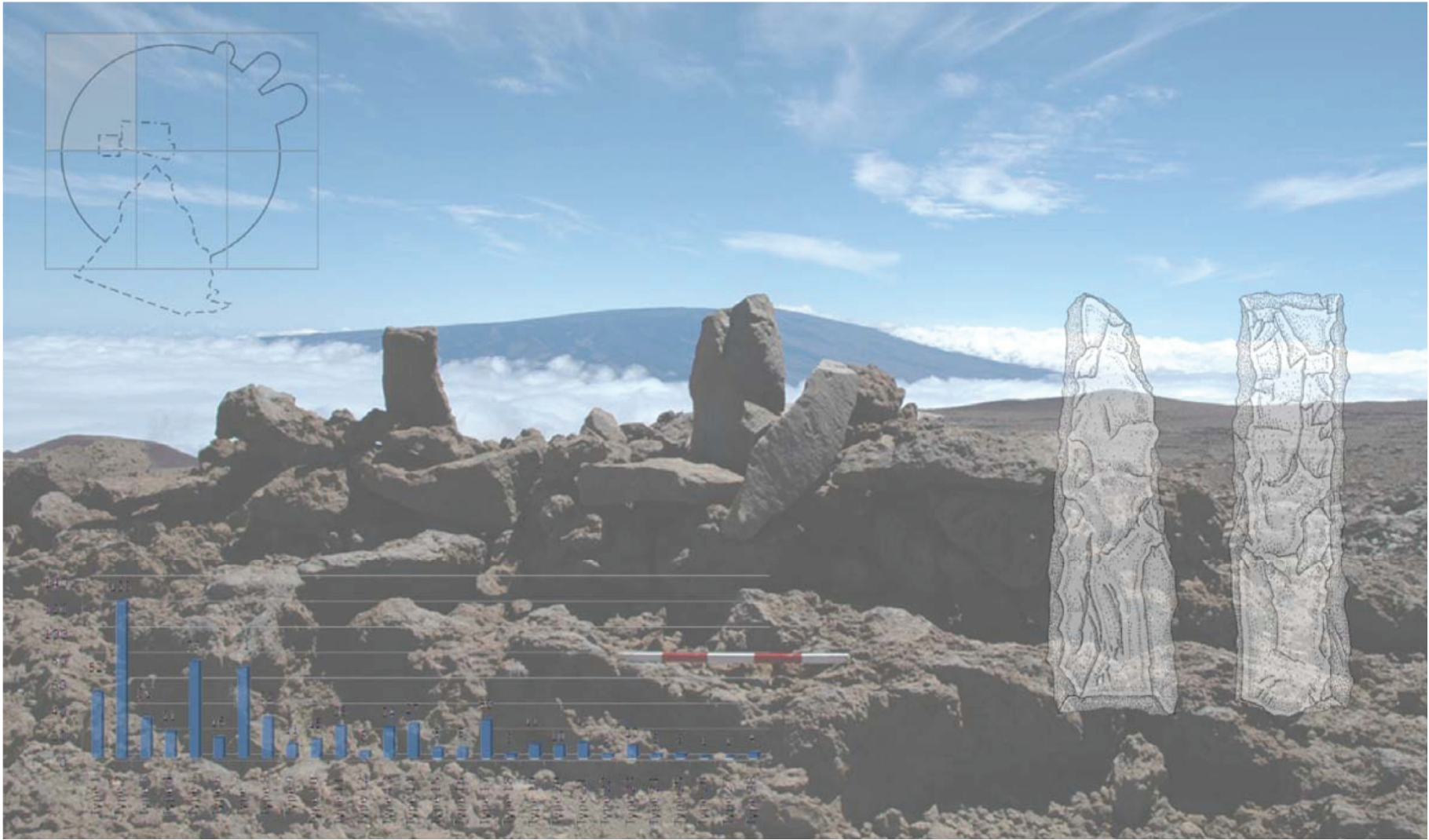


# Archaeological Inventory Survey of the Mauna Kea Science Reserve

Ka`ohe Ahupua`a, Hāmākua District, Island of Hawai`i      TMK: (3) 4-4-015:09

## Volume 2: Site Descriptions



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# FINAL REPORT

Archaeological Inventory Survey of the Mauna Kea Science Reserve  
Ka`ohe Ahupua`a, Hāmākua District, Island of Hawai`i  
TMK: (3) 4-4-015: 09

## **Volume 2: Archaeological Site Descriptions**

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## 1.0 INTRODUCTION

Volume 2 of the archaeological inventory survey of the Mauna Kea Science Reserve presents the descriptions of archaeological sites identified in the Science Reserve as well as summarized data for find spots. It also presents excavation results for two sites where limited subsurface testing occurred.

### 1.1 FORMAL SITE AND FEATURE TYPES IN THE PROJECT AREA

Because Volume 2 presents descriptions for the archaeological sites in the cultural resources inventory of the Mauna Kea Science Reserve, the formal site and feature types defined in detail in Volume 1, Section 5.4.1.1, are repeated in an abbreviated version in this section. In addition, Section 1.2 in this volume presents the definitions of the function site and feature types from Volume 1, Section 5.4.1.2.

The following list represents the most commonly found formal site and feature types found in the summit region of Mauna Kea. Many of the terms have been used before in earlier reports.

**Ahu.** According to Pukui and Elbert (1986:8) an *ahu* is a "heap, pile, collection, mass; altar, shrine, cairn; a traplike stone enclosure made by fishermen for fish to enter..." The various meanings, which include cairns and mounds, point to the problem of distinguishing these latter terms.

**Cairn.** Cairn is a widely used term, which is used to refer to a number of different kinds of stone constructions, however. Linda Hogan, a Native American, has noted that "In its usual, restricted sense, cairn refers only to the (most often) conical pile of stones used to mark boundaries; turning points along routes of travel; caches of food, water, and equipment; areas of danger; sacred sites; and places of private or personal importance" (Hogan 2006:58). In previous archaeological surveys on Mauna Kea cairn has been used to refer to a pile or heap of stones of generally circular to oval shape at the base; there are two varieties in the summit region of Mauna Kea--loosely constructed pyramidal forms with no facings that tend to be of nearly equal in diameter and height, and well-constructed cylindrical piles with facings. The distinction between cairn and mound (see below) is not always easily made, especially in the case of a tumbled cairn which can look like a mound or a simple rock pile.

**Cave, Overhang and Rockshelter.** As used in this report and previous reports on the Mauna Kea Adze Quarry Complex, there are no caves utilized by humans in the Science Reserve and NAR. A cave is distinguished from an overhang by a depth (measured from the drip line to the back of the opening) that is greater than the breadth or width of the opening. The areas utilized by Hawaiians in the summit region are overhangs at the edge of lava flows. These have been called rockshelters, though the term overhang has also been used.

**Lithic Scatter.** Lithic scatter is a generic term for all of the stone tool residues found at a given locality; these may include tools or implements, unfinished tools, manufacturing waste and hammerstones or some combination of all of these. Lithic scatters represent activity areas where one or more of the following activities may have taken place-- tool manufacture, tool use, tool discard. Lithic scatter is used in the present report as a blanket term to refer to the isolated artifacts found outside of the quarry proper, where their occurrence and function are ambiguous.

**Flake Scatter.** The term flake scatter, which occasionally appears in the field notes and site descriptions in Vol. 2, is used interchangeably with lithic scatter. In some contexts it refers to a lithic scatter comprised of just flakes. In other situations it is a more generic term, equivalent in terms of its generality to lithic scatter.

**Chipping Station.** In the 1975-76 research on the Mauna Kea Adze Quarry Complex, the term "chipping station" was used in reference to small, physically discrete features within a larger workshop (McCoy 1990:96). The term, which appears in some of the site descriptions in Vol. 2, refers to a physically discrete workshop area characterized by small flakes that would appear to represent what are often called "finishing flakes."

**Mound.** A pile or heap of stones that is more irregular in construction and form than a cairn; the linear variety has sloping sides and a generally irregular upper surface.

**Pavement.** A roughly flat to level surface of placed stones that may vary considerably in size, form and compaction; a term commonly applied to the upper surfaces of platforms and terraces; pavements can occur by themselves as either sites or features of sites.

**Platform.** Commonly defined in Hawaiian archaeology as a free-standing stone structure two or more courses high and with faced sides; the fill can be made up of stone and/or soil; usually rectangular or square in shape; the term has been applied more loosely in previous reports on the archaeology of the Mauna Kea summit region as any kind of constructed foundation on which upright stones were placed; this more generic definition is also used in this report.

**Terrace.** A structure similar to a platform, except that one side is not free-standing, but rather abuts a slope or rock outcrop; like a platform, the fill can be made up of stone and/or soil.

**Upright.** An archaeological term for what are inferred to be god stones that the Hawaiians called 'eho or *pohaku 'eho*; this same term was also used for stone boundary markers and bird cooking stones (cf. Pukui and Elbert 1971; Buck 1957; Emory 1938; McCoy 1991); because they were set on end (the long axis of the stone is vertical) they are called "uprights."

**Structural remains.** A general term that refers to what is sometimes called the "built environment" and includes shrines, cairns, and the semi-enclosed structures interpreted as temporary shelters.

**Wall.** A free-standing linear arrangement of stones that is longer than it is wide and at least two stones high; the sides and top are normally level in contrast to linear mounds.

## 1.2 FUNCTIONAL SITE AND FEATURE TYPES IN THE PROJECT AREA

Definitions of the functional site and feature types found in the project area are presented below. Functional inferences are based on a number of factors, including morphology, construction style and materials, locational context and comparison with similar remains of known function. The confidence level in assigning functions to many of the sites and component features varies.

**Burial.** A deliberate or intentional interment of human remains.

**Stone Marker/Memorial.** A general term applied to cairns, mounds, or piles of rocks believed to have been built by either Hawaiians during the pre-contact period to mark a trail or land boundaries; modern-day surveyors, or visitors to commemorate the ascent of a cinder cone or another destination, such as Lake Waiau.

**Shrine.** In common usage a place of worship; the distinction, if one existed in the Hawaiian past, between shrines and temples (*heiau*) is not altogether clear. The present study uses shrine as a generic label for all sites with at least one upright stone. The definition departs slightly from the one used by Sir Peter Buck, who defined a shrine as “a convenient term to designate a simple altar without a prepared court. They were made by individuals or small family groups who conducted a short ritual which required no priest” (Buck 1957:527-528). A small number of shrines have prepared courts and some of these are sufficiently complex to infer that a priesthood was involved in their construction and use.

**Temporary Shelters.** A small number of semi-enclosed walled structures of various shapes are found in the Science Reserve and have been interpreted as temporary shelters based on their size and form and comparison to similar structures in the coastal lowlands.

**Unknown Function.** This term is used to refer to remains where the function cannot be determined on available evidence.

**Workshop.** In sites, such as adze quarries the term workshop is the functional equivalent of a lithic scatter that contains material evidence of tool manufacture and/or use; though rarely defined in the literature, this term normally implies in the case of reduction technologies, such as stone tool manufacture, a coherent structure amongst the various by-products of work [cores, waste flakes, rejected tools, etc.] that constitute this category of archaeological remains. Like quarry, this term or one with the same meaning, such as “working areas,” is rarely defined in the literature.

**Quarry and Workshop.** The archaeological literature evinces a considerable amount of confusion surrounding these terms, particularly the word quarry, which to many people is synonymous with the word mine, where material is excavated and removed from beneath the surface. In many instances the meaning of the term is simply taken for granted (for an exception cf. Kahn et al. 2009) and not defined (e.g. Leach and Witter 1990; Weisler 1990;

Torrence 1990). The most common and easiest method of obtaining raw material is to simply collect it from the surface [loose cobbles and boulders] or to extract it from lava flows or embedded boulders [boulder outcrops]. The places where such activity has taken place, where there is a raw material source, are defined quarries. The physically discrete areas within quarries are workshops, but workshops are also commonly found some distance from the *quarry proper* [the source] which means that the raw material and/or incipient tools have been purposively transported and the work resumed in a new location.

**Quarry/ Workshop.** This is a term that appears rather frequently in the archaeological literature (e.g. Leach 1984; Torrence 1990:62). In a discussion of the quarry/workshop distinction at the Pu`u Moiwi adze quarry on Kaho`olawe, it was noted that the number of adze manufacturing sites and features identified in the 1976-1980 survey of the island could not be determined because *quarry* and *workshop* were lumped together in a single class of site--*quarry/workshop*--characterized by the presence of boulders or outcrops. At first glance there is nothing wrong with this definition and in fact it is a good definition of a *quarry* as: (1) comprised of *workshops* and (2) coterminous with the raw material source. The problem is that the confounding of quarry and workshop excludes concentrations of adze manufacturing debris where there is no evidence of a raw material source (McCoy, Sinoto and Makaanani 1993).

**Quarry Complex.** An aggregation or cluster of quarry sites that are physically separated from other sites. The boundaries of such complexes are in some cases arbitrary. The term is used partly as an heuristic device to facilitate comparisons between parts of the Mauna Kea Adze Quarry Complex, which covers a large area and is comprised of both clustered sites and dispersed sites at different elevations.

### 1.3. ORGANIZATION OF VOLUME 2

With the exception of two traditional cultural properties in the Science Reserve, which are described in Volume 1 of this report, Volume 2 site descriptions are presented by the functional site types presented in Table 5.1 in Volume 1. The sections for Volume 2 include the following:

**Section 1: Introduction**--introduces the site description and provides definitions of site type and functions; explains the format of the site header boxes.

**Section 2: Shrines and Possible Shrines**--provides descriptions for the 54 single upright shrine sites located within and outside of the Pōhakuloa Gulch Adze Quarry/Workshop Complex, and the 87 shrine and possible shrines sites that are **not** located in the Pōhakuloa Gulch Adze Quarry/Workshop Complex.

**Section 3.1: Pōhakuloa Gulch Adze Quarry/Workshop Complex**--presents descriptions for the 41 sites that comprise this newly discovered component of the Mauna Kea Adze Quarry Complex. This section also includes excavations results for Site 26253, Rockshelter 1.

**Section 3.2: Isolated Quarry/Workshop**--presents the single site description in this category.

**Section 3.3: Isolated Lithic Scatters and Artifacts of Uncertain Function**--presents summary data for eight single artifact sites and four lithic scatter sites.

**Section 3.4: Isolated Shrines with Lithic Offerings and/or Associated Lithic Scatters of Uncertain Function**--presents descriptions for the 10 sites in this category.

**Section 3.5: Isolated Ritual Complex**—presents the site description for the single ritual complex identified..

**Section 3.6: Possible Burials with Lithic Scatters**--presents the two descriptions for possible burial sites with lithics.

**Section 4: Burials and Possible Burials**--presents descriptions for the 29 possible and confirmed burial sites.

**Section 5: Stone Markers/Memorials**--presents descriptions for the 15 marker/memorial sites. These include possible pre-Contact sites as well as historic sites such as old U.S.G.S. markers.

**Section 6: Temporary Shelters**--presents descriptions of the three (3) temporary habitation sites.

**Section 7: Historic Camp Sites** --presents descriptions of the two historic campsites.

**Section 8: Historic Transportation Route** --presents the description of the single artifact site likely associated with the Umi Koa Trail.

**Section 9: Sites of Unknown Function**--presents descriptions for the three sites of unknown function as well as excavations results for Site 21449.

**Section 10: Find Spots**—presents a summary of the data on find spots identified in the Mauna Kea Science Reserve.

**Section 11:** References.

**Appendix A:** Maps Showing Locations of Archaeological Sites.

**Appendix B:** Maps Showing Locations of Find Spots.

#### **1.4. EXPLANATION OF SITE DESCRIPTION FORMAT**

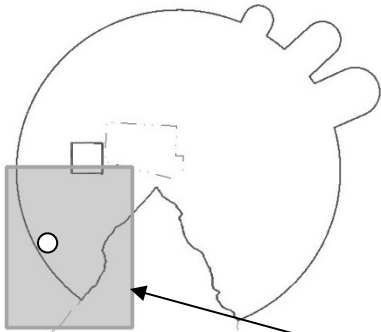
Site descriptions are provided in a fairly standard format often found in other archaeological inventory survey reports. The descriptions for each site begin with a site “header box” which is basically a table that provides information that is not always found in the text. This information includes site function, site dimensions, number of features present in the site, topographic location, elevation, and the GPS file number. The header box also contains a small site location figure derived from the site locations maps in Appendix A of this Volume. Figure 1.1 illustrates the use of the site header box.

Represents the State Historic Preservation Site (SIHP) Number :  
**50** = (State) - **10** = (Island) - **23** = (Topographic Quadrangle Map Number) - **26252** = (Unique State Site Number) Number

Represents additional temporary and/or permanent numbers assigned in the field to the site.

Indicates the Section Map Number in Appendix A on which the site can be found on.

**STATE SITE 50-10-23-26252**

<b>Additional Site Numbers:</b> Temporary	PM2007-022
<b>Site Function:</b> Shrine	<b>Section Map Number:</b> 5
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>GPS Elevation:</b> 12,453 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM080	
<b>Current Status:</b> New site.	

Indicates whether the site is new, previously recorded and/or whether changes have occurred to the site since it was originally recorded.

Section map (shaded) showing the site location (white dot) within the Science Reserve.

**Figure 1.1. A Guide to Understanding the Site Header Box for Site Descriptions.**

## **2.0 SHRINES AND POSSIBLE SHRINES**

This section presents site descriptions for upright sites interpreted as shrines and possible shrines in the Mauna Kea Science Reserve. As mentioned in Volume 1 Depending on the interplay of a number of factors, including location within and outside of the Pōhakuloa Gulch Adze Quarry/Workshop Complex, and the presence of associated structural features, Shrines and possible shrines have been organized and presented in four sections based on functional site types in Volume 2, including Sections 2.1, 2.2, 3.1, 3.4, and 3.5.

Section 2.1 (Single Upright Sites), presents a summary of the field data for single upright sites located both within and outside of the Pōhakuloa Gulch Adze Quarry/Workshop Complex.

Section 2.2 (Shrines and Possible Shrines) presents site descriptions for shrines located outside of areas associated with the Pōhakuloa Gulch Adze Quarry/Workshop Complex. Shrines outside of the quarry complex have been assigned feature numbers.

Section 3.1 (Pōhakuloa Gulch Adze Quarry/Workshop Complex) includes site descriptions for shrines directly associated with quarry and workshop site components. The upright structures in this complex have been assigned shrine numbers and are designated as “Shrine 1, Shrine 2, etc.” within the site.

Section 3.4 presents site descriptions shrines that are located outside of this quarry complex and contain lithic artifacts (e.g., basalt flakes, adze preforms, hammerstones) and other site components associated with quarry activities (e.g., lithic scatters and workshops).

Section 3.5 presents the site description for a ritual complex containing upright structures (shrines) located outside of the Pōhakuloa Gulch Adze Quarry/Workshop Complex.

### **2.1 SUMMARY DATA FOR SINGLE UPRIGHT SHRINES**

A total of 101 single upright structures in 89 sites were identified in the Mauna Kea Science Reserve (Table 2.1). After a number of single upright sites were fully documented during the 2005 and part of the 2006 field seasons, and with the knowledge that plan view maps for structures that exhibit such structural simplicity did not provide much information, it was decided to streamline the documentation process for single upright structures in 2006. PCSI senior archaeologists consulted with Theresa Donham of SHPD, and it was agreed that single upright sites would be documented primarily through photography because photographs would be easier to identify during the archaeological monitoring program that will implemented in the near future.

Table 2.1 summarizes the 101 single upright structures in 89 sites and includes feature or shrine number, the orientation of the shrine, the foundation morphology. Of these 89 sites, seven (7) sites, including Sites 16173, 16174, 16175, 21441, 21445, 21446, and 27616, have from two to four single upright structures.

Figures 2.1 through 2.12 present photographs of 45 of the single upright sites. A sample of single upright sites were mapped, including Sites 16178, 16188, 16193, 16197, 16202, 21199, 21205, 21206, 21207, 21210, 21211, 21407, 21408, 21409, 21225, and 26255. These are presented in Figures 2.13 through 2.28, respectively.

Site descriptions for a majority of the single upright sites were not prepared; instead, the field data collected at these sites are summarized in Table 2.1. Descriptions for 25 single upright shrines are presented in Section 2.2.

Table 2.1. Summary of Single Upright Shrines In the Mauna Kea Science Reserve.

Site Number	Feature Number	USGS Elevation (ft amsl)	Orientation	Number of Uprights	Foundation	Material	Upright Form			Upright Dimensions (cm)		
							Body	Treatment	Top	L	W	Th
11077		12,248	Perpendicular	1	Mound	N	S		Gabled	50	30	17
16164	2	13,284		1	Bedrock	T	S		Rounded	46	18	8
16170	2	13,033		1	Bedrock	T	P		Rounded	40	30	16
16171		12,980	Perpendicular	1	Bedrock	T	S	CN	Gabled	60	27	12
16172		13,106	Unknown	1	Bedrock	N	P		Gabled	60	40	25
16173	1	12,897		1	Mound	N	D		Pointed	66	17	16
	3			1	Bedrock	T	C	SN	Gabled	79	41	6
	4			1	Mound	N	P	SH	Pointed	56	14	13
16174	1	12,933	Parallel	1 of 3	Boulder	T	D	IR	Pointed	44	18	10
	3			1	Bedrock	T	P	SN	Gabled	83	23	11
	4			1	Bedrock	T	IR	SN	Pointed	60	25	10
16175	1	12,922		1	Bedrock	T	D		Pointed	46	20	7
	2			1	Bedrock	T	P		Flat	95	25	10
	4			1	Bedrock	N	D		Beveled	53	31	12
16177	2	13,019		1	Bedrock	T	D		Pointed	60	18	18
16178		13,111	Parallel	1	Bedrock	T	S	SN	Flat	56	22	7
16181		13,306	Unknown	1	Bedrock	T	P		Gabled	64	16	10
16182	1	13,085		1	Bedrock	T	P	SN	Beveled	88	60	24
16188		12,744	Parallel	1	Bedrock	T	IR		Flat/Gabled	66	43	7
16193		12,735	Other	1	Boulder	T	CR	SN	Pointed/ Gabled	47	15	11
16197		12,830	Perpendicular	1	Bedrock	T	S		Pointed	45	20	15
16202		12,938	Parallel	1	Platform	T	D	SH	Pointed	90	45	15
21197	1	12,960		1	Terrace	T	D		Pointed	45	30	10



Table 2.1. Summary of Single Upright Shrines In the Mauna Kea Science Reserve.

Site Number	Feature Number	USGS Elevation (ft amsl)	Orientation	Number of Uprights	Foundation	Material	Upright Form			Upright Dimensions (cm)		
							Body	Treatment	Top	L	W	Th
21198		12,937	Perpendicular	1	Platform	T	D	SN	Pointed	90	45	15
21199		12,813	Other	1	Bedrock	T	P	SH	Flat	48	29	7
21200		13,016	Parallel	1	Bedrock	N	P		Pointed	43	22	17
21205		13,363	Perpendicular	1	Bedrock	T	IR	SH	Flat	60	24	10
21206		12,654	Other	1	Boulder	T	IR	SN	Beveled	58	15	12
21207		12,695	Other	1	Boulder	T	P	SN	Gabled	38	20	3.5
21210		12,159	Other	1	Boulder	T	D		Pointed	46	27	17
21211		12,194	Other	1	<b>Platform</b>	<b>T</b>	<b>S</b>		<b>Flat/ Beveled</b>	<b>60</b>	<b>26</b>	<b>10</b>
21213		12,187	Unknown	1	<b>Mound</b>	<b>T</b>			<b>Pointed</b>	<b>40</b>	<b>15</b>	<b>11</b>
21406		12,884	Parallel	1	Bedrock	T	IR	CN	Pointed/ Beveled	58	49	22
21407		12,895	Perpendicular	1	Bedrock	T	P	SH	Flat	67	29	17
21408		12,881	Parallel	1	Bedrock	T	P		Rounded	63	30	16
21409		11,687	Other	1	Boulder	T	IR	IR	Beveled	84	35	20
21417		12,852	Unknown	1	<b>Boulder</b>	<b>N</b>	<b>S</b>		<b>Flat</b>	<b>44</b>	<b>23</b>	<b>9</b>
21421	3	12,641	Parallel	1	Mound	T	C		Rounded	53	30	17
21422		12,756	Unknown	1	Bedrock	N	D		Gabled	90	62	18
21425		12,441	Other	1	Boulder	T	C	CN	Pointed	72	27	15
21427		12,659	Parallel	1	Bedrock	T	P	CN	Flat	34	25	12
21428		12,632	Perpendicular	1	Bedrock	T	IR	IR	Gabled	72	52	4
21429		12,645	Parallel	1	Bedrock	T	C	SH	Gabled	52	37	3
21432		11,605	Other	1	Boulder	N	IR		Rounded	35	25	18
21433		12,511	Perpendicular	1	Bedrock	T	P		Mesial notched	50	31	13
21435		12,477	Other	1	Boulder	T	D	SN	Pointed	31	10	8

Table 2.1. Summary of Single Upright Shrines In the Mauna Kea Science Reserve.

Site Number	Feature Number	USGS Elevation (ft amsl)	Orientation	Number of Uprights	Foundation	Material	Upright Form			Upright Dimensions (cm)		
							Body	Treatment	Top	L	W	Th
21441	2	12,785		1	Bedrock	T	P	CN	Gabled	78	18	25
	3			1	Bedrock	T	D		Rounded	40	15	10
21442		12,736	Unknown	1	Bedrock	T	D	IR	Beveled	39	32	24
21443		12,707	Unknown	1	Bedrock	T	S	IR	Pointed	80	31	9
21444		12,770	Perpendicular	1	Bedrock	T	S	IR	Rounded	52	24	10
21445	2	12,936		1	Bedrock	T	S		Flat	84	30	13
	3			1	Bedrock	T	P		Beveled	70	25	13
21446	2	12,716		1	Bedrock	T	S		Beveled	54	20	6
	3			1	Bedrock	T	P	SN	Gabled	75	22	14
21447		13,048	Unknown	1	Bedrock	T	P		Pointed	33	11	8
21451		12,846	Unknown	1	Bedrock	T	S	SN	Beveled	46	15	15
25763		11,804	Other	1	Boulder	T	C		Flat	51	45	8
25771		11,791	Other	1	Gelifluction terrace	T	S		Pointed	25	18	6
25772	2	12,072		1	Boulder	N	S		Beveled	60	20	15
25773		11,906	Other	1	Boulder	T	IR	SN	Unknown	48	20	12
25781	2	12,032		1	Mound	T	P	IR	Flat	49	15	10
25782		11,834	Other	1	Boulder	T	C	IR	Beveled	69	17	8
25784		12,443	Parallel	1	Bedrock	T	D		Pointed/ Gabled	45	62	9
25786		12,157	Perpendicular	1 of 3	Bedrock	T	C		Pointed	59	29	10
25788		12,090	Other	1	Boulder	T	P		Rounded	29	14	9
25791		12,642	Other	1	Boulder	N	D		Pointed/ Gabled	47	24	19
25794		12,620	Parallel	1	Bedrock	T	IR	CN	Flat	90	57	9

Table 2.1. Summary of Single Upright Shrines In the Mauna Kea Science Reserve.

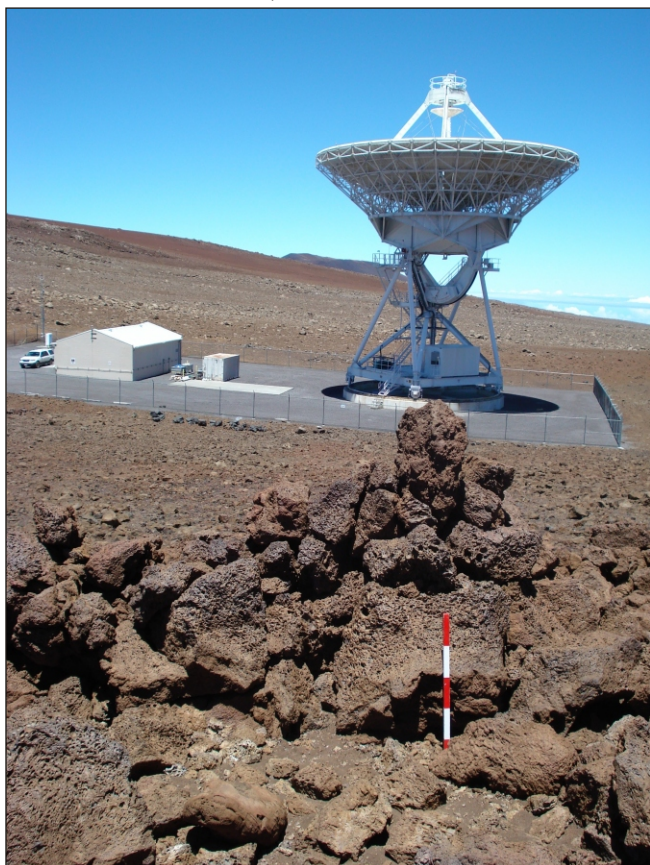
Site Number	Feature Number	USGS Elevation (ft amsl)	Orientation	Number of Uprights	Foundation	Material	Upright Form			Upright Dimensions (cm)		
							Body	Treatment	Top	L	W	Th
25795		12,727	Other	1	Boulder	T	IR	IR	Pointed	62	27	13
25797		12,544	Other	1	Boulder	T	S	SN	Round	48	37	23
25798		12,608	Other	1	Boulder	T	P	SN	Rounded/ Gabled	42	21	6
25811		12,074	Unknown	1	Mound	T	P	KN	Beveled	84	43	17
25821		12,289	Other	1	Boulder	T	S	SN	Beveled	57	28	6
25826		12,758	Unknown	1 of 2	Bedrock	T	C		Mesial notched	43	25	16
26219		12,039	Parallel	1	Mound	T	P		Flat/Beveled	56	34	14
26221		12,251	Other	1	Boulder	T	C		Pointed	45	22	11
26222		12,395	Parallel	1 of 2	Mound	T	IR	KN	Mesial curve	44	20	7
26223		12,427	Perpendicular	1	Bedrock	N	P		Beveled	49	26	23
26225		12,555	Other	1	Boulder	T	P		Flat/Beveled	61	30	12
26227		12,795	Unknown	1	Mound	T	S		Gabled	45	15	12
26228	2	12,711		1	Bedrock	T			Broken	52	20	7
26234		12,518	Parallel	1	Bedrock	T	C		Beveled	85	37	7
26235		12,243	Parallel	1	Bedrock	T	P	IR	Flat	24	16	10
26236		12,199	Parallel	1	Bedrock	T	C	IR	Pointed	41	17	5
26238		12,122	Parallel	1	Bedrock	T	I	IR	Pointed	47	21	20
26239		12,305	Parallel	1	Bedrock	T	D	IR	Pointed	40	20	11
26240	2	12,590		1	Slabs	T	D	IR	Beveled	58	24	13
26242		12,115	Other	1	Mound	T	D		Flat	46	32	8
26243		12,856	Parallel	1	Bedrock	T	P		Pointed/ Beveled	48	15	12
26244	1	12,826		1	Bedrock	N	IR	IR	Rounded	34	18	15

Table 2.1. Summary of Single Upright Shrines In the Mauna Kea Science Reserve.

Site Number	Feature Number	USGS Elevation (ft amsl)	Orientation	Number of Uprights	Foundation	Material	Upright Form			Upright Dimensions (cm)		
							Body	Treatment	Top	L	W	Th
26251		12,393	Perpendicular	1	Bedrock	T	P		Flat/Mesial notched	45	21	10
26253		12,366	Other	1	Mound	T	S		Flat/Beveled	60	18	10
26255		12,259	Parallel	1	Boulder	N	D		Pointed	57	23	13
26588	Shrine 2	12,464		1	Bedrock	T	D		Pointed	52	19	18.5
27616	Shrine 1	11,853		1	Mound	T	S	IR	Beveled	64	28	20
	Shrine 2			1	Bedrock	T	D		Mesial curve	55	33	15
	Shrine 3			1	Mound	T	IR		Pointed/Bevel	41	23	12
	Shrine 5			1	Mound	T	D		Rounded	51	31	20
27617	Shrine 5	11,800		1	Boulder	T	P		Flat	30	20	3
27618	Shrine 1	11,709	Perpendicular	1 of 2	Mound	T	C		Beveled	47	28	9

Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Upright treatment: SH = shouldered, UNILF = unilateral flanged, CN = corner notched, SN = side notched, KN = knobbed, IR = Irregular; **BOLD** = Possible Upright

