the tree.
- G** Beetle galleries are present on the surface of the specimen.
- +** One or more rings may be missing near the end of the ring series whose presence or absence cannot be determined because the specimen does not extend far enough to provide an adequate check.
- ++** A ring count was necessary due to the fact that beyond a certain point the specimen could not be dated

- comp** A complete terminal ring indicating that the timber was cut after the end of that year's growing season but prior to the initiation of the next growing season (fall/winter).
- Inc** An incomplete terminal ring indicative of a timber that was cut during the growing season (summer).

Key to the Inner Ring (Pith) Codes as Presented in Table C-1

- p** Pith ring is present
- +/-p** Pith ring is present, but due to the difficult nature of the ring series near the center of the specimen, an exact date cannot be assigned to it. The date is obtained by counting back from the earliest dated ring.
- +/-** The innermost ring is not the pith ring and an absolute date cannot be assigned to it. A ring count is involved.

Key to the Tree Species as Presented in Table C-1

- JUN** juniper
- PNN** piñon
- POP** populus (poplar/aspen/cottonwood)

D.

Appendix D: Luminescence Analysis

Results of the Thermoluminescence Dating of a Ceramic Sherd (Field Specimen 5) from Site 5RB2624, Rader's Wickiup Village

After Sachiko Sakai

**Institute for Integrated Research in Materials, Environments, and Society (IIRMES),
California State University Long Beach**

The fine grain mixed minerals of the submitted sample was used for dating. Luminescence dating is based on the premise that charged particles generated from environmental radiation (through radioactive decay and the release of alpha, beta, and gamma particles) accumulate over time in flaws in the structure of crystalline materials. When sufficient energy (such as heat) is applied, these stored particles are released in the form of light signals, which are measured in the lab.

A 1-8 micron size sample of the very fine mixed minerals is extracted and several aliquots are prepared for each sample as the mixed minerals typically produce different readings. Typically, an average reading from multiple aliquots is utilized.

Initially, the analysis produced three reasonable signals:

#1: AD1930 ± 57

#2: AD1955 ± 68

#3: AD1875 ± 71

The recent dates were considered a problem resulting from very small luminescence signals from the sample, possibly as a result of fading from feldspar. Subsequently, in order to secure a solid date, a coarse grain extraction of quartz was made from the sample and additional aliquots were processed. The six total aliquots generated an average date, at the 2 sigma level, of:

AD1891 ± 63.

E.

**Appendix E: Ammunition Analysis
(including reports by Philip L. Born and Sam Marso)**

ORDNANCE FROM SIX ARCHAEOLOGICAL SITES IN WESTERN COLORADO

By Philip L. Born
Assistant Curator of Archaeology, Museum of Western Colorado

The following report has been prepared by Phil Born of the Museum of Western Colorado at the request of Curtis Martin, Principal Investigator for the Dominquez Archaeological Research Group (DARG) of Grand Junction, Colorado. They cover the firearms ordnance from five Protohistoric or early Historic Ute wooden feature sites documented by the Colorado Wickiup Project and loaned materials from the Thornburgh (Milk Creek) Battle site in Western Colorado. The sites are as follows:

5DT222 (Black Canyon Ramada Site)
5EA2740 (Pisgah Mountain Wickiup Village)
5ME469 (Decker Big Tank Village)
5MF5216 (Disappointment Draw Lodge)
5RB563 (Ute Hunters' Camp)
Site of the Thornburgh (Milk Creek) Battle

The purpose of the report is to try and identify the firearms ordnance collected from these sites, make suggestions as to what firearms may have been used, and to try and provide some dating for the sites.

5DT222: The Black Canyon Ramada Site

Field Specimen #8

The only evidence of firearms at this site is a single .22 caliber rimfire cartridge case. The case could have been either that of a .22 long or .22 long rifle. Both use the same case. The headstamp is that of the Cascade Cartridge, Inc. of Lewiston, Idaho. This particular headstamp dates from the early years of the corporation, somewhere from the late 1960's to the early 1970's (Kass, 1979, C-11).

The .22 long or long rifle cartridges are the most popular cartridges in the world. They are fired in countless rifles and handguns around the world. They are used for both formal and informal target shooting, small game hunting and self defense.

5EA2740: Pisgah Mountain Wickiup Village

Field Specimen #53

The remnants of the copper jacket of a modern high power soft pointed rifle bullet. It was a .30 caliber bullet from a rifle with five grooves and lands which is very common. This type of bullet could have been fired from a huge number of modern .30 caliber high power center fire rifles which could have been chambered for many different cartridges. The earliest .30 caliber copper jacketed bullets in the United States came out in 1895 and are still being manufactured and used. Any further

identification of this bullet jacket at this time is not possible. Bullets of this type would be used for big game hunting.

Field Specimen #78

A fired .300 Savage rifle case with a Rem-U.M.C. headstamp. The advent of the .300 Savage cartridge post-dates the advent of the headstamp on the case. The .300 Savage came out in 1920 in the Model 99 Savage lever action rifle. It was later chambered in other rifles by Savage and Remington (Barnes 2000:53). The Rem-U.M.C. headstamp was discontinued in about 1960 (White and Munhall 1977:129).

This specimen is very unusual in that it appears to have been fired in a rifle not chambered for the .300 Savage caliber. The last .22 inches of the base are badly bulged and the case shoulder has been bulged and set forward considerably. After consulting with Ray Montgomery, a highly competent and respected local gunsmith in Clifton, Colorado, the only conclusion that could be reached is that it had been fired in a chamber for a cartridge larger than the .300 Savage case. The .300 Savage was designed as a big game cartridge.

Field Specimen #80

This item is certainly an unspent percussion cap for a muzzle loading rifle. The diameter of the specimen is .177 inches on the skirt which matches that of a modern percussion cap for rifle. The letters "GD" are embossed on the end of the cap. The percussion cap was introduced in the 1830s (Flayderman 2001:559) and gained immediate popularity for use with rifles, handguns, and shotguns. The manufacture and use of the percussion cap continues today.

Field Specimen #90

This specimen consists of an unidentifiable lump of a non-ferrous metal. It is soft and shines like lead when scratched. This is possibly a piece of waste lead from cartridge reloading or bullet making activities, as is evident on the site in the form of other, more obvious, sprue fragments.

Field Specimen #96

The specimen is a rather modern high power rifle cartridge case. It is a .30-06 Springfield cartridge case bearing the headstamp "Super Speed, .30-06 Sprg." Although this round came into use in the year of 1906, the headstamp seen here was not used until 1933. Super Speed ammunition was a product made and sold by Winchester Manufacturing Company (Shuley 1999:11). The use of this headstamp continued through the 1950s. The .30-06 cartridge is one of the most popular calibers ever designed for both civilian and military uses. There has been a multitude of military and civilian rifles world-wide chambered in this caliber. After more than a century of use, it is still a standard of the arms industry.

5ME469: Decker Big Tank Wickiup Village

Field Specimen #2

This artifact is a .22 caliber rimfire cartridge case. Like that in 5DT222, it could be either a .22 long or long rifle case since both are the same. The Remington headstamp on this case came in to use shortly after April 14, 1983 and is still in use (Kass, 1985, RE-3).

Field Specimen #14

A badly damaged .22 rimfire lead bullet that has been fired. It is so badly damaged through impact with a solid object that no other observations could be made. For comments as to the firearm that may have fired this bullet, see the comments under 5DT222.

5MF5216: Disappointment Draw Lodge

The ordnance from this site falls into three groups. They are primers, cartridge cases, and bullets. The artifacts together clearly demonstrate that the inhabitants were reloading ammunition at this site as shall be discussed .

[Principal author's note: several of these specimens were unavailable for loan to the Museum of Western Colorado at the time of this analysis and, therefore, the counts represented in this analysis vary slightly from those presented in the main body of this report and in the Field Specimen lists presented in Tables 6 and B-3].

BULLETS

Field Specimens #8, 101, 105, 106, and 114

These are all fired lead bullets that have been damaged through impact with a solid surface. Appearances and what measurements that could be taken, suggest that these were fired from a .44W.C.F. firearm (.44 Winchester Center Fire) or a firearm chambered in the .44 Henry rimfire cartridge. They were weighed on a modern reloading scale and all were at least 184 grains weight. Most were at or greater than 191 grains. All of the bullets that could be measured for diameter were very close to the correct diameter for the above mentioned cartridges (.429 inches). All of these bullets have two knurled lubrication grooves around them. This may suggest that they are the same brand of ammunition. However this would be a risky assumption.

Allowing for the lead that would be lost on impact and the distortion from impact, the weights and diameters of the bullets would place them easily within the .44 W.C.F and .44 Henry cartridge class. There are, of course, other calibers that these bullets could have been fired from. However, in light of the cases and primers that will be discussed, the .44 W.C.F. and .44 Henry cartridges are the most logical.

Field Specimens #30 and 41

These three specimens give much cause for speculation as to their identity and how they were used in their final stages. After examining them, the suggestions drawn here are somewhat questionable. However, based on the examination of the specimens and mint condition collection cartridges, it seems most likely that they are remnants of 220 grain full metal jacketed bullets from U.S. Government manufactured ammunition for the .30 U.S. Army cartridge. This cartridge is known commonly as the .30-40 Krag. It came into use in the U.S. Model 1894 Krag-Jorgensen rifle for the U.S. military (Flayderman, 1990, p. 486).

The specimens under study are so badly rusted that exact diameter measurements are not possible. All three have been fired and impacted into something very solid, deforming them. Two were ruptured. However, they do appear to be .30 caliber diameter. The length of the one specimen in the best condition is 1.256 inches long. A 220 grain full metal jacketed bullet from a Remington produced .30-40 round for the U.S. Government in 1917 has the same length. All three of these three specimens were jacketed with a ferrous metal. The Remington bullet that was measured had a non-ferrous metal jacket. A second .30-40 military with a full metal jacket was examined and tested for ferrous metal, and it too, was negative. This round was manufactured at the U.S. Government Frankford Arsenal in Bridesburg, Pa. in January of 1903. A third round of the same caliber was then examined. It too was manufactured at the Frankford Arsenal with a full metal jacketed bullet, but in 1898. This sample tested positive for ferrous metal

It is here suggested that the ferrous metal jacketed bullet jackets recovered from 5MF5216 were in all probability for the 30-40 military rounds and were probably manufactured at the Frankford Arsenal. The author feels reasonably confident with this suggestion. A date of 1898 manufacture would be pure speculation and quite uncertain. It does appear, however, that by 1898 the Frankford Arsenal was using ferrous metal jacketed bullets and by 1903, the Frankford Arsenal was no longer used them. Also, this author has never seen a civilian made full metal jacketed bullet of a ferrous metal in the .30-40 caliber, nor a .30-40 military round with a headstamp post dating 1917. Based on the negative ferrous of the 1903 manufactured round, it is felt here that a reasonable safe suggestion for the identification of these three specimens from 5MF5216 is that they were from .30-40 cartridges manufactured at the Frankford Arsenal sometime between 1894 (the advent of the .30-40 round in the U.S. arsenal) and 1903.

