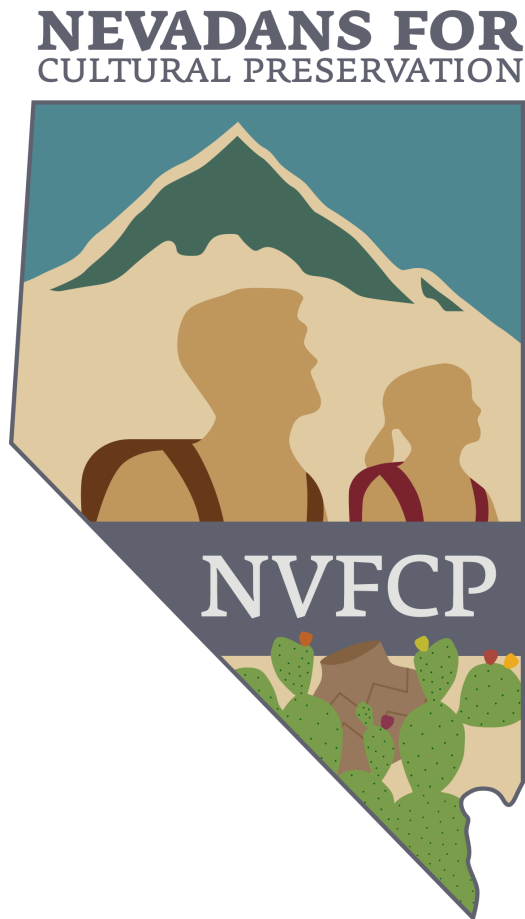


Site Condition Assessment Training



NVFCP Site Condition Assessment Training

Nevadans for Cultural Preservation (NVFCP) has partnered with the Nevada Site Stewardship Program (NSSP) to provide Site Condition Assessment training for qualified site stewards. This training is intended to provide volunteers with the information needed to **assist** Federal and State Land Managing agencies with updating their records on the condition of archaeological and historical sites in Nevada.

Many areas around the state have only one archaeologist per several million of acres, making it impossible for them to be able to visit and update site records for all the resources within their area. Through this program, volunteers can **assist** these archaeologists in updating records. Since site stewards for the NSSP have already been trained in monitoring sites for changes and recording those changes, they are the perfect group to take the additional training needed to **assist** the archaeologists in their condition assessments.

Site Condition Assessments are different from site monitoring in that volunteers will be asked to find, document, and present information on a site or sites upon their first and possibly only visit. Unlike the NSSP where stewards are introduced to their sites, volunteers conducting site condition assessments:

- May need to locate the site(s) on their own; therefore, they are required to have good navigation skills such as utilizing and reading topographic maps and GPS devices.
- Will need to be able to comprehend the official documentation provided by the agency including translating common archaeological, geological, and historical terminology, and understanding common types of sites, features, and artifacts.
- Just like monitoring sites for NSSP, volunteers conducting assessments will need to complete paperwork. This training will provide examples and explanations of the various types of paperwork that may be needed for each site and condition you may encounter.

This manual is a guide to accompany the intensive in class and field training provided by NVFCP to volunteer site stewards. It is not comprehensive, but attempts to provide easy to access and useful information to remind and support volunteers in conducting their assessments.

Attending Site Condition Assessment training does not certify volunteers as archaeologists or archaeological technicians. NVFCP's goal for the training is to educate volunteers to **assist** archaeologists in completing their official assessment of a site's condition.

Trained volunteers are to provide all of the information that they collect to the Nevada Site Stewardship Program. None of the documentation is to be retained by the volunteer or distributed. This falls under the Code of Ethics signed by all stewards in the NSSP and under the site confidentiality section of the Archaeological Resource Protection Act.

Acknowledgements

Many thanks to those who helped create the training and this manual. Rayette Martin, Samantha Robinson, Karen Harvey, Katie Hoffman, Pat Weidknecht, Barbara Roth, Molly Fierer-Donaldson, Brenna Wilkerson, Alina Aquino, Ariel Belanger, Jim Bertolini, Danielle Romero, and the site stewards who provided valuable feedback on their class experience. Funding for this manual and course was provided by a grant from the Historic Preservation Fund.

Table of Contents

Sites

Typical site types

- How to describe your site and features

- Site types (an overview)

 - Historic

 - Town sites

 - Mining sites

 - Milling sites

 - Cemeteries

 - Dams and CCC projects

 - Historic artifact scatter

 - Corrals

 - Arboglyphs/Dendroglyphs

 - Prehistoric

 - Rock art sites

 - Rock shelters

 - Artifact scatters

 - Pit houses

 - Roasting pits

 - Game traps

 - Wickiups

Site forms and IMACS

- Information provided by the federal agency

- Common problems with IMACS forms

- Other things to check

- How to find information using an IMACS form

Site location verification processes

- Tools for locating sites

Preparing for field work safety

- Important reminders

- Checking out and checking in

- Risk assessment

- Reporting risk

- What to wear

- What to bring

Paperwork

Introduction

Prior to fieldwork

- Pre-field checklist

In the field

- Site update form

- Structure form

- Photo and GPS Log

Recording directions

Photographing the site

- Types of photographs

- Photo and GPS Logs

- Location information

- Site photos

- Photographing structures

- Photographing cemeteries

- Photographing large rock art areas

- Photo points

- Photo ownership

Sketching site maps

- Different types of sites

 - Prehistoric

 - Historic

How to sketch a structural footprint

- Tips for good sketches

Example Forms

Pre-field checklist

Site update form

Structure form

Photo and GPS Log

Skills

Topographic Maps

- How to read topographic maps

 - What are topographic maps?

- Important features

- Contour lines

- The contour interval
- Other important features
- Important to remember

Compass

- How to use a compass
 - What is a compass?
- Quadrants
- The parts of a compass
- True north vs. magnetic north
- Declination
- Grid lines
- Setting a compass to a map
- Setting a destination
- Taking a bearing point
- Triangulation

GPS

- How does it work?
- Position format
 - Latitude and longitude
 - UTM (Universal Transverse Mercator)
 - Map datum
- Marking a waypoint - "Taking a point"
- Finding a waypoint - "Getting the GPS to direct you to a point"
- Tracking "Recording a bread crumb trail of where the GPS has traveled"
 - Return to the site using a saved track
- Pointers/Notes

Appendix

- Glossary of terms
- Bibliography of related readings
- Map symbols
- Less common prehistoric artifact examples

Typical Site Types

How to Describe Your Site and Features

What to include:

A good site update form is important in helping your agency archaeologist understand the sites you visit. It should include a detailed description of the site, sometimes using the vocabulary you can find in the Glossary of Terms. Some things to include in your descriptions are:

- Size (height, length, width, depth)
- Shape
- Material (what it is made out of)
- Features
- Panels (if it is a rock art site)
- Area
- Layout (if there are a series of features)
- Location (what the context of the site is)
- Any artifacts on the surface

Visible damages or impacts to the site should always be recorded. Having documentation of any vandalism done to a site or feature is necessary in order for law enforcement officers to take action. Common forms of damage include:

- Graffiti
- Fire damage
- Bullet holes
- Dumping
- Sign damage

If there is evidence of looting, **do not** stay in the area and try to investigate. This could be a crime scene. Promptly report all potential violations to your agency archaeologist.

Site Types (An Overview)

The examples we provide include features or structures that you might find at a site. While you may not find all of these things at once, the presence of one or more of them can help determine which type of site you are visiting. It is important to note in your field forms the visible structures within the site, the layout, any associated artifacts or features, and any modern alterations made to structures or features.

Historic Sites and Associated Features

Town Sites



*Residents of Tonopah and other places scrounged for anything that would make a home. This example is made from old water barrels.**



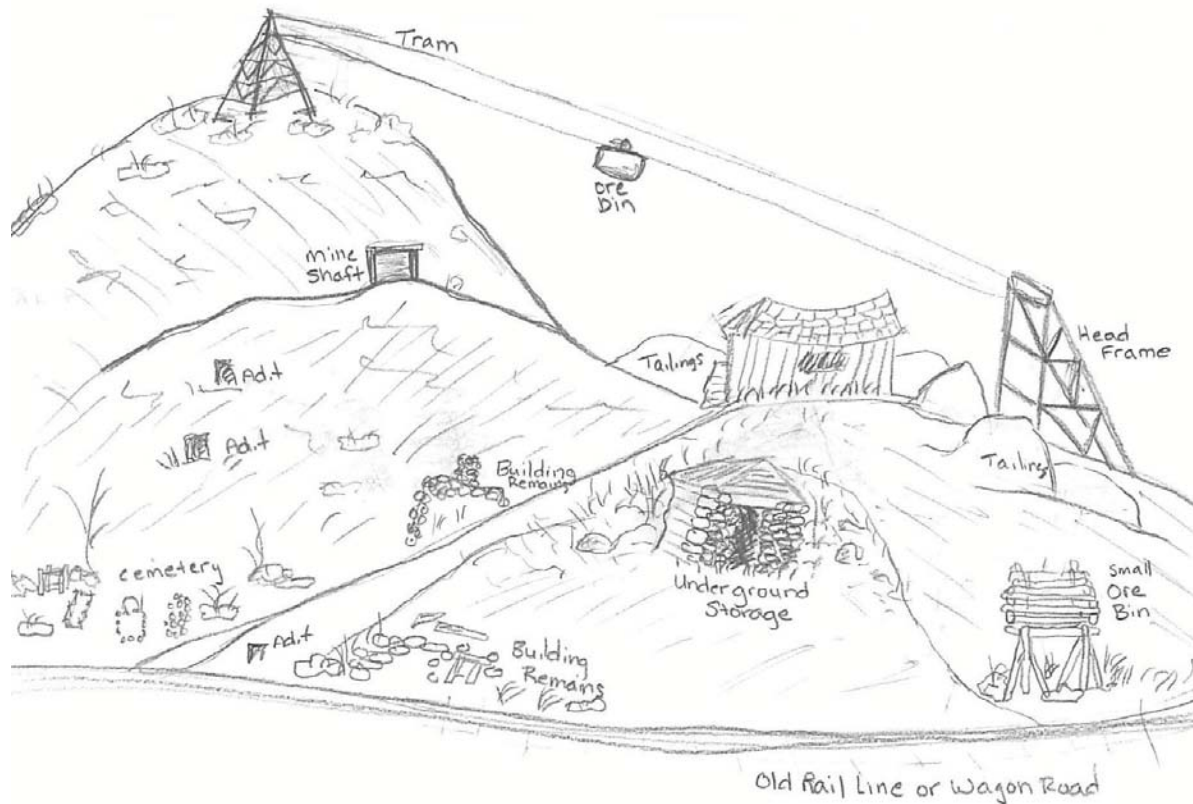
Belmont, NV

Town sites are also known as ghost towns. Many of these towns are abandoned mining boomtowns from the mid to late 1800s. Some town sites may be barren land while others have standing buildings in varying states of dilapidation. You may only find:

- Foundation pads
- Historic glass, metal, and ceramics
- Corrugated metal

Many of the artifacts you will find are things that indicate habitation. Take special note of the building materials and artifact scatters you find. They can both assist in dating the site and determining whether there has been more recent visitation to the area.

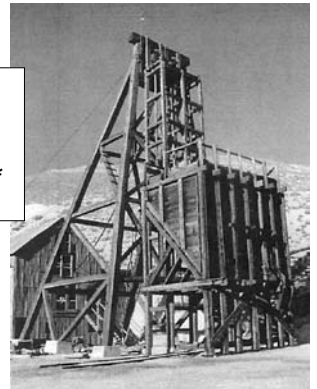
Mining Sites



Most ghost towns in Nevada are former mining boomtowns. They were abandoned after the mines were closed. Mining sites can be identified by:

- Ore bins
- Head frames
- Adits
- Tailings
- Wagon roads

*Desert Queen Mine in Tonopah with complete hoist house with all original engines and equipment.**



You may also find cemeteries and the remains of old buildings nearby. Each mining site is unique. Sometimes building materials from one finished mine were moved to another only a few miles away. Other times mining areas were long standing and many large foundations and structures can be found.



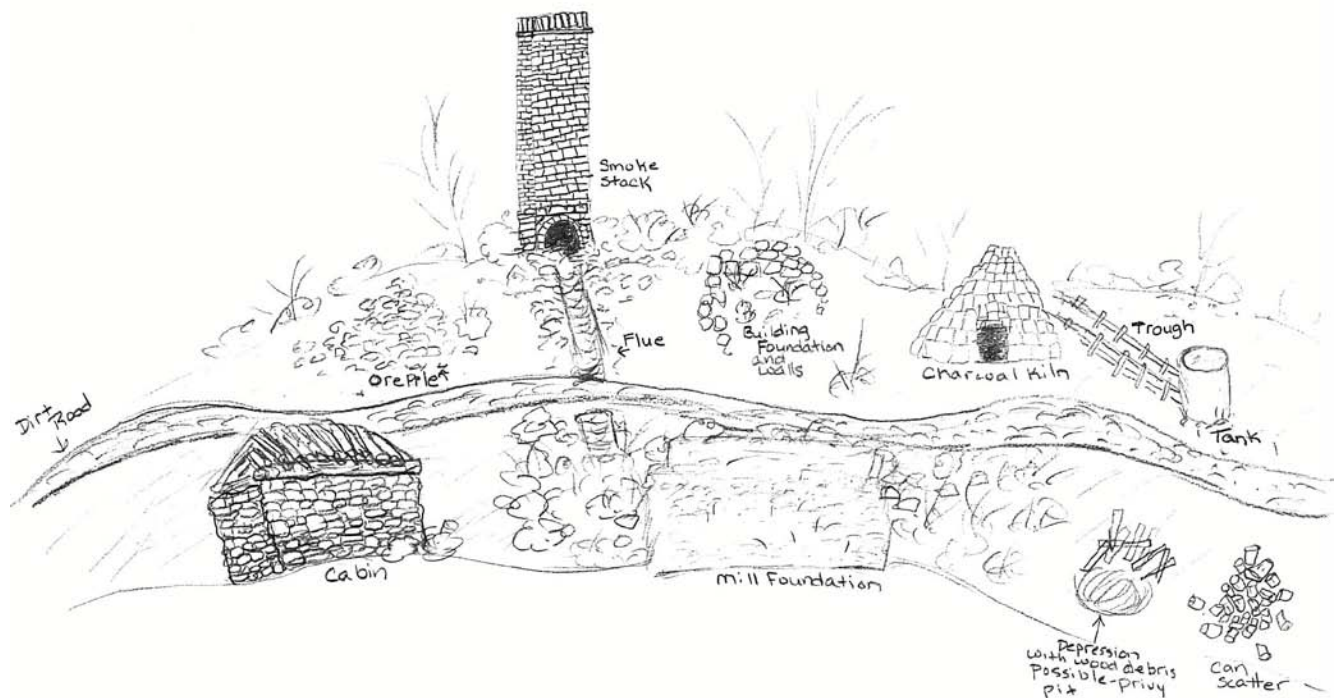
*Ore Bin filling up wagons.**



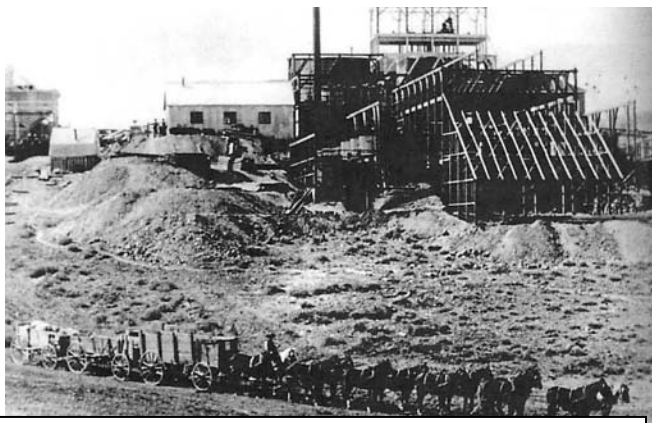
Adit with collapsing entrance.

These are very unstable and dangerous!

Milling Sites



Some former mining boomtowns that were abandoned after the mines closed were transformed into milling locations or supply points for nearby mining operations. Mill sites were used for processing metal ores. A stamp mill (also known as a stamp battery) is a type of milling machine that pounded material to extract metallic ores. A mill foundation is where the stamp mill was once located. You may also find a cabin, charcoal kiln, smoke stack, flue, ore pile, or can scatter at a milling site.



*Wagons were used to move people and goods. This is a photo from the Goldfield Consolidated Mining Company's largest mill in Goldfield which included 100 stamps.**

*Tybo Charcoal Kilns built in 1874 to smelt the silver out of the difficult ore.**



Cemeteries



A cemetery site will usually have grave markers or at least mounds of rocks or debris. Sometimes there will be fencing and associated artifacts that you will need to document. Grave markers are susceptible to deterioration overtime if preservation efforts are not taken, while on the more extreme end some cemeteries are subject to looting. Looting will most likely present itself through depressions in the soil or disturbances in the soil. Some historic cemeteries are still active with family members being buried as time goes on. Please find out if you are visiting an active cemetery so you are prepared for these possible findings.



Recent evidence of digging where there is no obvious burial plot.



Depression left from looting an existing burial plot many years ago.

Dams and CCC Projects



Dams are structures used to hold back the flow of water and raise its levels. The resulting reservoir is used as a water supply or to generate electricity. You may find other CCC (Civilian Conservation Corps) sites surrounding the dam.



CCC Cabins at Valley of Fire

Historic Artifact Scatter



Historic refuse may seem to have minimal research value, but it can provide important details on consumer behavior over time. In a historic scatter you may find rusted tin cans, nails, wooden pieces from wagons, or glass bottles. You can distinguish historic glass from either the color or the shape of the bottle neck. Most historic glass is purple due to sun exposure. Tin cans are sealed with solder.

Corrals



Corrals were used to enclose horses and other livestock. Some were used to trap or hold wild horses while others were used for ranching activity. You may find a trough within the surrounding area. Watch for people removing timbers for firewood or burning the corral in place.

Arboglyphs/Dendroglyphs



Arboglyphs are carvings on the bark of aspen trees done by Basque sheepherders in the late 1800s. Northern Nevada contains a high concentration of these carvings, but many trees are vanishing due to fires, development, vandalism, insects, and old age. Basque sheepherders used these carvings to convey their experiences and thoughts to other sheepherders who passed by them. Be careful not to be deceived by those who have carved recent "graffiti" in aspen trees.

Prehistoric Sites and Associated Features

Rock Art Sites

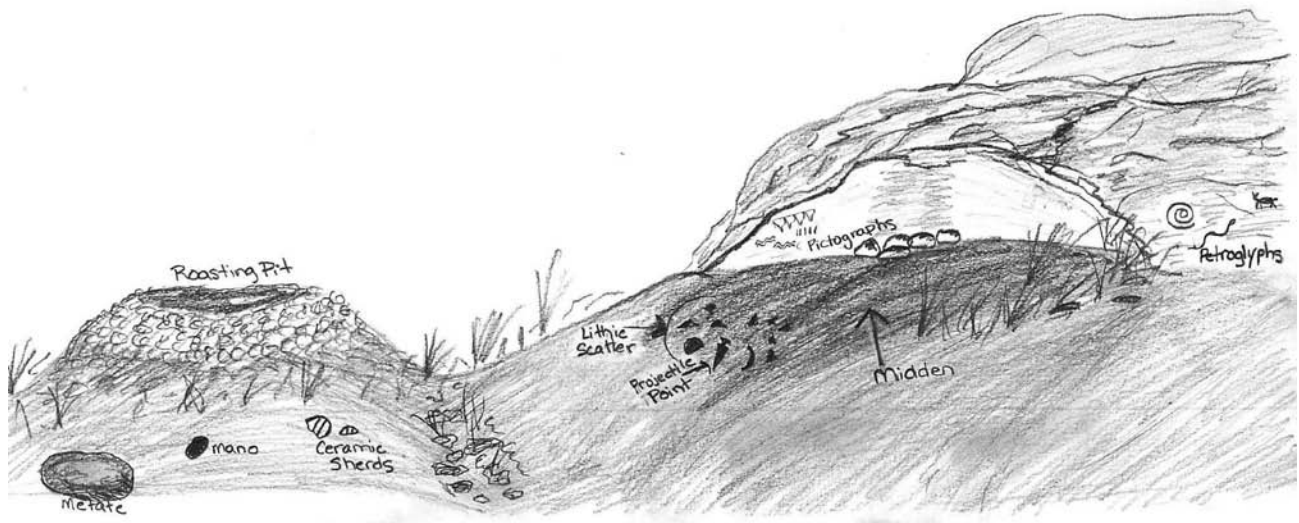


Petroglyphs

“Rock art” is a collective term to refer to pictographs and petroglyphs found on rocky surfaces throughout the world. Traditionally, rock art panels with individual markings are called motifs, and groups of motifs are called panels. Pictographs are painted on these surfaces using pigments made of crushed insects or minerals. Petroglyphs are cut into the rock either by pecking, incising, engraving, or abrasion. A patina (also known as desert varnish) is a thin outer layer that develops over the surface of a rock. This may give the rocks where rock art are found a distinct coloration. You may also find a variety of other artifact and features near rock art sites. This may include projectile points, stone tool debris, grinding slicks, ceramics, cupules, shelters, roasting pits, etc. Keep an eye out for these associated materials.

Natural impacts to rock art sites include exposure to the elements which may result in fading, cracking, and spalling. Human impacts often include scratching or other types of graffiti and attempted removal.

Rock Shelters



Rock shelters were once used by Native Americans as temporary housing areas. Smoke stained walls indicate hearth fires used for cooking and heating. Some contain pictograph panels or petroglyphs within or surrounding the shelter. There may be a visible midden inside or nearby the shelter, as a midden is evidence of past occupation. Middens contain animal bones, lithics, sherds, botanical remains, coprolites, or other waste products. You may also find roasting pits, metates, manos, or stone tool scatters that indicate occupational use. Note that it is rare to find all of these things at one rock shelter fully intact.

Impacts to rock shelters include modern camping use, movement of artifacts, graffiti, dumping, looting, etc.



Rock Shelter

Artifact Scatters



A prehistoric debitage scatter

Artifact scatters can include both prehistoric and historic objects. In a prehistoric scatter, you may find:

- Projectile point
- Pottery sherds
- Flakes
- Other lithics and debitage

A scatter of artifacts may indicate that the site was used for tool-making and was revisited multiple times. You may find more than one type of artifact in a scatter. People may have picked up and walked off with parts of the scatter, so make sure to take note of the density and concentration of the artifacts.

Pit Houses



Ancestral Puebloan pit house

Pit houses are circular, subterranean human habitations that were used through the summer and winter seasons for up to ten years at a time. While most of the time they were used as shelters, some were also used to store food or celebrate cultural activities such as storytelling and singing. To identify a pit house, you may see:

- Postholes in the ground
- Roasting pit(s)
- Trash mounds
- Pottery
- Manos and metates

Roasting Pits



Prehistoric roasting pits are found throughout the American Southwest. They consist of flat-bottomed pits filled with layers of ash and fire affected rocks. They may contain yucca or agave in their midden.

Game Traps



Game traps were used to corral and herd game such as antelope. Most prehistoric game traps can be identified by a line of deliberately placed rocks, branches, and other materials. Over time, these game traps are difficult to see through growing vegetation and possible movement of structural pieces. Impacts are usually natural such as erosion, flash flooding, and vegetation growth.

Wickiups



Found in northern and central Nevada, wickiups are circular, brush covered dwellings that were mostly used as semi-permanent homes. Because these structures are made of organic material, they are susceptible to fires and gradual deterioration over time.

*2010 Hall, Shawn

Images of America Ghosts Towns and Mining Camps of Southern Nevada. Arcadia Publishing. Charleston, SC.

Site Forms and IMACS

The Nevada Intermountain Antiquities Computer System (IMACS) form is a standardized form used by federal archaeologists to record historic and prehistoric archaeological sites. The agencies use these forms to provide site information to volunteers and assess any changes or damages to sites. As volunteers, you will not be required to complete an IMACS form; however, you will need to become familiar with these forms in order to retrieve information from them and assess the quality of the information provided.

Information Provided by the Federal Agency

In order for volunteers to assess sites, federal agencies must provide certain information to the project coordinator. Often, this information is provided in an IMACS form which should include the following items (items listed in bold are considered necessary for volunteering purposes):

- **Directions to the site**
- **Site description**
- Feature list
- **Location map and area map**
- Site map
- Approach map
- Photos
- **GPS coordinates**
- Structural foot prints

Common Problems with IMACS Forms

No information is provided (i.e. the line is left blank)

Unfortunately, IMACS forms don't always contain all the information volunteers need to assess a site.

Information is not up to date.

Check when the IMACS form was filled out (Part A, line 28) to see if the information is recent. Conditions at the site or on the way to the site may have changed over time due to weather, construction activity, vandalism, renovations, etc. and information in the IMACS form may need to be updated.

Information is not sufficient. This is particularly important for the UTM's, site description, directions to the site, and maps. For example:

- All location data should be in UTM's. UTM's should include the zone, northing, easting, and NAD (either NAD27 or NAD83). The NAD lets us know the particular datum that was used when taking the coordinates and is important for accurately identifying the location of a site. If the NAD is not included in the UTM's listed on the form it's important to note when the IMACS was filled out as NAD83 was not introduced until 1983.
- Site descriptions should provide enough detailed information that a volunteer can tell if they have found the correct site.

Insufficient site description: Boulders with pictographs

Sufficient site description: Three sandstone boulders with red pictographs located on the Example Trail, about 2 miles north of the trail head. The boulders are located in a wash on the east side of the trail and one of the boulders is visible from the trail. The second and third boulders are both located about 20 ft. north of the first one. The pictographs feature sheep, hands, and human-like figures.

Common Problems with IMACS Forms (continued)

- Directions to the site need to be fairly detailed, as well as accurate.

Insufficient site directions 3 miles north of Boulder City, NV

Sufficient site directions: From Boulder City, NV, head north on Hwy 100 for 2.5 miles. Turn right onto Alpha Rd. and set odometer. At 1.3 miles, turn right onto a jeep road. Drive for 0.2 more miles and then park on the side of the jeep road. The site is located on a large sandstone plug about 0.5 miles north of the parking area. The petroglyphs are located on the south-facing section of the plug, beginning on the eastern side and continuing west about 10 m.

- Maps should be detailed enough to enable volunteers to find the site. Additionally, they should be easy to read.

Other Things to Check

Additional Information Included in IMACS Forms

- If the site description includes artifacts or an artifact scatter, check the IMACS to see if any collections were done (Part B, line 4 and/or Part C, line 6). The archaeologists who surveyed this site may have collected some or all of the artifacts, meaning that artifacts may not be present during site monitoring visits.
- Part B and Part C contain feature lists which provide descriptions of each feature at a site. For example, a description of each rock art panel may be listed in Part B for a prehistoric rock art site. Additionally, some IMACS forms may include an attachment for rock art. While this information is generally more detailed than needed for the agency site update form, it might be helpful if the site description is insufficient or if you need to double-check that you are at the correct site.

Doing an Internet Search

- Although site information should be kept confidential, sometimes pictures or articles about sites are posted on the internet. Doing a quick Google search might pull up additional information on a site such as what it looks like, hiking trails or directions to the site, how popular the site is for hikers or visitors, etc.
- Google Maps is also a great tool for checking the directions to a site. You can use the satellite imagery in Google Maps to check the roads on the way to the site and figure out exactly how to get there before you go out. Additionally, you can look at the surrounding landscape and geographic features to help orient yourself when out in the field.

How to Find Information Using an IMACS Form

A standardized IMACS form is used by land managing agencies throughout Nevada for all types of archaeological sites. This means information is generally located on the same line every time. The form is divided into three sections: Part A contains administrative data and general site information, Part B is used for prehistoric sites, and Part C is used for historic sites. Maps and photographs (if included) are attached to the end of the IMACS form.

The following pages contain an example of an IMACS form showing where to find the information needed to complete an agency site update form.

