

United States Department of the Interior
National Park Service
National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determination for individual properties and districts. See instruction in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Threemile Gulch
other names/site number Threemile Gulch Prehistoric Archaeological District; 5PA.4455

2. Location

street & number (X) not for publication
city or town (X) vicinity
state Colorado code CO county Park code 093 zip code 80449

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [X] statewide [ ] locally. ( [ ] See continuation sheet for additional comments.)

Signature of certifying official/Title State Historic Preservation Officer Date
Office of Archaeology and Historic Preservation, History Colorado
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria.
( [ ] See continuation sheet for additional comments.)

Signature of certifying official/Title Date
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is: Signature of the Keeper Date of Action
[ ] entered in the National Register [ ] See continuation sheet.
[ ] determined eligible for the National Register [ ] See continuation sheet.
[ ] determined not eligible for the National Register.
[ ] removed from the National Register [ ] See continuation sheet.
[ ] other, explain [ ] See continuation sheet.

Threemile Gulch Prehistoric Archaeological District  
Name of Property

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County/State

**5. Classification**

**Ownership of Property**  
(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

**Category of Property**  
(Check only one box)

- building(s)
- district
- site
- structure
- object

**Number of Resources within Property**  
(Do not count previously listed resources.)

Contributing	Noncontributing	
0	0	buildings
435	0	sites
0	0	structures
0	0	objects
435	0	Total

**Name of related multiple property listing.**  
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

**Number of contributing resources previously listed in the National Register.**

0

**6. Function or Use**

**Historic Function**

(Enter categories from instructions)

- Domestic/camp
- Extraction/processing site
- Extraction/extractive facility
- Religion/ ceremonial site
- 
- 
- 
- 
- 
- 

**Current Functions**

(Enter categories from instructions)

- Landscape/conservation area
- 
- 
- 
- 
- 

**7. Description**

**Architectural Classification**

(Enter categories from instructions)

N/A

**Materials**

(Enter categories from instructions)

foundation \_\_\_\_\_

walls \_\_\_\_\_

roof \_\_\_\_\_

other \_\_\_\_\_

**Narrative Description**

(Describe the historic and current condition of the property on one or more continuation sheets.)

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### 8. Statement of Significance

#### Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

#### Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

#### Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

#### Areas of Significance

(Enter categories from instructions)

Archaeology/Prehistoric

Industry

Exploration/Settlement

Social History

#### Periods of Significance

7500 B.P. to 1540 A.D.

#### Significant Dates

N/A

#### Significant Person(s)

(Complete if Criterion B is marked above).

N/A

#### Cultural Affiliation

Archaic

Late Prehistoric

#### Architect/Builder

N/A

### 9. Major Bibliographical References

#### Bibliography

(Cite the books, articles and other sources used in preparing this form on one or more continuation sheets.)

#### Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey

# \_\_\_\_\_

- recorded by Historic American Engineering Record

# \_\_\_\_\_

#### Primary location of additional data:

- State Historic Preservation Office
- Other State Agency
- Federal Agency
- Local Government
- University
- Other

Name of repository:  
History Colorado

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## 10. Geographical Data

Acreage of Property 1791

### UTM References

(Place additional UTM references on a continuation sheet.)

[Redacted UTM reference information]

The UTM reference point was derived from heads up digitization on Digital Raster Graphic (DRG) maps provided to OAHP by the U.S. Bureau of Land Management.

### Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

### Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

## 11. Form Prepared By

name/title Susan J. Bender, Ph.D. (for property owner)

organization Park County, South Park Archaeology Project

date February 15, 2011

street & number 34 Furlong St

telephone 518-870-6103

city or town Saratoga Springs

state NY

zip code 12866

## Additional Documentation

Submit the following items with the completed form:

### Continuation Sheets

#### Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

### Photographs

Representative **black and white photographs** of the property.

### Additional Items

(Check with the SHPO or FPO for any additional items)

## Property Owner

(Complete this item at the request of SHPO or FPO.)

name Colorado Division of Wildlife

street & number 6060 Broadway

telephone 303-291-7227

city or town Denver

state CO

zip code 80216

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*)

**Estimated Burden Statement:** Public reporting burden for this form is estimated to range from approximately 18 hours to 36 hours depending on several factors including, but not limited to, how much documentation may already exist on the type of property being nominated and whether the property is being nominated as part of a Multiple Property Documentation Form. In most cases, it is estimated to average 36 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form to meet minimum National Register documentation requirements. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, 1849 C St., NW, Washington, DC 20240.

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**DESCRIPTION**

The Threemile Gulch Prehistoric Archaeological District is located  South Park, one of Colorado's three major intermontane basins. 

Archaeologically, this landscape is characterized by high frequencies of lithic materials, surface scatters that manifest in clusters (sites) amidst a backdrop of more widely dispersed artifacts (isolated finds). In total, 112 sites and 323 isolated finds (all treated as "sites" for the purposes of the resource count) have been recorded within this relatively small area (approximately 7.25 km<sup>2</sup> or 1791 acres), resulting in a landscape that is literally draped in archaeological remains of varying types and densities. The other distinguishing feature of Threemile Gulch is that the vast majority of its lithic landscape is composed of petrified wood in various stages of extraction and reduction. This latter feature is exceptional within South Park, suggesting that Threemile Gulch is a bounded archaeological manifestation that can contribute uniquely to our understanding of the area's prehistory.

In aggregate, the Threemile Gulch sites represent a long-lived (or persistent) settlement system, primarily confined to the Archaic period, whose complex array of archaeological resources may challenge some of our existing models of mountain settlement [e.g., the models proposed by Black (1991) and Benedict (1979)]. While the drought conditions of the Altithermal may have encouraged settlement in the area, diagnostic and chronometric dates on Threemile archaeological materials reveal that the area was first occupied prior to this climatological phenomenon and settlement likely intensified after its cessation. At the same time, parallels in lithic technology with Front Range sites (e.g. Kalasz et al. 2003 and 2008) suggest that the populations who settled Threemile Gulch followed a transhumant pattern from the Front Range into South Park. These results thus incorporate elements of both Black and Benedict's models for mountain settlement and are at odds with other aspects of them. The intensive survey and targeted excavation of specific sites in the Threemile Gulch district clearly offer a rare perspective on how a mountain landscape was used over time.

**Environmental Setting**

South Park located in Park County, Colorado, and is the southernmost of three major intermontane basins or "parks" that lie within the eastern front of the Colorado Rocky Mountains (Map 1). The largest of these basins, South Park measures 50 miles (80.5 km) north to south and 35 miles (56.3 km) east to west, covering an area of approximately 1,550 square miles (4,014 km<sup>2</sup>). Average elevation for the basin floor is 9,000 ft (2743 m), but its gently south to southeast sloping aspect creates disparities within the Park such that its northerly reaches are the highest, averaging closer to 10,000 ft (3050 m) in elevation, while the southern portions of the basin average closer to 8,000 ft. South Park's high elevation combines with its relatively xeric climate (average precipitation of 12 inches per year) to support an immense grassland community dominated today by the wheatgrass/needle grass community; it is the highest natural grassland basin in the United States and one of world's largest (Nichols 2006: 2,74). Sagebrush, currant, and mountain mahogany also occur in this environment as do many varieties of wildflower and forbs. Historic reports suggest that South Park's contemporary grassland community has over the last fifty years been adversely affected by lowered water tables, a result of the sale of water rights to entities in the Denver Basin. Grasses in the early twentieth century

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are described as much denser and lusher than those that can be seen in South Park at the turn of the twenty-first century (Simmons 2002).

Topographically, South Park is characterized by a relatively flat basin floor ringed by mountain chains (Map 2). To the west, the towering Mosquito Range contains four peaks over 14,000 ft (4267 m) and 25 named peaks over 13,000 (3962 m). Portions of the Park Range form the northern edge of South Park, while the Kenosha and Taryall Mountains lie to the east. Molded by Tertiary activity about 35 million years ago, volcanic cinder cones to the south are older and more rounded than the other summits ringing the basin. While providing South Park a clearly defined perimeter, these mountain chains are also cut by numerous passes; the best known include Georgia, Boreas, Hoosier, Trout Creek and Wilkerson Passes. South Park's surrounding mountains also give rise collectively to numerous headwater tributaries that merge to form the South Platte River; the three most prominent to drain the basin floor are Tarryall Creek and the Middle and South Forks of the South Platte. Additional water sources in the form of springs are liberally scattered across the basin floor and in its ridge systems.

Three major ridge features, Red Hill, Reinecker and Mexican Ridges, interrupt the flat, highly eroded basin floor. All are remnants of the Tertiary age South Park Formation and consist of conglomerate, gravel, and sandstone, interbedded with volcanic tuff, mudflows and debris flows from the flanks of volcanoes situated in the northern portions of the Park. Granite boulders and pebbles and arkosic grits in the sands are very common in the upper part of the South Park Formation (McGookey 2002: 20).

Surficial geology in Threemile Gulch reveals all the components typical of the South Park Formation, with the addition of numerous occurrences of petrified wood logs, formed presumably during the volcanic events that characterize the Formation. Similarly Threemile Gulch topography is dominated by the rolling hills and intervening valleys typical of the ridge system, both of which experience ongoing erosion (Illustration 1). Erosion along the area's ridge tops, in particular, has resulted in concomitant soil accumulations in the intervening valleys. Arroyo cuts in these valleys reveal complex stratigraphy with buried A horizons (Illustration 2). Though there are no permanent streams within Threemile Gulch, it does contain one major unnamed spring that continues to run even in seasons of summer drought. The spring will dry up after several consecutive drought years, but it also recharges once more normal rainfall patterns resume. This spring sits at the northeastern end of the major valley that bisects the ridge system and forms the "gulch" after which the area is named. Elevation within Threemile Gulch ranges between 9560 ft (2914m) and 9200 ft (2800m), slightly above South Park's average elevation and consistent with the area's location at the geographic center of the Park

Vegetation in the area is typical for South Park--dominated by grasses and sagebrush (mountain muhly, Arizona fescue, fringed sagebrush), with scattered clumps of trees dominated by either bristlecone pine or aspen or Ponderosa pine. While grasses tend to dominate the valley areas, trees tend to cluster on the hillsides. Typically, the ridge lines are relatively devoid of vegetation, undoubtedly the result of their exposure to South Park's impressive prevailing winds.

Historically, elk, mule deer, bison, and pronghorn antelope were the dominant large game species in the Park (Simmons 2002). During South Park project surveys, we have observed all of the big game

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species, including bison (currently "domesticated" and grazing on several ranches), as well as bear, badger, coyote, and cottontail rabbits. A variety of birds are also commonly observed in Threemile Gulch including mountain plover, mountain bluebird, several species of raptors, Clark's nutcracker, magpie, lark bunting, horned lark, and the ubiquitous sparrow.

Even though Threemile Gulch supports vegetation and game species that are characteristic of the rest of South Park, its distinctive topography provides an environment sheltered from the frequently treacherous weather systems that sweep the Park. This characteristic, coupled with the unique outcropping of petrified wood in the area would undoubtedly have created a favored landscape for prehistoric settlement.

**Time Period**

Very limited chronological information is available for Threemile Gulch, but what there is suggests that the area was repeatedly reoccupied from Late PaleoIndian through the Late Prehistoric periods as defined by Gilmore et. al. (1999: 3). Diagnostic hafted bifaces (twenty-six per Table 1) form the basis for most of the dates, and these are complemented by four radiocarbon dates (Table 2) from the one site in Threemile Gulch to have undergone excavation, 5PA.2332. The Late Prehistoric is treated as a single date range, because discrete period-sensitive ceramic artifacts are entirely absent from Threemile Gulch.