**Site 11077, View to the North.**



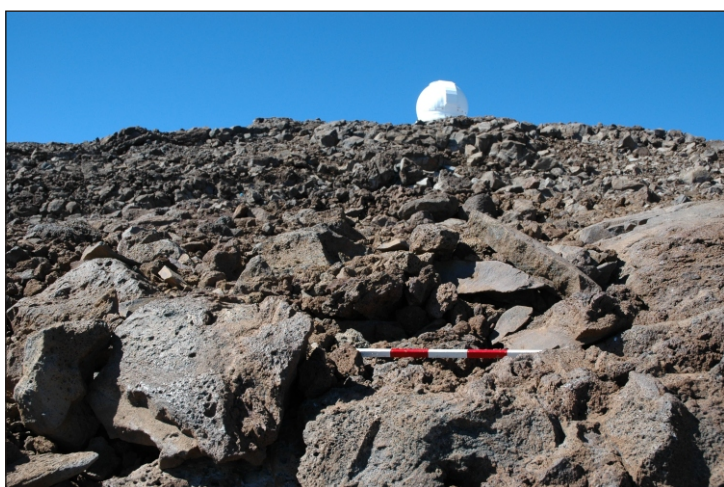
**Site 16171.**



**Site 16172, View to the Southeast.**



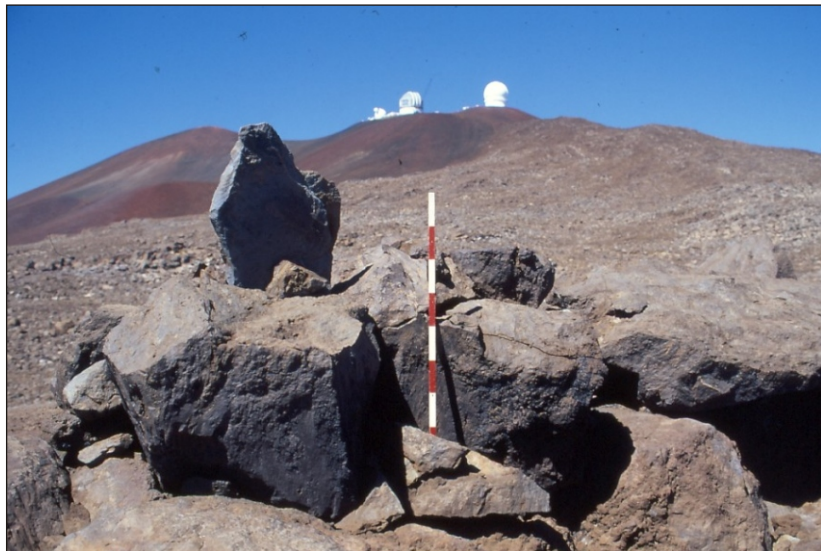
**Site 16181, View to the South.**



**Figure 2.1. Photographs of Single Upright Sites 11077, 16171, 16172, and 16181.**



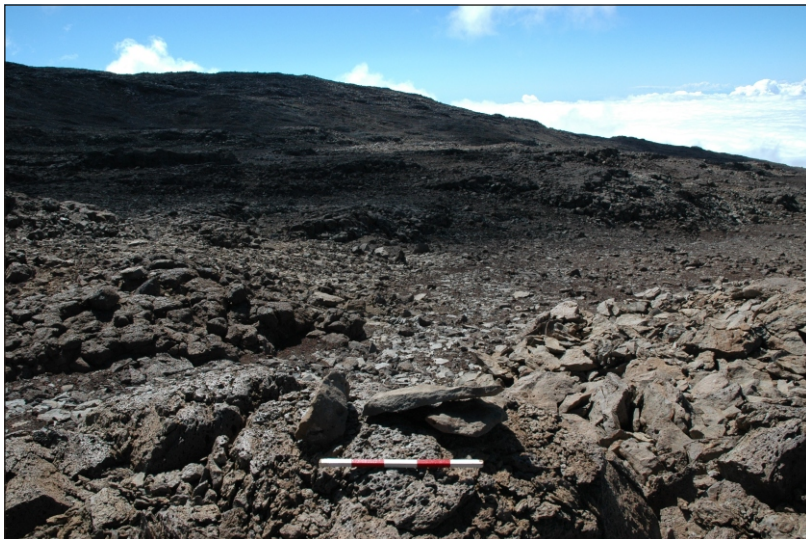
**Site 16188, View to the Southwest.**



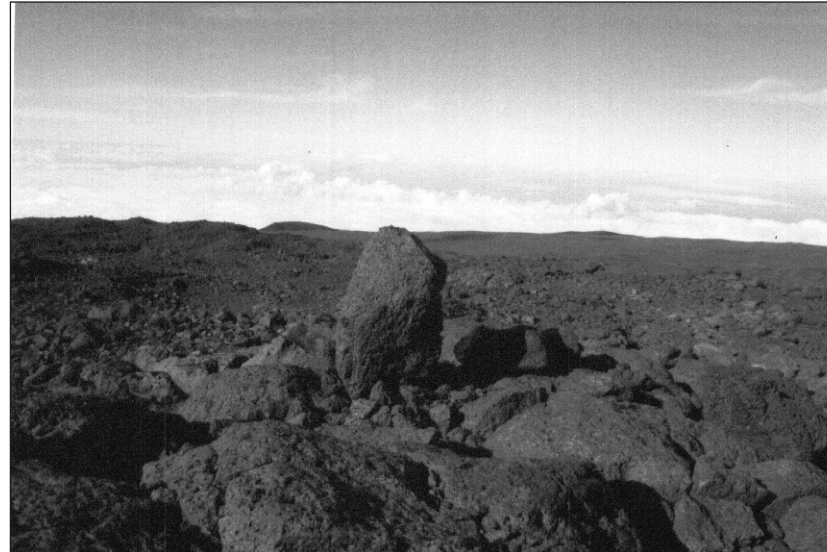
**Site 16193, View to the West.**



**Site 21198, View to the West**



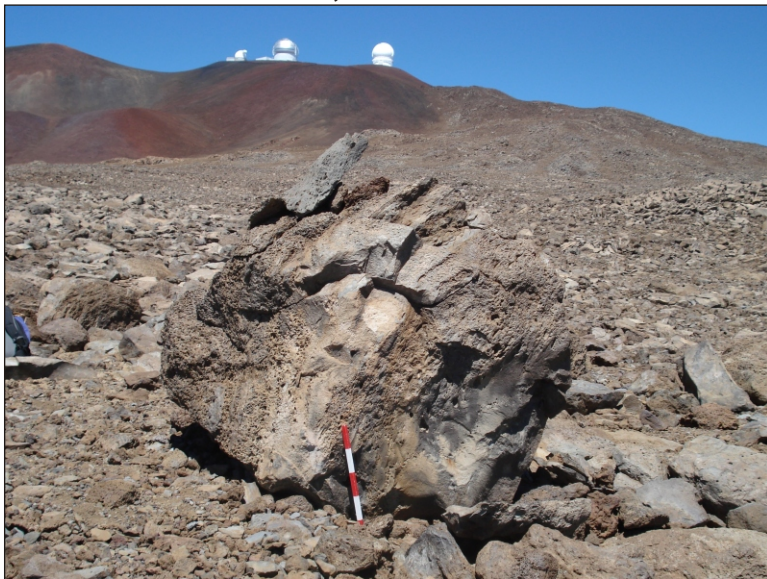
**Site 21200, View to the Northwest.**



**Figure 2.2. Photographs of Single Upright Sites 16188, 16193, 21198, and 21200.**



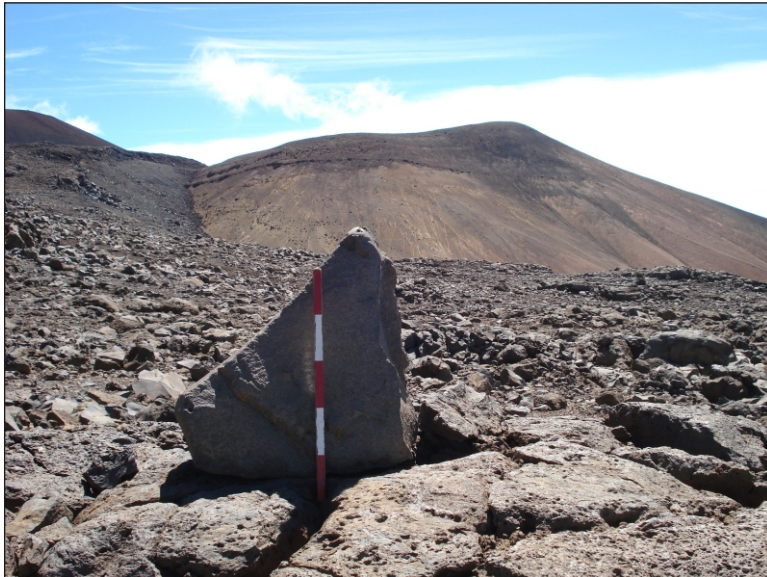
**Site 21206, View to the West.**



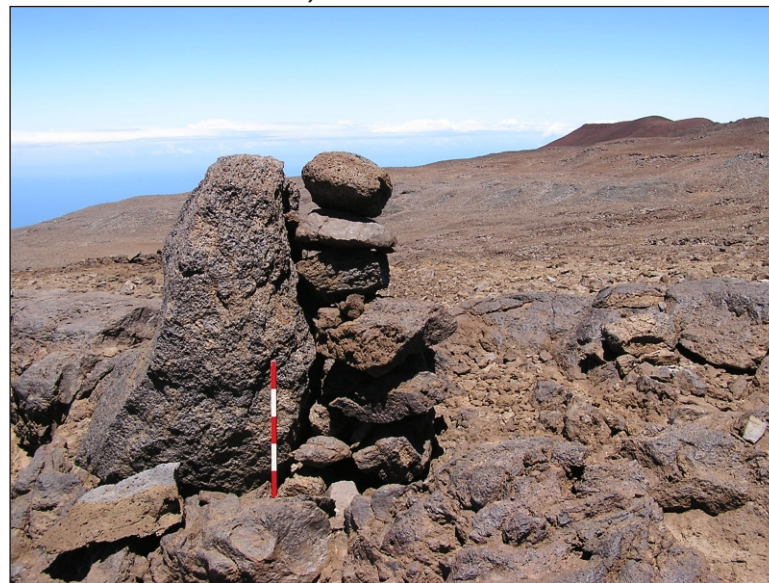
**Site 21213.**



**Site 21406, View to the East.**



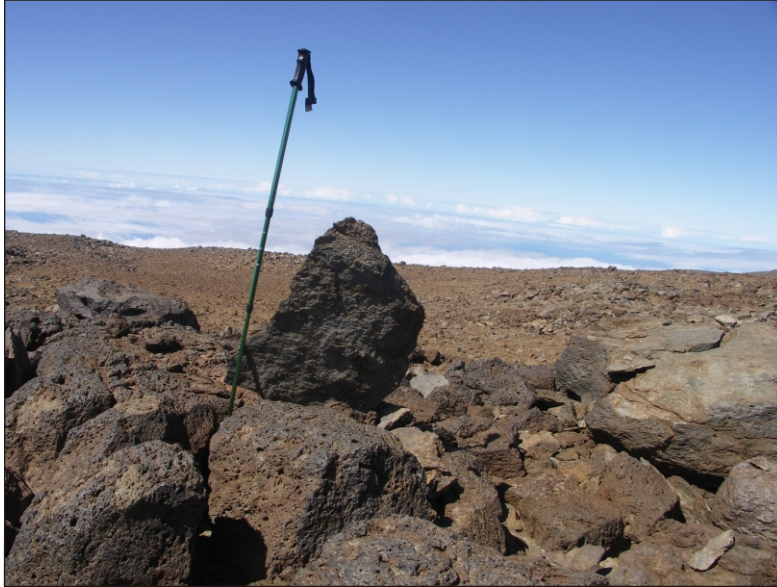
**Site 21417, View to the Northeast.**



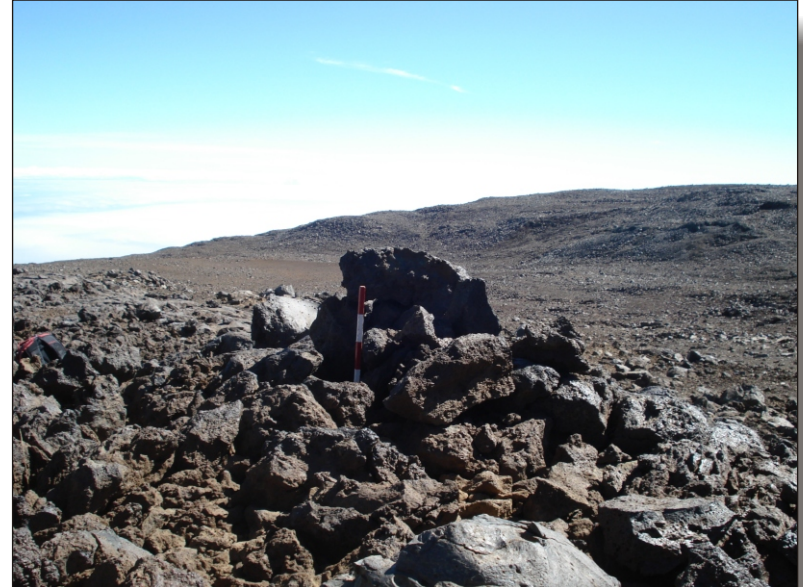
**Figure 2.3. Photographs of Single Upright Sites 21206, 21213, 21406, and 21417.**



**Site 21422, View to the North.**



**Site 21427, View to the Northeast.**



**Site 21428, View to the South.**



**Site 21429, View to the east.**



**Figure 2.4. Photographs of Single Upright Sites 21422, 21427, 21428, and 21429.**



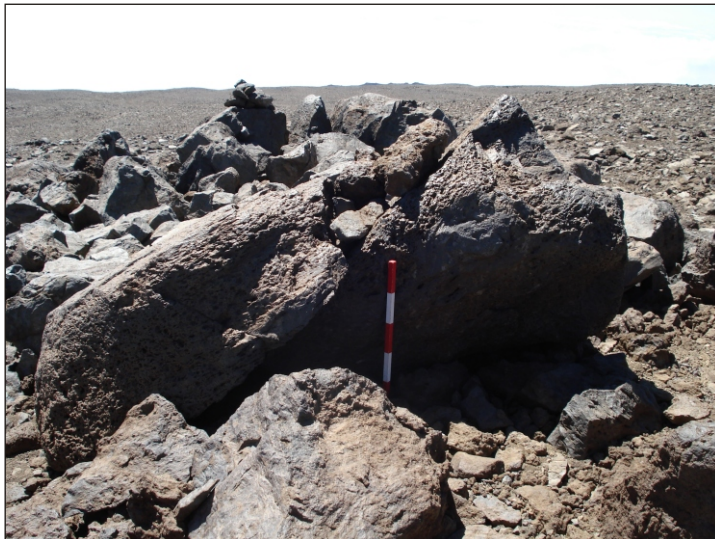
**Site 21432, View to the Northwest.**



**Site 21433, View to the Southwest.**



**Site 21435, View to the East.**



**Site 21442, View to the North.**



**Figure 2.5. Photographs of Single Upright Sites 21432, 21433, 21435, 21442 .**



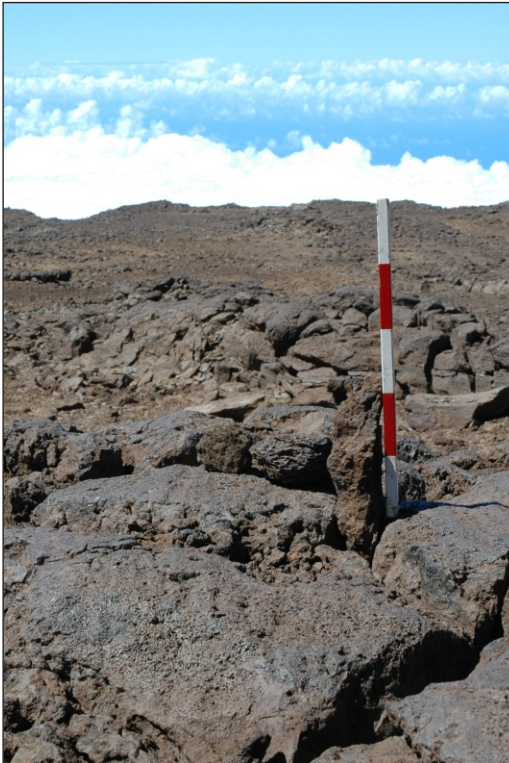
**Site 21443.**



**Site 21444.**



**Site 21447, View to the North.**



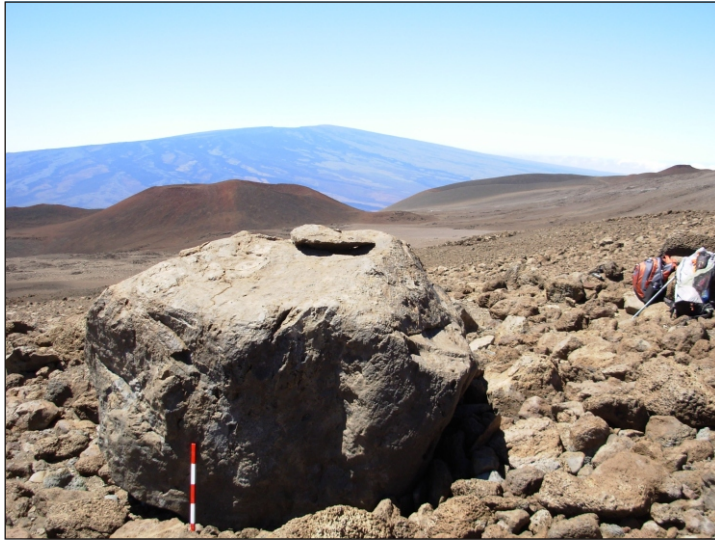
**Site 21451, View to the East**



**Figure 2.6. Photographs of Single Upright Sites 21443, 21444, 21447, and 21451.**



**Site 25763, View to the South.**



**Site 25771.**



**Site 25773, View to the Southwest.**



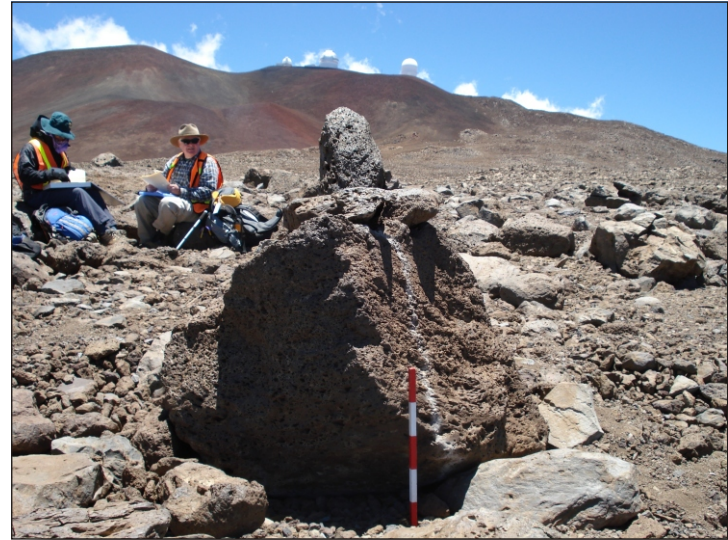
**Figure 2.7. Photographs of Single Upright Sites 25763, 25771, and 25773.**



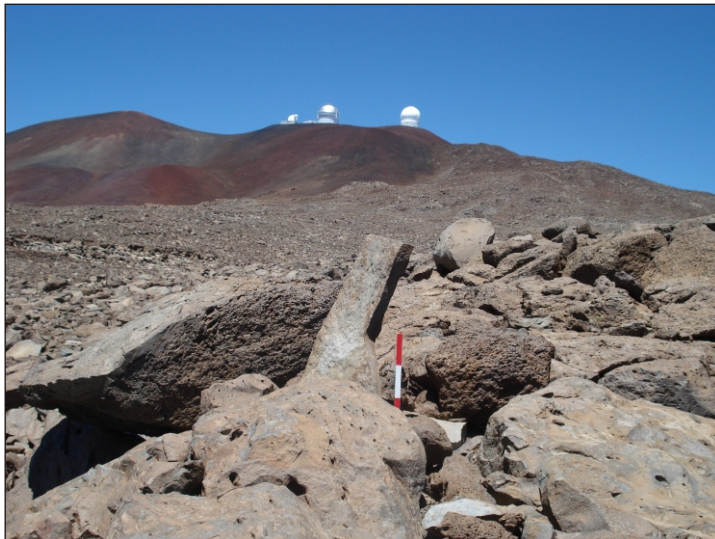
**Site 25784, View to the North.**



**Site 25791, View to the West.**



**Site 25794, View to Southwest.**



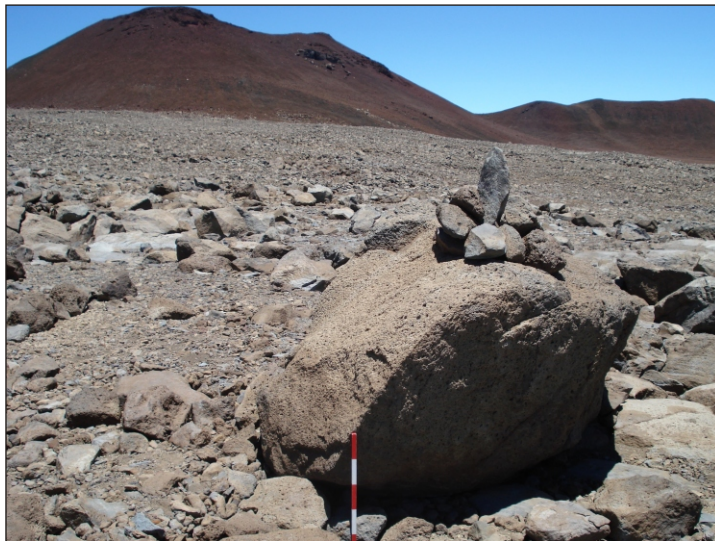
**Site 25795, View to the West**



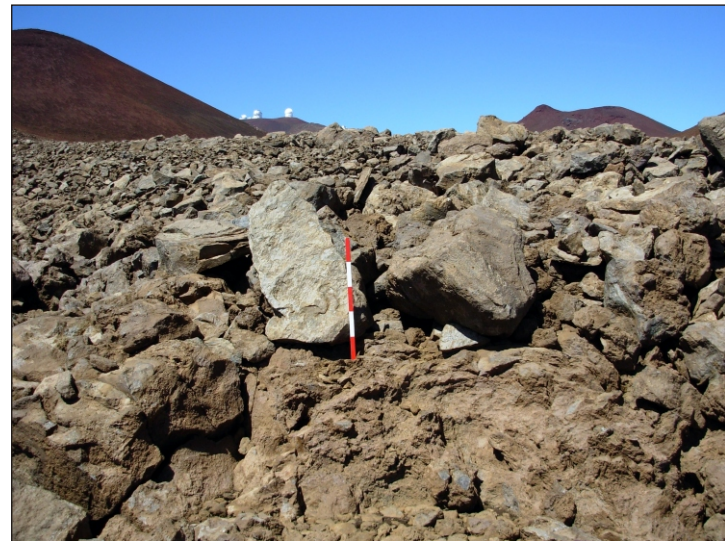
**Figure 2.8. Photographs of Single Upright Sites 25784, 25791, 25794, and 25795.**



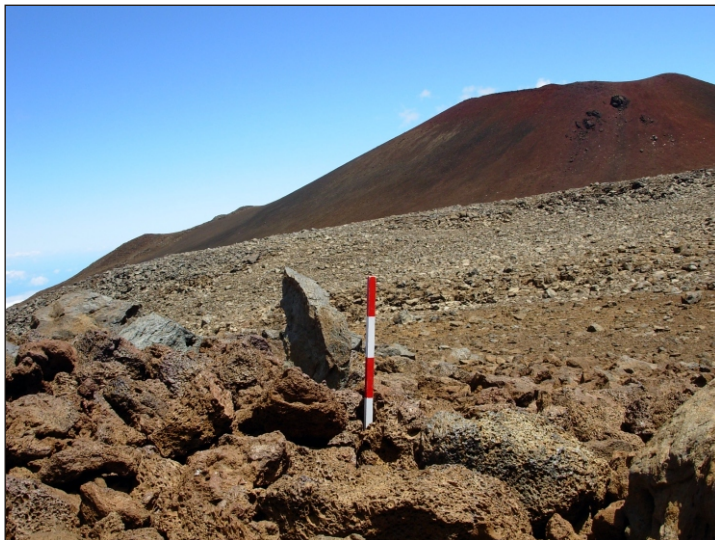
**Site 25798, View to the Northwest.**



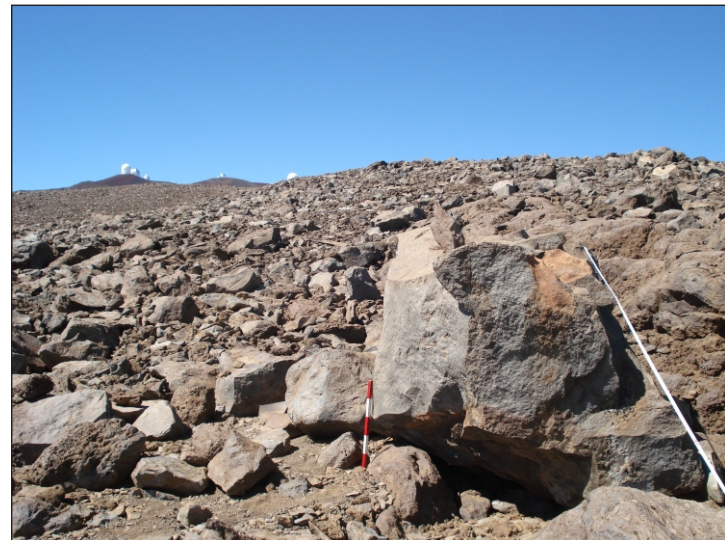
**Site 25811, View to the Southwest.**



**Site 25821, View to the Southeast.**



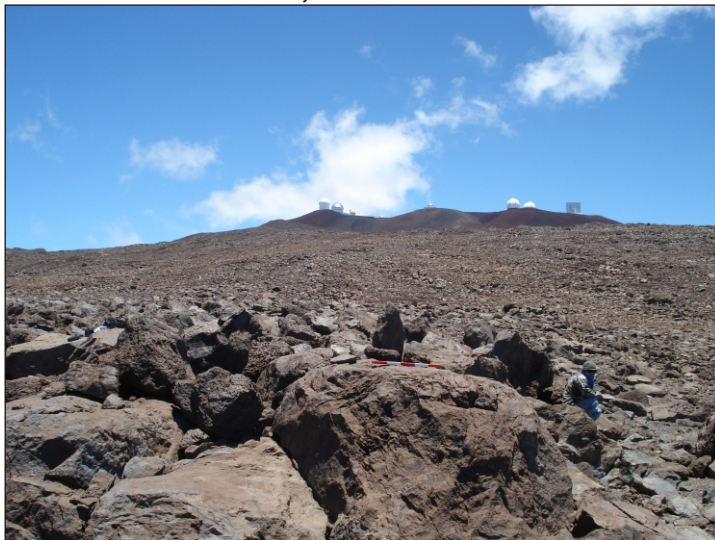
**Site 26221, View to the South.**



**Figure 2.9. Photographs of Single Upright Sites 25798, 25811, 25821, and 26221.**



**Site 26223, View to the South.**



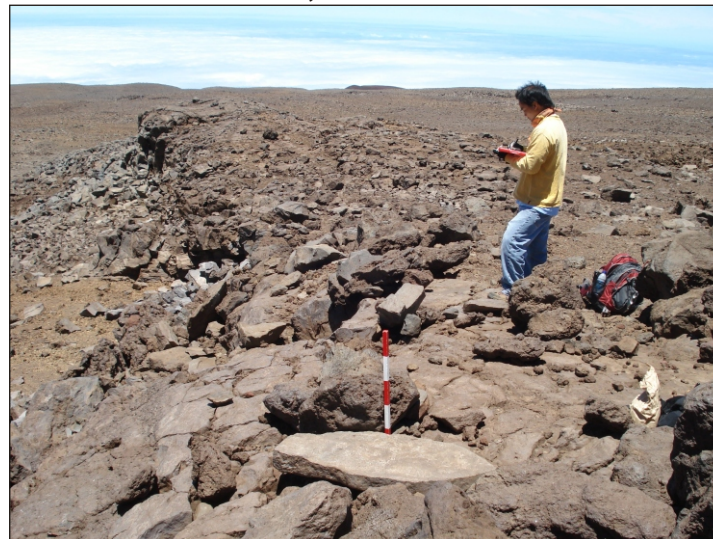
**Site 26225, View to the South.**



**Site 26227, View to the Southeast.**



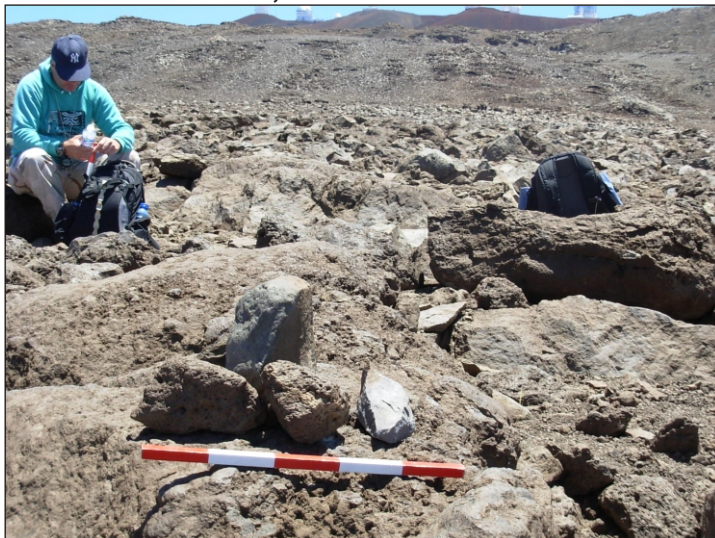
**Site 26234, View to the North.**



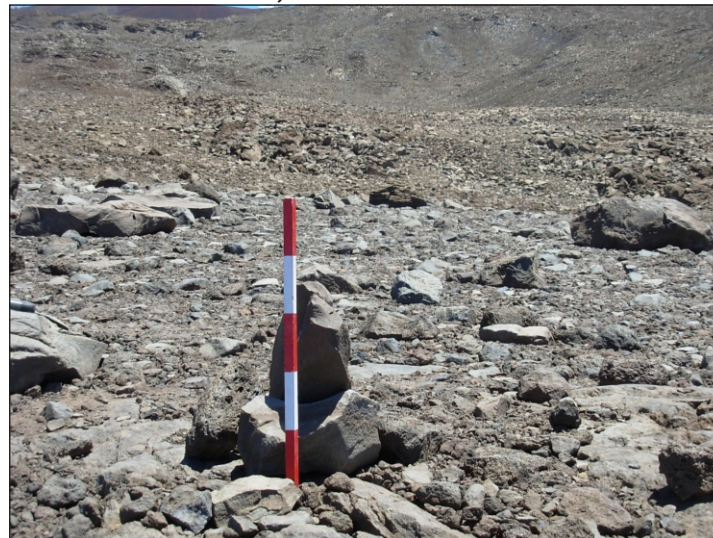
**Figure 2.10. Photographs of Single Upright Sites 26223, 26225, 26227, and 26234.**