How to Find Information Using an IMACS Form

Example IMACS: Part A (Page 1)

NOT REVIEWED FOR SECTION 106	
IMACS SITE FORM Part A - Administrative Data	
4. State and county	4. State: Nevada County: Clark
7. Site name	5. Project: Example Survey
8. Site class Check all that apply	6. Report No.: CRO- 000 (P) 7. Site/Property Name: 8. Class: ☒ Prehistoric ☒ Historic ☐ Paleontologic ☐ Ethnographic
11. Provided location (UTM)	9. Site Type: Prehistoric Habitation/Historic Grazing 10. Elevation: 2303 feet 11. UTM: Zone 11 ; 000000 mE 0000000 mN NAD83 (at datum, via GPS)
14. USGS Quad (7.5) Refers to a series of standardized maps	12. PLSS: SE¼ of NW¼ of Sec. T0 S R 0E NE¼ of SW¼ of Sec. T0 S R 0E 13. Meridian: Mt. Diablo (7)
20. Site description	14. Map Reference: Example Mt. NV 7.5' 15. Aerial Photo: 16. Location: To access site, head northwest from Example Mt. (where the pavement ends) for 1.25 miles and turn left onto an unpaved dirt road trending southwest. Continue on this road for 3.4 miles at which point there will be a prominent fork. Take the left-hand fork to the south. Continue on this road for another .67 miles until reaching a wash that runs roughly east-west. Head up this wash, towards the east, and proceed to the UTM point that delineates the site datum. 17. Land Owner: BLM (LM) 18. Federal Administrative Units: Las Vegas (BC) 19. Location of Curated Materials: Nevada State Museum (NSM) 20. Description: This is a dual component site with both prehistoric and historic attributes. The prehistoric component of this site is composed of two rock shelters containing cultural materials. A dark charcoal stained soil was present within Shelter #1. This soil was eroding down slope out of the interior of the shelter along with some lithic debris including two flake tools. A 5 cm deep probe dug in Shelter 1 uncovered cultural materials and was terminated due to hitting bedrock. It indicates the possibility of a shallow cultural accumulation. Adjacent to this shelter are two small petroglyph panels each with one element. They are described in more detail on the attached Rock Art Inventory sheets. Shelter #2 had very little organic material deposited within it as its floor was composed primarily of sandstone bedrock. However there was a light lithic scatter and two bifaces present inside. The historic component is composed of a scatter of metal debris including wire nails, cans, and sheet metal. There is also a concrete dam (Feat. #1). All such remnants of historic use appear to be in close association with cattle grazing that has continued into modern times.
25. Previous recorder	21. Condition: Fair (C) 22. Impacts: Grazing (GR) Road (RD) Recreation use (RC) The impact on this site by cattle grazing was major. A dense distribution of cow feces and urine (noted due to the stench) was present in Shelter #1, while a cow carcass is present just outside the shelter. A road runs directly through the site and as a result the area has seen heavy recreational use. Trash and various other signs of modern camping and land use are present throughout the site area. 23. National Register Status: National Register quality -- eligible (C) This habitation site with rock art is recommended eligible under criterion D. A probe confirmed the presence of a shallow, midden-like deposit associated within one of the shelters. The historic component is recommended ineligible under any criterion. The formed concrete dam is impressive in height and setting; however, it is neither unique nor unusual in its construction method, nor is it associated with a person of prominence. We presume it was built using construction techniques consistent with ranching practices rather than by organized labor under the CCC program. 24. Photos: See project photos: folder R7T2, frames 0478-0484 25. Recorded By: T. Hildebrandt 26. Survey Organization: Far Western Anthropological Research Group (FF)

Page 1 of 8

1. Trinomial
A unique three-part number used to identify archaeological sites

2. Agency site number

3. Other site number

16. Directions to site

17. Land managing agency

18. Agency office

Part A contains general information on the site including the name, number(s), location, and site type.

How to Find Information Using an IMACS Form

Example IMACS: Part A (Page 2)

28. Survey date

36. List of attachments

IMACS SITE FORM Part A - Administrative Data

1. State No.: 26CK000
2. Agency No.: CrNV- 0-00
3. Temp. No.: 00 -0 /00 -00-0/0X

27. Assisting Crew Members: I. Patrick, B. Patterson, K. Clark

28. Survey Date: 2/10/2007

29. Slope: Aspect:

30. Distance to Permanent Water: 4.5 km

Type of Water Source: Spring/Seep (A)

Name of Water Source: Red Rock Springs

31. Geographic Unit:

32. Topographic Location: Primary landform: Valley (E)

Secondary landform: Outcrop (U)

This site sits in a large sandstone outcrop complex. It does not literally rest in a typical canyon, however much of the usable site area is bordered by steep outcrops on either side, creating a canyon-like setting. To the northeast and southwest, moderately sized limestone ridges trending north border each side. Just to the west lies Example Mt., which is by far the most prominent element on the landscape.

33. On-Site Depositional Context: Outcrop (Q)

The on-site deposit is composed primarily of eroding sandstone. This erosional deposit accounts for much of the sandy soil that is present in the area.

34. Vegetation:

Life Zone: Lower Sonoran (F)

Community: Primary On-site: Creosote Bush (Y)

Secondary On-site: Blackbrush (V)

Surrounding Site: Creosote Bush (Y)

Site is located on the fringe of a large complex of Aztec sandstone. Vegetation is limited to the low, flat areas between outcrops and is sparse even in these zones. As noted above, creosote is the dominant element of vegetation, however shadscale is also rather prominent in this outcrop area.

35. Misc. Text:

This site was recorded during the non-random (Area B) phase of the survey. It is located in survey units 083-30 and 084-30.

36. Comments:

Attachments: ☒ Part B ☒ Location Map ☐ Photos ☐ Continuation Sheet
☒ Part C ☒ Site Sketch ☐ Artifact Sketch ☒ Other Rock Art Inventory Sheet

Part A also contains administrative data including who recorded the site, when the site was recorded, and the federal agency that manages the site. Additionally, it may include information on the surrounding environment, vegetation, and geology.

How to Find Information Using an IMACS Form

Example IMACS: Part B

4. Artifact collection method

IMACS SITE FORM		State No.: 26CK000
Part B - Prehistoric Sites		Agency No.: CrNV-0 - 00
		Temp. No.: 00 -00/00 -00-0/0X
1. Site Type:	Prehistoric Habitation	
2. Culture:	<u>Cultural Affiliation</u>	<u>Dating Method</u>
	Unknown aboriginal (ZZ)	None (A)
3. Site Dimensions:	112 m (n/s) x 58 m (e/w)	Area: 5101 sq m
4. Surface Collection Method:	Grab sample (B)	
	Sampling Method: Obsidian biface collected, all contents of probe collected	
5. Depth of Cultural Fill:	0-20 cm (B)	
	How Estimated: Probe excavated to 5 cmbs contained cultural constituents and charcoal stained deposit present in Shelter 1	
6. Excavation Status:	Unexcavated (C)	
	Testing Method:	
7. Summary of Artifacts and Debris:	Lithic scatter/concentration (LS)	
	2 bifaces, 2 flake tools	
8. Lithic Tools:	<u>Qty.</u>	<u>Type</u>
	2	Biface (IG)
	2	Utilized flakes (IA)
	Art. 1 - Obsidian biface midsection; -2.3 x -2.0 x 0.4 cm; 217 deg x 24 m - COLLECTED	
	Art. 2 - Chalcedony biface end fragment; stage 2; -2.5 x 3.3 x 0.7 cm; 112 deg x 2 m from datum	
	Art. 3 - CCS flake tool; core reduction flake; 2.8 x 2.7 x 0.5 cm; 78 deg x 17 m from datum	
	Art. 4 - Coarse grained CCS edge modified flake with step fractured edge; 5.5 x 5.2 x 2.5 cm; 76 deg x 22 m from datum	
9. Lithic Debitage -- Estimated Quantity:	10-25 (C)	
	Material Type(s): CCS (LC), obsidian (LO), chalcedony (LA)	
	Stages: Decort.: Rare (1) Secondary: Common (2) Tertiary: Common (2) Shatter: Rare (1) Core: Absent (0)	
10. Maximum Density per m ² (all lithics):	3	
11. Ceramic Artifacts:		
12. Maximum Density per m ² (ceramics):		
13. Non-Architectural Features:	<u>Qty.</u>	<u>Type</u>
	2	Other (OT)
	2	Petroglyph -- pecked/cut (PE)
	Rock Shelter #1 and Rock Shelter #2 as well as Panel 1 and Panel 2 compose the four non-architectural features present on this site.	
	Rock Shelter #1 - The opening to this feature is 7 m wide and extends 4-5 m from the dripline to the back wall of the shelter.	
	Rock Shelter #2 - The opening to this feature is 10 m wide and extends 2-3 m from the dripline to its interior wall.	
	See Rock Art Attachments 1 and 2 for Panels 1 and 2	
14. Architectural Features:		
15. Comments:		

Part B includes more detailed information on any prehistoric sites included as a part of the overall site. It includes a description of the recorded features and artifacts, as well as whether surface collections or excavations were performed. If no prehistoric sites are present, this section may be omitted.

How to Find Information Using an IMACS Form

Example IMACS: Part C

6. Artifact collection method

IMACS SITE FORM
Part C - Historic Sites

State No.: 26CK000
Agency No.: CrNV- 0-00
Temp. No.: 00 -00/00 -00-0/0X

1. Site Type: Historic Grazing

2. Historic Themes: Farming/ranching (FR)

3. Culture:

Cultural Affiliation

Dating Method

Unknown (ZZ)None (A)

4. Oldest and Most Recent Dates:
How Determined:

5. Site Dimensions: 112 m (n/s) x 58 m (e/w)Area: 5101 sq m

6. Surface Collection Method: Grab sample (B)
Sampling Method: Obsidian biface collected, all contents of probe collected

7. Depth of Cultural Fill: 0-20 cm (B)
How Estimated: Probe excavated to 5 cmbs contained cultural constituents and charcoal stained deposit present in Shelter 1

8. Excavation Status: Unexcavated (C)
Testing Method:

9. Summary of Artifacts and Debris: Ammunition (AM), Buckets/barrels (BB), Can lids (CN), Tin cans, undetermined (TZ), Nails, wire (NW)
-- 24 metal nails: 2 1/4" length; rounded shaft, irregular rounded head
-- 9 can rim fragments: possibly from turn key can
-- 1 shot gun shell: .22" shell ("f" on base)
-- 1 oval can: fragmented; large oval tin -- possibly sardine tin
-- 1 crushed sanitary can: internal rolled seam, crimped end knife "x" cut opened
-- 1 crushed tobacco tin: crimped ends
-- 1 55 gallon drum, cut in half: only half present; 1'6" (height) x 2' wide
-- 1 corrugated piece of sheet metal: 2'3" x 4'; possibly modern as very little rust is present
-- 2 bundles of bailing wire

10. Ceramic Artifacts:
Estimated Number of Ceramic Trademarks:

11. Glass:

12. Maximum density per m² (glass and ceramics):

13. Tin Cans:
All cans are crushed; see above for descriptions. No can had enough integrity to extract information that would fit into above categories.

14. Landscape and Constructed Features:

15. Buildings and Structures:

Qty. Material

Type

1 Concrete (F)Dam, non-earthen (BQ)

Dam is composed of concrete. It is 8 ft. tall and bridges a gap in adjacent sandstone that is a maximum of 12 ft. wide.

Page 4 of 8

Part C includes more detailed information on any historic sites included as a part of the over-all site. It includes a description of the recorded features and artifacts, as well as whether surface collections or excavations were performed. If no historic sites are present, this section may be omitted.

How to Find Information Using an IMACS Form

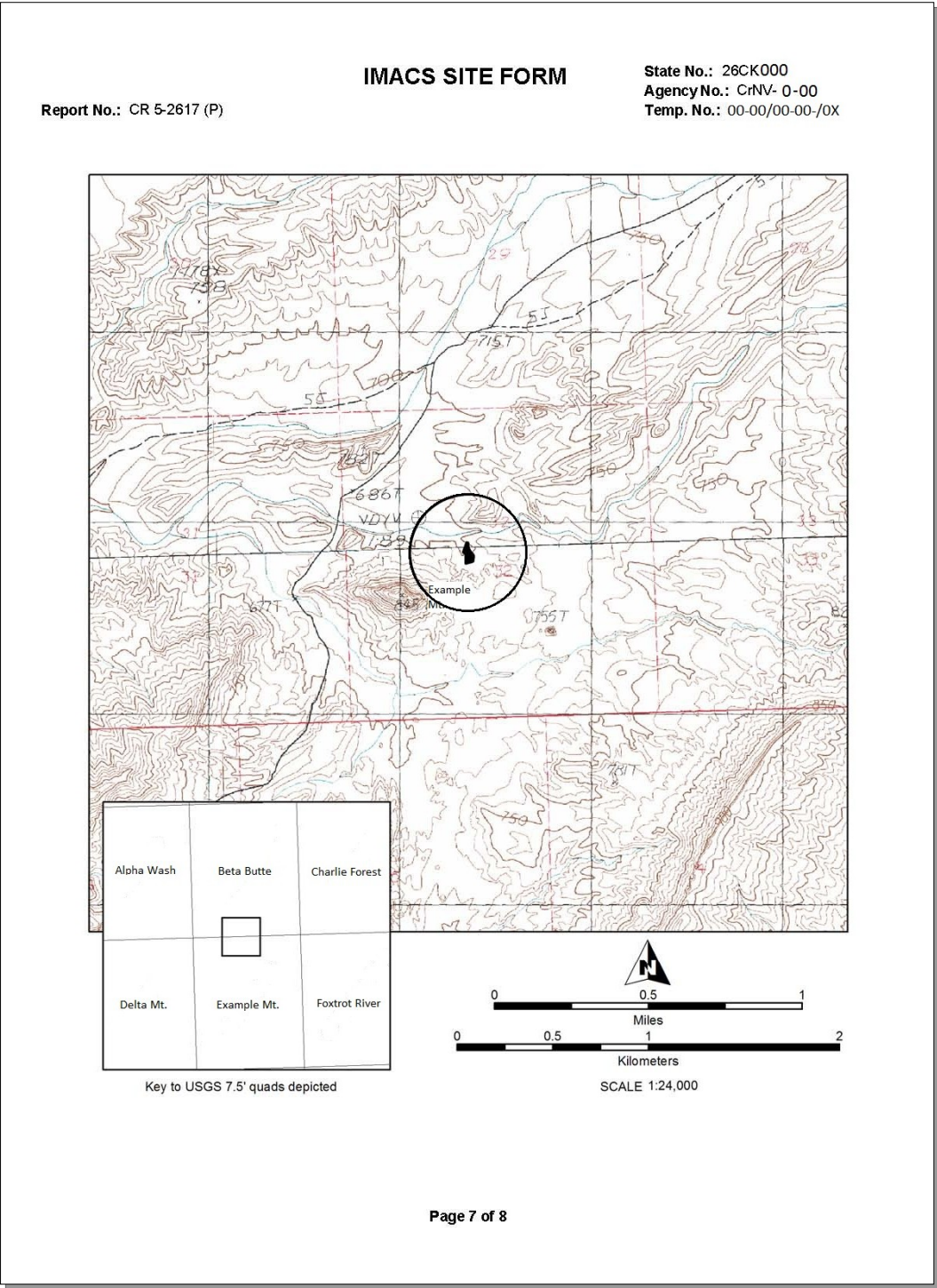
Example IMACS: Rock Art Attachment

IMACS SITE FORM Rock Art Attachment		State No.: 26CK000 Agency No.: CrNV- 0 -00 Temp. No.: 00 -00/00 -00-0/0X
1. Number of panels at this site: 2		
2. This form is for panel number: 1		
3. Panel is situated on: Cliff face (D)		
4. Worked surface is: Vertical (A)		
5. Type of rock: Sandstone (D)		
6. Background: Natural (A) Moderately dark patina sets background for panel.		
7. Category and Technique: Petroglyphs: ☐ Abraded (A) ☐ Incised (C) ☒ Solid pecked (E) ☐ Cupule (B) ☐ Scratched (D) ☐ Stipple pecked (F) Pictographs: ☐ Monochrome (G) ☐ Outlined (I) ☐ Sprayed (K) ☐ Polychrome (H) ☐ Solid (J) ☐ Stipple (L) ☐ Combinations (painted petroglyphs, etc.) (M)		
8. Petroglyph repatination: None: 0 to 5% (A)		
9. Number of figures: 1 to 10 (A)		
10. Rock art figures superimposed: ☐ Yes ☒ No 1 depiction of a snake is all that is present on this panel; 1 element.		
11. Incorporation of natural features in design or figures ☐ Yes ☒ No		
12. Surface preparation prior to rock art application: ☐ Yes ☒ No		
13. Prehistoric figure modification: ☐ Covering with pigment or paint (A) ☐ Reworking/additions (D) ☐ Covering with plaster or mud (B) ☒ None (N) ☐ Obliteration -- part or total (C) ☐ Other (X)		
14. Panel orientation/aspect: 300 If multidirectional, indicate general direction		
15. Panel dimensions (meters): 0.1 x 0.12 Area: 1.2		
16. Height of highest rock art figure above present soil line (meters):		
17. Height of lowest rock art figure above present soil line (meters):		
18. Natural destructive agents, % of rock art panel affected (multiples of 10%): % Bird/insect nest (A) % Surface spall (F) % Exposure -- wind and rain (B) % Vegetation abutment (G) % Lichen growth (C) % Water runoff (H) % Mineral deposits (D) % None (N) % Mud deposits (E) % Other (X)		
19. Other destructive agents, % of rock art panel affected (multiples of 10%): % Alteration/defacing (A) % Obliteration (I) % Bullet holes (B) % Paint (J) % Chalking (C) % Removal, attempted (K) % Construction activities (D) % Removal, completed (L) % Graffiti (E) % Smoke blackening (M) % Latex mold residue (F) % None (N) % Livestock (G) % Other (X) % Names, initials, dates (H)		
Attachments:		

Some IMACS forms may include a Rock Art Attachment which details the type and style of rock art found at the site. A separate Rock Art Attachment is used for each individual panel.

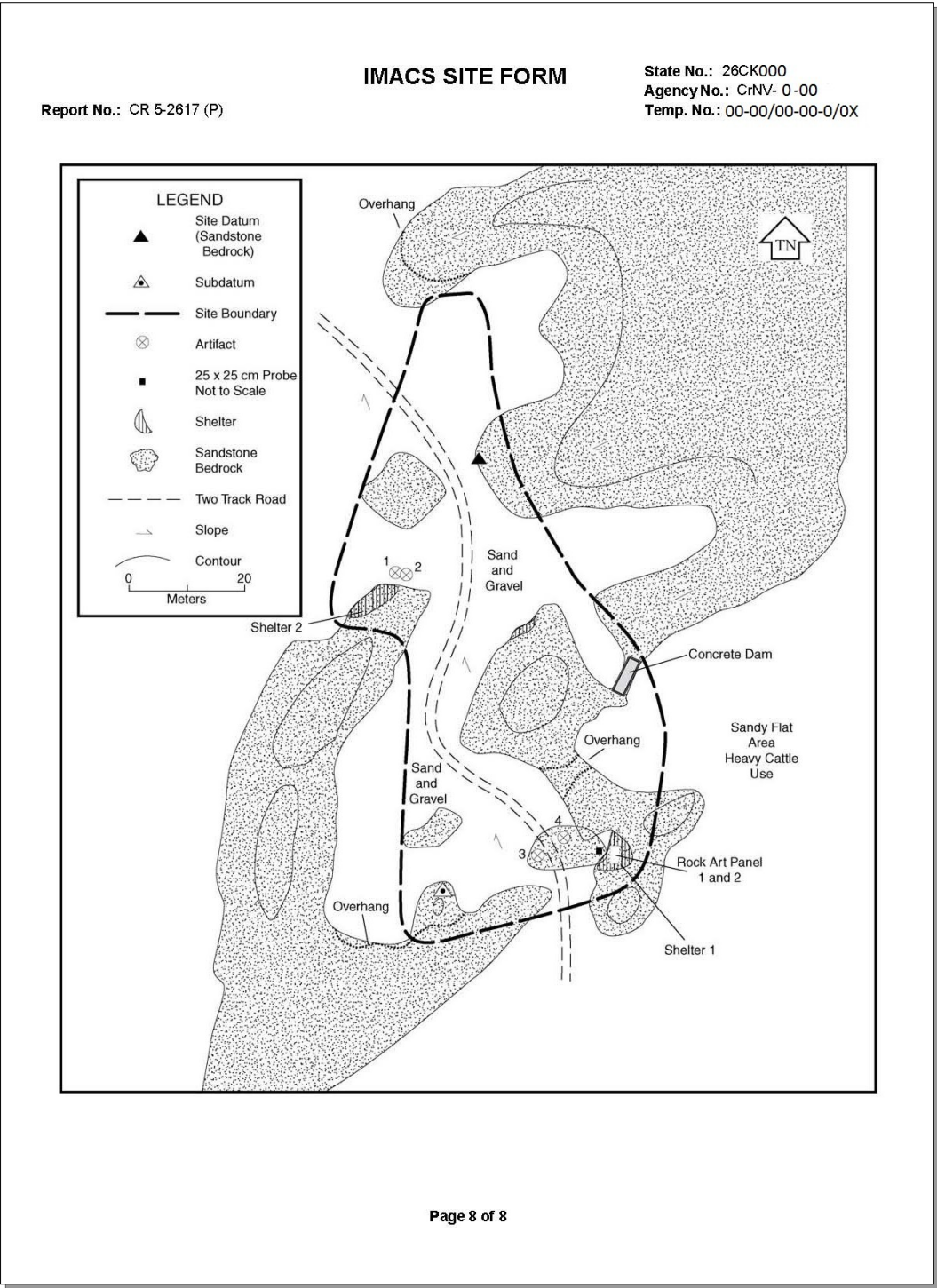
How to Find Information Using an IMACS Form

Example IMACS: Site Maps (Page 1)



How to Find Information Using an IMACS Form

Example IMACS: Site Maps (Page 2)



Site maps included in IMACS forms should be accurate, legible, and detailed so volunteers can locate sites and specific features. More information on site maps and approach maps is included in the Maps section of this manual.

Site Location Verification Processes

Unfortunately, recorded directions, UTM's, and maps that are provided on site records are not always accurate. Roads may have changed names, off road trails may be overgrown or washed out, and topographic maps may be undecipherable. It is always good practice to verify a site's location through using accessible tools like Google Earth and current topographic maps. The more ways you verify the location, the more comfortable and likely you will be to find the site on your first attempt.

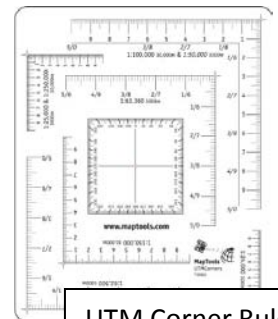
Tools for Locating Sites:

IMACS or Site Record

This document should provide accurate driving directions, a UTM, and topographic map. (It rarely does and information should always be verified).

Google Earth

- You can search for features on the landscape like the names of creeks or peaks.
- You can search by latitude and longitude.
- You can get directions to a spot you locate by clicking on the spot then clicking on the box in the top left for directions.



UTM Corner Ruler

Topographic Map

- A map of the area the site is located within works well if features on the landscape are provided in the IMACS or Site Record.
- A site can be located through using UTM or Latitude and Longitude depending upon the type of map and if you want to use a UTM Corner Ruler to plot information. For more information about a UTM Corner Ruler and how to use it go to: https://www.maptools.com/tutorials/utm/corner_tools

UTM-Latitude Longitude Converter

Try a website like <http://www.rcn.montana.edu/resources/converter.aspx> to convert location information into many different formats for use on Google Earth or Topographic Maps.

Each person will develop their own system for location verification. Below are a few descriptions of how Google Earth or a current topographic map can be used.

Two site forms were selected for examples and, sure enough, investigation was needed.

Example A (Rock Art Site with many direction issues)

1. UTM's were provided but no NAD
2. Directions used the name of a Highway that cannot be located on a map in the state
3. The topographic map provided was for an area over 50 miles away from the site



Arial View of Cabin and Draw

The site can be located. How?

The written directions provided a landmark could be located on Google Earth or a topographic map (Davis Dam). The directions also provided the distance the site was from the landmark (# kilometers) and the direction it was from the landmark (West). It described the landscape the site was located in (a wash that goes to the east where the wide draw becomes a narrow steep canyon). With this information, a site may be located.



Davis Dam on Regular Google Maps

1. Find the Dam on Google Earth or topographic map
2. In Google Earth, switch the map from Standard Map View to Earth View
3. Find a highway from the Dam that leads in the right direction (West)
4. Follow the highway for # of miles provided
5. Zoom into the map and start looking to the east of the highway for a wide draw that becomes a narrow steep canyon
6. Lastly, look for anything else in the site description that may provide a visual clue that you are in the right area. (ex. there is a spring and a cabin)

Example B (Historic Site--many unmarked roads but good topographic map)

1. UTM coordinates were provided but no NAD
2. Directions used the name of a Highway that cannot be located on the map
3. Exact location is not really described
4. A good topographic map was provided

The site can be located. How?



The UTM that was provided was assumed to be in NAD 83 and could be converted into Latitude and Longitude and located on Google Earth. A good topographic map with labeled landmarks and features was provided. There were foundations described in the site record that can often be seen when one zooms in on Google Earth.

1. Convert the UTM to Lat/Long on a website like <http://www.rcn.montana.edu/resources/converter.aspx>
2. Copy and paste the UTM coordinates into the Standard UTM box:
Zone 11, Hemisphere N, Easting _____ Northing _____
3. Generate Latitude and Longitude
4. Enter the Latitude and Longitude into Google to search
5. Select Maps
6. The location will be plotted on a map
7. Choose Earth view
8. Zoom in or out to see if the site matches that on the topographic map
 - a. See if there are any features on Google Earth that can be located on the topographic map
 - b. See if the terrain matches the site description
9. If you believe this is the site, use Google Earth to find directions to that location
 - a. Back track to a known road or town and use that to locate yourself on a map and gather distances

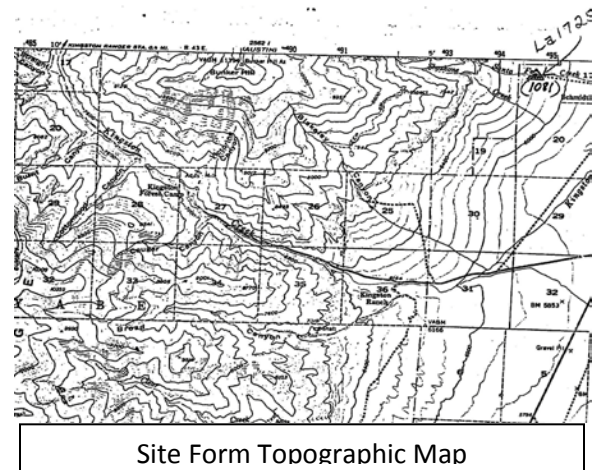
Select Map Datum
WGS 84

Decimal Degrees
Latitude: Longitude:

Degrees, Minutes, Seconds
Latitude: Degrees: Minutes: Seconds: Hemisphere:

Standard UTM
Zone: Hemisphere:

Online Conversion Form



Note: These two examples are just that, examples. Validating directions will differ each time; however, you should find the tools listed above very useful in your search. Many of us look at this process as being a bit like a detective, pulling together as many clues as we can to get the job done.

Preparing for Field Work Safety

Safety Comes First!!

- Remember, above everything else, safety always comes first.
- Never attempt to do something you do not feel comfortable doing.
- Use common sense.
- Be prepared for the unexpected.

A Few Important Reminders

Guns

Unless granted written permission by the agency you are volunteering for, volunteers are not allowed to carry guns while conducting site condition assessments.

Some individuals are accustomed to carrying firearms while in the outdoors. What you do on your own time is of no concern to NVFCP. When you are acting on behalf of federal land managing agencies, firearms of any type are not permitted.

Off Highway Vehicles (OHV)

Unless granted written permission by the agency you are volunteering for, off highway vehicles (all-terrain vehicle, all-terrain motorcycle, dune buggy, snowmobile, and quads or any other vehicle used on public lands for the purpose of recreation) are not permitted while conducting site condition assessment activities. Due to liability concerns, federal agencies have chosen to not allow the use of these vehicles while the volunteer is acting on behalf of the agency. On rare occasions, agencies grant permission to volunteers to use OHVs to access very remote sites. You must have this permission in writing from the agency.

Visit the Nevada Commission on Off-Highway Vehicles (<http://nvohv.com/>) if you have any questions or concerns about using OHVs in your area for your personal recreation.

Other Restrictions

While you are on duty you may not:

- Consume intoxicating beverages
- Possess or use any illegal drugs
- Fight or participate in discrimination, sexual harassment, or violent or threatening behavior

Violation of any of the above prohibitions may constitute grounds for dismissal or other appropriate action.

Checking Out and Checking In

All volunteers are required to check-out and check-in with at least one, if not two, designated people. Check for agency requirements, as they may have specific procedures for checking out and in. Remember to *check-out* in advance of leaving for the site(s) and to *check-in* immediately upon your return. Information left with your check-out person should include:

- The general route and approximate destination
- Expected time of return
- Information of partners
- Vehicle information
- Emergency medical information
- Who to contact if you do not return by the expected time

Depending upon the agency policy and local or personal circumstances, the signing out and in may be with a spouse, friend, regional coordinator, local land manager, land manager law enforcement agency, agency district dispatcher, or county substation. Specific details will be worked out on a site-by-site basis.