When the percentage of components by period (as measured by diagnostic artifacts) for Threemile Gulch is compared to similar data for all of South Park (Larmore and Gilmore 2006: 7), an interesting profile emerges for Threemile Gulch (Figure 1). While Threemile Gulch component frequency tracks the overall pattern for South Park rather closely, a clear disparity in the PaleoIndian/Early Archaic periods appears. Threemile Gulch has no Folsom and fewer Plano components than South Park as a whole, and it has more indicators of Early Archaic settlement. The latter disparity becomes even greater if the radiocarbon-dated Early Archaic component from 5PA.2332 is added to the comparison. Thus while Larmore concludes Early Archaic components in South Park are "less than would be expected, but almost identical to the Platte River Basin as whole" (2006:18), Threemile Gulch appears distinctive in its substantial increase in components for this time period. Similarly, Threemile Gulch seems to differ from the rest of South Park, where "the Late PaleoIndian or Plano period is well represented" (Larmore and Gilmore 2006: 18), in its relative dearth of Late PaleoIndian material (Plano) artifacts.

Given that all radiocarbon dates and two thirds of the diagnostics in Threemile Gulch date to the Archaic period, the information in this nomination pertains most closely to that extended time period. In addition, diagnostic artifacts from several sites indicate a Late Prehistoric period component, and a few isolated finds date to the Late PaleoIndian period.

**Physical Characteristics**

As a district, Threemile Gulch can be characterized by the high density and distinctive quality of the archaeological materials that are scattered across its landscape (Map 3). Areas of concentration of these materials have been designated sites, and these occurrences vary from the limited remains left by specialized and localized activities to the much more dense, varied, and widespread vestiges of

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repeated camping episodes. Light scatters of isolated materials, defined as isolated finds, are interspersed among the other site types. In addition, a series of petrified wood quarry locations are imbedded within the Threemile Gulch site complex. As a result of this quarrying activity, petrified wood at all stages of reduction dominate the lithic landscape. Fully 93% of all debitage and 89% of all cores in Threemile Gulch are of petrified wood. Finally, several distinctive sites contain architectural features. These include a vision quest enclosure and three potential hunting blinds. In total, these sites can be envisioned as the material remains of repeated hunter-gatherer occupations in Threemile Gulch beginning approximately 7,500 years ago and continuing up to 500 years ago. This district constitutes a complex and multi-layered archaeological landscape.

Based on such generalized differences, the district's archaeological resources can be placed into one of six categories: Lithic Scatters, Quarries, Camps, Persistent Places, Features, and Isolated Finds. Occasionally, individual sites may possess the attributes of two categories, and these are given both primary and secondary attributions. Since there are no rockshelter settings in Threemile Gulch, all sites and lithic scatters are in open settings—the most shelter that any site enjoys is location on a hill slope in the lee of prevailing winds. Hence it would be redundant to label the Threemile Gulch sites either “open camps” or “open lithic scatters” (they are all “open”), categories that are sometimes used in Colorado site descriptions.

Of course the characteristics of the archaeological resources that are analyzed below are the result of patterned human activity, and each descriptive category can be linked with behaviors that are well documented for hunters and gatherers (Binford 1980, Kelly 1988). Camps are places on the landscape where human groups camped for periods ranging from several days to weeks. Behaviors at these places would have entailed a variety of domestic and maintenance activities (e.g. shelter construction, cooking, tool finishing and repair, animal and plant processing) and certainly engendered variable forms of refuse. A persistent place is an area where populations repeatedly carried out camping and related activities and is therefore “hyper-variable” in its archaeological imprint. In contrast, lithic scatters are conceptualized as places where activities of limited type and duration were undertaken (e.g. tool repair or primary procurement of plant or animal foods), while quarries are a specific form of lithic scatter focused on the extraction of tool stone from natural outcroppings. Finally, isolated finds are the most functionally ephemeral of the categories, consisting of what in many cases might be simply lost or cached or discarded formal tools or the limited debris from a short-term, highly focused activity (e.g., core preparation).

***Lithic Scatters***

Table 3 summarizes salient information for the seventy lithic scatters in Threemile Gulch, and Map 4 illustrates their spatial distribution. For the Threemile Gulch District, lithic scatters are defined by three intersecting criteria. First, they tend to contain fewer artifacts than other sites in the area. Only six of the seventy lithic scatters listed in Table 3 have more than 400 artifacts, and two thirds of them have less than 100. Average artifact count for this category is 130, compared to 714 for camp sites. Those six sites containing relatively large numbers of artifacts (over 400) are nonetheless designated lithic scatters because of their close fit with the other critical determinants of membership in this category: they have limited variability (and quantity) in tool form and little variation in lithic raw material. All of these assemblages, save one, contain fewer than 5% tools; and in the one instance where a site has 7.1% tools, they are all expedient utilized flakes. On average, lithic scatters contain 4.5% tool forms, an average similar to that for open camps (5%), but their variability in tool form is comparatively limited.

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Moreover, petrified wood is typically the sole or dominant lithic raw material for lithic scatters, and the larger sites are no exception to this profile. In those instances where there is little or no petrified wood in a lithic scatter's assemblage, it is because the debitage is dominated by some other commonly utilized local raw material, such as chert, quartzite, or rhyolite. The two latter raw materials were commonly used by Threemile Gulch's prehistoric residents to fashion heavy duty choppers, quarrying tools, scrapers, and spokeshaves. Such is the case for sites 5PA.2360, which is dominated by quartzite (84% of debitage), and 5PA.3662, which is composed of a single type of locally occurring white chert.

Sites 5PA.3700 and 5PA.3662 are excellent examples of scatters with low raw material and tool type variability. Both locations are defined by the dominant ridges that characterize Threemile Gulch; 5PA.3662 lies off a sloping ridgeline (Illustration 3 and Map 5), while 5PA.3700 is located across the downsloping face of a ridge (Illustration 4 and Map 6). Each consists of a broad scatter of flakes and shatter over a defined, but relatively small area (72.6 m<sup>2</sup> or .017 acres for 5PA.3700 and 7.3 m<sup>2</sup> or .01 acres for 5PA.3662). In each case the lithics are from a single local raw material type, white chert (with red inclusions) for 5PA.3662 and petrified wood for 5PA.3700. Artifact quantity for each site is low (50 lithics were identified at site 5PA.3662 and 32 at 5PA.3700), and artifact diversity is limited. In the case of 5PA.3662, late stage debitage and shatter dominated the assemblage. In addition, three tested nodules were identified, and the only tool forms were five utilized flakes. At 5PA.3700, two cores and a nodule (all with cortex) are among the assemblage, which otherwise consists solely of debitage—the vast majority of which indicates early stage reduction.

The lithic attributes of such scatters thus reveal the imprint of limited and localized activities. Frequently these activities relate to the reduction of petrified wood, as at site 5PA.3010, where the site's contents are dominated by petrified wood nodules and shatter. In other cases, relatively high proportions of utilized flakes and other expedient tool forms in the assemblage, as at 5PA.3699, suggest other types of activities, but these cannot be determined without extended usewear analyses.

Finally, four sites (5PA.2307, 5PA.2334, 5PA.2343, 5PA.2385) have received a secondary designation as open camps. All of them have fewer than 110 artifacts, but relatively high levels of raw material diversity and tool quantity. All also have high tool diversity, containing four or more distinct tool types. These sites retain lithic scatter as their primary designation solely on the basis of site size (i.e., quantity of artifacts). That is, it is difficult to reconcile camp activities with such an ephemeral footprint. Conversely, it is possible to imagine that some of the limited activities typical of lithic scatters might yield high densities of artifactual material, as seems to be the case for the denser sites (5PA.3652, 5PA.3653, 5PA.3686, 5PA.3687, 5PA.3711, and 5PA.3729). Site 5PA.3686, for example, is large in area (3850 m<sup>2</sup> or 0.95 acres) as well as artifact quantity although some portions of the site contain few artifacts (Illustration 5 and Map 7). Closer examination of the site's contents, however, reveals very little raw material diversity; aside from petrified wood, the only raw material type that occurs in any appreciable amount is rhyolite at a mere 3.4% of the entire assemblage. Tool diversity is also low, the only tool forms recorded for the site are utilized flakes, and the assemblage is dominated by petrified wood shatter and early stage reduction (65.2% of total artifact quantity). Located in a nexus of sites on the ridges surrounding persistent place 5PA.3680 (see below), site 5PA.3686 seems best classified as a lithic scatter generated by a limited activity set likely associated with the major site. As always, the

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reality of the archaeological record (and the past human behavior that created it) eludes neat, bounded classification.

**Quarry Sites**

Possibly the most distinctive of the Threemile Gulch site types is petrified wood quarries, whose lithic profile is summarized in Table 4. Although quarry sites can occur in three different contexts—as standalone sites, in association with lithic scatters generated by primary core and nodule reduction, or within the boundaries of larger, more variable camps (see Table 4 and Map 8)—, they can always be identified by the presence of one or more defining characteristics. These include the presence of an exposed log and/or an excavated pit (both associated with an upslope petrified wood scatter) and/or a spatially limited collection of petrified wood nodules. These traits distinguish past human activity from natural processes. Thus, a log or pit without upslope scatter does not qualify as a quarry, because natural freeze/thaw cycles coupled with colluvial processes could create a downslope scatter of shatter and nodules. Based on these criteria South Park Archaeological Project (SPArP) analysts have excluded at least two outcrops of petrified wood logs and nodules in Threemile Gulch from quarry status.

Of the nineteen quarries identified by these characteristics, seven have excavated pits. These pits are uniformly round, with diameters ranging from 1 to 3 meters, depths of 10 to 20 cm, and are associated with logs or log fragments. 5PA.3688, for example, has a small, shallow pit (approximately 1.5m diameter, 10 cm depth), as well as two large log fragments in the pit, and scattered petrified wood debitage up and down-slope from the actual quarry site (Illustration 6 and Map 9). The site is located on a southwestward trending slope below the ridge which forms the western boundary of the Threemile Gulch uplands, and it lies within the district's nexus of camp sites (Illustration 7). A fragmentary quartzite biface (Isolated Find 5PA.3694; Photograph 8) was found 10m northeast of the quarry pit, suggesting the association between these bifaces and the quarrying activities. SPArP analysts believe that quartzite bifaces were used in the quarrying process (Bender, Wilkinson, and Friedman 2008).

Nine quarries consist of exposed logs, but no associated pit, and all exhibit traits that suggest extraction and reduction activities. All five of the camps or persistent places listed in Table 4 (5PA.2331, 5PA.2332, 5PA.3013, 5PA.3033, and 5PA.3680) contain this type of quarry. 5PA.3033 provides a good example of this quarry type. It is an areally large site (2483m<sup>2</sup>, or 0.61 acres), occupying the top of a northwest to southeast trending ridgeline at the northwestern edge of the Threemile Gulch area (Illustration 9 provides a view to the south and east from the top of the site). The quarry portion of the site consists of a pair of shattered logs slightly below the apex of the site (Illustration 10), with a heavy scatter of debitage downslope to the northwest; the density of the debitage ranges from 150 to 200 pieces per square meter. Just east of the petrified wood concentration is a quartzite work station, where six large bifaces were recovered. The remainder of the site consists of a light scatter of lithics, including a Late Prehistoric serrated obsidian projectile point, a large quartzite biface and some burned stone. The distribution of these materials, and the general dimensions of the site, are illustrated in Map 10.