As a part of the manufacture of the full metal jacketed bullets, a lead core was used. It is interesting to note that there is no evidence of the lead core in any of the three specimens. One specimen in the best condition (FS#41) should have the core remaining. The other two were ruptured on impact which may explain the loss of the lead cores. Could the bullets have been scavenged and later tossed into a pot to melt out the cores to cast bullets for other firearms?

The firearms these bullets could have been fired from is rather limited. The most likely is any one of the various variations of the Krag- Jorgensen rifles used by the U.S. Government as a military arm and later by many big game hunters or the 1895 Winchester lever action rifle. Either one of these would have been suitable for hunting big game anywhere in the lower 48 states. The Krag-Jorgensen rifles did see use in combat and competition shooting by the U.S. military. The Model 1895 Winchesters were quite popular in the .30-40 caliber as a hunting

arm. A few Highwall Winchester single shot rifles, Model 1889, were also chambered in .30-40, but they were very few in number. Some of the Model 1899 Remington Lee bolt action rifles were also chambered in the .30-40 caliber (Flayderman, 1990, P. 164).

Field Specimens #29 and 72

Both samples are the distal ends of mis-cast lead bullets. In this case, whoever was casting the bullets, did not completely fill the mold cavity. However, what has been collected at least has the appearance of a .44-40 Winchester-like bullet. Although, there certainly could be other possibilities. It would not be for a rimfire cartridge since rimfire cartridges cannot be reloaded.

Field Specimens #98 and 115

These are small fragments of fired bullets that are unidentifiable. Both have the remnants of knurled lubrication rings.

The question arises as to why so many fired bullets and bullet fragments were present at this site. Of the many possibilities that may race through the mind, there is one in light of the other evidence that this writer considers logical. The bullets were collected to be melted and re-cast in to new bullets. Where they were collected from would be a matter of greater speculation than need be gone in to here.

Field Specimen #53

It is all but impossible to determine exactly what this item is. Under microscopic examination, it seems to be a "glob" of melted lead. There is much scaring on some of the surface and dirt imbedded into the surface of the lead.

Field Specimen #82

This at least appears to be a pellet from a shotgun, either cartridge or muzzle loading. It at least appears to be about a number six shot size, suitable for small game hunting, either furred or feathered. This presents a tremendous number of possibilities for the firearms in which it may have been used. It could have been fired in anything from a muzzle loading or cartridge firing single shot, to a double barrel or even one of the modern pump or semi-automatic action shotguns.

CARTRIDGE CASES

Among the empty cartridge cases found, there are four different calibers represented. They are the .32 W.C.F. (Winchester Center Fire) .44 Henry rimfire, .44 W.C.F. (Winchester Center Fire), and the .45-70 Springfield.

Field Specimen #19

A .32 W.C.F. with the head stamp .32 W.C.F., W.R.A. Co. was introduced to the market in 1882 (Barnes, 2000, p. 64) by Winchester in the Model 1873 Winchester. The head stamp as seen continued in use until 1930 when Winchester began to phase out the W.R.A. Co and

replacing it with simply the W.R.A. This phasing lasted until 1954 (Schuey, 1999, Introduction). There are several variations on the W.R.A. Co. head stamp, but their dates are unknown.

This round was designed as a medium range rifle and pistol cartridge. Immediately after its introduction in the 1873 Winchester, it was chambered in a number of different makes and models of other lever action and single shot rifles and revolvers by companies such as Marlin, Whitney, Colt and Smith and Wesson. (Flayderman, 1990, pgs. 90,122, 219,)

The .32 W.C.F. cartridge had a rather limited range as it was not very powerful. It could have been used on game animals up to and including deer. However, it would have been only marginally reliable on deer and at only close range (50 yards or less). As a self defense round, it would have faced the same limitations here.

Field Specimen #108

This is the same as FS# 19 except that it appears that under the pressure of firing, the primer has bulged back in to an eroded area around the firing pin.

The head stamp on the above two specimens can only be dated to a very broad span of time. In the .32 W.C.F. caliber, it would could have been produced from 1882 to perhaps as late as 1954. A more precise dating of FS#s 19 & 108 is not possible at this time.

Field Specimen #90

A .44 Henry rimfire case. First chambered in the Henry lever action rifle in 1860 (Barnes, 2000, pg. 425) and later in the 1866 Winchester lever action rifles and carbines. In the years following the Civil War, the .44 Henry cartridge was also chambered in revolvers by Colt, Remington, and Smith & Wesson. The .44 Henry cartridge in both the Henry and Winchester firearms provided an unheard of volume of fire power. These two rifles/carbines were very popular in spite of the relatively low power of the cartridge. The Henry & Winchester rifles/carbines were used extensively for hunting at close range and self defense.

The nature of the firing pin strikes on the rim of this specimen indicates that it misfired on the first try, as there are two sets of firing pin indents. The Henry and Winchester firearms leave distinctive firing pin marks and a bulged case head which is what this case has.

The head stamp on this case is an impressed -H.” This style of -H” came in to use in the 1880’s and continues today. The Henry cartridge was discontinued in 1929 or 1934, depending on the source referenced (Barnes, 2000, pg.425, & Suydam, 1979, pg. 106)

Field Specimens #110, 118, 120, and 124

These are the same as FS# 90 except for #110 which has a raised U.S. headstamp (U.S. Cartridge Corp.) This headstamp dates from the 1870’s to the 1880’s (Kass, 1979, US-2)

Field Specimens #85, 86, 89, 107, 109, 111, 123, and 125

These are the well known .44 W.C.F. cases (Winchester Center Fire), also known as the .44-40 Winchester. There are two different makes of ammunition represented among the samples. The most predominant head stamp seen in —.44 W.C.F., W.R.A. Co.” There is a single representation, sample number 85, of a .44 C.F.W. , U.M.C. (.44 Center Fire Winchester, by Union Metallic Cartridges).

The cases with the Winchester head stamps show that they were head stamped with two different hobs (stamps). This suggests that these cases represent at least two different time spans in the manufacturing history of the .44 W.C.F. One of the head stamps is pictured by Shuey (Vol. II, pg. 85) on an original box of .44 W.C.F. ammunition. The label on the box advertised the ammunition as for the 1873 and 1892 Winchester rifles. The box is dated October of 1915. How long before this date the head stamp shown was in use is not known. There were many variations of the .44 W.C.F., W.R.A. Co. head stamp used. Unfortunately, their dates of use are not known (Schuey, 1999).

The primers used in these cases are another matter. All of the primers in the Winchester cases appear to be the Number “4” or “4 ½”, introduced in 1885 for black powder (Schuey, 1999, pg. 32). FS#s 85, 86, & 89 do not have primers. The suggestion here is that they were being prepared for reloading. The first step in reloading is to remove the fired primer and to re-size the case.

The .44 W.C.F. cartridge first came on the market in the model 1873 Winchester in 1873 and became an immediate hit. Quickly, many makes and models of rifle/carbines by other makers such as Marlin, Remington, Colt, Whitney, etc. along with revolvers by Colt, Remington, and Smith and Wesson chambered in this round appeared. Even today, it enjoys a certain following. The round was widely used for hunting and self defense. It had considerably more power than its predecessor, the .44 Henry but was still limited in range and power to being reliably effective within only about one hundred yards. Based solely on this writer’s knowledge of the popularity of various firearms of the time in question here, it is conjectured that these cases were probably fired in either a model 1873 or 1892 Winchester rifle / carbine or the 1873 Colt revolver although other makes and models could have been used.

Field Specimen #97

The single heavy powered rifle cartridge is a .45-70 Springfield. This sample has a head stamp of .45-70 U.S.G, W.R.A. Co. The case is empty, but has an unfired primer. The case mouth is damaged and crimped inward some. The primer has a slight wrinkle in it. The combination of the wrinkled case mouth and primer leads this writer to speculate that this case was in the process of being reloaded when the case mouth was damaged during the process of being reloaded. This writer has done exactly the same thing by being a little careless during the seating of the bullet, or trying to seat a bullet in to a case mouth that is not flared slightly. The head stamp first appeared in a sales catalog in 1887 (Shuey, Vol. II, pg. 130).

The .45-70 cartridge first came out as a U.S. Government round in 1873 in the Model 1873 trapdoor Springfield rifle / carbine. Very soon after, different civilian single shot rifle / carbines by Sharps, Remington, Whitney, Ballard and others were available. By 1886 repeating

rifles in the .45-70 began to appear. The caliber was very popular as both a military and big game cartridge. In terms of power, it is far superior to the .44 W.C.F. Even today, it still maintains a level of popularity.

PRIMERS

Further enhancing the idea that ammunition reloading took place here, spent cartridge primers were found in abundance. There are three types seen at this site; copper Boxers, brass Boxers, and Berdan. They come in three sizes, and one of the three functions a little differently than the other two.

Field Specimens #2, 10, 16, 17, 34, 55, 57, 59, 74, 84, 93, 94, 116, 117, and 121

These are all the size of the Winchester # 1 & 1 ½ primers. They are copper and measure 0.174 inches diameter and are of the Boxer type. To facilitate the firing of the primer, an anvil is necessary to crush the priming compound between it and the blow of the firing pin. In Boxer primers, the anvil is a very small and thin anvil crimped into the primer cavity. Because of their years out in the elements, they are all tarnished. A random sample was partially cleaned to check for the metal type used and all were copper. Boxer primers of 0.175 inches diameter are the correct sized primers to have come out of the .44 W.C.F. and .32W.C.F. cases and other rifle and pistol cartridges of light power.

Field Specimens #33, 46, 69, 75, and 81

All are brass Boxer primers and measure .210 inches diameter Primers of this size and material were designed for medium and heavier powered rifle and handgun cartridges and shotgun cartridges. Primers of this size were advertised by Winchester as their size number 1 and 2 in 1875, and then in 1879 were advertised as using brass anvils and added the size number 2 ½. Both the numbers 2 and 2 ½ primers have the same diameter. The primers measuring 0.210 inches diameter from 5MF5216 do have brass anvils. Comparing the recovered primers with new Winchester primers of the period it certainly appears that the recovered primers are Winchester products.

Field Specimen #113

Among the primers was a single unfired Berdan primer. The Berdan primers measure 0.250 inches diameter. The absence of more Berdan primers and / or cases designed for the Berdan primer brings up a question. Were there Berdan primed cases being reloaded at 5MF5216, or is this single specimen simply accidental? The Berdan primers were used primarily in large caliber rifle cases but also in a few large pistol cases.