If your destination requires travel that takes you off regular named roads, particularly if there is cross-country hiking involved, you should consider a photocopy of a map that indicates your general route. The site location should *not* be specifically identified, but there should be enough detail to enable your rescuers to follow your route. The more isolated the site or rougher the terrain, the more critical it becomes to be fully prepared for potential emergencies and not deviate from the route left with your sign-in contact.

In case of accident, with or without injuries, or vehicle breakdown, the persons involved should stay with their vehicles on the established route until help arrives. Volunteers in the field will not deviate from the established route. Should an incident occur, your designated check-in person and/or local land manager must be able to know where to look for you if you haven't returned according to your planned schedule.

Always remember to check-in upon returning!!!

Risk Assessment

Each land managing Agency is required to create and update a volunteer risk assessment. These assessments provide a detailed plan for handling most risky situations. These assessments may be included in the information you are provided.

Reporting Risk

For your personal safety please report the following to your agency representative:

- All unsafe or unhealthful working conditions
- All work-related accidents, injuries, or illnesses

What to Wear

What you wear can make a significant impact on your health and safety. As always, attire depends on the climate you will be out in. It is always best to wear layers. Allowing you to add or remove items as the weather changes. Suggested clothing for volunteers in a variety of situations includes the following:

- **Undershirt:** polypropylene or polyester
- **Pants:** Synthetic fabric
- **Long sleeve shirt:** Synthetic fabric
- **Hooded shell jacket and pants:** For wind and water protection
- **Hat and mittens:** Can be necessary on summits
- **Socks:** light wicking inner socks and heavier outer socks, plus dry spares
- **Boots:** Hiking boots with good support and tread. Sneakers are not recommended!!
- **Gaiters:** to keep mud, water, and rocks out of your boots

It is highly recommended to **wear synthetics and/or wool** when outdoors. Synthetic under layers carry moisture away from your body and keep you cool. This quick drying also helps to keep you warm on summits. Wool, polypropylene, fleece, and synthetic insulation are all warm even when wet.

What to Bring

What are the absolute backcountry essentials? Of course, some necessities depend on where, in what season, and how long your adventure will be.

Must Have Safety Supplies

1. WATER
2. Compass and/or GPS
3. USGS topographic quadrangle map of the site area
4. First aid kit
5. Emergency contact numbers
6. Batteries
7. Appropriate clothing

Should Have

1. Cell phone, CB or radio
2. Emergency car repair kit

Other Suggested Supplies

TOOL BOX

- Pocket knife
- Duct tape
- Nylon cord
- Hammer
- Needle nose pliers
- Locking pliers
- Slip joint pliers
- Adjustable socket wrenches

NAVAGATIONAL NECESSITIES

- Area maps and guides
- Compass with mirror
- GPS equipment

FIELD RECOVERY GEAR

- Tire-changing tools, including good jack
- Tow strap with attaching hardware
- Shovel
- High-lift jack
- Planks for traction or jack support

EMERGENCY SUPPLIES

- Spare ignition key
- Jumper cables
- Two flashlights (check batteries)

- Tire sealant and pump
- Five-gallon collapsible water container (filled)
- Emergency flares
- Fire extinguisher (halon preferred)
- Full size, inflated spare tire
- Extra fuel and radiator coolant
- Radiator stop leak
- Extra engine oil and brake fluid
- Spare fan belt and radiator hose

PERSONAL SAFETY

- Cell phone
- First aid kit
- Bite kit and insect repellent
- Spare medicine/prescriptions
- Spare eyeglasses
- Sunscreen
- Iodine tablets
- Whistle
- Space blanket
- Waterproof matches/container
- Hat and jacket

Paperwork

Introduction:

The primary purpose of this program is to create a written and photographic record of the site condition as of the date you visited the site. To do this you will need to complete large amounts of paperwork.

Prior to Field Work

Pre-field Checklist:

This checklist is to help you prepare to go out into the field. It lists all the paperwork and recording equipment you will need to conduct the condition assessment. However, it does not include all safety and personal equipment you will need. Please review the safety section of this manual before you conduct any fieldwork.

In the Field

Site Update Form:

This form is designed to provide the archaeologist, for whom you will be working with, an update to the official site record/IMACS to be provided to you before you go into the field. It is important that you thoroughly familiarize yourself with everything in the official site record before completing a Site Update Form.

How to complete:

- *Project Name*
 - This may be left blank unless you are provided a name to include.
- *Recorded By*
 - List both the person doing the recording as well as any other team members assisting.
- Everything in the top of the form
 - This next section is all information that will come directly from the official site record/IMACS.
- *Directions to Site (or notes to update site record)*
 - Describe in detail how to reach your site. See the section on Recording Directions in this manual for a step-by-step guide. Remember to:
 - Note road conditions.
 - Include route numbers or names if available.
 - What type of vehicle can reasonably transverse the route?
 - Is the road impassible at certain times of the year?
 - Include hiking directions and terrain.
 - The more information you provide, the better prepared others will be when they visit the site.
- *Site Location*

- This is a brief description of both physical (hills, rocks, streams, etc.) as well as the state of vegetation (trees, small bushes, overgrown vegetation covering or blocking site) of the setting. This is an overall picture of the physical setting of the site.
- *Site Description*
 - This is a summary of the site. Explain what the site consists of (buildings, trash dump, mine, panels, etc.), including major features. Make sure to list any changes you observe from the official IMACS description (things may have collapsed or been overgrown or human caused changes may have occurred).
- *List of Types of Artifacts Present*
 - List all artifact types present (including bottles, ceramics, cans, things that can be moved). There is no need to estimate quantities in trash scatters. You can just indicate which artifacts are present. If you find artifacts such as projectile points, complete purple glass vessels, or other “collectible” artifacts a count is preferred.
- *Approximate Site Dimensions*
 - Estimate how big the site is using either feet or meters. You can include a diagram of the area, if that clarifies things. This can be an aerial view, front face or a side view.
- *Site Condition*
 - List not only human impacts that may have occurred (e.g, graffiti), but also natural impacts (e.g. damage caused by animals). Please include both positive and negative impacts that you observe.
- *Evidence of Visitation*
 - How did you know someone or something was at the site? Campfire evidence, footprints, fresh scat, etc. are all indicators you should note.

Please attach all new and updated documentation!! Including drawings, notes, etc.

Structure Form:

Not all sites have structures. If the site you visit does, this form summarizes the most important information needed to describe a structure. Complete one form per structure.

How to complete:

- *Site Name, Site Number, Agency, and District office/Field Office/Area/Park*
 - This has either been provided to you by the archaeologist or can be found on the official site record/IMACS.
- *Date of Visit*
 - The date of the structural recording.
- *Structure Number/Name*
 - It will either be provided in the official site documentation or determined at the time of recording.
- *UTM/GPS Coordinate*
 - This is usually the NE corner for buildings or the most defined corner. List the actual GPS coordinate and then indicate which Datum you are using, either NAD 83 or 27.
- *GPS Point Location*
 - Describe where the GPS point was taken on the structure. If taken on a corner, describe which corner. Some structures may not have corners and may require a longer explanation as to where the coordinate was taken.
- *Architectural Features Present*

- Use the check boxes to describe what you are seeing. Check as many boxes as apply to your structure. Please check the boxes if door and window openings are present, without the actual door and/or window, they should still be checked. If parts of the foundation, the walls, the roof, or evidence that there may be more than one story are present, the boxes should be checked.
- *Brief Description of the Structure*
 - This should include a physical description of the structure. Use the architectural features listed above as a guide to what you may need to describe here. Include how many walls, their condition, and what material are they made of (wood, stones, brick, etc.). Include any unique and/or identifying features. If you can discern later additions to the structure, note that as well.
- *Photography Guidelines*
 - This is a reminder checklist of what photos should be taken. All photos taken should be listed and fully described on the photographic log.
 - *Baseline Photo Checklist*
 - Take one overview photo to show the size of the structure. Then take at least one photo for each of the checkpoints. Façade is the front of the building and usually has a door. You may have multiple doors. If you are not sure which one is the front, take photos of all possible façades.
 - *Conditions Photo Checklist*
 - These are additional photos that should be taken if the listed conditions are present.
- *Rough Sketch of Floor Plan and/or Footprint*
 - This is to be a diagram of the floor plan and/or footprint of the structure. This is a rough sketch. You don't need exact measurements but if you have them, please include them. A full description of what is needed and examples can be found in the section of the manual on *Drawing Structural Footprints*.
- *Other Comments and/or Concerns*
 - This is where any concerns about the structure should be listed. Included in this section should be leaning walls, graffiti, erosion, and/or any other future impacts that seem imminent. Evidence of increased or recent visitation to the structure should also be listed here.

Photo and GPS Log:

The Photo and GPS Log is the detailed list of all of the waypoints taken to get to the site and of all of the structures, features, and artifact concentrations you may find at the sites as well as their photographic documentation.

How to complete:

- *Site Name and Trinomial*
 - Should come from the IMACS form.
- *Date*
 - Is when you are out at the site.
- *Photographer*
 - Name of who is taking the photos.
- *GPS Person*

Name of who is taking the GPS points.

- *NAD*
 - What NAD is your GPS set to (27 or 83)? See GPS section for more information on NAD.
- *Photo Number*
 - Your camera will assign a number to each photo (ex: DS651). Use this number. Each photo will have a number.
- *GPS Point #*
 - This is taken right from the GPS and is EVERY point taken.
- *Structure #/Feature #/Artifact*
 - If the point/photo is for/of a structure this name should stay consistent between the Photo and GPS Log, the structure form, and any sketch maps.
 - If the point is of an area of interest or an isolated artifact, just write in a one word description in this field. You can further describe in the Point & Description field.

Note: You may have several waypoints and/or photos per feature.

- *Description and GPS Point (easting_northing_):*
 - The top line is for photo and/or GPS description.
 - The bottom line is for the easting_northing_
- *Direction Camera is Facing*
 - This is where you use your compass. N, NE, SW are examples.

Example:

Photo #	GPS Point #	Structure# or Feature# pr Artifact	Description and GPS Point (easting_northing_)	Direction Camera is Facing	
	1	Parking Area	056379/445061		GPS Point No Photo
476		Site	Context photo facing toward the mountain when you leave the trailhead	South	Photo No GPS
477	2	Obsidian	Large obsidian flake under bush	Down	Photo with GPS
			056388/445081		

After Field Work

Please bring all completed forms, cameras used, and GPS unit to the office. Data will be transferred and checked before being submitted to the agency.

Recording Directions

Collecting information to better direct people to the site while in the field

The trip out to the site has two different dimensions. The first is the portion that will be done in your vehicle, while the second is the hike from the location you park to the site itself.

Always start your directions from a well-known permanent location (exp. a major freeway intersection or a good sized town).

Before you leave your starting point:

1. Check your odometer before you begin driving
2. Take a GPS point at starting location
3. If you know how, start a GPS track and leave the GPS on

Once you are on the road, document each turn by noting:

1. The mileage on the odometer
2. The cardinal direction you are turning
3. If it is a left or right turn
4. Any exit numbers or names
5. Street names or numbers
6. If an unmarked road or poorly marked turn,
 - a. Take a GPS point
 - b. Take context photos
 - c. Note land marks passed and key features present at the turn*

*Note: When you do record the presence of a boulder or other feature, make sure to give a good description of size and shape. Don't just say large. I once had a site where we were supposed to park next to a "large" boulder, but we didn't know what that meant. We spend way too much time pointing out boulders to each other and trying to decide if the new one was larger than the last. It turned out the boulder was the height of a two-story building. There was no possible way to miss it once you saw it, but before we came around the bend and beheld its enormity, we thought any six foot boulder was large.

Also, it is a good idea to note the presence of intersections where you stay on your original road, especially on unmarked tracks, since it will let people know they are not to turn there.

Once you park:

1. Note distance from your last point (odometer reading)
2. Take a GPS point
3. Take a photo of the parking area
4. Describe driving conditions, terrain, and vehicle requirements needed to get to the parking area**

**Do you need a four-wheel drive to reach the site? What about a high clearance vehicle? Was any part of the road particularly rocky or difficult to navigate? Would you recommend this route only to people experienced with off-road driving?

Before setting off on foot:

1. Take a photograph in the direction of the site from where the car is parked
2. Record the heading (direction) in which someone needs to travel to reach the site from the parking area
3. If you are using track on your GPS, double check that you have your GPS "Track" set to on

Hiking to your site:

1. Document any turns or complicated navigation areas
2. Take GPS points and photographs at any major turns or land marks you pass
3. Be aware of the distances traveled from your previous known point
4. Describe distance, terrain, slope, and any major challenges on the way to the site

It can be even harder in the context of the hike to find permanent landmarks, but remember that trees die or can be cut down, washes and rivers can change their contours, and signs can be knocked down, taken away for souvenirs, or shot up for target practice. When in doubt, take a GPS point and a photograph with the configuration of the local hills and valleys for reference. If there are no hills or valleys, then be as accurate as possible with your distance and direction information.

Once you get to your site:

1. Take a GPS point and a photograph of the approach from the trail

Ultimately, we would like to have a clear narrative that describes the journey traveled.

Photographing the Site

Photography is a vital aspect of site condition reporting. It provides a visual record of the state of the site at the time the photo was taken and can be used by the archaeologist to complete their official assessment. The volunteer should always carry a digital camera when they conduct a site condition assessment.

Types of Photographs

- **Approach Photos:** Many sites have complicated routes to get to them and taking photos of major landmarks on the way to the site during your condition assessment may assist others in finding the site after you submit your report. These photos include photos of the parking lot, important signs, roads and trail, and of intersections with other trails/roads.
- **Context Photos:** These are photos of the site and the surrounding landscape. The main goal of these photos is to assist with location. These photos are more zoomed out than the overview photos and will contain as many elements of the site as possible.
- **Overview Photos:** These are photos of sections of the site. Overview photos provide information about where in the site structures/features are situated and how different aspects of the site are related. These photos also make it easier to find structures, features, and artifacts.
- **Structure/Feature Photos:** These are detailed photos of structures or features (including rock art panels) within your site during your visit. These attributes are often the focus of any updates to the site condition.
- **Artifacts in Place:** These need to be documented so you can identify if anything is missing from the site record or if items need to be added. Please remember to utilize a color photo scale when photographing artifacts. The arrow should always point toward north and the direction of view is down.

Photo and GPS Log

It is important to always use a Photo and GPS Log when taking pictures of a site. This document assists land managers in identifying the subject of the photos and provides vital information for relocating the features and artifacts in your report.

Site Photos

While assessing the site, it is also important to take detailed photos of previous impacts mentioned in the site record. These photos assist archaeologists in building a time-line of how the impacts are weathering or if they are attracting more of the same issues.

Photographing Structures

Structures, being 3D objects, require significantly more photography than most features. There is a check list on each Structure Form that details what should be photographed. Generally, you will need to take photos of each of the corners of the structure, the façade, the roof, the interior, any major features on the walls and floors, old impacts (such as graffiti or fire damage), the context of the structure (where it sits within the site), and any structural instability that could lead to further damage.

Please note: There is no need to describe the direction the camera is facing on the Photo and GPS Log when you use the directions the walls are facing. For example, if you take a photo of the NE corner you don't need to indicate that your camera direction of view is SW.

Photographing Cemeteries

Major impacts at a cemetery are often either digging or stealing of grave markers and/or fences. This necessitates photography of all fencing, the grave markers, grave offerings, and the ground within the cemetery. It is suggested that you start at the first aisle and work your way down the aisle, and then go up the next aisle and so on. On your photo log each aisle can be one entry. Record the outer fence, if present, as well.

Example:

Photo Number-IMG8-12

Description- Southern aisle East to West

Direction Camera is Facing-North

Photographing Large Rock Art Areas

There are sites that contain large areas of rock art. These can be cumbersome to photograph. We do not expect a photo of each glyph. The approach to photographing the glyphs depends on the surface area or expanse of boulders you will be photographing. For long panels or areas of coverage we usually take overlapping overview photos moving from one direction to another and note that on the Photo and GPS log.

Example:

Photo Number-IMG135-147

Description-Rock Art on South Facing Wall photos from East to West

Direction Camera is Facing-North

Photo Points

If you happen to have old photos of the site, taking photographs from the same place at the site will assist land managers in comparing how the site has changed since the previous photo was taken.

For example:



These photos are not comparable.



These photos are comparable.

Photo Ownership

The photos you take of the site you are assessing belong to the land managing agency and cannot be used on the internet or sold.

Note: Never put yourself in danger to photograph a site.

Sketching Site Maps

Hand-drawn sketch maps used to document the relative location of artifacts, features, and structures at a site are very useful. They provide an overview of the site and can be used as a reference for condition assessments and future site visits.

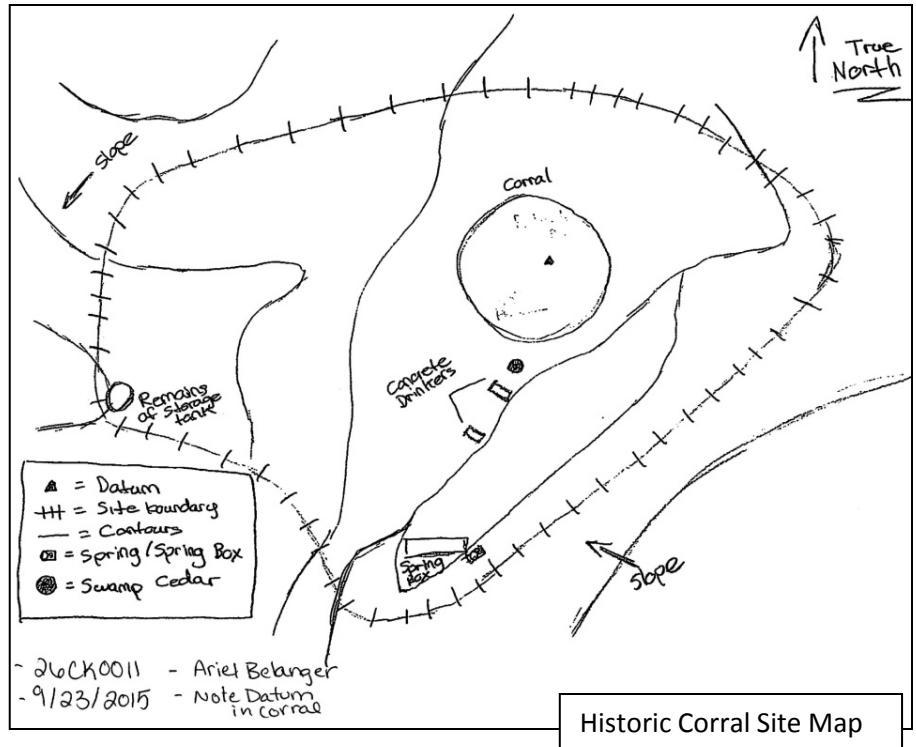
Materials needed: a compass, graph paper (plain paper is okay) and a pencil.

What to include on your map:

It is very important to use a legend for each map produced as it allows others to read the map easily and accurately.

What to include in the legend:

- Site Name/Number
- North Arrow
- Date (mm-dd-yyyy)
- Name of recorder (person completing the map)
- Datum (if a permanent one is present)



What to include in the map:

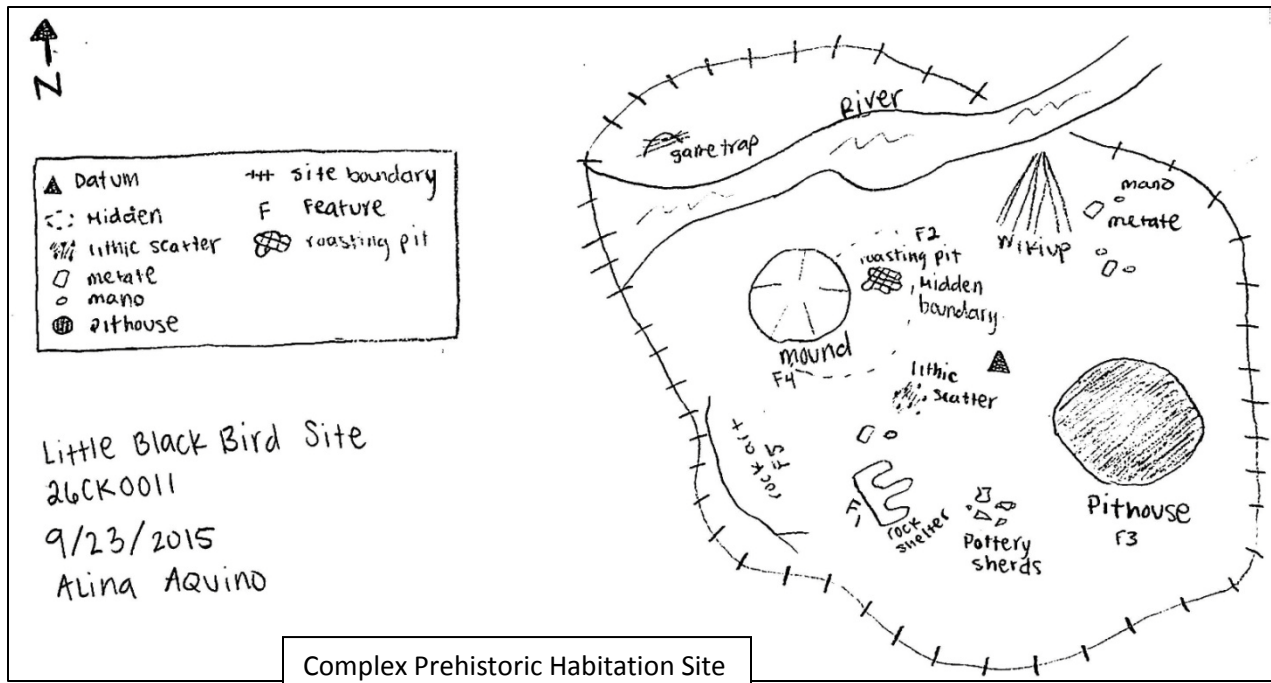
- Artifacts – concentrations of lithics, manos, matates, etc.
- Features – fire hearths, rock rings, midden, privy pit, etc.
- Structures – corral, building, CCC dam, etc.
- Datum - if one is present
- Geological/natural features within the site boundaries – outcrops, large boulders, contours, etc.

When mapping features/items:

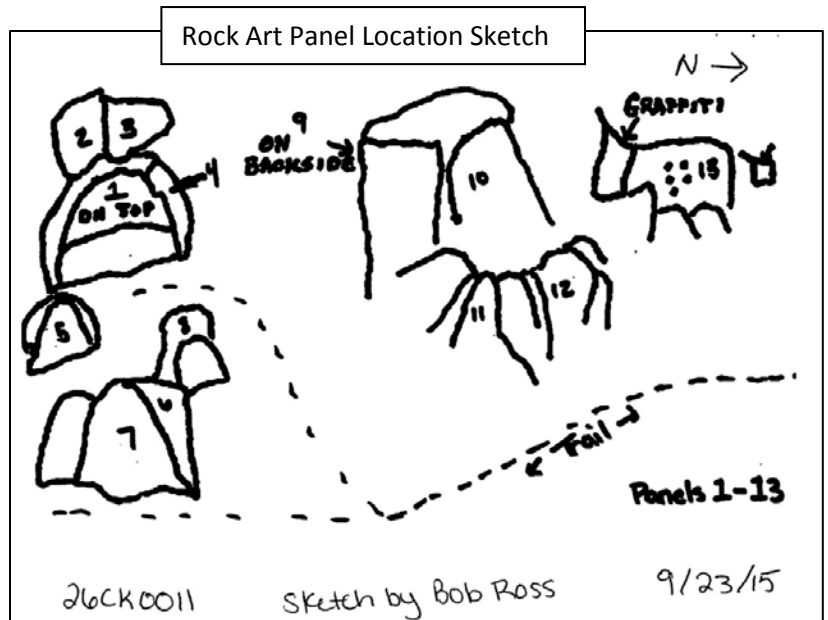
- Sketch features/items provided in the IMACS documentation
- Sketch any additional features/items you identify
- Individual or scattered items are not necessarily required on the site map. Only significant single items or concentrations of items should be sketched.
- When sketching features be sure to differentiate features of the same type (ex. Structure 1, Structure 2). This will have been done on the GPS Log, Photo Log, and if applicable, the structure form.
- Accurate scale is not required

Different Types of Sites:

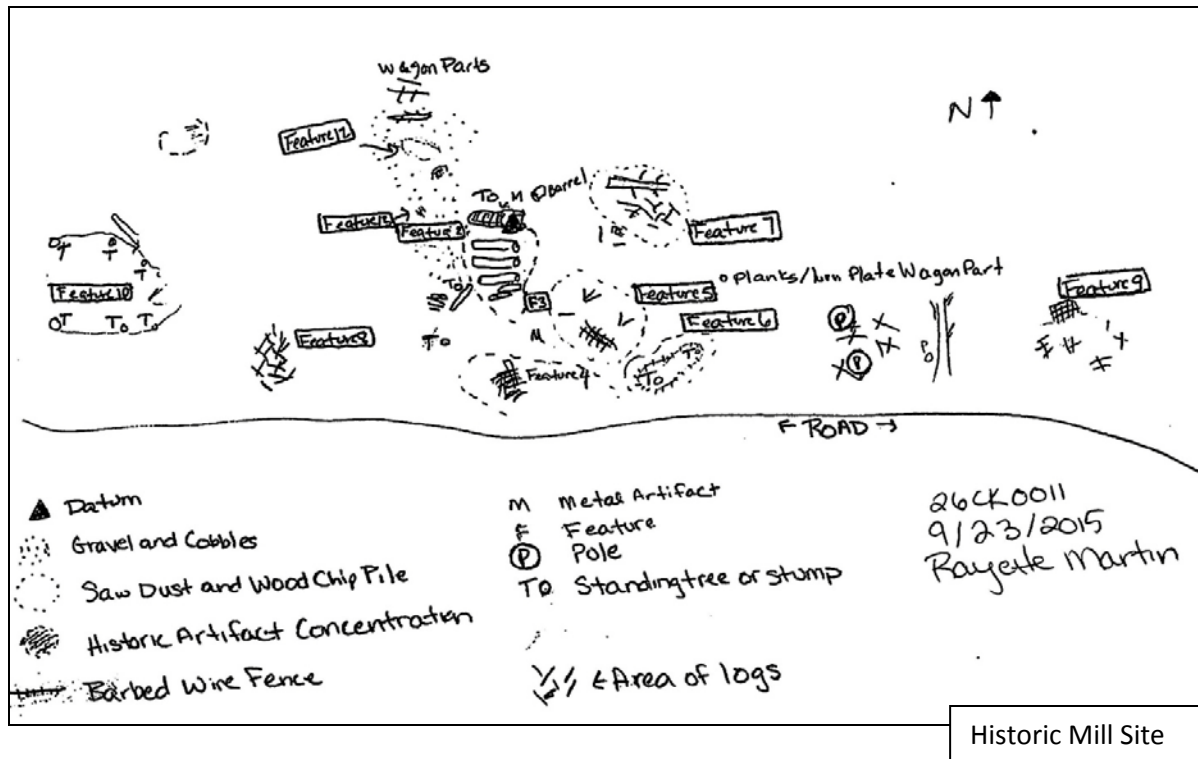
Prehistoric:



- Rock Art Site:
 - o Sketch the boulders, as best you can, that contain the rock art/panels.
 - o Place the appropriate motif/panel number on the sketched boulders
 - o Include any other associated items.
- Rock Shelters:
 - o Include any associated items with the shelter
- Artifact Scatters
- Pit Houses
- Roasting Pits
 - o Pit
 - o Fire Cracked Rock
 - o Associated artifacts
- Game Traps
- Wikiups



Historic:



- Town Sites:
 - o Structures
 - o Roads – paved and unpaved
 - o Wells
 - o Vehicles
 - o Can/bottle scatters
 - o Any associated items of importance
- Cemeteries
 - o Grave markers
 - o Fences and walls
- Mining Sites
 - o Tailings
 - o Mines and/or shafts
 - o Vehicles
 - o Structures
 - o Associated equipment
- Mills Sites
 - o Structures
 - o Associated equipment
- Arborglyphs
- Dam
 - o Structure
 - o Associated materials or artifacts

How to Sketch a Structural Footprint

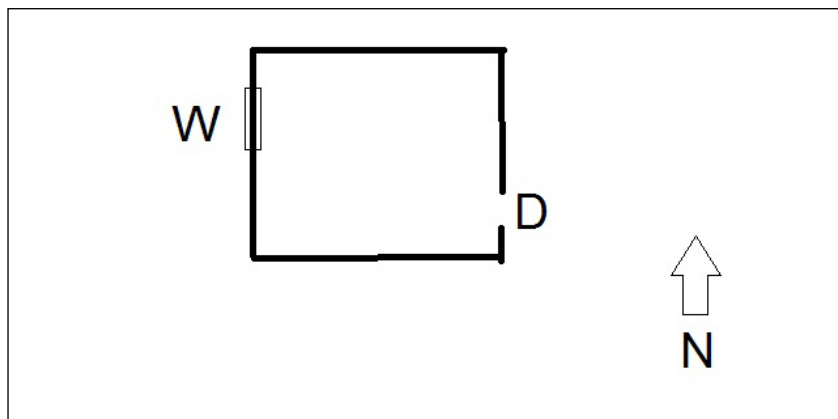
Sketching a layout of a building or structure is a great way to convey the overall space of a historic building or structure. The sketch, in combination with photographs, can be more valuable than a verbal description. When sketching a building/structure and its surrounding features, it is not necessary to be overly detailed or to sketch everything exactly to scale. All that is necessary is to convey the overall spatial organization of the building/structure to another person who might read the form at a later date. Most buildings or structures volunteers will encounter are square or rectangular, making sketching a bit easier to manage. However, there may be features that are not apparent in either the sketch or the photographs. Be sure to make a note of these on the Structure Form.