The remaining quarries are characterized by substantial quantities of large cores and/or nodules and associated early stage reduction debitage, all of which suggest the existence of logs on the sites prior to extraction and reduction. The amount of raw material at these sites is such that on-site extraction is much more probable than the material having been moved to the sites from elsewhere. At 5PA.3691,

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there are 12 nodules of petrified wood in a somewhat linear pattern; this site is perhaps the most obvious example of an exposed log that has been reduced to a series of nodules, as illustrated in Illustration 11 and Map 11.

The lithic profiles of those sites that do not occur in the context of larger camp sites are clearly very similar (Table 4), even though they vary considerable in total quantity of artifacts. Most strikingly, they are dominated by petrified wood as their source material. 100% of all the cores that occur on these sites are of petrified wood, and at only two sites is the percentage of debitage not from petrified wood greater than 5%. Both these sites (5PA.2395 and 5PA.3035) have associated lithic scatters and in each case there is a concentration of a single raw material, rhyolite and quartzite respectively, that likely relates to the manufacture of heavy duty implements for quarrying and/or early stage reduction. Another similarity among the sites is the near absence of tool forms. Site 5PA.3035 appears to be the exception to this profile, suggesting that its associated lithic scatter may also contain traces of the immediate use of petrified wood flakes in some other activity. Ground stone hammer and anvil stones also appear at six of these sites. These shared lithic traits are precisely the attribute set that one would anticipate at quarries.

Since the lithic attributes of those quarries contained within base camps are combined with the sites' overall profiles, their individual characteristics are less clearly demarcated in Table 4. It is worth noting, however, that all except 5PA.3033 have very high rates of petrified wood in their debitage and core components. This exception can be accounted for by the occurrence of quartzite biface manufacture at the site.

Finally, there is evidence for the application of heat in the quarrying process at seven of the quarry sites (Table 4). Criteria used to determine the application of heat were developed experimentally by Moore (Moore and Bender 2007) and applied to the quarry sites. It is likely that thermal alteration was used by the prehistoric inhabitants of Threemile Gulch to increase the ease of fracture of an otherwise very resilient raw material.

Quarry sites are widespread and relatively numerous in the Threemile Gulch area, as illustrated by their spatial distribution in Map 8. While we have no means for dating the standalone quarries as well as those in association with lithic scatters and open camps, those quarries that occur in the context of persistent places can be cross-dated to those sites. Since these sites cover the entire Archaic period, there is good reason to conceive of the extractive industry recorded in the quarries as an Archaic period phenomenon that characterizes the Threemile Gulch settlement system.

**Camps**

South Park Archaeology Project crews have recorded twenty-one camps distributed throughout Threemile Gulch (Map 8). They tend to be located along the crest of ridges and at the end of benches that extend out from the major ridge lines, thus providing their occupants rather extensive views of the surrounding terrain. In terms of content, camps are distinct from the other site types in their large artifact inventories, including greater tool frequency and variability, and greater raw material diversity. Yet at the same time, camps share in other Threemile Gulch sites' intensive use of petrified wood as a lithic source material (Table 5).

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Site 5PA.3664 provides an excellent example of a Threemile camp site. It is located in the open setting typical for camps, along the crest of a ridge with artifacts scattered across the slope face leading up to the ridge line (Illustration 12). In terms of its content, the site is in the middle of the assemblage size ranking for camps (14<sup>th</sup> for its 459 artifacts), and its assemblage includes a sizeable number of tools (twenty-two), cores (forty-nine, as well as two split cobbles), and a ground stone tool (one grinding stone). Seven different flaked stone artifact types were identified on the site, including two projectile points that date stylistically to the Late Prehistoric period (Illustration 13). Tool diversity is high on the site; seven different types of tools were recorded at the site, although over a third of the tools (nine out of twenty-two or 41%) were scrapers. Map 12 reveals a consistent distribution of artifacts over the site's surface area (638m<sup>2</sup>), as well as an area characterized by a high concentration of petrified wood. Indeed, this camp site participates in the typical Threemile Gulch pattern of intensive petrified wood use (86% of the debitage and 88% of the cores are of petrified wood), and a cache of petrified wood cores and nodules underscores the centrality of this pattern to the local settlement system (Illustration 14). At the same time, there is a fair amount of raw material diversity in the formal tools recorded at the site (50% of them are from six different raw material types), and jasper, agate, rhyolite, and a variety of cherts and quartzites occur in low frequencies among the debitage.

While site 5PA.3664 might be considered the archetypal camp site, there is considerable variability and complexity in the intersecting dimensions that distinguish this site type. Using a comparison of Tables 3 and 5 as a starting point, it is immediately apparent that size of assemblage is not the definitive criterion for determining camp status, even though it is the prime indicator. There is considerable overlap in the two ranges: N=14 to 889 for lithic scatters and N= 85 to 3999 for camp sites; yet, as Figure 2 shows, the preponderance of lithic scatters contains fewer than 100 artifacts, while the preponderance of camps has more than 700. The overlap in assemblage size is nonetheless considerable, with twenty-nine lithic scatters (43%) falling within the size range of camps. Indeed the largest of the lithic scatters (5PA.3653) would rank 15<sup>th</sup> in size among the twenty-one camps.

Tool quantity (where tools are defined as used and/or formally retouched flakes and cores and quantity is measured by percent of the total assemblage) also introduces considerable complexity in distinguishing between the two site type categories. Here again there is clear overlap between camps and lithic scatters, although Figure 3 reveals that the two site types distribute quite differently over the tool quantity continuum. While lithic scatters tend to distribute normally around an average (mean) of 4.7% tools for the assemblage, camps distribute bimodally around a mean of 5%— their assemblages contain either less than 5% or greater than 10% tools. Direct measures of quantity thus seem to be only rough indicators of site type.

The concern for this analysis then becomes how to characterize more fully the difference between the smallest base camps—as measured by total artifact and/or tool quantity—from lithic scatters. Distinctive qualities of the largest lithic scatters are characterized in the preceding section, and—as suggested above—measures surrounding variability in tool inventory and raw material are dominant considerations. First, variability in these measures is considered for camp sites as a single category, and then this profile is compared to the smaller camp sites.

Variability in tool type can be characterized along several dimensions, and the information recorded in Tables 3 and 5 provide apt initial measures. It is immediately apparent that ground stone tools (hammer and anvil stones, manos, comals, and metates are the most frequent types) appear much

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more frequently in the context of camp sites. Slightly less than a third (28.6%) of the camps sites contain such tool forms, while they occur in only 9% of the lithic scatter assemblages. Moreover, several camps have multiple specimens of these tool forms. Manos, comals, and metates, in particular, are tool forms that occur exclusively in the context of camp sites. A similar profile results from a comparison of cores. No camp lacks cores, while thirteen lithic scatters (19.4%) have none. Median value for cores in lithic scatters is three, but twenty-two for camps. Add to this the data for number of tool types per site and a clear difference in the two categories emerges. As Table 6 indicates, the median value for the number of flaked stone tool types per camp is four; however, the picture for lithic scatters is quite different. Here close to a third (nineteen or 28.4%) of the lithic scatter assemblages have no tools at all, and the maximum value of tool type number for lithic scatters with tools is four, while the median is one (Table 7). Thus on each of these dimensions camp sites evince greater variability in tool form.

Lithic assemblages at camp sites are also more variable in their raw material composition. Almost all Threemile Gulch sites bear the imprint of localized petrified wood extractive activities in the very high percentages of petrified wood debitage recorded in their assemblages. However, at camp sites lithic raw material variability in the tool forms is likely to be greater since the variety of activities carried out at these locales is likely to entail the use of variable tool forms that could have been curated and/or demanded raw materials with qualities not necessarily possessed by the local petrified wood. A simple and direct measure of this variability is to compare the number of raw material types at camps with lithic scatters. Here we find that of the forty-eight lithic scatters with tools, only six sites have more than two types of lithic raw material in the tool forms, and median value for number of tool raw materials per site is one. In comparison, among the twenty-one camps only six sites record two or fewer raw materials within the tool assemblage and median value for tool raw materials is three.

At the same time, the effects of tool (and raw material) curation at camps can be demonstrated through a comparison of petrified wood tool percentage with the petrified wood debitage percentage. If raw materials for tools were specially selected and/or curated (i.e., brought to the site as finished tools or preforms), then we might anticipate lower percentages of petrified wood in the tool assemblage than in the debitage (Kelly 1988). When this comparison is made, we find that among camp sites only five (23.8%) have more petrified wood in the tool assemblage than in the debitage, compared to 50% (twenty-four) of the lithic scatters for this same measure. On average, the tool assemblages at camp sites have 32.5% less petrified wood than do the debitage assemblages. Among the lithic scatters, the same measure is 14.6%.

This profile for tool and raw material variability among camp sites can now be used to distinguish the smaller camps from lithic scatters. Smaller camps sites are defined as those with fewer than 300 artifacts; these are the sites that overlap most significantly with lithic scatters (see Figure 2). This subset constitutes slightly less than half (ten out of twenty-one or 48%) of the full set of camps. In general, these sites distribute broadly along the measures of variability discussed above and thus tend to have the same characteristics as their larger counterparts. For example, their variability in tool form measures higher than that for lithic scatters. The median value for number of tool types per site is three (compared to four for all camps), and the highest six (compared to seven for larger camps). Moreover, the smaller camps also have a tool quantity profile that matches their larger counterparts. Of these ten, three have relatively high percentages (>10% per Figure 3) of tools comparable to other base camps,

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and a fourth contains 7% tools, well above the median (3.1%) for camps, suggesting tool use and discard well within the range for camps.

Raw material variability at smaller camps also yields measures similar to those cited above for all camps. Only two small sites have marginally more petrified wood in their tool assemblages than in the debitage (3.5% and 1.1%), while on average they have 37.6% less petrified wood among tools compared to debitage assemblages.

Thus, assigning sites to camp status involves assessing a complicated mix of variables that characterize such sites in their ideal form: large assemblages involving high rates of tool use and discard, curated tool forms, and raw material variability (Kooyman 2000; Kelly 1988; Parry and Kelly 1987). In other words, this is the type of assemblage that foragers are likely to generate as they settle in a particular spot for a period of time and carry out their routine domestic activities. In Threemile Gulch, this profile is complicated by easy access to an abundant raw material that swamps the raw material variability (Andrefsky 1994).

***Persistent Places***

Fives sites in Threemile Gulch are designated persistent places (Map 8 and Table 8), a concept drawn from landscape archaeology. Persistent places are “places that were repeatedly used during long-term occupations of regions” (Schlanger 1992: 97). These places are characterized by large accumulations of lithic material from non-contemporaneous occupations on a landscape (Zedeño 2008) and are not necessarily congruent with the site concept, which requires boundary definitions. A persistent place is rather a palimpsest created by repeated re-occupation over time, and it is identified on the ground by unusually high accumulations of raw materials at a particular location on the landscape. Two locations in Threemile Gulch are clearly persistent places, and these locations contain five conventionally defined sites (Map 8). The southern persistent place encompasses sites 5PA.2331 and 5PA.2332 (Illustration 15), while the more northerly one contains sites 5PA.3680, 5PA.3695 and 5PA.3696 (Illustration 16).