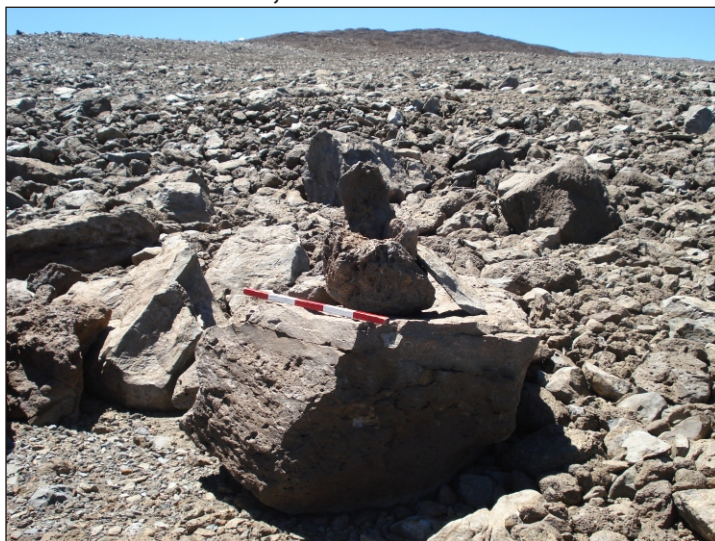
**Site 26235, View to the Southeast.**



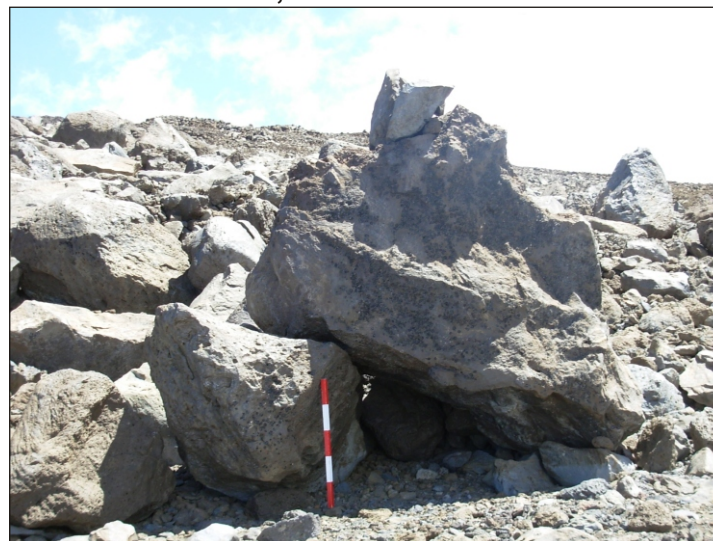
**Site 26236, View to the Southeast.**



**Site 26238, View to the Southeast.**



**Site 26239, View to the Southeast.**



**Figure 2.11. Photographs of Single Upright Sites 26235, 26236, 26238, and 26239.**



**View to the Southwest**

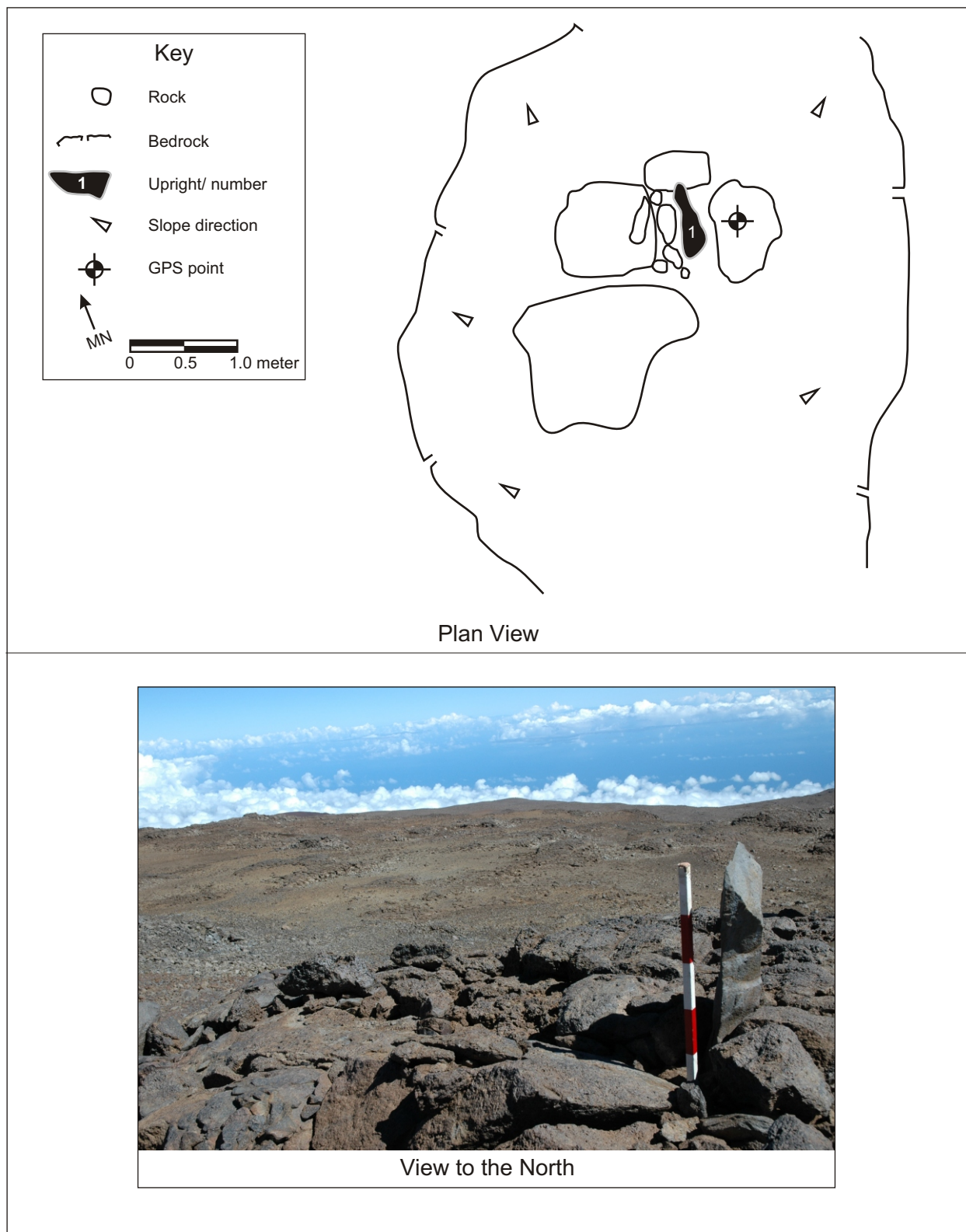


**View to the Northeast**

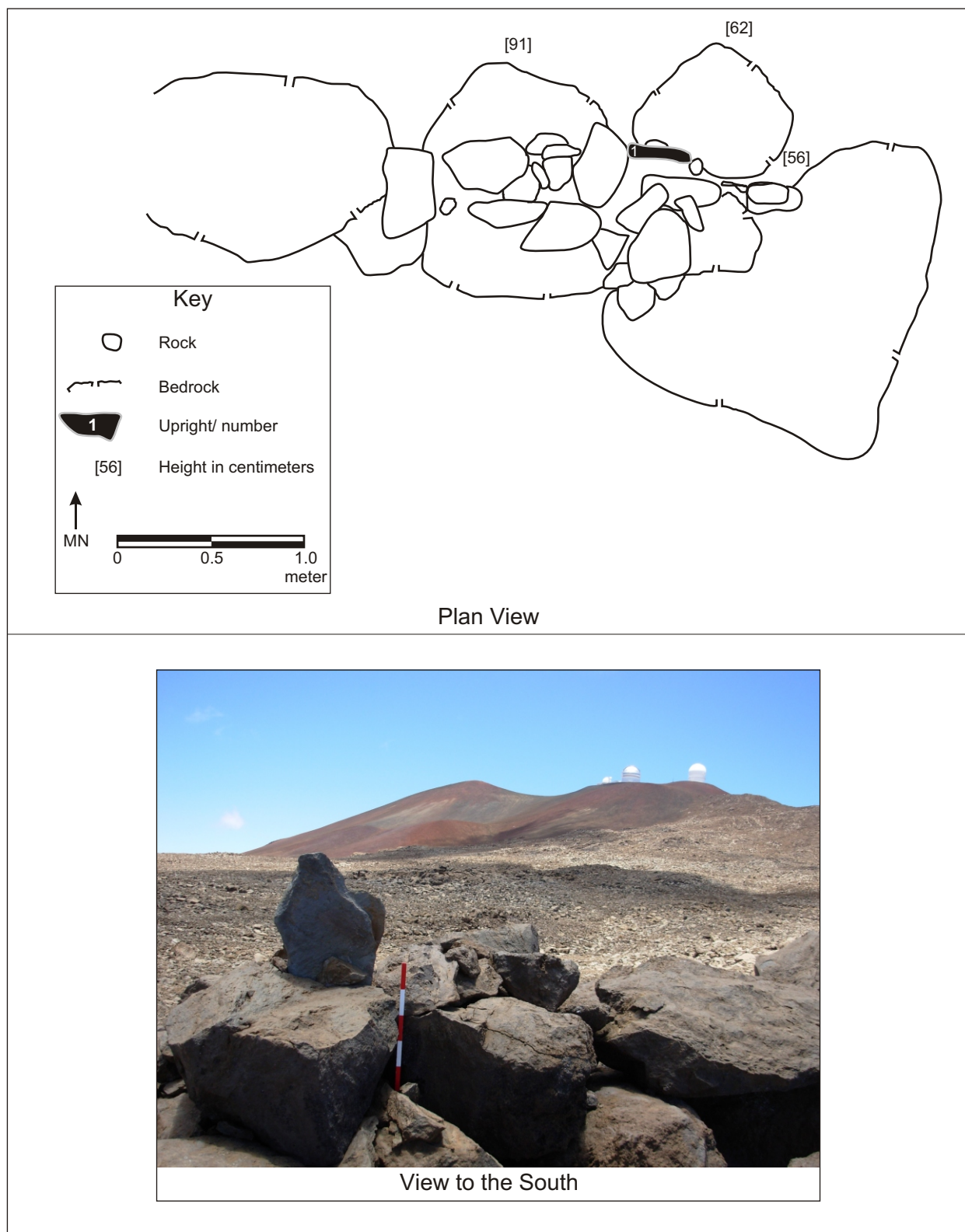


**Figure 2.12. Photographs of Single Upright Site 26251.**

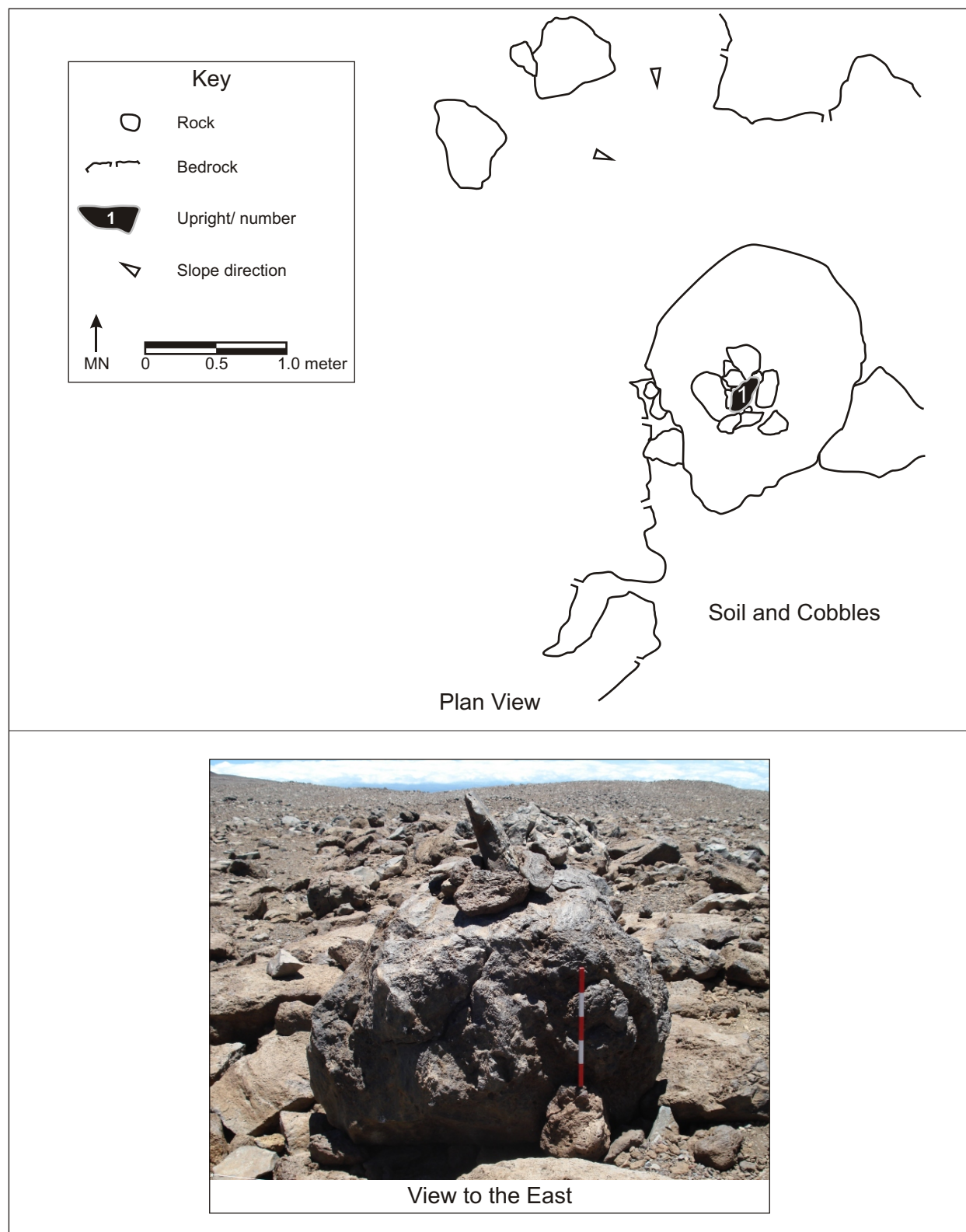




**Figure 2.13. Plan View and Photograph of Site 16178.**



**Figure 2.14. Site 16188, Plan View and Photograph.**



**Figure 2.15. Site 16193, Plan View and Photograph.**

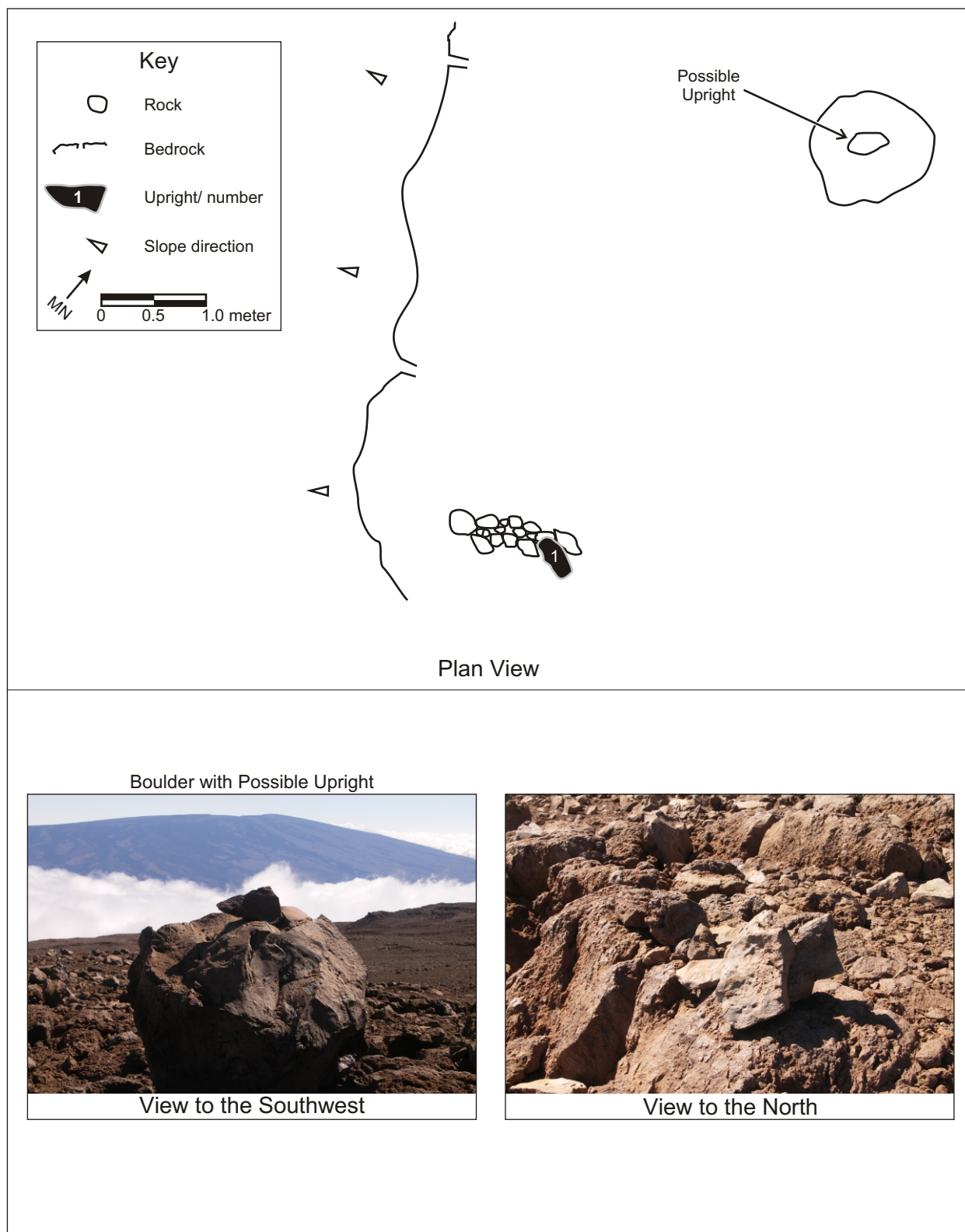


Figure 2.16. Site 16197, Plan View and Photographs.



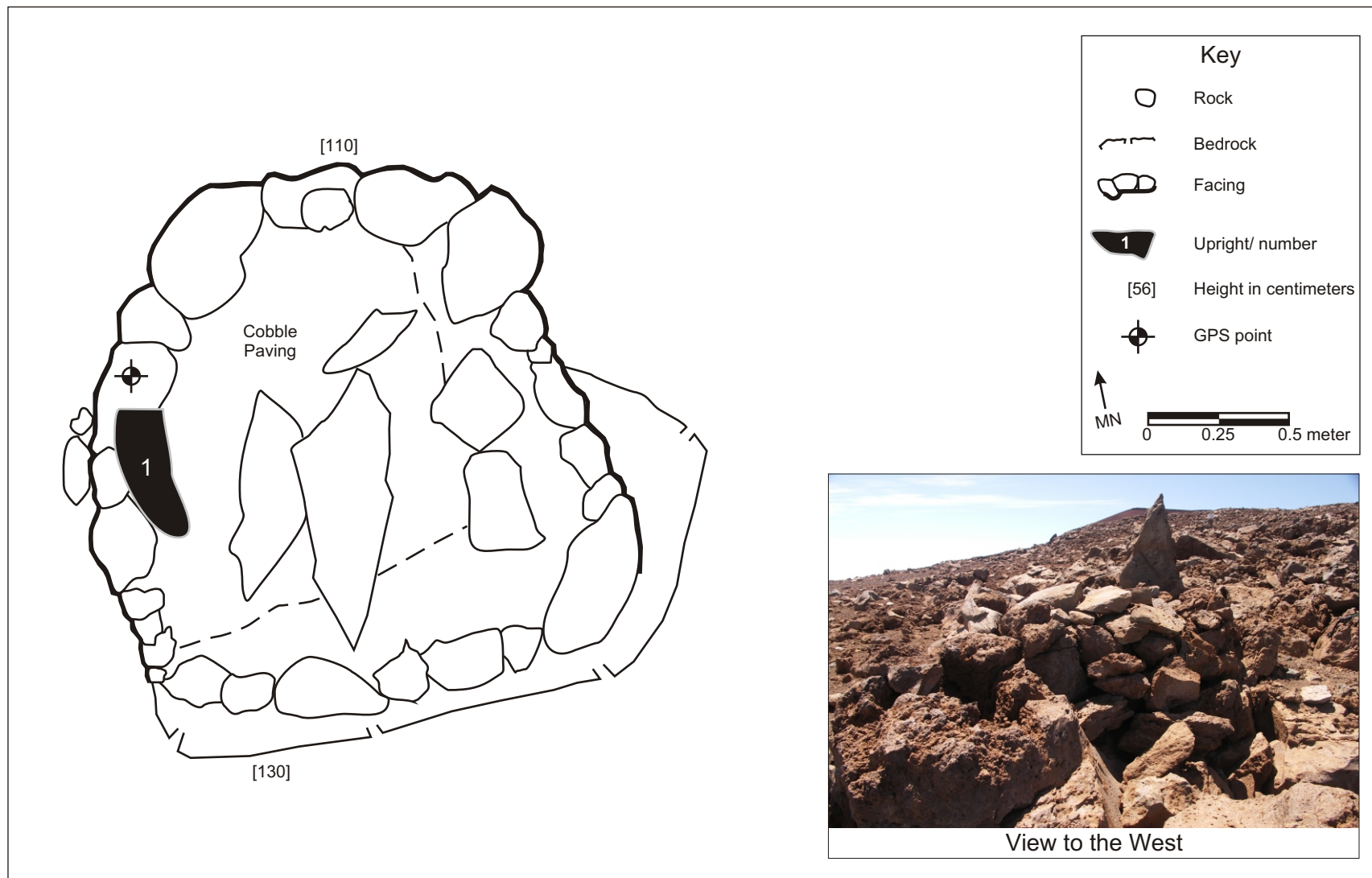
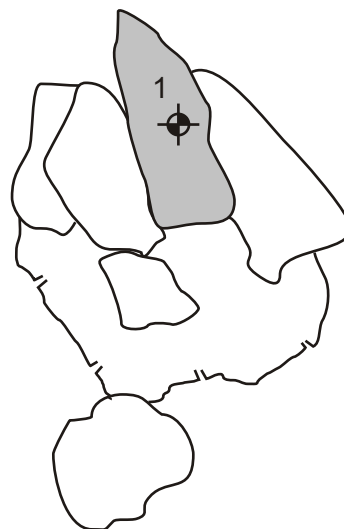
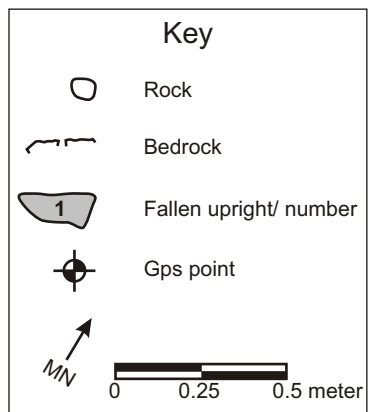
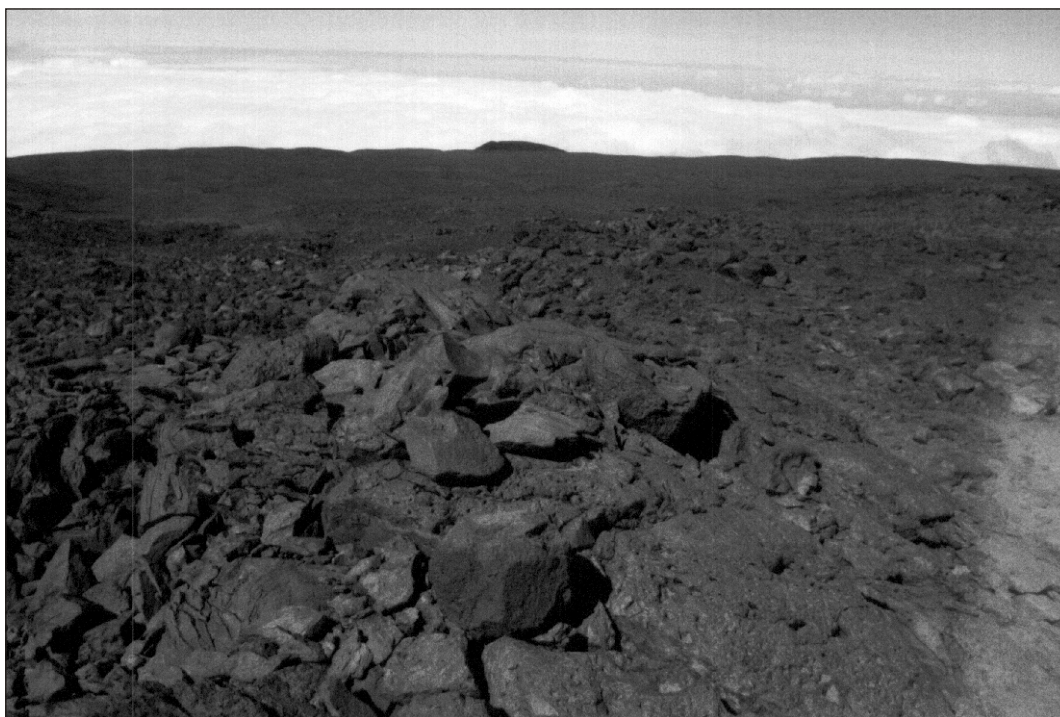


Figure 2.17. Site 16202, Plan View and Photograph.

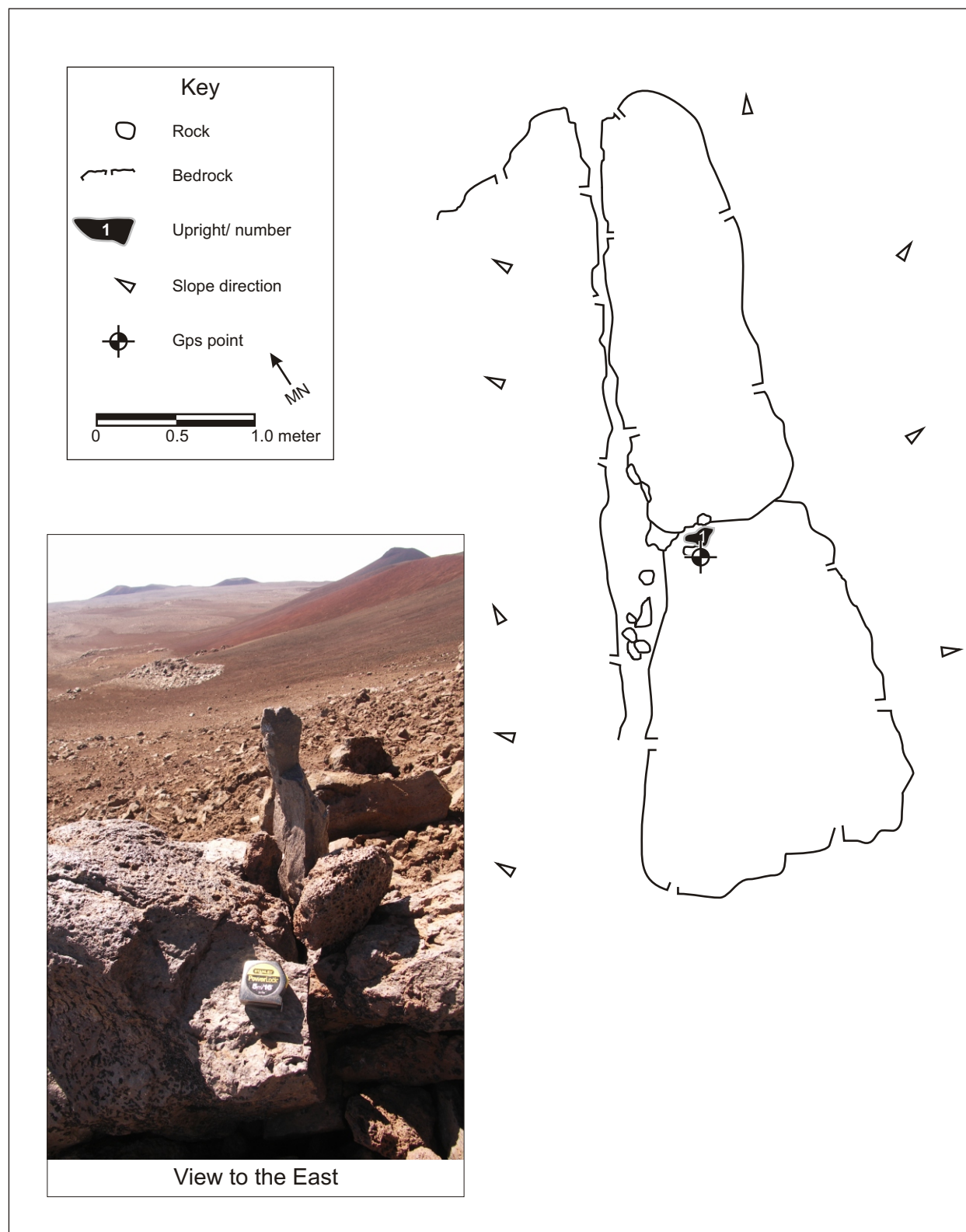


Plan View

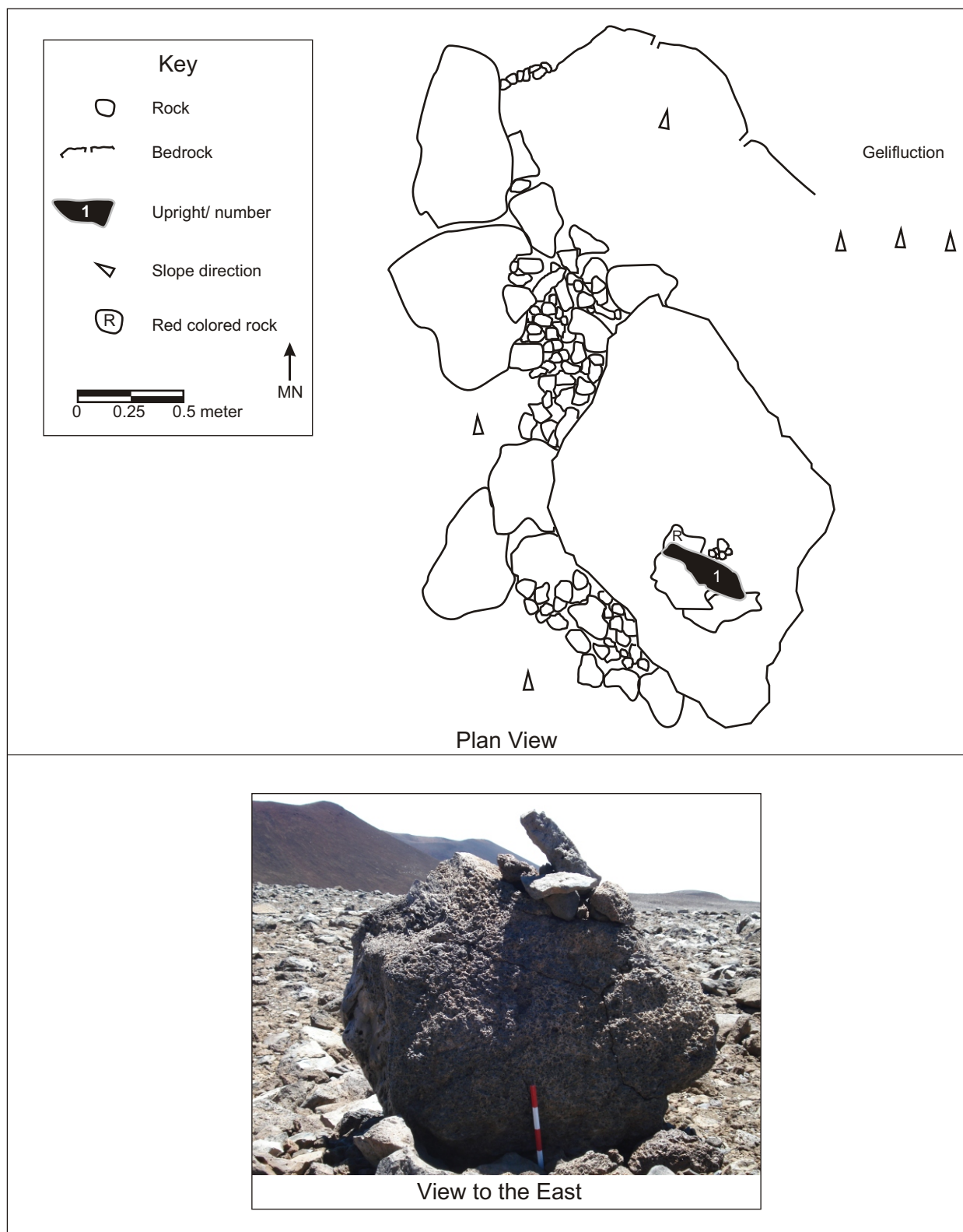


View to the northwest

**Figure 2.18. Site 21199, Plan View and Photograph.**

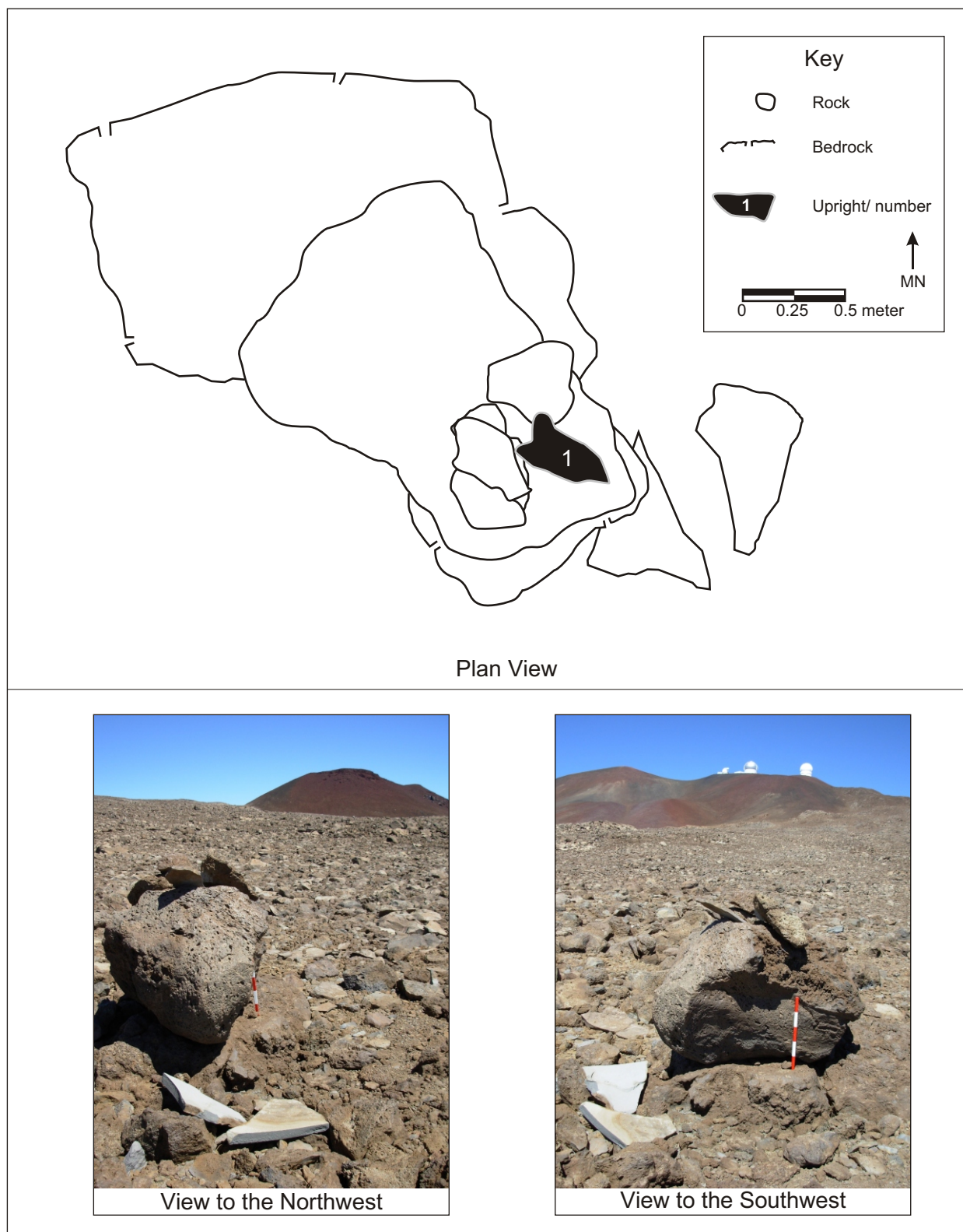


**Figure 2.19. Site 21205, Plan View and Photograph.**

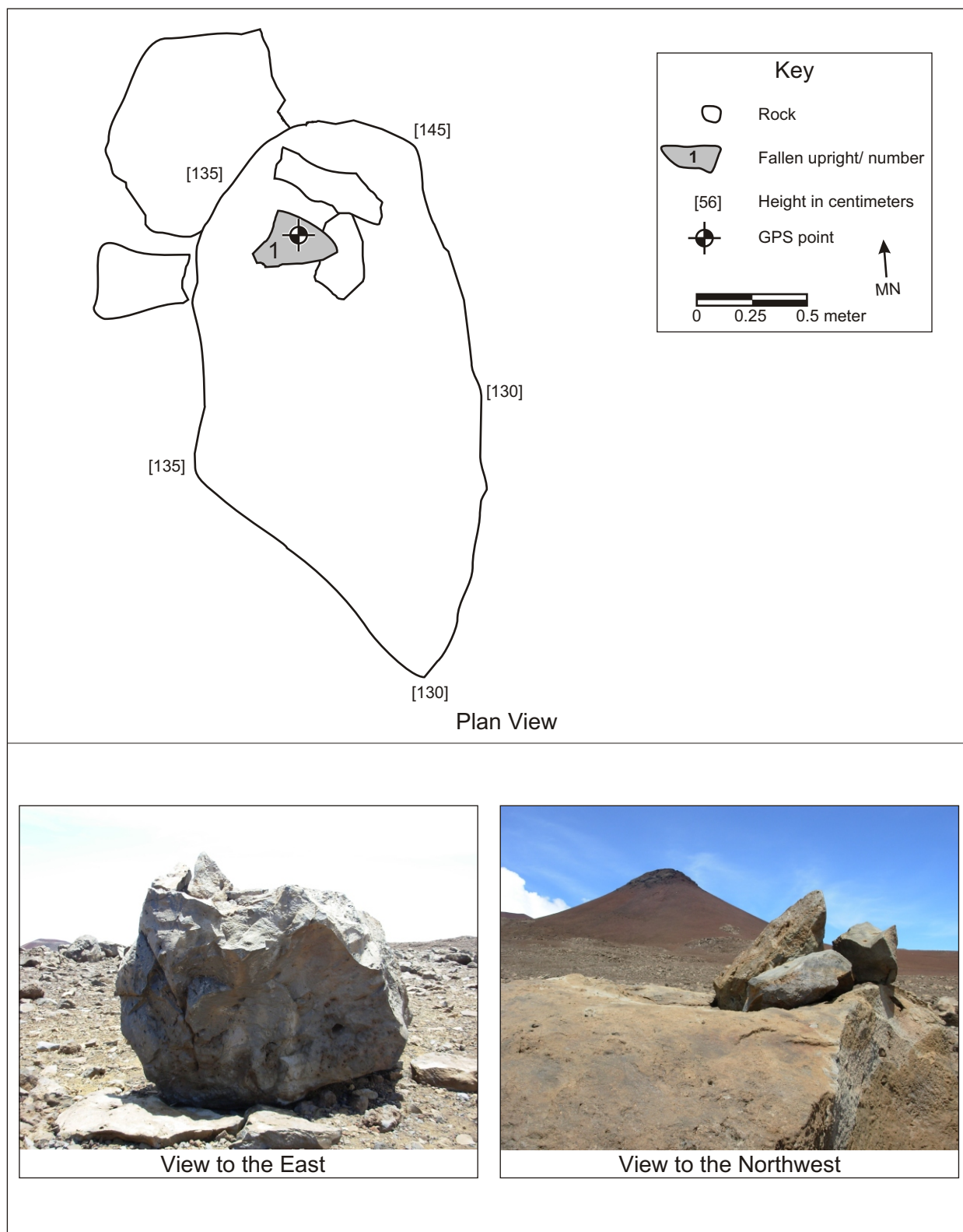


**Figure 2.20. Site 21206, Plan View and Photograph.**

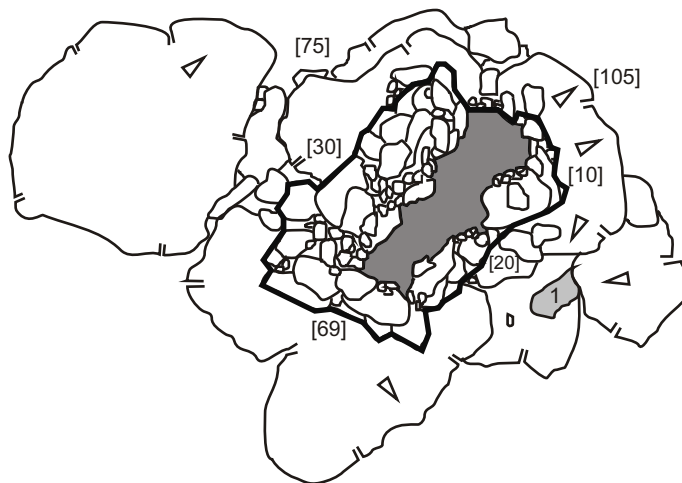
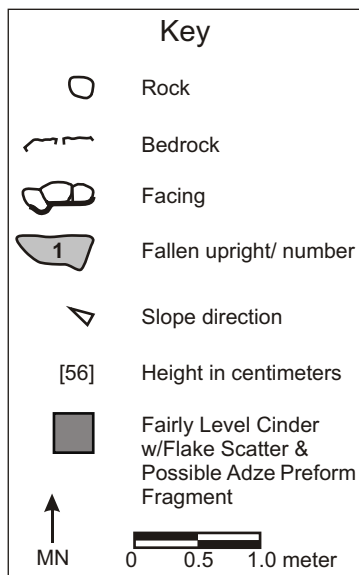




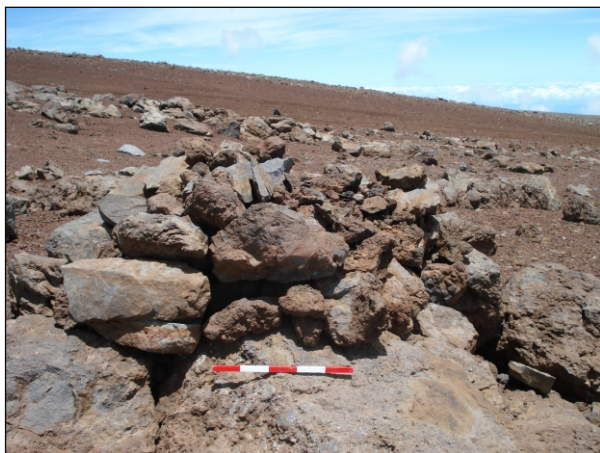
**Figure 2.21. Site 21207, Plan View and Photographs.**



**Figure 2.22. Site 21210, Plan View and Photographs.**



Plan View of Feature 1



View to the Northeast

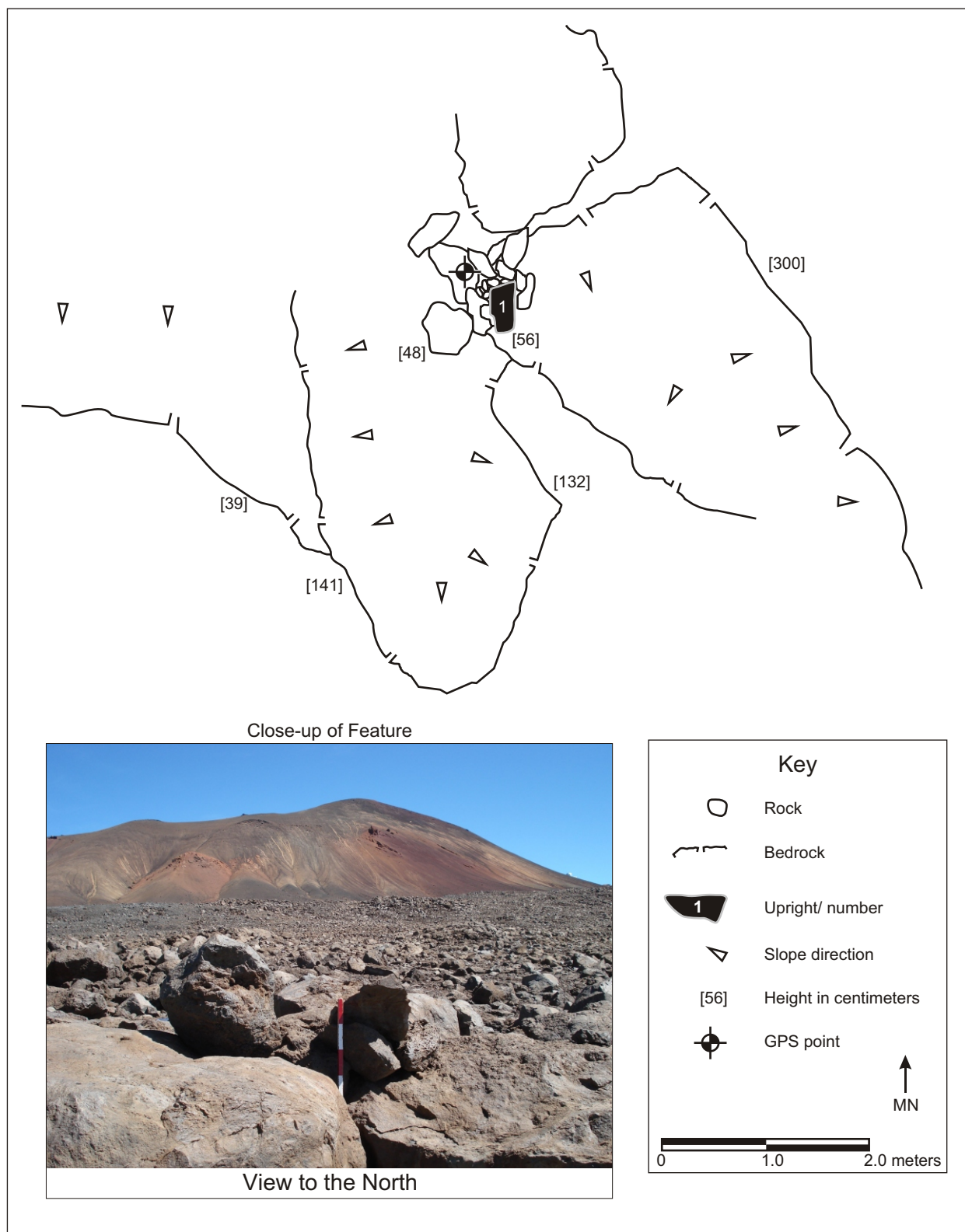
Pu`u Lilinoe in Background



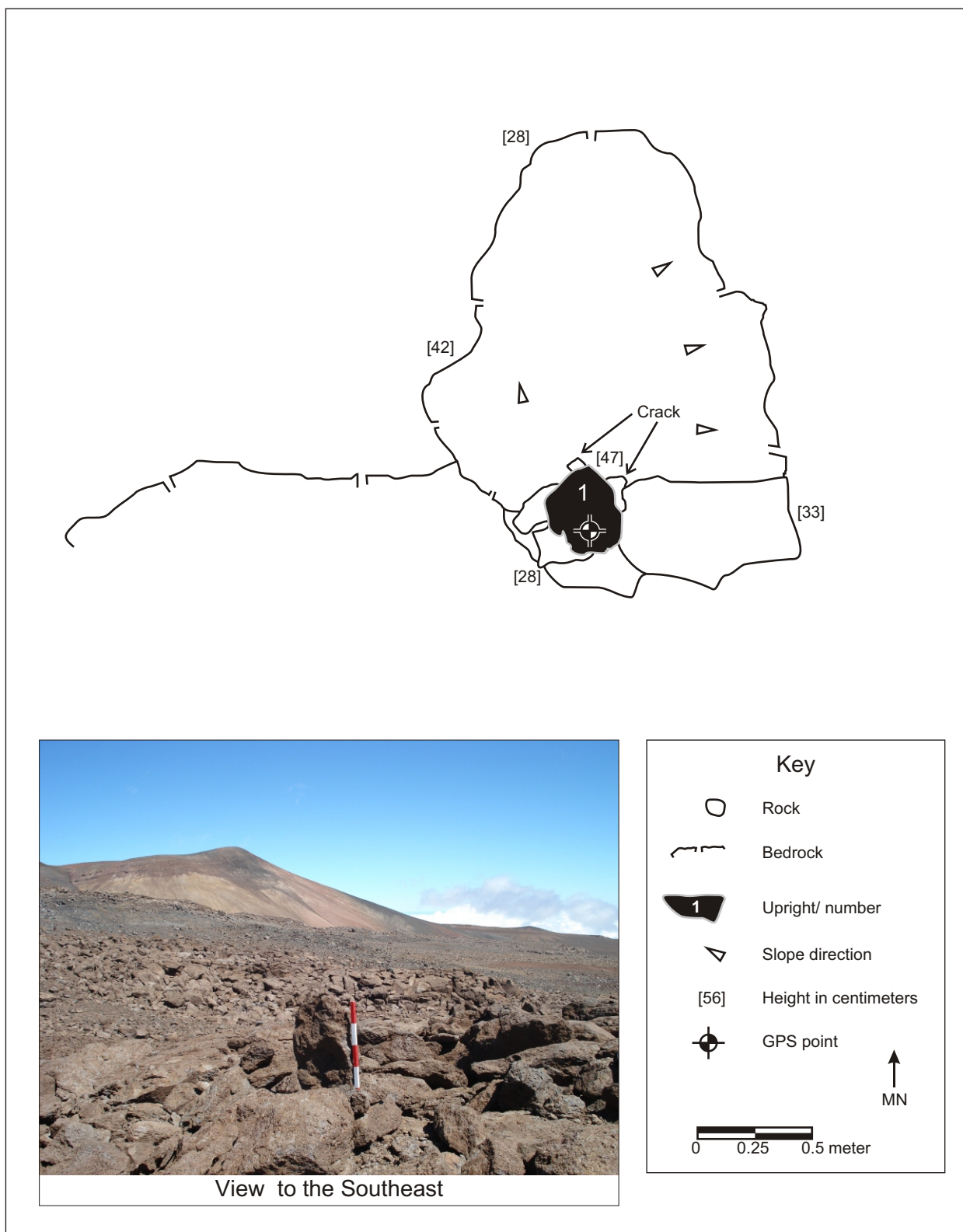
View to the Northwest

Figure 2.23. Site 21211, Plan View and Photographs.