Things Every Structure Sketch Should Include:

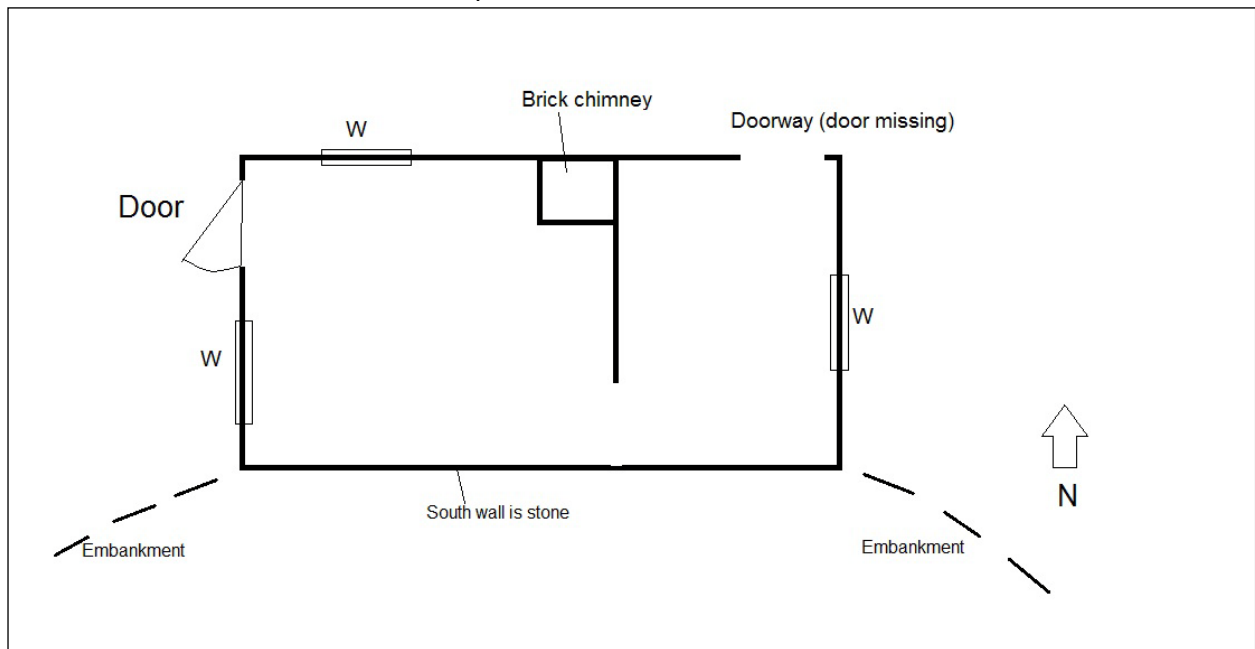
1. North arrow
2. Outline of building floor plan
3. Indication of window locations (if applicable/recognizable)
4. Indication of door locations (if applicable/recognizable)
5. Indication of collapsed building materials (if applicable)
6. Indication of nearby associated features (if applicable) (could include trash scatter toward front or rear of building, seemingly associated building refuse, a retaining wall, etc.)

Sketch Samples:

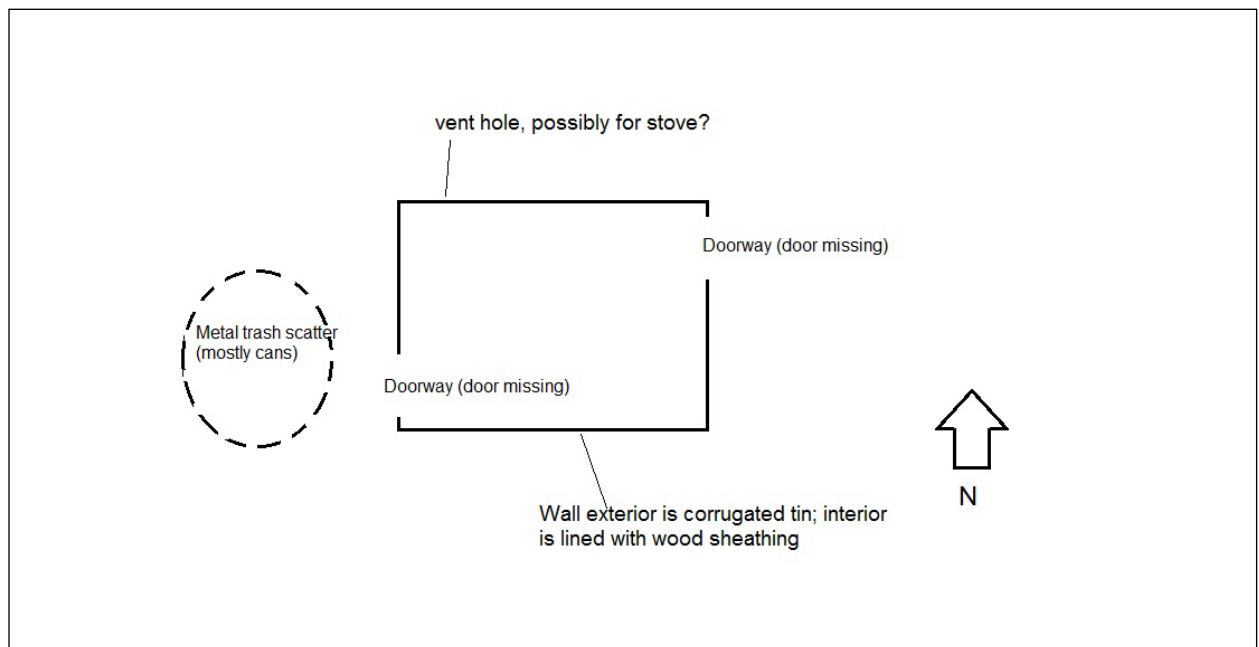
Stone cabin:



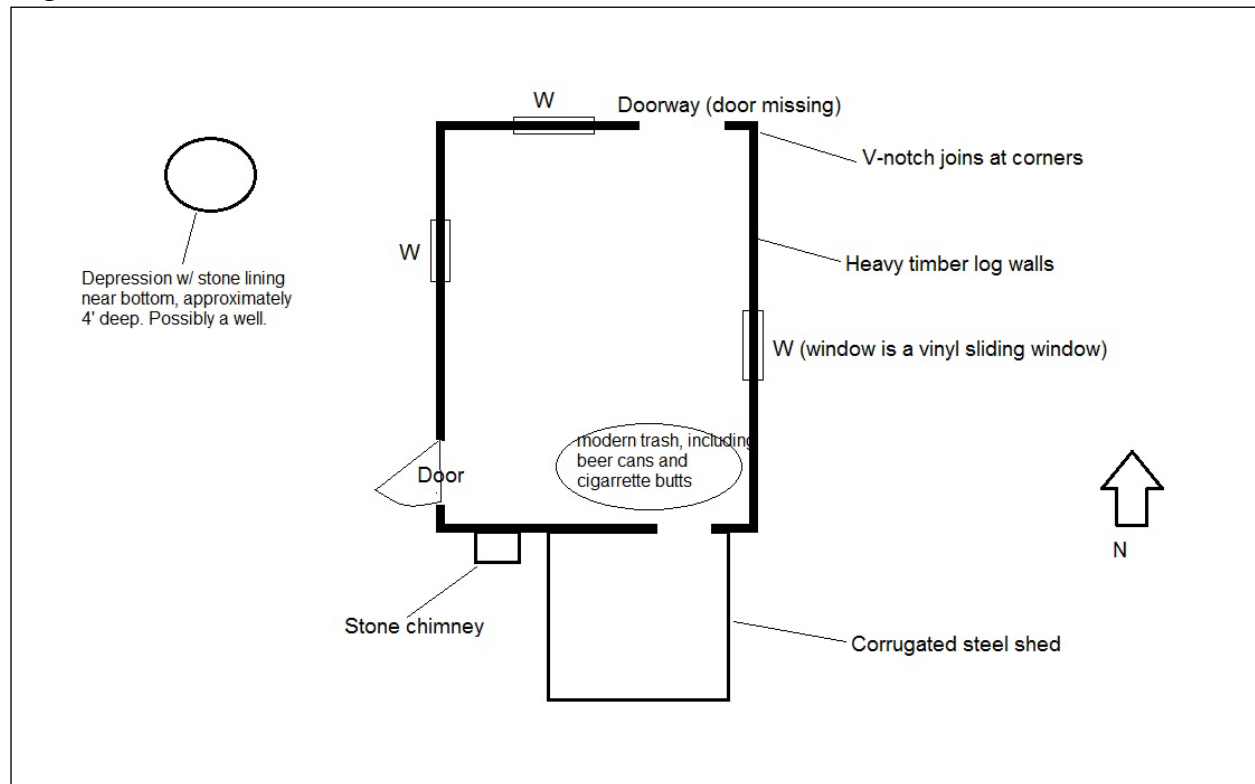
Two room wooden shack with a fireplace:



Shed with aluminum and wood walls:



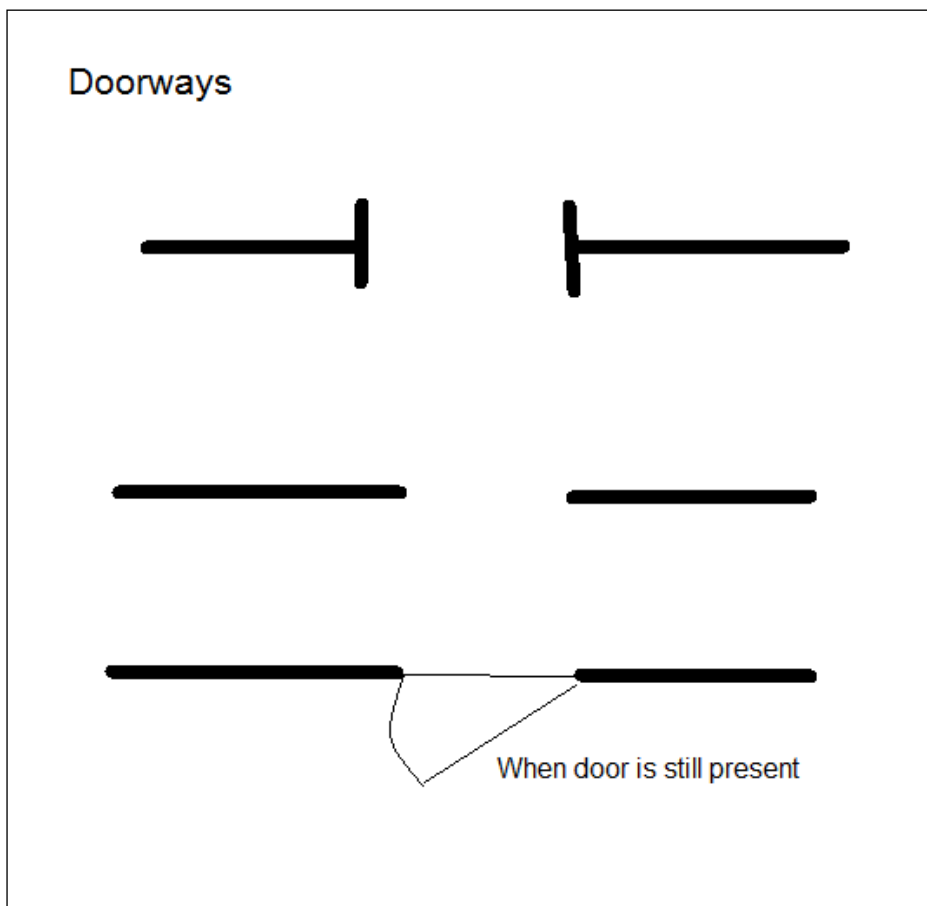
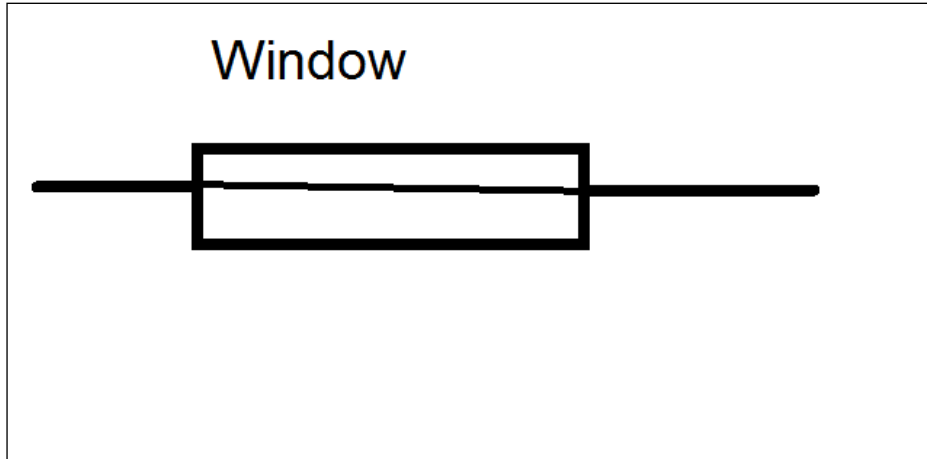
Log cabin with modern additions:



Tips for Good Sketches

1. Try not to go "label happy." If there are important things to clarify via a label, do so, but avoid cluttering the sketch too much. The important thing is for the resource manager who is back at their office to understand the overall resource, not every specific detail.
2. Focus on the major aspects of the building, such as the walls, doorways, windows, and any major related features like a retaining wall or large trash scatter. Smaller details might be interesting and worth noting on the form, but don't need to be a part of the sketch.
3. To keep the sketch oriented, consider facing to the north while sketching to keep track of the overall spatial organization.
4. For more complicated buildings/structures, consider using a key to mark repetitive features, such as "W" for windows and "D" for doors. Remember to put the key next to the map so that a future reader will know what your symbols stand for.

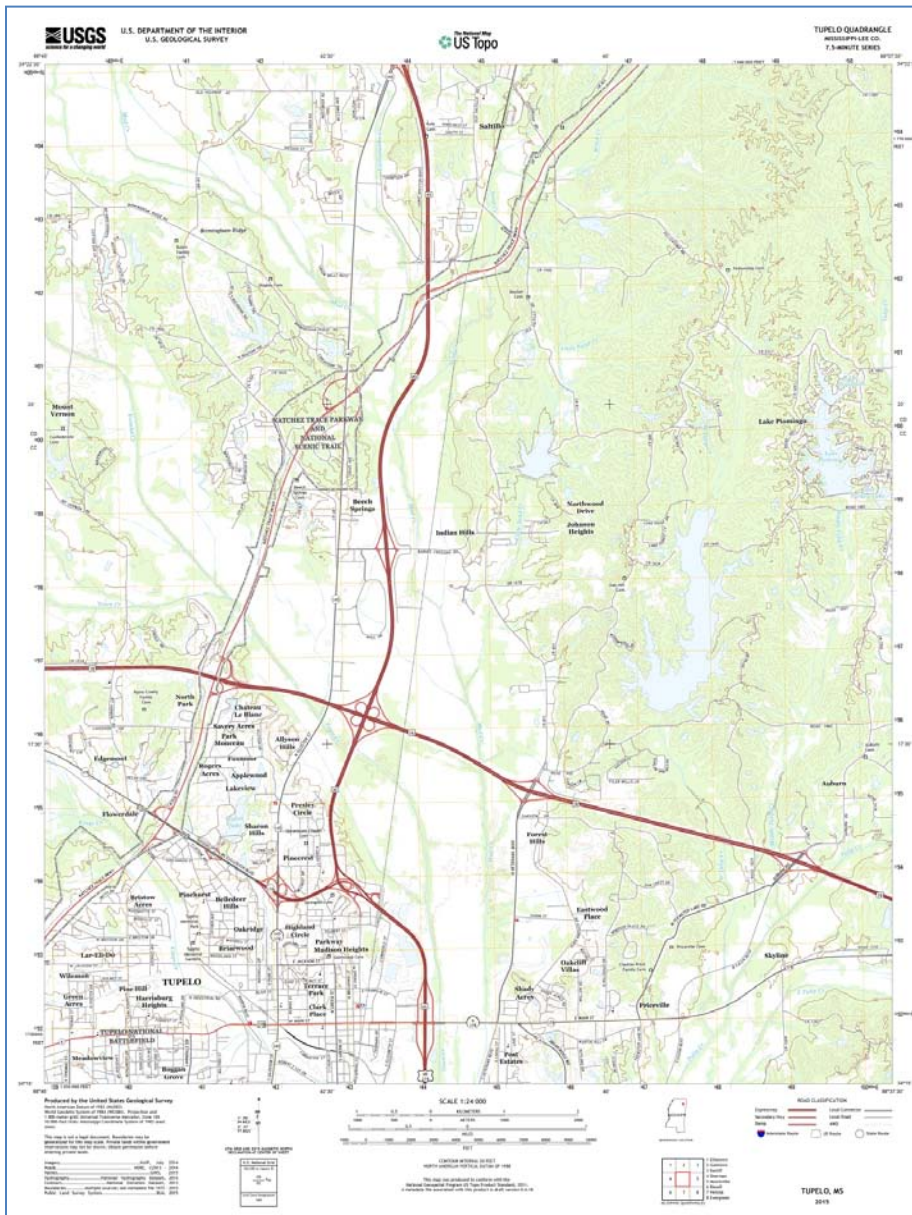
5. To sketch deteriorated walls, consider using a dotted line or a shaded area to indicate where walls once stood but have either failed and fallen over or eroded into the soil.
6. Feel free to use sketching conventions for common features:



How to Read Topographic Maps

What Are Topographic Maps?

Maps are not just the tools of cartographers. For many years, they have guided explorers to uncharted lands and have helped them find their way back home. Maps show a two-dimensional portion of the Earth's three-dimensional surface on a flat piece of paper.



Topographic maps

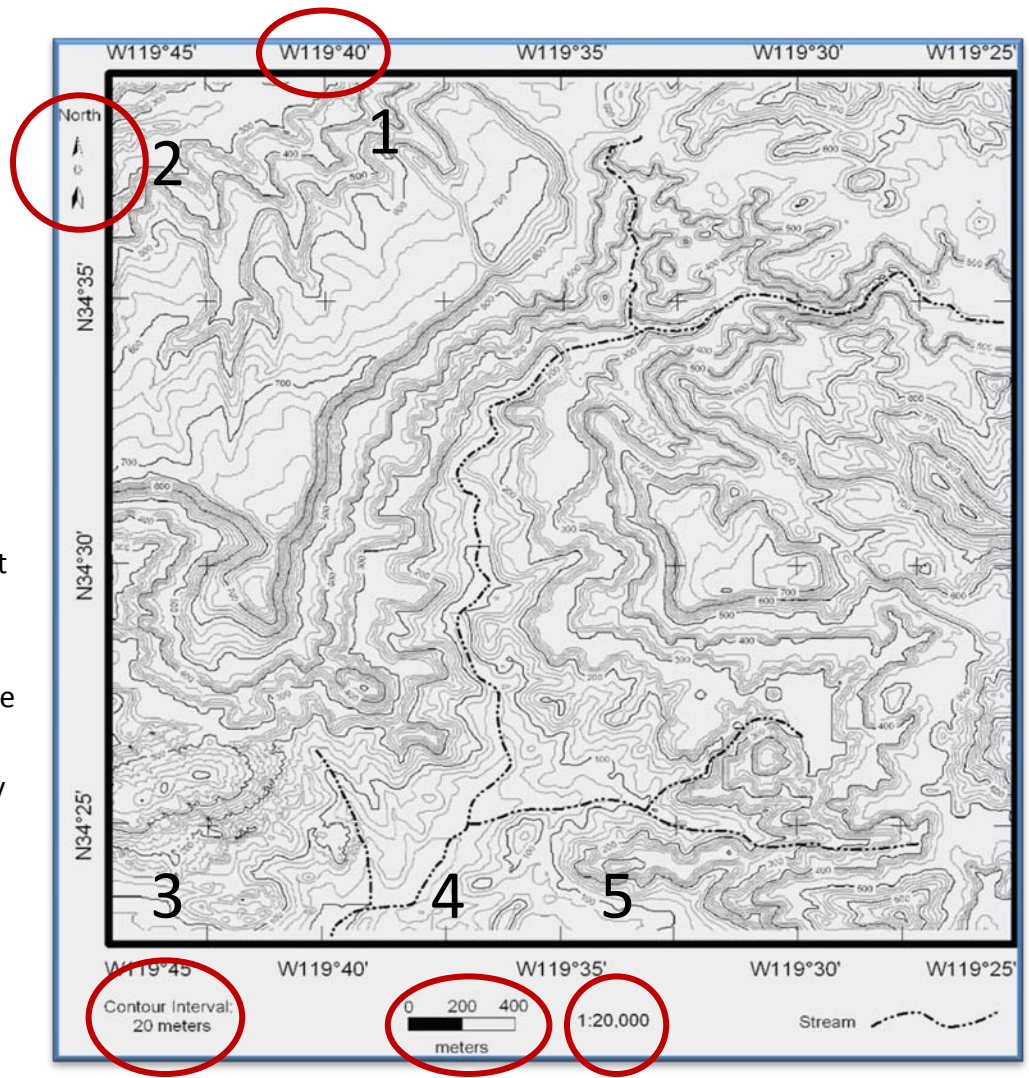
specialize in showing the elevation of the land through **contour lines**. With this, they define hills, valleys, depressions, steep cliffs, and other features on the landscape that would otherwise catch you off-guard if you were going by GPS or compass alone.

When combined with a compass or a GPS, a topographic map can be one of the best tools you have. It can help you pinpoint your location by identifying visible geographic features, and it can help you find a desired location through comparing the current surroundings with those drawn on the map itself.

Important Features

Grid Lines (1): These are lines that separate a topographic map into squares. Each “box” provides its own coordinates.

True North Marker (2): Topographic maps will usually have a marker indicating which way is true north. While this is helpful in making sure that the map is oriented in the right direction, it is important to note that true north and magnetic north—which is utilized by a compass—are two different things. Topographic maps will often include the declination for magnetic north.



Contour Interval (3): The contour interval for a topographic map will usually be listed on the map itself. If not, there is a simple equation that will allow you to determine it.

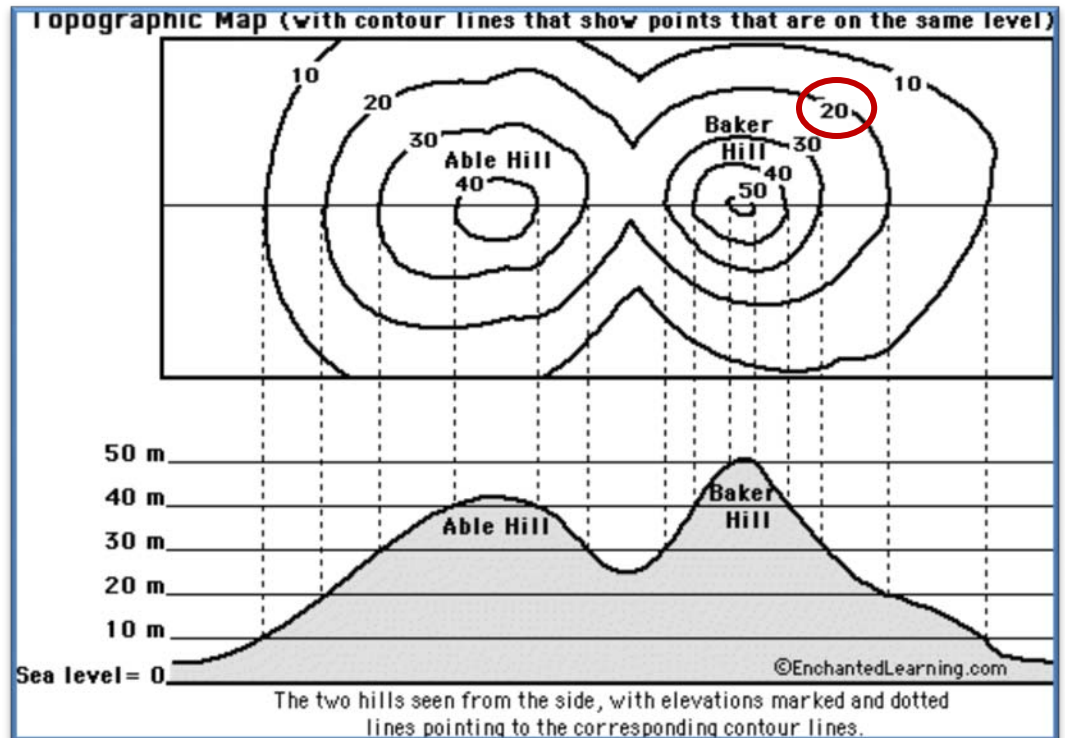
Unit of Measurement (4): Topographic maps will often include a bar that indicates what type of measurement is being used. A ruler can be aligned with this bar to determine the distance between two points.

Scale (5): This ratio determines how the map is measured. In this case, 1 meter on the map is equal to 20,000 meters in the real world. This helps in converting the short amount of distances on a map to the realistic distances between two geographic features in the real world.

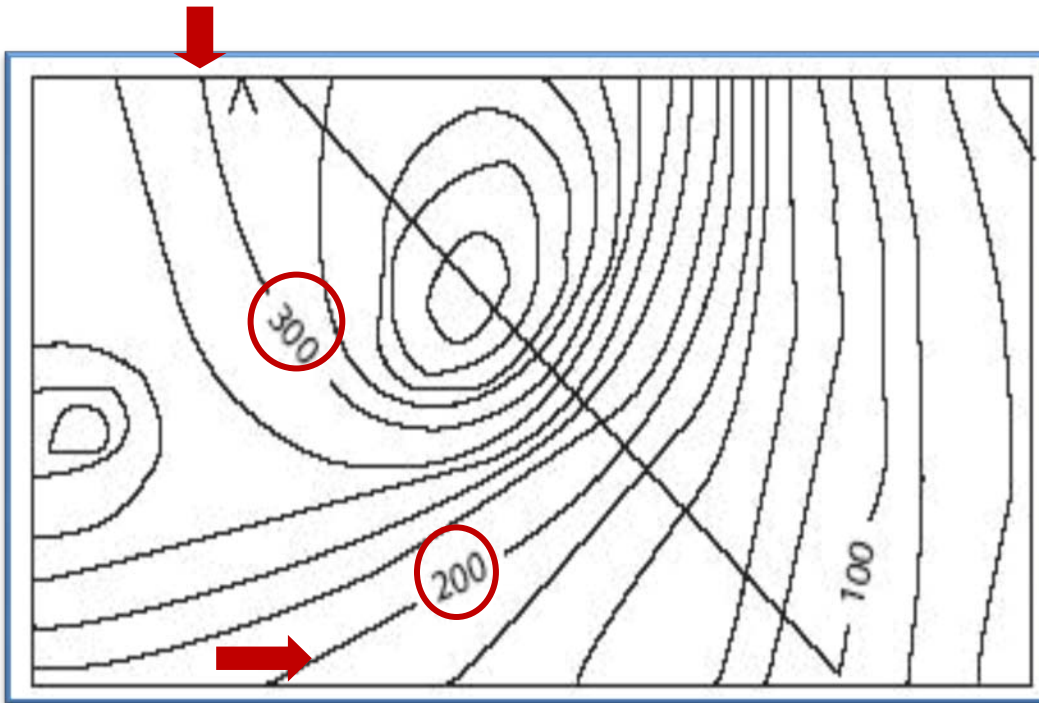
Contour Lines

Contour lines connect points of equal elevation. They show the elevation or depression of a geographical area based on the measurement listed on the map itself.