Individually each of these five sites is an order of magnitude larger than any of the other camps; the smallest assemblage (5PA.3695) contains 411 more artifacts than the largest camp site, while the largest (5PA.3696) has thousands more. But the measure that best captures the distinct quality of these places is the summed artifact quantities for each persistent place: 11,532 surface artifacts in the southern location and 69,407 in the northern. Such large quantities relative to all other sites types are a sure indication of accumulation at these locales in the Threemile Gulch landscape (see Clarkson 2008 for a discussion of the concept of accumulation in landscape archaeology). The northern location seems disproportionately large because it incorporates site 5PA.3696, a location that was in large part created by the primary reduction of quarried petrified wood—as evidenced by high frequencies of early stage debitage, along with massive shatter (in both size and quantity) and low raw material diversity (Bender and Friedman 2008). Such a lithic profile suggests that this location may have incorporated a quarry at one time, but SPARP crews were unable to locate surface indicators of the features used to designate quarries: a worked out log, a concentration of primary nodules or an excavated pit. The lithic profile for 5PA.3695 is very similar, without the unusually high density recorded for 5PA.3696, and—given its proximity to 5PA.3696 (110 m or 365 ft)—it is likely that this site simply records an extension of the latter’s activities in a true palimpsest.

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The other dimension that characterizes persistent places, reoccupation, is also evident at these two locations. Diagnostic and radiocarbon dates at 5PA.2332 and 5PA.2331 indicate an Early Archaic to early Late Archaic occupation sequence in the southern persistent place, whereas diagnostics from 5PA.3680 to the north suggest a Middle/Late Archaic to Late Prehistoric sequence (Tables 1 and 2, Illustrations 17 and 18). While it is tempting to interpret the northern location as the successor to the southern, this is a hypothetical scenario that can only be confirmed through additional excavation, particularly at 5PA.3680.

Since the accumulation of lithics at these two locations spans thousands of years, it is likely that the activities carried out at them shifted across time. Such functional change is characteristic of persistent places (Clarkson 2008), and it is clearly recorded at 5PA.2332, where Early Archaic radiocarbon dates are associated with heat treatment and early stage reduction of petrified wood cores while early Late Archaic dates are associated with overlapping house floors (Map 13; Illustration 19; and Bender 2006, 2009). Without the same level of chronological control, it is impossible to determine shifting functional attributes with any specificity at 5PA.3680. Lack of excavation at this site limits interpretation to patterns in lithic surface distributions. These tell us that both hide scraping and quarry locations are incorporated within the site's boundaries (Map 14; Bender, Wilkinson and Friedman 2008), but we are as yet unable to determine their chronological relation to each other and the other portions of the site.

The lithic profile at 5PA.3680 also encodes enough information to comfortably identify camping activities at this locale, as do the profiles of 5PA.2331 and 5PA.2332. Using the criteria of tool and raw material variability developed to identify the smaller camp sites, it is clear that lithic accumulations in these places are the result of multiple camping episodes. Variable tool types are recorded in the appearance of almost all tool forms known in Threemile Gulch at these locales; two sites contain nine tool types, and the third has seven (Table 9). Moreover, these sites all contain ground stone specimens and large numbers of cores, traits generally characteristic of camp sites.

Raw material variability is also evident at these three sites in that each flaked lithic assemblage contains seven or more different raw material types. Since the median value for raw material types at camps is three, the process of accumulation at the persistent places has led predictably to heightened raw material variation. Interestingly, the disparities between petrified wood in the debitage and tool assemblages do not hold for the persistent places. Rather, the percentage of petrified wood in the debitage assemblage mirrors percentage among the tools rather closely. The largest difference in these categories is at site 5PA.2331, where there is only 6.1% more petrified wood among the debitage, while at 5PA.2332 and 5PA.3680 this difference is 2.3% and -0.1% respectively. This pattern is quite distinct from the camp sites, where this difference averages 32.5% more petrified wood among the debitage. The disparity between camps and persistent places along this measure does not, however, belie the presence of raw material variability and its associated meaning at persistent places. The close match between tool and debitage assemblage is rather more likely the result of repeated reuse of these locations during which discarded raw materials were scavenged and reused, as well as acquired from the adjacent quarry sites. Such a complex process is characteristic of persistent places (Clarkson 2008: 492-3) and is likely to obscure patterns in debitage and tool raw material differences noted for smaller camps.

Finally, the locations of these three places are also typical as camping locales. Each of the locations incorporates a saddle that affords a broad view of surrounding territories (see Illustration 20 for

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example), but a majority of the lithic scatter (and by inference camping activity) lies in the lee of the saddle (see Map 13 for this aspect of 5PA.2332). 5PA.3680, in particular, is nestled in a small bowl (Illustration 21). It is quite likely that the protection, combined with broad view sheds offered at such locations was a factor that encouraged forager groups to reoccupy them.

The five sites defining two discrete locations within Threemile Gulch, thus exhibit the two measures frequently used to illustrate the relationship between space and time at a persistent place: spatial congruency and temporal continuity. "Spatial congruency refers to the spatial displacement observed between occupation events with high spatial superimposition...Temporal continuity refers to the degree to which the same location is used through time and incorporates notions of occupation frequency and duration" (Wandsnider 1992: 259-260). High density and strikingly variable lithic surface distributions at these five sites, along with distinctive activity areas, provide clear evidence of spatial congruency, while chronological markers describe temporal continuity. The persistent places tell a clear story of Archaic foragers repeatedly returning to Threemile Gulch to extract and utilize its lithic resources, possibly extending into the Late Prehistoric period.

**Feature Sites**

Four sites are identified primarily through the appearance of surface features (Table 10 and Map 4). One site, 5PA.3044 has a clearly defined oval, dry-laid wall (Illustration 22, Map 15), placed on a promontory with a breathtaking view and resembles in these attributes a vision quest enclosure (Illustration 23; Bender, Lincoln, and Friedman 2006). The identification of a range of artifacts scattered over the ridge line within approximately 15 meters of the enclosure provides further testament to its cultural origins (Map 16).

The other three sites are much more ambiguous, even though their surface appearance is striking enough to warrant site designation. Only one, 5PA.3048, has an associated lithic scatter (limited to petrified wood shatter and cores) that might confirm cultural origins for this structure. All these sites do share in the attribute of two or more contiguous cells outlined by small boulders of the local volcanic tuff substrate, as typified at site 5PA.3036 (Illustration 24, Map 17). The linear alignment and small dimensions of these cells (2m x 1m is the largest) make it unlikely that they are the outlines of domestic structures; some sort of hunting blind structure seems to conform to this shape most readily. This function seems especially likely given that these structures are in open settings along ridge lines overlooking small valleys or stream cuts.

As a group, these sites record additional prehistoric activity sets carried out in the Threemile Gulch area. Unfortunately none of the sites can be dated, so the activities that they record cannot be tied into any specific set of time-delimited functions. In the context of the other sites recorded for this district, they are nonetheless another dimension of the archaeological manifestations that clearly confirm repeated use of this area by native peoples across millennia.

**Isolated Finds**

There are 323 sites that have been classified as isolated finds (Table 11). Beginning in 2007, field identification of this site type rested on the occurrence of three to ten artifacts within a 10-meter diameter or the presence of a single, isolated formal artifact (Bender, Wilkinson, and Friedman 2008). In earlier field seasons, single informal tools and/or debitage and/or cores were also recorded as isolated finds; this change in recording strategy was initiated to increase the efficiency of SPArP field

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work and to constrain the number of sites that SPARp was reporting in each field season. This correction, of course, affected the distribution of isolated finds reported in Map 3. The northernmost portion of the Threemile Gulch District, the area surveyed in 2007, seems to contain fewer isolated finds, but this differential distribution is largely a result of different field protocols. In fact, hundreds of isolated finds uniformly dot the Threemile District, creating a light scattering of artifactual material across the landscape, and these form the backdrop for the more aggregated materials that have been reported as lithic scatters, quarries, camps, features, and persistent places.

Given their limited size (mean average artifact quantity is two and median is one), it is not surprising that raw material variability within isolated finds is extremely low. Of the 124 sites that contain two or more lithics, seventy-one (57.3%) are composed of a single raw material. In the aggregate, raw material types among the lithic scatters reflect the composition of the larger lithic scatters and base camps. Isolated finds are dominated by petrified wood (69%), followed by various chert types (15%), quartzite (5%), rhyolite (5%), and agate and chalcedony (5%).

While most isolated finds consist of a single artifact, 5PA.3718 typifies a multiple artifact site with limited raw material variability. Eight artifacts were found within a 3m x 11m area, including six quartzite flakes, a core, and a banded chert bifacial core. The chert core was collected and photographed (Illustration 25). The small scatter was found at the top of a ridge to the northwest and overlooking the intermittent stream that forms the Threemile Gulch central axis. More typical of isolated finds are single artifacts, usually of petrified wood, as in site 5PA.3672 (Illustration 26). The location for this site mirrors the former example; it is along a ridge line and at a short distance from other sites, in the open "gulch" and off the ridges, also reflects a common location for isolated finds—at the base of the districts ridge system and therefore between sites that tend to cluster along ridge lines. These two sites thus demonstrate nicely on-site variation in isolated find assemblage size and raw material composition, at the same time illustrating the way in which isolated finds, in aggregate, reflect raw material composition of the larger sites.

Isolated find artifact types also mirror the formal lithic contents of the surrounding sites. Heavy duty rhyolite tools, for example, occur in low frequencies at many camps, and 5PA.3669 reflects this phenomenon. The site consists of a single artifact found at the head of a valley rising to the northwest from the Threemile Gulch intermittent stream; this another typical location for isolated finds, at the base of ridge along which other, larger sites are recorded. The artifact is a large sandstone "spokeshave," so named because of the semicircular indentation along one side (Illustration 27). The actual function of the object is unknown, but evidence of chipping and rounding along the edge of the indentation indicates usewear of cultural origin. Artifacts with this attribute are common at camp sites, although they are not usually as large as this example.

In general, all categories of flaked stone tools used to characterize the other site types appear among the isolated finds, and they occur in roughly the same proportions—with the possible exception of the seven projectile points, which occur relatively more frequently among the isolated finds. Moreover, the three projectile points that are diagnostic types date to the Late PaleoIndian into the Archaic, conforming to the time span established for the other sites.

Hence the spatial distribution and lithic profile of isolated finds is entirely congruent with data drawn from the other sites. This patterning suggests that the isolated finds are simply the ephemeral remains

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of prehistoric activities undertaken in relation to the more concentrated camping and extractive activities recorded in lithic scatters, quarries, camps, and persistent places.

***Contributing Properties***

The distribution and content of 112 sites and 323 isolated finds (all counted as sites for the purpose of this nomination) that have been recorded for the Threemile Gulch Archaeological District together define its boundaries and the prehistoric cultural activities that took place within it. Each of various archaeological resource categories (lithic scatters, quarries, camps, features, persistent places, and isolated finds) that has been identified for the district reveals one or more functional aspects of the successive occupations that took place here, particularly during the Archaic period. Per the discussion above, the definition of these categories emerges from their distinctive aggregate lithic profiles relative to other sites, and the various activity sets that generated each site type can be inferred from its profile. The presence of petrified wood quarries as a site category, together with high percentages of petrified wood debitage and expedient tools in the vast majority of Threemile Gulch site assemblages further argues for consideration of these sites as an aggregated phenomenon (Figure 4). Threemile Gulch thus can be considered an archaeological district because of the spatial continuity and artifactual complementarity of its numerous sites. Since it is the aggregate of Threemile sites that yields its interpretation, all 112 sites and 323 isolated finds reported in Tables 3, 4, 5, 8, 10, and 11 are considered contributing resources, for a total of 435.