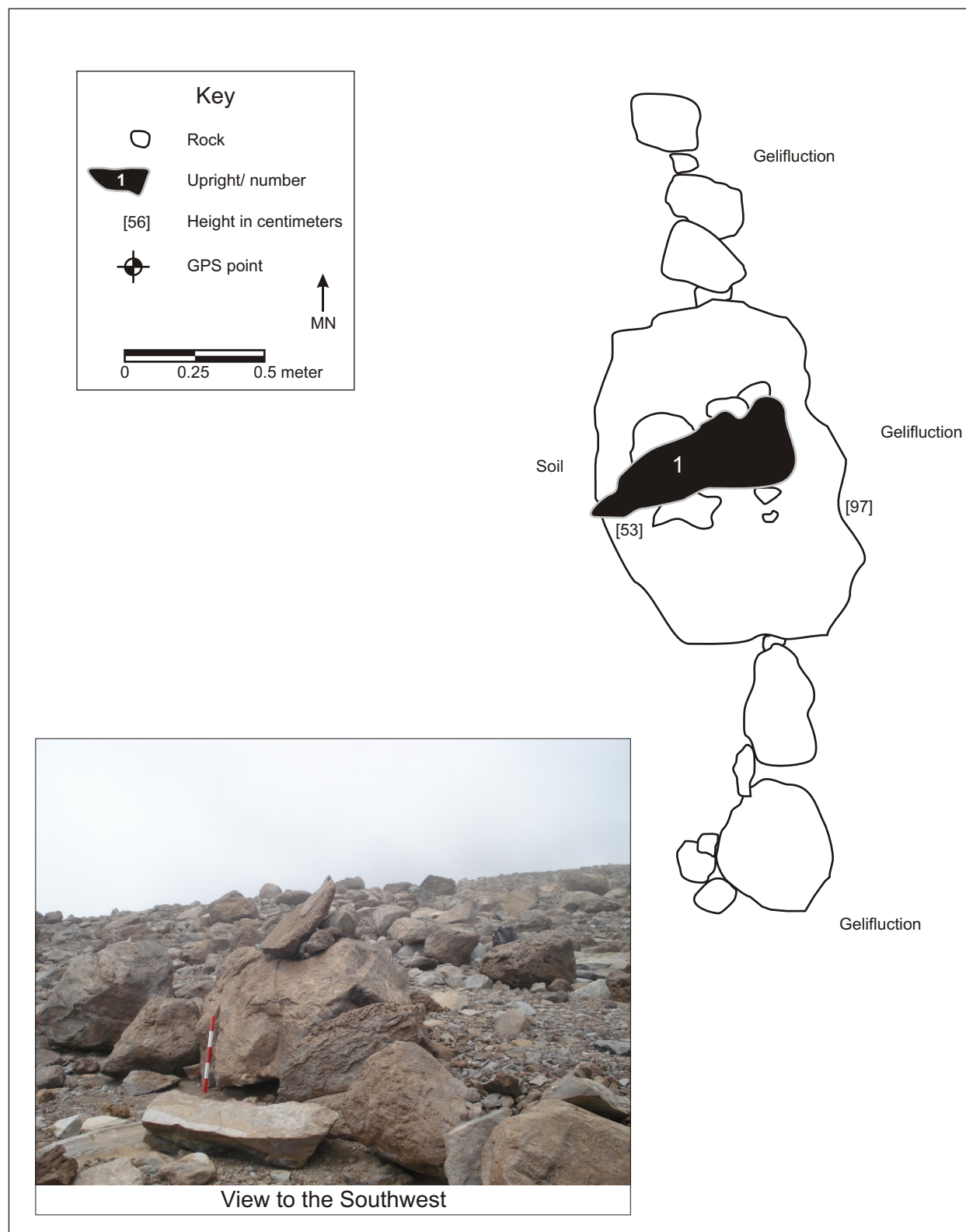




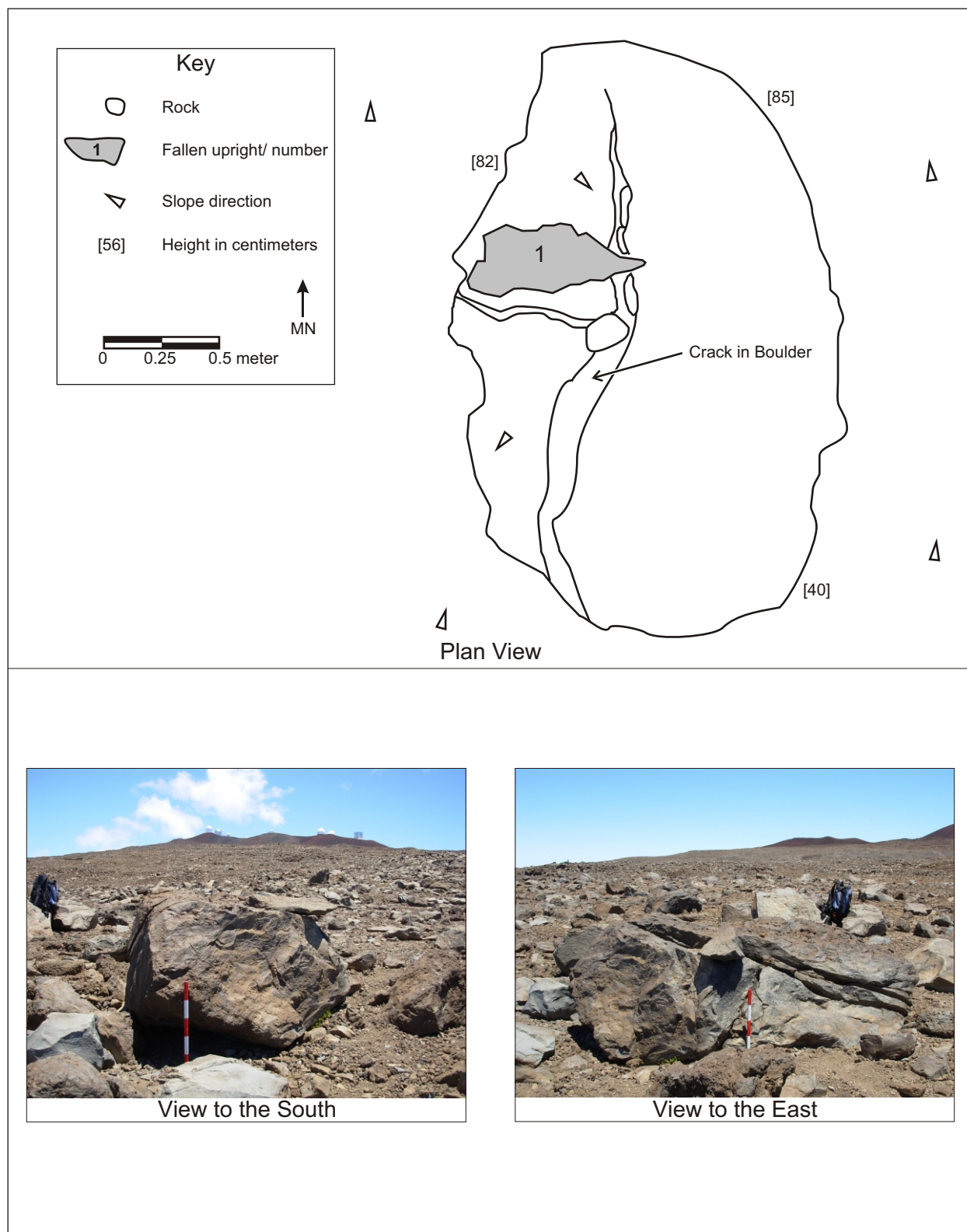
**Figure 2.24. Site 21407, Plan View and Photograph.**



**Figure 2.25. Site 21408, Plan View and Photograph.**

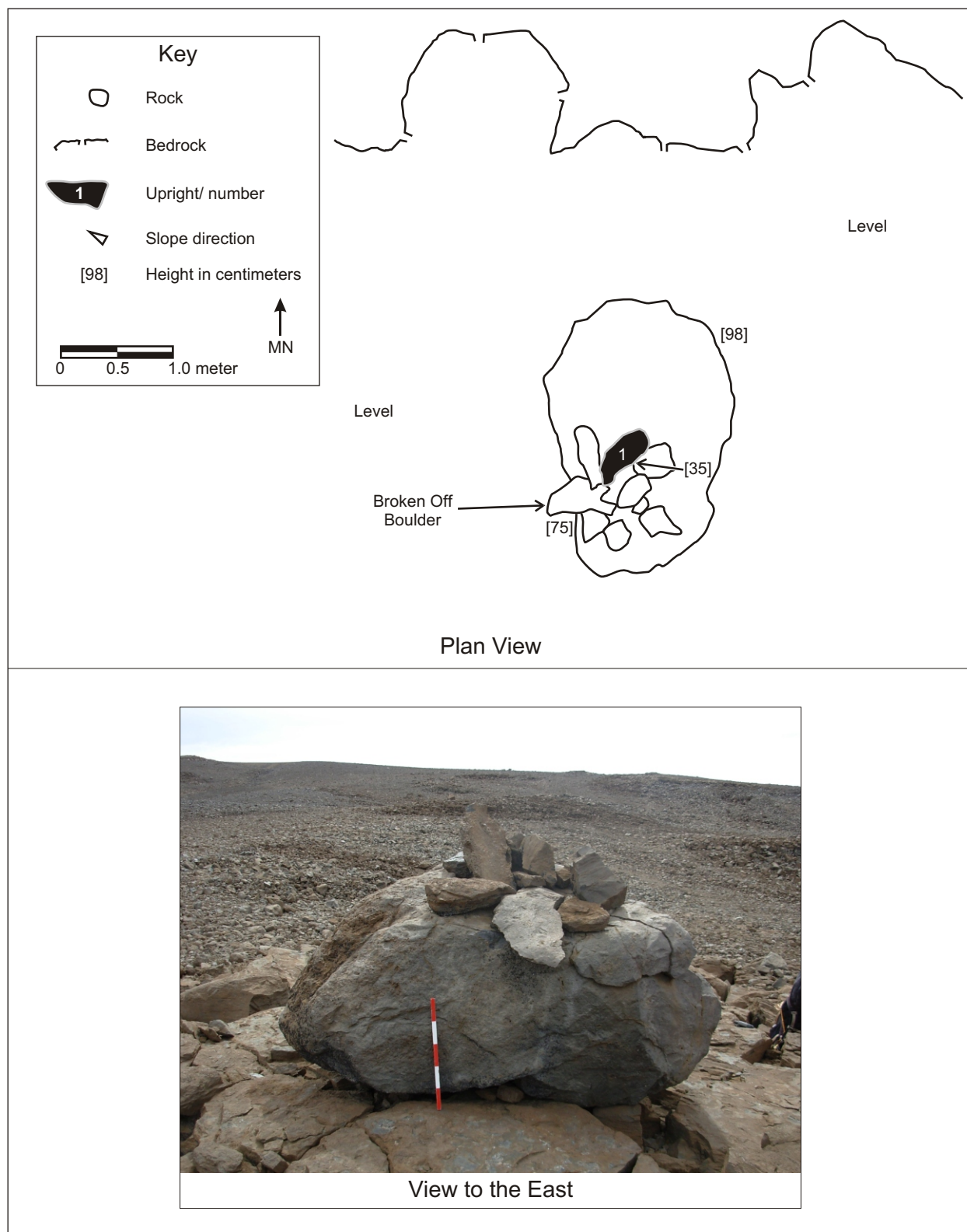


**Figure 2.26. Site 21409, Plan View and Photograph.**



**Figure 2.27. Site 21425, Plan View and Photographs.**





**Figure 2.28. Site 26255, Plan View and Photograph.**



## 2.2 SHRINES AND POSSIBLE SHRINES

Site descriptions for the 87 shrine and possible shrines found in the Mauna Kea Science Reserve are presented in this section. These sites are located outside of the Pōhakuloa Gulch Adze Quarry/Workshop Complex. As mentioned in Section 2.1, site descriptions were prepared for 25 single upright shrines that are associated with other structures. These include Sites 11077, 16164, 16170, 16173, 16174, 16175, 16177, 16182, 21197, 21213, 21421, 21435, 21441, 21445, 21446, 25786, 25826, 26219, 26222, 26227, 26228, and 26240 through 26244.

Table 2.2 summarizes the sites and their 137 functional components. Individual site descriptions follow Table 2.2.

**Table 2.2 Summary of Site Components for Shrines and Possible Shrines.**

Site Number 50-10-23-	Possible shrine	Shrine	Marker/ memorial	Adze workshop	Temporary habitation	Unknown	Total number of Components
11077		1			1	2	4
16164		2					2
16165		1					1
16166		2					2
16167		1					1
16168		1					1
16169		1					1
16170		2					2
16173		4					4
16174		4					4
16175		6					6
16176		1					1
16177		2					2
16179		1					1
16180		1					1
16182		3					3
16184		1					1
16185		1					1
16186		1					1
16187		1					1
16189		1					1
16191		1					1
16192		1					1
16194		1					1
16196		1					1
16198		1					1
16199		1					1
16200		1					1
16201		1					1

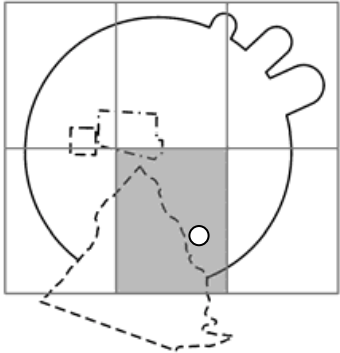
**Table 2.2 Summary of Site Components for Shrines and Possible Shrines.**

Site Number 50-10-23-	Possible shrine	Shrine	Marker/ memorial	Adze workshop	Temporary habitation	Unknown	Total number of Components
18682		1					1
18683		1					1
21197		2					2
21201		1					1
21202		1					1
21203		1					1
21208		1					1
21212		1					1
21213	1					3	4
21214		1					1
21410		1					1
21418		1					1
21419		1					1
21420		1	2			1	4
21421	1	1				1	3
21424		1					1
21426		1					1
21430		1				1	2
21431		1					1
21435		1	1				2
21441		3					3
21445		3					3
21446		3					3
21448		1					1
25764		1					1
25775		1					1
25778		1					1
25783		1					1
25786		1					1
25787		1					1
25790		1					1
25792	1						1
25793		1					1
25799	2	1				2	5
25810	1		3				4
25818		1					1
25819		1					1

**Table 2.2 Summary of Site Components for Shrines and Possible Shrines.**

<b>Site Number 50-10-23-</b>	<b>Possible shrine</b>	<b>Shrine</b>	<b>Marker/ memorial</b>	<b>Adze workshop</b>	<b>Temporary habitation</b>	<b>Unknown</b>	<b>Total number of Components</b>
25820		1					1
25825		1					1
25826		1					1
25827		1					1
26217		1					1
26219		1					1
26222		1					1
26226	1						1
26227		1			1		2
26228		2					2
26229		1					1
26231		1					1
26233		1					1
26240		2					2
26241	1						1
26242		1	1				2
26243		1	1				2
26244		1					1
26248		1					1
26252		1					1
TOTAL	8	108	8	1	2	10	137

**SITE 50-10-23-11077**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Shrine and associated features	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Slope of pu`u	
<b>Approximate U.S.G.S. Elevation:</b> 12,248 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM103	
<b>Date First Recorded:</b> 1988	
<b>Current Status:</b> Feature number increased from two (2) to four (4).	
<b>Subsequent Site Visits:</b> 1995, 2006	

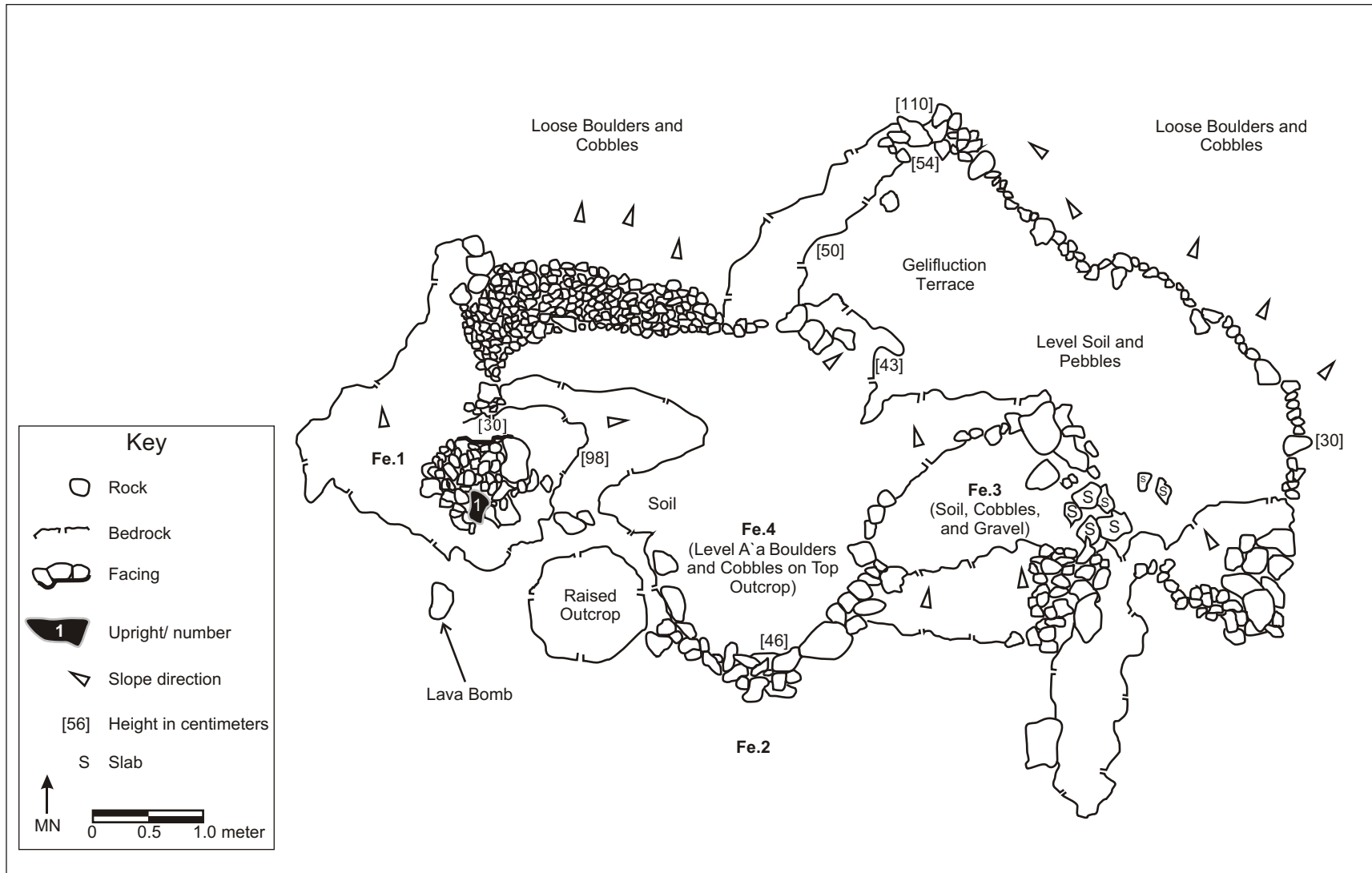
**DESCRIPTION:**

Site 11077 was discovered during a reconnaissance survey undertaken by Cultural Surveys Hawaii in 1988 for the Very Long Base Array (VLBA) telescope (Hammatt and Borthwick 1988). The site, which is located near the base of a large unnamed cinder cone south of the telescope, was interpreted as a probable shrine. The site was described as follows:

The site consists of an *ahu*-like structure of stacked boulders, on a natural bedrock outcrop. The stacking of boulders and cobbles is roughly 3 feet (0.91 m) in diameter with a maximum height of 2 feet (0.61 m). At the top of the stacked rocks is a set-in, subangular, upright boulder, with a similar shaped rock at the base of the *ahu*. Adjacent to the shrine, on the eastern side, is a low (1-1.5 ft or .305 to .457 m) 3 foot (.914 m) long alignment of stacked boulders with a 3 by 3 ft (.914 by .914 m) leveled area on the north side which may be a natural feature (Hammatt and Borthwick 1988:14).

The site was briefly inspected by SHPD staff in 1995, at which time measurements were taken of the upright. Another site visit by SHPD staff was made in 2000, at which time a detailed site map was prepared and site records up-dated with a new description and photographs. Unfortunately, the map was misplaced; thus, requiring the production of another map. Currently Site 11077 consists of four features, including a mound with an upright (Feature 1), a wall (Feature 2), and two culturally modified gelifluction terraces (Features 3 and 4) (Figure 2.29).

Feature 1 is the upright described in the Hammatt and Borthwick report (1988). It is located on a mound of rocks 1.1 m (north/south) by 1.5 m (east/west) and 1.1 m high, which is situated on the margin of a lava flow that is exposed on the lower flank of the cinder cone (Figure 2.30). The east side of the mound is faced. The upright, which is gabled, is somewhat unusual because it is non-tabular rock, although there are few tabular slabs in the immediate area (see upright data table).



**Figure 2.29. Site 11077, Plan View of Features 1 through 4.**

### Site 11077, Metric and Non-Metric Upright Data.

Fe. /Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	N	S	-	Gabled	50	30	17

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



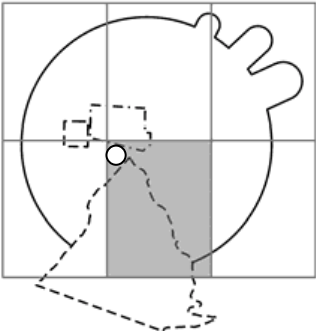
**Figure 2.30. Photograph of Site 11077, Features 1 and 2. View to West.**

Feature 2 is the “wall” of piled boulders east of the upright that was described in the 1988 report. It is situated on the edge of the lava flow, above the terraces. It extends over a linear distance of roughly 2.0 m and is 50 cm or less in height.

Feature 3 is the lower of two modified gelifluction terraces. Feature 3, which abuts the terrace above (Feature 4), is roughly 3.0 m (east/west) by 2.3 m (north/south) and demarcated on the lower end by a low alignment of stones 15 cm  $\pm$  (1-2 stones) high that includes 4-5 grey tabular-like slabs. It is a roughly crescent-shaped in plan view and appears to have been partially cleared to create a more open space.

Feature 4 is a crescent-shaped terrace located on top of Feature 3. It is roughly 3.0 m (north/south) by 2.3 m (east/west). The surface is crudely paved with pieces of vesicular a’a.

**STATE SITE 50-10-23-16164**

<b>Additional Site Numbers:</b> State Site 50-10-23-5222 BPBM 50-Ha-G28-40	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 8.0 m by 4.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 13,284 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN087	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2007	

**DESCRIPTION:**

This site consists of two upright structures (Features 1 and 2) located in the “valley” between Pu`u Poliahu and the cluster of overlapping cinder cones that forms the summit (Figure 2.31).

Feature 1, the site’s primary structural component, consists of a series of three (possibly five) uprights positioned along the edges of a low rectangular platform measuring 1.6 m by 1.5 m with an average height of 0.25 m. The platform is oriented perpendicular to the long axis of the ridge. The two possible uprights, both fallen, are located on the south side of the platform (see upright data table below).

Feature 2 is a single upright located 3.5 m east of Feature 1. The upright is placed in a bedrock crack and has several support cobbles placed around the base of the upright.

**Site 16164, Metric and Non-Metric Upright Data.**

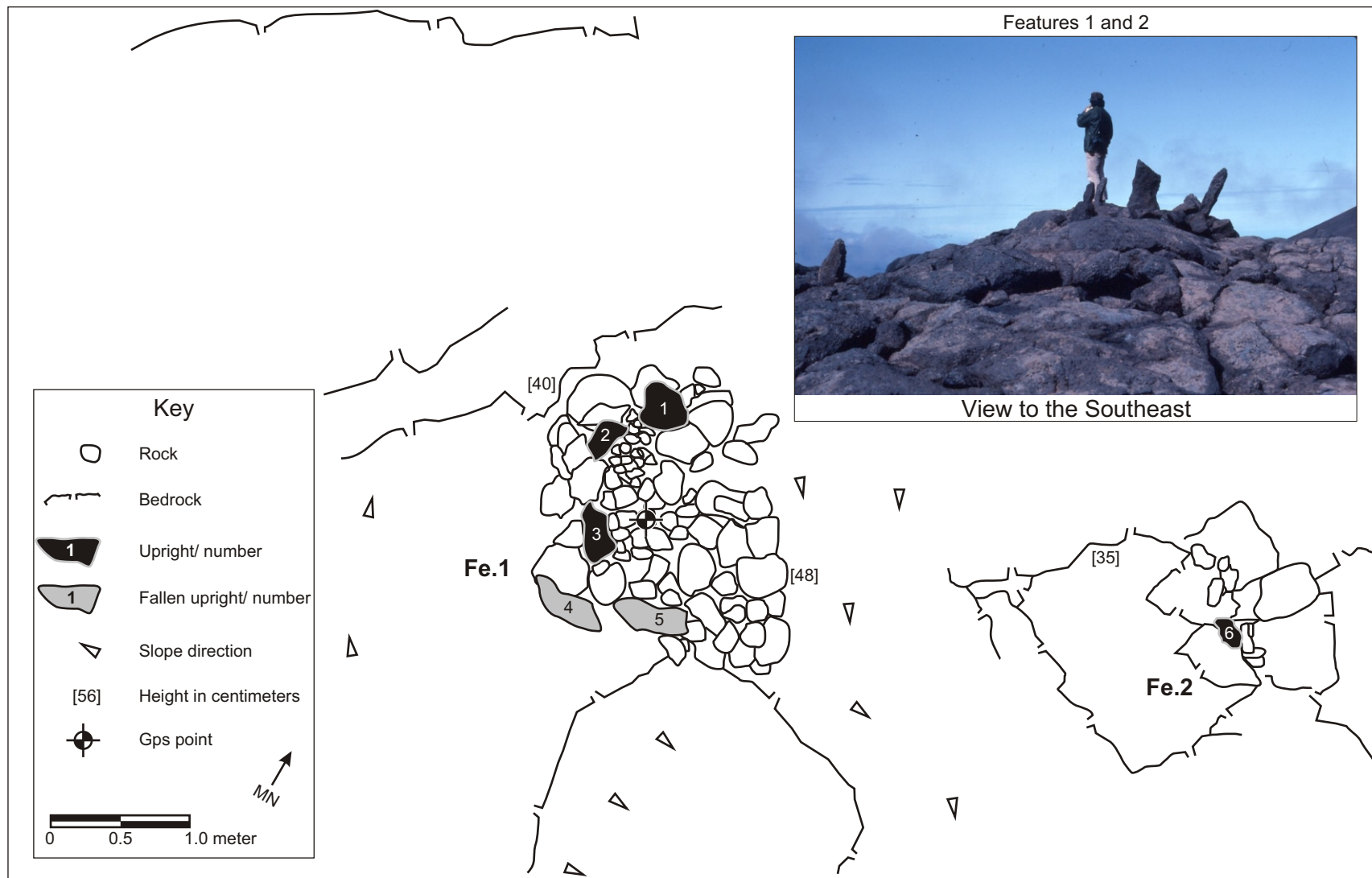
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock/ Platform	T	P	-	Beveled	69	27	10
1/2 <sup>E</sup>	Bedrock/ Platform	T		-		40	34	15
1/3 <sup>E</sup>	Bedrock/ Platform	T	Cr	-	Beveled	78	40	20
1/4	<b>Bedrock/ Platform</b>	<b>T</b>	<b>Cr</b>	<b>3</b>	<b>Pointed</b>	<b>52</b>	<b>25</b>	<b>11</b>

**Site 16164, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/5	<b>Bedrock/ Platform</b>	<b>T</b>	<b>P</b>	-	<b>Beveled</b>	<b>45</b>	<b>13</b>	<b>8</b>
2/6 <sup>E</sup>	Bedrock	T	S	-	Round	46	18	8

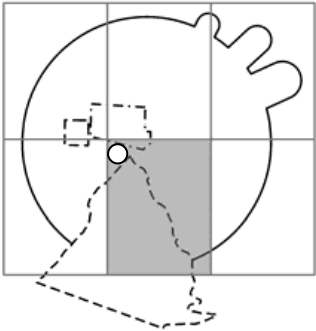
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright





**Figure 2.31. Site 16164, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-16165**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-41	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 3.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 13,253 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM2007-035	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2007	

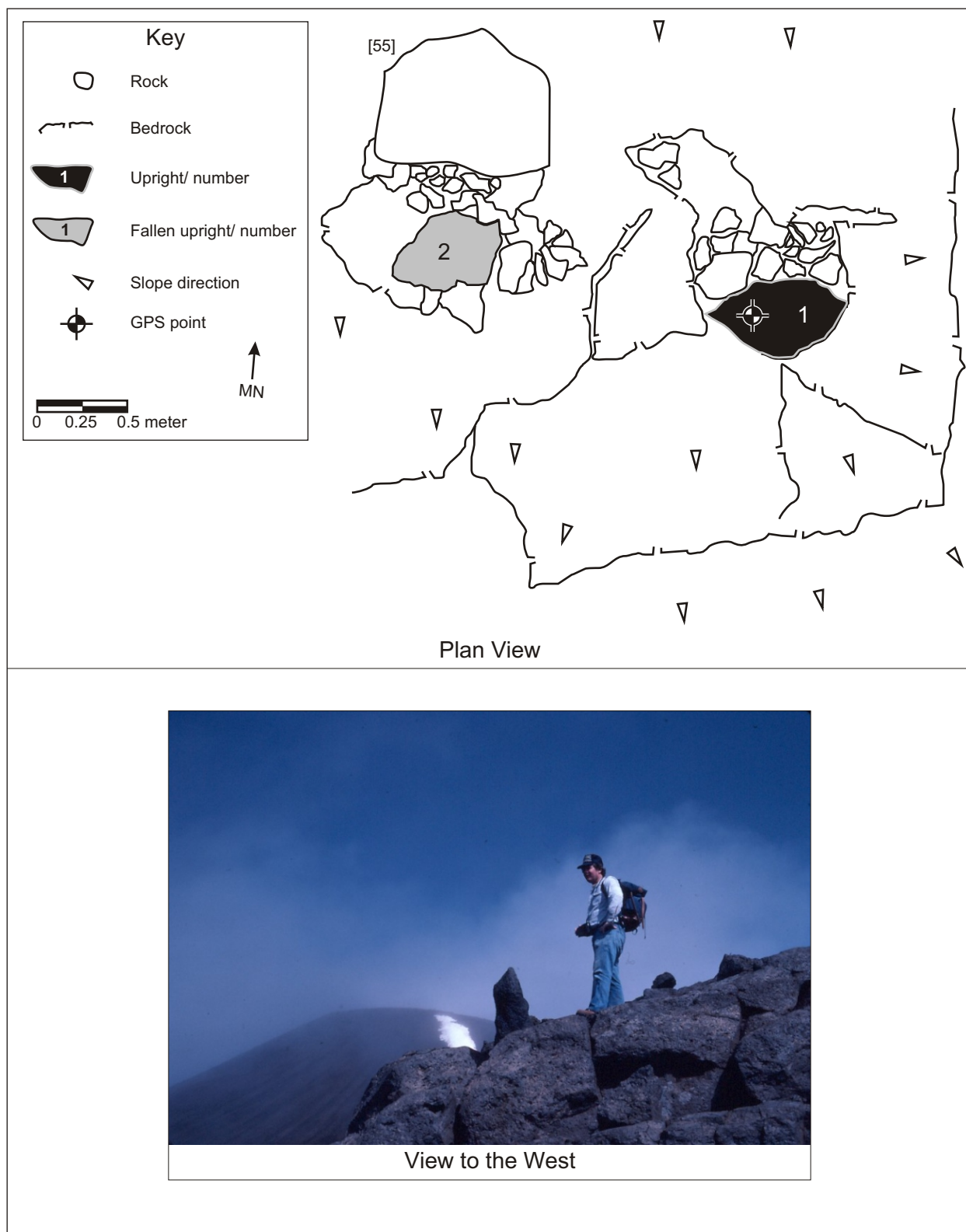
**DESCRIPTION:**

The site consists of two uprights (Feature 1), separated by approximately 1.4 m (see upright table below). This site is located south of Site 16164 on the downslope edge of a ridge. The uprights are aligned perpendicular (east/west) to the long axis of the ridge (lava flow), and are supported by cobble-sized rocks (Figure 2.32).