SUMMARY AND CONCLUSIONS FOR SITE 5MF5216

In light of the preceding data, it is here concluded that ;

- (1) The reloading of ammunition did indeed take place at 5MF5216. This is based on the large number of fired primers recovered, the mis-cast bullets, scavenged lead, and empty cartridge cases.

- (2) There are at least four different firearms represented at the site. These are represented by the .44 Henry rimfire, 44 W.C.F., .32 W.C.F. and the .45-70 Springfield cartridge cases. It is entirely possible that the .44 W.C.F. and 32 W.C. could have been fired in both a rifle and a revolver by the inhabitants of this site. Thus it is possible that the number of firearms represented could be increased by two if the users of these caliber firearms had both a rifle/carbine and a revolver in the same caliber. All of the .44 Henry cases were fired in either a Henry rifle or Winchester rifle/carbine.
- (3) The occupation of this site dates at least after 1894. This conclusion is based on the presence of the scavenged .30-40 bullets. The 1887 head stamp on the .45-70 case also points to a post-removal occupation.
- (4) The activities represented by the reloading of ammunition at 5MF5216 were in all probability hunting related. By the time this site was occupied, Euro-American/Native American conflicts had ended thus in theory eliminating the need for military use.

5RB563 (Ute Hunters' Camp)

The following is a brief description of the primers, bullets, and cartridge cases as loaned to the museum by the Colorado Wickiup Project from the collections from 5RB563. These items have also been examined by the Colorado Bureau of Investigation in Grand Junction and were examined microscopically.

PRIMERS

Most of the artifacts examined for this report were fired primers. The primers were of three sizes, of two different types of construction. The most common was the Boxer primer measuring 0.175 inches diameter. A second, and larger, Boxer type primer measures 0.210 inches diameter. The third size is the Berdan primer which measures 0.250 inches diameter.

Field Specimens #31, 34, 38, 43, 49, 50, 68, 72, 86, 150, 157, 170, 173, 208, 210, 212, 219, 224, 232, 235, 236, 240, 241, 256, 306, 309, 312, 315, 316, 318, 319, 321, 333, 336, 338, 345, 346, 350, 353, 355, and 358

All of these primers are those measuring 0.175 inches diameter and of the Boxer type. They were randomly examined for metal type and found to all be copper primers. Their size, and metal type fits that of the Winchester Number 1 and 1 ½ primers which first came out in 1875, and again in 1879 and continued in use until 1927 (Schuey, Vol. I, pp. 22, 26, 32, 33). These primers were typically used in small caliber rifles (light in power) such as the .38 W.C.F. and the .44 W.C.F. (Winchester Center Fire) cartridges and larger Bullard and Marlin rounds. They were also used in small and medium handgun cartridges. The style of the anvil in most of the primers suggests that they were of Winchester manufacture. There are, however, a few primers with an entirely different anvil than the type used by Winchester (FS#'s 31, 49, 86, and 297). Thus, it is concluded that either two different brands of ammunition are represented, or, if the occupants were reloading previous reloads, two different brands of primers had been used on the previous reload.

Another class of Boxer primers from the site represented by FS#s 321, 334, and 347 measures 0.210 inches diameter and are made of brass. In 1875 they were used in both paper and metallic shotshells (Winchester size number 2 and 2 ½). In 1879 they were used in medium and large caliber rifle cartridges (Shuey, Vol. I, pg. 22,26,32). Again, it is not known who manufactured the primers, but they should date to 1879. Some of the calibers loaded with this size primer would include the .40-82 W.C.F., .45-70 Springfield, .45-75 W.C.F. and many others for rifles by companies such as Sharps, Remington, Ballard, and Winchester.

The third primer type seen from 5RB563 is the Berdan primer. This primer measures 0.250 inches diameter and was designed for a case suitable only for the Berdan primer. It is not interchangeable with the Boxer primers. The Berdan samples from this site are FS#s 213, 238, 246, 250, 255, and 349. Typically, the Berdan primers were used in larger caliber rifle cartridges, but also in a few large handgun cartridges. The Berdan primed cartridges and Boxer primed cartridges of the same caliber could be, and were, used interchangeably in the same firearms. Because of the construction of the Berdan primer and cases for the Berdan primer, the fired cases required a different tool for removing the primer prior to reloading than used for the Boxer primer.

BULLETS

The bullets recovered from 5RB563 give ample evidence of reloading activities.

Field Specimen #36

A spent bullet with a remaining weight of 182 grains and a diameter of about .429 inches which qualifies for what is called a “.44” caliber.

Field Specimen #69

A badly deformed fired bullet. It has two knurled lubrication rings. About a .429 caliber (.44 caliber).

Field Specimen #166

A very interesting specimen. It consists of a hand-cast bullet as demonstrated in the sprue cut-off and casting wrinkles. The wrinkles resulted from using molten lead that was not hot enough, casting in a mold that was not hot enough, or both. Either one would result in the lead “setting up” before the mold cavity could be completely filled. This is indicative of “campfire” casting as opposed to commercial manufacture. The base is slightly rounded around the edge. The diameter, weight and style of this bullet is typical for those of the .38 W.C.F. (.38-40 Winchester). It was a highly popular cartridge during the last quarter of the nineteenth century and was introduced in 1874 in the Model 1873 Winchester lever action rifle/carbine and then in 1878 in the Model 1873 Colt revolver. Many other rifles/carbines and revolvers had been chambered in the .38 W.C.F. by the time of the occupation of 5RB563.

CARTRIDGE CASES

There are only three cartridge cases from this site, and all three at least seem to be of the same caliber—.44.

Field Specimens #10 and 63

These are two .44 W.C.F. (Winchester Center Fire) cases. Number 10 is headstamped .44 W.C.F., W.R.A. Co. and the other has no headstamp. The lack of a headstamp at least suggests that this case may be a fairly early production by some unknown company. The case with the headstamp would date from 1873 until about 1927 when Winchester began to phase out the "Co." on its headstamp and used the W.R.A. only along with caliber designation. This phasing out continued until about 1954 (Schuey, 1999, pg. 12). The .44 W.C.F. (.44-40 Winchester) cartridge was introduced in the Model 1873 Winchester rifle/carbine and gained great popularity. It was chambered in many makes of both repeating and single shot rifles and revolvers by companies such as Winchester, Remington, Stevens, Colt, Smith and Wesson and others. It was used in both long guns and handguns for hunting and self defense. Even today it has a certain following.

The third case is a badly crushed case. The crude measurements that this writer was able to take off of this sample suggests that it was either a .44 W.C.F. or a .38 W.C.F. There is no headstamp on the case and therefore I am dependent on the far-from-perfect measurements and personal experience. Both rounds use the same case, just different neck diameters.

This writer did an earlier report on the ordnance from the Ute Hunters Camp in 2010. The specimens examined were very limited in number. On reviewing it and the data seen here, the following conclusions are drawn.

SUMMARY AND CONCLUSIONS FOR SITE 5RB563

- (1) The presence of the spent primers and miscast bullet and scavenged bullets points directly to reloading activities being carried on at this site.
- (2) In the original report, the .175 inch diameter primers were listed as made of brass. This is now considered incorrect. They are copper and date as the rest of those primers of the same size.
- (3) The .175 inch diameter primers are the correct to be used in the .44 W.C.F. cases recorded here and in the .38 W.C.F. mentioned.
- (4) The fired bullets may have been collected to be melted down and cast into new bullets. We know from the evidence at hand that bullets were being cast at 5RB563.
- (5) The evidence at least suggests that the majority of the cases reloaded were probably Winchester cases originally primed with Winchester primers.

- (6) Based on the cartridge cases, bullets and primers, it can be said that there were at least four different firearms being reloaded for at 5RB563. The interchangeability of Boxer and Berdan primed cartridges of the same caliber could indicate reloading for only one large caliber rifle. However, logic would call this conclusion to question. In order to reload both Boxer and Berdan primed cases, two different reloading tools are required. Therefore, why would a highly mobile individual burden himself with the extra expense and weight of an additional reloading tool when selective buying of ammunition would take care of the problem?
- (7) Based on the cartridge cases (.44 W.C.F.) the miscast bullet (.38 W.C.F.) and the conclusion of number six, it is here concluded that there are at least four different firearms represented at 5RB563. There could be more than that. A determination of exactly how many is currently under investigation as a forensic study of all of the primers and other ordnance components by the Colorado Bureau of Investigation.
- (8) Drawn from the data of this report the best date for the occupation of 5RB563 at this time is 1879 or later.

Thornburg (Milk Creek) Battle Site (September 29-October 5, 1879)

The following ordnance, on loan to DARG by Brad Edwards of Englewood, Colorado, is from the Thornburg Massacre site on Milk Creek in Western Colorado—the location where a number of Ute Indians pinned down officers, soldiers, and civilian employees of the U. S. Army during an engagement associated with the Meeker Incident in the fall of 1879. As these materials were recovered from the area where the Army was entrenched during the battle it is evident that the bullets represent lead fired by the Native Americans' weapons from the surrounding ridge tops, and that the cartridge cases had been ejected from the firearms of the barricaded Army personnel.

The loaned collection is quite limited in quantity. Considering how long the battle took place there must have been a very large quantity of fired cartridge cases left laying about. However, we are fortunate to have this glimpse, as limited as it is, of some of the ordnance from the scene of that tragic event. These items have come to us through a loan from an amateur collector and thus there is no officially documented provenance attached, however, the ordnance is true for the period of the event and there is no reason to doubt its authenticity.

The artifacts have been divided into two categories. First are the bullets, and then the cartridge cases. Please keep in mind that the measurements and weights of most of the bullets are nothing more than a close measurement and weights. Because of the impact the bullets underwent as a result of being fired, there was some distortion.

BULLETS

There are eight bullets that have been provided. They are of .44 caliber (.432 inches diameter). All eight at least appear to be from the .44 Henry rimfire cartridge. However, because of the distortion caused by impact, this could be questionable. Their diameters (when

measurements could be made) and weights place them easily within the range of the .44 Henry. It is interesting to note that one of the samples has the imprint of fabric on the nose. Could this mean that this bullet actually struck a human target?

The eight bullets were probably fired from either a Henry rifle or a Model 1866 Winchester rifle/carbine. Both of these firearms were highly popular among both Native Americans and the Anglo Americans.

There is a single bullet that is a puzzle. It was in all probability a revolver bullet. It measures .460 inches in diameter and weighs 225 grains. There are no rifling marks on the bullet leading to the conclusion that it was not fired. It is what is referred to as a "healed" bullet and has no grooves for lubrication around it.

We must keep in mind that in the early years of the production of metallic cased ammunition, there were sometimes wide variations in bullet and case measurements in the production of any caliber of ammunition. Based on the design, diameter, and weight of this bullet, a highly speculative guess is that that is was for a .44 Colt cartridge. Although the .460 diameter is larger than it should be (.452 inches is known), there is the possibility that a manufacturer did produce bullets that were .460 inches in diameter.