Contour lines **never** cross each other. They **never** go up or down hill.

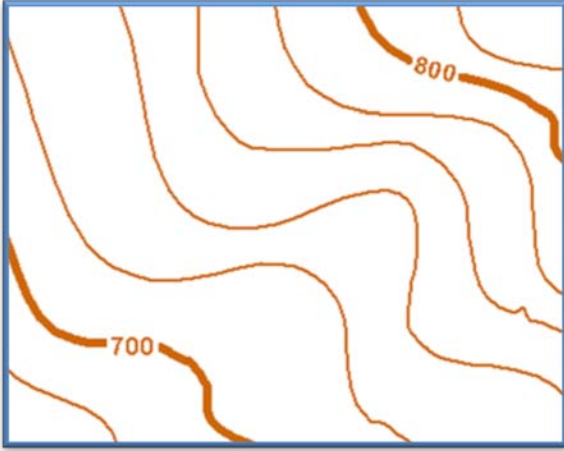


Thicker lines, or **index lines**, will list the elevation for which that line is drawn. Index lines usually follow a pattern (ex: every index line may be separated by an elevation of 100).



The Contour Interval

The contour interval is the vertical distance between contour lines. They help define the measurement of contour lines that are not index lines.



If the contour interval is not listed on the map, it can be determined by:

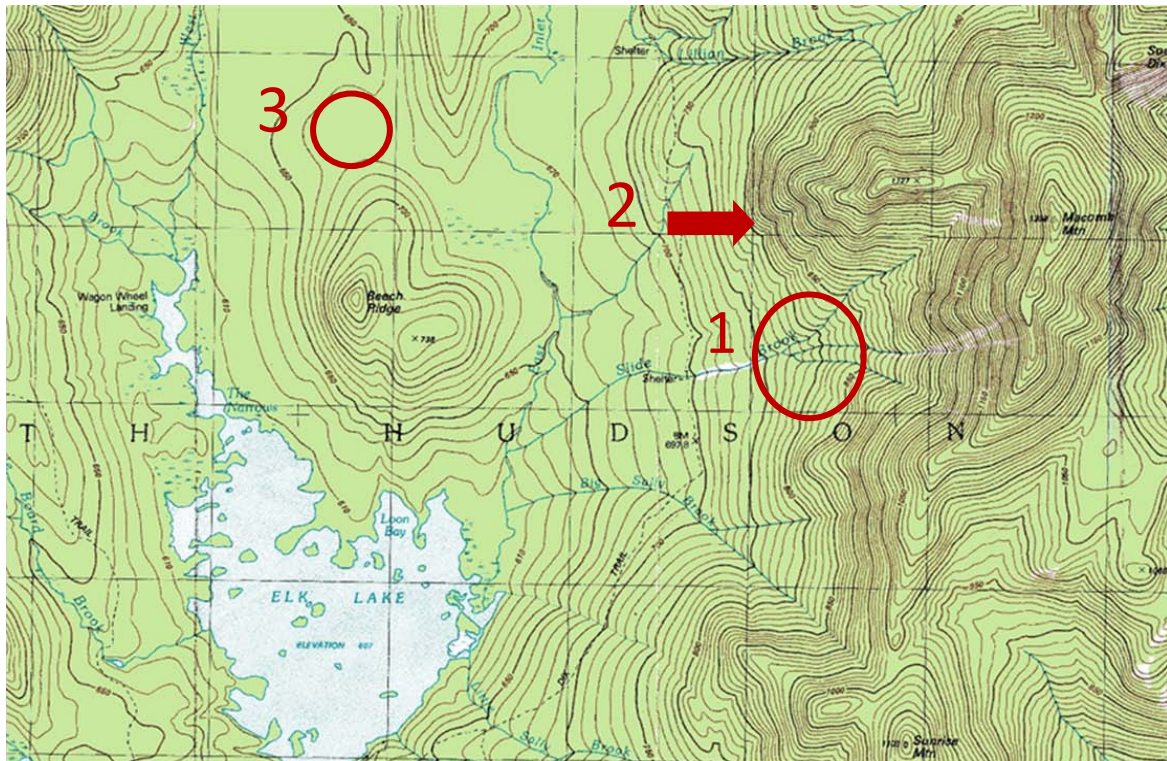
Step 1: Subtracting the measurements of two index lines

Step 2: Dividing that number by the number of spaces between the two index lines

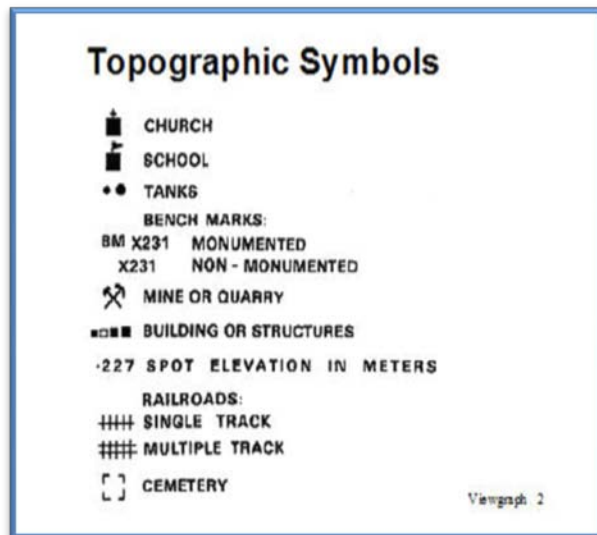
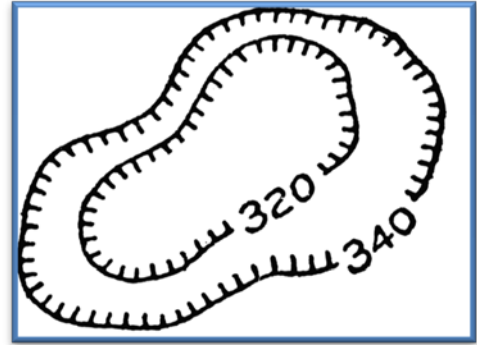
In this case, $800 - 700$ is 100. There are 5 spaces in between these two index lines. $100 \div 5 = 20$. The contour interval is **20**. Therefore, one contour line above the 800 index line would measure **820**.

Other Important Features

1. When contour lines cross a **river**, they form a “V” shape. The two ends points of this “V” always point **upstream**.
2. The **closer** the contour lines, the **steeper** a hill is. Contour lines that are more **dispersed** imply **flat plains**.
3. **Green-colored** land often indicates the presence of **vegetation**.



4. If contour lines are drawn with **hash marks**, it is a **depression**, not a hill, and the elevation lowers.

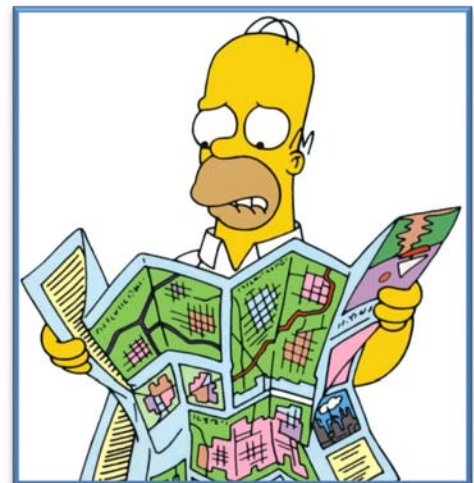


5. Topographic maps will often have a legend with various **symbols** that label structures, railroad tracks, benchmarks (a mark on a permanent object indicating elevation), and other features.

Important to Remember

Topographic maps are **dated** when they are drawn – and this date is listed on the map, **often in one of the bottom corners**. Keep this date in mind, as features may have changed since your specific map was made. Therefore, **you should always keep your maps updated**.

The best way to not get lost **is to not get lost**. When following a map, always look up every now and then to make sure that the actual terrain matches what you see on paper.



How to Use a Compass

What is a Compass?

Compasses have a long history in serving as sources of navigation for explorers of all types. In fields where GPS cannot be utilized, a compass and map are your best tools for determining where something is – including yourself.

Compasses utilize magnetic north and declination, amongst other features. Sometimes, declination can be pre-set by manually adjusting the compass dial itself, but not every compass comes with this capability. These guidelines are meant for compasses that do not have adjustable declinations on their dials, though they can certainly also help with those that do.

Topographic maps are generally preferred when using a compass, due to the presence of grid lines and their accurate portrayals of land elevation and features.



Quadrants



A compass is separated into 360 degrees, which allows you to configure declination, plot landmarks, and set destinations. It is separated into four quadrants—north, east, south, and west—which is then further separated into four secondary quadrants—northwest, northeast, southwest, and southeast.

The Parts of a Compass

Baseplate: This is the flat surface upon which the compass is set. It has rulers on its sides to measure distances on maps and can be used to draw straight lines between landmarks.

Magnetic Needle: This is the mobile needle within the compass dial. The needle's red tip points toward magnetic north and is referred to as **"the red"**.

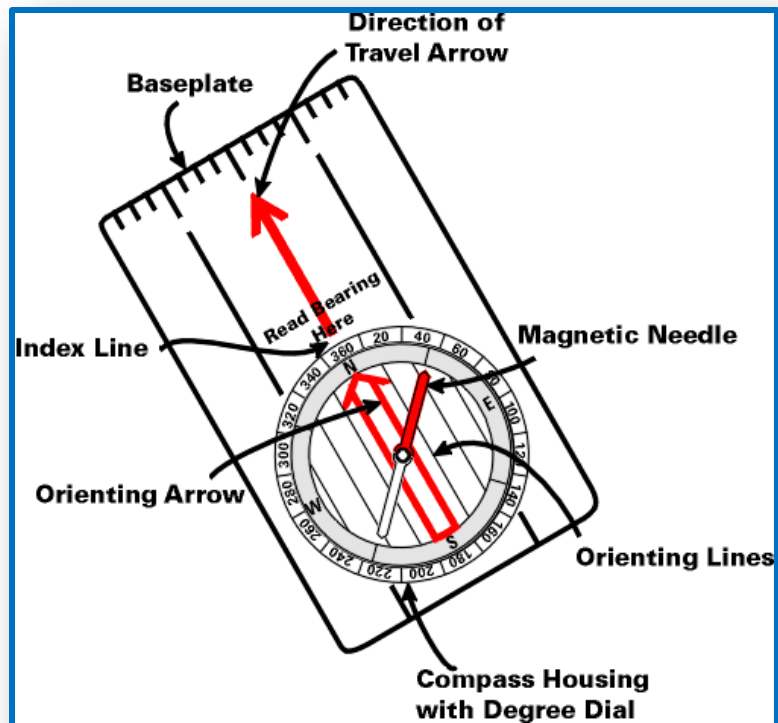
Orienting Arrow: This is the red arrow within the compass dial that allows you to orient your map to north. It is needed to accurately plot such things as landmarks and destinations, by figuring out how many degrees from true north that bearing is. It is referred to as **"the shed"**.

Orienting Lines: These are the series of parallel lines within the compass dial that you align along the grid of a map to determine your position and direction.

Compass Dial: This is the rotatable dial that houses the magnetic needle, orienting arrow, and orienting lines. It lists degrees and quadrants. You can adjust it to set declination and to determine the position of a landmark.

Direction-of-Travel Arrow: This is the red arrow outside of the compass dial, drawn on the baseplate. You point this arrow in the direction you wish to travel.

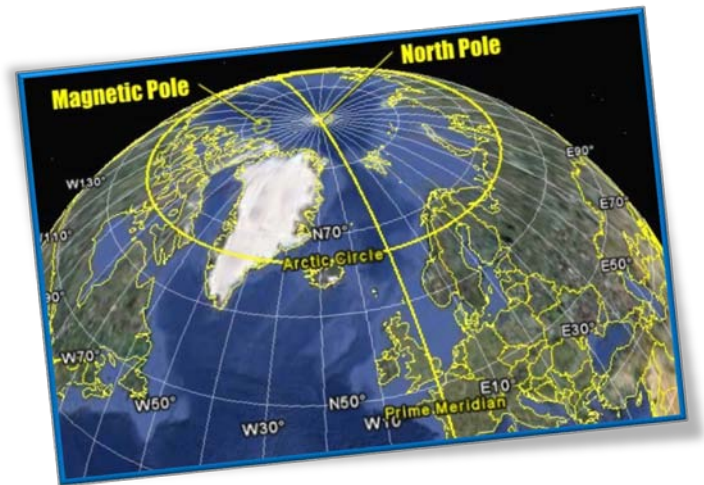
Index Line: This is the line at the opposite end of the direction-of-travel arrow. It allows you to read the degrees on the dial (when the direction-of-travel arrow is pointed at a landmark) to determine how far from north a landmark is situated.



True North vs. Magnetic North

True north is the direction toward the Earth's magnetic pole.

Magnetic north, which is what a compass uses, is based on the Earth's actual magnetic field. Magnetic north changes depending on where you are, a varying difference known as **declination**.

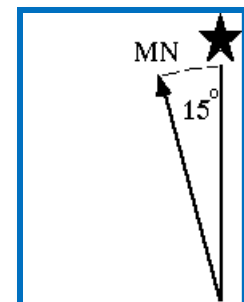
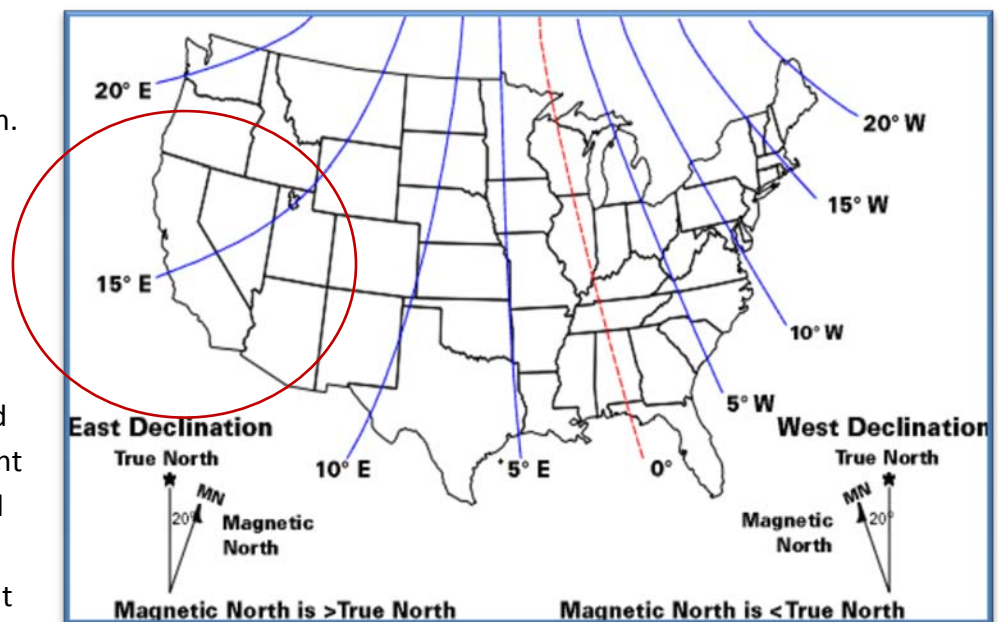


Metallic objects in an area can influence the direction of a compass's magnetic needle. A compass should be used in a reasonable distance away from anything metallic that could skew its measurements.

Declination

Declination refers to the difference between true north and magnetic north.

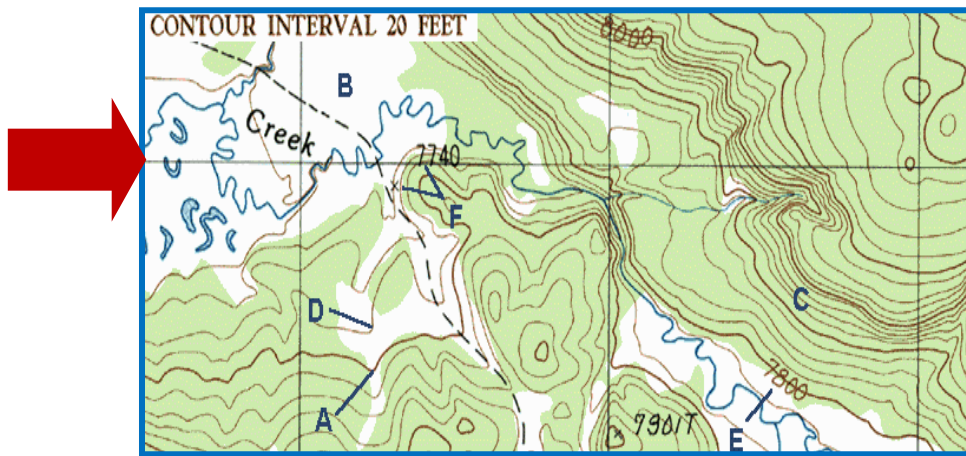
Maps usually say which way is true north, and then provide the declination. Since compasses utilize magnetic north, it is good to pinpoint a bearing point (landmark), and then add (if east) or subtract (if west) the degrees for that landmark by the difference in declination. The declination for an area is usually listed at the bottom of a topographic map. Remember to always keep your maps updated, as the declination for areas are **constantly changing**.



Grid Lines

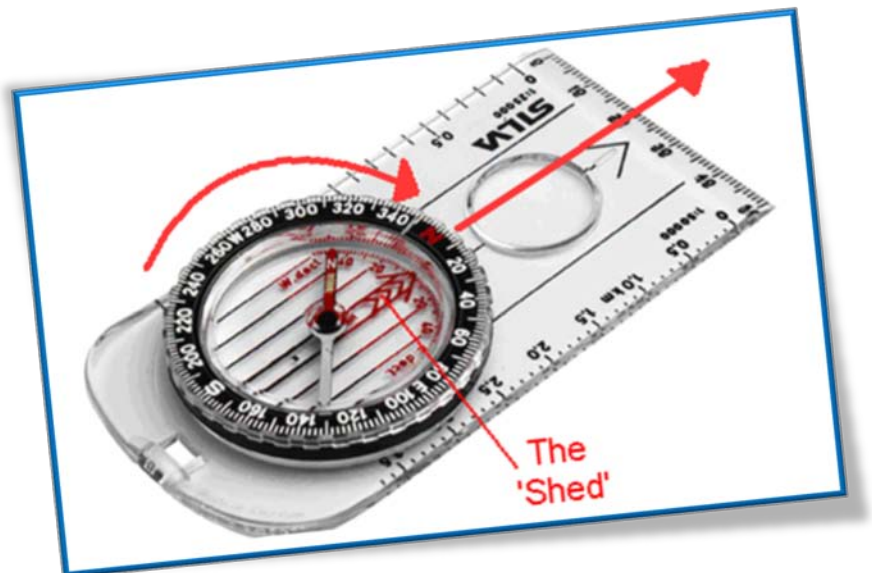
Grid lines are the straight lines that separate a topographic map into squares.

These are the lines you use to orient your map to north using your compass (with its orienting lines/arrow), determine your location, pinpoint a landmark, and triangulate.



Setting a Compass to a Map

Setting your compass to a map allows you to orient your map to north. This is especially helpful if the map does not list which way is north. It should be done before you try to take bearing points for landmarks, triangulate to determine your position, or set a destination.





To set a compass:

Step 1: Turn the compass dial until the orienting arrow (“the shed”) aligns with the direction-of-travel arrow.

Step 2: Lay the compass on your map and align its orienting lines over the map’s grid lines. You should have the direction-of-travel arrow pointed toward the top of the map.

Step 3: Holding the compass against the map, rotate the map and the compass **together** until the magnetic needle settles within the orienting arrow – also known as “**putting the red in the shed**”.

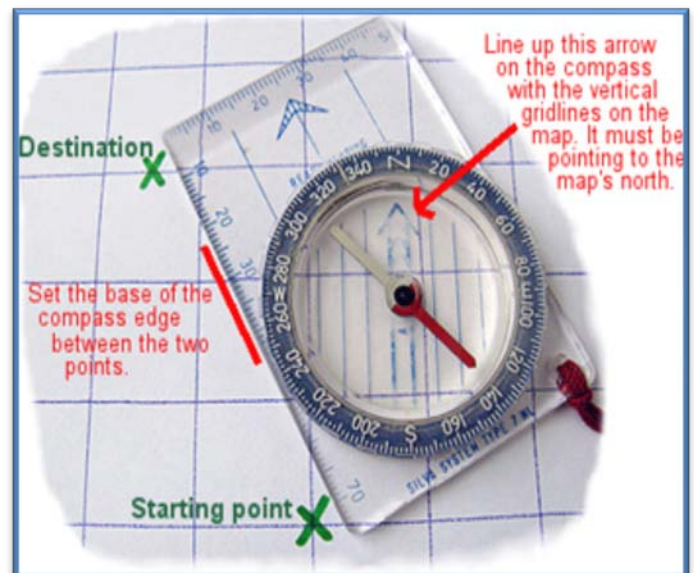
Setting a Destination

To use your compass to set a destination, you must have located yourself on your map and aligned your current location with a desired location using your compass’s baseplate. Draw a line between these two points.

Adjust the compass’s dial until its orienting arrow and orienting lines align with the grid lines on your map. (Don’t forget – “**put red in the shed**” – so that you know your map is oriented to north.)

Note the degree number on your index line and the direction, and you’re ready to move!

While pursuing your destination, continuously check your compass and your current position on your map to make sure you’re not trailing off. **The best way to not get lost is to not get lost**, but, if you do, **don’t panic**. With a compass and a map, the methods outlined here will help you.



Taking a Bearing Point

Bearing points – referred to as **landmarks** – are any significant, geographic features around you that you can use to determine your position through triangulation, set a destination, and find a desired location. Using your compass, you can measure their distance from true north and plot them on your map.

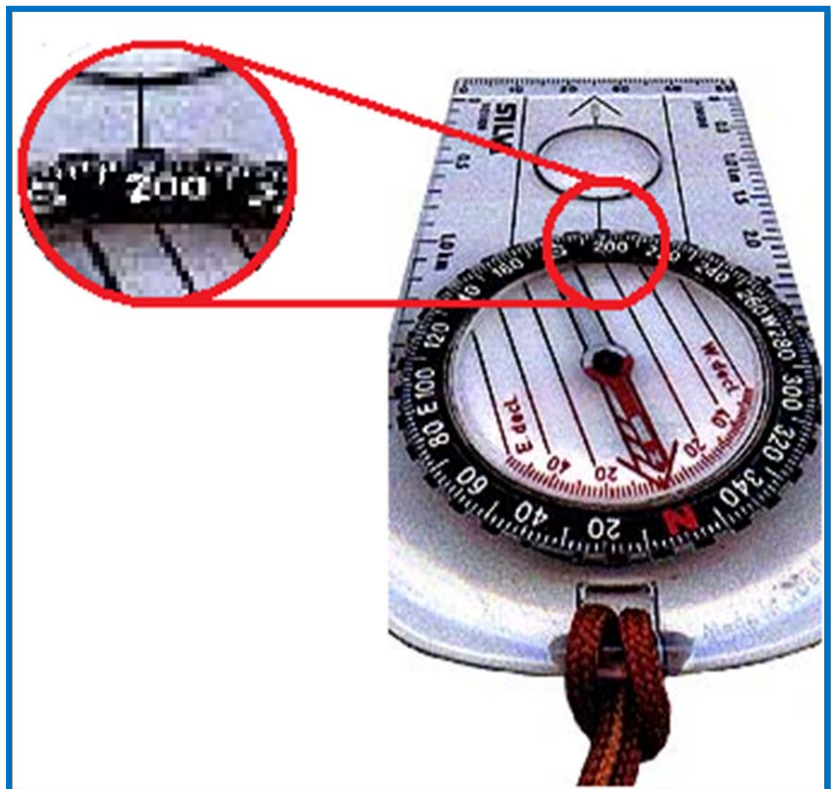
To take a bearing point:

Step 1: Point the compass's direction-of-travel arrow toward the geographic feature you wish to measure. Make sure to hold the compass as still as you can and within a reasonable, comfortable distance away from you, so you can read it without moving it.

Step 2: Rotate the compass dial until “the red is in the shed”, as in the magnetic needle steadies within the orienting arrow.

Step 3: Note the degree number on the compass dial that is now aligned with the index line. Remember to add or subtract declination, as needed. Plot the point on your map by setting your compass.

You can do this for as many landmarks as you want.





Triangulation

Triangulation is the process of locating your position (or a desired location) on a map using the bearing points of multiple land marks.

Before you can triangulate, make sure that your map is oriented to north, that you have determined the area's declination, and that you have taken the bearings of multiple landmarks and have identified them on your map.

The point where these landmarks **intercept** on your map is your current position or a desired location.

To triangulate:

Step 1: Point your compass' direction-of-travel arrow to a landmark and turn your dial until **"the red is in the shed"**.

Step 2: Hold your compass to your map so that the compass's orienting lines align with the map's grid lines.

Step 3: Keeping your compass aligned, slowly move it against the map until the top edge of the baseplate ends at the landmark.

Step 4: Draw a line along the edge of your compass's baseplate from the landmark, following the bearing you took.

Step 5: Repeat this process for each landmark you've taken.

Step 6: Note where the lines intercept. This is your current position or your desired location.

Triangulation is a helpful way of orienting yourself if you think you're lost. **Don't panic!**



Using Your GPS (Global Positioning System)

How does a GPS work?



Multiple satellites send signals to your GPS device. The device reads the satellites' tracks, deciphers the signal code to determine the difference between time of broadcast and time of reception, and then uses this to calculate the distance between the satellites and receiver. Since the GPS device is receiving signals from multiple satellites at a time, it can calculate its exact location on the globe. Subsequently the more satellites that are communicating with the GPS unit, the more accurate the reading will be.

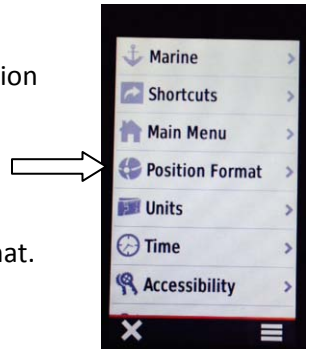
A GPS unit needs a minimum of three satellites to triangulate a point. Be aware of situations like when you are in a narrow canyon. You can check your GPS to see how many satellites it is communicating with. If it is less than three, the GPS will not be very accurate.

Below are the functions of the GPS that will be most useful when conducting site condition assessments.

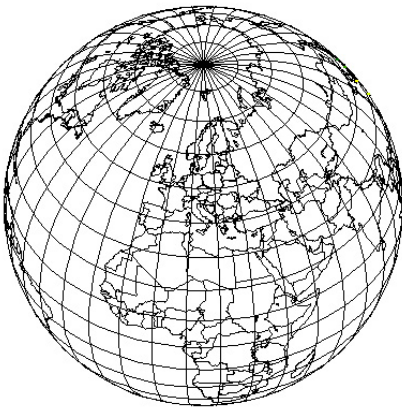
Position Format

One of the most important things to set up and know how to access is the position format.

We use UTM UPS. See the difference between UTM and Latitude and Longitude below.



Latitude and Longitude



Longitude and latitude measure the world as a perfect sphere. Longitude measure distance west or east of the prime meridian. There are 180 degrees of longitude in each hemisphere, eastern and western. Latitude is measured in parallel lines from the equator. There are 90 degrees of latitude in each hemisphere northern and southern. The equator is at 0 and the North Pole is at 90 N and the South Pole is at 90 S.