**Site 16165, Metric and Non-Metric Upright Data.**

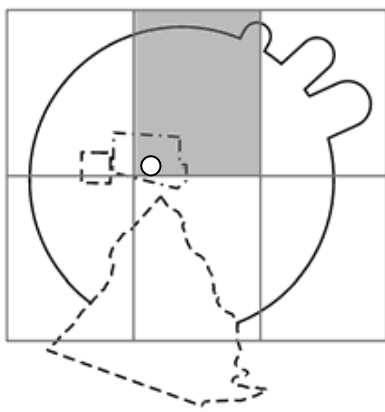
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock	N	S	-	Flat	90	70	23
1/2	Bedrock	N	D	-	Pointed	60	40	25

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.32. Site 16165, Plan View and Photograph.**

**STATE SITE 50-10-23-16166**

<b>Additional Site Numbers:</b> State Site 50-10-23-5224 BPBM 50-Ha-G28-42	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 1.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge flank (slope margin)	
<b>Approximate U.S.G.S. Elevation:</b> 13,272 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 06	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> The basalt flake found during the 1982 survey has been moved upslope closer to Feature 2.	
<b>Subsequent Site Visits:</b> 1995, 1999, 2005	

**DESCRIPTION:**

Site 16166 was first recorded in 1982 (McCoy 1982) as a multi-feature shrine with a total of 8, possibly 9 uprights arranged in two groups (Table 5.2). The site is located in central portions of the Astronomy Precinct on top of a steep-sided ridge (lava flow margin) that partially mantles the western flank of Pu'u Hau Oki. In the original site report (McCoy 1982) the feature on the north was referred to as Feature 1 and the one to the south as Feature 2. In 1999, when the site was revisited, the feature designations were reversed and the uprights numbered sequentially for the whole site (Figure 2.33).

Feature 1 is a poorly defined, roughly 2.0 m long alignment with 3, possibly 4, uprights (No.'s 1 through 4) on the eastern edge of the ridge top (see Figure 2.34). Remnants of two foundations are noted by two small (adjacent) rubble piles. When the site was revisited in 1999 it was noted that several of the uprights had been reset in a vertical position along the edge of the outcrop.

Feature 2 is located approximately 3.0 m north of Feature 1 at the northern edge of the ridge top (Figure 2.34). It consists of a natural depression filled to ground level with 0.1 to 0.3 m size chunks of scoriaceous lava to form a roughly square "pavement" measuring 2.3 m by 2.2 m. Four aligned and essentially *in situ* upright stones (Upright No.'s 5 through 8), spaced 0.2 to 0.4 m apart, were found along the north edge of the "pavement"; a fifth displaced upright (Upright No. 9) is located on the rubble slope immediately below the others (see Figure 2.34). Their location on the edge of the "pavement" (the "altar") indicates that the approach to this feature would have been from the south.

During the original survey (McCoy 1982) a piece of flaked basalt measuring 0.15 m by 0.10 m was found approximately 2.0 m northwest of Upright No. 6. A second piece of worked basalt was found on the western edge of the "pavement" when the site was revisited in 1999.

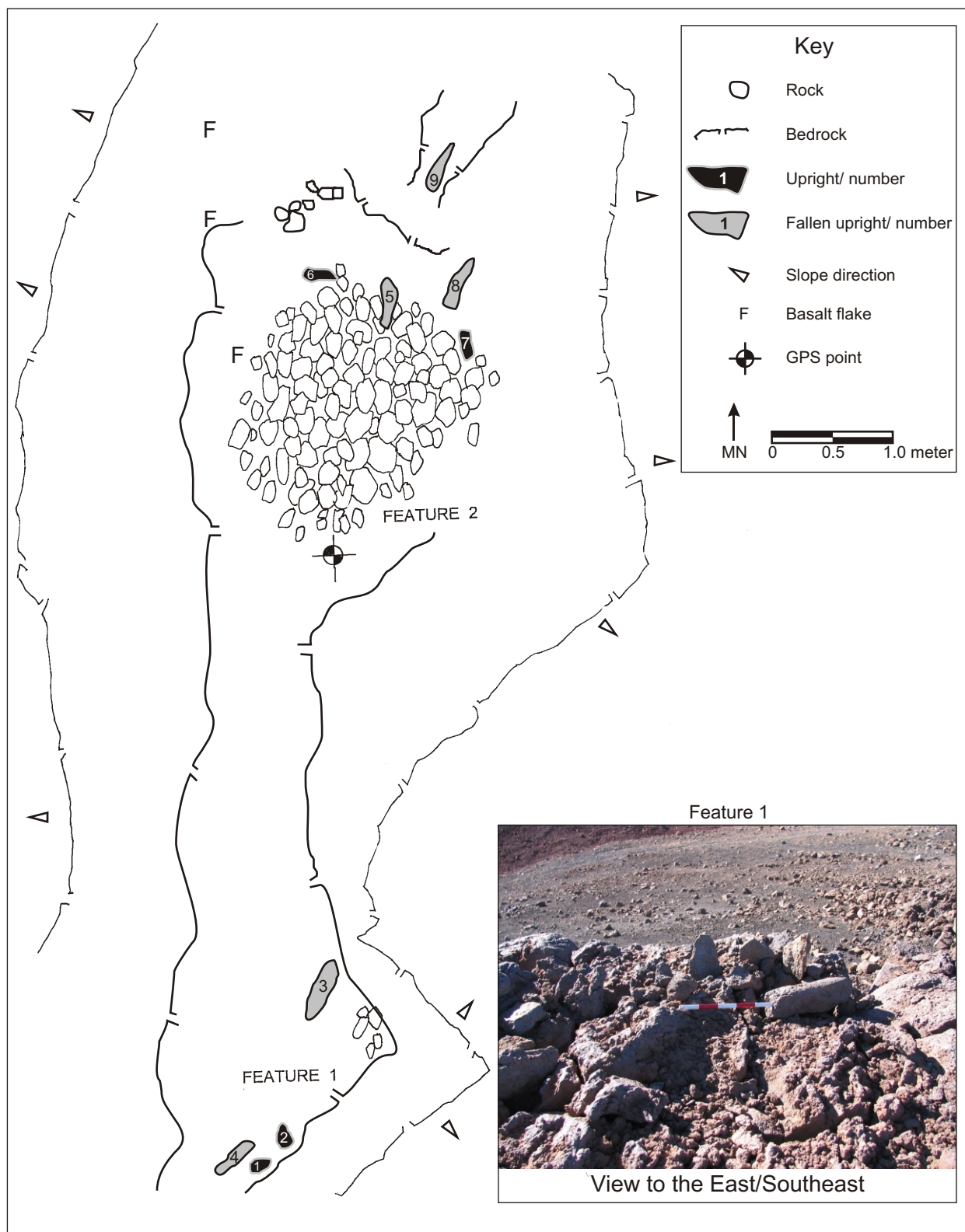


Figure 2.33. Site 16166, Features 1 and 2, Plan View and Photograph.

These are the only pieces of flaked stone found on a shrine in the Science Reserve, other than those associated with several adze manufacturing workshops on the eastern margins of the adze quarry (Sites 11079, 16163, 16203, 16204, and 21211). The material differs from that in the quarry and is probably from the local area.

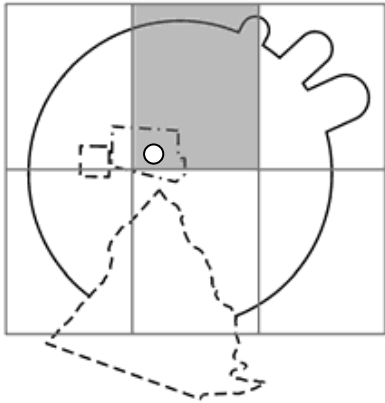
#### Site 16166, Metric and Non-Metric Upright Data

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	T	S	-	Beveled	40	20	6
1/2 <sup>E</sup>	Bedrock crack	T	D	-	Pointed	34	20	12
1/3	Bedrock crack	N	I	-	Pointed	53	20	15
1/4	Bedrock surface	N	P	-	Round	48	16	17
2/5	Bedrock surface	T	P	-	Beveled	34	13	12
2/6 <sup>E</sup>	Bedrock crack	T	D	-	Pointed	23	25	10
2/7 <sup>E</sup>	Bedrock crack	T	P	3	Beveled	39	26	10
2/8	Bedrock surface	T	P	-	Beveled	49	18	14
2/9	Bedrock surface	T	P	-	Pointed	56	10	15

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



# **STATE SITE 50-10-23-16167**

<b>Additional Site Numbers:</b> State Site 50-10-23-5225 BPBM 50-Ha-G28-43	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximately U.S.G.S. Elevation:</b> 13,266 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble R082918a	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Altered. The second upright has fallen since 1995.	
<b>Subsequent Site Visits:</b> 1995, 1999, 2005	

## **DESCRIPTION:**

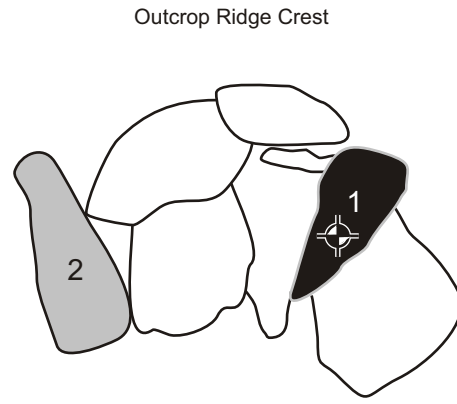
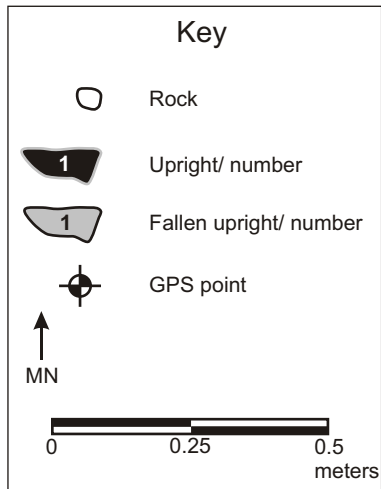
Site 16167 was first recorded in 1982 (McCoy 1982) as a shrine with one, possibly two, uprights placed in a bedrock crack. The site consists of two uprights (Feature 1). It is located approximately 100 m north and downslope of Site 16166 (Figure 2.34).

In 1982, the one upright (Upright No. 1) was found in a vertical position, while the second, probable upright was not (see upright data table below). In 1995 the site was revisited and both stones were found in a vertical position, thus indicating that someone had erected the probable upright. Both uprights are non-tabular pieces of scoriaceous lava of the same general shape and nearly identical dimensions. The resurvey in 1995 concluded that the second stone should also be regarded as an upright. Approximately six cobbles, measuring 0.15 to 0.20 m in size, form the base of the shrine, which measures 0.85 by 0.55 m.

## **Site 16167, Metric and Non-Metric Upright Data**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	N	S	-	Gabled	55	25	14
1/2	Bedrock crack	N	I	-	Pointed	54	21	14

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



Plan View



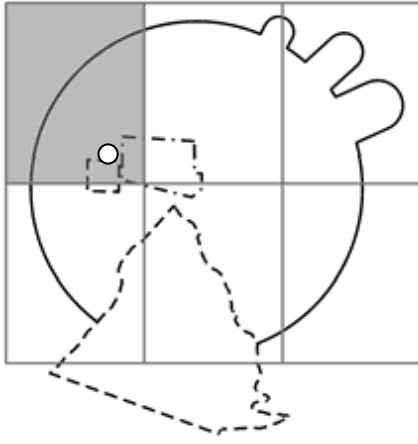
View to the South



View to the West

**Figure 2.34. Site 16167, Plan View and Photographs.**

**STATE SITE 50-10-23-16168**

STATE SITE 50-10-23-5226	
<b>Additional Site Numbers:</b> State Site BPBM	50-10-23-5226 50-Ha-G28-44
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 5.0 m by 5.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank (slope margin)	
<b>Approximate U.S.G.S. Elevation:</b> 13,004 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 014	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Altered. During the current survey two changes were noted: the first is Upright No. 6, previously recorded as fallen, is now vertical; the second is Upright No. 9 which has been moved and now supports Upright No.8.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16168 was first recorded in 1982 as a *marae* (McCoy 1982). This site consists of an upright structure (Feature 1). It is located on a flat promontory approximately 30.0 to 35.0 m east of a precipitous lava flow margin on the north side of Pu'u Pohaku. On a clear day this site affords a spectacularly commanding view of the Hāmākua Coast, the Waimea Plains, the Kohala Mountains, and the top of Haleakalā on Maui.

Architecturally, this is the most complex upright structure in the area. In plan view it is roughly U-shaped, with three adjoining but discontinuous alignments of uprights forming the sides (Figure 2.35). A total of 25 uprights (No.'s 1 through 25) were recorded (see upright data table below). Approximately 15 of the 25 uprights constitute the central alignment ("altar"), oriented east-west, and measures roughly 5.0 m long with a maximum width of 0.5 m. It is situated on the edge of a boulder outcrop; the interstices of the outcrop partially filled (0.15 to 0.50 m in height) with rock rubble to create a level "terrace" surface for the uprights. The largest upright (0.65 m high) is centrally located.

Portions of the terrace wall are constructed of stacked cobbles and small boulders. A boulder outcrop is the downslope terminus (rampart) of a large gelifluction lobe or terrace and contains a partially enclosed "court" that covers an area of roughly 6.25 sq m. The western and eastern sides of this "court" are defined by discontinuous upright alignments extending 2.0 to 2.5 m upslope from the end points of the central terrace or "altar." In the center of the "court", directly opposite the middle section of the "altar," are four uprights. Two appear to have been set end-to-end, thus, paralleling the orientation of those on the central terrace.

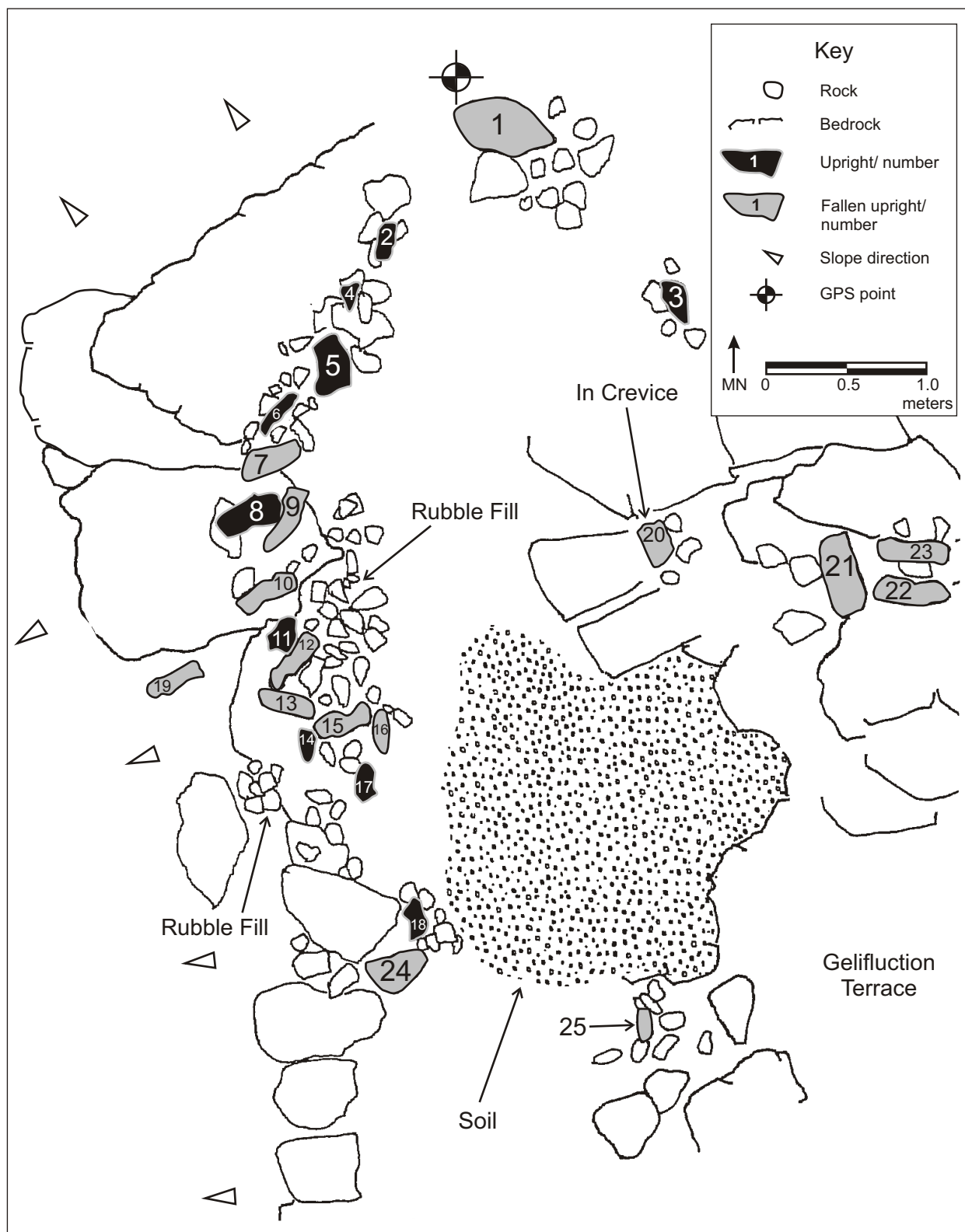


Figure 2.35. Site 16168, Plan View.



**Site 16168, Metric and Non-Metric Upright Data.**

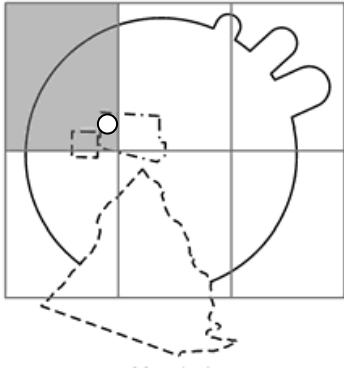
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	N	P	-	Beveled	65	43	17
1/2 <sup>E</sup>	Bedrock surface	T	D	-	Beveled	35	23	7
1/3 <sup>E</sup>	Bedrock surface	T	D	-	Pointed	35	25	15
1/4 <sup>E</sup>	Bedrock surface	T	D	-	Pointed	45	15	7
1/5 <sup>E</sup>	Bedrock surface	N	P	4	Beveled	62	26	15
1/6 <sup>E</sup>	Bedrock surface	T	D	-	Beveled	62	38	9
1/7	Bedrock surface	N	P	-	Pointed	60	21	17
1/8 <sup>E</sup>	Bedrock surface	T	S	4	Beveled	50	25	8
1/9	Bedrock surface	T	S	-	Rounded	50	14	6
1/10	Terrace	T	P	-	Flat/ Beveled	55	19	18
1/11 <sup>E</sup>	Terrace	T	P	-	Flat/ Beveled	65	28	12
1/12	Terrace	T	P	4	Beveled	50	16	5
1/13	Terrace	T	P	-	Flat/ Beveled	41	13	8
1/14 <sup>E</sup>	Terrace	T	P	-	Beveled	40	15	7
1/15	Terrace	T	I	4	Pointed	40	15	6
1/16	Terrace	T	P	-	Pointed	35	15	8
1/17 <sup>E</sup>	Terrace	T	I	-	Beveled	57	18	7
1/18 <sup>E</sup>	Terrace	N	I	-	Beveled	45	17	15
1/19	Bedrock surface	T	D	-	Pointed	51	31	9
1/20	Bedrock crack	T	D	-	Pointed	40	28	10
1/21	Bedrock crack	T	P	4	Gabled	56	26	10
1/22	Bedrock	T	P	-	Flat	43	17	7

**Site 16168, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
	surface							
1/23	Bedrock surface	N	D	-	Flat/ Beveled	25	20	11
1/24	Terrace	T	D	-	Flat/ Beveled	48	28	7
1/25	Bedrock surface	T	P	-	Flat	30	20	5

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

**STATE SITE 50-10-23-16169**

<b>Additional Site Numbers:</b> State Site 50-10-23-5227 BPBM 50-Ha-G28-45	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 1.75 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (summit)	
<b>Approximate U.S.G.S. Elevation:</b> 13,123 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 016	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Change in Upright No.2 material type.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16169, first recorded in 1982 (McCoy 1982), consists of two uprights (see upright data table below) (Feature 1) erected on the top of a narrow (15.0 to 20.0 m wide) and relatively low (4.0 to 5.0 m high) ridge that trends northwest-southeast (Figure 2.36). The uprights are set 1.66 m apart and are similarly oriented parallel to the direction of the lava flow. The northern upright (Upright No. 1) is located on the bedrock surface and braced by a few cobbles. Upright No. 2, on the south, is securely wedged into a crack in the bedrock.

**Site 16169 Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	N	P	-	Beveled	71	30	21
1/2 <sup>E</sup>	Bedrock crack	T	D	4	Pointed	62	28	12

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

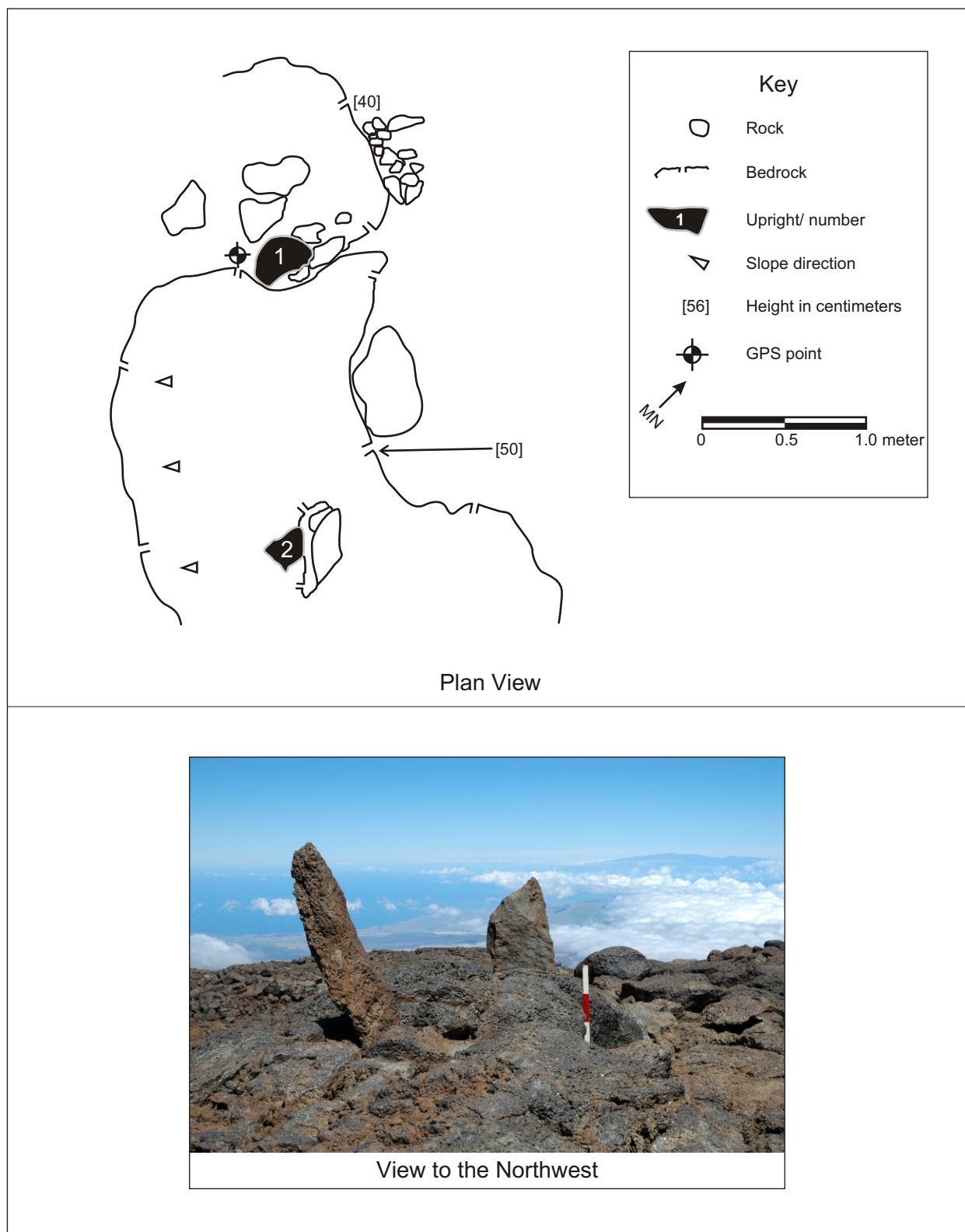
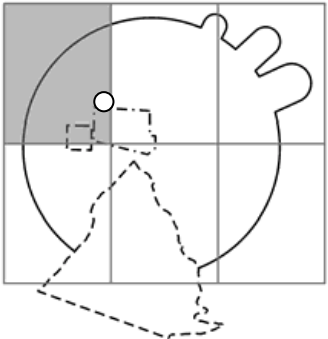


Figure 2.36. Site 16169, Plan View and Photograph.



**STATE SITE 50-10-23-16170**

<b>Additional Site Numbers:</b> State Site 50-10-23-5228 BPBM 50-Ha-G28-46	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 4.5 m by 2.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 13,033 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 08	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16170, first recorded in 1982 (McCoy 1982), is one of three loosely clustered sites located on the western side of an ice-contact lava flow margin (Porter 1979a). The site consists of two oval-shaped mounds with uprights (Features 1 and 2) (Figure 2.37).

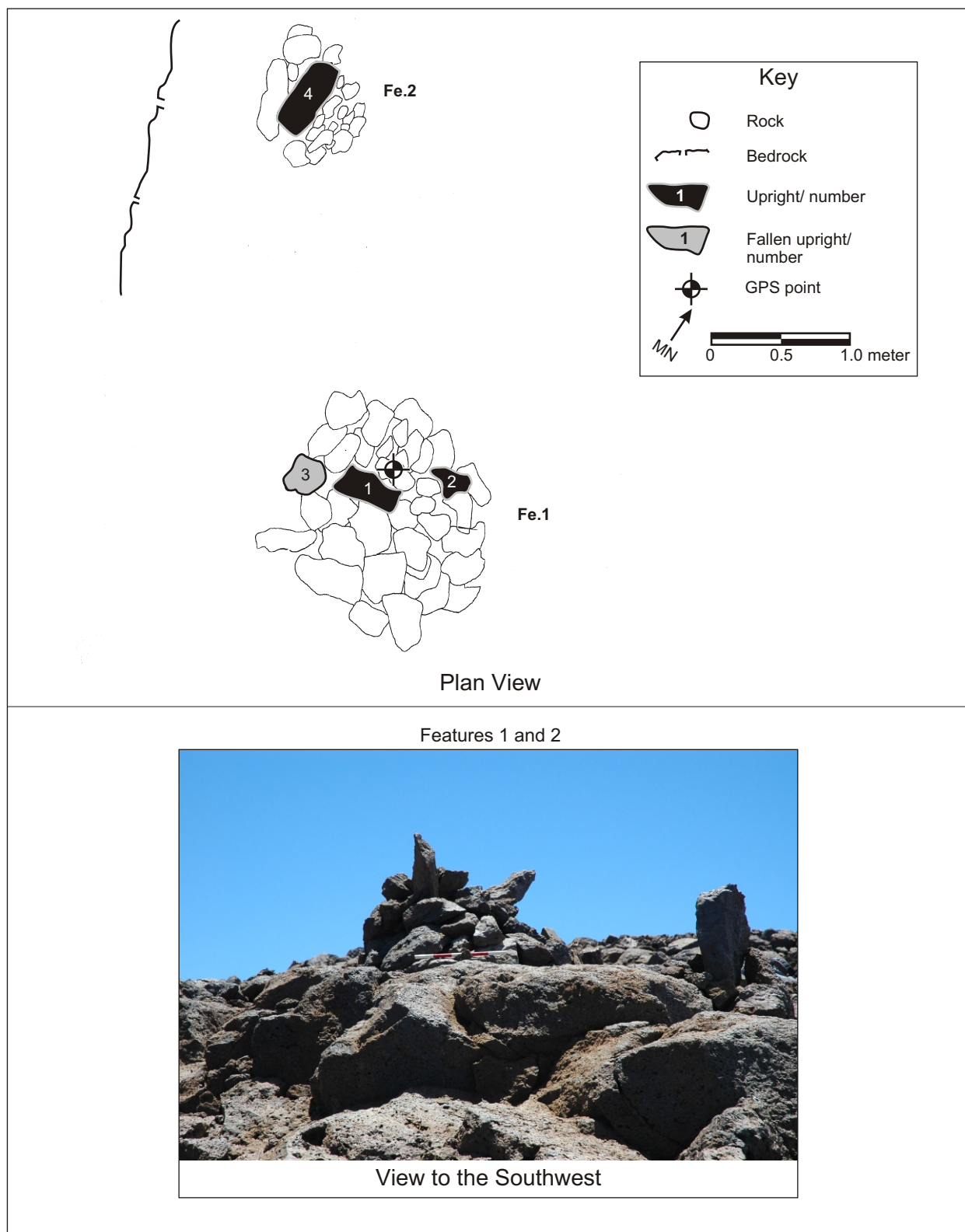
Feature 1, the smaller of the two mounds, is 0.6 m by 0.4 m at the base and 0.3 m high with a single upright (No. 1 in upright data table below) in the center.

Feature 2, located 2.2 m south, is a substantially larger mound with basal dimensions of 1.8 m by 1.3 m and 0.8 m high. It supports a row of three uprights (No.'s 2 through 4 in upright data table below) aligned in an east-west direction, perpendicular to the long axis of the ridge and, perhaps more significantly, to the long axis of both mounds. And, because of their close proximity, it can be inferred that they are functionally interrelated. When viewed as a whole, the ground plan of this site is like many other sites comprised of a single row of uprights and an off-set upright.

**Site 16170, Metric and Non-Metric Upright Data**

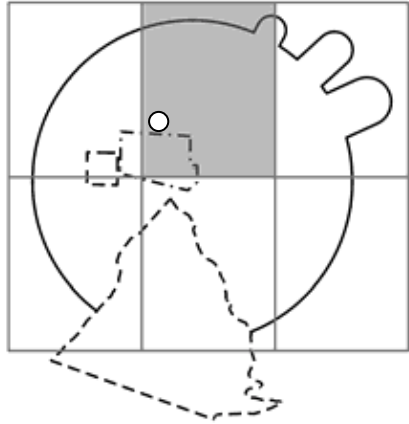
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	I	-	Beveled	66	25	15
2/2 <sup>E</sup>	Mound	T	P	-	Beveled	58	22	11
2/3	Mound	T	P	-	Beveled	40	20	12
2/4 <sup>E</sup>	Bedrock surface	T	P	-	Round	40	30	16

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.37. Site 16170, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-16173**

<b>Additional Site Numbers:</b> State Site 50-10-23-5231 BPBM 50-Ha-G28-49	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 5.0 m by 4.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 12,897 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090119a	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Feature numbers reassigned and new upright numbers added.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16173, first recorded in 1982 (McCoy 1982), is located on the northeast margin of a glacially scoured and unusually flat-surfaced ridge top (Figure 2.38). The description of this site in the 1982 survey report (McCoy 1982) refers to a total of five uprights, each of which was given a feature designation at that time. When the site was re-examined in 1995, it was determined that there were seven uprights (see upright data table below).

In 2005, it was determined that Site 16173 is a complex of four upright structures (Features 1 through 4). The ground plan of this site is difficult to determine because so many of the upright slabs are fallen and broken. It appears that there was a row of uprights in the bedrock crack and dispersed uprights to either side. The material source of the uprights and bracing cobbles is from the lower edges of the ridge, which is a massive jumble of exfoliating platy slabs.

Feature 1 consists of a rock pile, approximately 1.0 m in diameter, with a single upright (No. 4- Figure 2.39).

Feature 2 is located approximately 1.0 m south of Feature 1 and consists of a natural crack in the bedrock and four uprights (No.'s 1, 2, 6, and 7 in upright table below). Upright No. 1 is situated along the east end of the crack and is erect but broken, leaving the base *in situ*. Upright No.'s 2 and 7 are fallen and also broken with the base of Upright No. 7 still *in situ*. Upright No. 6 abuts Upright No. 2 and was originally thought to be a bracing stone in 1995.



Figure 2.38. Site 16173, Features 1 through 4, Plan View.

View to North/Northwest



Figure 2.39. Photograph Site 16173, Feature 1 with Upright No. 4.

Feature 3 is located approximately 0.4 m south of Feature 2 and consists of a single, fallen, upright (No. 3). No support cobbles were observed with the upright.

Feature 4 is located 1.0 m west of Feature 1 and consists of rock pile measuring 0.6 m in diameter with a single, fallen, upright (No. 5).

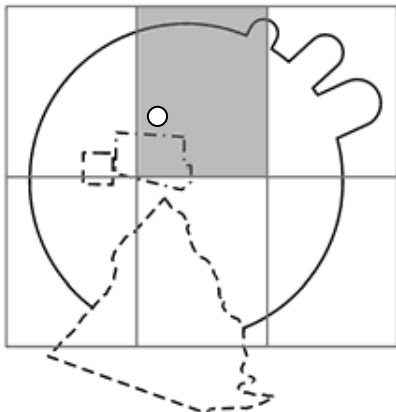
Site 16173, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/4 <sup>E</sup>	Mound	N	D	-	Pointed	66	17	16
2/1 <sup>E</sup>	Bedrock crack	T	S	-	Flat	88	32	9
2/2	Bedrock crack	T	S	1	Beveled	74	25	5
2/6	Bedrock crack	T	I	1	Pointed	61	18	5
2/7	Bedrock crack	N	D	-	Flat	62	10	6
3/3	Bedrock surface	T	C	4	Gabled	79	41	6
4/5	Mound	N	P	1	Pointed	56	14	13

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**STATE SITE 50-10-23-16174**

<b>Additional Site Numbers:</b> State Site 50-10-23-5232 BPBM 50-Ha-G28-50	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 11.0 m by 7.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge crest (summit)	
<b>Approximate U.S.G.S. Elevation:</b> 12,933 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090223a	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Altered. An upright has been erected on top of the large boulder (Feature 1).	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16174, first recorded in 1982 (McCoy 1982), was described as a 1.0 m high boulder with associated tabular slabs located on a flat shelf immediately below the crest of a ridge. The site is a prominent landmark and clearly visible from Sites 16173, 16175, 16176, and 16177 (Figures 2.40 and 2.41). When the site was first described there were two rocks piled on top of the boulder, which did not appear to have supported an upright, however. When the site was re-examined in 1995, a total of eight uprights were recorded. The current survey identified eight uprights within four features. The stones used for the uprights were brought to this site from a source area below the boulder.



**Figure 2.40. Photograph of Site 16174.**

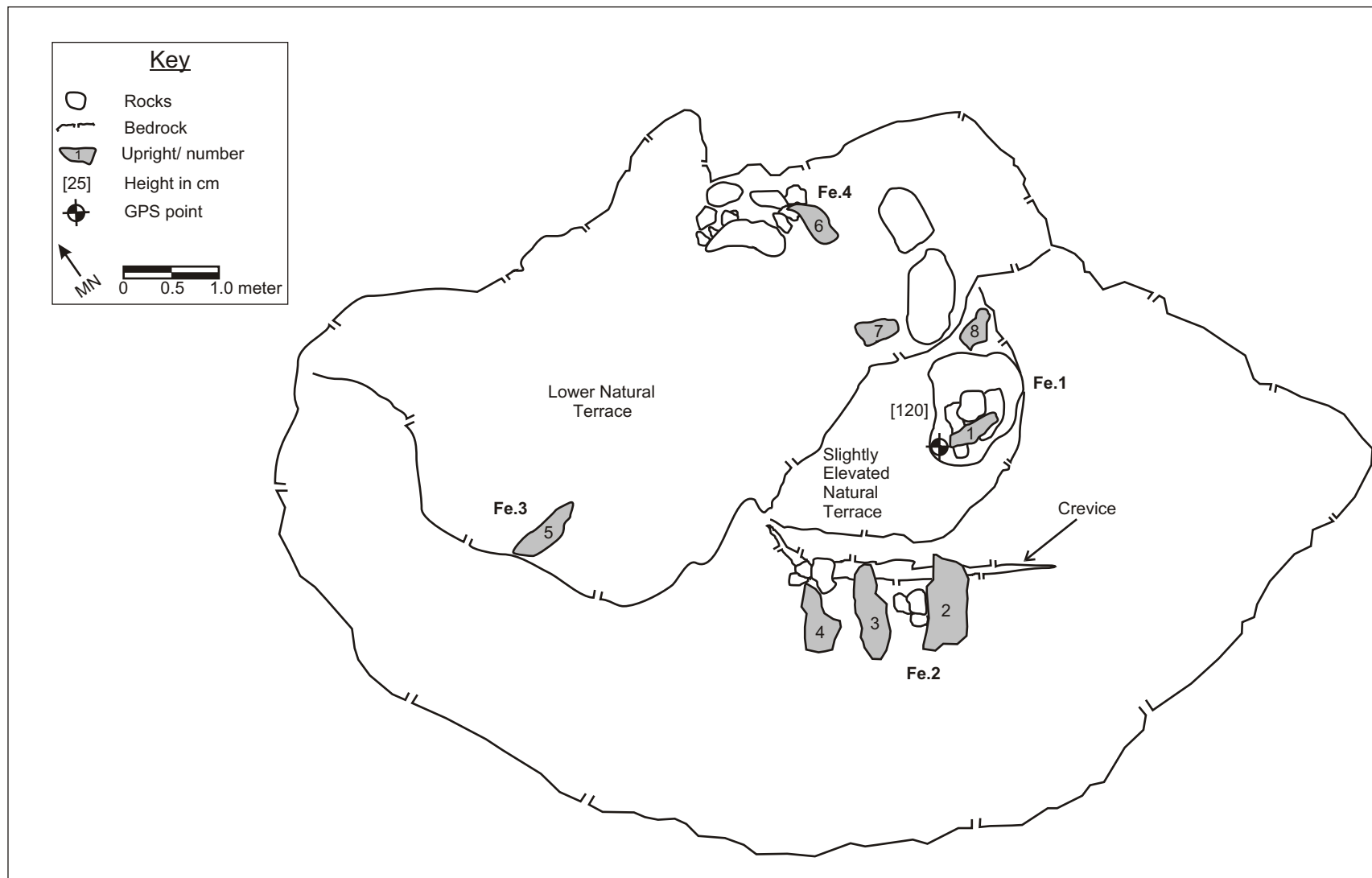


Figure 2.41. Site 16174, Features 1 through 4, Plan View.