There was only one revolver ever chambered in the .44 Colt caliber. It was the Model 1871 and 1872 Colt (two variations of the same revolver). This revolver was the Model 1860 Colt percussion Army revolver converted after the Civil War to fire the metallic .44 Colt cartridge. The .44 Colt cartridge could have also been fired in the 1875 Remington revolver even though the Remington was not factory chambered for the Colt round. For a lack of firearms chambered in the .44 Colt, the round never gained any great popularity. However for some unexplained reason, the ammunition remained in production from 1871 until 1939. (Suydam, 1979, Pgs. 204,205).

There is in the collection a single .51 caliber round lead ball for a muzzle loading rifle. It has a significant stub of the sprue remaining. Also, there is a flat spot on the surface. This ball has not been fired. The flat spot may be the result of being dropped on a hard surface. Apparently, even in the day of metallic cartridge rifles, some muzzle loading rifles were still in use.

The last bullet has the appearance of a .50 caliber shotgun slug. It shows some evidence of having been fired. There are no rifling marks, which is to be expected on a shotgun slug. The true identity of this "projectile" remains a mystery at this time.

CARTRIDGE CASES

Of the 15 cartridge cases, all but one are .44 Henry cases. All of the Henry cases have for a headstamp a raised "H" in a depressed circle. This headstamp was used by both Henry and Winchester, beginning in 1858 and continued in to the 1880's (Kass, 1980, H-1). Of course this headstamp date fits with the Thornburg Massacre of 1879.

All of the Henry cases were fired in either a Henry rifle or an 1866 Winchester rifle/carbine. Two of the samples evidently misfired as there are multiple firing pin strikes on

the rims. The one case that is different is a .44 Short Rimfire case. This particular caliber has a shorter case than the .44 Henry. It was chambered in the 1864 Hammond –Bulldog” single shot pistol, the D. Moore pistol, a side hammer pistol by Forehand & Wadsworth and the Pond –Army” revolver (Suydam, 1979, P. 102). It is possible that a .44 Short cartridge could have been fired in a Winchester or Henry firearm. However, the cartridge head and firing pin strike mark on the cartridge rim indicates that this was not the case with this specimen. It was probably fired in one of the aforementioned handguns. The headstamp is the same as on the Henry cases.

SUMMARY AND CONCLUSIONS FOR THE THORNBURG BATTLE SITE

- (1) At this time, it is not possible for this writer to determine how many firearms were used to fire all of the .44 Henry cases. However, the forensic examination by Sam Marso of the Colorado Bureau of Investigation that follows does address this question. The same may be said for the .44 caliber bullets examined. Obviously, there is at least one rifle/carbine represented.
- (2) The –.44 Colt” bullet and the .44 Short Rimfire case points to at least two handguns at the site.
- (3) Evidently there was at least one muzzle loading rifle in use at this site in spite of the preference for cartridge firearms.
- (4) The –shotgun slug,” if it is that, is probably recent.
- (5) We must keep in mind that this is a very limited collection and does not begin to represent all of the firearms present at the site.

Bibliography

Barnes, Frank C.

2000 *Cartridges of the World*. Krause Publications, Iola, Wisconsin.

Flaydeman, Norm

1990 *Flaydeman’s Guide to Antique American Firearms and Their Values*, 5th Edition. DBI (Denver-Boston-Indiana) Books, Inc.

Kass, George G

1980 *Rimfire Headstamp Guide, Part I*. George G.. Kass, Spring Arbor, Michigan.

Kass, George G..

1980 *Rimfire Headstamp Guide, Part 2*. George G.. Kass, Spring Arbor, Michigan.

Schuey, Daniel L.

1999 *W.R.A. Co. Headstamped Cartridges and Their Variations Vol. I.* (WCF Publications, Inc. Rockford, Illinois.

Schuey, Daniel L.

1999 *W.R.A. Co. Headstamped Cartridges and Their Variations, Vol. II* WCF Publications, Inc., Rockford, Illinois.

Suydam, Charles R.

1979 *U.S. Cartridges and Their Handguns.* (Beinfeld Publications, Inc., North Hollywood, California.

Suydam, Charles R.

1979 *The American Cartridge, An Illustrated Study of the Rimfire Cartridge in the United States.* Borden Publishing Co., Alhambra, California.

White, Henry R. & Burton Munhall

1977 *Cartridge Headstamp Guide First Revision.* H.P. White Laboratory, Street, Maryland.

APPENDIX E, PART II:

A MICROSCOPIC ANALYSIS OF AMMUNITION FROM THE THORNBURGH (MILK CREEK) BATTLE SITE

Sam Marso
Crime Scene Reconstruction Agent, Colorado Bureau of Investigation

A total of 80 ordnance-related artifacts—fired bullets, balls, and cases—were loaned by the Colorado Wickiup Project to forensic science and firearms identification specialist Agent Sam Marso of the Grand Junction office of the Colorado Bureau of Investigation for microscopic analysis of the striae and impressions on the individual specimens. Markings are left on fired bullets and casings from the worn metal of the barrels, breach blocks, extractors, and firing pins of individual weapons and can be recognized as unique “signatures.” All examinations were completed with Zeiss stereo zoom and Leitz comparison microscopes.

Twenty-six of the items were from the site of the 1879 Thornburgh (Milk Creek) Battle as described in the analysis by Philip Born, presumably representing bullets from Ute-fired weaponry and cases from the weapons of Army personnel. The description of the analysis of these items is presented below.

In addition to analysis for the purpose of ascertaining the number of individual weapons represented by the “signatures” present on the ordnance, an attempt was made by Marso to see if any of the Ute weapons present at the Thornburgh Battle were also represented in the Colorado Wickiup Project’s 54 ammunition-related specimens from 5RB563—a not implausible premise considering the dendrochronological dating results of 1879 and 1881 from the Ute Hunters’ Camp, the proximity of the two sites (within a day’s travel by horseback), and the significant number of Northern Ute who were apparently present at the battle site. No such associations were found, however.

Submitted for examination from the collection of Brad L. Edwards are twenty-six items said to have been collected from the Milk Creek battle site in Rio Blanco County, Colorado. Descriptions as listed on the artifact loan agreement.

- 14 - .44 cal Henry cart. Cases
- 1 - .44 cal Henry cart. Case
- 8 - .44 cal fired bullets
- 1 - .50 cal bullet
- 1 - .50 cal round ball
- 1 - .44 pointed bullet

Examination Specifics

“1 - .50 cal round ball” – Examination of this item disclosed a semi-spherical “ball” comprised of grey-colored metal with an approximate mass of 219 grains and an approximate diameter of .52 inches. A circumferential belt of vertical marks was noted on portions of the

item surface. It is unclear whether these marks were imparted as a result of the firing process or from some other event. Flat base, a small amount of sprue also still attached.

→ - .44 pointed bullet – Examination of this item disclosed an unfired bullet comprised of grey-colored metal with an approximate mass of 224 grains and an approximate diameter of .46 inches.

→ - .44 cal Henry cart. Cases” – Examination of this item disclosed fourteen cartridge cases bearing the headstamp —H The fired cartridge cases are all of the same apparent length, mouth diameter (approximately .42 inches), and general physical appearance bearing double rectangular firing pin impressions. The cases were broken down into four groups (A-D) based upon firing pin and breechface characteristics:

Group A: Four fired cartridge cases identified as having all been fired in the same firearm. Two of the four bear second light firing pin impressions.

Group B: Three fired cartridge cases fired in three different firearms other than those in Group A.

Group C: Six fired cartridge cases fired by as many as four different firearms; some bearing second firing pin impressions.

Group D: One fired cartridge case bearing a wide firing pin impression distinctly different in size from those in Groups A, B, or C.

→ - .44 cal Henry cart. Case” – Examination of this item disclosed a fired cartridge case similar in general physical appearance to those above although, of shorter length, bearing a single rectangular firing pin impression.

→ - .44 cal fired bullets” – Examination of this item disclosed eight fired bullets fired by as few as three firearms and as many as eight.

→ - .50 cal bullet” – One unfired bullet shaped much like a modern wadcutter with a diameter of approximately .49 inches and a mass of approximately 400 grains.

Conclusions

The analysis of the ammunition from the site where the Army was entrenched during the Thornburgh Battle indicate that the cases—presumably fired from military weapons—represent at least ten different firearms, and that the bullets—presumably fired from Ute weapons—represent as few as three and as many as eight different firearms.

No association could be established between the weaponry represented at the battle site and those found at 5RB563, the Ute Hunter’s Camp.

F.

Appendix F: Trade Bead Analysis

Glass Seed Bead Analysis from the Colorado Wickiup Project

A total of 235 drawn glass seed beads from five sites documented by the Colorado Wickiup Project were tabulated in terms of size (diameter to 1/100th of a millimeter), color, and opacity or diaphaneity. In general, with one exception, the beads tend to be smaller in size on the sites with later dendrochronological and artifactual dates, and larger on the earlier sites. A summary of the bead sizes and site dates is as follows, listed from the earliest site to the latest:

- Pisgah Mountain Wickiup Village (5EA2740)
 - 24 beads with a mean average diameter of 2.95mm
 - artifactual evidence indicates occupation dating from ca. 1830s – 1860s
 - dendrochronological dates indicate an occupation in 1853

- Bead Village (5RB4338)
 - 17 beads with a mean average diameter of 1.97mm (plus two blue pony bead fragments which are not included in this tabulation)
 - dendrochronological dates indicate occupation in 1867

- Ute Hunters' Camp (5RB563)
 - 178 beads with a mean average diameter of 1.90mm
 - Artifactual evidence indicates occupation no earlier than 1879
 - dendrochronological dates indicate occupation in 1881/1882

- Disappointment Draw Lodge (5MF5216)
 - 11 beads with a mean average diameter of 1.86mm
 - artifactual evidence indicates occupation no earlier than 1894
 - dendrochronological dates indicate occupation “within a very few years” of 1893

- Two Tall Pole Wickiup Village (5RB18)
 - 5 beads with a mean average diameter of 3.0mm (all from one anthill)
 - dendrochronological dates indicate occupation in 1915

The classification scheme for this analysis is based on research by Christopher R. von Wedell (personal communication). The main color classifications for glass trade beads suggested by Wedell include: blue, greenish-blue, bluish-green, dark/navy blue, white, black, green, dark green, pink, yellow, orange, and red-on-white.

Summary of dates and associated average bead diameters

1853 = 2.95mm
1867 = 1.97mm
1881/82 = 1.90mm
1894 = 1.86mm
1915 = 3.00mm

Glass seed beads from the Pisgah Mountain Wickiup Village (5EA2740)

A total of 24 seed beads were collected at site 5EA2740—22 of which (FSs 23 and 41) were found on the surface of a single ant hill in the low, relatively artifact free, saddle that separates the Open Activity Locus and Features 15, 16, 17, and 20 in the southeastern corner of the site, from the rest of the site. Also noted on this anthill were minute charcoal fragments, several chert micro flakes, a single flake of clear glass, and, near the base of the anthill, FS42, a metal tinkler. Although there were several other anthills of similar size elsewhere on the site, the one containing FSs 23 and 41 is the only one that produced beads or other artifacts. The final two specimens were collected at wooden Feature 1 (FS15) and Feature 14B (FS61).

