

South Mountain Rock Art Project Field Manual

Recording Rock Art as Archaeology in the South Mountains, Arizona

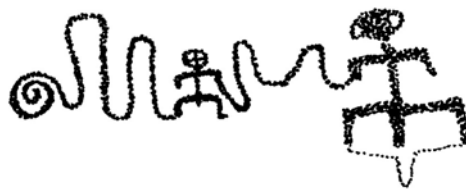
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(Revised Edition)



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(The following are excerpts from the original Field Manual)

Field Recording Strategy

The South Mountain Rock Art Project team recognizes that archaeological sites are recorded with varying levels of detail based on the goals of the investigator, whether for regulatory compliance or to address specific research questions. Levels of recordation can range from simple reconnaissance (noting the presence of archaeological materials) to detailed collection and mapping, to even more complex analysis of the landscape context of archaeological resources. These levels of recording are not mutually exclusive, since information recorded more quickly at lower levels of analysis can be used to prioritize and inform on subsequent, more detailed analysis of artifacts and features on the landscape. Another important factor is the highly variable visibility of rock art and other archaeological features under different lighting conditions, which precludes the use of single visits to a locale to adequately record all of the features present (Huang 2006). Many petroglyphs at South Mountain are virtually invisible in direct sunlight.

Our initial field research starts with a “siteless” recording strategy (*sensu* Dunnell and Dancey 1983), allowing us to determine the nature and extent of rock art sites in their archaeological and landscape setting using a deductive approach. Since far too little research has been done to integrate traditional archaeology with rock art research, this approach allows us to avoid *a priori* notions of how site boundaries should be drawn around what may be very dispersed features. Subsequent analyses and recordation will use geographic information system (GIS) software to delineate site boundaries

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(necessary for National Register nomination), but will still permit spatial analyses of relationships between features and landscape elements regardless of site boundaries. In this project, we utilize four phases or levels of recordation, each with accompanying forms. The levels are hierarchical and proceed in order, as each builds on earlier levels of recordation.

Table 1: Recordation levels adopted for the South Mountain Rock Art Project

Recordation Level	Analytical Unit(s)	Description of Activities
1	Locus, Isolated occurrence (I/O)	Locate and define features/artifacts within 50 meters of one another as loci or isolated occurrences. Collect summary archaeological and contextual information. Prioritize subsequent recordation based on evidence for vandalism and information potential.
2	Site, Feature	Use GIS to delineate site boundaries. Photograph and record detailed locational information for features. Create site map electronically or on paper.
3	Subfeature	Photograph and record detailed information at subfeature level (e.g., panels, individual agricultural terraces).
4	Landscape or other	Specialized studies, such as solstice observations, light-shadow interactions with petroglyph features, balloon aerial photography of site localities, collecting chronometric samples

Level 1 recordation is reconnaissance survey, and is appropriate for initial surveys designed to identify locations with evidence of prehistoric human activity, for subsequent prioritization for site delineation and recording. Conceptually, it involves

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scanning the landscape and flagging (with a GPS) all features so that concentrations of archaeological resources can be determined in the lab using GIS software. Logistically, individual features and groups of features within 50 meters of one another will be recorded as a “locus” in the field. For each defined locus, crews will collect summary information on the types and numbers of features and artifacts present, landscape setting (landform, vegetation, visibility), and the presence of historic/recent trash and/or graffiti. Lone artifacts seen during survey that are temporally or functionally diagnostic (e.g., tools or painted pottery) will be recorded as isolated occurrences.

Level 2 recordation builds on Level 1 reconnaissance with more traditional archaeological site recording. Using data collected during Level 1 recording, the spatial distribution of loci and isolated occurrences are evaluated using a GIS to detect clusters of loci or individual artifacts not apparent in the field to delineate “site” boundaries. In some cases, this results in the lumping of more than one locus as a site. At this stage, it is appropriate to perform artifact collections, since the location of systematic collections and artifacts can be plotted on the site map. Each site is assigned an Arizona State Museum (ASM) site number, an ASM site card is completed in the field, and a site map is created showing the location of features and collected artifacts. Each feature is assigned a feature number, photographed, and UTM coordinates are recorded.

Level 3 recordation builds on Level 2, recording at the level of the “subfeature” (details of features) at designated sites. Preliminary surveys in the field suggest that rock art, rock shelters, and agricultural features are the predominant features present in the survey area at South Mountain Park, so our Level 3 forms focus on these ubiquitous

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features. Other projects could add additional forms to record typical features present in other areas that would be important for understanding prehistoric use of the landscape and its relation to rock art.


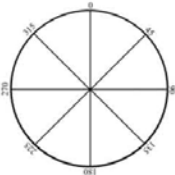
Finally, Level 4 recording is conceptualized as specialized studies that either transcend “site-feature-subfeature” levels of analysis or focus on specific research questions that require in-field analysis. Currently, this project has developed a form for aerial photography, and several forms for systematizing the recordation of archaeoastronomical observations involving rock art and surrounding landscape elements.

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Level 1 Forms:

Feature/Locus Reconnaissance Form

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ASU	South Mountain Rock Art Project Feature/Locus Reconnaissance Form	
Recorders: _____	Date (ddMMMyy): _____	
Field #: _____ ASM Site # _____	Time (24hour): _____	
Feature/Locus Name: _____	Weather Conditions: _____	
Feature/locus provenience		
Geographic Locality: _____ GPS Unit #: _____ Waypoint ID: _____ (center of locus)		
NAD83 UTM Coords: _____ East _____ North _____ Elev (m) ± _____ (m)		
Archaeological context Site Type: _____ Site Size: _____ m N-S x _____ m E-W		
Description: _____		
Features present: <input type="checkbox"/> Rockshelter <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other: _____		
Pottery types present: <input type="checkbox"/> Plain/buff <input type="checkbox"/> Red <input type="checkbox"/> Red-on-buff <input type="checkbox"/> Polychrome <input type="checkbox"/> Other: _____		
Other artifacts noted: _____		
Landscape context <input type="checkbox"/> Hilltop <input type="checkbox"/> Ridge/Saddle <input type="checkbox"/> Hillside/Slope <input type="checkbox"/> Valley/Flat <input type="checkbox"/> Canyon/Wash <input type="checkbox"/> Tank/Gallery Vegetation present: _____ _____ _____	Horizon visibility Shade in visible lines-of-sight from feature to distant horizon (beyond park)	
Prehistoric Rock Art information		
Rock art context: <input type="checkbox"/> Rock shelter <input type="checkbox"/> Cliff Face <input type="checkbox"/> Table Rock <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Other: _____		
Worked Surfaces Are Primarily: <input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Sloping <input type="checkbox"/> Overhead		
Panels face what direction(s): _____		
Estimated No. of Panels: _____ Site has archaeoastronomy potential: <input type="checkbox"/> Likely <input type="checkbox"/> Unlikely		
Techniques (check all that apply)		
Petroglyphs: <input type="checkbox"/> Abraded <input type="checkbox"/> Incised <input type="checkbox"/> Pecked <input type="checkbox"/> Scratched <input type="checkbox"/> Other: _____		
Pictographs: <input type="checkbox"/> Drawn <input type="checkbox"/> Painted <input type="checkbox"/> Blown/sprayed Colors: _____		
Natural Defacements: _____		
Erosion: <input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy Lichen: <input type="checkbox"/> None to light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy		
Patina: <input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy Vandalism: _____		
Description of rock art: _____		

Additional information (submit photo log and enter collections on specimen log)		
Photo Log Numbers: _____		
Artifact collections (only with approval) list types: _____		
Field Spec No.(s): _____ Master Spec No.(s): _____		
Comments: _____		

Revised 20 October 2006		Level 1

Figure 1: Feature/locus reconnaissance form.

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Instructions for completing Level 1: **Site/Locus Reconnaissance Form**

Recorders: Write down the first initial and last name of person(s) preparing the form.

Field #: Temporary identification number assigned to the locus in the field.

ASM Site #: Official site number given in lab, once we have done Level 2 recording. Do not fill this in unless directed by the team leader.

Site/Locus Name: consult with team leader to give the locus a name.

Date (ddMMMyy): Write date in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Time (24hour): Write time of day using 24-hour clock to avoid confusion. E.g., 1:30pm would be 1330

Weather conditions: e.g., sunny, overcast, rainy, windy.

Geographic locality: General location on map based on Bostwick & Krocek's 2002 naming system, such as 24th Street locality.

Ownership: whose land is site located on (e.g., private property owner, SMP for south mountain park)

UTM Info: Check which datum GPS is using, and enter UTM coordinates for rough center of site, or at panels.

Site Type: what kind of site is this? Residential? Rock shelter? Agricultural?

List features present: E.g., rock art, terraces, house outline, roasting pit, etc.

Pottery/Artifacts: Check pottery types present, and note other artifacts you notice at the site.

Topographic setting: check relevant boxes that best describe the site surroundings.

Vegetation present: note the major vegetation types (trees, shrubs) and any ethnographically important plants.

Horizon visibility: shade in wedges where you have a good view of the distant horizon (beyond SMP).

Rock art information: Check the relevant surface types and orientations.

Panels face what direction(s): cardinal direction(s) that rock art panels face. Use "up" for vertical.

Number of Panels/Boulders: how many panels in total at locus, and how many individual rock surfaces?

Type of Art: check the boxes that best characterize the rock art present at the site

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Natural Defacements: Check the boxes that best describe the condition of the rock art relative to other sites at SMP that you have become familiar with. As with other categories, consult a team leader if you are just starting out and are not sure.

Care of execution of rock art: In your opinion, how well executed is the rock art relative to other typical panels at South Mountain?