Feature 1 consists of the 1.0 m high boulder with an upright (No. 1 in upright table below) and two support cobbles. Two additional (possible) uprights (No.'s 7 and 8), one fallen and one broken, are located adjacent to the boulder.

Feature 2 is located approximately 1.0 m southeast of Feature 1 and consists of a cluster of three fallen uprights (No.'s 2 through 4), free of any probable base or support. A crack, approximately 0.2 m wide, in the outcrop is located at the base of the fallen uprights.

Feature 3 is located approximately 4.0 m west of Feature 1 and consists of a single fallen upright (No. 5) and several support cobbles.

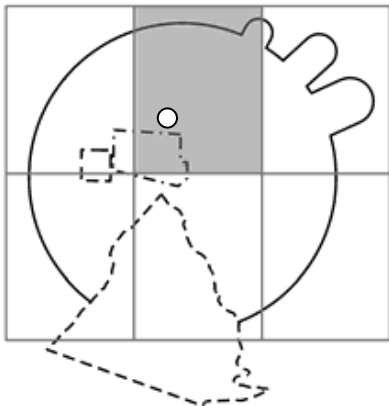
Feature 4 is located approximately 2.0 m north of Feature 1 and consists of a single fallen upright (No. 6) with several support cobbles surrounding the upright.

#### Site 16174, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Boulder	T	D	-	Pointed	44	18	10
<b>1/7</b>	<b>Bedrock surface</b>	<b>T</b>	<b>S</b>	-	<b>Beveled</b>	<b>46</b>	<b>23</b>	<b>6</b>
<b>1/8</b>	<b>Bedrock surface</b>	<b>T</b>	<b>S</b>	-	<b>Pointed</b>	<b>45</b>	<b>19</b>	<b>4</b>
2/2	Bedrock crack	T	P	4	Flat	74	34	11
2/3	Bedrock crack	T	C	4	Flat	80	30	8
2/4	Bedrock crack	T	C	4	Beveled/ mesial notched	58	25	13
3/5	Bedrock surface	T	P	4	Gabled	83	23	11
4/6	Bedrock surface	T	I	4	Pointed	60	25	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

**STATE SITE 50-10-23-16175**

<b>Additional Site Numbers:</b> State Site 50-10-23-5233 BPBM 50-Ha-G28-51	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 20.0 m by 5.7 m	
<b>Number of Features:</b> 6	
<b>Topographic Location:</b> Ridge crest (mid-elevation)	
<b>Approximate U.S.G.S. Elevation:</b> 12,922 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 026	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Originally described as five poorly preserved cairns. Current survey indicates that the cairns are actually rock piles.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16175, first recorded in 1982 (McCoy 1982), is a complex of six sites, all uprights (Features 1 through 6). It is located on the crest of a 3.0 to 4.0 m wide and approximately 10.0 m high, steep-sided ridge. It was originally described as a cluster of five poorly preserved cairns (Features 1, 2, and 4 through 6) with one to two uprights each and one isolated upright stone. During the current survey the “cairns” were reclassified as rock piles and naturally occurring lava domes. In plan view, the cluster forms a slightly curving arc roughly 20.0 m long, with each feature spaced at intervals varying between 3.7 and 5.7 m. Of the five, possibly six, uprights only one was found in an erect, or upright, position (see upright data table below). All uprights are located on bedrock (Figure 2.42).

Feature 1 is located on a lava dome that is jointed (e.g., plates breaking off in all directions) and consists of a low piled rock with one (No. 1), possibly two, uprights present. The rock pile is 2.0 m by 1.5 m and contains one fallen upright.

Feature 2 is located 4.5 m north of Feature 1 and consists of a rock pile (1.0 m by 1.0 m) with a fallen upright (No. 2) 0.5 m north and downslope of the mound.

Feature 3 is an isolated upright (No. 3) located below and west of Feature 2. No support cobbles were observed with the upright. It is possible Feature 3 is associated with Feature 2.

Feature 4 is located 4.2 m north of Feature 3 and consists of one erect upright (No. 4) supported by two cobbles.

Feature 5 is located 4.0 m southeast of Feature 4 and consists of a rock pile, approximately 1.0 m by 1.0 m, with a possible upright (No. 5) located to the east.

Feature 6 is located 3.7 m north of Feature 5 and consists of a scattering of cobbles with two possible uprights downslope (No.'s 6 and 7 in upright data table below).

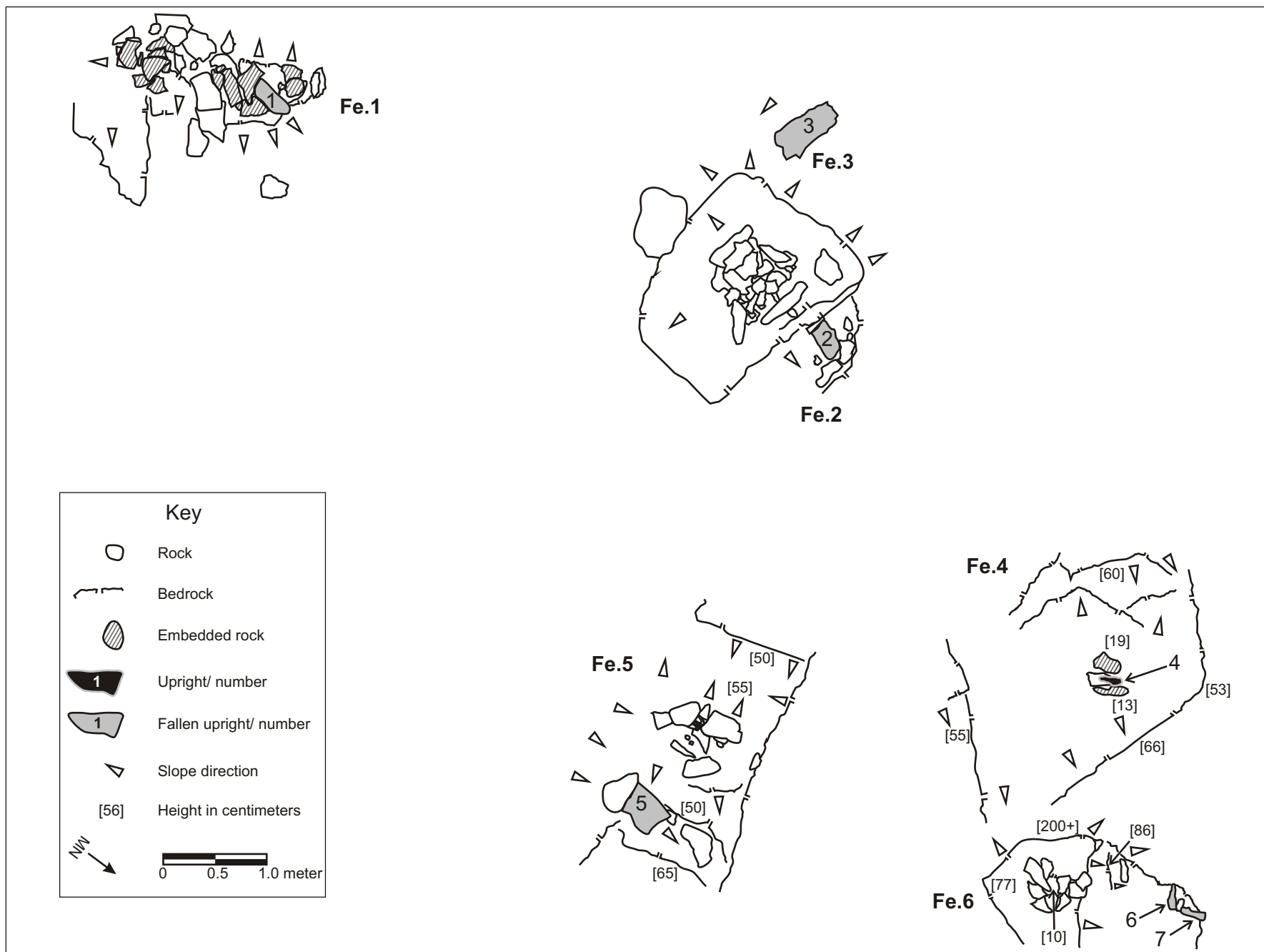


Figure 2.42. Site 16175, Features 1 through 6, Plan View.

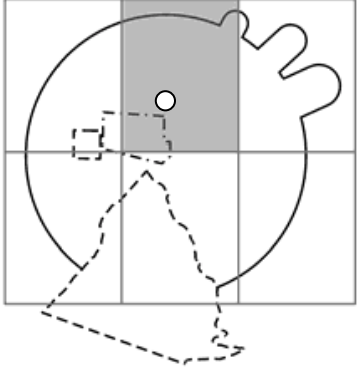


**Site 16175 Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	D	-	Pointed	46	20	7
2/2	Bedrock surface	T	P	-	Flat	95	25	10
3/3	Bedrock surface	T	P	-	Flat	50	20	6
4/4 <sup>E</sup>	Bedrock surface	N	D	-	Beveled	53	31	12
5/5	Bedrock surface	T	P	-	Flat/ mesial notched	60	34	7
6/6	Bedrock surface	T	S	-	Flat/ Beveled	58	15	9
6/7	Bedrock surface	T	S	4	Gabled	50	20	5

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

# **STATE SITE 50-10-23-16176**

<b>Additional Site Numbers:</b> State Site 50-10-23-5234 BPBM 50-Ha-G28-52	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 1.1 m by 1.1 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (summit)	
<b>Approximate U.S.G.S. Elevation:</b> 12,943 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 037	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Change in the number of uprights.	
<b>Subsequent Site Visits:</b> 1995, 2005	

## **DESCRIPTION:**

Site 16176, first recorded in 1982 (McCoy 1982), is a small shrine located on the crest of a narrow ridge. Originally the site was reported to have three uprights, but upon further investigation it appears the third upright is broken piece of one of the other two uprights.

Site 16176 consists of a rock mound with two fallen uprights (No.'s 1 and 2 in upright data table below; Figure 2.43). The rock mound (Feature 1), placed along the eastern edge of a rock outcrop, measures 1.1 m<sup>2</sup> and consists of approximately 30 cobble rocks (vesicular and coarse-grained lava). Three pieces from one of the uprights were found on a rock ledge immediately below the eastern edge of the rock mound.

The source material used for the uprights is locally abundant on the lower edges of the ridge. The position of the two uprights suggests that they were deliberately removed from their original settings on the pavement, rather than through a process of naturally induced collapse.

## **Site 16176 Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T	P	-	Pointed	103	32	4
1/2	Mound	T	I	3	Pointed	80	18	15

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

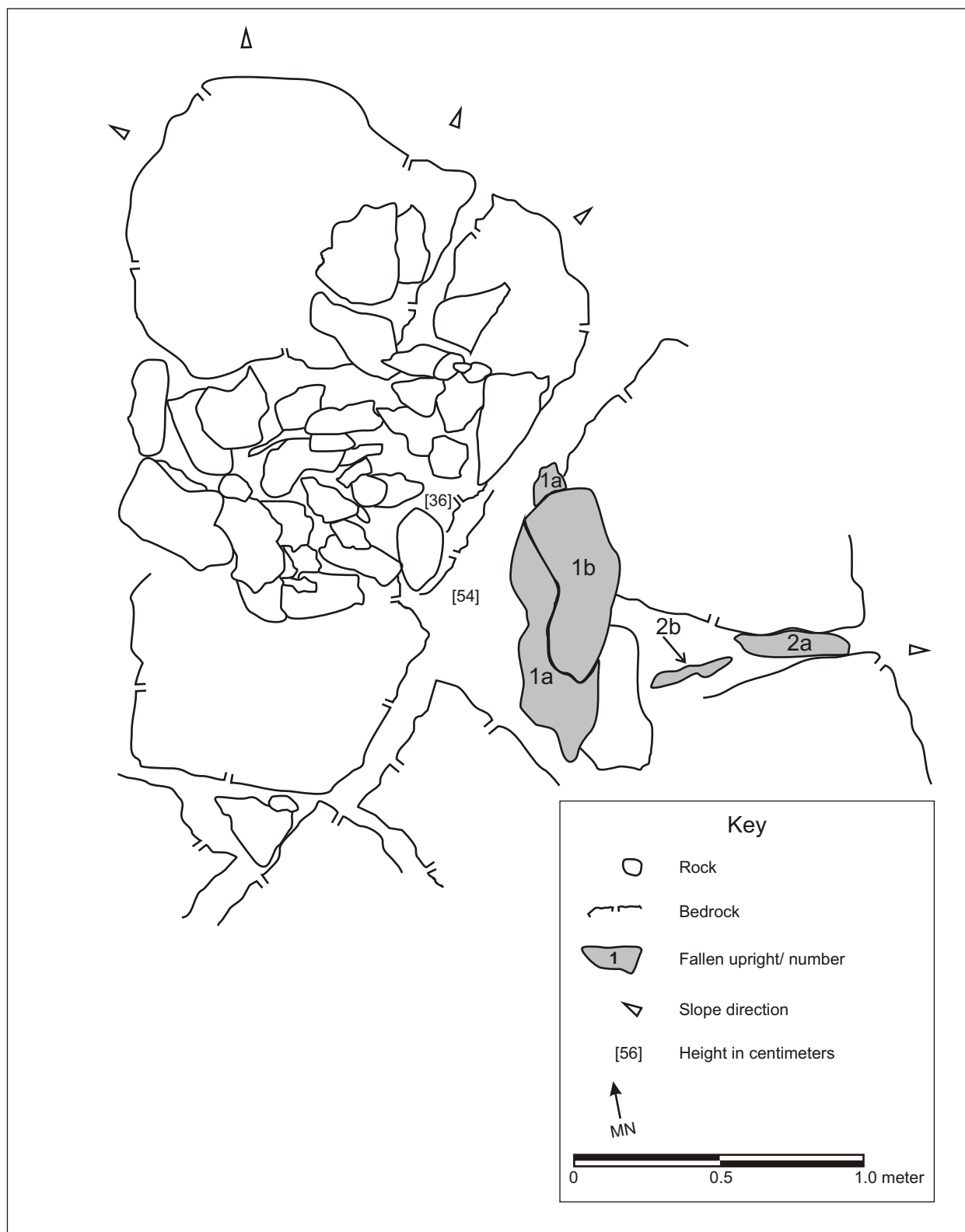
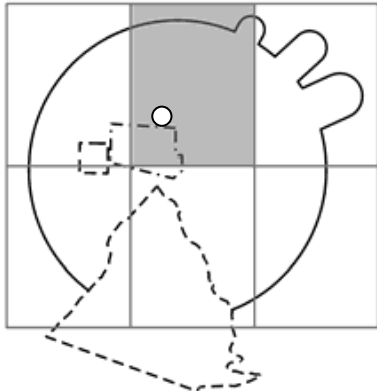


Figure 2.43. Site 16176, Plan View.

**STATE SITE 50-10-23-16177**

<b>Additional Site Numbers:</b> State Site 50-10-23-5235 BPBM 50-Ha-G28-53 Temporary T-07	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 1.2 m by 1.1 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest (mid-elevation)	
<b>Approximate U.S.G.S. Elevation:</b> 13,019 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090221a	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Platform designation changed to terrace.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16177 consists of two features, a terrace and adjacent pavement (Feature 1) and an upright (Feature 2). In 1982, it was described as a relatively isolated shrine consisting of three and possibly more fallen uprights on a small rectangular platform and one upright on an adjacent pavement (McCoy 1982). The site is located on top of a low rock outcrop bordering the western side of a relatively large overhang (Figure 2.44).

Feature 1, a terrace with an adjacent pavement are one to two courses high (0.1 to 0.2 m high), and together measure 2.3 m by 1.3 m. Four fallen uprights are situated on the terrace (No.'s 1 through 4 in upright table below).

Feature 2 is a single upright (No. 5) located on the adjacent pavement of Feature 1 (see upright data table below).

The overhang measures 5.0 m across at the northerly facing opening, 3.5 m deep, and 1.25 m in maximum height. No cultural material was observed on the surface inside the overhang. A small test probe (Test Unit 1 - 0.25 m<sup>2</sup>) was excavated at the opening during the 2005 survey. No cultural materials or features were observed in this excavation.

**Site 16177, Metric and Non-Metric Upright Data.**

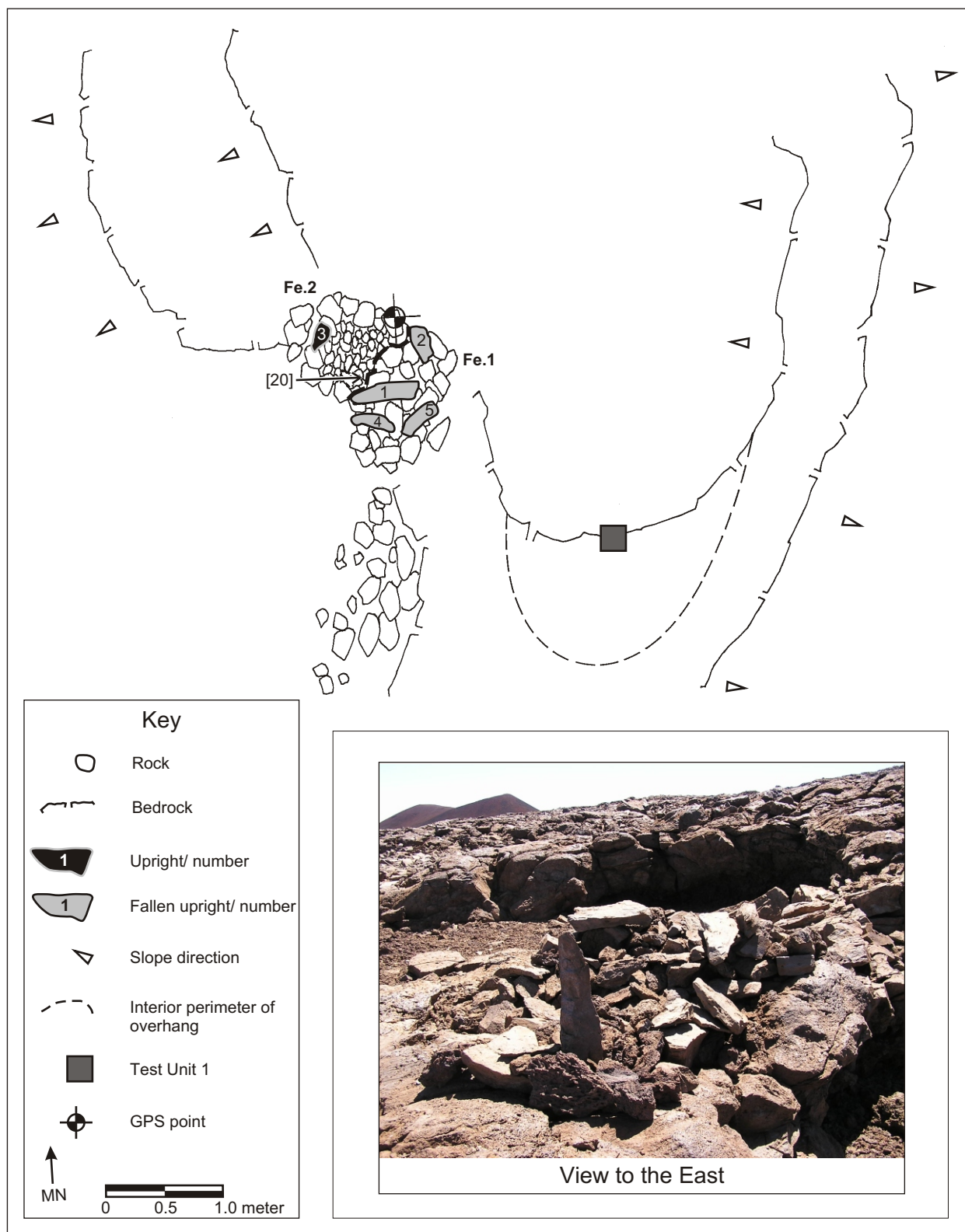
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Terrace	T	S	-	Pointed	65	22	5
1/2	Terrace	T	S	4	Gabled	50	25	10
1/3	Terrace	N	S	-	Mesial	34	16	11

**Site 16177, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
					notched			
1/4	Bedrock surface	T	S	3	Flat	59	30	12
2/5 <sup>E</sup>	Bedrock surface	T	D	-	Pointed	60	18	18

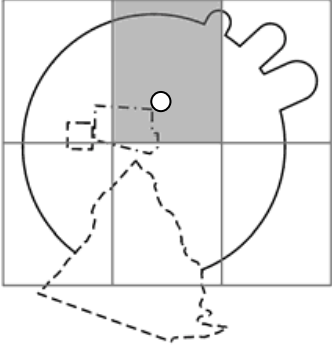
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright





**Figure 2.44. Site 16177, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-16179**

<b>Additional Site Numbers:</b> State Site 50-10-23-5237 BPBM 50-Ha-G28-55	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (summit)	
<b>Approximate U.S.G.S. Elevation:</b> 12,994 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 034	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

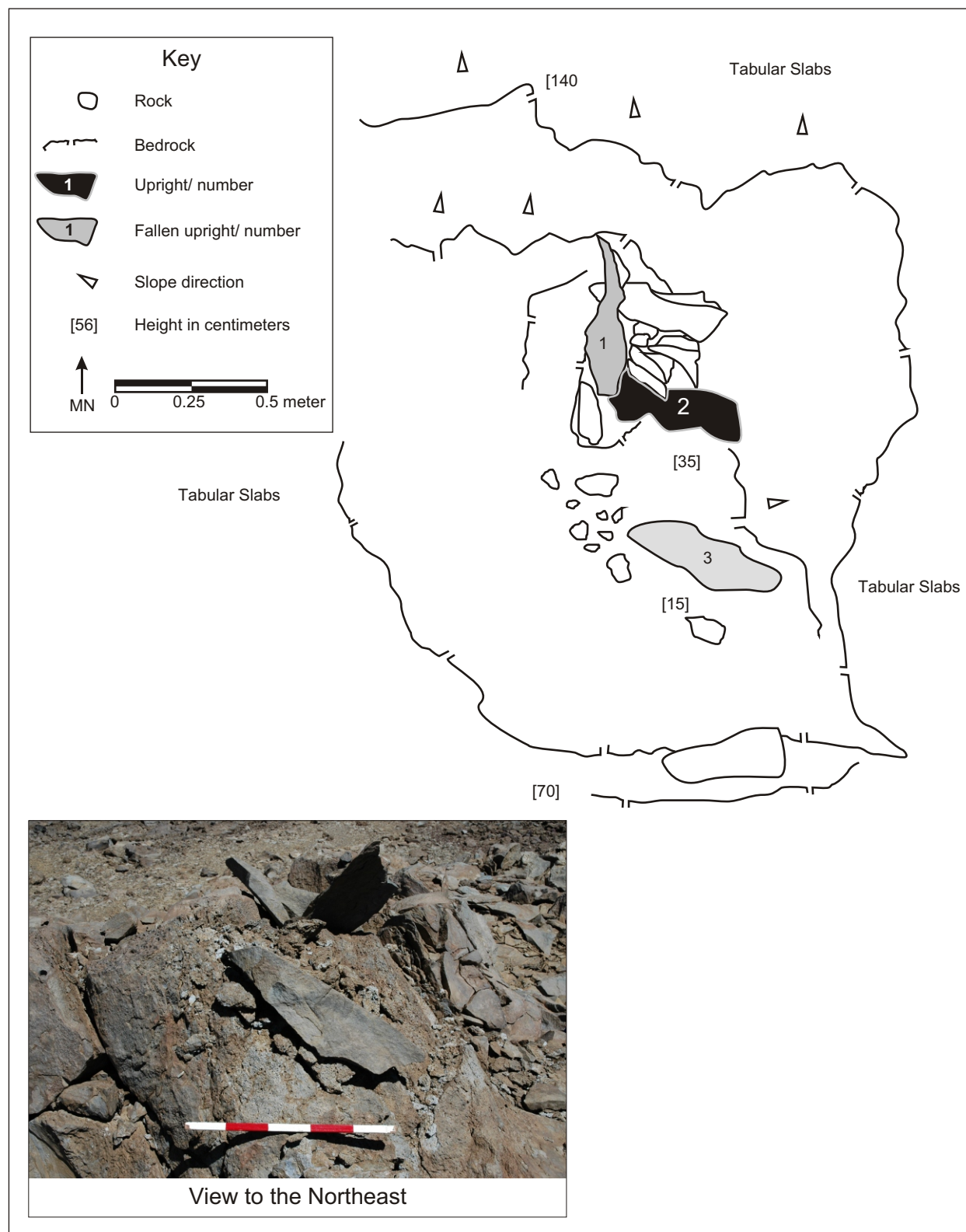
Site 16179 was first recorded in 1982 (McCoy 1982) as a shrine with three uprights, and is located on the summit of a small lava outcrop roughly 200 m downslope of Site 16178. The outcrop is a physically discrete body of lava, measuring approximately 25.0 m by 15.0 m and up to 6.0 m high.

Upright No.'s 1 and 2 (Figure 2.45; see upright data table below) of this site are in a semi-erect position (leaning) within a slight depression on top of the outcrop. Associated with the uprights are two support cobbles. Upright No. 3 is lying flat on the ground, just outside of the southern rim of the depression.

**Site 16179, Metric and Non-Metric Upright Data.**

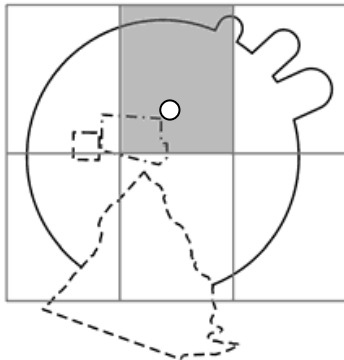
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	S	-	Pointed	51	19	9
1/2 <sup>E</sup>	Bedrock surface	T	D	4	Beveled	61	25	4
1/3	Bedrock surface	T	P	4	Beveled	60	18	14

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.45. Site 16179, Plan View and Photograph.**

# **STATE SITE 50-10-23-16180**

<b>Additional Site Numbers:</b> State Site 50-10-23-5238 BPBM 50-Ha-G28-56	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 1.2 m by 1.2 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (mid-elevation)	
<b>Approximate U.S.G.S. Elevation:</b> 12,984 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 035	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 1995, 2005	

## **DESCRIPTION:**

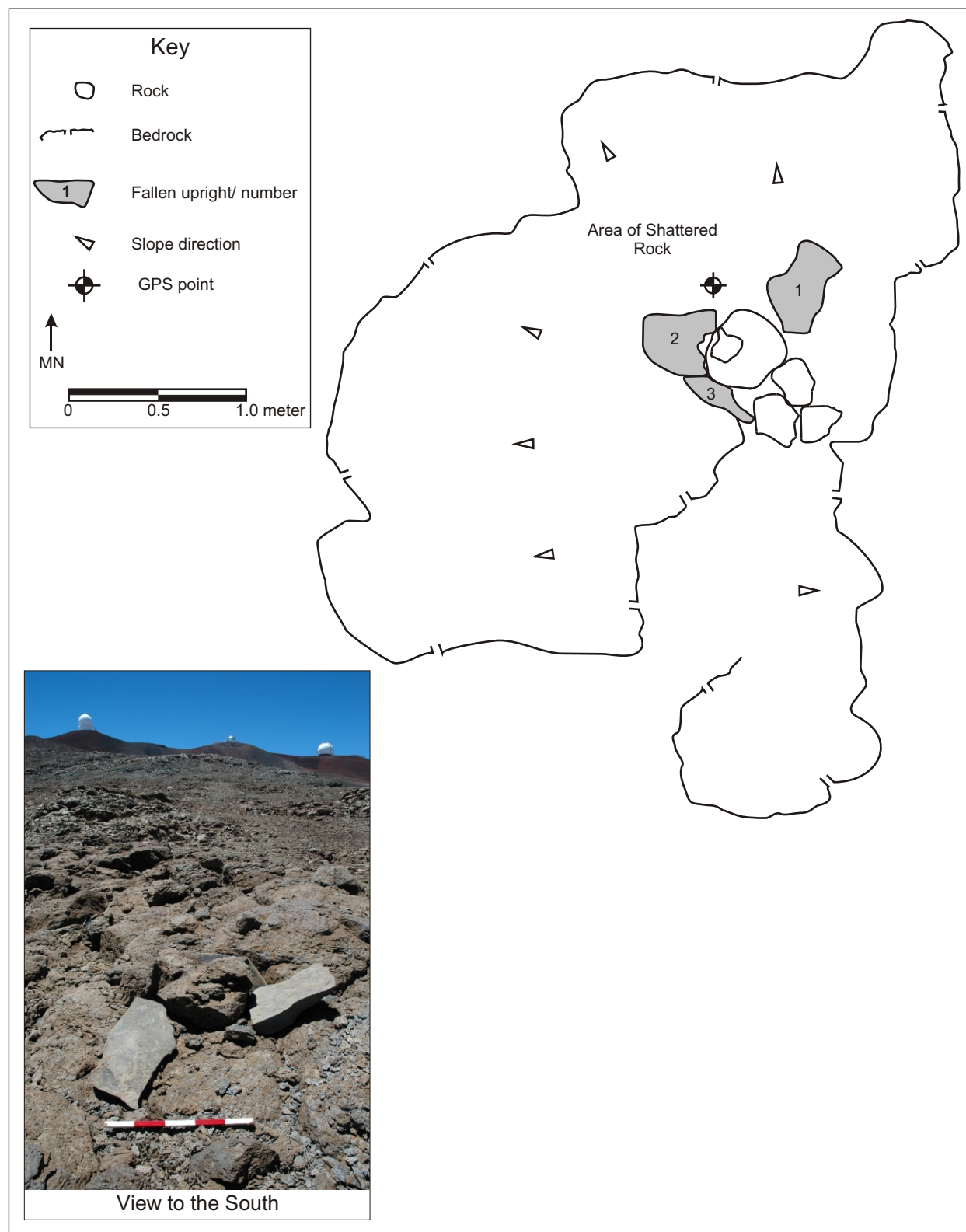
Site 16180, first recorded in 1982 (McCoy 1982), consists of several uprights (Feature 1; see upright table below). It is located roughly 65.0 m north and downslope of Site 16179 (Figure 2.46). The site was described as a small shrine with three uprights, all in a fallen position adjacent to a boulder, on top of which were found several small stones. The boulder measures 0.45 by 0.40 m and 0.15 m high.

The stones on the boulder originally suggested that it was the setting for one or perhaps all three uprights. A more probable interpretation, based on re-examination of the site in 1995, is that the slabs were propped up against the boulder, perhaps in a circular pattern.

## **Site 16180, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	S	4	Pointed	57	28	14
1/2	Bedrock surface	T	D	4	Flat	40	33	9
1/3	Bedrock surface	T	I	-	Beveled	51	15	7

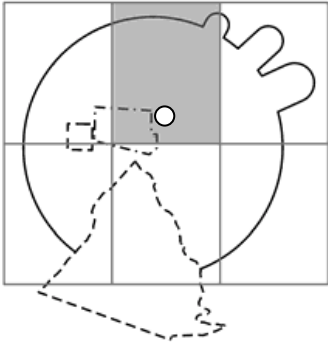
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.46. Site 16180, Plan View and Photograph.**



**STATE SITE 50-10-23-16182**

<b>Additional Site Numbers:</b> State Site 50-10-23-5240 BPBM 50-Ha-G28-58	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 9.0 m by 6.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Ridge crest (toe) / gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 13,085 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 040	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16182, first recorded in 1982 (McCoy 1982), consists of three sets of uprights (Features 1, 2, and 3). This site is located directly downslope of Site 16181. In 1982 the site was described as a single upright, that together with the one on Site 16181, were inferred to have marked the course of an unnamed trail between Pu`u Mahoe and the summit that appears on some of the earlier versions of United States Geological Survey maps of the Mauna Kea Quadrangle.

The site was re-examined in 1995 and again in 2005, when it was determined that a total of five uprights (No.'s 1 through 5 in upright data table below) arranged in three spatially discrete groups were present (Figure 2.47). Each group was given a feature designation.

Feature 1 is the single erect upright (No. 1) that was seen in 1982. It is the largest of the five uprights.

Feature 2 is a rubble-filled area with two uprights (No.'s 2 and 3), one erect and one fallen, located on the edge of a rock outcrop downslope of Feature 1. The surface is crudely paved with cobbles.

Feature 3 also consists of rubble fill and has two uprights (No.'s 4 and 5), one erect and one fallen.

**Site 16182, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	P	4	Beveled	88	60	24
2/2 <sup>E</sup>	Bedrock surface	T	P	4	Flat	50	26	10
2/3	Mound	T	P	-	Flat/	66	30	20

**Site 16182, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
					Gabled			
3/4 <sup>E</sup>	Bedrock surface	N	P	-	Pointed	56	24	15
3/5	Mound	N	P	-	Beveled	47	30	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

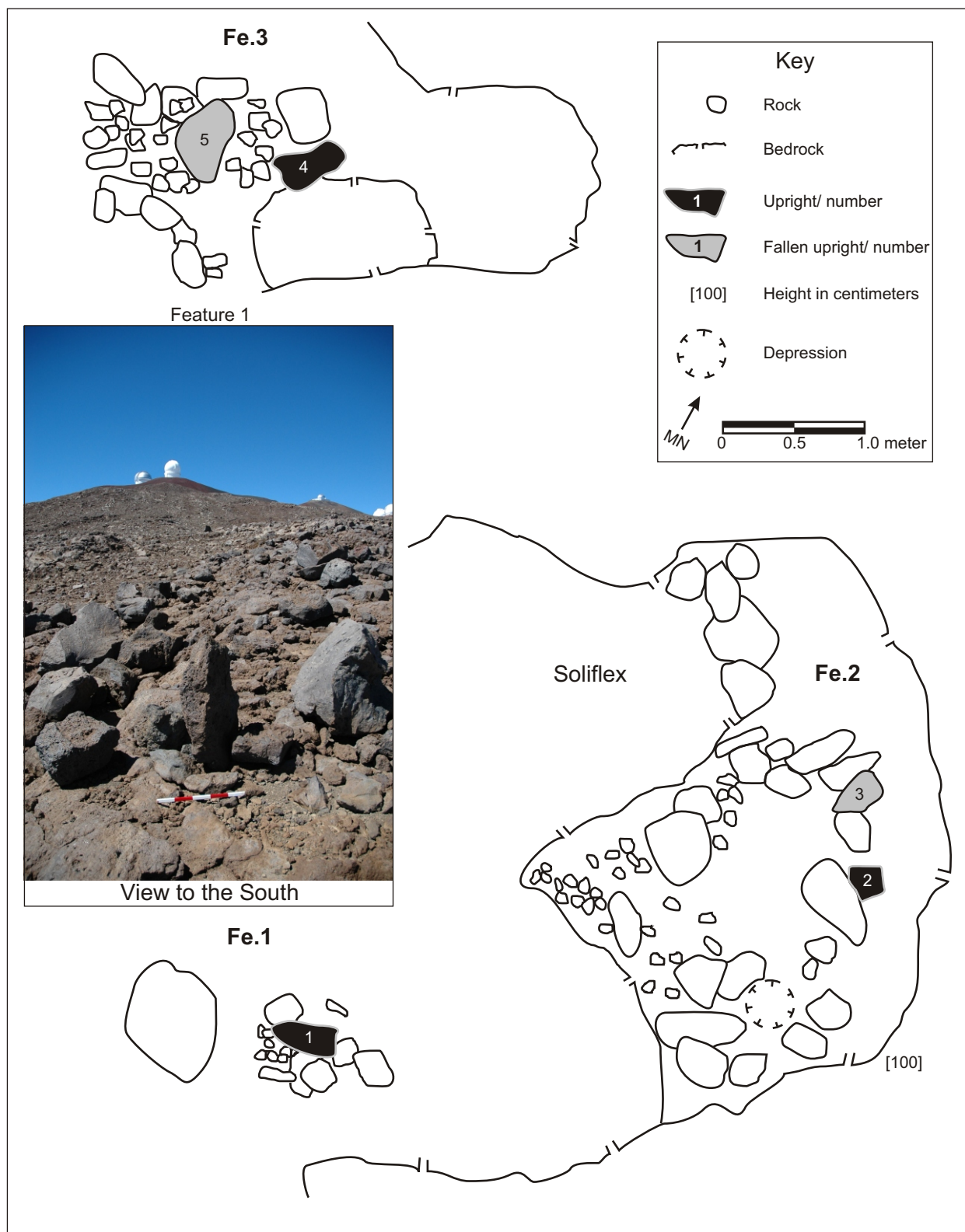
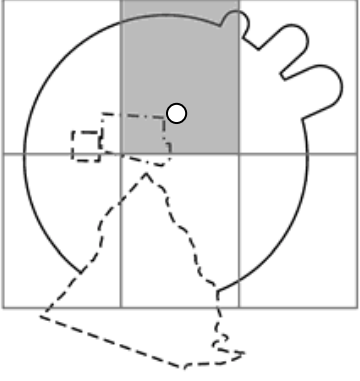


Figure 2.47. Site 16182, Features 1 through 3, Plan View and Photograph.