Bead totals for the site consist of 11 blue, 9 white, 2 black, and 2 red-on-white beads (cornaline d' Aleppo). These are tabulated in Table F-1. They range in diameter from 2.25mm to 3.41mm, with a size variability of 1.16mm. The mean average diameter of the Pisgah beads is 2.95 (median size = 2.83). Dendrochronological dates from the site indicate an occupation date of AD1853.

**Table F-1: Glass Seed Beads from 5EA2740 (Pisgah Mountain Wickiup Village)
(total of 24 drawn glass seed beads)**

Diameter (mm)	Diapheneity (0 = opaque 1 = translucent)	Color
Field Specimens 23 and 41 from Anthill (22 beads)		
3.15	1	red-on-white (cornaline d' Aleppo)
3.41	1	red-on-white (cornaline d' Aleppo)
2.25	0	white
2.33	0	white
2.90	0	white
2.92	0	white
2.95	0	white
3.11	0	white
3.19	0	white
3.40	0	white
2.46	1	blue
2.62	1	blue
2.68	1	blue
2.73	1	blue
2.74	1	blue
2.77	1	blue
2.78	1	blue
3.20	0 (?) (weathered cortexes)	blue
3.31	0 (?) (weathered cortexes)	blue

Diameter (mm)	Diapheneity (0 = opaque 1 = translucent)	Color
3.65	0 (?) (weathered cortexes)	blue
3.01	0	black
3.25	0	black
Field Specimen 15 from Feature 1 (1 bead)		
3.36	0	white
Field Specimen 61 from Feature 14B (1 bead)		
2.55	1	Blue

Glass Seed Beads from 5RB563. the Ute Hunters' Camp
(178 total—ranked by quantity)

Pink opaque: 45. Size range = 1.59 to 2.10mm
White opaque: 29. Size range = 1.64 to 2.26mm
Blue translucent: 26. Size range = 1.65 to 2.56
Red-on-white (cornaline d' Aleppo) translucent: 20. Size range = 1.77 to 2.35mm
Greenish-blue (~~turquoise~~) opaque: 15. Size range = 1.80 to 2.23mm
Yellow translucent: 13. Size range = 1.61 to 1.95mm
Bluish-green opaque micro-beads: 8. Size range = 1.21 to 1.38mm
Red (with no white core) translucent: 5 Size range = 1.89 to 2.11mm
Bluish-green opaque (NOT micro beads): 4. Size range = 1.64 to 2.09mm
Green translucent: 4. Size range = 1.83 to 2.02
Dark/navy blue translucent:3. Size range = 1.89 to 2.15mm
Bluish-gray (weathered ~~turquoise~~) translucent: 1. Size range = 1.72mm
Orange opaque: 1. Size range = 2.07mm
(missing specimens = 4)

The Hunters' Camp beads range in diameter from 1.21mm to 2.56mm, with a size variability of 1.35mm. The mean average diameter of the Hunters' Camp beads is 1.90—over a full millimeter smaller than at Pisgah (median size = 1.89). Tree-ring dates from the site indicate an occupation during the fall/winter of 1881/1882.

Table F-2: Glass Seed Beads from 5RB563 (Ute Hunters' Camp)
(total of 178 drawn glass seed beads)
(Martin and Brown 2010a)

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
82	2.25	1	blue
82	2.46	1	blue
82	2.38	1	blue

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
82	2.08	0	white
87	2.21	1	blue
87	2.26	1	blue
87	2.08	1	red-on-white (cornaline d' Aleppo)
87	1.69	1	yellow
87	1.82	0	pink
87	1.65	0	pink
87	1.76	0	pink
87	1.75	0	pink
87	1.59	0	pink
87	1.80	0	pink
87	1.65	0	pink
87	1.80	0	pink
87	(crushed in transit)	0	pink
97	1.99	1	red (no white core)
97	1.81	0	white
97	1.93	1	blue
97	1.95	1	yellow
97	1.69	0	white
97	1.93	0	white
97	1.23 (micro)	0	bluish-green
97	1.82	0	pink
97	1.76	0	pink
97	1.87	0	pink
97	1.65	0	pink
97	1.73	0	pink
97	1.67	0	pink
97	1.63	0	pink
97	1.79	0	pink
97	1.77	0	pink
97	---	---	(specimen missing)
97	---	---	(specimen missing)
103	1.78	1	blue
103	1.76	1	blue
103	1.65	0	white
103	2.06	0	white
111	2.05	0	white
111	1.81	0	white
111	1.67	0	white
111	2.20	0	white
111	1.98	1	blue
111	1.79	1	blue
111	2.09	1	red (no white core)
111	1.74	0	pink
115	1.82	1	blue

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
115	1.99	1	red-on-white (cornaline d' Aleppo)
122	1.99	1	red-on-white (cornaline d' Aleppo)
122	1.92	1	blue
126	2.23	1	greenish-blue (—"turquoise")
126	1.85	1	blue
126	2.05	1	red (no white core)
129	1.89	1	red (no white core)
129	1.70	1	yellow
135	1.83	1	yellow
135	1.97	0	white
135	1.80	0	pink
138	1.89	0	white
142	1.28 (micro)	0	bluish-green
142	2.16	0	white
142	2.09	0	white
142	1.89	1	dark/navy blue
142	2.00	1	dark/navy blue
142	1.65	1	blue
142	1.82	1	blue
142	2.47	1	blue
142	2.26	1	blue
142	2.53	1	blue
142	2.17	1	red-on-white (cornaline d' Aleppo)
142	1.89	0	pink
142	1.61	0	pink
142	1.73	0	pink
142	1.70	0	pink
142	1.70	0	pink
142	1.74	0	pink
142	1.61	0	pink
142	1.76	0	pink
142	1.70	0	pink
142	1.75	0	pink
145	1.31 (micro)	0	bluish-green
145	1.22 (micro)	0	bluish-green
145	2.44	1	blue
145	2.56	1	blue
145	1.88	1	yellow
145	1.87	1	yellow
145	1.85	1	yellow
145	2.11	1	red (no white core)
145	1.64	0	white
145	1.97	0	white
145	2.19	0	white

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
145	1.76	0	pink
145	1.72	0	pink
145	1.72	0	pink
153	1.21 (micro)	0	bluish-green
153	1.25 (micro)	0	bluish-green
153	1.26 (micro)	0	bluish-green
153	1.38 (micro)	0	bluish-green
153	2.06	1	red-on-white (cornaline d' Aleppo)
153	2.03	0	white
153	1.61	1	yellow
153	1.74	1	yellow
153	1.84	1	yellow
153	1.71	0	pink
153	1.83	0	pink
153	1.73	0	pink
153	1.80	0	pink
158	1.74	0	pink
158	1.68	0	pink
158	1.66	0	pink
158	1.77	0	pink
163	1.92	0	white
168	1.83	1	yellow
168	1.68	1	yellow
168	1.98	0	pink
168	2.07	0	white
191	2.35	1	red-on-white (cornaline d' Aleppo)
192	2.17	1	blue
194	2.13	1	greenish-blue (–turquoise?)
194	1.72	1	bluish-gray (weathered –turquoise?)
194	1.85	1	green
194	2.24	1	red-on-white (cornaline d' Aleppo)
194	2.34	1	red-on-white (cornaline d' Aleppo)
194	1.77 (fused w/ next bead)	1	red-on-white (cornaline d' Aleppo)
194	1.83 (fused w/ previous bead)	1	red-on-white (cornaline d' Aleppo)
194	2.10	0	pink
194	1.95	0	white
194	---	---	(specimen missing)
196	2.29	1	blue

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
201	2.15	1	dark/navy blue
201	2.02	1	green
201	1.85	0	bluish-green
201	1.93	0	greenish-blue (—turquoise?)
201	1.87	0	greenish-blue (—turquoise?)
201	1.94	0	greenish-blue (—turquoise?)
201	1.97	0	greenish-blue (—turquoise?)
201	2.06	0	greenish-blue (—turquoise?)
201	2.23	1	red-on-white (cornaline d' Aleppo)
201	2.30	1	red-on-white (cornaline d' Aleppo)
201	2.03	1	white
206	2.12	1	red-on-white (cornaline d' Aleppo)
211	1.93	1	green
223	2.39	1	blue
223	2.44	1	blue
223	1.77	1	blue
223	1.73	0	pink
223	1.72	0	pink
223	1.75	0	white
223	2.26	0	white
226	2.18	1	red-on-white (cornaline d' Aleppo)
226	1.91	0	greenish-blue (—turquoise?)
226	1.83	1	green
228	---	---	(specimen missing)
248	2.17	1	red-on-white (cornaline d' Aleppo)
253	2.14	0	white
259	1.64	1	bluish-green
304	2.12	0	greenish-blue (—turquoise?)
304	(fragment)	1	red-on-white (cornaline d' Aleppo)
317	2.33	1	blue
322	2.06	0	greenish-blue (—turquoise?)
322	1.79	0	bluish-green
322	1.69	1	yellow
323	2.17	1	red-on-white (cornaline d' Aleppo)
323	1.91	1	red-on-white (cornaline d' Aleppo)
323	1.95	0	white
323	1.86	0	greenish-blue (—turquoise?)
323	1.80	0	greenish-blue (—turquoise?)
324	2.07	0	orange

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
325	2.09	1	red-on-white (cornaline d' Aleppo)
325	1.94	0	greenish-blue (—turquoise")
332	2.01	0	greenish-blue (—turquoise")
352	2.22	1	red-on-white (cornaline d' Aleppo)
352	2.09	0	greenish-blue (—turquoise")
352	2.09	0	bluish-green
352	1.76	0	white
352	1.80	0	white
352	1.99	0	white

Glass seed beads from Disappointment Draw Lodge (5MF5216)

Eleven European-manufactured glass seed beads were collected, as six separate field specimens, from sub-surface deposits in the Feature 3 Locus and one metal bead was found at 5 to 7cm depth in the Feature 5 Locus. Taking into consideration how extremely difficult it is to find the minute seed beads without isolating them in fine-mesh shaker screens or soil sieves, the fact that this many were found while sifting small amounts of soil at the locations of —hits" on the metal detector, it can be hypothesized that there are hundreds, if not thousands, yet undiscovered at 5MF5216.

Bead totals for the Disappointment Draw site consist of five white, four greenish-blue, one translucent clear/white, and one red-on-white beads (also know as —white hearts" or —cornaline d' Aleppo"). These are tabulated in Table F-3.