***Likely Appearance of Threemile Gulch during the Archaic and Disturbances of its Archaeological Record***

In his survey of Colorado paleoenvironmental research, Doerner concluded that "by the late Holocene (ca.4,500 years ago) broadly modern climatic parameters were established (throughout Colorado), although several less intense cycles of cooling and warming are known to have existed at various times throughout the most recent four millennia" (2002: 24). Hence, essentially modern climatic conditions prevailed in Threemile Gulch from the middle of the Middle Archaic up to the present. For this period, then we can assume an ecosystem broadly similar to the current one, with the proviso that contemporary floral communities are likely slightly more xeric.

Prior to that time, it is difficult to predict what the Threemile climate (and hence ecosystem) may have been like, given the complexity of the Colorado paleoenvironmental record for the early and middle Holocene, the periods of initial occupation in Threemile Gulch. While it is clear that temperatures during this period were warmer than the present; moisture levels may either have been higher than the present, as was the case for central and southwestern Colorado, or they have been lower, as they were in northern Colorado (Doerner 2002:23). This ambiguity can only be resolved through the analysis of paleoenvironmental samples drawn from the South Park basin, and SPArP is in the process of gathering such data. At present, we believe that the Threemile Gulch landscape has changed little since it was occupied during the Archaic period. No historic development in the form of roads or structures has taken place here, and the area has been protected as part of the James Mark Jones State Wildlife Area since 2002 and it has been under state jurisdiction with restricted access for many years prior (Reid DeWalt, Colorado Division of Wildlife, personal communication). The only historic structure standing in the area is a cairn, likely built by the shepherders who worked in the area in the early twentieth century (Illustration 28). While it would be foolish to assert that no artifact collecting has occurred at the sites in Threemile Gulch, there is no evidence that they have been heavily impacted by such activity. For example, no piles of artifacts assembled by collectors have been encountered by

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SPArP survey crews. The relative scarcity of projectile points in the District might suggest collecting activity, although excavations at 5PA.2332 yielded none in excavated deposits—suggesting that the prehistoric occupations in this area might not have resulted in frequent discard of this tool type. In general, lack of direct evidence for historic activity in Threemile Gulch means that the disturbances to its archaeological record have been largely confined to natural processes. Erosional and colluvial action have been the primary agents of disturbance, and their effects have been slight. A comparison of surface to excavated deposits undertaken by Bender in the 2004 and 2006 field seasons supports this conclusion for colluvial processes. Hence all the sites listed in this nomination have been assessed as lying somewhere on the continuum from undisturbed to moderately disturbed, with only two falling into the latter category (5PA.2325 and 5PA.3044).

***Previous Investigations***

Prior to the initiation of the South Park Archaeology Project, very little fieldwork had been accomplished in South Park, and none had been undertaken in Threemile Gulch. Since Threemile Gulch was also never a site for historic settlement, the most information that we could glean about this period was through inference from secondary sources, such as Simmons' *Bayou Salado*.

Beginning in 2001, SPArP crews (composed of SPArP personnel and volunteers) have worked every summer in the Gulch. Moreover, in 2004, 2006, and 2009 students from the Skidmore College field school joined the investigations, their efforts concentrating mainly on excavations at 5PA.2332. The results of each field season have been described in annual reports to the Colorado SHPO (see bibliography). Through these efforts, all 7.25 km<sup>2</sup> (1791 acres) of the Threemile Gulch have been investigated through pedestrian survey. The initial purpose of this survey was to generate an understanding of the temporal and spatial distribution of archaeological resources in the area. As our understanding of the area's archaeological sharpened, special attention was directed at locating and describing the area's quarry sites. Field protocol for this survey dictated minimal collection. In the early years, raw material and artifactual type specimens were collected, and formal tool types have been consistently collected over the entire period. All identified sites were mapped, initially using compass and tape measure, along with GPS locational information. With the increasing sophistication and accessibility of the latter technology, mapping was done mainly with GPS beginning in 2005.

In SPArP's first season in Threemile Gulch, 5PA.2332 (in one of the district's persistent places) was immediately recognized as an unusually large and dense surface site (Friedman, Lincoln, and Tigner 2002). Field activities in subsequent field seasons were then directed towards gathering data that might allow inference of the range of prehistoric activities that might have generated this accumulation. Systematic surface collection was undertaken in 2002 and 2004, and subsurface testing followed the surface collection in 2004 (Friedman, Lincoln and Bender 2005). This initial excavation yielded a date of 5730 +/-120 RCYBP (Beta-179271) on culturally derived charcoal and revealed a strong correlation between surface and subsurface deposits, suggesting limited effects of colluvial processes on surface artifact distributions.

Block excavations were then conducted in 2006 with the aim of providing a broader context for the initial radiocarbon date at 5PA.2332 as well as for the features identified in 2004 in low density portions of the site. To address these questions, two areas of the site, Block I and Block II, were excavated (Bender 2007 and Map 13). The primary goal for Block I (12 m<sup>2</sup>) was to expand test excavations begun in 2004 to define more fully the hearth/tool production feature identified in 2004. Additional

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datable material was uncovered in this feature that yielded a date of 5860 +/-20 RCYBP (INSTAAR-14801) and confirmed the earlier Beta date for this feature. The goal for the Block II excavations (18 m<sup>2</sup>) was to expand the excavation of domestic/house floors originally identified in 2004. At least four more stratified floors were identified, and charcoal fragments taken from one of the more recent floors was dated to 2795 ± 15 RCYBP (INSTAAR – 14802). These dates placed the earliest occupation of the site in the Early Archaic time period with site reoccupation into later time periods.

The aim of the 2009 excavation was to expand our understanding of the house floor area of 5PA.2332 (Bender 2009). Specifically, two goals directed the season's work: excavate enough of the perimeter of at least one house floor to allow reconstruction of original dwelling shape and size, and retrieve datable charcoal from one of the lower house floors to ascertain the time period over which dwellings were constructed at the site. Both of these goals were met. Block excavation of 24 m<sup>2</sup> allowed us to further delineate the outlines of at least five house floors, and one of these, Feature 2 was excavated to the point that we can project a roughly oval plan that was 2.0-3.0 meters in its widest aspect. Moreover, charcoal was retrieved from a burned postmold associated with Feature 2, which lies just above the lowest excavated floor, 2A, and at least two floors below the feature dated to 2795 ± 15 RCYBP in 2006. The charcoal sample was submitted to Beta Analytic for AMS dating, and the resultant 14C assay of 3080± indicated that the dwellings in this area of the site were constructed over a relatively limited time period spanning the Middle to Late Archaic periods. With the completion of this project, the first securely dated multi-component site containing architectural features was documented for South Park.

This nomination is hence the culmination of ten consecutive field seasons in Threemile Gulch. The records generated in this time period provide broad documentation for a hitherto unknown repeated prehistoric occupation in South Park (Gilmore et al. 1999).

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**SIGNIFICANCE**

The Threemile Gulch Prehistoric Archaeological District is eligible for the National Register under Criterion D in the areas of industry and prehistoric archaeology, exploration/settlement, and social history at the state level of significance from 7500 BP to 1540 AD. The district has yielded, and has the potential to continue to yield, information important to our understanding of prehistory. Additionally the property is eligible under Criterion A in the area of Industry as the landscape of the district is able to visibly convey a unique manifestation of petrified wood quarrying, lithic reduction, and use of Archaic Period peoples in the South Park region. Over the course of ten years, the South Park Archaeology Project has gathered data on 435 sites distributed over the 7.25 km<sup>2</sup> contained within the district's boundaries. Prior to this fieldwork, very little was known about South Park's archaeological resources, and nothing in the public record described the presence of archaeological sites in Threemile Gulch. The density of archaeological sites recorded through the recent fieldwork clearly reveals repeated re-occupation by prehistoric people, including extractive activities that resulted in prevalent petrified wood quarry sites, as well as wide dispersal of petrified wood shatter, cores, debitage, and tool forms in other sites (Map 18). Indeed, it is nearly impossible to walk any distance at all along Threemile's hills and ridges without encountering lithic remains on their surfaces. At some points, artifacts appear sparse and scattered and at others they are very dense. Because of this archaeological patterning, Threemile Gulch can be envisioned as a lithic landscape, a land surface that is virtually draped in lithic materials and that records consistent extraction and use of petrified wood across millennia, particularly during the Archaic.

***Level of Significance***

The Threemile Gulch archaeological district is significant at the state level due to its location within the Foothills-Mountain transition zone between the Great Plains and the Rocky Mountains. The region of South Park and the adjacent Palmer Divide played an important role in the areas of prehistoric lithic procurement and migration, as described in the following sections. The overall regional context for this prehistory is provided by Gilmore and others (1999).

***Industry***

The Threemile Gulch area is able to convey the unique qualities of specific industry located on a prehistoric landscape. With the exception of excavated materials from site 5PA.2332, all the data presented in this document are materials that appear on the surface of eroded landforms. They are thus highly visible readily able to convey the unique qualities of the lithic industry undertaken here by Archaic people. Quarry sites, for example, appear as broken up petrified wood logs or dug-out pits surrounded by hundreds of pieces of petrified wood debris generated by the removal of the low quality matrix within which the higher quality tool stone appears. At the same time, the surfaces of related camp sites are littered with the debris from later stage knapping of these higher quality petrified woods, thus recording the fashioning of cores extracted from the quarries into useful implements. Similarly, high frequencies of petrified wood among the isolated finds that dot the Threemile landscape testify to the importance of this industry to the lifeway of the prehistoric people who settled here.

Threemile Gulch has thus yielded key information in the area of industry, including the extraction, processing and use of petrified wood throughout the Archaic period. Threemile Gulch is one of five

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areas within Colorado that has yielded archaeological resources with high concentrations of petrified wood (Map 19). Of these five, only the well known Palmer Divide area records "hot spots" with petrified wood sources at higher densities than Threemile Gulch. Thus these two relatively proximate areas in particular reveal that the acquisition of petrified wood was an important element in prehistoric subsistence and settlement strategies in Colorado. Extensive recent work in the Palmer Divide area (Gantt et. al. 2007; Kalasz et al. 2003 and 2008) has clearly recorded the presence of large base camps occupied throughout the Archaic period at which heat treatment (with the exception of East Plum Creek) and early stage reduction took place, along with extensive use of petrified wood for expedient tool manufacture. Re-occupation and extensive lithic accumulations in each locale suggest that they functioned as persistent places similar to the two already described for Threemile Gulch. Moreover, there is broad contemporaneity in these occupations of Threemile Gulch and Palmer Divide (Table 12). The more recent radiocarbon dates at 5PA.2332 overlap with the Oeškeso site's late Middle Archaic component (MA2 (3551 – 3081 B.P.)) (Gantt 2007), and Oeškeso's sole Early Archaic date of 5730 +/- 80 B.P. (Gantt 2007: 458) is directly contemporaneous with one of 5PA.2332's Early Archaic dates (5730 +/- 120 BP). We thus have good evidence that these industries were active at the same time in prehistory. The unique contribution of Threemile Gulch is that it imbeds the archaeological imprints of these activities in a fully explored landscape, rather than in site specific investigations.

In Threemile Gulch we can trace the various modes for extracting petrified wood, from excavating pits to reducing logs that were exposed on the surface. SPArP has also determined that heat treatment was used as an extractive technique at nine quarry sites (Bender, Wilkinson, and Freidman 2008). It is in Threemile Gulch that we also have evidence of quartzite bifaces being manufactured and used to extract the petrified wood from logs (ibid.), the clearest example being at site 5PA.3033 (Friedman, Bender, and Lincoln 2005b). Moreover, the content of the non-quarry sites is overwhelmingly composed of petrified wood, and site data record how petrified wood was reduced and utilized by prehistoric populations—particularly at 5PA.2332, where surface collections underwent systematic laboratory analysis. In addition to heat treatment to enhance the petrified wood's knappability, bipolar reduction is a common feature of the Threemile Gulch lithic assemblages, suggesting that petrified wood in Threemile Gulch required special techniques to make it useful for stone tool manufacture (Bender, Friedman, and Wilkinson 2005; Moore and Bender 2007). That petrified wood tools occur almost entirely as expedient forms is fully consistent with what we know about how foragers tend to process locally abundant raw materials (Andrefsky 1994). Threemile Gulch's lithic landscape thus records in unusual relief the articulation of the various techniques employed to extract, process, and use petrified wood to sustain the lifeways of the area's prehistoric populations. Herein lays a major portion of the proposed District's importance for Colorado's prehistory.