**STATE SITE 50-10-23-16184**

<b>Additional Site Numbers:</b> State Site 50-10-23-5242 BPBM 50-Ha-G28-60	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.9 m by 1.8 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (summit)	
<b>Approximate U.S.G.S. Elevation:</b> 12,964 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090623a	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16184, first recorded in 1982 (McCoy 1982), consists of a large shrine with a total of 24 uprights (Feature 1). The site, which was earlier described as a *marae* with a total of 22 uprights (McCoy 1982), covers roughly 15.0 m<sup>2</sup>, and occupies virtually the whole top of the small, 2.0 to 3.0 m high, isolated ridge (Figures 2.48 and 2.49). Some changes to the 1982 sketch map were made in 1995, when some of the original uprights were deleted and several others added. Two isolated uprights (No.'s 21 and 22 in upright data table below) were identified on the northern end of the site in 1995, and one possible upright (No. 23) was identified below the ridge top on the southern end. Further minor changes to the map were made during the current survey.

In plan view, the site is U-shaped with two parallel alignments of uprights, approximately 2.7 m apart and oriented north-south, forming the western and eastern sides. On the south edge of the ridge is a single upright (No. 11), located slightly off-center, in somewhat closer proximity to the western alignment. In addition to its central position on the south side of the shrine, it is noteworthy that it is one of only three uprights with a triangular cross-section, all three of which are located in the southwestern corner. The other uprights are tabular slabs.

The western alignment is 5.4 m long with 11 uprights, excluding one on the southern end that is more properly situated on what was probably the court (see Figure 2.49). A total of eight uprights are positioned along the eastern alignment. Several of these uprights are considerably smaller than any in the western alignment.

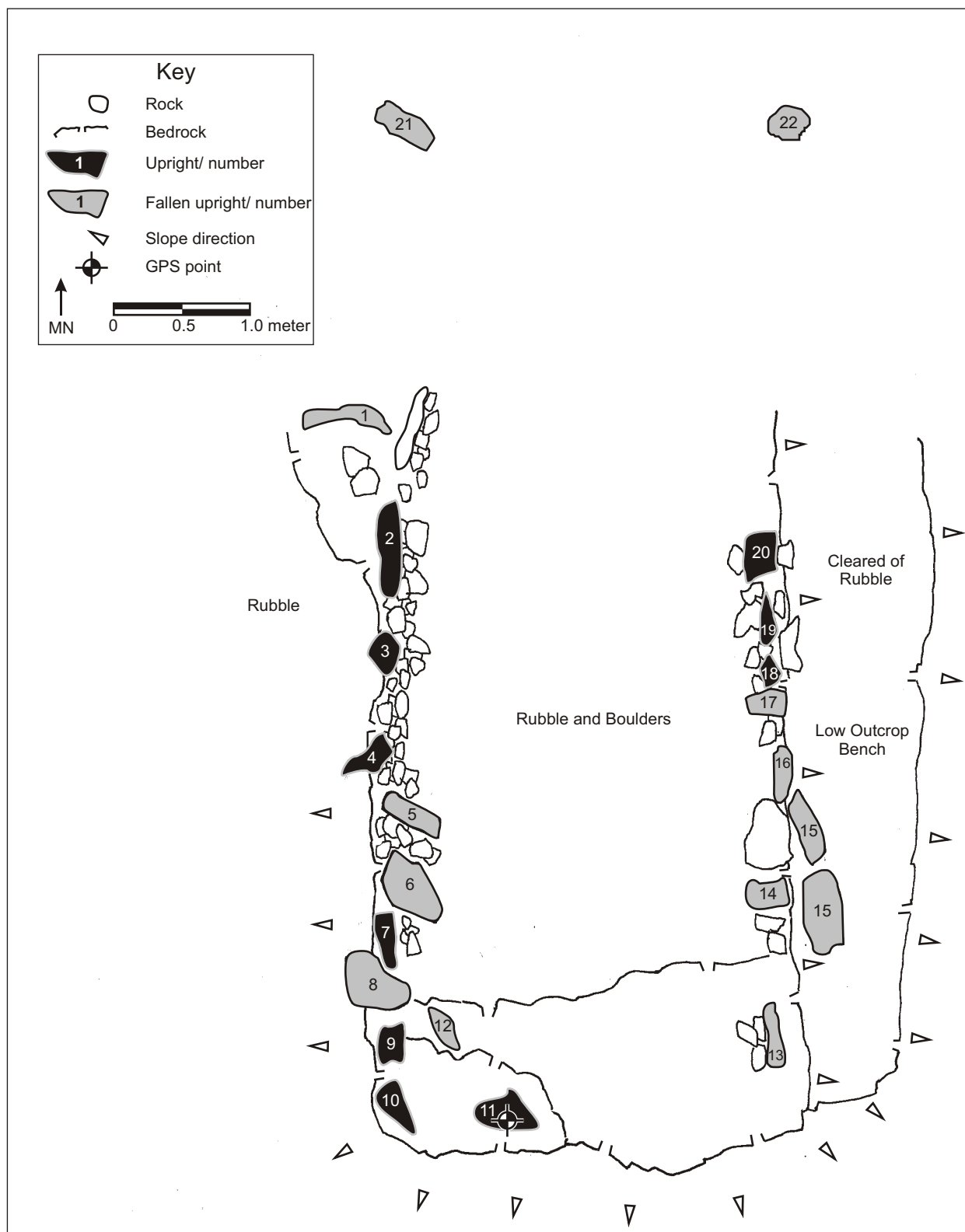


Figure 2.48. Site 16184, Plan View.



**Site 16184, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock Surface	T	I	-	Crescent shaped/Flat	49	13	5
1/2 <sup>E</sup>	Mound	T	I	-	Mesial notched	71	56	7
1/3 <sup>E</sup>	Mound	T	C	5	Beveled	50	22	5
1/4 <sup>E</sup>	Mound	T	I	-	Crescent shaped/ Pointed	50	17	7
1/5	Mound	T	P	-	Beveled	46	11	10
1/6	Mound	T	D	-	Crescent shaped/ Pointed	46	28	5
1/7 <sup>E</sup>	Mound	T	I	4	Beveled	56	22	7
1/8	Bedrock surface	T	S	4	Flat	54	47	7
1/9 <sup>E</sup>	Mound	T	S	-	Beveled	52	28	17
1/10 <sup>E</sup>	Bedrock surface	T	C	-	Flat	47	40	10
1/11 <sup>E</sup>	Bedrock crack	T	P	-	Flat	56	28	10
1/12	Bedrock surface	T	D	-	Gabled	40	15	9
1/13	Bedrock surface	T	P	-	Beveled	38	40	6
1/14	Bedrock surface	T	S	-	Gabled	32	26	6
1/15	Bedrock surface	T	P	3	Flat	54	42	13
1/16	Bedrock surface	T	C	-	Gabled	55	47	10
1/17	Bedrock surface	N	S	-	Flat	36	16	13
1/18 <sup>E</sup>	Bedrock surface	N	C	1	Pointed	43	22	15
1/19 <sup>E</sup>	Bedrock surface	T	P	3	Flat	42	23	6
1/20 <sup>E</sup>	Bedrock	T	P	2	Pointed/	40	30	12

**Site 16184, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
	surface				Beveled			
1/21	Mound	T	S	3	Beveled	59	19	8
1/22	Bedrock surface	T	S	3	Pointed	51	24	8

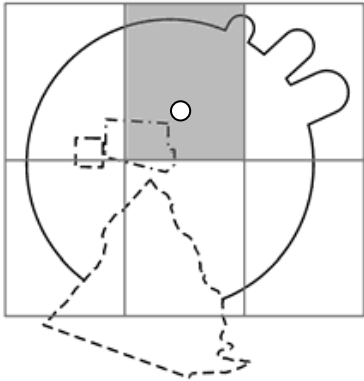
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

View to Northeast



**Figure 2.49. Photograph of Sites 16184 (left side) and 21202 (right side).**

# **STATE SITE 50-10-23-16185**

<b>Additional Site Numbers:</b> State Site 50-10-23-5243 BPBM 50-Ha-G28-61	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (summit)	
<b>Approximate U.S.G.S. Elevation:</b> 12,882 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090622d	
<b>Date First Recorded:</b> 1982	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 1995, 2005	

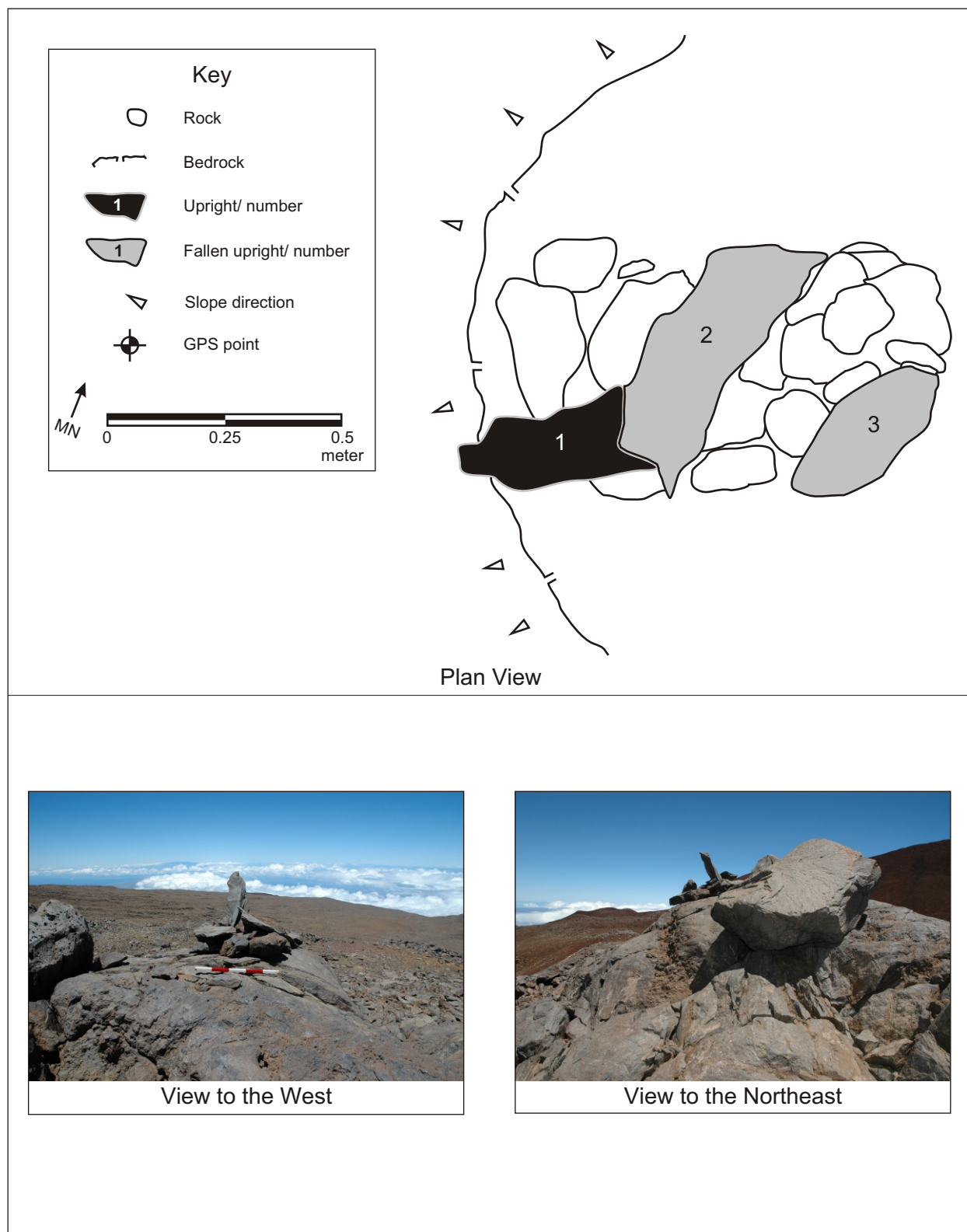
## **DESCRIPTION:**

Site 16185, first recorded in 1982 (McCoy 1982), is a single feature site (Feature 1) consisting of a small shrine with three semi-erect (leaning) uprights (Figure 2.50). The base of the shrine, measuring 1.0 m long by 0.65 m wide, is constructed of 12 piled large cobbles and a number of smaller cobbles bracing the uprights, which are oriented approximately east-west. All three uprights are of similar size, though the middle one is slightly taller and wider (see upright data table below).

## **Site 16185, Metric and Non-Metric Upright Data.**

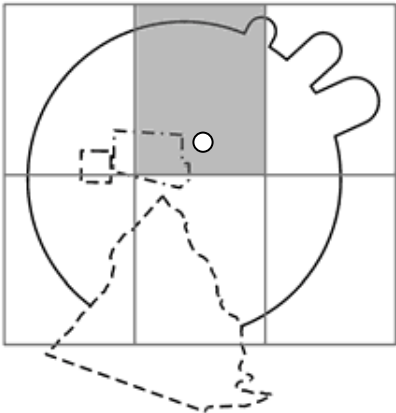
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	P	-	Pointed	60	18	12
1/2	Bedrock surface	T	P	-	Beveled	67	28	5
1/3	Bedrock surface	T	P	-	Flat/ Beveled	48	19	6

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.50. Site 16185, Plan View and Photographs.**

**STATE SITE 50-10-23-16186**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-67	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank (slope)	
<b>Approximate U.S.G.S. Elevation:</b> 12,989 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 042	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered: Uprights are not located on boulder as originally described.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

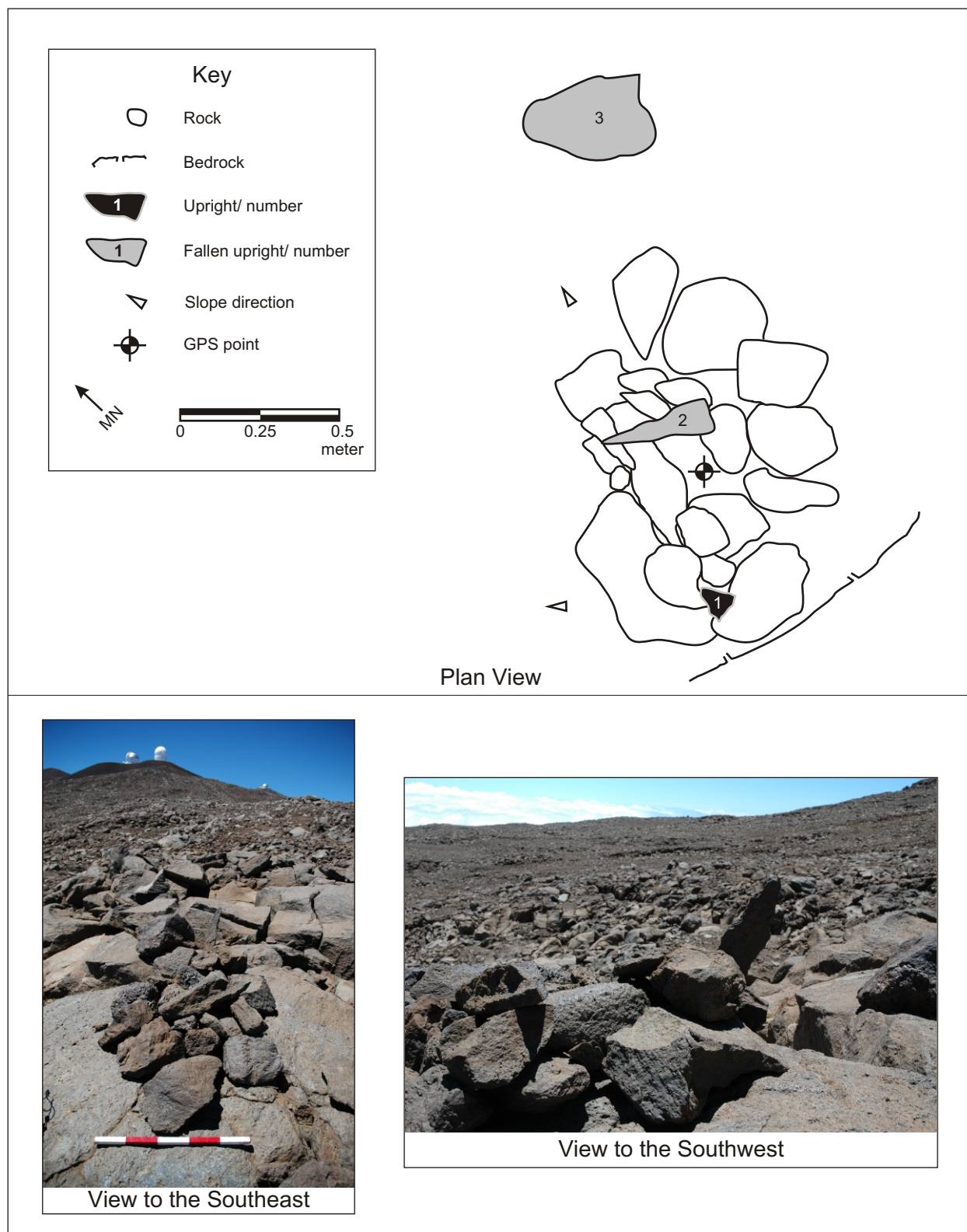
Site 16186, first recorded in 1984 (McCoy 1984), consists of a small shrine (Feature 1) located on top and at the downslope margin of a ridge. The site consists of a pile of cobbles and small boulders (1.0 m by 0.75 m and 0.35 m high) supporting two vesicular stone uprights of which only one is in an erect position (Upright No.'s 1 and 2 in upright data table below). A third possible upright (No. 3) of the same material is located approximately 0.3 m north (Figure 2.51).

**Site 16186, Metric and Non-Metric Upright Data.**

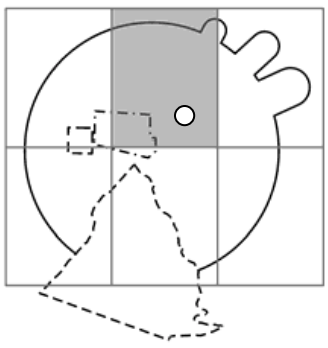
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	P	4	Pointed/Beveled	44	15	7
1/2	Bedrock surface	N	P	4	Pointed/Beveled	43	12	12
<b>1/3</b>	<b>Bedrock surface</b>	<b>T</b>	<b>S</b>	<b>4</b>	<b>Flat</b>	<b>45</b>	<b>15</b>	<b>6</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright





**STATE SITE 50-10-23-16187**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-68 Temporary M-8	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 4.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,683 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM072	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered: Upright No. 9 has been placed upright.	
<b>Subsequent Site Visits:</b> 1995, 2006	

**DESCRIPTION:**

Site 16187 consists of a single row of uprights (Feature 1). It is located on the north edge of a low ridge on the northeast flank of the mountain, near Pu`u Mahoe. It consists of a single row of nine uprights wedged into natural cracks or fissures on the margin of a glaciated lava flow (Figures 2.52 and 2.53).

The row of uprights is 4.0 m long and oriented east/west. When the site was first recorded in 1984, five of the uprights (No.'s 1 through 5 in upright data table below) were erect or semi-erect (leaning) and four uprights (No.'s 6 through 9) were in a fallen position. In 2006, it was noted that Upright No. 9 had been re-set in a vertical (erect) position.



View to NW Toward Pu`u Mahoe.



View to SW Toward the Summit.

**Figure 2.52. Photographs of Site 16187, Two Views of Uprights.**

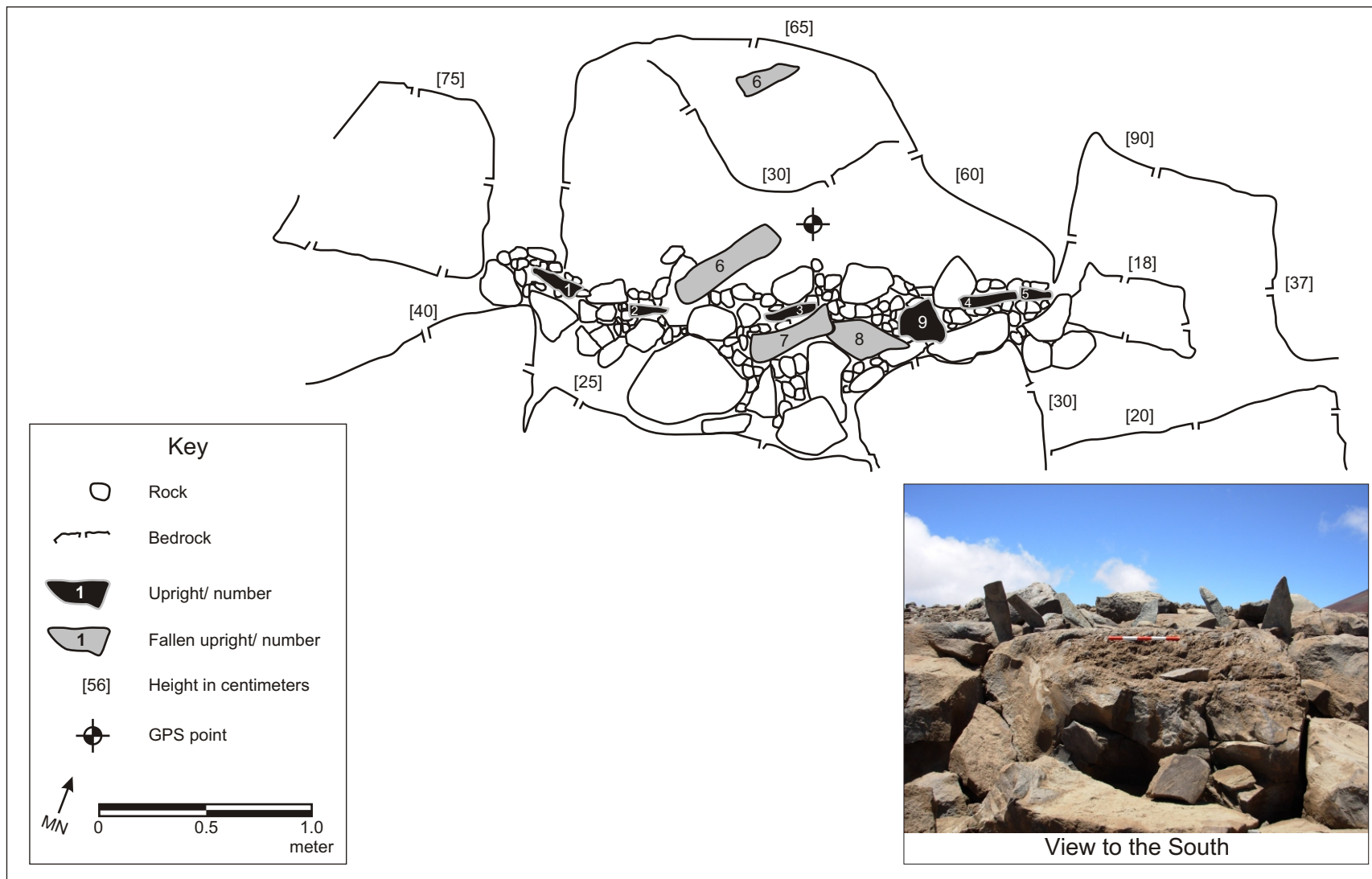


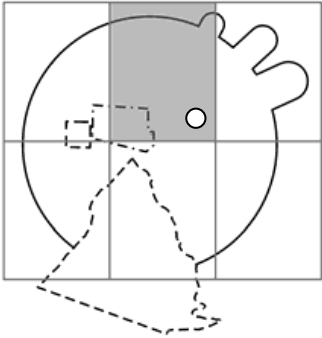
Figure 2.53. Site 16187, Plan View and Photograph.

**Site 16187, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	T	D	4	Pointed	71	29	8
1/2 <sup>E</sup>	Bedrock crack	T	D	-	Pointed	62	15	6
1/3 <sup>E</sup>	Bedrock crack	T	CR	-	Pointed	47	16	4
1/4 <sup>E</sup>	Bedrock crack	T	S	-	Flat	52	12	3
1/5 <sup>E</sup>	Bedrock crack	T	D	-	Flat	66	17	6
1/6	Bedrock crack	T	S	-	Beveled	75	9	9
1/7	Bedrock crack	T	S	-	Round	44	16	3
1/8	Bedrock crack	T	C	-	Gabled	60	19	11
1/9 <sup>E</sup>	Bedrock crack	T	C	-	Flat/ Beveled	55	25	4

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

**STATE SITE 50-10-23-16189**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-70 Temporary M-10	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 5.0 m by 3.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>U.S.G.S. Elevation:</b> 12,805 ft a.m.s.l.	
<b>2006 GPS File No.:</b>	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered: Upright No.'s 1 and 2 have fallen or broken.	
<b>Subsequent Site Visits:</b> 1997, 2006	

**DESCRIPTION:**

This site, located on the edge of a glaciated whaleback ridge, consists of a single row of three and possibly four exceptionally large slab uprights (Feature 1; Figure 2.54). Uprights No.'s 1 through 3 (see upright data table below), which range from 1.0 to 1.5 m apart, are wedged into the top surface of the ridge and braced by piled cobbles and small boulders.

The central and easternmost uprights (Upright No.'s 1 and 2) are broken off just above the contact with the outcrop surface. The tops of these two uprights are located 1.7 m below the ridge top, 2.0 to 2.5 m from the base of the outcrop.

The western and only intact upright (Upright No. 3) is of unusual form, i.e., it vaguely resembles an anthropomorphic image. A fourth upright is situated below and slightly to the east in a position similar to the previously described fragments. The toppling of the fallen uprights must have been a deliberate act given the thickness of the slabs. The height measurements for Upright No.'s 1 and 2 in the upright data table below represent the sum of the individual fragment measurements.

**Site 16189, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock crack	T	I	-	Flat	118	50	10
1/2	Bedrock crack	T	D	-	Flat	110	30	10
1/3 <sup>E</sup>	Bedrock crack	T	D	4	Gabled	90	30	12
<b>1/4</b>	<b>Bedrock crack</b>	<b>T</b>	<b>I</b>	<b>-</b>	<b>Flat</b>	<b>90</b>	<b>30</b>	<b>12</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



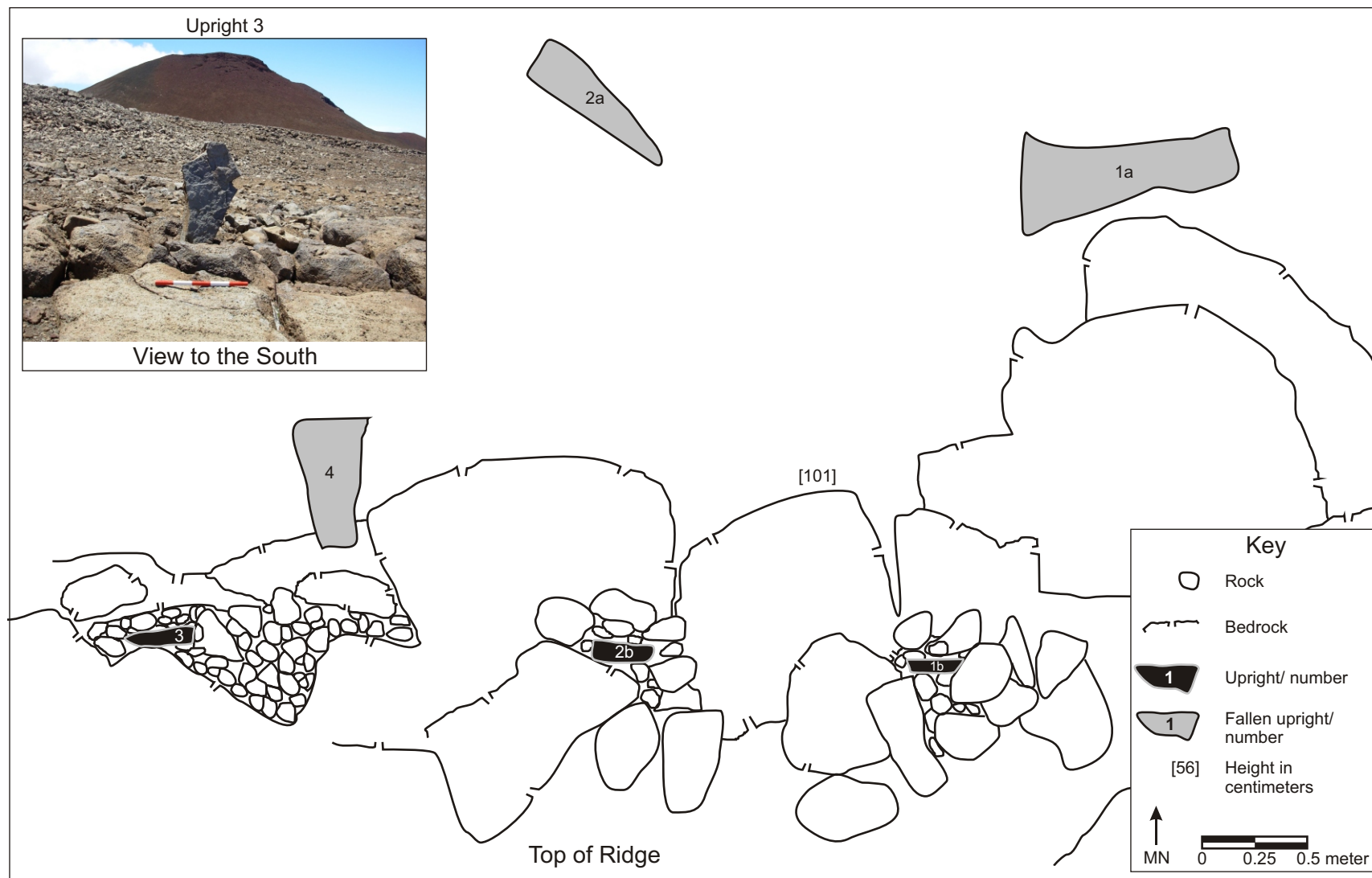
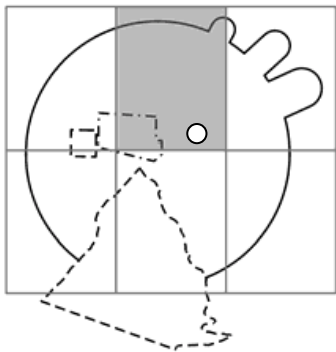


Figure 2.54. Site 16189, Plan View and Photograph.

**STATE SITE 50-10-23-16191**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-72 Temporary C-8	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,800 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM076	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered: One additional upright recorded in 2006.	
<b>Subsequent Site Visits:</b> 1997, 2006	

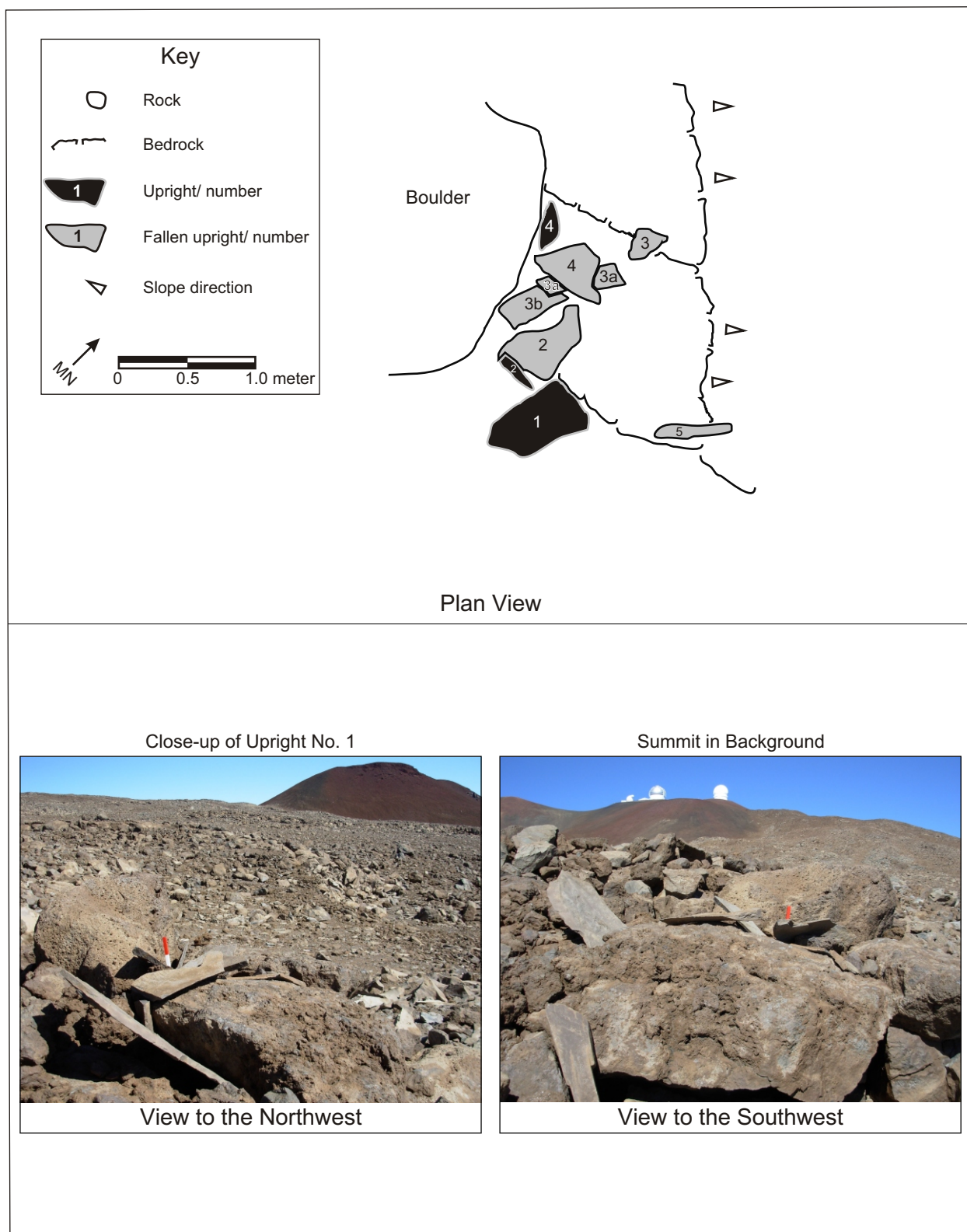
**DESCRIPTION:**

Site 16191, first recorded in 1984 (McCoy 1984), consists of a single row of uprights (Feature 1). It was mapped and described in 1984 as a single row of four uprights wedged into a crack on a ridge top. Upright No.'s 2 and 3 (see upright data table below) were noted as broken. A fifth possible upright, fallen, was found below Upright No. 1 in 2006 (Figure 2.55). The row of uprights, which are positioned on the northern margin of a long glaciated ridge, is highly visible from below, looking up toward the summit.

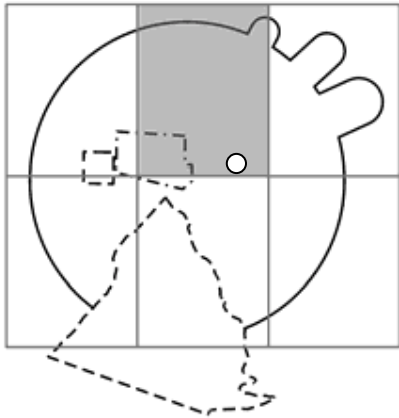
**Site 16191, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	T	I	4	Pointed	80	45	3
1/2 <sup>E</sup>	Bedrock crack	T	I	4	Beveled	70	30	6
1/3	Bedrock crack	T	I	-	Beveled	77	18	3
1/4 <sup>E</sup>	Bedrock crack	T	I	4	Beveled	77	45	3
<b>1/5</b>	<b>Bedrock surface</b>	<b>T</b>	<b>I</b>	<b>-</b>	<b>Beveled</b>	<b>65</b>	<b>13</b>	<b>5</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**STATE SITE 50-10-23-16192**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-73 Temporary C-5	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 7.0 m by 6.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,746 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN003	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered: One additional upright added in 2006.	
<b>Subsequent Site Visits:</b> 1995,1997,2007	

**DESCRIPTION:**

Site 16192 is a set of uprights (Feature 1), and one of several larger shrines where it is difficult to determine with confidence the number of uprights because of the large number of slabs used in the construction (Figure 2.56). This site is located on the downslope, eastern margin of a prominent ridge on the eastern side of the mountain. In 1997, 11 uprights and six possible uprights were mapped and recorded (McCoy 1999). This number includes some that are believed to have been intentionally displaced, and are now located away from the primary alignment, which is a single row of uprights.