Photograph Log #s: write down the photo log numbers for the relevant camera, and make sure that these match the information you have on the photo log that accompanies this sheet.

Artifact collections: Do not collect artifacts without approval from the team leader. If you have permission and do collect artifacts, list artifact categories collected, such as decorated sherds or hammer stones, and write down the temporary field numbers given to each bag. Make sure that on each bag and/or tag that you write down the name. Note: Master specimen numbers will be assigned in the lab, so leave this space blank.

Comments: something should always be written in this section. This is the last chance on this form to indicate to the project personnel and future archaeologists whether more work should be done at this site. Is there something special about the rock art? Are there suspicious alignments between features? Is the site in imminent danger of being bulldozed? Maybe there are plants you suspect might be important but cannot identify. **THIS IS WHERE YOU SHOULD PUT THIS INFORMATION!**

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Level 2 Forms:

ASM Site Card

Site Mapping Form

Feature Form

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Instructions for completing Level 2: **ASM Site Card**

This form must be completed with the assistance of a trained, professional archaeologist. Most of the information is self-explanatory, and some of the blanks have been partially filled in, where relevant.

Of particular note are the following:

Cntr UTM: write down the UTM coordinates for the site datum in this field.

Peri UTM: enter 4 UTM boundary coordinates for the site along the mapped site boundary.

BL, TWN, RNG, SEC, SUBDIVISION: These are derived from the USGS 7.5 minute topographic map. The archaeologist will assist in determining what to put in this area.

Site Description/Remarks: The archaeologist will write in comments about site type, evidence for features, function, etc.

Depositional Context: Check the appropriate blanks.

Topo Setting/Vegetation/Geology/Soils/Condition: Write in the appropriate information. Topographic setting should conform to the landscape contexts selected on the site/locus reconnaissance forms for the site.

Site Type: Check appropriate blank. Keep in mind that rock art is a feature.

Assemblage Composition: Check all that apply.

Diagnostics: follow instructions on form.

Feature Data: Keep in mind that these feature numbers will not match those from our site. These are numbers of feature types. For instance, we might have three boulders with rock art panels on them, labeled feature 1, feature 2 and feature 3. On the ASM site card these would be listed together under "Feature No. 1" which indicates under "count" the quantity of that type of feature. In this example, we would note that there are three features of that type.

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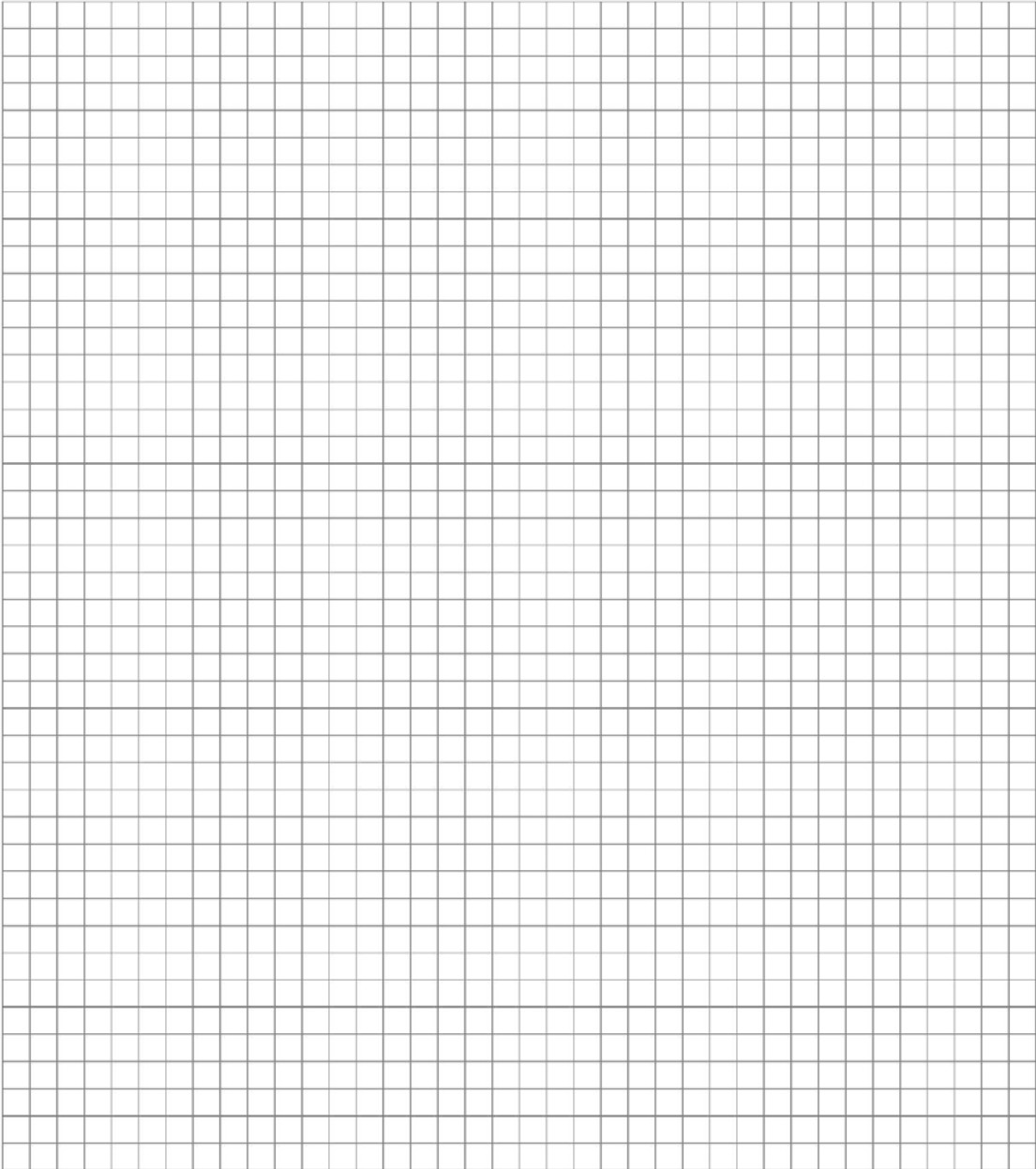
	SOUTH MOUNTAIN ROCK ART PROJECT Archaeological Site Mapping Form	
ASM Site # _____ Site Name: _____		Date (ddMMMy): _____ Mapped by: _____
Site datum coordinates: _____ East _____ North _____ Elev (m) UTM Zone 12 NAD (Plot and label site datum clearly with a star.)		Scale: 1 square = __ meters
		
Revised 14 August 2006		Level 2

Figure 5: Archaeological site mapping form.

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Instructions for completing Level 2: **Site Mapping Form**

ASM Site #: This is pre-assigned and must match the ASM Site card for the site.

Site Name: This will be filled in by the project director.


Date (ddMMMyy): Write the data in the format shown.

Mapped by: write down first initial and last name of person in charge of mapping.


Site Datum Coordinates: Fill in the UTM coordinates and elevation of the site datum stake. Make sure it matches the center UTM coordinates for the ASM Site Card. Indicate the correct mapping datum (NAD27 or NAD83).

Site Mapping: This needs to be done with the assistance of a trained archaeologist. Use the site mapping form to create a map showing relevant natural and cultural features, site extent and datum, and any collection area, if applicable. All features must be numbered and shown clearly on the map. Map should be plotted at the maximum scale possible in the available space on the form. Plot the map using True North, preferably with north at the top of the page.

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**South Mountain Rock Art Project
Feature Recording Form**



Recorder(s): _____

Field #: _____ ASM Site #: _____

Site/Locus Name: _____

Date (ddMMYY): _____ Time (24hour): _____

GPS Unit#: _____ Camera ID #: _____

Page _____ of _____

<p>Feature Number: _____ Feature Type: _____ UTM: _____ East: _____ North: _____</p> <p>Distance to Datum: _____ (m) Bearing from Datum: _____° Feature Size: L: _____ m × W: _____ m × H: _____ m</p> <p>Description of Feature: _____</p> <p>Erosion/Weathering/Vandalism/Threats: Feature condition is: <input type="checkbox"/> Stable <input type="checkbox"/> Eroding/deteriorating <input type="checkbox"/> Seriously Endangered (check one)</p> <p>Describe: _____</p> <p>Photos: <input type="checkbox"/> Feature overview <input type="checkbox"/> Feature closeup <input type="checkbox"/> Other _____ Photo #s: _____</p> <p>Subfeatures/Panels: A through _____ # of Petroglyphs: _____ (or N/A) Comments: _____</p> <p>Associated Artifacts: _____</p>	<p>Quick Sketch: <input type="checkbox"/> Plan View <input type="checkbox"/> Profile</p>
<p>Feature Number: _____ Feature Type: _____ UTM: _____ East: _____ North: _____</p> <p>Distance to Datum: _____ (m) Bearing from Datum: _____° Feature Size: L: _____ m × W: _____ m × H: _____ m</p> <p>Description of Feature: _____</p> <p>Erosion/Weathering/Vandalism/Threats: Feature condition is: <input type="checkbox"/> Stable <input type="checkbox"/> Eroding/deteriorating <input type="checkbox"/> Seriously Endangered (check one)</p> <p>Describe: _____</p> <p>Photos: <input type="checkbox"/> Feature overview <input type="checkbox"/> Feature closeup <input type="checkbox"/> Other _____ Photo #s: _____</p> <p>Subfeatures/Panels: A through _____ # of Petroglyphs: _____ (or N/A) Comments: _____</p> <p>Associated Artifacts: _____</p>	<p>Quick Sketch: <input type="checkbox"/> Plan View <input type="checkbox"/> Profile</p>
<p>Feature Number: _____ Feature Type: _____ UTM: _____ East: _____ North: _____</p> <p>Distance to Datum: _____ (m) Bearing from Datum: _____° Feature Size: L: _____ m × W: _____ m × H: _____ m</p> <p>Description of Feature: _____</p> <p>Erosion/Weathering/Vandalism/Threats: Feature condition is: <input type="checkbox"/> Stable <input type="checkbox"/> Eroding/deteriorating <input type="checkbox"/> Seriously Endangered (check one)</p> <p>Describe: _____</p> <p>Photos: <input type="checkbox"/> Feature overview <input type="checkbox"/> Feature closeup <input type="checkbox"/> Other _____ Photo #s: _____</p> <p>Subfeatures/Panels: A through _____ # of Petroglyphs: _____ (or N/A) Comments: _____</p> <p>Associated Artifacts: _____</p>	<p>Quick Sketch: <input type="checkbox"/> Plan View <input type="checkbox"/> Profile</p>

Revised 12 November 2006

Adapted from ABOC Rock Art Panel Data Form

Level 2

Figure 6: Feature recording form.