Precise positions in Latitude and Longitude are measured in Degrees, Minutes and Seconds which work similarly to minutes and seconds in an hour. In other words, 1 degree = 60 minutes and 1 minute = 60 seconds

Precise positions are seen as: 122.07.30W 40.22.30N

122 Degrees 07 Minutes 30 Seconds, W Hemispheric Position

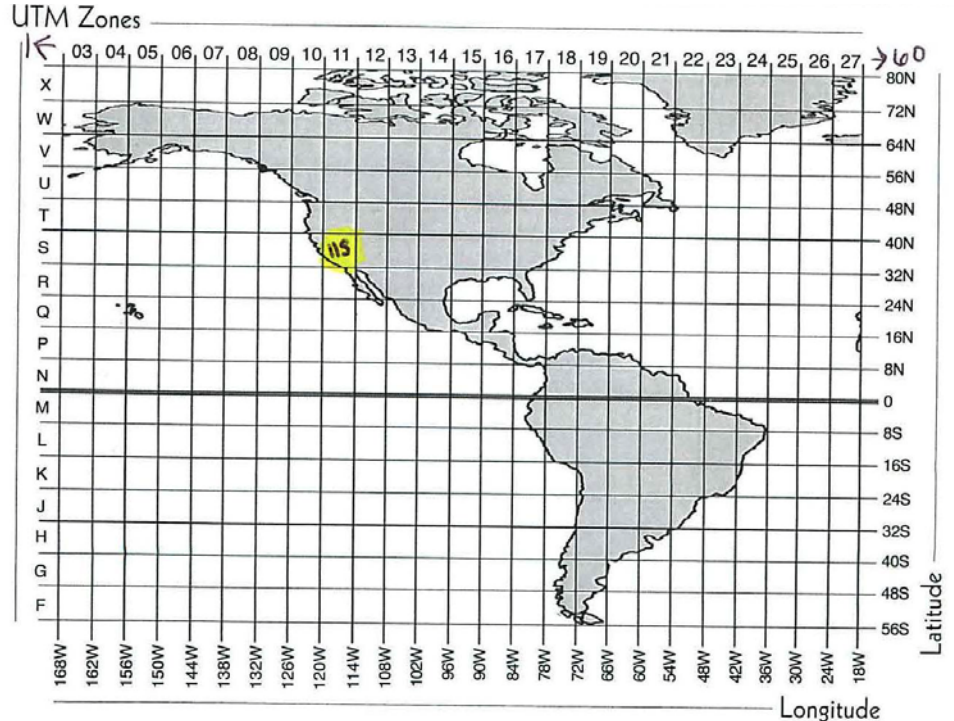
40 Degrees 22 Minutes 30 Seconds, N Hemispheric Position

Maps that use Latitude and Longitude are in quads based on Degrees and Minutes. They are referred to as seven-and-a-half-minute sheets because they are 7.5 minutes of longitude and 7.5 minutes of latitude. These maps are often referred to on IMACS forms.

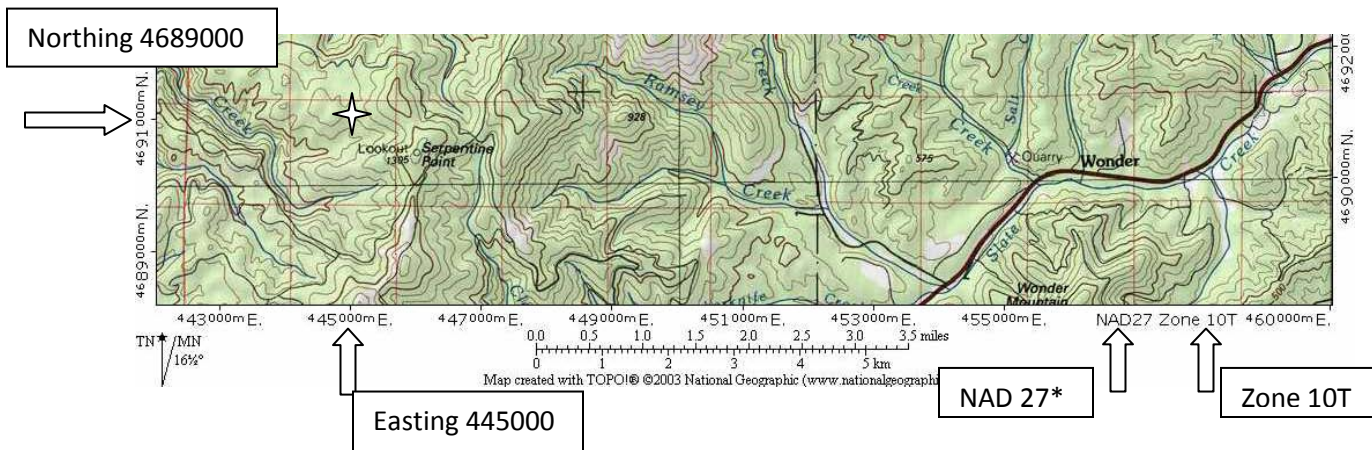
UTM (Universal Transverse Mercator)

The UTM system measures the world as if it was flat. Dividing the world into 60 north-south numeric columns numbered easterly beginning with Zone 1 at the international date line (180 degrees W) and 20 east-west alpha zones lettered northerly beginning with Zone C. Numeric zones are set every 6 degrees longitude and alpha zones every 8 degrees latitude.

For example most of Nevada and parts of California are within Grid Zone 11S.



Coordinates within Grid Zones are listed as Easting and Northing. Positions are measured in each zone in meters east relative to a central meridian within the Zone and meters north relative to the equator. This system of measuring is much more accurate than Latitude and Longitude.

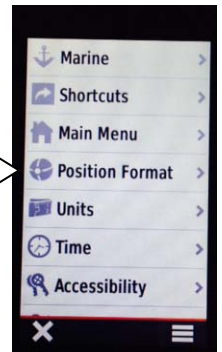


Precise positions are listed as 10T 445000E 4689000N NAD 27*

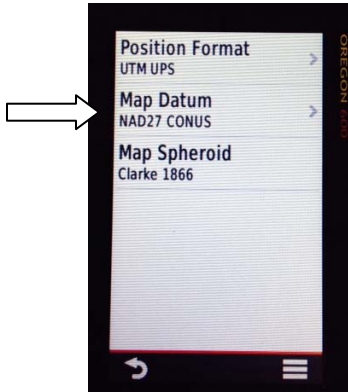
Grid Zone 10T 445000Easting 4689000Northing NAD 27*

For Condition Assessments Always use UTM UPS!

To access this, go to the Position Format Screen of your GPS. From the drop down menu choose UTM.



Map Datum



Once you have selected your position format as UTM UPS on your GPS, you must select the Map Datum. There are many datums to choose from. The datum is the way the earth was measured to create the UTM grid zones. *NAD is short for North American Datum there are two options: 27 CONUS (Continental US) and 83. In 1927, a grid was laid out over the US and its measurements are slightly off from the more accurate grid laid over the US in 1983. You will be reading and using coordinates in NAD 27 or 83 only. Sometimes you will see WGS 84. This is very close to NAD 83 but should be avoided if possible.

If two points are taken in the exact same location, one in NAD 27 and another in NAD 83, their readings will be different.



Same Location Different Datum

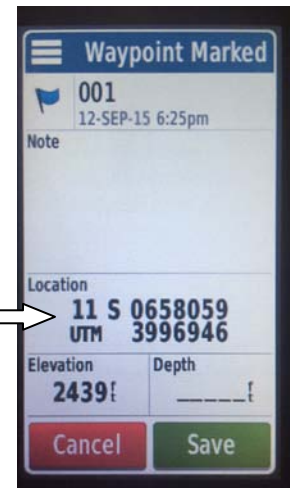
11S 0661526E 4006239N NAD 83

11S 0661590E 4006040N NAD 27

It is very important to know what Datum or NAD your GPS is set to.

Marking a Waypoint - "Taking a Point"

1. Make sure the GPS unit is on and has a minimum of three satellites. To find out how many satellites are communicating with the unit, go to the satellite screen. This screen may have a set of concentric circles with numbered satellites and possibly their strength located within the circles.
2. Push the mark button. Each GPS varies. Once this button is hit, a screen will come up with the location information. It may be named with a number and date. The location information will have the Grid Zone with an Easting and a Northing.
3. To keep this point in the GPS, you may have to hit a save button. When you do, it will be saved as the number it appeared as.
 - a. If you want to change the name, get your cursor to that field and change it before you save it. It is always good practice to write down the point number and the location information in case the GPS has issues. (If you save it before renaming it, there is a way to change the name later.)
4. To find that point, go into your waypoint manager and look for the number or name if you renamed it.

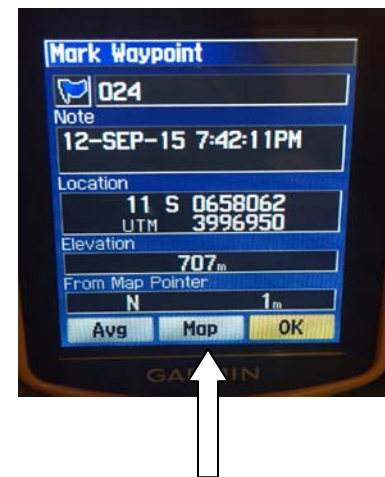


Finding a Waypoint-“Getting the GPS to direct you to a point”

1. Make sure the GPS unit is on and has a minimum of three satellites. To find out how many satellites are communicating with the unit, go to the satellite screen. This screen may have a set of concentric circles with numbered satellites and possibly their strength located within the circles.

If the point is already in the GPS unit,

2. Find the Waypoint Manager
3. Find the point you want to be directed to and click on it
4. Some GPS units will automatically show the point on a map and others will show an arrow on a screen. Both of these screens are meant to direct you to the point. Some require the user to hit a go or map button before they will be directed to one of these screens.
5. The arrow on the GPS may not make sense at first. It is only when the GPS starts moving that it knows where to go. It will then become accurate in its directions.



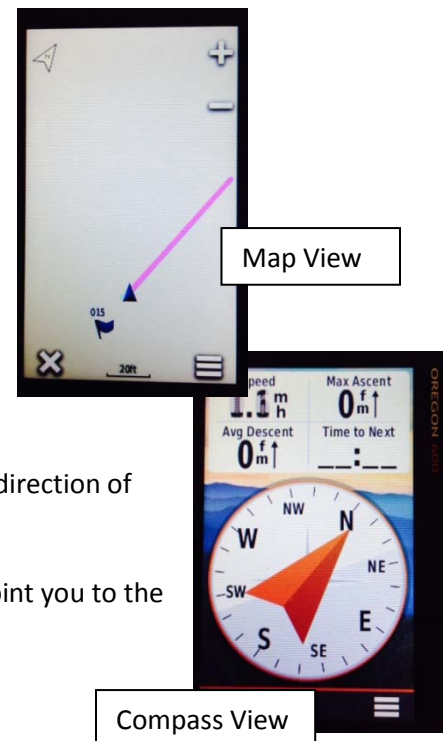
If the point is not already in the GPS unit,

2. Ensure your GPS Unit is in the same Position Format as the point that is to be entered. Ex. UTM UPS in NAD 83.
3. Hit the mark button to get to the location screen for a waypoint. Put your cursor in the Location section and change the easting and northing to reflect the point you wish to find. Be sure to hit the save button and remember the point number or rename the point so you may find it easier later.
4. When you are ready to be directed to the point follow the steps above.

There are two different screens you can use to navigate to a selected point.

1. The map screen shows a small arrow and a direct line to the site.
2. The arrow screen or compass shows a large arrow that will point to the direction of the site.

Note: keep your eyes on the ground and not on the screen. The GPS does not point you to the best route but to the site as the crow flies.

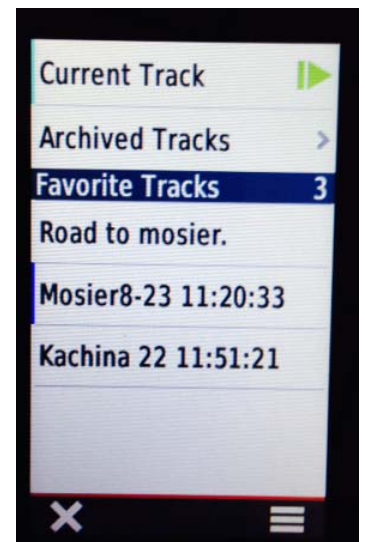


Tracking “Recording a bread crumb trail of where the GPS has traveled”

1. Make sure the GPS unit is on and has a minimum of three satellites. To find out how many satellites are communicating with the unit, go to the satellite screen. This screen may have a set of concentric circles with numbered satellites and possibly their strength located within the circles.
2. Make sure you set up your tracks to record automatically at a normal interval with an automatic start.
3. Go to your Current Track and clear it when you are at your selected point like where your car is parked.
4. Now your GPS will leave a bread crumb trail from your selected point like the parking lot until you hit the save current track option.
5. Continue to take points along your route and at your site. These will not interfere with your track.
6. When you have completed your journey, go to the current track and save it. It is a good idea to rename the track.

Return to the site using a saved track

1. Make sure the GPS unit is on and has a minimum of three satellites. To find out how many satellites are communicating with the unit, go to the satellite screen. This screen may have a set of concentric circles with numbered satellites and possibly their strength located within the circles.
2. Go to the Track Manager and select the track. You may be provided information about the track such as distance, elevation, and time took to travel.
3. To follow the track, get it on the map and hit go. From this point you can switch over to the arrow screen if you prefer.



Pointers/Notes

1. **Always bring extra batteries**
2. **Always check for satellite signals**
3. **Always double check the Format Position**
4. **Always take a point where your car is parked**
5. **Always look at the ground and terrain not just at the GPS**
6. You can use the track manager to follow where you drive. Just follow the same directions above. You'll want to separate the driving track from the hiking track by saving each one separately.
7. You can use the track manager to follow your track back to your car if you save the track when you are at your end destination.
8. You can download and upload points and tracks to and from your GPS.
9. If your site condition assessment packet is completed with assistance from the NSSP, your GPS points and tracks will be provided to the agency.

Glossary of Terms

ACEC – Area of Critical Environmental Concern – BLM

Adit – is an entrance to an underground mine which is horizontal or nearly horizontal, by which the mine can be entered, drained of water, ventilated, and minerals extracted at the lowest convenient level. Adits are also used to explore for mineral veins.

Agricultural Use – a feature used in connection with crop production: linear borders, field houses, fields.

Anthropology – the scientific study of the physical, social and cultural development and behavior of humans.

Anthropomorph – a rock art term for a human-like figure.

Archaeological District – is a grouping of archaeological resources related to one another in a clearly distinguishable way. This relationship can be a time period, culture, or other characteristics. Districts may be prehistoric, historic, or contain components from both periods.

Archaeological Monitoring – involves identifying the condition of a site and watching over the resource in an effort to recognize and protect associated features and artifacts. This activity is usually done in relation to potential or pending impacts of a site including visitation.

Archaeological Resources – include artifacts, features, sites and districts from both prehistoric and historic time periods. These resources may be of regional, national or international significance. Archaeological Resources are sometimes combined with *Cultural Resources*.

Archaeological Sites – are concentrations of artifacts or features that reflect activities conducted by prehistoric and/or historic people. Examples are prehistoric ruins, rock art, mining camps, and railroad construction sites. These areas are usually, but not always, accompanied by artifacts or features.

Archaeology – the systematic study of past human life and culture by the recovery and examination of remaining material evidence, such as graves, buildings, tools, and pottery.

Archaic – from earlier people or an earlier time period.

ARPA – the Archaeological Resources Protection Act.

Artifact Scatter – a patterned or unpatterned array of various types of artifacts across the surface of the site. An artifact scatter should contain more than one type of artifact and is prehistoric. Artifact scatter should be used in preference to sheet scatter or tool scatter.

Atlatl – a wooden handle (about 24 inches long) that is used to cast or throw darts with great accuracy and tremendous force. The darts are about 5 or 6 feet long and are flexible and look like oversized arrows.

Arrastra – a primitive mill typically used for grinding and pulverizing gold or silver ore.

Artifact – any object made, used, or modified by humans.

Attribute – characteristic or property of an object such as size, color, or shape.

Basalt – highly mafic igneous volcanic rock, typically fine-grained and dark in color; rough volcanic equivalent of gabbro. Basalt is the most abundant volcanic rock in the Earth's crust.

Baseline – a standard of comparison. Your first site visit provides you something to compare your future visits to so it is called a baseline visit. Annual photographs are called baseline photographs because they also provide a point of reference.

Basin – a low, bowl-shaped area of land surrounded by higher lands; any large depression in which sediments are deposited.

Behavioral Inference – conclusions about human behavior that archaeologists make based on the objects left behind by past peoples.

Bedrock/Boulder Grinding Stone – a pecked or ground concavity in a large boulder or outcrop used for the processing of food or other items. May be a bedrock mortar, metate, slab, grinding slick or sharpening groove.

Bedrock Mortar – an anthropogenic circular depression in a rock outcrop or naturally occurring slab, used by people in the past for the grinding of grain, acorns, or other food products.

Biface – a stone tool, such as a projectile point, that was worked on both sides.

Bin/Cist – a constructed/enclosed storage place or mealing bin that may be above, partially or completely underground and either lined or unlined.

BLM – Bureau of Land Management

BOR – Bureau of Reclamation

Building/Structure – a human-constructed feature, usually with walls, and possibly with a foundation and a roof (depending on the condition of the feature), generally meant to shelter some kind of human function, either as a residence, a place of work, etc. While some cultural resource professionals differentiate between “building” and “structure,” this is not necessary for the purposes of Site Stewardship.

Cache – an apparently purposeful placement of artifacts or collected items, for storage or for ceremonial purposes, either above or below ground or within an architectural structure (e.g., mano cache, pottery cache, etc., presumably stored for later use).

Cairn – a mound or stack of rocks used to mark the locations of boundaries or claims.

Canal – excavated linear feature to transport water to fields, may be lined or unlined. Should be used in place of a ditch, channel, irrigation ditch, trench, or water channel.

Car Body – the major portion of a vehicle abandoned on a site. If the car body has been modified for other uses, indicate this under Feature Remarks. Found only in historic contexts.

Cartesian Coordinate System – two- or three-dimensional graph based on intersecting, incremental lines or planes.

Cemetery – a formal place for human burials. Used for formal, sanctified, burial grounds and private grave plots.

Chronology – an arrangement of events in the order in which they occurred.

Classification – systematic arrangement in groups or categories according to established criteria.

Clearing in Desert Pavement – an area where cobbles have been cleared, frequently circular in shape and interpreted as sleeping circles or metate perform workshops. Do not confuse with excavated features like pit houses or undefined depressions.

Context – the relationship artifacts have to each other and the situation in which they are found.

Corral – an unroofed enclosure for confining livestock. May be constructed of any materials and incorporate natural features of vegetation as part of the enclosure. Found only in historic contexts.

Course – a term for designed masonry, with either brick or stone. A course refers to a single, horizontal layer of bricks or stones. In the field, courses will be uniform, with layers easily distinguishable, whereas simple stacked (uncoursed) stone does not have courses, with stones laid randomly, or as their shape allowed.

Cremation – a human cremation, and any associated artifacts.

Cross Dating – the principle that a diagnostic artifact dated at one archaeological site will be of the same approximate age when found elsewhere.

Collectors Pile – collection of lithics, sherds and other material moved from its original context by site visitors – also called a Trophy Pile.

Conveyance/Transportation – a feature used to move people or commodities from one location to another: road, trail, etc.

Carsonite – a sign placed in soil to educate, inform, and mark federal boundaries, often indicating what is allowed and not allowed in a particular area.

Culture – is the shared beliefs and practices that are learned by members of a group.

Cultural Affiliation – is the archaeological or ethnographic culture to which a collection of sites, resources, or artifacts belong.

Cultural Resource – structures, buildings, features (roads, ditches, bridges, etc), and historic and prehistoric archaeological sites.

Cupule – a circular man-made hollow on the surface of a rock or a rock slab.

Curvilinear – consisting of or bounded by curved lines.

Data – information, especially information organized for analysis.

Datum – a known point or location that is used as a basis for measuring.

Deface – spoiling or marring the surface or appearance of something.

Declination – the difference between true north and magnetic north, as utilized by a compass.

Deposition – any accumulation of material, by settling from water or air, chemical precipitation, evaporation from solution, etc.

Depression, Undefined – an area sunk below the immediate surrounding terrain. Used to indicate depressions that are a direct result of some human activity but the purpose of which is unclear.

Diagnostics – artifacts that have been determined by scientific methods to occur during a certain period of time or within certain geographical areas.

Disposal – an area defined for the discard of waste or unwanted materials, e.g., a midden or trash mound.

District – a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

Dugout – a structure formed by excavation into the ground and then roofed over. May be dug into a hillside with ground-level access or dug below ground with a stair access. Usually found on historic homesteads as residence or storage (root cellars, etc.).

Dump – formal or informal concentrations of historic trash, related to subsistence and containing individual or multiple episodes of deposition. May be contained within an excavated pit or piled on landscape to form a mound. Includes all ash or coal-cinder dumps.

EA – Environmental Assessment

Eave – the overhang of a roof away from the outer wall of a building/structure.

EIS – Environmental Impact Statement

Elevation – a generic architectural term for any exterior side of a building, and is usually identified by the cardinal direction. For example, the south elevation faces south, the east elevation faces east, etc.)

Eligibility – the ability of a property to meet National Register criteria. In most situations, a resource must be over 50 years or older before eligibility is considered. Exceptions may include a resource achieving significance in less than 50 years.

Entry – any opening in the outer wall of a building/structure that provides access into the building/structure. Like windows, most entries will have a lintel and a jamb, and may have a sill, although in many cases it is below the ground due to erosion.

Erosion – the processes (mechanical and chemical) responsible for the wearing away, loosening, and dissolving of materials of the Earth's crust.

Façade – an architectural term for the front of a building (usually facing a street or road, and usually has the primary entrance to the building. Sometimes elevation and façade are used interchangeably to refer to any side of the building.

Features – any non-portable remains of human activity, such as a hearth, road or house.

Floodplain – the area bordering a stream over which water spreads when the stream tops its channel banks.

Flume – a deeper, narrow channel or ravine with a stream running through it; an artificial channel conveying water, typically used for transporting logs or timber

Foliated – the presence of layers in some rocks caused by parallel alignment of minerals.

Fossils – are paleontology resources consisting of remains or traces of plants and animals that existed in a previous geological period.

Foundation – the base of the building that provides a barrier to the soil below, and structural support to either the walls of the building, its primary floor structure, or both. Foundations may be in the form of piled stone piers, coursed or uncoursed masonry, or poured concrete. Many buildings in abandoned communities may not have foundations at all.

GIS – Geographic Information System is a collection of computer hardware, software, and geographic data used for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

GPS – Global Positioning System is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the U.S. Department of Defense. GPS was originally intended for military applications, but in the 1980s, the government made the system available for civilian use. GPS works in any weather conditions, anywhere in the world, 24 hours a day.

Graffiti – surficial markings or writings. Used for tree art as well as modern additions to rock art. Petroglyphs or pictographs believed to date post-contact should be classed as petroglyphs or pictographs.

Granitic – pertaining to or composed of granite, a coarse-grained igneous rock dominated by light-colored minerals, consisting of about 50 percent orthoclase, 25 percent quartz, and a balance of feldspars and ferromagnesian silicates. Granite is commonly found on continents but virtually absent from the ocean basins.

Great Basin – a term applied to the geographic area centered on Nevada, including eastern California (to the crest of the Sierra Nevada), western Utah (to the crest of the Wasatch Range), south-central Oregon (to the southern Cascades), and small parts of southeastern Idaho and southwestern Wyoming. It is unique as no drainages go to the ocean.

Groundtruthing – verifying assessments made from satellite data by doing direct, “on-the-ground” measurements.

Habitation – for features known to have housed people either permanently or temporarily, e.g., houses, room blocks, pit houses, camp sites, tent bases.

Hearth – an extramural, localized area of controlled intentional burning. Encompasses all surficial fire-related phenomena including fire pits, formal hearths, unstructured hearths, fire rings, burned rock rings, fire deflectors, and slab-lined hearths. Excludes standing fireplaces or chimneys or their remnants. Such things should be included as part of the House Foundation.

Hunting Blind – a cover device for hunters, designed to reduce the chance of detection.

Heritage – is something that is handed down from past generations to the next generation.

House Foundation – the remains of a habitation structure, including collapsed buildings, footings of various materials, formal house cellars, cement slabs, builders' trenches, and crawl spaces. Used for structures built in the European-American style. Historic period pueblos may be classed under roomblock.

Hunter-Gatherers – people who depend on wild animals and plants for food to survive.

Igneous Rock – a rock that has crystallized from a molten state.

Intaglio – patterned rock alignments depicting anthropomorphic, zoomorphic or geometric designs on land surfaces.

Interpretative Site – highly visible, well known and/or easily accessible sites with signs, kiosks, or other markers to identify them for the public.

Inventory – one of the components of a survey. Typically it is a compilation of information on properties that are evaluated as significant. Can also be used with properties encountered within a certain date range or other sets of criteria.

Jamb – the frame in which a door or window unit is seated. Most commonly in areas like abandoned mining towns, these will appear as a wooden lining along the inside of a door or window opening.

Joist – a wooden board used as a form of “ribbing” to support a flat floor.

Kiln – any of the various ovens used for hardening, firing, burning or drying substances. Should be used in cases where there is uncertainty as to which of the related feature names should apply.

Land Manager – an employee of a federal land managing agency (such as the Bureau of Land Management) with authority to decide how land under the jurisdiction of the agency and the resources on it will be used.

Lintel – part of the structure of a window or door opening that reinforces and defines the top of the opening. Lintels are often both decorative and functional, and can be large, faced stone, or large wooden beams. On occasion, they can also be poured concrete.

Linear Feature, Undefined – any type of constructed linear feature that cannot be clearly defined as a wall, fence, road, railroad bed, boundary marker, etc.

Lithics – artifacts made from stone such as projectile points, bifaces, scrapers, drills, etc.

Lithic Scatter – use for systemic or non-systematic arrangement of lithics (tools, debitage, shatter) that occur on the landscape, either alone or in conjunction with other features. Used instead of terms like sheet scatter, tool scatter, or debitage scatter. Use lithic scatter to include manufacturing areas, workshops, shipping and flaking areas. Then note under Feature use that site was a Manufacturing/Production area.

Livestock Enclosure – small enclosed structure, roofed or not, designed to house domestic animals. Use for pig sty, chicken coop, sheepfold, lambing pen, or dog house.

Magnetic North – the direction in which the north end of a compass needle or other freely suspended magnet will point in response to the earth's magnetic field. It deviates from true north over time and from place to place because the earth's magnetic poles are not fixed in relation to its axis.

Magnetic Pole – the point on the Earth's surface where a magnetic needle points vertically downward (north magnetic pole) or vertically upward (south magnetic pole).

Mano – Spanish word for “hand”. This is an artifact used to grind materials on metates. This is the term for the portion that is held by the hand that moves back and forth or the upper grinding surface. These can be one-handed or two-handed in size.

Manufacturing/Production – a feature used to produce goods from raw materials: Kilns, smelters, clearly defined lithic production features, etc.

Masonry Structure – (historic period only) a building, or the ruins of a building, constructed by piling stone, cut or uncut, either with or without mortar or stucco. Used for buildings found in historic contexts. For those in prehistoric context, see room block.

Meander – a sharp bend, loop or turn in a stream's course. When abandoned, it is called a meander scar or an oxbow.

Megafauna – large animals that lived during the Pleistocene age.

Metamorphic Rock – a rock changed from its original form and/or composition by heat, pressure, shearing stress, or chemically active fluids, or some combination of them.

Metate – a Central American term for a flat stone used for grinding. This is the term for the nonmoving or stable lower grinding surface.

Midden – a mound of trash that may include dark organic looking soil, charcoal, broken pottery, bones, lithic material, etc.

Mine – use this term for strip mines, open pit mines, mine shafts and tunnels of all types, including adits, stopes, vent shafts, prospects, glory holes, galeries and haulage tunnels related to extraction of natural resources like coal and minerals.

NAA – Nevada Archaeology Association

NCA – National Conservation Area (example - Red Rock Canyon, Black Rock Desert)

NDOW – Nevada Department of Wildlife (Game Warden)

NEPA – National Environmental Policy Act

NRAF – Nevada Rock Art Foundation

NPS – National Park Service

National Historic Preservation Act of 1966, as Amended (NHPA) – U.S. federal legislation establishing the Advisory Council on Historic Preservation, expanding the National Register of Historic Places, and extending the National Historic Preservation Programs to properties of State and local significance.

National Register Historic District – a group of historically-related resources meeting the established criteria for eligibility and significance at the national, state, or local level. A public hearing is always held prior to the nomination of a historic district. A district may contain both contributing and noncontributing resources. Individual properties may be excluded within the boundaries of the historic district, but a majority of owners objecting to listing may prevent the listing of a district in the Register. Nevada has 25 National Register Historic Districts, such as Genoa, Austin, Eureka, and others.

National Register of Historic Places – the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. This federal program is administered by the National Park Service and coordinated in Nevada by the State Historic Preservation Office.

Obsidian – a hard, dark, glassy, volcanic rock that is formed when lava cools.

OHV – Off Highway Vehicle

ORV – Off Road Vehicle

Ore – the naturally-occurring material from which a mineral or minerals of economic value can be extracted at a profit.

Ore Deposit – a continuous well-defined mass of material of sufficient ore content to make extraction economically feasible.

Ore Processing Facility – ore mill structures and abandoned machinery (e.g., arrastras, concentrators, ball and stamp mills, conveyor belts, leaching vats).

Outhouse – a small structure housing a toilet, privy or latrine, or the remains of such a structure.

Oven – an enclosed space used to heat objects placed within its confines. Includes earthen ovens, oven pits, mud ovens and bread ovens.