The Disappointment Draw beads range in diameter from 1.63mm to 2.11mm, with a size variability of 0.48mm. The mean average diameter of the Hunters' Camp beads is 1.86—over a full millimeter smaller than at Pisgah (median size = 1.87). Artifactual remains and dendrochronological dates from the site indicate an occupation date of 1894 or shortly thereafter.

**Table F-3: Glass Seed Beads from 5MF5216 (Disappointment Draw Lodge)
(total of 11 drawn glass seed beads)**

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
5	1.80	0	greenish-blue (—turquoise")
31	2.11	1	clear/white
49	1.79	1	Red-on-white (cornaline d' Aleppo)

FS #	Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
60	1.75	0	greenish-blue (—turquoise”)
60	1.93	0	greenish-blue (—turquoise”)
60	1.90	0	white
61	1.73	0	greenish-blue (—turquoise”)
61	1.63	0	white
63	1.93	0	white
63	1.94	0	white
63	1.91	0	white

The final bead from the site is FS100, which consists of a cylindrical, machine-made, non-ferrous metal bead that measures ¼” in length and 9/32” in diameter (Plate 18). The hole is 5/32” in diameter. Similar beads are often seen as spacers between the bone tubes on hair-pipe breast plates and necklaces both in modern Native American craftwork as well as in historic photographs. This specimen was found in the Feature 5 Locus.

Glass seed beads from Bead Village (5RB4338)

(Martin and Ott 2009)

Two large blue “Pony” bead fragments (likely two halves of the same specimen) and seventeen glass seed beads were collected from the site. These specimens measure 9.1mm and 9.4mm in diameter.

The smaller drawn glass seed beads consist of one pink, eight small white, one large misshapen white, five greenish-blue—“turquoise,” one blue, and one translucent blue. These are tabulated in Table F-4. The Bead Village seed beads range in diameter from 1.6mm to 3.4mm, with a size variability of 1.8mm. The mean average diameter of the beads is 1.97 (median size = 2.05). Tree-ring dates from the site indicate an occupation date of 1867.

**Table F-4: Glass Seed Beads from 5RB4338 (Bead Village)
(total of 17 drawn glass seed beads)**

Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
2.6	0	pink
2.0	0	white
~1.8	0	white
~1.8	0	white
~1.8	0	white
~1.8	0	white
~1.8	0	white

Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
~1.8	0	white
1.6	0	white
3.4	0	white
2.1	0	greenish-blue (—turquoise”)
~1.9	0	greenish-blue (—turquoise”)
~1.9	0	greenish-blue (—turquoise”)
1.7	0	greenish-blue (—turquoise”)
fragment	0	greenish-blue (—turquoise”)
1.6	0	blue
1.9	1	blue

Glass seed beads from the Two Wall Pole Wickiup Village (5RB18)

The five seed beads consist of two white, one greenish-blue—turquoise,” one bluish-green, and one red-on-white cornaline d’ Aleppo). These are tabulated in Table F-5.

The 5RB18 beads range in diameter from 2.5mm to 3.5mm, with a size variability of 1.0mm. The mean average diameter of the beads is 3.0mm (median size = 3.0). Tree-ring dates from the site indicate an occupation date of 1915—at least for one wickiup structure.

**Table F-5: Glass Seed Beads from 5RB18 (Two Tall Pole Wickiup Village)
(total of 5 drawn glass seed beads)**

Outer Diameter (to 1/100 mm)	Diapheneity (0 = opaque 1 = translucent)	Color
3.5	1	bluish-green
3.4	0	greenish-blue (—turquoise”)
2.6	0	white
2.5	0	white
3.0	0	red-on-white (cornaline d’ Aleppo)

G.

Appendix G: Photographic Plates

Feature Photographs

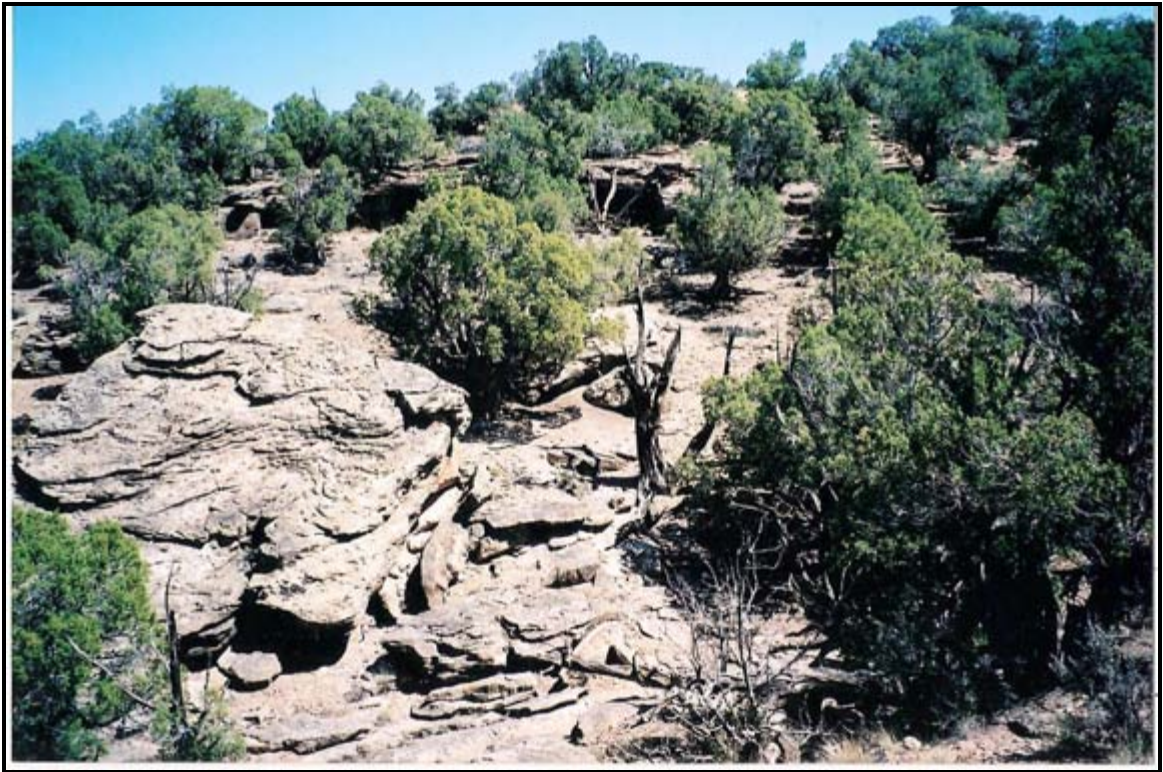


Plate 1

Top photo is an overview of site 5DT222, the Black Canyon Ramada looking north-northeast. The partially collapsed Feature 1 is at upper center. Bottom photo is a historic photograph of a sunshade or ramada with a family identified as —Glorado Utes”
(courtesy of the Colorado State Historical Society)



Plate 2

5DT222, the Black Canyon Ramada site: Top photo is of Feature 1, the ramada, looking north-northeast. Note the Main Support Beam resting against the stone cairn. Bottom photo is a detail of the metal-ax cut Main Support Beam leaning against the interior face of the cairn that originally served as its support.



Plate 3

5DT222: Top photo is the ramada, Feature 1, looking down (with south at the top) showing how the roof beams slid to the right (west) when the Main Support Beam (beneath and parallel to the scale) collapsed. Bottom photo is Feature 3, hearth.



Plate 4

5DT222: Top photo, looking east at Feature 4 with upper ash and charcoal cleared to 13-15 cm. below PGS. Bottom photo, looking northeast at Feature 6, basin shaped hearth, after excavation. Note flat bedrock floor of feature.

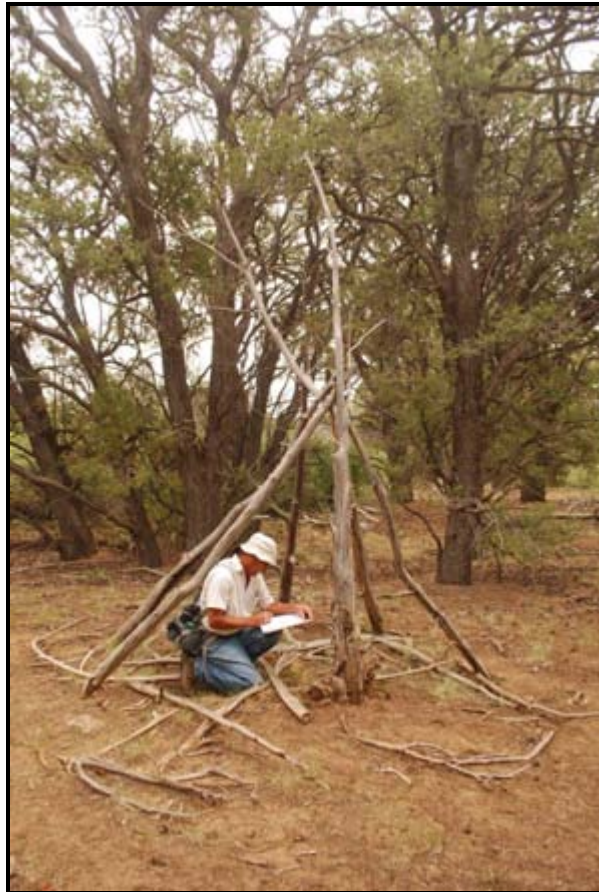


Plate 5

5ME469: Top photo, Structure 1, leaner wickiup, looking east-southeast. Michael Brown in photo. Upright element to right of figure is dead juniper support tree. Bottom photo, Structure 3, brush enclosure, possible animal containment, looking west-southwest.



Plate 6

5ME469: Top photo, Structure 10, leaner wickiup, looking south-southeast. Peeled bark at lower right is probable porcupine gnawing. Bottom photo, Structure 13, lean-to/windbreak, looking northwest. Pink flag denotes location of metal tinkler.



Plate 7

5MF5216: Top photo, Feature 1, leaner tipi frame supported by juniper tree, looking north into apparent entryway. Bottom photo, historic photograph of Ute leaner-style tipi.



Plate 8

5MF5216: Top photo, bench –enclosed” by brush fence, Feature 3, looking east. Pack is in Artifact Concentration A. Standing figure is in Feature 4, rock ring. Note Feature 3 poles leaned into tree in upper center. Bottom photo, Feature 5, view southeast along southwest portion of brush enclosure.



Plate 9

5MF5216: John Lindstrom and Michael Brown metal detecting within Feature 4, rock ring, looking east-northeast. The feature is in the north end of “brush enclosure,” Feature 3—a portion of the north wall of which is visible on the left.