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Instructions for completing Level 2: **Feature Form**

Recorders: Write down the first initial and last name of person(s) preparing the form.

Field #: Temporary identification number assigned to the locus in the field.

ASM Site #: Official site number given in lab, once we have done Level 2 recording. Do not fill this in unless directed by the team leader.

Site/Locus Name: consult with team leader to give the locus a name.

Date (ddMMMy): Write date in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Time (24hour): Write time of day using 24-hour clock to avoid confusion. E.g., 1:30pm would be 1330

GPS Unit #: Enter the GPS ID # from the back of the GPS on this form. Make sure it matches the camera ID#.

Camera ID #: Enter the Camera ID # from the back of the GPS on this form. Make sure it matches the GPS #.

Page: Write in the correct page number and total number of pages for features recorded on feature forms at this site.

Feature Information (Fill out one row for each feature, using the back of the sheet, and continuation pages if necessary.)

Feature Number: Feature numbers are assigned during mapping. Make sure the feature that you record matches the assignment on the site mapping form.

Feature Type: A feature is an object created in the past that cannot be moved, such as a rock alignment, a building, a roasting pit, a petroglyph, etc. This is distinct from an artifact, which is portable.

UTM: Enter the Easting and Northing readings from your GPS unit.

Distance to Datum: Measure distance between feature and datum in meters.

Bearing from Datum: Measure in compass degrees **from** the Datum to the center of the feature.

Feature Size: Dimensions are measured in **meters** to an accuracy of two decimal points (centimeters). Length is the longest horizontal dimension; width is shorter and perpendicular to length. Height is vertical distance the feature extends above present ground surface.

Description of Feature: Describe the feature, including method of construction, material type, distinctive elements, etc.

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Deterioration/Weathering/Lichen/Vandalism/Threats: a subjective assessment of the stability of the Feature. "Stable" indicates no evidence of recent or ongoing deterioration, such as erosion, spalling, lichen, cracking, flaking, etc. Seriously endangered means that you feel there is a strong likelihood that the feature will be destroyed in the near future. Notify the Project Director of all evidence of serious deterioration, and be sure to make an entry about this in the Team Leader's Daily Field Log.

Describe: Describe the source/type of endangerment of the feature. Note any threats to the feature such as instability, water seepage, tree roots, proximity to roads or trails, and potential fire danger due to available fuels.

Photos: Identify the types of photographs of the feature, and record photo numbers. Check all that apply. Be sure to completely fill out the photo log for each picture, and make sure that there is a scale bar in each photo.

Panels: Specify the number of subfeatures or panels included in the feature using letters. For instance, a water control feature consisting of three adjacent check dams would have a letter "C" filled in (for subfeatures A, B, and C). A boulder with 6 petroglyph panels would have a letter "F" here.

Number of Petroglyphs: For petroglyph features, count the total number of glyphs present.

Comments about panels/elements/photos: Record information about the rock-art or other features. Pay particular attention to relationships among elements and qualities that might not appear in a photograph or drawing. Comment about panel/element visibility. Explain estimations of numbers of elements.

Associated Artifacts: Identify any artifacts on or adjacent to the feature.

Feature Quick Sketch: Make a quick sketch of the feature, and note whether it is a plan view (from above) or a profile view (from the side). Note whether this is a Plan View (from above) or Elevation from Datum (how the Feature would look when in line with the datum. In Plan View, note direction to Datum and North. Show location of panels on sketch.

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Level 3 Forms:

Rock Art Panel Recording Form

Agricultural Feature Form

Rock Shelter Form

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ASU	South Mountain Rock Art Project Rock Art Panel Form									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Recorder(s): _____</td> <td style="width: 50%;">Date (ddMMMyy): _____</td> </tr> <tr> <td>Field #: _____ ASM Site # _____</td> <td>Time (24hour) _____</td> </tr> <tr> <td>Site/Locus Name: _____</td> <td>Weather Conditions: _____</td> </tr> <tr> <td colspan="2">Feat No.: _____ Feat Type: <input type="checkbox"/> Rock shelter <input type="checkbox"/> Cliff Face <input type="checkbox"/> Table Rock <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Other: _____</td> </tr> </table>			Recorder(s): _____	Date (ddMMMyy): _____	Field #: _____ ASM Site # _____	Time (24hour) _____	Site/Locus Name: _____	Weather Conditions: _____	Feat No.: _____ Feat Type: <input type="checkbox"/> Rock shelter <input type="checkbox"/> Cliff Face <input type="checkbox"/> Table Rock <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Other: _____	
Recorder(s): _____	Date (ddMMMyy): _____									
Field #: _____ ASM Site # _____	Time (24hour) _____									
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Feat No.: _____ Feat Type: <input type="checkbox"/> Rock shelter <input type="checkbox"/> Cliff Face <input type="checkbox"/> Table Rock <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Other: _____										
<p>Panel Letter: _____ Recorder(s): _____ Time: _____</p> <p>Panel Size: H: • m × W: • m H from PGS: • m Est? Y / N</p> <p>Panel Facing: _____ ° Inclusion (from horizontal): _____ °</p> <p>Visibility: <input type="checkbox"/> Easy to See <input type="checkbox"/> Hard to see/Protected/Hidden (comment below)</p> <p>Rock Coating (check one): <input type="checkbox"/> Heavy <input type="checkbox"/> Light <input type="checkbox"/> Variable <input type="checkbox"/> None</p> <p>Condition (check one): <input type="checkbox"/> Stable – OR – Deterioration is: <input type="checkbox"/> Active <input type="checkbox"/> Serious</p> <p>Deterioration/Weathering/Lichen/Vandalism/Threats: _____</p> <p>Petroglyph Technique (all that apply): <input type="checkbox"/> Abraded <input type="checkbox"/> Incised <input type="checkbox"/> Pecked <input type="checkbox"/> Scratched</p> <p>Repatination (check one): <input type="checkbox"/> Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/> Variable</p> <p>Comments: _____</p> <p>Pictograph Technique (all that apply): <input type="checkbox"/> Painted <input type="checkbox"/> Drawn <input type="checkbox"/> Blown (sprayed)</p> <p>Comments/Colors: _____</p> <p>Superimpositions? _____ Rock incorporation? _____</p> <p>Comments about Panel and Elements: _____</p> <p>_____</p> <p>_____</p>	<p>QUICK SKETCH</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>									
<p>Panel Letter: _____ Recorder(s): _____ Time: _____</p> <p>Panel Size: H: • m × W: • m H from PGS: • m Est? Y / N</p> <p>Panel Facing: _____ ° Inclusion (from horizontal): _____ °</p> <p>Visibility: <input type="checkbox"/> Easy to See <input type="checkbox"/> Hard to see/Protected/Hidden (comment below)</p> <p>Rock Coating (check one): <input type="checkbox"/> Heavy <input type="checkbox"/> Light <input type="checkbox"/> Variable <input type="checkbox"/> None</p> <p>Condition (check one): <input type="checkbox"/> Stable – OR – Deterioration is: <input type="checkbox"/> Active <input type="checkbox"/> Serious</p> <p>Deterioration/Weathering/Lichen/Vandalism/Threats: _____</p> <p>Petroglyph Technique (all that apply): <input type="checkbox"/> Abraded <input type="checkbox"/> Incised <input type="checkbox"/> Pecked <input type="checkbox"/> Scratched</p> <p>Repatination (check one): <input type="checkbox"/> Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/> Variable</p> <p>Comments: _____</p> <p>Pictograph Technique (all that apply): <input type="checkbox"/> Painted <input type="checkbox"/> Drawn <input type="checkbox"/> Blown (sprayed)</p> <p>Comments/Colors: _____</p> <p>Superimpositions? _____ Rock incorporation? _____</p> <p>Comments about Panel and Elements: _____</p> <p>_____</p> <p>_____</p>	<p>QUICK SKETCH</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>									
<p>Panel Letter: _____ Recorder(s): _____ Time: _____</p> <p>Panel Size: H: • m × W: • m H from PGS: • m Est? Y / N</p> <p>Panel Facing: _____ ° Inclusion (from horizontal): _____ °</p> <p>Visibility: <input type="checkbox"/> Easy to See <input type="checkbox"/> Hard to see/Protected/Hidden (comment below)</p> <p>Rock Coating (check one): <input type="checkbox"/> Heavy <input type="checkbox"/> Light <input type="checkbox"/> Variable <input type="checkbox"/> None</p> <p>Condition (check one): <input type="checkbox"/> Stable – OR – Deterioration is: <input type="checkbox"/> Active <input type="checkbox"/> Serious</p> <p>Deterioration/Weathering/Lichen/Vandalism/Threats: _____</p> <p>Petroglyph Technique (all that apply): <input type="checkbox"/> Abraded <input type="checkbox"/> Incised <input type="checkbox"/> Pecked <input type="checkbox"/> Scratched</p> <p>Repatination (check one): <input type="checkbox"/> Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/> Variable</p> <p>Comments: _____</p> <p>Pictograph Technique (all that apply): <input type="checkbox"/> Painted <input type="checkbox"/> Drawn <input type="checkbox"/> Blown (sprayed)</p> <p>Comments/Colors: _____</p> <p>Superimpositions? _____ Rock incorporation? _____</p> <p>Comments about Panel and Elements: _____</p> <p>_____</p> <p>_____</p>	<p>QUICK SKETCH</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>									

Figure 7: Rock art panel recording form (front side).