Even with the detailed accounting that we have been able to compile for Threemile Gulch's evidence of archaeological resources, there are still outstanding research questions pertinent to its extractive industry:

- Can we use as yet unexplored chronometric techniques, such as thermoluminescence dating to associate the quarries with the larger camp sites and persistent places more directly?
- What is the relationship between the parallel lithic industries in Threemile Gulch and the Palmer Divide?
- Can we develop standards for assessing the quality of petrified wood as a lithic raw material?

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- Can techniques for sourcing petrified wood be pursued so that we can determine how and if the better quality petrified woods were transported out of the district? (Simmons et al. 2005)

***Exploration/Settlement and Social History***

The Threemile Gulch Archaeological District has the potential to yield information, as well, in the areas of exploration/settlement and social history of the prehistoric people who inhabited the region possibly as early as 10,000 years ago through the Archaic and perhaps as recently as the sixteenth century. Its lithic landscape suggests that people were drawn into Threemile Gulch by its abundant tool stone sources and that they camped here while engaging in extractive activities. Readily available water sources, in addition to herds of grazing animals and small game—as well as a limited range of plant foods—likely sustained them while in residence, though no direct evidence of food resources, in the form of bone or macrofloral remains, has been retrieved at any site in the district. Threemile's hilly landscape would also have protected its occupants from the often harsh prevailing winds in South Park, and it would have offered them broad views of approaching game and human groups, as the view from persistent place site 5PA.2332 depicts (Illustration 20). Prior to SPARP's research, none of this information was known to Colorado archaeologists; thus this nomination consolidates a body of work that reveals new information about Colorado's prehistory.

This nomination posits that, given the current state of data available for Threemile Gulch, the most effective way of understanding the sociocultural processes that account for its exploration and settlement is through its lithic landscape. We hypothesize that the extractive technology focused on petrified wood, along with geographical proximity to the Palmer Divide and broadly contemporary occupations (Table 12), suggests strong connections between the two areas and possibly the same inhabitants in the two areas. If the latter is the case, then it is likely that the Threemile Gulch residents moved seasonally into South Park through what is today's Wilkerson Pass, located 23 km (14.3 mi) east southeast of the Gulch and in a direct line to the Palmer Divide. In other words, we are arguing that extractive technologies are the fingerprint of a sociocultural identity that first expresses itself in the Late PaleoIndian, and is clearly evident throughout the following Archaic periods. While the transhumant pattern hypothesized here coincides well with Benedict's two-draught Altithermal model (1979), its chronology does not. Available data from Threemile Gulch (Figure 1, Tables 1 and 2) suggest a persistent settlement that began in the Late PaleoIndian and continued throughout the Archaic and well into the Late Prehistoric period. These dates extend well beyond Benedict's hypothesized drought-induced dislocation of Plains populations into the eastern slope Rocky Mountains ca. 7000-6500 BP and again ca. 6000-5500BP.

Note that the time period encompassed by the Threemile Gulch settlements is, rather, coeval with Black's Mountain Tradition (1991); and certain elements in the 5PA.2332 assemblage seem to reflect this tradition. For example, split cobble reduction of chert nodules found in the local gravels recurs regularly, if infrequently at camp sites, and many Threemile Gulch projectile point styles are among those listed for the Mountain Tradition (e.g., Magic Mountain and Elko series, which resemble Cassell's (1997: 113) Uncompahgre points). Finally, architectural remains have been found at site 5PA.2332, although no direct evidence of mud-and-stick architecture was associated with the postmolds and compact floors (Bender 2009). Of course the relationship hypothesized here with Palmer Divide sites embraces a transhumant pattern that is at odds with that proposed by Black, since it suggests a transhumant pattern from lower elevations into the mountains in lieu of the intramontane seasonal

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movements hypothesized by Black (1991: 4-5) Of course, if Black extends his his "foot hill zone" into the Palmer Divide area then the conflict dissolves. However one resolves these definitional issues, the data presented here argue for a more flexible approach to mapping the seasonal rounds of mountain-dwelling hunters and gatherers, one that accommodates both intramontane movements as well as transhumance from lower elevations (cf. Larson 1997).

Archaeologists have long used the distribution of distinctive raw materials to trace the movements of human populations in prehistory (Clarkson 2009; Close 2000; Jones et al. 2003) and here we take that inference one step further, suggesting that there is an association between lithic raw material and ethnic identity (see Rayne 1998 for a parallel argument in the Front Range, Paton 1994 for an ethnographic analogy, and Jones 1997 for theoretical grounding). This analysis follows the archaeological convention of defining ethnic identity as "that aspect of a person's self-conceptualization that results in identification with a broader group in opposition to others on the basis of perceived cultural differentiation and/or common descent" (Jones 1997, xiii).

Comparison of the Threemile Gulch lithic assemblages with others in South Park is at the heart of this argument. In no other area of the Park do we find lithic assemblages that are similarly dominated by petrified wood. For example, the Tomahawk State Wildlife Area lies just 6.65 km (4.23 mi) to the west of Threemile Gulch, yet Black (2004) reports that petrified wood artifacts account for only 0.2% of the raw material in assemblages (eighty-seven sites and twenty-one isolated finds) documented in his two year survey of the area. Similarly, Larmore and Gilmore (2006: 11-12) report a preponderance of chert in the Columbine Ranch assemblage, 33.3 km (20.7 mi) to the north, although the authors are as yet unsure of their raw material designations. Subsequent SPArP work at Columbine Ranch does, however, confirm Larmore and Gilmore's initial findings (Lincoln et al. 2003). In addition, SPArP's investigations at the Buffalo Peaks and Salt Works Ranches, 9.9 km and 12.4 km (6.2 and 12.4 mi) to the east and southeast respectively, indicate very low percentages of petrified wood (2.3% for Buffalo Peaks and less than 0.1% for Salt Works) among the lithic assemblages in these locales (Friedman and Bender 2008, Bender n.d.). Finally, a review of U.S. Forest Service site files has revealed that almost no petrified wood is reported for the Pony Park assemblages 2 km (14.9 mi) to the west. Not surprisingly, since a large quarry for Trout Creek chert has been identified in Trout Creek Pass at the southwest corner of the Park (Chambellan et al. 1984), this well known raw material replaces petrified wood as a major tool stone in lithic assemblages as one moves south and west in South Park. Moreover, Kevin Black has identified several chert outcroppings with virtually identical macroscopic traits in the area south of Hartsel (Black, personal communication), increasing the likelihood that these localized resources replaced petrified wood in the southern reaches of the Park (see Map 18 for relative locations of these sites).

Petrified wood extraction, reduction, and use are thus a highly localized phenomenon; indeed Threemile Gulch's lithic profile appears to be almost anomalous in the broader South Park context. At the same time, Threemile Gulch's persistent places seem to parallel well recorded, major sites on the Palmer Divide in both chronology and lithic profile, and their context reveals a recurrent, articulated settlement system. Assuming that extractive technologies are part of the cultural nexus in which prehistoric people lived, we suggest that the Threemile Gulch landscape represents a distinct, culturally bounded ethnic group within the basin and that this group may have moved into South Park from the Palmer Divide in a seasonally transhumant pattern.

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These interpretations of the Threemile Gulch district rest on solid survey data, gathered through intensive field work, and they raise a series of questions that might be profitably pursued in future research:

- During what season was Threemile Gulch occupied? The summer months seem a logical inference, given the area's prevailing climate, but there is as yet no direct data to corroborate this.
- What were the subsistence activities that sustained the district's inhabitants?
- What was the effect of the altithermal on local ecosystems and lifeways?
- What is the relationship between the two persistent places? Is one simply the chronological successor of the other or do they record broader sociocultural changes?
- How does the district's exploration/settlement system expand our understanding of the Mountain Tradition?
- If the Threemile Gulch occupation represents a distinct ethnic group in South Park, what was the character of its interactions with South Park's other prehistoric inhabitants?
- Can we use source or other pertinent information to track the movements of Threemile Gulch's prehistoric residents into adjacent territories and/or to trace their exchange networks?
- How can we determine the sociocultural relationship between the Threemile Gulch and Palmer Divide prehistoric populations?
- Can we use source or other pertinent information to track the movements of Threemile Gulch's prehistoric residents into adjacent territories and/or to trace their exchange networks?
- Is it possible to develop a widely shared protocol for separating highly silicified petrified woods from jasper? One that would enable field crews to securely and consistently categorize lithic raw materials throughout South Park and avoid the ambiguity expressed in Larmore and Gilmore (2006)?

These questions point to future directions for field research and suggest that excavation at site 5PA.3680, at the center of Threemile's northern persistent place, is a reasonable next step for Threemile research. They also suggest that efforts to expand our knowledge of the extent and variety of other prehistoric occupations in South Park are critical to understanding this complex landscape.

The significance of the Threemile Gulch Prehistoric Archaeological District should now be apparent. It contains a minimally disturbed and distinctive record of human settlement in a definitive landscape, a record that stretches for millennia and begins in the Late PaleoIndian period. Occupational intensity in the district has led to high densities of archaeological resources, which combine to reveal the outline of an exploration/settlement system centered on the extraction, reduction and use of locally available petrified wood. The uniqueness of Threemile's archaeological resources relative to other locales within South Park suggest the district's inhabitants had a distinct ethnic identity that was more closely aligned with occupations on the Palmer Divide, at the edge of the foothills to the east of this mountainous precinct, than with other contemporaneous occupations in the basin.