Paleo – ancient or long ago.

Paleontological Localities – a place where a fossil is visible in the ground.

Passive Accumulation – this category results from repeated episodes of disposal where there is no organized effort to confine trash to a formal dump. For example, accumulation of trash along a highway is passive accumulation, but use of a formal disposal area like a dump or a midden would be disposal.

Pecking – method of creating a petroglyph using a sharp pointed rock.

Period of Significance – the span of time during which a property attained the significance that makes it eligible for the National Register of Historic Places or the State Register of Historic Places.

Petrified Wood – is a paleontology resource of ancient wood that has been turned into rock over a long period of time.

Petroglyph – a design chiseled or chipped out of a rock surface.

Pictograph – a design painted on a rock surface.

Pitch – in architecture, this refers to the angle of the roof incline, generally differentiated by low-pitch, moderate-pitch, or high-pitch, depending on the style and function of the building/structure.

Pit House – a home built partly underground by ancient peoples.

Pleistocene – the ice age(s) and period(s) in the world's history from about one million years ago until about 10,000 years ago. During this period of time much of the earth was covered with ice.

Pottery – earthenware or clayware pots, cups, bowls, and other dishes or objects that were made from clay and hardened by heat.

Posthole – discolored circular patches of soil, indicative of decayed, burnt or removed architectural posts, such as would be found associated with pit houses or armadas.

Pottery Kiln – an oven or heated enclosed space for firing pottery; may be applied to either historic or prehistoric components.

Public Site – this designation can only be made by the land managing agency.

Quadruped – an animal with four feet.

Quarry – an area from which the geological materials have been excavated and removed for use off-site, primarily as building materials (e.g., limestone, stone, gravel, and sand pits).

Quarrying – the process by which building stone, usually in blocks or sheets, is extracted from the Earth.

Rafter – a board or beam used in a roof framing system that connects the roof plate to the ridge beam, and carries most of the covering for the roof (including sheathing and shingles).

Railroad Track/Bed – use to designate portions of bed or track, historic context only.

Ramada/Shelter – all temporary shelters, including lean-tos, windbreaks, brush enclosures and sun shades.

Rectilinear – formed by straight lines.

Repatriation – rock area that has returned to the color of the area around it.

Reservoir – a natural or artificial lake or dam in which water can be stored.

Resource Procurement Area – a surface area from which natural resources (clay, stone, mineral, timber, etc.) were obtained. A mine represents an excavation of materials that need further extraction/processing before use, while a quarry represents a large, open excavated area from which materials that need little processing (gravel, sand) can be removed. A resource procurement area is a surface area from which raw materials that need little processing can be removed.

Resource Type – the general category of property—building, structure, site, district, or object—that may be listed in the National Register of Historic Places.

Ridge beam – the central board or beam that is at the crest (highest point) of the roof and ties all the rafters together.

Road/Trail – formal or informal way used for the passage of humans, animals and/or vehicles.

Roasting Pit – an excavated hole or pit for cooking without direct application of fire, usually accompanied by concentrations of burned rock.

Rock Alignment, Undefined – a linear arrangement of cut or uncut stone, the purpose of which is unclear. Should be used in situations that preclude use of feature names with more clearly defined functions.

Rock Art – a general term for the pecking, incising, or painting of designs onto rock surfaces.

Rock Art Panel – a group of pictographs or petroglyph figures.

Rockfall – the sudden fall of one or more large pieces of a rock from a cliff.

Rock Ring – a donut-shaped rock pile or midden, sometimes interpreted as a sleeping circle or metate perform manufacturing site. Distinguish between intentional rock ring formations and clearings in desert pavements.

Rock Shelter – a shallow cave or cave-like area, formed by an overhanging cliff or standing rocks

Roof – the covering on the top of a building or structure to shelter the occupants from the environment, usually sun and precipitation, and to enclose heat. Common roof materials in archaeological sites, if still present, include wood shingles, clay tiles, or wattle-and-daub. In later historic sites with buildings, poured concrete slabs or asphalt shingles or membranes might be used. Roofs also have various forms, but most will be gabled, hipped, shed, or flat roofs. The major structural elements of a roof include rafters, roof plates, and a ridge beam.

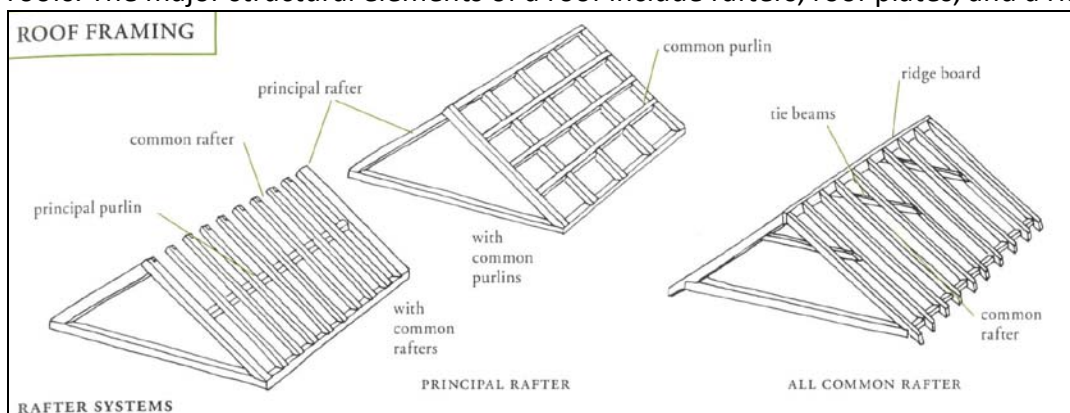


Figure 1: Roof Framing, McAlester, p47.

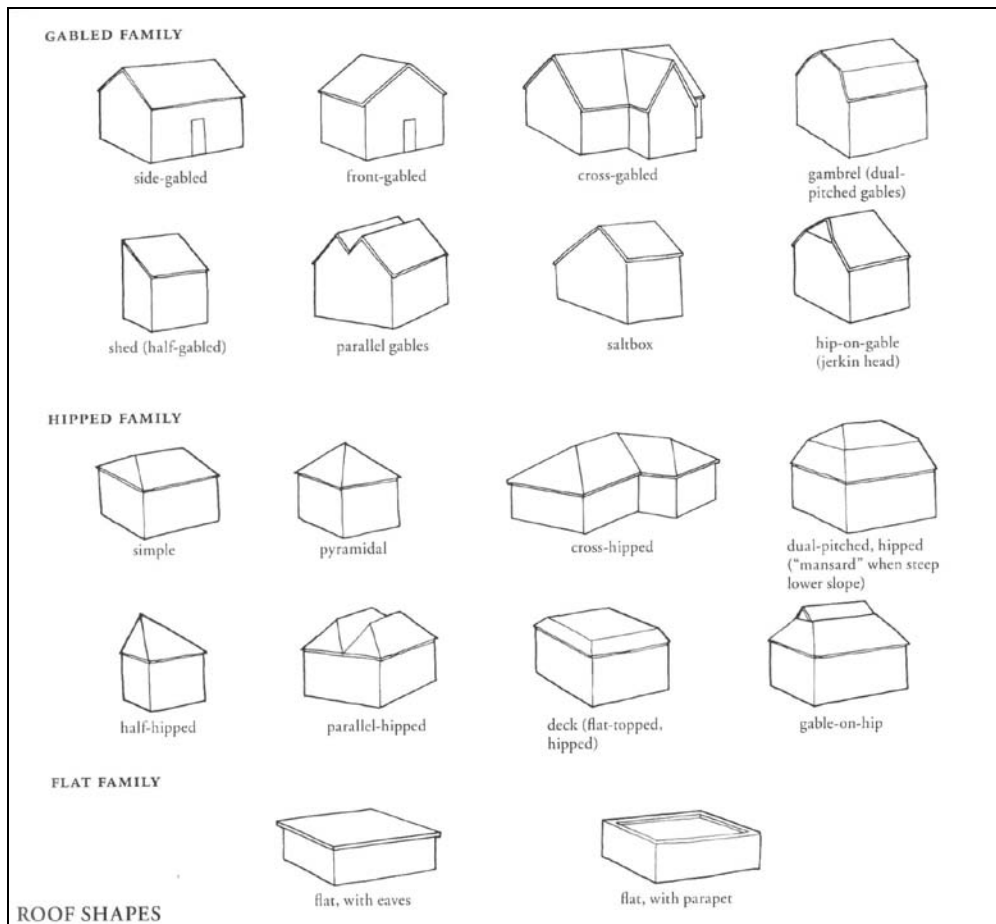


Figure 2: Roof types, McAlester, p45.

Roof - Flat – A form of roof that is flat, with no incline, or pitch.

Roof - Gable – a common and simple roofing style that is triangular in shape, and has a ridge at the center of the roof along its highest point, with angled planes extending down on either side to meet with the top of the wall.

Roof - Hipped – A modification of the gable roof that closes the gable ends, adding pitched roof slopes to these and establishing a continuous eave around the perimeter of the building. The hip refers to the special joining carpentry needed at the corners of the roof structure.

Roof – Shed – similar to a flat roof, a shed roof has only one plane, but the plane is turned up on one side to give a pitch to the roof. This is also sometimes called a “half-gable.”

Roof plate –a wooden board or beam along the top of the exterior wall of a building/structure that attaches the roof to the wall.

Sill – part of the structure of a window or door opening, a sill is the structural support at the bottom of the opening for reinforcement. It can be a single, large, faced stone, a large wooden beam or log, or even poured concrete.

Sawmill – a facility for producing lumber from unhewn logs, historic contexts only.

Scatter, Artifact – a patterned or unpatterned array of various types of artifacts across the surface of a site. An artifact scatter should contain more than one type of artifact and be prehistoric. It should also be used in preference to sheet or tool scatter.

Scatter, Sherd – a patterned or unpatterned array of ceramics isolated on the landscape. Use in preference to ceramic or sheet scatter.

Scatter, Trash – a non-purposeful surficial arrangement of discarded items. Use in historic context. If the deposit is dense and deep, call it a dump.

Section 106 – a portion of the National Historic Preservation Act of 1966, as amended; requires all U.S. federal agencies to take into account the effects of their undertakings on historic properties, and to afford the Advisory Council on Historic Preservation an opportunity to comment on any such undertakings. These undertakings are triggered if federal funding is involved.

Sediment – any solid material that has settled out of a state of suspension in liquid.

Shed – a small structure separated from, but related to, the principal structure on a residential site. Applies to historic context only and should be used when clearer definition of a building's function (as barn, livestock enclosure, outhouse, ramada, e.g.) is not possible.

Shard – a fragment of broken glass.

Sherd – a fragment of broken pottery.

SHPO – State Historic Preservation Office

Site – location of a significant event, a prehistoric or historic occupation or activity, or building or structure, whether standing, ruined, or vanished, where the location itself possesses significance independent of the value of any existing structure at that location.

SNPLMA – Southern Nevada Public Land Management Act passed in 1998. This act allowed for a portion of the money generated from the sale of BLM lands within the disposal boundary of Las Vegas to be used for conservation initiatives in Clark County.

Slag – stony waste matter separated from metals during the smelting or refining of ore.

Smelting – the process of removing metal from ore.

Spalling – thin pieces of rock breaking off naturally through freezing and thawing as well as heat.

Stamp Mill – a machine or building in which ore is crushed.

Stage Station – a structure situated along an established stage line for watering, horse changes, and mail/passenger exchanges. Include the name of the stage line under Feature Remarks.

Storage – a feature used to accumulate commodities for future use: A cache, bin/cist, a particular room of a roomblock thought to have been used for storage, a dugout used as a spring house.

Structure – a functional resource constructed for purposes other than to provide shelter, such as a bridge, windmill, or silo.

Structural Mound – an artificial heaped pile of earth, gravel, sand, rocks, or debris, created for a variety of reasons throughout history, including for purposes of ceremony, burials, and commemorative purposes.

Subsistence/Food Processing – for features used in subsistence activities: Hunting or game processing areas, food preparation areas, meal grinding areas, bedrock grinding areas, etc.

Survey – a systematic examination of the surface of the land for the purpose of locating and recording archaeological sites.

Talus Slope – the pile of rocks that accumulate at the base of a cliff, chute, or slope, which then form another slope.

Tailing – the residue of something, especially ore; the part of a beam or projecting brick or stone embedded in a wall.

Tank – a capture and/or holding device for water, created by modification of drainages, or by installation of artificial trough. Includes metal tank stock waterers and wildlife waterers. Historic context only.

Temporal – concerned with time.

Tent Base – the impression left by a tent, including tent platforms, the rocks used to weigh down edges, stakes and wear patterns.

Timeline – a visual representation of events in chronological order.

Tinaja – a Mexican word for a natural hole in rock that can catch and hold water.

Traditional Cultural Property (TCP) – a property that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community.

Trash Mound – an artificial form created on the landscape by successive dumping of trash in one area.

True North – north, according to the earth's axis and not magnetic north.

Undefined Constructed Linear Feature – any type of constructed linear feature that cannot be more specifically defined as a wall, fence, road, railroad bed, boundary marker, etc.

Undefined Rock Alignment – a linear arrangement of cut or uncut stone, the purpose of which is unclear. Should be used in situations that preclude use of feature names with more clearly defined functions.

Wall – can be the exterior “envelope” of the building/structure's exterior, but also can divide space on the interior. Common exterior wall materials include wood options like vertical board siding (including board-and-batten) or horizontal like drop or lap siding. It can also be brick, stone, adobe, or steel (often corrugated). Interior walls may be of similar materials, and in better-preserved examples, may have decorative plastering applied.

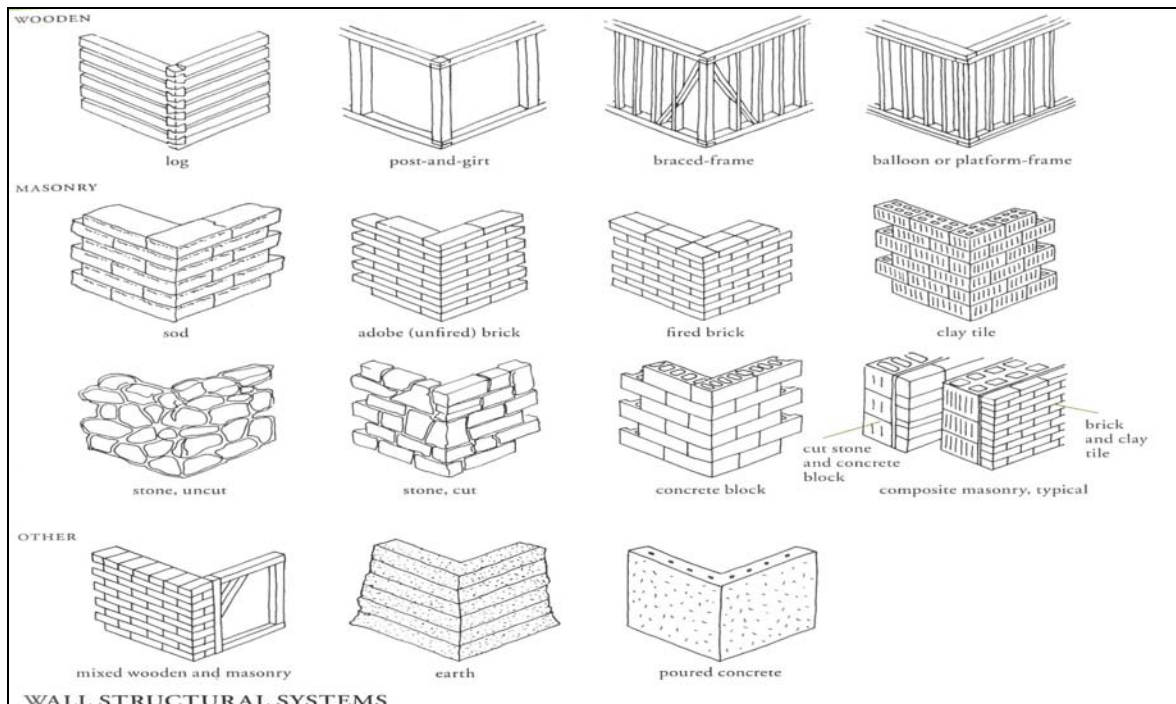


Figure 3: Wall Structure, McAlester, p37.

Wattle-and-daub – a roofing technique that involves spreading daub (an adobe-like mixture of mud and grass) over wattle (long rods or stakes laid together and interspersed with branches). This is common in more temporary communities such as mining settlements.

Weathering – the physical, chemical, and biological processes by which rock at or near the Earth's surface is broken down into smaller pieces.

Well – a deep shaft or hole drilled to obtain water or other liquid or gas resources.

Wickiup – a hut, usually an oval base, constructed with a rough brushwood frame covered with reed mats, grass, or bark.

Window – a partial opening in a wall meant to let in light and/or air. Windows may simply be an opening in the wall, but can also have glass encased in a wood or metal unit. Like entries, windows usually, at minimum, will have a jamb, sill, and lintel, even if the window unit itself is gone.

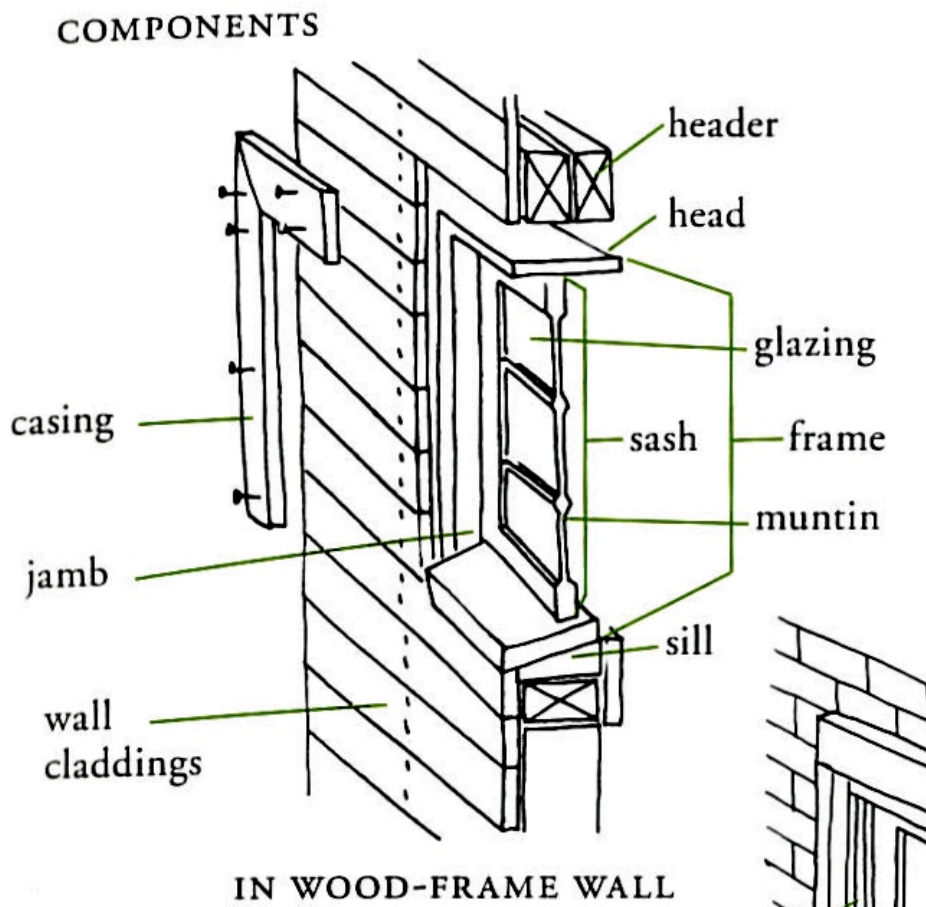


Figure 4: Window structure, McAlester, p51.

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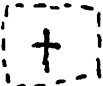
Adit/Mine Shaft – 

Artifact (recorded) – 

Artifact (observed) – x

Boulder – 

Bench Mark – BM

Cemetery – 

Cliff – 

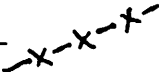
Corral – 

Dam – 

Datum – 

Dirt Road – 

Feature – F1

Fence – 

Fire pit – 

Grave Markers – †

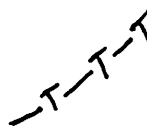
Structure – 

North Arrow – 

Outcrop – 

Paved Road – 

Picnic Area – 

Power/Telephone Line – 

Railroad Track – 

Roasting Pit – 

Rock Art Panel – 

Rock Shelter – 

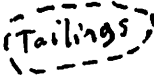
School – 

Site Boundary – 

Slope – 

Spring – 

Stump – 

Tailings – 

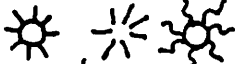
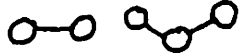
Trail Head – 

Trees – 

Wash – 

ROCK ART MOTIFS

CIRCULAR

1. Circle/Oval 
2. Circle w/interior lines 
3. Circle w/radiating lines 
4. Circle w/bisecting line 
5. Circle w/attached line 
6. Circle w/attached multi lines 
7. Concentric circles 
8. Contiguous circles 
9. Circle chain 
10. Connected circles 
11. Open Curvilinear lines 
12. Enclosed semicircle 
13. Dot/dot designs 
14. Combination (curvilinear/rectilinear) 

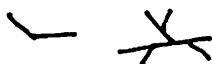
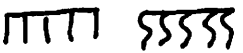
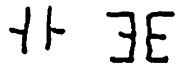
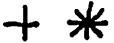
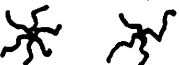
REPRESENTATIONAL

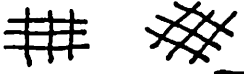
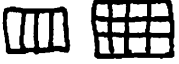
36. Stickmen 
37. "Lizard men" 
38. Digitated anthros 
39. Zoomorphs 

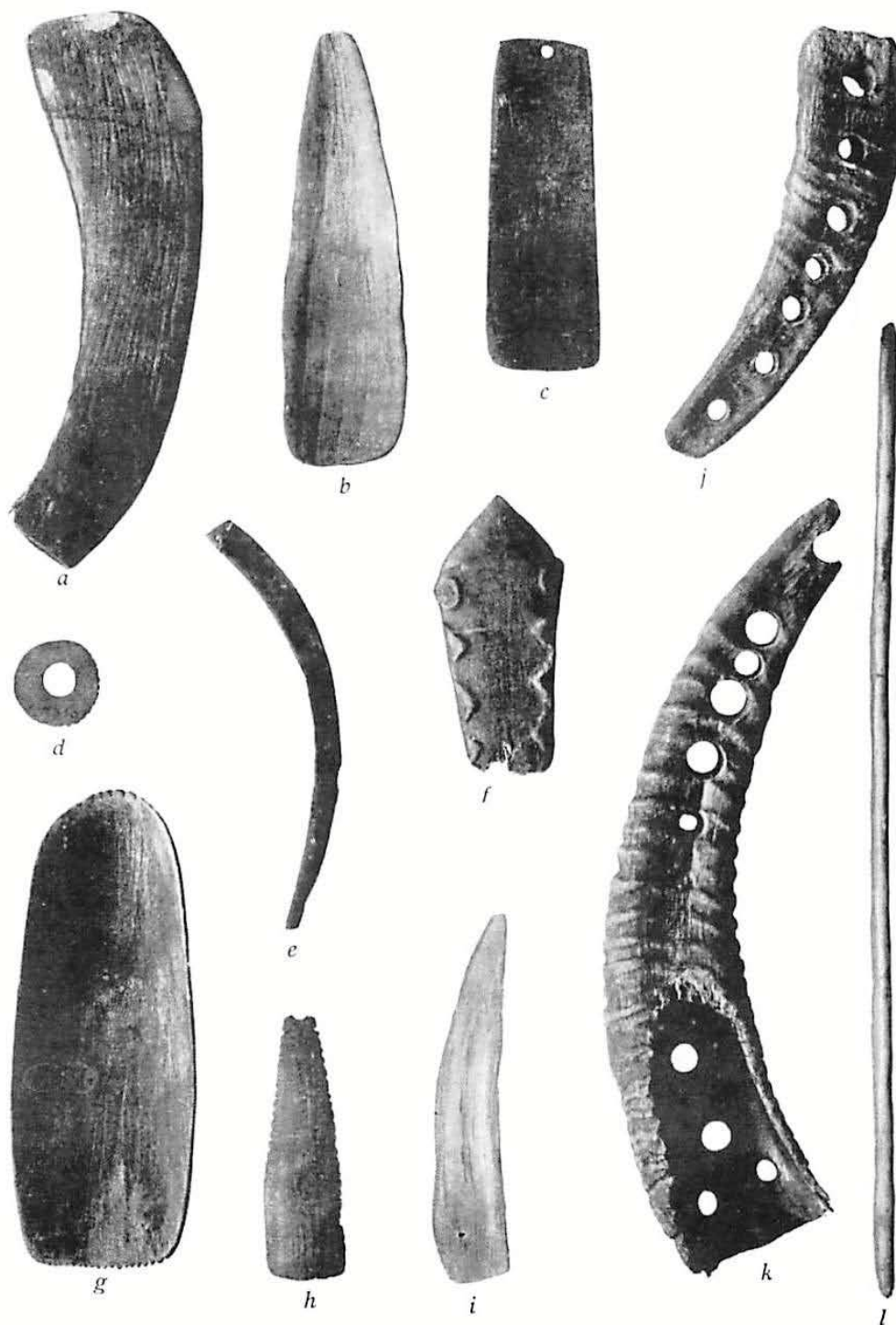
INDISCERNIBLE

40. Amorphous/blobs 

LINEAR

15. Single line 
16. Parallel lines 
17. Intersecting lines 
18. Perpendicular lines 
19. Zigzag line 
20. "Rake" 
21. "Ladder" 
22. "Mirror" design 
23. Phytomorphic lines 
24. Rectilinear bisecting lines 
25. Curvilinear bisecting lines 
26. Wavy line 
27. Meandering line 

28. Diamond 
29. Diamond chain 
30. Triangle 
31. Triangle chain 
32. Open grid 
33. Enclosed rectilinear design 
34. Enclosed bisected lines 
35. Denticulated design 