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Instructions for completing Level 3: **Rock Art Panel Recording Form**

Recorders: Write down the first initial and last name of person(s) preparing the form.

Field #: Temporary identification number assigned to the locus in the field.

ASM Site #: Official site number assigned after Level 2 recording. This will probably be entered already.

Site/Locus Name: consult with team leader to give the locus a name.

Date (ddMMMy): Write date in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Time (24hour): Write time of day using 24-hour clock to avoid confusion. E.g., 1:30pm would be 1330

Weather Conditions: e.g., sunny, overcast, rainy, dark, etc.

Feature Number: Feature numbers are assigned in Level 2 recording when the site is recorded, and information on features is recorded in the feature log. Each separate rock, whether a boulder, bedrock, or a cliff face, receives a separate feature number. Make sure that you enter the correct feature number, and that its' location on the site map is accurate. Only one feature's panels are to be recorded on each sheet, so you can only enter one feature number here. Start a new sheet for panels on another feature.

Feature Type: Check the appropriate feature type. Check with the team leader if you need to enter a new type in the "other" blank.

Panel Letter: Panels are identified with CAPITAL letters.

Recorder(s): use first initials and last name of person(s) recording this panel.

Sketch: Draw the panel, indicating the positions of elements, the presence of cracks and similar features, and any areas in which deterioration is evident. Take care to show particularly prominent elements and r position on the panel. Indicate adjacent panels. Write on your sketch to indicate cracks, lichen, deterioration, faint marks, use of natural features, and any other observations that might not be clear in a photo.

Panel Size: measure in meters to an accuracy of two decimal points (centimeters). Height is the vertical dimension from lowest rock-art element to the highest. Width is the horizontal extent of rock-art elements. H and W are measured directly on the panel, and are perpendicular to each other. For horizontal panels, consult with the Field director to establish a viewing/measuring point, and make a note of it.

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H from PGS: measure vertically on the panel from PGS (Present Ground Surface) to lowest element.

Est.? Y / N: Circle one. If estimated, indicate the reason— inaccessible? Haste?

Panel Facing: The compass direction you are facing when looking **away** from the panel.

Inclination: The slope of the panel face in degrees, from 0° (facing straight up) to 180° (facing straight down in an overhang).

Visibility: A subjective assessment, but an extremely important one for identifying difficult-to-see features and panels. Use the Comments area to describe anything that affects the visibility of the feature/panel, such as lighting, time of day, vegetation, or unusual locations.

Rock Coating: refer to the panel's **unmodified** sections. Identify the qualities that predominate on the panel. Check only one box.

Condition: a subjective assessment of the stability of the panel surface. A Stable panel is free of lichen and evidence of recent spalling, cracking, and flaking, etc. SERIOUS deterioration means that there is strong likelihood that rock-art will be lost in the near future. Notify the Field Director of all evidence of serious deterioration.

Deterioration/Weathering/Lichen/Vandalism/Threats: Describe deterioration. Also, note any treats to the panel, such as instability, water seepage, tree roots, and proximity to roads, trails, or other high activity areas. Indicate concerns on sketch.

Petroglyph Technique AND Pictograph Technique: Check all that apply. This pertains to all elements on the panel.

Petroglyph Repatination: Assess the degree of re-coating of petroglyphs. A relative judgment made in comparison to surrounding Features.

Comments: Comments on technique. Particularly important when more than one technique is evident on a panel or when different elements show variable amounts of repatination.


Superimpositions? Natural Rock Features: Comment on evidence of element superpositioning, reworking of elements or inclusion of rock features.

Comments about Panel and Elements: Make any additional observations about the panel and Elements in this area. Note visibility issues here. Record information about the elements on the panel. Pay particular attention to relationships among elements and qualities that might not appear in a photograph or drawing.


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Repeat this information for each panel on the feature. Make sure to use the backside of the form, and a continuation sheet, if necessary (i.e., greater than 6 panels present on the feature.)

South Mountain Rock Art Project Field Manual



South Mountain Rock Art Project
Agricultural Feature Form



Recorder(s): _____ Date (ddMMMyy): _____
 Field #: _____ ASM Site #: _____ Time (24hour): _____
 Site/Locus Name: _____ Weather Conditions: _____

NAD83 UTM Coordinates: _____ East _____ North _____ Elev (m) ± _____ (m)

Feat No.: _____ Feat Type: Rock pile Rock Alignment Terrace Grid garden Other: _____

Feature Context

Landform type: Arroyo Piedmont Alluvial fan Hillside/Slope Valley/Flat Other: _____
 General Landform: Slope _____° Aspect _____°
 Material type: _____ Local Non-local Modified Unmodified
 Associated artifacts: Lithics Groundstone Ceramics: Plain Red Red-on-buff Polychrome

Feature Type

Rock Pile

<input type="checkbox"/> Small (< 1m)	<input type="checkbox"/> Compact	<input type="checkbox"/> Intact	<input type="checkbox"/> Mulched	<u>Cobble sizes</u>	<u>Size (cm)</u>
<input type="checkbox"/> Medium (1-2m)	<input type="checkbox"/> Dispersed	<input type="checkbox"/> Disrupted	<input type="checkbox"/> Not mulched	<input type="checkbox"/> Uniform	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +
<input type="checkbox"/> Large (> 2m)			<input type="checkbox"/> Charcoal present	<input type="checkbox"/> Variable	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +

Rock Alignment

<input type="checkbox"/> Short (< 2m)	<input type="checkbox"/> Across drainage	<input type="checkbox"/> Parallel to slope	<input type="checkbox"/> Intact	<u>Cobble sizes</u>	<u>Size (cm)</u>
<input type="checkbox"/> Medium (2-4m)	<input type="checkbox"/> Perpendicular to slope	<input type="checkbox"/> Angled with respect to slope	<input type="checkbox"/> Disrupted	<input type="checkbox"/> Uniform	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +
<input type="checkbox"/> Long (> 4m)				<input type="checkbox"/> Variable	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +

Artificial Terrace

<input type="checkbox"/> Small (< 5m ²)	No. of Rock courses _____	<u>Terrace surface</u>	<u>Cobble sizes</u>	<u>Size (cm)</u>
<input type="checkbox"/> Medium (5-10m ²)	Height (cm) _____	Slope _____°	<input type="checkbox"/> Uniform	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +
<input type="checkbox"/> Large (> 10m ²)	Wall length (m) _____	Aspect _____°	<input type="checkbox"/> Variable	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +

Grid Garden

No. of cells _____	<u>Grid Interior</u>	<u>Garden surface</u>	<u>Cobble sizes</u>	<u>Size (cm)</u>
Total length _____ m	<input type="checkbox"/> Mulched	Slope _____°	<input type="checkbox"/> Uniform	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +
Total area _____ m ²	<input type="checkbox"/> Not mulched	Aspect _____°	<input type="checkbox"/> Variable	0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> +

Other Agricultural Feature(s)

<input type="checkbox"/> Berm	<input type="checkbox"/> Cleared field area	Length _____ m	Slope _____°
<input type="checkbox"/> Ditch	<input type="checkbox"/> Field marker(s)	Area _____ m ²	Aspect _____°
<input type="checkbox"/> Catchment basin	<input type="checkbox"/> Other _____	Depth _____ cm	Count _____

Soil and Vegetation

----ON Feature----	----OFF Feature----
Soil type: _____	Soil type: _____
Munsell code: _____	Munsell code: _____
Vegetation: _____	Vegetation: _____
_____	_____

Additional information (submit photo log and enter collections on specimen log)

Photo Log Numbers: _____

Soil sample: FS# _____ Pollen sample FS# _____ Artifacts: FS#(s) _____

Master Spec # _____ Master Spec #: _____ Master Spec #(s): _____

Comments: _____

Revised 20 October 2006

Level 3

Figure 8: Agricultural feature form (page 1).