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**GEOGRAPHICAL DATA**

**VERBAL BOUNDARY DESCRIPTION**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**BOUNDARY JUSTIFICATION**

[REDACTED]

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**PHOTOGRAPH LOG**

The following information pertains to photographs 1, 2 and 4-31:

Name of Property: Threemile Gulch  
 Vicinity: XXXXXXXXXX  
 County: Park  
 State: Colorado  
 Location of Original Digital Files: Fairplay Archaeology Center, 400 Front St., Fairplay, CO  
 80440

Photograph Number	Date	Photographer	Photograph Information
0001	June, 2008	Richard Wilkinson	Threemile Gulch landscape, facing south
0002	June, 2006	Richard Wilkinson	Stratigraphic profile in arroyo, facing south
0003	June, 2008	Susan Bender	Site 5PA.3662 facing west
0004	June, 2008	Richard Wilkinson	Site 5PA.3700 facing southwest
0005	June, 2007	Susan Bender	Site 5PA.3686, facing northeast
0006	June, 2007	Richard Wilkinson	Site 5PA.3688 with quarry pit and petrified wood logs, facing north
0007	June, 2007	Richard Wilkinson	Site 5PA.3688 facing north
0008	June, 2007	Richard Wilkinson	Quartzite biface from site 5PA.394
0009	July, 2005	Richard Wilkinson	Apex of site 5PA.3033, facing east
0010	July, 2005	Richard Wilkinson	Site 5PA.3033 petrified wood quarry, facing northeast
0011	June, 2007	Richard Wilkinson	Site 5PA.369 facing west
0012	June, 2007	Susan Bender	Site 5PA.3664 facing south
0013	June, 2007	Richard Wilkinson	Late Prehistoric projectile points from site 5PA.3664
0014	June, 2007	Susan Bender	Petrified wood cache at site 5PA.3664
0015	June, 2004	Richard Wilkinson	Long range view of sites 5PA.2331 and 5PA.2332 facing southeast
0016	June, 2007	Richard Wilkinson	Sites 5PA.3680, -3695 and -3696, facing south
0017	June, 2007	Richard Wilkinson	Late Archaic projectile point from site 5PA.3680
0018	June, 2007	Richard Wilkinson	Late Prehistoric projectile points from site 5PA.3680
0019	June, 2006	Richard Wilkinson	Site 5PA.2332 facing northwest
0020	June, 2006	Susan Bender	Landscape view from site 5PA.2332, facing southwest
0021	June, 2007	Richard Wilkinson	View of site 5PA.3680, facing south
0022	July, 2005	Susan Bender	Site 5PA.3044, vision quest enclosure, facing northwest
0023	July, 2005	Susan Bender	View of site 5PA.3044, facing northwest

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0024	July, 2004	Richard Wilkinson	Stone structure at site 5PA.3036, facing north
0025	June, 2008	Richard Wilkinson	Banded chert core, isolated find 5PA.3718
0026	June, 2007	Richard Wilkinson	Petrified wood scraper, isolated find 5PA.3672
0027	June, 2007	Richard Wilkinson	Rhyolite artifact, isolated find 5PA.3669
0028	June, 2007	Richard Wilkinson	Stone cairn at site 5PA.3695, facing west

**MAP LOG**

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Map 12	Sketch map of site 5PA.3691, 2007
Map 13	Topographic map of 5PA.2332 with excavation areas, 2006
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Map 16	Sketch map of site 5PA.3044, 2005
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Illustration Number	Information
0001	Threemile Gulch landscape, facing south
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0003	Site 5PA.3662 with boundary outlined, facing west
0004	Site 5PA.3700 with site boundary, facing southwest
0005	Site 5PA.3686, facing northeast
0006	Site 5PA.3688 with quarry pit and petrified wood logs, facing north
0007	Site 5PA.3688 showing site outline and quarry pit location, facing north
0008	Quartzite biface from site 5PA.394
0009	Apex of site 5PA.3033, facing east

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- 0010 Site 5PA.3033 petrified wood quarry, facing northeast
- 0011 Site 5PA.3691 distribution of petrified wood nodules, facing west
- 0012 Site 5PA.3664 with site outline, facing south
- 0013 Late Prehistoric projectile points from site 5PA.3664
- 0014 Petrified wood cache at site 5PA.3664
- 0015 Long view of sites 5PA.2331 and 5PA.2332 (shaded ellipses), facing southeast
- 0016 Sites 5PA.3680, -3695 and -3696, facing south
- 0017 Late Archaic projectile point from site 5PA.3680
- 0018 Late Prehistoric projectile points from site 5PA.3680
- 0019 Site 5PA.2332 excavation (Block 1 on left, Block 2 on right), facing northwest
- 0020 Landscape view from site 5PA.2332, facing southwest
- 0021 View of site 5PA.3680, facing south
- 0022 Site 5PA.3044, vision quest enclosure, facing northwest
- 0023 View of site 5PA.3044, facing northwest
- 0024 Stone structure at site 5PA.3036, facing north
- 0025 Banded chert core, isolated find 5PA.3718
- 0026 Petrified wood scraper, isolated find 5PA.3672
- 0027 Rhyolite artifact, isolated find 5PA.3669
- 0028 Stone cairn at site 5PA.3695, facing west

**FIGURE LOG**

Figure Number	Information
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Figure 2	Assemblage size distribution for camps and lithic scatters
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**TABLE LOG**

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Table 10	Lithic profiles for Threemile Gulch feature sites
Table 11	Lithic profiles for Threemile Gulch Isolated Finds
Table 12	Chronological comparison of Palmer Divide and Threemile Gulch sites

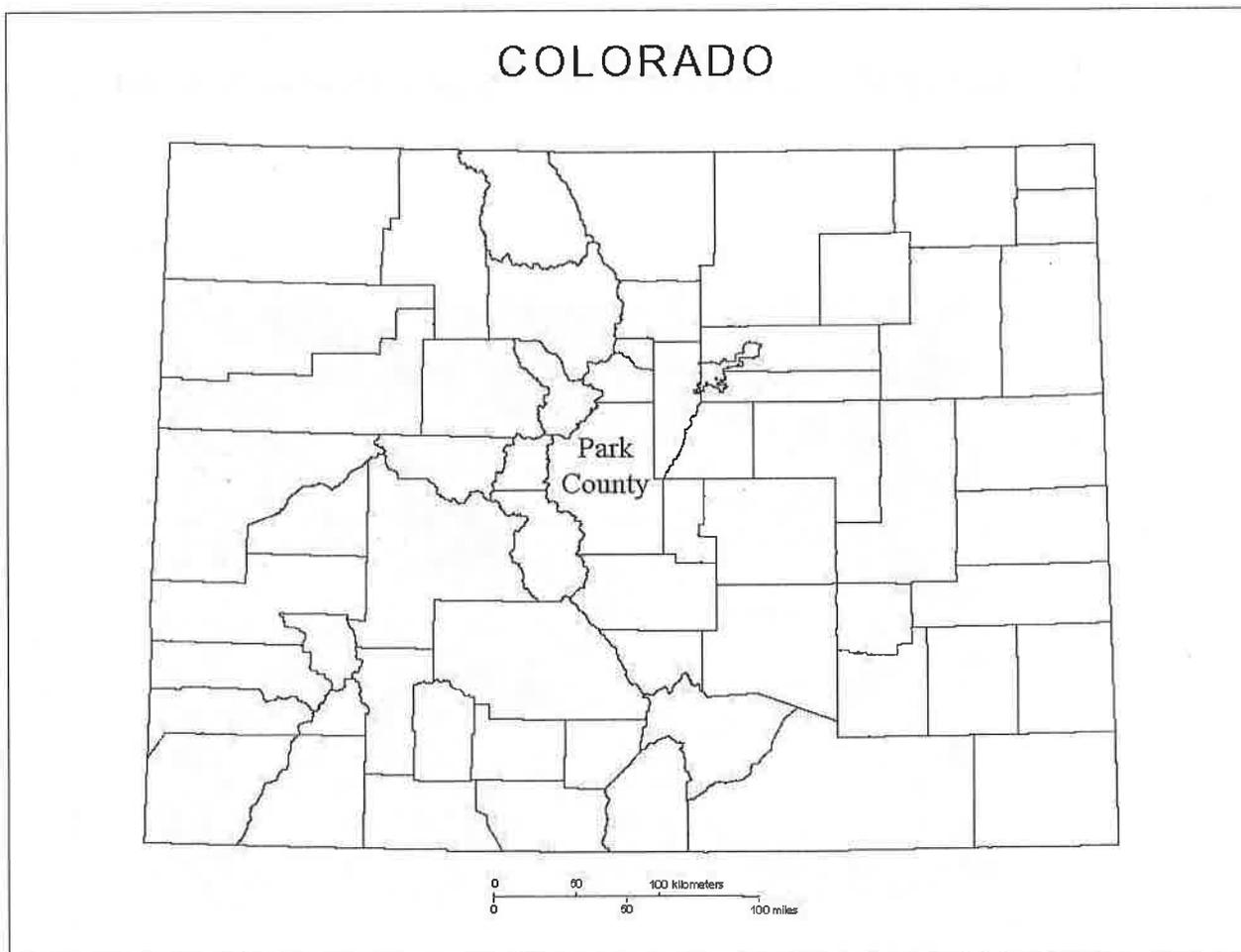
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**MAPS**