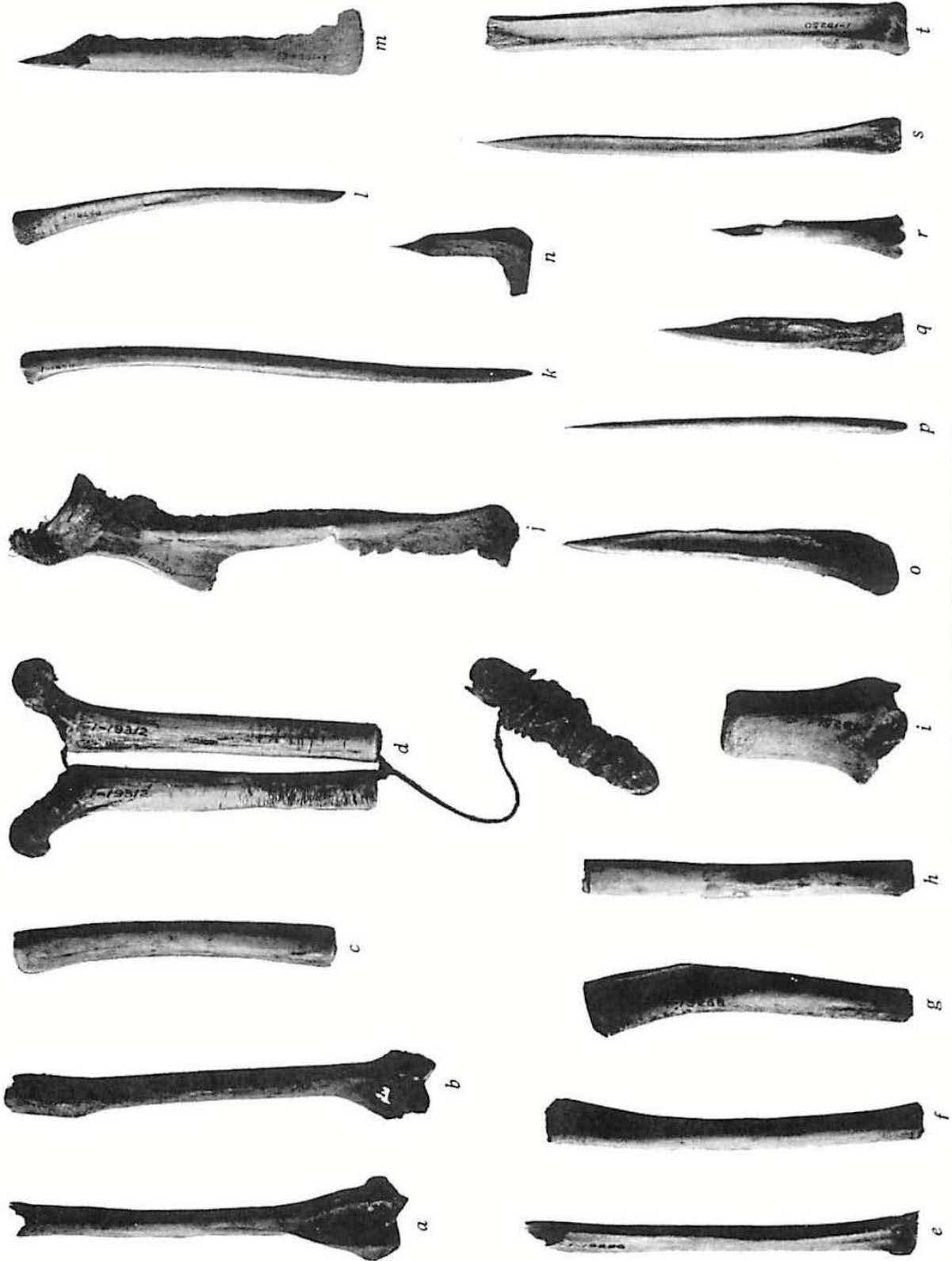


OBJECTS OF HORN AND WOOD

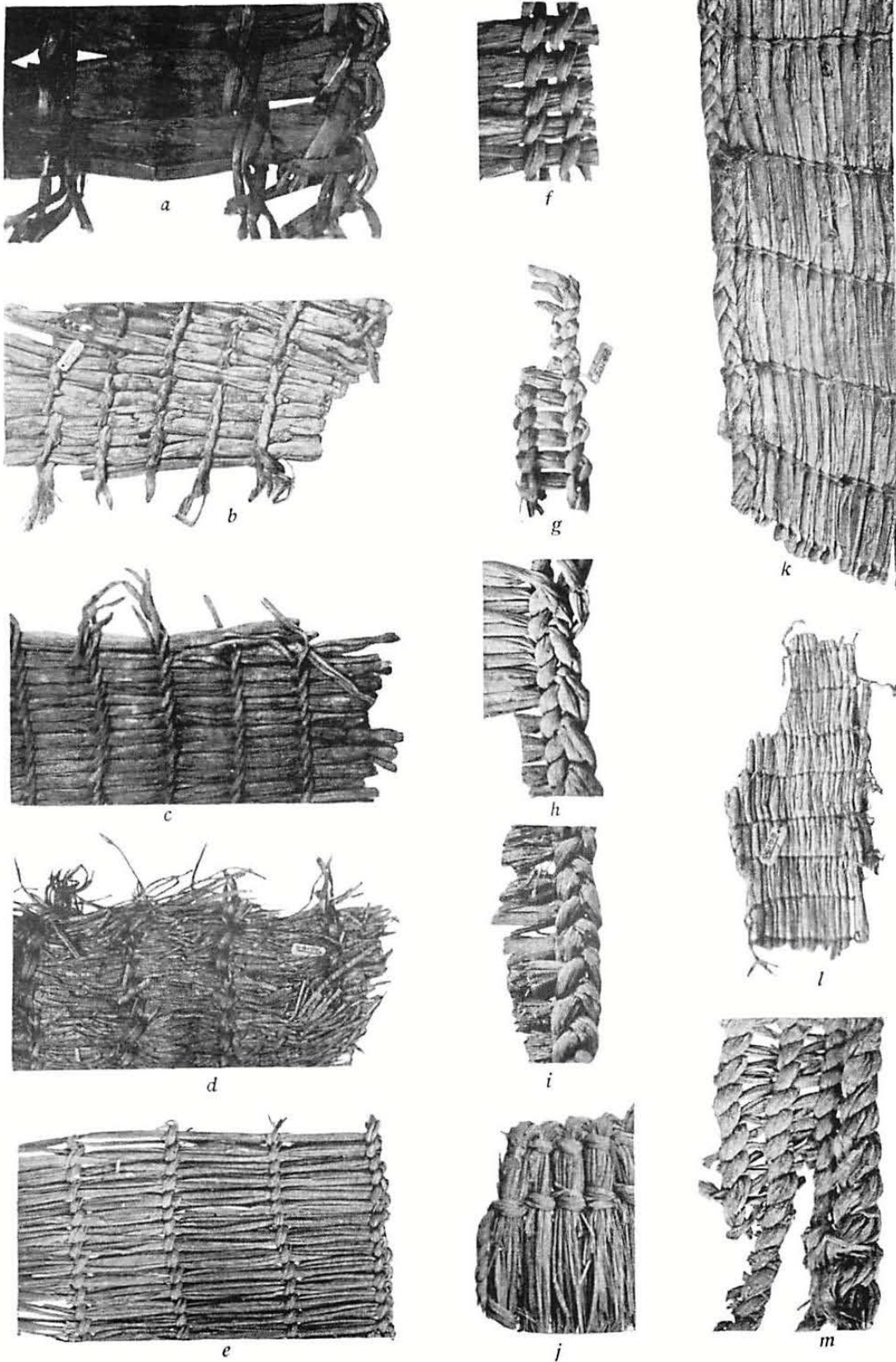
Prehistoric Artifacts

[LOUD-HARRINGTON] PLATE 13

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BONE TUBES, AWLS, AND OTHER IMPLEMENTS

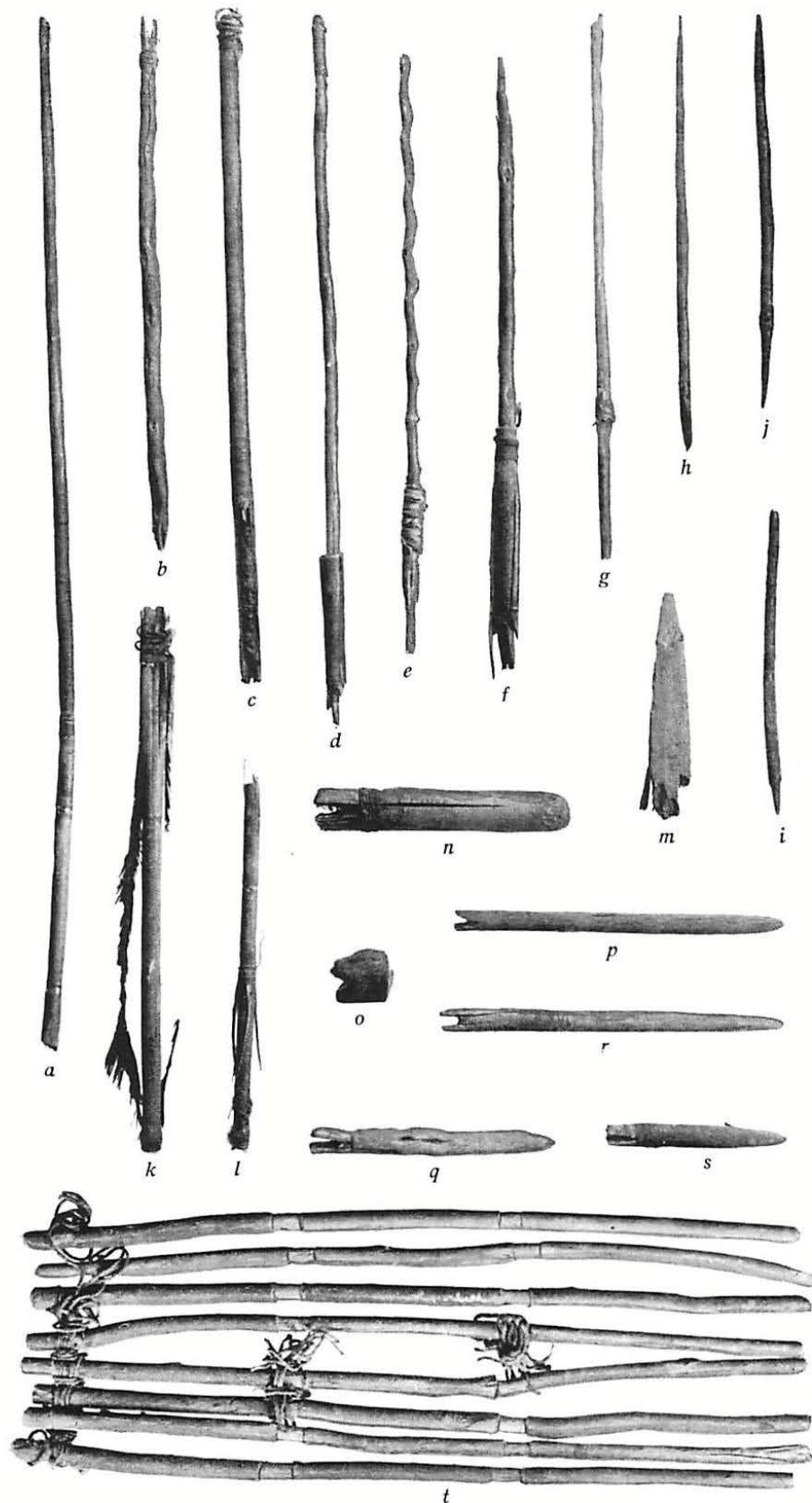


MATTING

Prehistoric Artifacts

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[LOUD-HARRINGTON] PLATE 47



ARROW SHAFTS, KNIFE HANDLES, CRADLE, ETC.

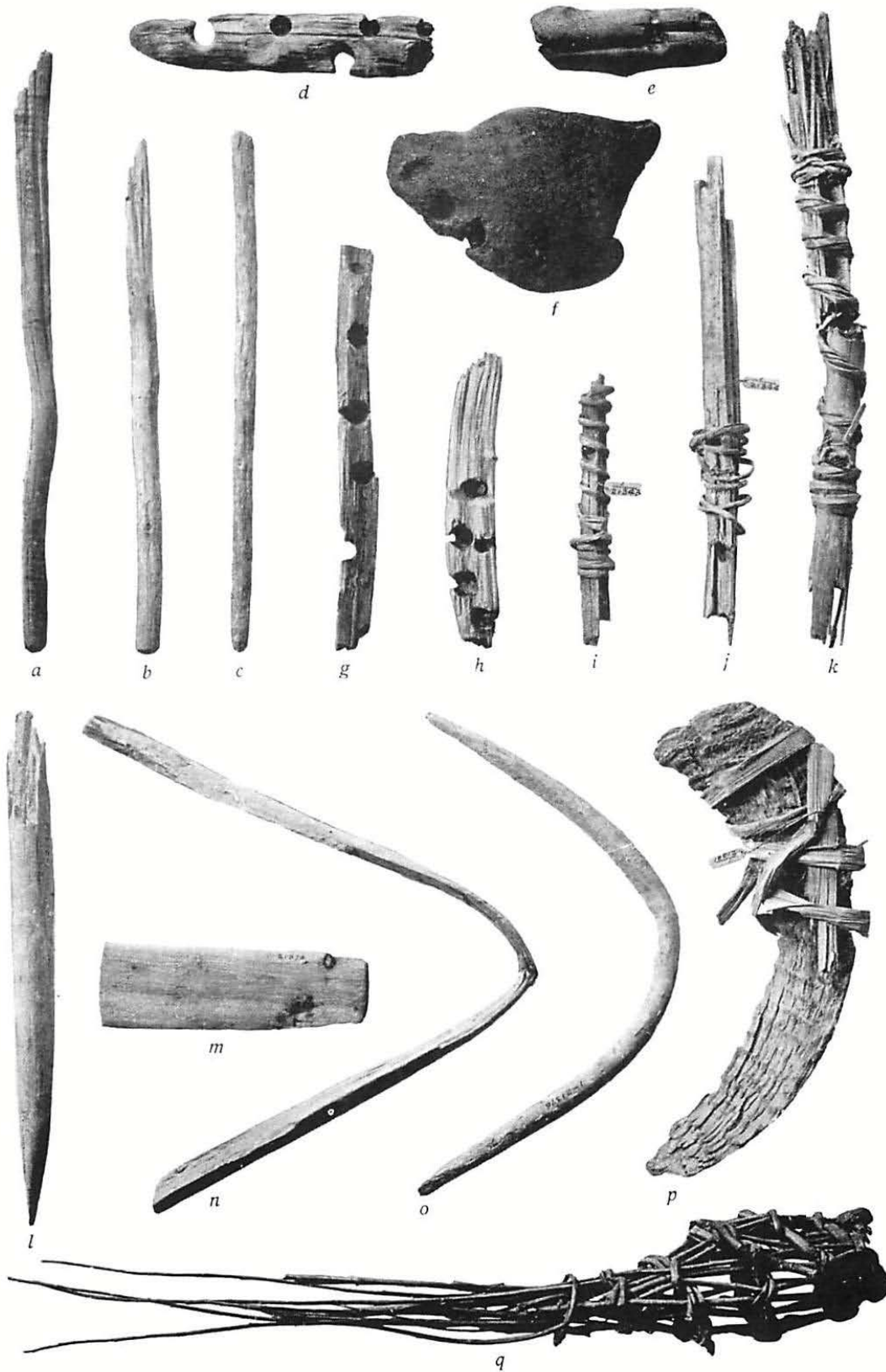
1991 Loud and Harrington

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Prehistoric Artifacts

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[LOUD-HARRINGTON] PLATE 49



FIRE DRILLS, HEARTHS, ETC.

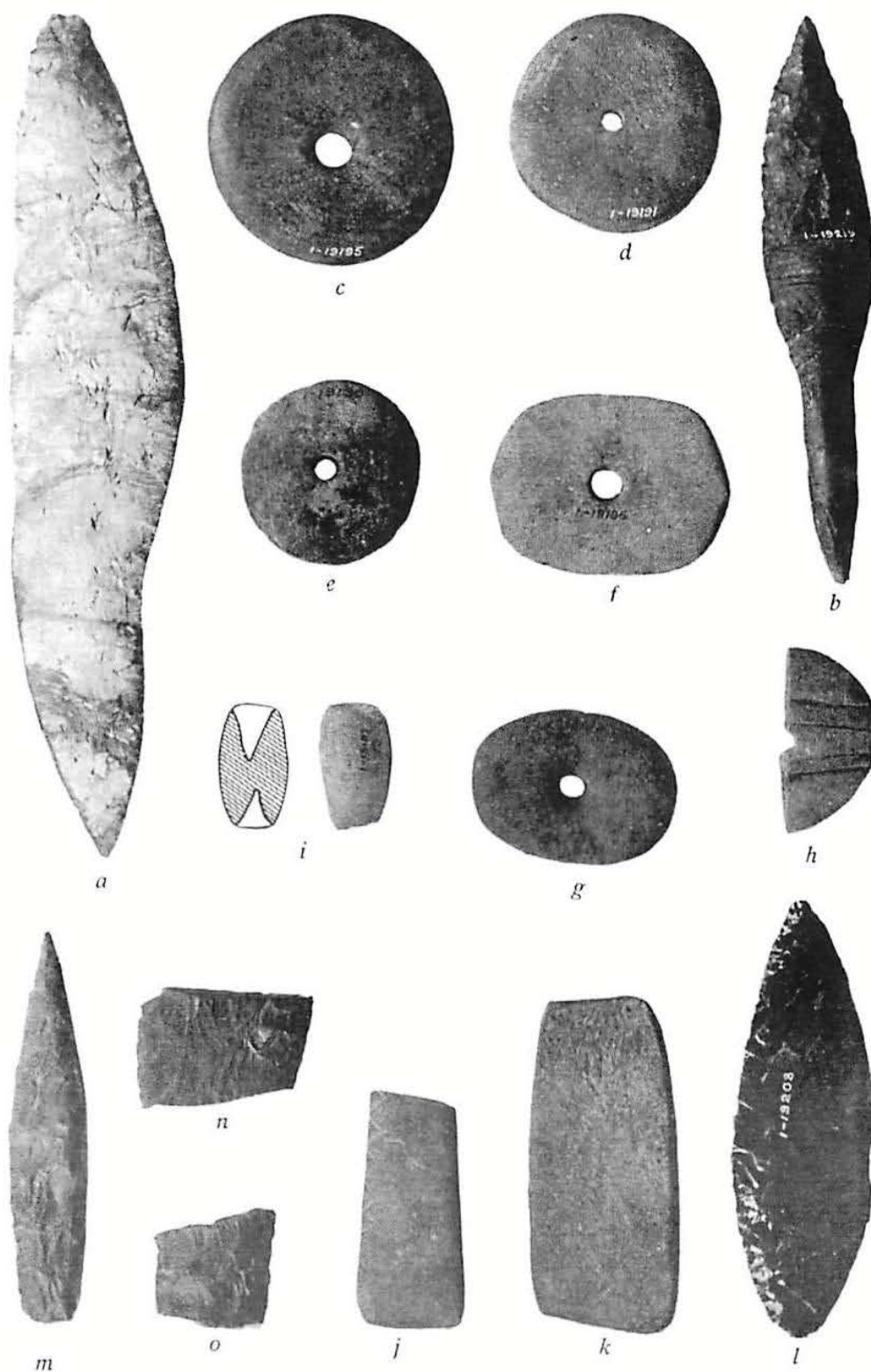
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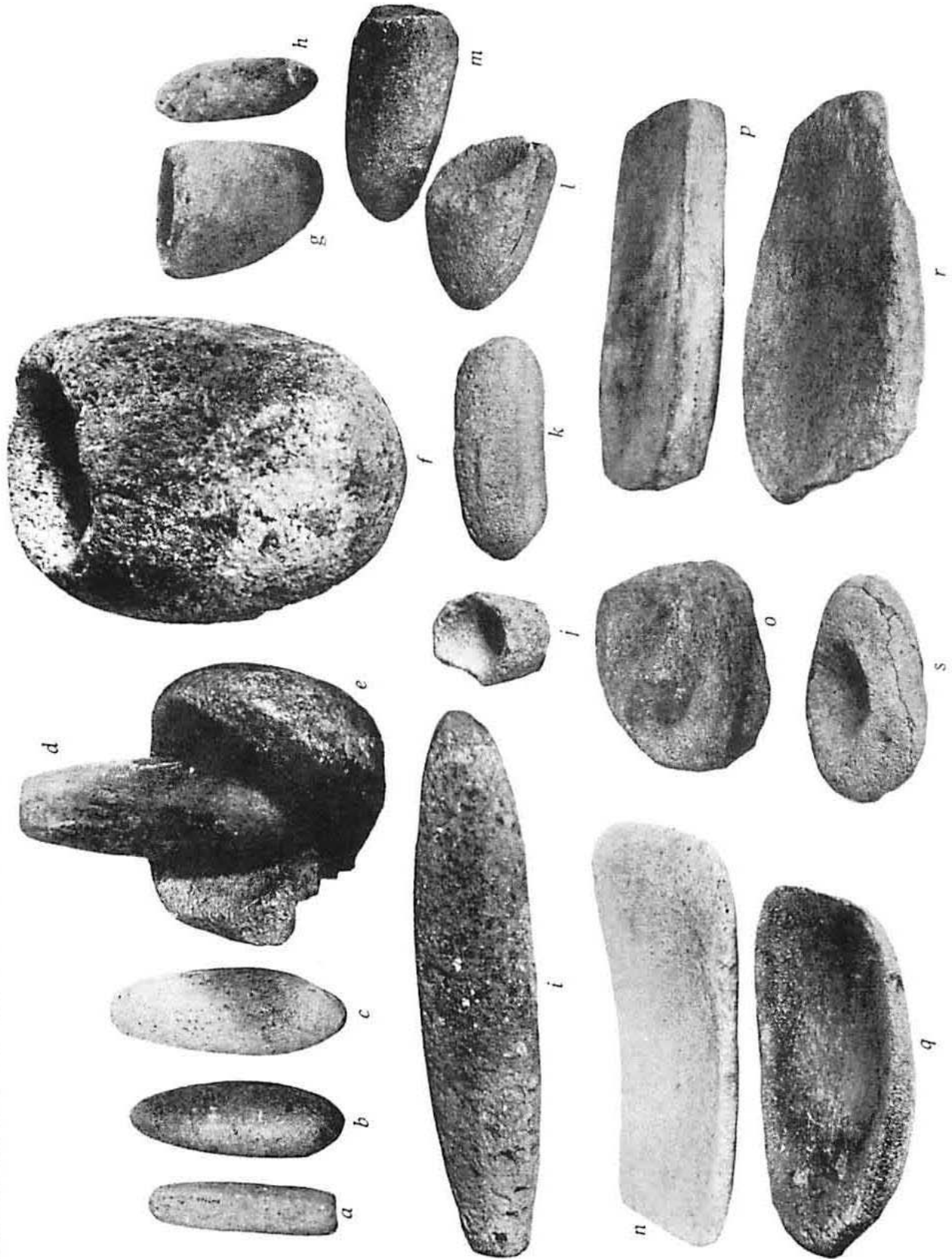
[LOUD-HARRINGTON] PLATE 55

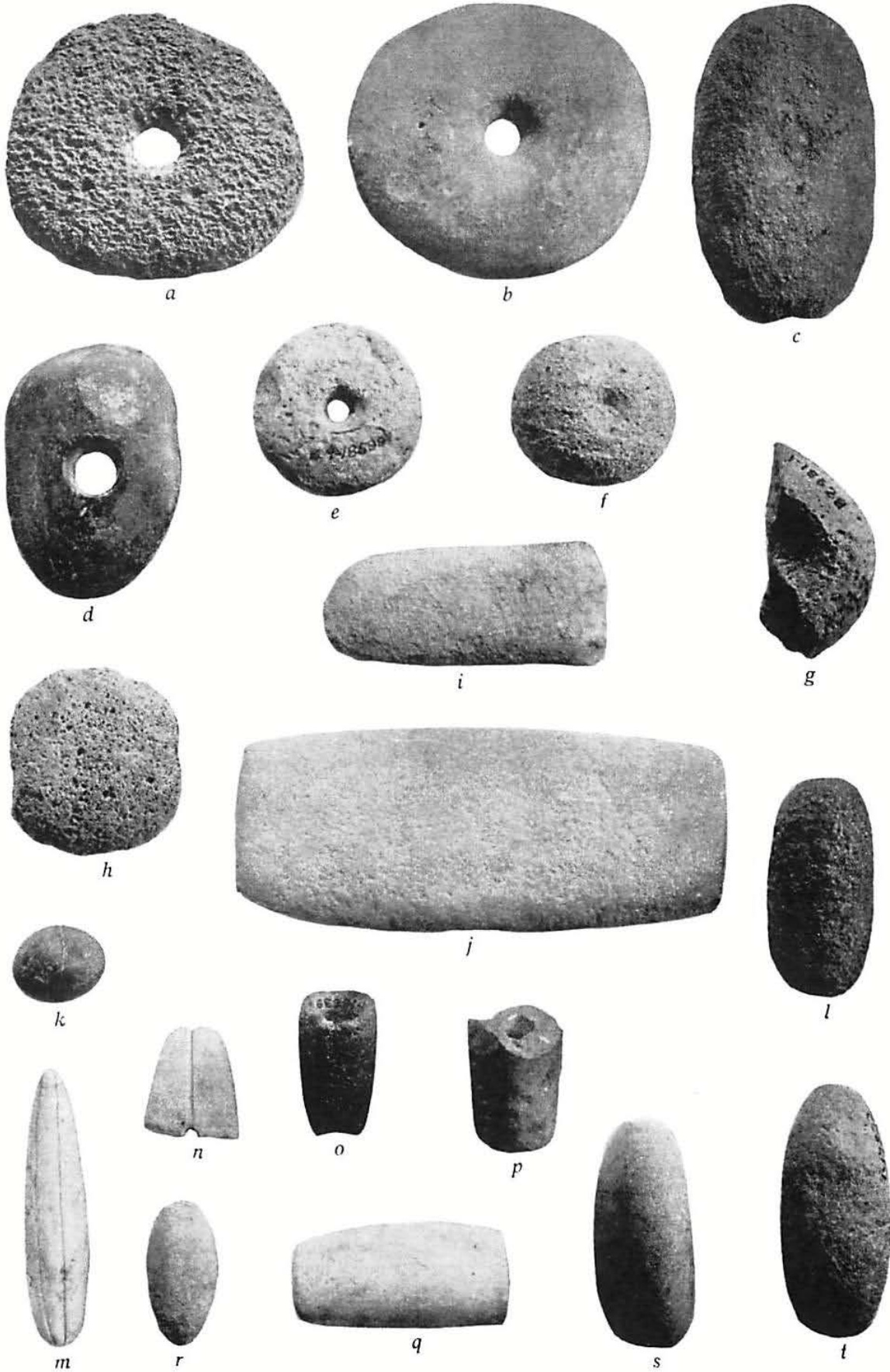


VARIOUS STONE OBJECTS

1991 Loud and Harrington

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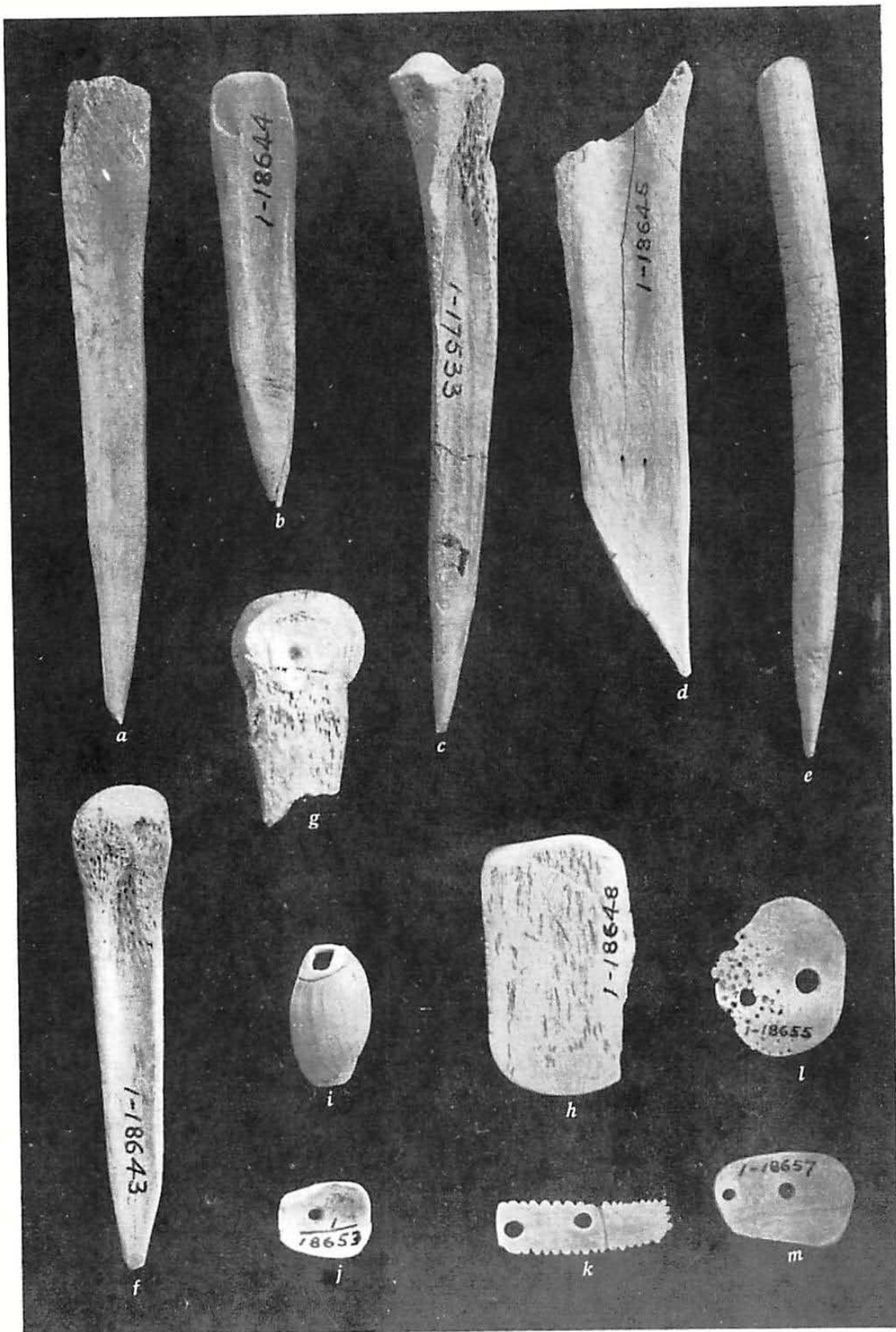


HUMBOLDT VALLEY PERFORATED STONES, PIPES, FLINT CRACKERS, ETC.

Prehistoric Artifacts

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[LOUD-HARRINGTON] PLATE 66



HUMBOLDT VALLEY BONE AND SHELL OBJECTS

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