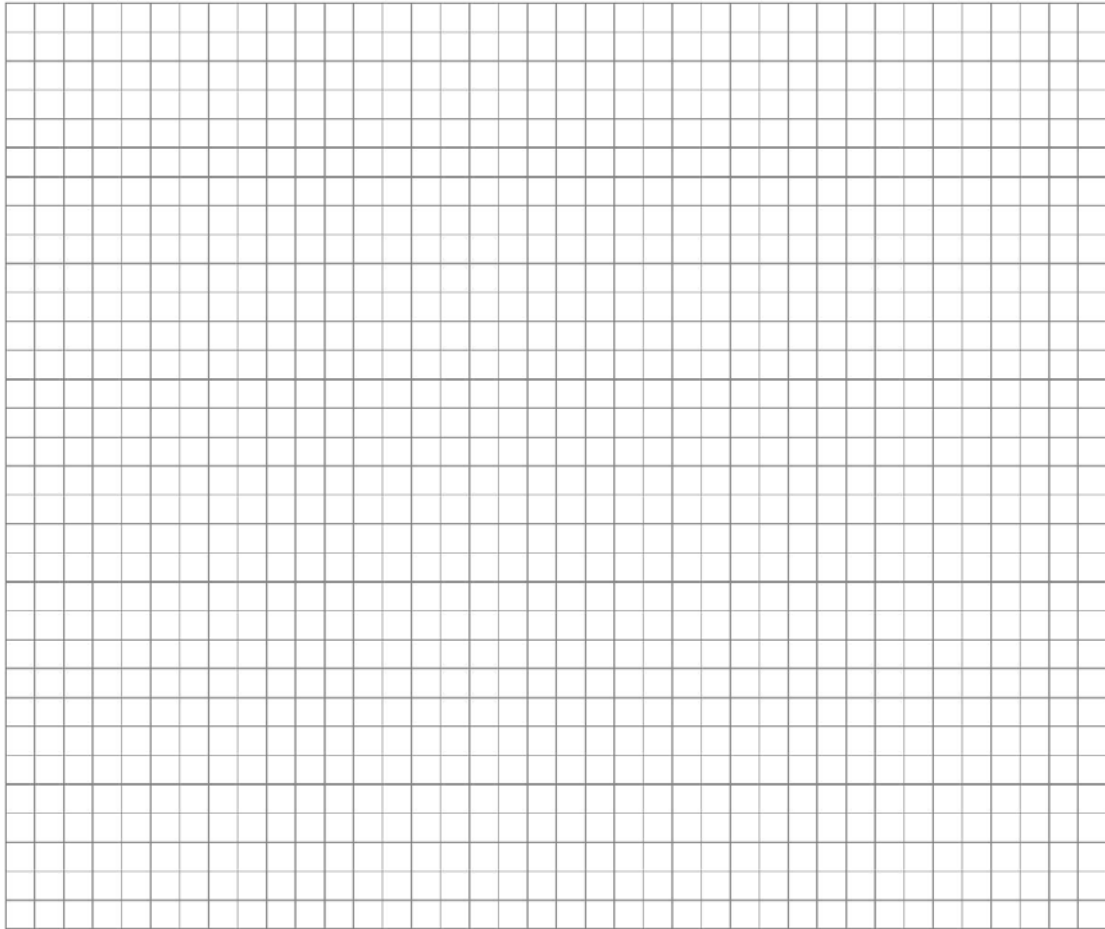
South Mountain Rock Art Project Field Manual

Agricultural Feature/Field Scale Drawing

ASM Site # _____	Date (ddMMMy): _____
Feature #: _____	Drawn by: _____

(Plot location where GPS reading taken)

Scale: 1 square = _____



Detailed description of feature(s)

Figure 9: Agricultural feature form (page 2).

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Instructions for completing Level 3: **Agricultural Feature Form**

Top of Form

Recorders: Write down the first initial and last name of person(s) preparing the form.

Field #: Temporary identification number assigned to the locus in the field. Usually starts with SMP.

ASM Site #: Write in the Arizona State Museum Site Number, if known.

Site/Locus Name: consult with team leader to give the locus a name.

Date (ddMMMyy): Write date in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Time (24hour): Write time of day using 24-hour clock to avoid confusion. E.g., 1:30pm would be 1330

Weather Conditions: e.g., sunny, overcast, rainy, dark, etc.

NAD83UTM Coordinates: Enter the UTM coordinates for the center of the feature- easting, northing, elevation, and accuracy for the waypoint. All GPS units used on the project are set to the NAD83 datum.

Feat No.: write in the feature number, as shown in the site map.

Feat Type: Check the appropriate feature type represented by the agricultural feature(s). A series of rock alignments and rock piles, for instance, can be recorded on the same form, if it is believed they functioned together in a single field system.

Feature Context

Landform Type: Check the appropriate box best representing the type of landform the features are located on.

General Landform: Record the general slope and aspect, in degrees, of the landform the feature is located on.

Material Type: Write in the type of rock used in the construction of the feature, whether these are locally available, and whether these have been modified (shaped) by humans.

Associated artifacts: Check the appropriate boxes to indicate what, if any, artifacts are found on or within a few meters of the feature.

Feature Type

Most typical agricultural features encountered in South Mountain Park should consist of one of the categories present. Agricultural Rock Piles should consist of 10 or more rocks to be considered an agricultural feature (though simple rock cairns can consist of as few as 3 stacked stones). Rock Alignments can include check dams (across drainage), field borders (often parallel and perpendicular to slope), contour terraces (parallel to slope), and water diverters (angled with respect to slope). Terraces should be reserved for linear or curvilinear rock alignments on slopes with evidence for a flat, cleared area behind the rock alignment. Terraces include the rock alignment and the level area behind the alignment, which is used for planting. Grid gardens are a somewhat rare, more complex feature type, which may be encountered at South

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Mountain. These consist of a “checkerboard” of cleared areas with rocks piled into lines between them, forming a grid pattern.

Rock Pile

Check the appropriate size, based on average diameter. If most stones are touching one or more adjacent stones, check “Compact,” otherwise check “Dispersed.” If it looks like the pile used to be more concentrated, but has been disturbed, causing movement and disruption of the original pile, then check “Disrupted,” otherwise check “Intact.” In some cases, small, gravel sized stones are used in and among larger stones, often as a central feature of a pile. If this is the case, then the rock pile is “Mulched.” If cobble size is fairly uniform, then check “Uniform” and check the appropriate size category for the individual construction stones. If cobble size is variable, then record the most common size range in the upper size category, and the second most common size range in the bottom, next to “Variable.”

Rock Alignment

Check the appropriate size, based on average length (or actual length if only one present). Record the orientation of the alignment with respect to slope. If most stones are touching one or more adjacent stones, check “Compact,” otherwise check “Dispersed.” If it looks like the alignment used to be more continuous, but has been disturbed, causing movement and disruption of the original alignment, then check “Disrupted,” otherwise check “Intact.” Record cobble size(s) as for rock piles (above).

Artificial Terrace

Check the appropriate size, based on average area of level planting surface. Indicate the number of rock courses used in its construction, the height of the terrace wall at its maximum height (usually the center), and the total length of the terrace wall. Record the slope and aspect of the planting surface. Finally, record cobble size(s) as for rock piles (above).

Grid Garden

Indicate the number of individual cells in the grid garden. (Note: if this is not more than one, it is not a grid garden!) Total length is a measure of the total linear length of walls used in construction, and Total area is the size in square meters covered by the garden. As for rock piles, indicate whether the interior or the grid cells appear to be mulched with gravel. Record the average slope and aspect of the grid cells. Record cobble size(s) as for rock piles (above).

Other Agricultural Features

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If there are any other agricultural features present, but not recorded above, then mark the appropriate category here. Use the blanks to the right to record any appropriate information for these (e.g., count # for field markers, measure Area and Depth for a catchment basin).

Soil and Vegetation

This section requires examination of soil and vegetation both on and off the feature, which can be important for documenting function.

Soil Type: Use the soil identification key to determine the USDA soil classification (e.g., silty-sand, or gravelly-clay loam), which is based on a simple, in field grain-size assessment. You should be trained by the Field Director before doing this, unless you have a background in soil science or agronomy!

Munsell Code: Use a damp soil sample, and write in the alphanumeric Munsell code that best represents the color.

Vegetation present: note the major vegetation types and any ethnographically important plants, emphasizing vegetation differences between on- versus off-feature areas.

Additional Information

Photo Log Numbers: write down the photo log numbers for photographs taken while recording- take close-up, overview, and viewshed photographs.

Collections: Do not collect artifact without approval from the team leader! If you have permission and do collect artifacts, check the appropriate artifact types collected, and list the temporary field numbers given to each bag. Also, take separate UTM readings for each collection and write these on the tag. Note: Master specimen numbers will be assigned in the lab, so leave this space blank.

Comments: something should always be written in this section. This is the last chance on this form to indicate to the project personnel and future archaeologists whether more work should be done with these features.

Rear of Form

Top of form: note the ASM number, Feature number, and date, from the front of the form, and write down the name of the person in charge of creating the map of the agricultural features.


Agricultural feature map:

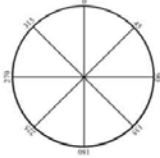
This should be prepared with the assistance of a trained archaeologist. Use the space provided to create a map showing relevant natural and agricultural features, location where UTM reading was taken for the feature(s), and any collection area, if applicable. All agricultural features must be numbered and shown clearly on the map, and must match the feature number listed on the site map. The agricultural feature(s) should

South Mountain Rock Art Project Field Manual

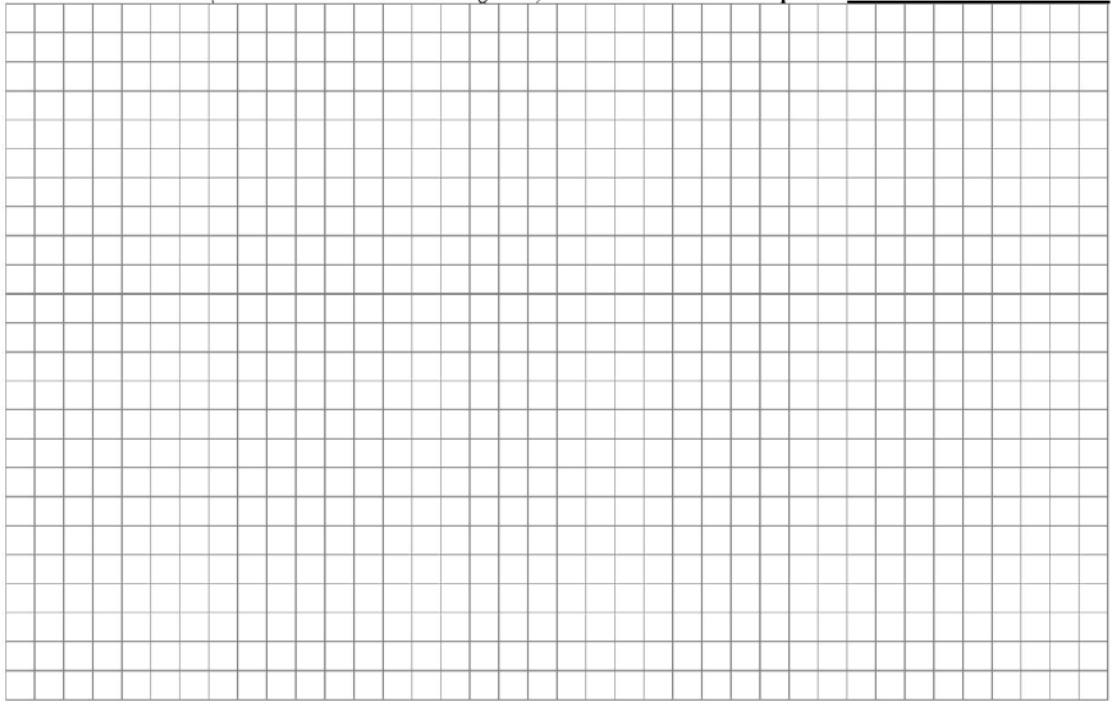
be plotted at the maximum scale possible in the available space on the form. Plot the map using True North, preferably with north at the top of the page.