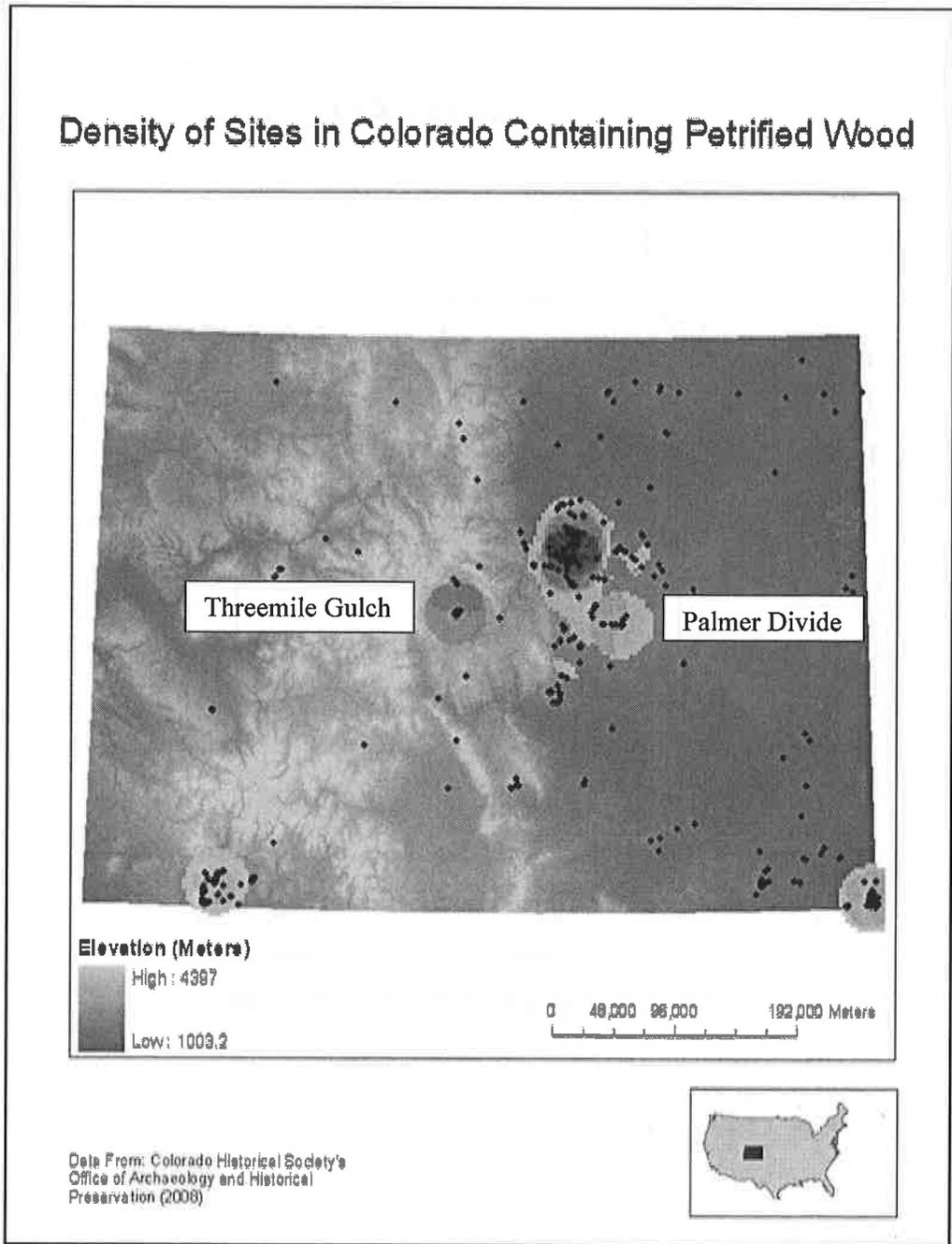


**M1- Location of Park County in Colorado**

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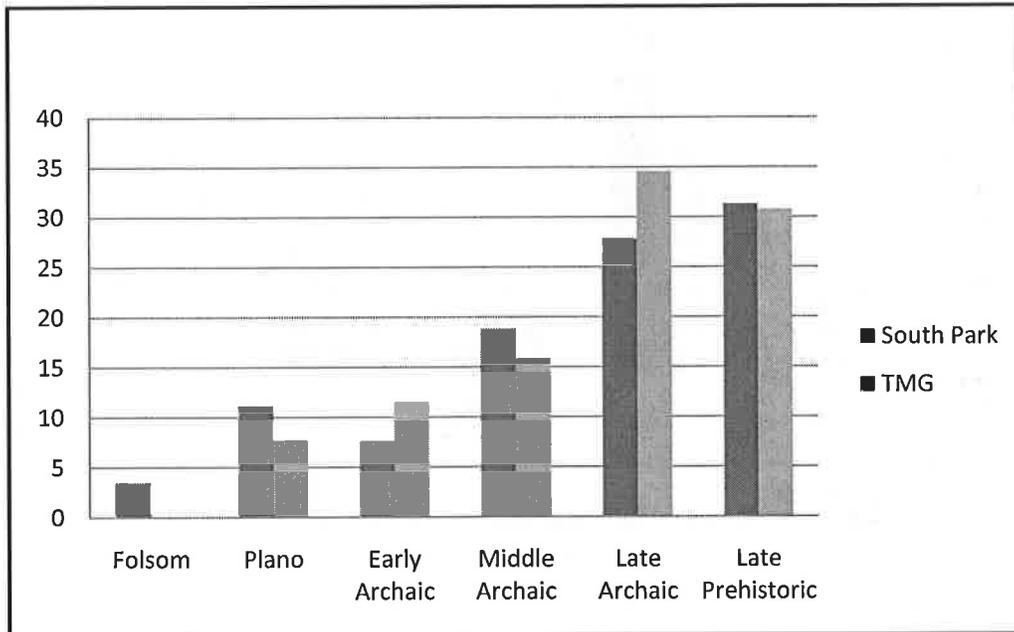
M19- Density distribution of Colorado petrified wood sites (Wolin, 2010)

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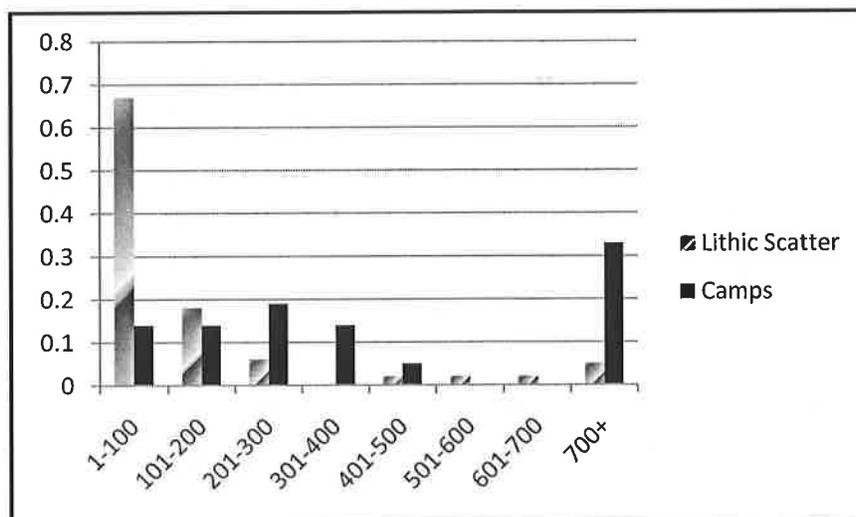
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**FIGURES**



**F1-** Time period component percentages, Threemile Gulch and South Park



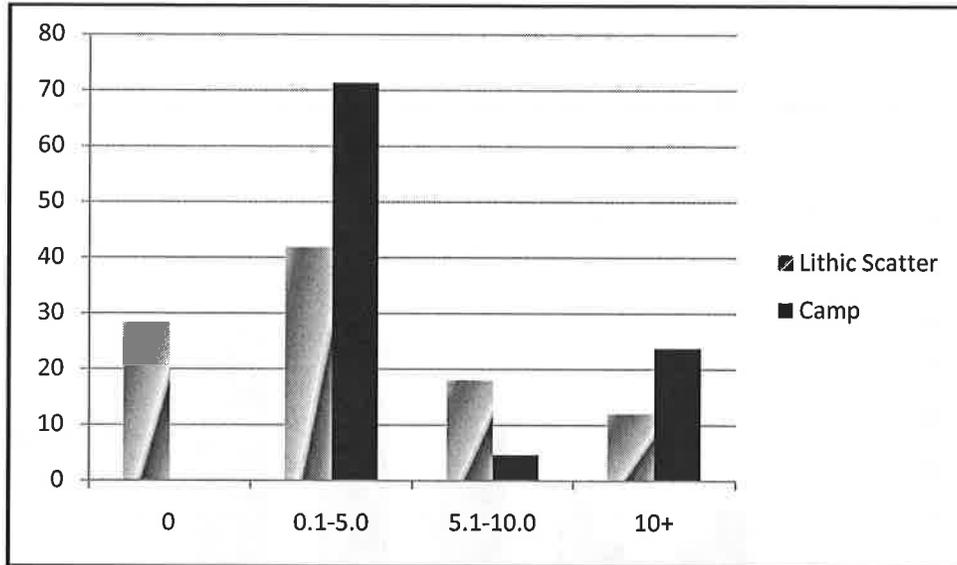
**F2-** Assemblage size distribution for camps and lithic scatters

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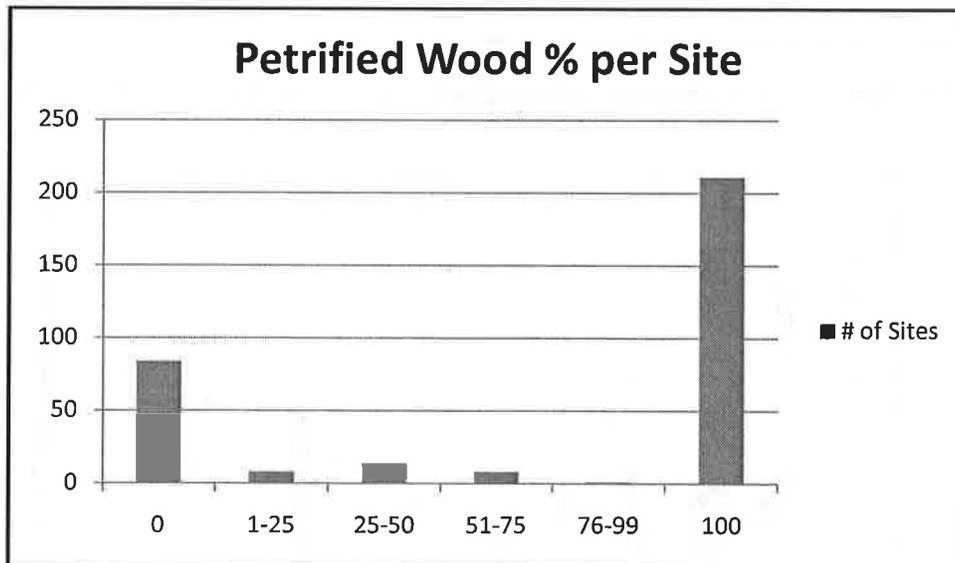
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F3- Distribution of tool quantity for camps and lithic scatters



F4- Sites by petrified wood percentage

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**TABLES (labels are above table)**

Key to Abbreviations used in Tables

Smith Num	= Smithsonian Institute site designation
Site Type 2	= Secondary site type
Tools	= flaked stone tools (excludes cores and ground stone)
Tot Deb	= Total quantity of debitage at the site
Total Lithic	= Total quantity of artifactual material at site
Pt Wd Deb	= Petrified wood debitage
% Pet Wd Deb	= Percent of all debitage that is petrified wood
Pt Wd Cores	= Petrified wood cores
% Pt Wd Cores	= Percent of all cores that are petrified wood
% Tools (no cores)	= Percent of tools (excluding cores) in all lithics
Type #	= Number of tool types at each site
Diag	= Diagnostic tool
Deb	= Debitage count
Raw Mat #	= Number of types of raw material

Site Types

LithQ	= Lithic Quarry
LithS	= Lithic Scatter
Pplace	= Persistent Place
OpCa	= Open Camp
Fea	= Feature
Hblind	= Hunting blind
Vision Qst	= Vision Quest

Art type = artifact type:

Bif	= biface
Bifknf	= bifacial knife
Chppr	= chopper
Grndstn	= ground stone
Hmrstn	= hammerstone
Mano	= ground stone pestle
Projpt	= projectile point
Retflk	= retouched flake
Scrpr	= scraper
Spokshv	= spokeshave
Unif	= unifacially worked flake
Utilflk	= utilized flake

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**T1- Threemile Gulch diagnostics by time period**

Stage	Period	Dates	TMG Sites with Period diagnostic
<b>PaleoIndian</b>	Clovis	12,000-11,000 B.P.	
	Folsom	11,000-10,000 B.P.	
	Plano	10,000-7,500 B.P.	5PA.1957, 5PA.2980
<b>Archaic</b>	Early Archaic	7,500-5,000 B.P.	5PA.2295, 5PA.2308, 5PA. 2331
	Middle Archaic	5,000-3,000 B.P.	5PA.2307, 5PA.2336, 5PA.3003, 5PA.3680
	Late Archaic	3,000 B.P.- A.D. 150	5PA.1937, 5PA.2334, 5PA.2343*, 5PA.2386, 5PA.2388, 5PA.2389, 5PA.2390, 5PA.3680, 5PA.3713*
<b>Late Prehistoric</b>		A.D. 150-1540	5PA.2343, 5PA.2388, 5PA.2395, 5PA.2998, 5PA.3005, 5PA.3664, 5PA.3680, 5PA.3713

**T2- Radiometric dates from the occupational sequence at 5PA.2332**

Laboratory-Number	Radiocarbon Years	Calibrated
Beta-179271	5730+/- 120 BP	Cal BP 6800-6300
CURL-8839	5860 ±20 BP	Cal BP 6666 - 6718
CURL-8840	2795 ±15 BP	Cal BP 2877 - 2926
Beta-268697	3040 +/- 40 BP	Cal BP 3380 to 3210

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**T12- Chronological comparison of Palmer Divide and Threemile Gulch sites**

	<b>Late Paleo- indian/ Early Archaic</b>	<b>Early Archaic</b>	<b>Middle Archaic</b>	<b>Middle/Late Archaic</b>	<b>Early Ceramic</b>	<b>Late Prehistoric</b>
<b>Ridgegate</b>	Field Camp/ Seasonal Occupation					Field Camp and Residential Site
<b>East Plum Creek</b>			Seasonal Camp		Seasonal Camp	
<b>Oeškeso</b>		Possible Camp	Camp/ Lithic Field Camp		Camp/Lithic Field Camp	
<b>5PA.2332</b>		Camp/ Lithic Field Camp		Residential Base Camp		
<b>Threemile Gulch</b>	Camp Isolated Find	Camps	Camps/Lithic Field Camp/ Scatter/ Isolated Find	Camps/Lithic Field camp/Scatter/ Isolated find		Camps/Lithic Field Camp/ Scatter/ Quarry/ Isolated Find

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Late Prehistoric Period Projectile Points