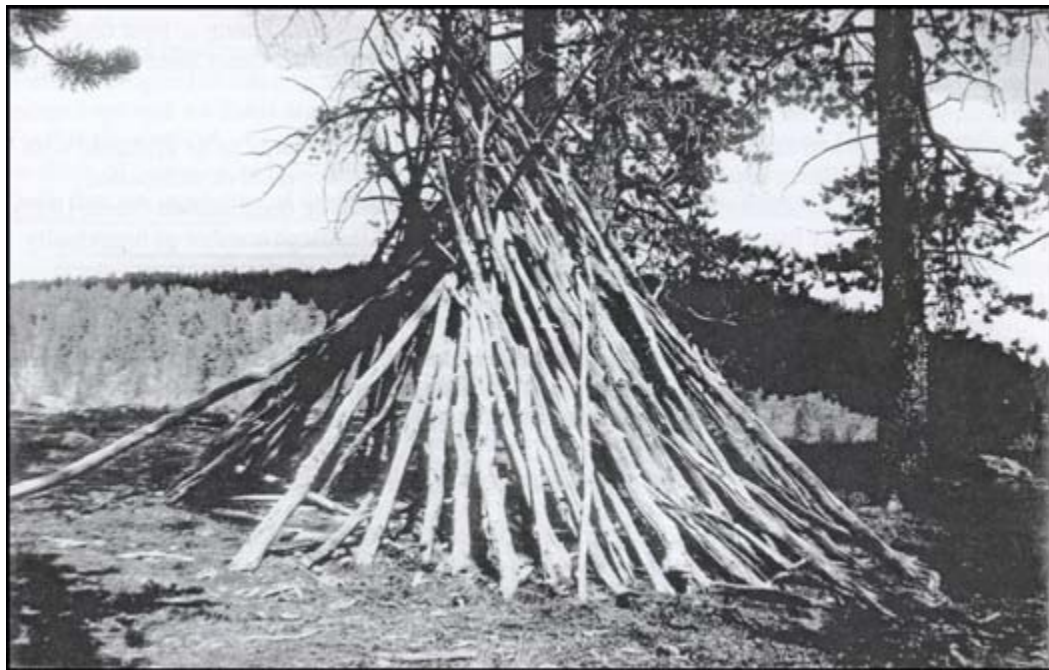


Plate 10

Examples of high-elevation aspen-pole wickiups in Colorado that utilize numerous poles in their construction. Upper left: one of several undocumented features on private property near Steamboat Springs (photo courtesy of Tony Bates). Upper right: Ute shelters in North Park, Colorado, ca. AD1880-1910 (courtesy of the Western History/Genealogy Department, Denver Public Library). Bottom: the “Elk Mountain War Lodge” near Cochetopa Pass prior to removal to the Ute Museum in Montrose.



Plate 11

5SH3788: Feature 1, the Musick Lodge, looking south-southeast. Several elements of the secondary interior feature are visible through the entryway. Also note the two stones placed at either side of the entryway and how the entryway is positioned facing directly into the live Douglas fir tree trunk.



Plate 12

5SH3788: Feature 1, the Musick Lodge. Upper photo, looking southeast, detail of the two stick bundles suspended above the entryway utilizing branch stubs intentionally left at the appropriate heights on the upright poles on either side of the doorway.

Bottom photo: looking north-northwest, showing the numerous sticks resting at the exterior base of the lodge poles.



Plate 13

5SH3788: Top photo, Feature 4, eagle trap on the end of a prominence with steep drop-offs on all sides other than the ridge top, looking east-southeast. Bottom photo, looking north-northwest at eagle trap. Note one of the two stone "seats" on the interior.



Plate 14

5DT1538: Top photo, the “wickiup/lean-to” feature as recorded in 2004, looking northwest.
Bottom photo, the structure in its collapsed condition as recorded in 2010.



Plate 15

5ME901, the Bella Site: Top photo, Room 1 and Hearth 1 in foreground looking west-northwest. Room 2 is in mid-ground between the two wooden divider walls.
Bottom photo, Room 1 with Hearth 1 in center, looking northwest.

Artifact Photographs



Plate 16

Top photo: Wire and lithic artifacts from 5DT222.

Bottom photo: Headstall jingle, tinklers (2), and cut metal fragments from 5ME469.



Plate 17

Artifacts from 5MF5216. Top photo: Full metal jacketed bullets (3), bent wire, and projectile point midsection. Bottom photo: fasteners and buttons (FS1 shows both sides of the button).

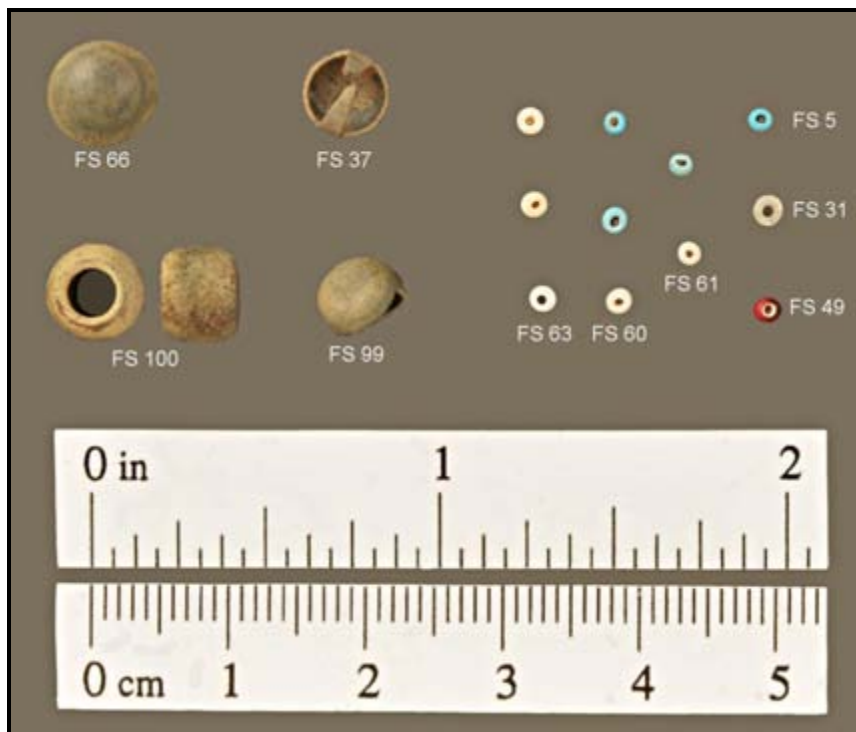


Plate 18

Artifacts from 5MF5216. Top photo: Nails and screws. Bottom photo: decorative brass tack head, two views of metal bead, decorative brads (2), and glass seed beads.

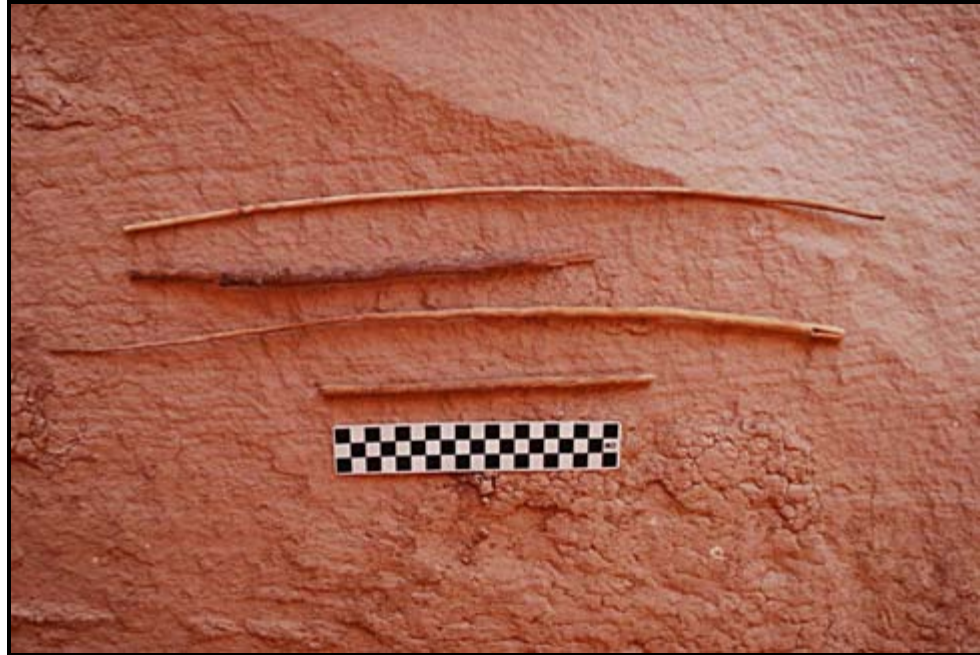


Plate 19

Artifacts from 5ME901. Top photo: Uncollected worked wooden artifacts from rodent nest at back of overhang, including arrow shaft at top. Bottom left: detail of arrow shaft showing notch, sinew(?) wrap for fletching, and pigment or adhesive residue. Bottom right: detail of worked wooden artifact.

H.