South Mountain Rock Art Project Field Manual

ASU	South Mountain Rock Art Project Rock Shelter Form	
Recorder(s): _____		Date (ddMMMy): _____
Field #: _____ ASM Site # _____		Time (24hour) _____
Site/Locus Name: _____		Weather Conditions: _____
Feat No.: _____ NAD83 UTM Coords: _____ East _____ North _____		Elev (m) ± _____ (m)

Shelter Information	Shelter formed by:	Capacity _____	Shade provided	<i>Horizon visible from opening</i>
Shelter height _____ m	<input type="checkbox"/> Bedrock	<input type="checkbox"/> Standing	<input type="checkbox"/> Morning	
Shelter width _____ m	<input type="checkbox"/> Single boulder	<input type="checkbox"/> Sitting	<input type="checkbox"/> Midday	
Shelter depth _____ m	<input type="checkbox"/> Multi-boulder	<input type="checkbox"/> Lying	<input type="checkbox"/> Evening	
Disturbance	Interior deposits	Petroglyphs	Opening Height/Width	
<input type="checkbox"/> Trash/Fire	Area _____ m ²	<input type="checkbox"/> Interior	Primary: _____ m x _____ m	
<input type="checkbox"/> Graffiti	Depth _____ cm	<input type="checkbox"/> Exterior	Secondary: _____ m x _____ m	
<input type="checkbox"/> Animal				
Interior Artifacts: <input type="checkbox"/> Lithics <input type="checkbox"/> Groundstone	Ceramics: <input type="checkbox"/> Plain <input type="checkbox"/> Red <input type="checkbox"/> Red-on-buff <input type="checkbox"/> Poly <input type="checkbox"/> Other: _____			
Exterior Artifacts: <input type="checkbox"/> Lithics <input type="checkbox"/> Groundstone	Ceramics: <input type="checkbox"/> Plain <input type="checkbox"/> Red <input type="checkbox"/> Red-on-buff <input type="checkbox"/> Poly <input type="checkbox"/> Other: _____			
Describe feature, vegetation, artifacts, and view from shelter				

Plan and Profile sketch (*Plot location where GPS reading taken*) **Scale: 1 square = _____**



Additional information (<i>submit photo log and enter collections on specimen log</i>)
Photo Log Numbers: _____
Artifacts collected: FS# _____ Master Spec # _____

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Figure 10: Rock shelter form.

South Mountain Rock Art Project Field Manual

Instructions for completing Level 3: **Rock Shelter Form**

Top of Form

Recorders: Write down the first initial and last name of person(s) preparing the form.

Field #: Temporary identification number assigned to the locus in the field. Usually starts with SMP.

ASM Site #: Write in the Arizona State Museum Site Number, if known.

Site/Locus Name: consult with team leader to give the locus a name.

Date (ddMMMy): Write date in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Time (24hour): Write time of day using 24-hour clock to avoid confusion. E.g., 1:30pm would be 1330

Weather Conditions: e.g., sunny, overcast, rainy, dark, etc.

Feat No.: write in the feature number, as shown in the site map.

NAD83UTM Coordinates: Enter the UTM coordinates for the center of the feature- easting, northing, elevation, and accuracy for the waypoint. All GPS units used on the project are set to the NAD83 datum.

Shelter Information

Height: record the maximum height inside the shelter, in meters (e.g., 2.4)

Width: record the maximum width inside the shelter, also in meters.

Depth: record the maximum depth of the shelter from the entry "drip line" to the rear of the shelter.

Shelter formed by: Check all appropriate boxes that represent floor, wall or ceiling of the shelter.

Capacity: Either using best judgment, or by testing with field members, indicate the number of people that can fit into the shelter without touching. (No contortions necessary). Also, check whether this is based on people standing up, sitting, or lying down.

Shade Provided: What time of day does the shelter provide shade? Indicate the correct box or boxes.

Horizon visibility: shade in wedges where you have a good view of the distant horizon (beyond South Mountain Park) from the center of the rock shelter opening.

Disturbance: Check the appropriate box to indicate sources of modern or historic disturbance of prehistoric materials in the shelter.

South Mountain Rock Art Project Field Manual

Interior Deposits: Rock shelters with sediment deposits on the floor have a better chance of yielding information on past activities and environment. Indicate the area of the deposits, and an estimate of their depth.

Petroglyphs: indicate whether there are petroglyphs on the interior or exterior of the shelter (or both).

Opening Height/Width: Enter the size of the main (largest or most easily accessible) rock shelter opening. If there is a secondary opening (a tunnel, for instance), then enter the size of the second (smaller or less accessible) opening.

Artifacts: indicate the relevant artifacts that are present inside and outside the shelter—record these separately using the boxes provided.

Description: Describe any artifacts, vegetation in or immediately outside the rock shelter, and what can be seen (the landscape, as well as other archaeological features) from the shelter. If there is a level “patio” area in front of the shelter, note its presence and size here.

Plan and Profile Sketch:

Use the grid provided to make an accurate sketch of both the plan view and profile (or cross section) of the interior of the shelter. The plan view should show the outline of the floor of the shelter, to scale. It should also indicate locations of any artifacts, as well as the beginning and end of the profile line used to sketch the cross section, from the front to the rear of the shelter. The profile should show a side view of the interior of the shelter, as if the shelter were split down the middle. This helps to document the height and depth of the shelter. These should be drawn at the maximum scale possible in the available space on the form, making sure to use the same scale for both. Plot the map using True North, preferably with north towards the top of the page.

Additional Information

Photo Log Numbers: write down the photo log numbers for photos of the inside, outside, and view from the rock shelter.

Artifact collections: Do not collect artifacts without approval from the team leader! If you have permission and do collect artifacts, write down the temporary field numbers given to each bag. Note: Master specimen numbers will be assigned in the lab, so leave this space blank.

South Mountain Rock Art Project Field Manual

Level 4 Forms:

Rock Art/Architecture Night Sky Record

Eastern/Western Horizon Sunrise/Sunset Forms

Solar Year Light and Shadow Patterns Form

South Mountain Rock Art Project Field Manual



South Mountain Rock Art Project Archaeoastronomy Rock Art/Architecture Night Sky Record

Recorder(s): _____	Dates Recorded (<i>ddMM/yyyy</i>): _____
ASM Site # _____	Site/Locus Name: _____
Panels/Elements: _____	Time(s) of Event: _____
NAD83 UTM Coordinates: _____ East _____ North _____	Elev (m) ± _____ (m)
Azimuth (Compass Bearing) from Place of Observation to Star Cluster: _____	
Describe Star Cluster(s) [Constellation] and Alignment(s) with Archaeological Feature(s): _____	

Sketch Map of Night Sky

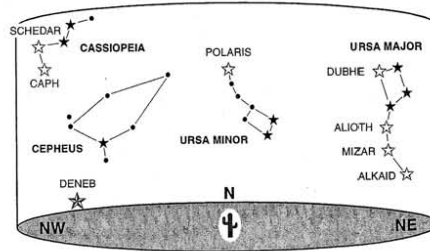
Describe Place of Observation: _____

Figure 11: Rock art/architecture night sky record (page 1).

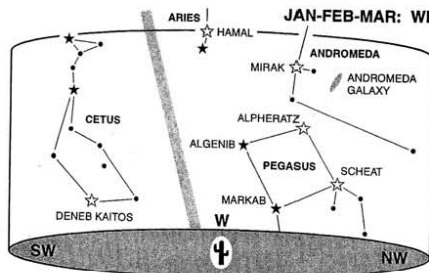
South Mountain Rock Art Project Field Manual

South Mountain Rock Art Project The Southwestern Night Sky: JAN-MAR *(from Dan Heim, 1997)*

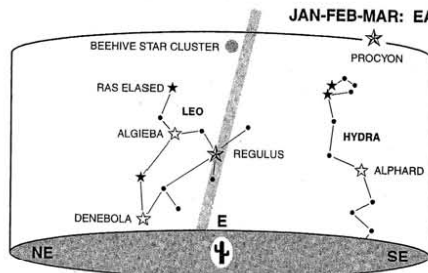
JAN-FEB-MAR: NORTH



JAN-FEB-MAR: WEST



JAN-FEB-MAR: EAST



JAN-FEB-MAR: SOUTH

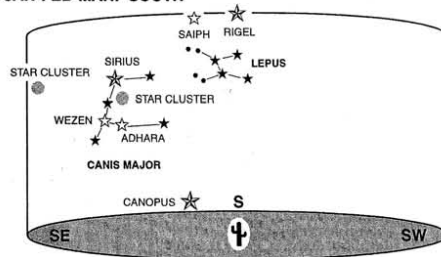


Figure 12: Rock art/architecture night sky record (page 2).

South Mountain Rock Art Project Field Manual

South Mountain Rock Art Project The Southwestern Night Sky: APR-MAY *(from Dan Heim, 1997)*

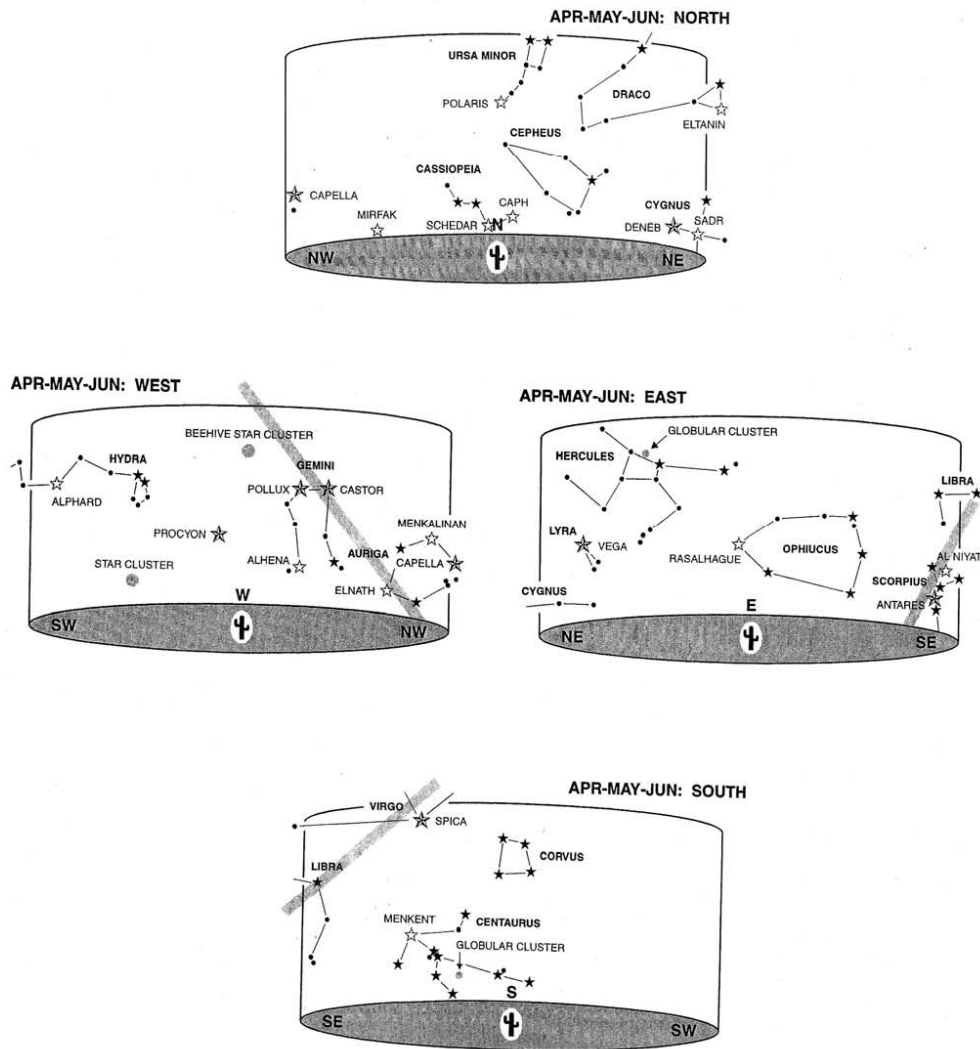


Figure 13: Rock art/architecture night sky record (page 3).

South Mountain Rock Art Project Field Manual

South Mountain Rock Art Project The Southwestern Night Sky: JUL-SEP *(from Dan Heim, 1997)*

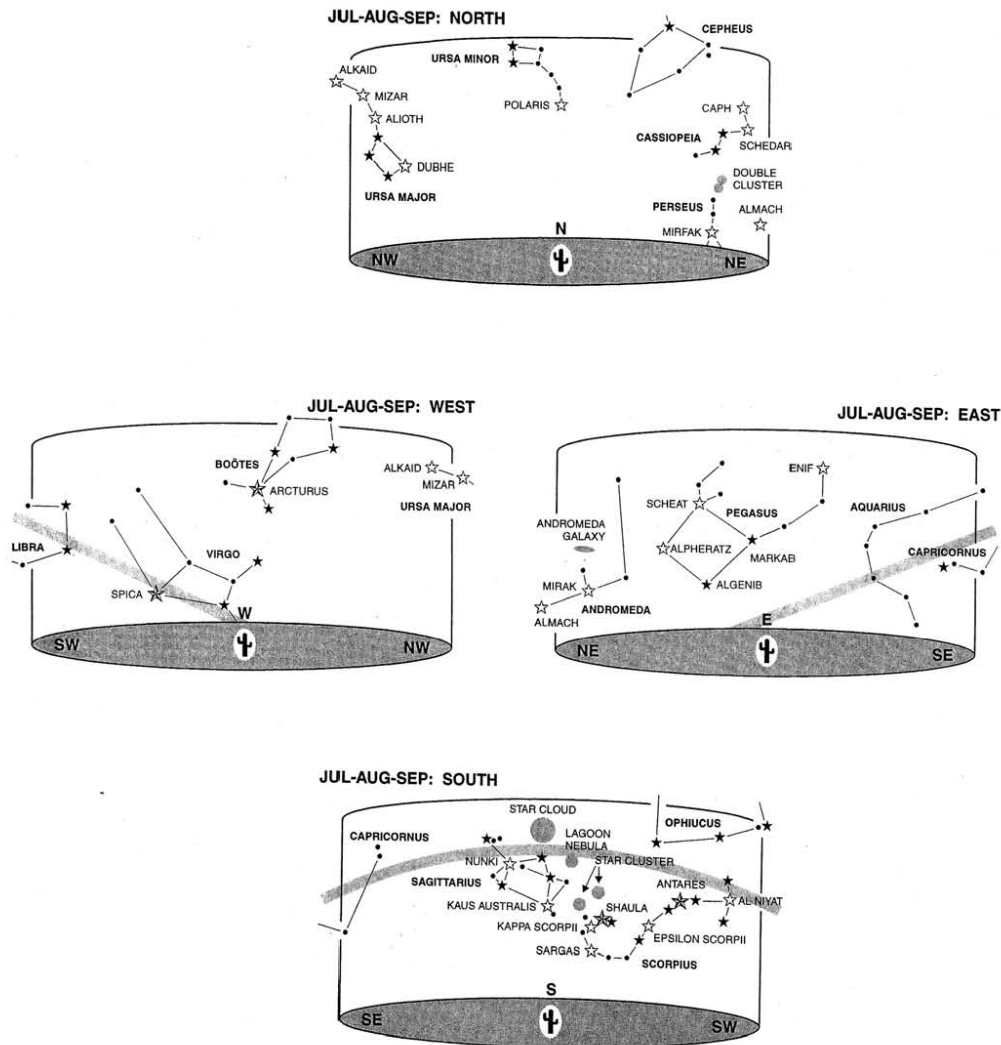


Figure 14: Rock art/architecture night sky record (page 4).

South Mountain Rock Art Project Field Manual

South Mountain Rock Art Project The Southwestern Night Sky: OCT-DEC *(from Dan Heim, 1997)*