**Appendix H: Copy of *Grand Valley* Magazine Article Regarding the
Colorado Wickiup Project**

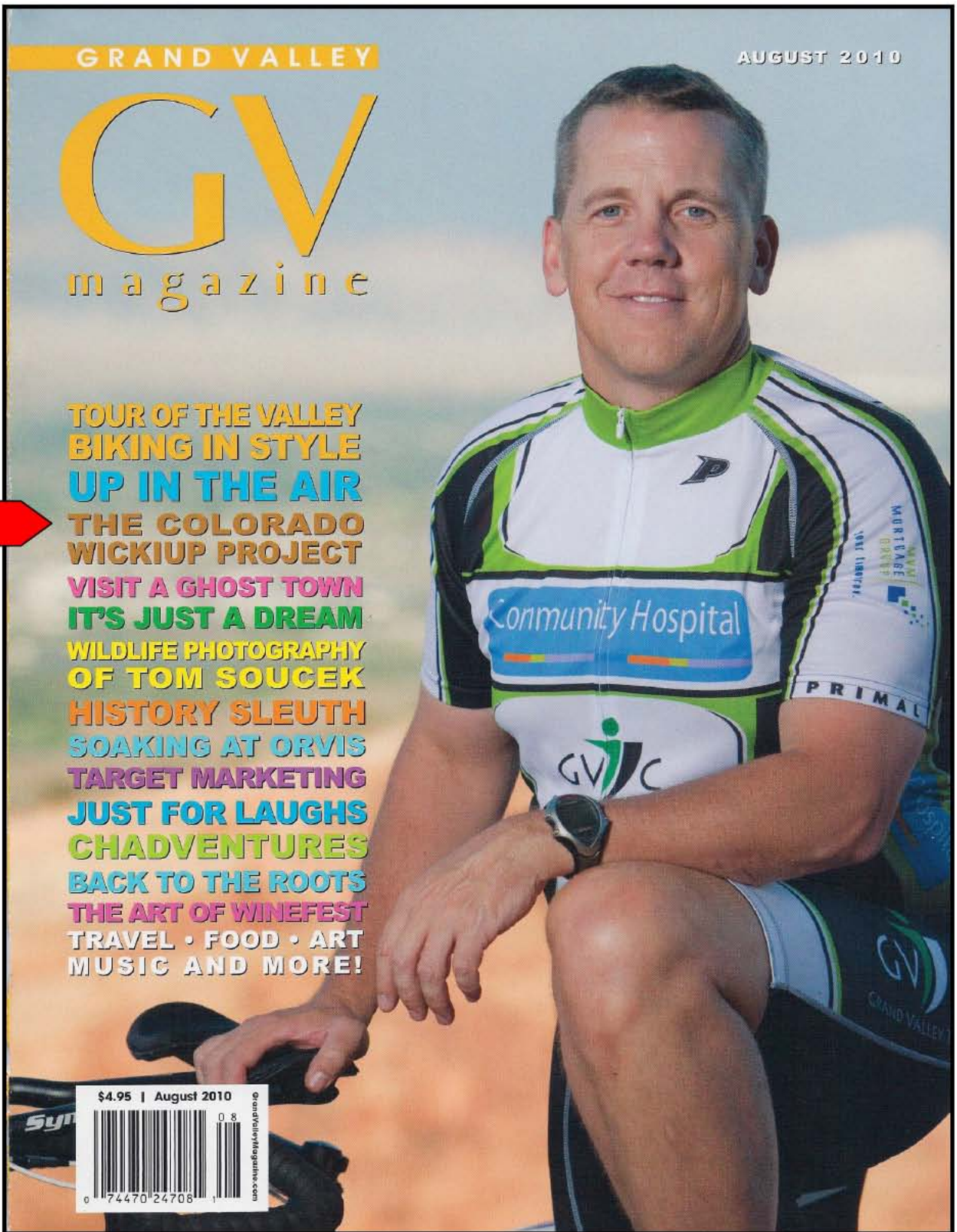
GRAND VALLEY

AUGUST 2010

GV

magazine

**TOUR OF THE VALLEY
BIKING IN STYLE
UP IN THE AIR
THE COLORADO
WICKIUP PROJECT
VISIT A GHOST TOWN
IT'S JUST A DREAM
WILDLIFE PHOTOGRAPHY
OF TOM SOUCEK
HISTORY SLEUTH
SOAKING AT ORVIS
TARGET MARKETING
JUST FOR LAUGHS
CHADVENTURES
BACK TO THE ROOTS
THE ART OF WINEFEST
TRAVEL • FOOD • ART
MUSIC AND MORE!**



\$4.95 | August 2010
0 8
74470 24708
GrandValleyMagazine.com

A Journey in Time



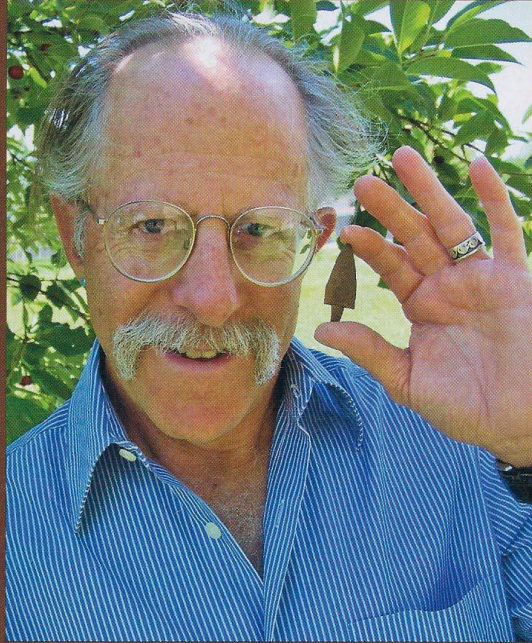
CURTIS MARTIN IS LIVING IN THE PAST. But that's a good thing. Curtis is an archaeologist who studies and investigates the fragile wickiup sites left by the Utes throughout Western Colorado.

Now most of us are familiar with the Utes as being the Native people who lived in our area for hundreds of years prior to the arrival of the Anglo settlers and explorers who began to drift into Western Colorado in the early 1800s. But what we can only begin to understand is what a profound effect their arrival had on the Ute culture and their way of life. Curtis says that, in just one generation, the Utes went from being a nomadic stone-age culture to having metal tools, guns, and horses.

The significance of this change is revealed most dramatically in wickiups — the stick-built shelters that the Native people built in this area for thousands of years. Those older structures are long gone, but there are dozens in and around the Valley that date back at least 200 years and right on through the early 20th century. Most of them around here are found at elevations between 6,000 and 8,000 feet — the most hospitable climate. There are many sites on the Uncompahgre Plateau and the Grand Mesa, but Curtis cannot reveal their exact locations, due to the fragile nature of these ephemeral structures and their surroundings. These shelters, made mostly from juniper and aspen, were used for a few days or weeks as the Utes passed through an area. They also built small storage platforms and structures, sometimes up in trees.

BY JOHN ANGLIM
PHOTOS BY CURTIS MARTIN



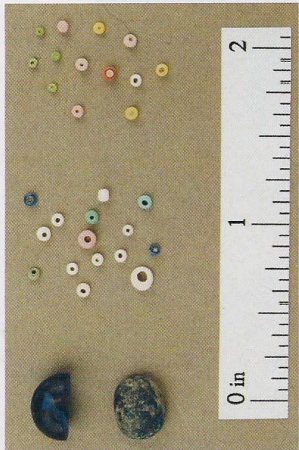


The Coolest Job

Curtis Martin clearly loves his job. You can see it in his eyes and hear it in his voice. "Up here, in this part of Colorado," he says, "we don't find cliff dwellings or golden idols or even clay pots, but I found a Clovis point on the Uncompahgre Plateau of a type that was used to hunt woolly mammoths 11,000 or 12,000 years ago. I've found glass beads that were manufactured in Venice in the 19th century, brought across the ocean on a sailing ship, carted out to the West on some mountain man's mule, traded to the Indians, sewn onto a moccasin or gun scabbard, and then lost on some ridge top where I am blessed to find it 150 years later! I spend my days studying and contemplating brush shelters where people slept and made love and gave birth and listened to the stories of their grandfathers. It may not be the easiest job in the world, but to my mind it is one of the coolest!"



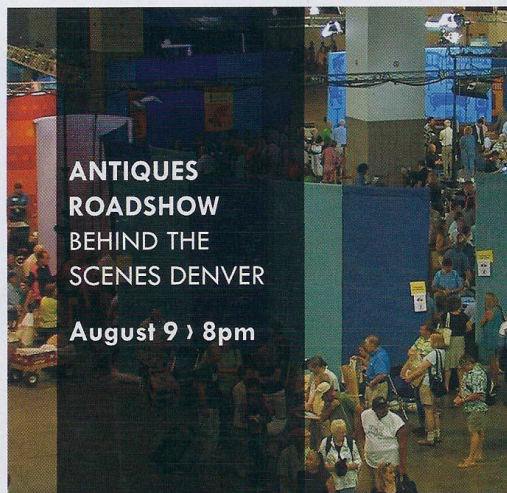
What Curtis and his fellow archaeologists find tells a fascinating story of a culture experiencing truly dramatic change. For centuries these resilient and creative people lived and travelled throughout the area. They made stone tools and migrated with the seasons, following the game and harvesting native plants. A few may have traded for



the occasional metal knife or axe prior to 1800, but for the most part their way of life had remained the same for hundreds of years.

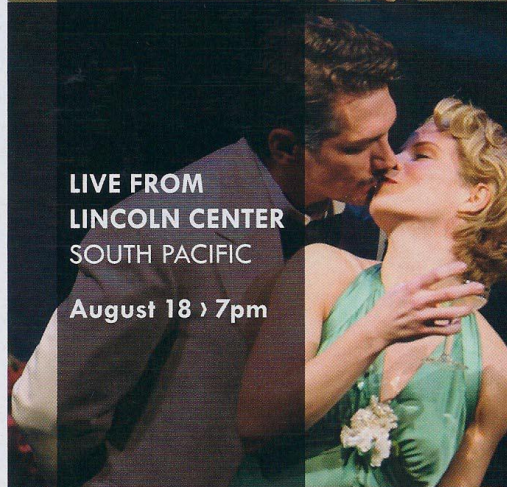
Around 1828, Fort Uncompahgre was founded near the confluence of the Uncompahgre and Gunnison rivers, and rapid changes began. Plentiful trade goods had finally come to Western Colorado. By the 1840s, most Utes had access to guns, metal knives, axes, and horses. "This was real culture shock," says Curtis.

Prior to their acquiring metal tools, the Utes made their wickiups primarily from fallen limbs or dead branches. These would have been covered with brush or hides. Once they had metal axes, the Utes could cut straight strong limbs, and with horses, they could even carry those sticks and limbs with them, along with other heavy items like hides, canvas, blankets, and metal pots and pans (all of which were now available through trade). And for the first time, they could make metal



**ANTIQUES
ROADSHOW
BEHIND THE
SCENES DENVER**

August 9 › 8pm



**LIVE FROM
LINCOLN CENTER
SOUTH PACIFIC**

August 18 › 7pm

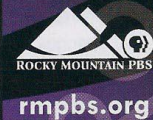


**MASTERPIECE
MYSTERY!
INSPECTOR LEWIS**

August 29 › 9pm

**Find Your
Point Of
View**

Rocky Mountain PBS





points for spears and arrows. Many of these items were constructed from the metal bands of barrels, or from flattened cans — items commonly discarded by the settlers and traders.

These dramatic changes came late to Western Colorado. The Native people of the plains and of New Mexico had made this giant technological leap forward decades before it reached our area and the Utes. All of this is revealed at the sites that Curtis investigates for the Colorado Wickiup Project of the Dominguez Archeological Research Group (DARG).

Curtis has discovered something else that changes conventional archaeological thinking: Most historians believed that by the end of the 1880s the Utes had all been removed to reservations, but the Wickiup Project shows their

continual habitation in remote areas of Western Colorado and the Grand Valley right on through the early part of the 20th century. Curtis believes there were significant numbers who simply refused to leave their homes and many who tried to live on the reservation, could not tolerate it, and returned to the land that had been home to their people for hundreds of years.

Commenting on his work, Curtis says, “I feel so honored to study the culture and lives of these incredible people — the Ute and Native Americans in general. They are ingenious, resourceful, incredibly tough people — not only in the past, but to this day. I’ve learned a lot from them, and my hope is that the information we’re discovering about their lives in the past will prove of some value to them — and to us.” ❖

I.

**Appendix I:
OAHP Re-evaluation, Management, Prehistoric Component,
and Aboriginal Wooden Feature Component Forms**

(see Martin and Brown 2010b for the Wooden Feature Component Forms for 5EA2740)

**[the information in this appendix is proprietary and
is available only to land management agencies]**