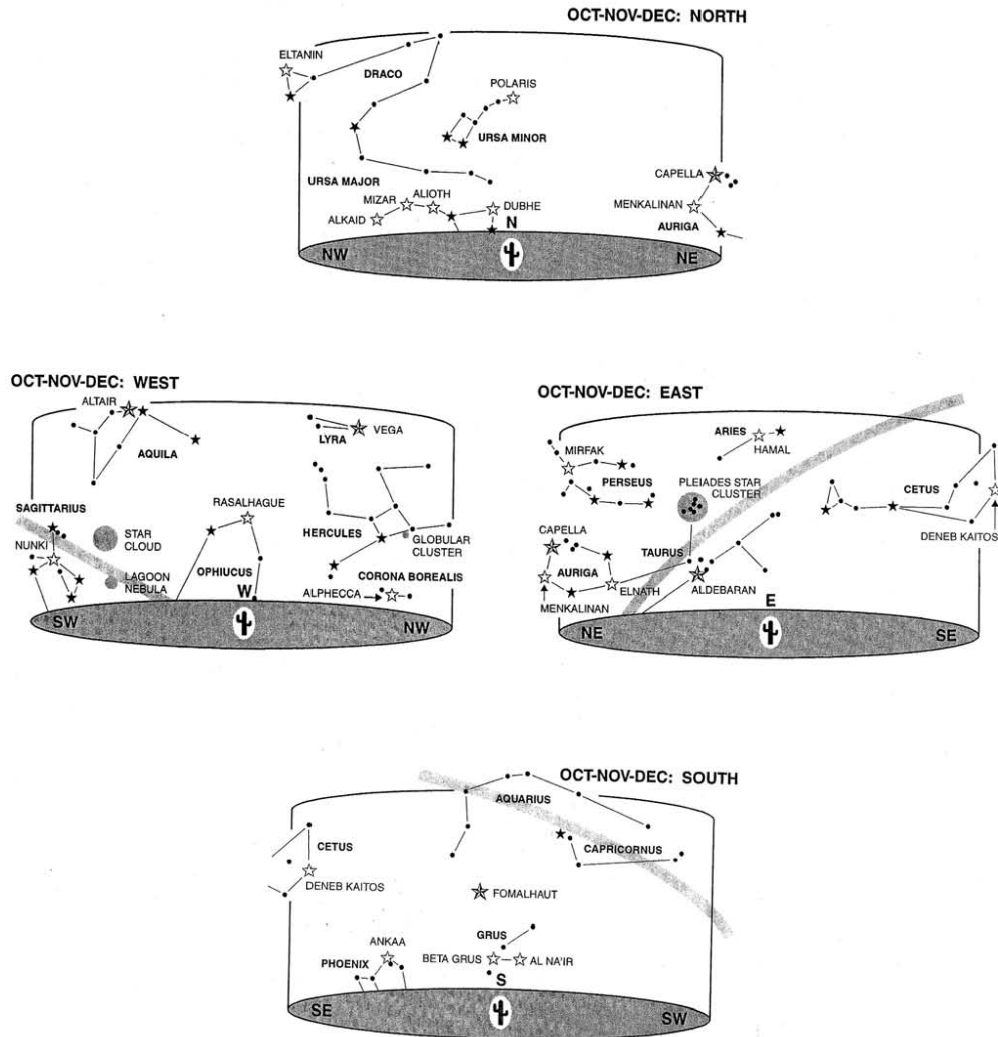


Figure 15: Rock art/architecture night sky record (page 5).

South Mountain Rock Art Project Field Manual

Instructions for completing Level 4: Rock Art/Architecture Night Sky Record

Top of Form

Recorders: Write down the first initial and last name of person(s) preparing the form.

ASM Site #: Write in the Arizona State Museum Site Number.

Panels/elements: use Panel number and elements are recorded in Site and Feature data forms.

Dates Recorded (ddMMMyy): Write date(s) of observations in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Site/Locus Name: write in the relevant name of the site or locus

Time(s) of Event: Write time(s) of observation(s) using 24-hour clock to avoid confusion. E.g., 1:30pm would be 1330

NAD83UTM Coordinates: Enter the UTM coordinates for the center of the feature- easting, northing, elevation, and accuracy for the waypoint. All GPS units used on the project are set to the NAD83 datum.

Azimuth (Compass Bearing) from Place of Observation to Star Cluster: use a compass to determine this value, and write it in degrees, based on True North.

Describe Star Cluster(s) [Constellation] and Alignment(s) with Archaeological Feature(s): Write a description of any observations you make that deal with alignments of stars or star clusters and any archaeological features, including the feature number. Use the attached Star Charts as a reference for naming constellations.

Sketch Map of Night Sky

In the box provided, sketch the horizon, celestial features visible above the horizon, and plot the location of relevant rock art or other features in the foreground.

In the space provided at the bottom, describe the setting from which your observations are made, including archaeological features as well as any apparent landscape modifications (e.g., rock alignments or upright stones, spaces cleared of rock).

South Mountain Rock Art Project Field Manual



South Mountain Rock Art Project Archaeoastronomy Eastern Horizon Sunrise Record



Recorder(s): _____	Dates Recorded (<i>ddMMyy</i>): _____
ASM Site # _____	Site/Locus Name: _____
Panels/Elements: _____	Time(s) of Event: _____
NAD83 UTM Coordinates: _____ East _____ North _____	Elev (m) ± _____ (m)
Azimuth (Compass Bearing) from Place of Observation to Horizon Event: _____	
Comments: _____	

Sketch Map

Eastern Horizon

Summer Solstice Sunrise	Equinox Sunrise	Winter Solstice Sunrise
----------------------------	--------------------	----------------------------

Describe Horizon: _____

Describe Place of Observation: _____

Figure 16: Eastern horizon sunrise record.

South Mountain Rock Art Project Field Manual



South Mountain Rock Art Project Archaeoastronomy Western Horizon Sunset Record



Recorder(s): _____	Dates Recorded (<i>ddMMyy</i>): _____
ASM Site # _____	Site/Locus Name: _____
Panels/Elements: _____	Time(s) of Event: _____
NAD83 UTM Coordinates: _____ East _____ North _____	Elev (m) ± _____ (m)
Azimuth (Compass Bearing) from Place of Observation to Horizon Event: _____	
Comments: _____	

Sketch Map

<i>Western Horizon</i>		
Summer Solstice Sunset	Equinox Sunset	Winter Solstice Sunset
Describe Horizon: _____		

Describe Place of Observation: _____		

Figure 17: Western horizon sunset record.

South Mountain Rock Art Project Field Manual

Instructions for completing Level 4: **Eastern/Western Horizon Sunrise/Sunset Forms**

Recorders: Write down the first initial and last name of person(s) preparing the form.

ASM Site #: Write in the Arizona State Museum Site Number.

Panels/elements: use Panel number and elements are recorded in Site and Feature data forms.

Dates Recorded (ddMMMy): Write date(s) of observations in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Site/Locus Name: write in the relevant name of the site or locus

Time(s) of Event: Write time(s) of observation(s) using 24-hour clock to avoid confusion. E.g., 1:30pm would be 1330

NAD83UTM Coordinates: Enter the UTM coordinates for the center of the feature- easting, northing, elevation, and accuracy for the waypoint. All GPS units used on the project are set to the NAD83 datum.

Azimuth (Compass Bearing) from Place of Observation to Horizon Event: use a compass to determine this value, and write it in degrees, based on True North.

Comments: Write a description of your observations of sunrise or sunset events, emphasizing solar interaction with local or distant landscape elements, and rock art or other archaeological features.

Sketch Map of Horizon

In the box provided, sketch the horizon, and note the location of sunrise/sunset events for dates observed. It is helpful to take bearings to distant landmarks on the horizon from your observation point, and to note these azimuths on the sketch map along the horizon. Also, be sure to plot the location of relevant rock art or other features in the foreground. In the space provided at the bottom, describe visible landmarks on the horizon (these should be labeled in the drawing, where possible) and the setting from which your observations are made, including archaeological features as well as any apparent landscape modifications (e.g., rock alignments or upright stones, spaces cleared of rock).

South Mountain Rock Art Project Field Manual



South Mountain Rock Art Project
 Rock Art Panel/Element
 Report of Light and Shadow Patterns
 For the Solar Day and Year



Recorder(s): _____	First Observation Date (ddMMMy): _____
Field #: _____ ASM Site # _____	Feature #(s): _____
Site/Locus Name: _____	
NAD83 UTM Coordinates: _____ East _____ North _____ Elevation (m) ± _____ (m)	

Observation date(s)	
Summer Solstice (SS): _____	August Crossquarter (Acq): _____
Autumn Equinox (AE): _____	November Crossquarter (Ncq): _____
Winter Solstice (WS): _____	February Crossquarter (Fcq): _____
Vernal Equinox (VE): _____	May Crossquarter (Mcq): _____
Other Days _____	

Light and Shadow Movements

Hour	5 AM	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8
SS																
Acq																
AE																
Ncq																
WS																
Fcq																
VE																
Mcq																
Other																
Other																

[X] Dark (Shadow) [O] Lit [--] Both Shadow and Light on Element(s) [no] No observation

Sketch Map

Scale:

North: _____

Light and Shadow Shapes observed on Petroglyph(s): [use terms on reverse] (enter date/time)

_____ ()	_____ ()	_____ ()	_____ ()
_____ ()	_____ ()	_____ ()	_____ ()
_____ ()	_____ ()	_____ ()	_____ ()
_____ ()	_____ ()	_____ ()	_____ ()

Figure 18: Solar year light/shadow patterns form (page 1).

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Sunlight and Shadow Form Terms
(From C. Johnson, *Utah Rock Art* 10, 1992)

Sunlight

Sun Arrow



Sun Wedge



Sun Angle



Sun Dagger



Sun Patch



Sun Cup



Sun Mouth



Sun Box



Sun Nubbin



Sun Line



Shadow

Shadow Arrow



Shadow Wedge



Shadow Angle



Shadow Dagger



Shadow Patch



Shadow Cup



Shadow Mouth



Shadow Box



Shadow Nubbin



Shadow Line

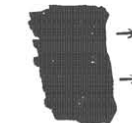


Figure 19: Solar year light/shadow patterns form (page 2).

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Instructions for completing Level 4: **Solar Year Light and Shadow Patterns Form**

Recorders: Write down the first initial and last name of person(s) preparing the form.

ASM Site #: Write in the Arizona State Museum Site Number.

Feature #(s): use Panel number and elements as recorded in Site and Feature data forms.

Site/Locus Name: write in the relevant name of the site or locus

First Observation Date: Write date of first observation in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

Dates Recorded (ddMMMyy): Write date(s) of observations in format shown, to avoid confusion. E.g., April 19, 2006 would be: 19APR06.

NAD83UTM Coordinates: Enter the UTM coordinates for the center of the feature- easting, northing, elevation, and accuracy for the waypoint. All GPS units used on the project are set to the NAD83 datum.

Observation Dates

In this box, write in the date(s) of observation adjacent to the relevant solar event that you observe.

Light and Shadow Movements

In this box, you will record the presence or absence of light and shadow movements across the panel/elements, using the notations described below the box (**X** for a shadow, **O** for a light, **--** for both, and **no** for neither. Times for which there is no observation should be left blank.

Sketch Map

In this box, sketch the feature you are observing, and any interesting light/shadow movements you observe.

Light and Shadow Shapes Observed on Petroglyph(s)

Using the light and shadow shape terms provided on the back of the form, record any of these shapes that are observed on petroglyphs and the date they were observed.