**Site 16192, Metric and Non-Metric Upright Data.**

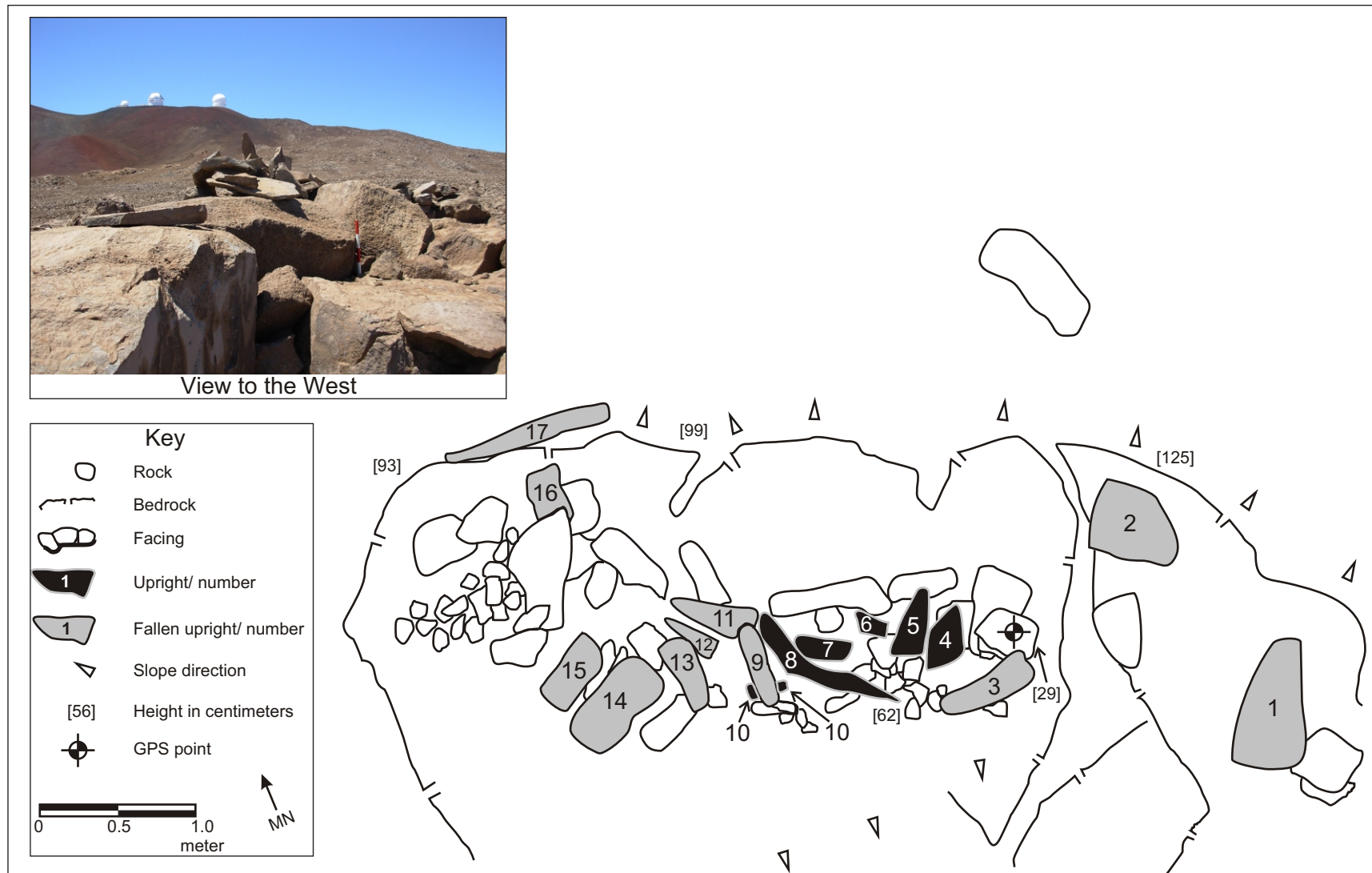
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock	T	D		Round	93	39	5
1/2	Bedrock	T	S		Gabled	50	35	5
1/3	Bedrock	T	C		Beveled	53	20	7
1/4 <sup>E</sup>	Bedrock	T	P		Beveled	40	24	5
1/5 <sup>E</sup>	Bedrock	T	D		Beveled	40	12	3
1/6 <sup>E</sup>	Bedrock	T	P		Beveled	65	13	7
1/7 <sup>E</sup>	Bedrock	T	P		Flat	53	22	6

**Site 16192, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
<b>1/8</b>	Bedrock	<b>T</b>	<b>D</b>	<b>SN</b>	<b>Pointed/Beveled</b>	<b>79</b>	<b>21</b>	<b>9</b>
<b>1/9</b>	Bedrock	<b>T</b>	<b>P</b>		<b>Flat/Beveled</b>	<b>68</b>	<b>24</b>	<b>10</b>
<b>1/10</b>	Bedrock	<b>T</b>	<b>P</b>	<b>SN</b>	<b>Flat</b>	<b>50</b>	<b>17</b>	<b>11</b>
<b>1/11</b>	Bedrock	<b>T</b>	<b>D</b>		<b>Flat</b>	<b>53</b>	<b>24</b>	<b>14</b>
<b>1/12</b>	Bedrock	<b>T</b>	<b>D</b>		<b>Pointed</b>	<b>40</b>	<b>10</b>	<b>7</b>
1/13	Bedrock	T	P		Flat/Beveled	50	28	7
1/14	Bedrock	T	S		Beveled	64	31	7
1/15	Bedrock	T	C		Flat	47	28	6
1/16	Bedrock	T	I		Flat	44	18	12
<b>1/17</b>	Bedrock	<b>T</b>	<b>S</b>	<b>SN</b>	<b>Flat</b>	<b>84</b>	<b>38</b>	<b>6</b>

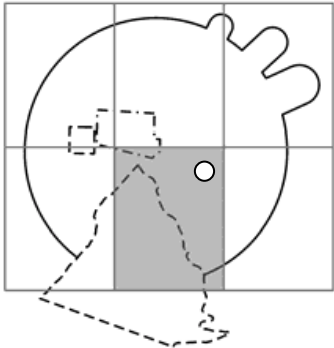
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright





**Figure 2.56. Site 16192, Plan View and Photograph.**

**STATE SITE 50-10-23-16194**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-75 Temporary M-7	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 4.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,568 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM073 and 074, RN122	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 1995, 2006	

**DESCRIPTION:**

This site consists of a single feature comprised of 12, possibly 14, uprights (Feature 1) oriented essentially north/south and perpendicular to the long axis of the ridge on which they are located (Figure 2.57). The structure is situated on the rampart of a gelifluction lobe, which appears to have been purposefully retained in one area by a wall of three to five vertically oriented slabs of the same kind used as uprights. The lobe has breached the boulder rampart on either side of this retaining wall. Only five of the uprights are *in situ* in a vertical to semi-erect position (see upright data table below). The largest upright (No. 5) is centrally located and projects 0.86 m above the surface of the outcrop and adjoining support stones.

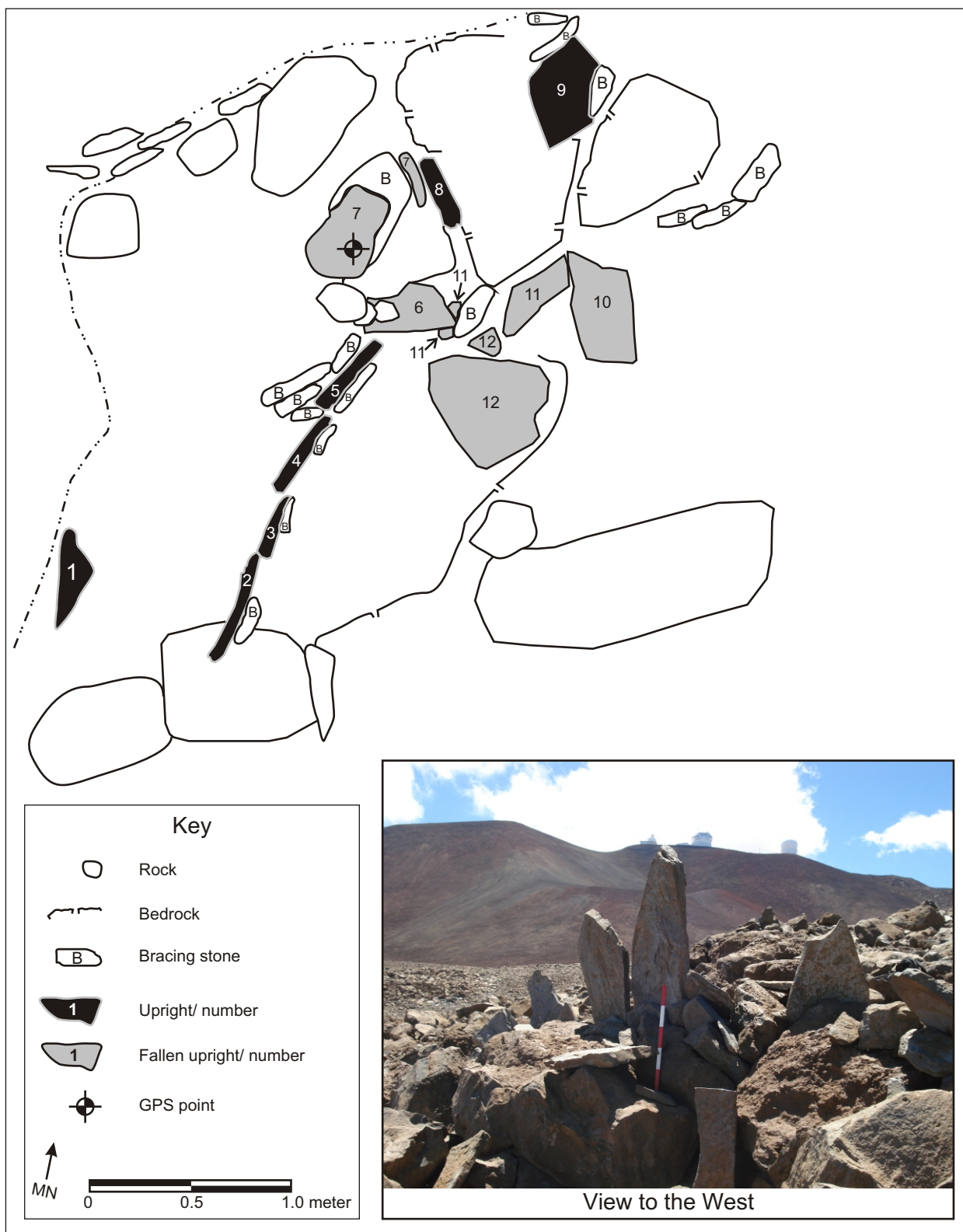
**Site 16194, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	C	-	Beveled	80	40	6
1/2 <sup>E</sup>	Bedrock surface	T	C	4	Flat	37	25	4
1/3 <sup>E</sup>	Bedrock surface	T	I	4	Beveled	51	30	5
1/4 <sup>E</sup>	Bedrock surface	T	C	2	Round/gabled	86	44	5
1/5 <sup>E</sup>	Bedrock surface	T	P	-	Beveled	115	46	12

**Site 16194, Metric and Non-Metric Upright Data.**

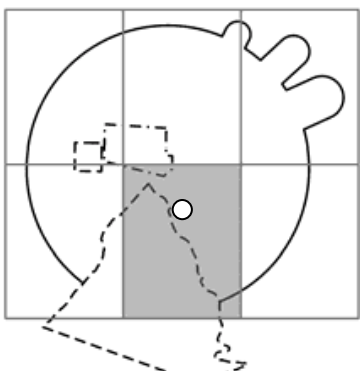
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/6	Bedrock surface	T	S	-	Beveled	59	26	6
1/7	Bedrock surface	T	I	4	Flat	58	38	4
1/8 <sup>E</sup>	Bedrock surface	T	D	-	Mesial curve	65	39	7
1/9 <sup>E</sup>	Bedrock surface	T	D	-	Mesial curve	58	38	5
1/10	Bedrock surface	T	P	-	Round/ Gabled	65	38	5
1/11	Bedrock surface	T	S	-	Rounded	93	25	10
1/12	Bedrock surface	T	D	4	Pointed	67	50	6
1/13	Bedrock surface	T	P	-	Pointed/ Gabled	55	33	6
1/14	Bedrock surface	T	D	4	Flat/ Beveled	44	12	5

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.57. Site 16194, Plan View and Photograph.**

# STATE SITE 50-10-23-16196

<b>Additional Site Numbers:</b> BPBM		50-Ha-G28-77
<b>Site Function:</b> Shrine		<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 2.0 m by 1.0 m		
<b>Number of Features:</b> 1		
<b>Topographic Location:</b> Ridge crest (mid-elevation)		
<b>Approximate U.S.G.S. Elevation:</b> 12,841 ft a.m.s.l.		
<b>2005 GPS File No.:</b> Trimble Point R090800b		
<b>Date First Recorded:</b> 1984		
<b>Current Status:</b> Unchanged.		
<b>Subsequent Site Visits:</b> 1995, 2005		

## DESCRIPTION:

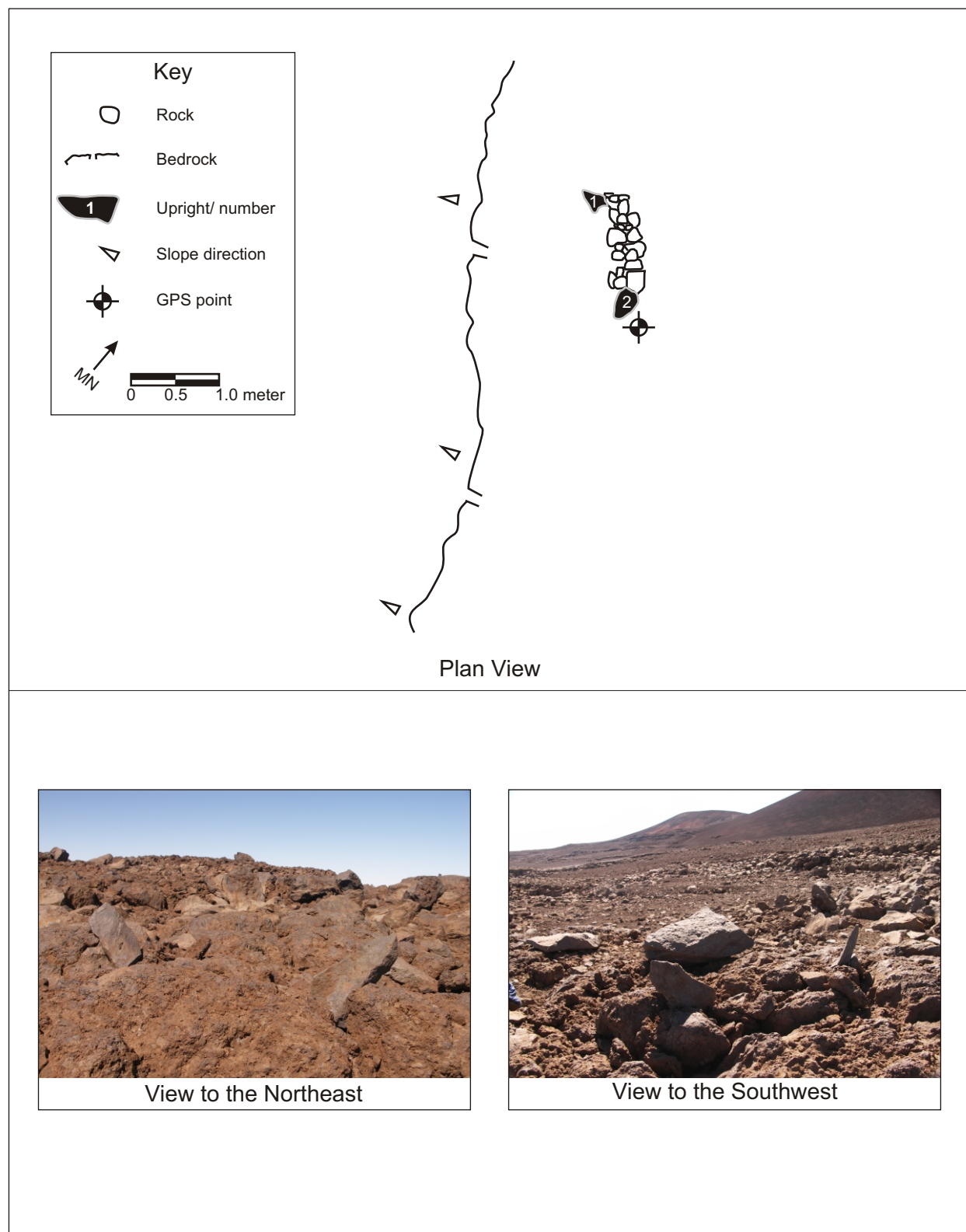
Site 16196, first recorded in 1984 (McCoy 1984), consists of an alignment of loosely piled cobbles with one erect upright at each end (Feature 1; Figure 2.58). It is located on an a'a outcrop north of Site 16197. The alignment measures 1.35 m long by 0.35 m wide. Though small in size, the uprights are clearly visible when approaching the site from the west (see upright table below).

## Site 16196, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock	T	S	-	Flat	37	16	11
1/2 <sup>E</sup>	Bedrock	T	S	-	Pointed	46	19	11

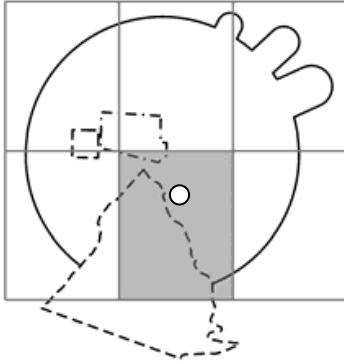
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright





**Figure 2.58. Site 16196, Plan View and Photographs.**

**STATE SITE 50-10-23-16198**

<b>Additional Site Numbers:</b> BPBM	50-Ha-G28-79
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 5.0 m by 4.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (toe)/ gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,843 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 065	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> One basalt flake found near terrace.	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

Site 16198, first recorded in 1984 as a *marae* (McCoy 1984), consists of a two-tiered terrace oriented roughly east-west (273 degrees), perpendicular to the long axis of the ridge (Feature 1).

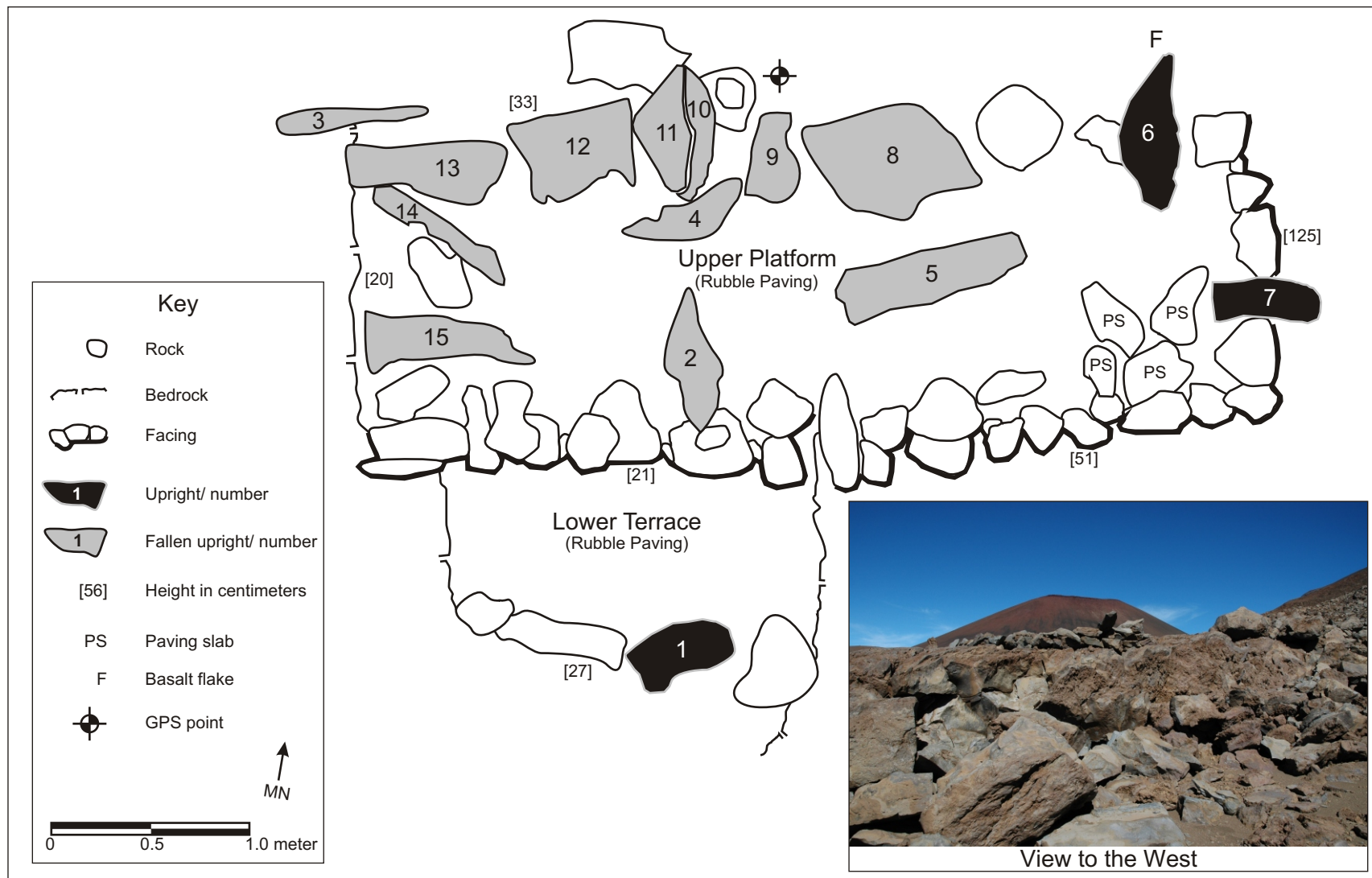
It is located on top of a low glaciated whaleback ridge near its downslope terminus. The upper terrace is the larger, measuring 4.6 m long by 1.9 m wide and 0.7 m high (Figure 2.59). The front retaining wall is constructed of stacked basalt boulders, three courses high.

The lower terrace, situated directly below and abutting the western end of the upper terrace, measures roughly 2.2 m long by 1.2 m wide and 0.27 m high. In the middle of the front wall is single upright (No. 1 in the upright data table below) measuring 0.6 high; it differs from the rest of the uprights in form and color.

The original description and map of this site referred to a total of 14 uprights stones present on the large terrace (McCoy 1984). In 1995 it was determined that many of the fallen uprights may have been wrongly interpreted. A closer examination showed that many of the stones (uprights) could not have been set in a vertical position because there were no natural seats on the outcrop and no bracing stones to support them. The extra stones, which were intentionally placed on the platform, were reinterpreted as paving stones.

During the current survey the site was re-examined, and the total number of uprights on the upper terrace is still in question. Based on location, support stones, and depressions in the terrace, it appears that at least six stones (No.'s 2 through 7) are likely uprights, two of which are still erect (No.'s 6 and 7], and the remaining eight stones are possible uprights (No.'s 8 through 15; see Figure 2.59). Upright No. 7 is partially flaked along one edge.

Located approximately 2.0 m northwest of the northeast end of the terrace is a basalt flake. The flake is not from the adze quarry but from a local source, possibly from an upright, such as No. 7.



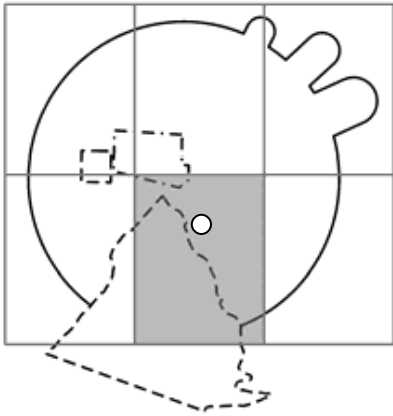
**Figure 2.59. Site 16198, Plan View and Photograph.**

**Site 16198, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	N	I	4	Round	60	44	17
1/2	Platform	T	I	-	Round/ Gabled	71	25	9
1/3	Bedrock surface	T	P	4	Flat	85	18	13
1/4	Platform	T	S	3	Pointed	73	22	8
1/5	Platform	T	S	-	Mesial notch	70	32	10
1/6 <sup>E</sup>	Platform	T	S	4	Flat	79	26	16
1/7 <sup>E</sup>	Platform	T	I	-	Crescent-shaped/ Flat	66	26	8
<b>1/8</b>	<b>Platform</b>	<b>T</b>	<b>S</b>	-	<b>Mesial notch</b>	<b>53</b>	<b>51</b>	<b>5</b>
<b>1/9<sup>E</sup></b>	<b>Platform</b>	<b>T</b>	<b>I</b>	-	<b>Mesial notch</b>	<b>47</b>	<b>33</b>	<b>9</b>
<b>1/10<sup>E</sup></b>	<b>Platform</b>	<b>T</b>	<b>I</b>	-	<b>Gabled</b>	<b>62</b>	<b>27</b>	<b>8</b>
<b>1/11<sup>E</sup></b>	<b>Platform</b>	<b>T</b>	<b>S</b>	-	<b>Flat</b>	<b>65</b>	<b>26</b>	<b>9</b>
<b>1/12</b>	<b>Platform</b>	<b>T</b>	<b>D</b>	-	<b>Mesial notch</b>	<b>60</b>	<b>51</b>	<b>5</b>
<b>1/13</b>	<b>Platform</b>	<b>T</b>	<b>C</b>	-	<b>Gabled</b>	<b>70</b>	<b>32</b>	<b>10</b>
<b>1/14</b>	<b>Platform</b>	<b>T</b>	<b>P</b>	-	<b>Pointed</b>	<b>66</b>	<b>15</b>	<b>15</b>
<b>1/15</b>	<b>Platform</b>	<b>T</b>	<b>I</b>	$\frac{3}{4}$	<b>Crescent-shaped/ Flat</b>	<b>78</b>	<b>19</b>	<b>9</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

**STATE SITE 50-10-23-16199**

<b>Additional Site Numbers:</b> BPBM	50-Ha-G28-80
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 10.0 m by 5.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,856ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 061	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered. The site has been modified since 1995: uprights have been moved to new locations, have fallen, or have been placed erect; an additional feature was recorded (pavement).	
<b>Subsequent Site Visits:</b> 1995, 2005	

**DESCRIPTION:**

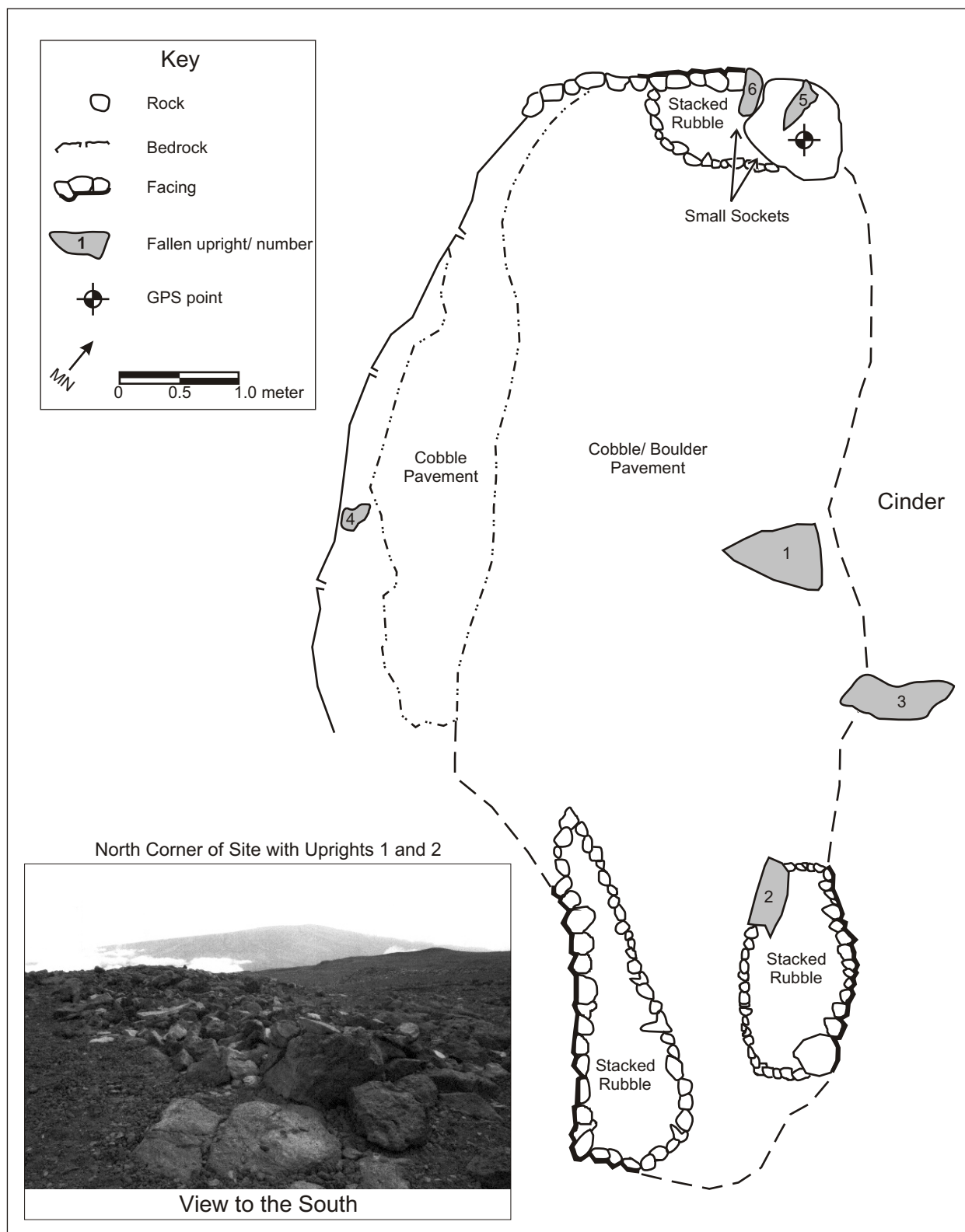
Site 16199, first recorded in 1984 (McCoy 1984), consists of a platform with one and possibly as many as four uprights (Feature 1) located on the lower downslope margin of a broad gelifluction terrace (Figure 2.60). In 1995, two additional uprights were noted at the site, bringing the total to six uprights (see upright data table below).

The platform walls are constructed of stacked and piled cobbles (up to 0.6 m high); the platform surface consists of a rough cobble fill. A paved area, located along the west and northwest side of the platform, is constructed of well-sorted small cobbles leveling off what appears to be a slightly depressed area.

During the current survey it was determined that the platform also has a lower paved area. The platform and paved area measure approximately 9.5 m long by 3.0 m wide. It was also noted that in 1995, one erect upright was centrally located on the east edge of the platform.

Currently two of Site 16199's uprights are erect, one along the east side of the platform and the other along the west side of the paved area. With the use of earlier photographs and the 1995 description of the site, the new upright placed on the paved area was determined to be Upright No. 4, which was fallen and originally located on top of a boulder in the northeast corner of the platform.





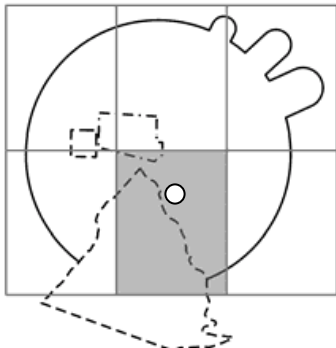
**Figure 2.60. Site 16199, Plan View and Photograph.**

**Site 16199, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Platform	T	D	-	Pointed	90	55	8
1/2	Platform	T	S	-	Flat/ Beveled	62	22	8
1/3	Platform	T	S/I	4	Pointed	96	37	12
1/4	Bedrock crack	N	I	-	Pointed	80	24	20
<b>1/5</b>	<b>Boulder</b>	<b>T</b>	<b>P</b>	-	<b>Flat</b>	<b>49</b>	<b>16</b>	<b>8</b>
<b>1/6</b>	<b>Mound</b>	<b>T</b>	<b>S</b>	-	<b>Round</b>	<b>47</b>	<b>22</b>	<b>12</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

**STATE SITE 50-10-23-16200**

<b>Additional Site Numbers:</b> BPBM Temporary		50-Ha-G28-81 C-2
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5	
<b>Site Dimensions:</b> 4.0 m by 2.5 m		
<b>Number of Features:</b> 1		
<b>Topographic Location:</b> Ridge crest (summit)		
<b>Approximate U.S.G.S. Elevation:</b> 12,875 ft a.m.s.l.		
<b>2005 GPS File No.:</b> Garmin Point 060		
<b>Date First Recorded:</b> 1984		
<b>Current Status:</b> Unchanged.		
<b>Subsequent Site Visits:</b> 1995, 2005		

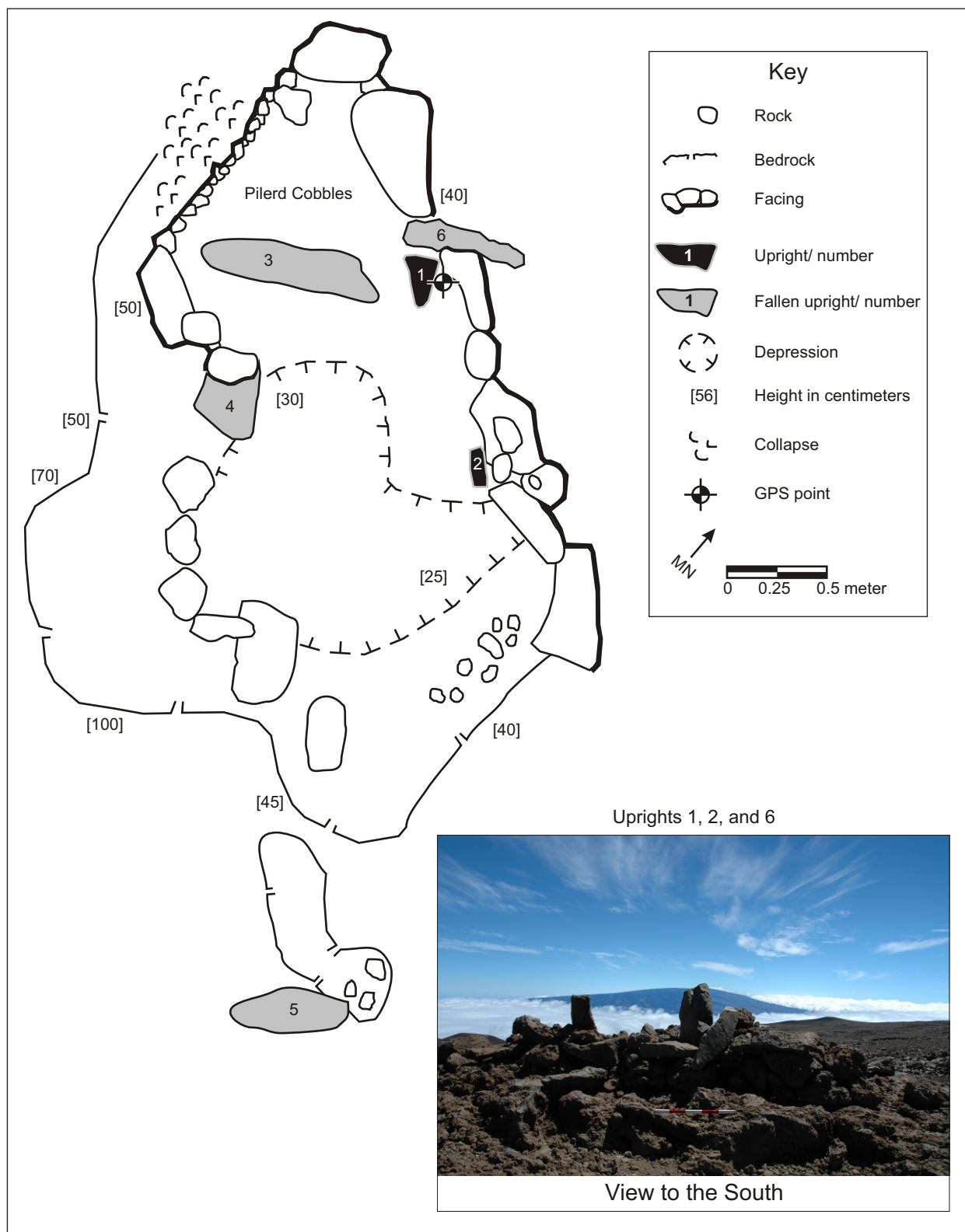
**DESCRIPTION:**

Site 16200, first recorded in 1984 (McCoy 1984), consists of a crudely constructed platform (Feature 1). It is located on the top of a dome-shaped ridge in close proximity to Sites 16198 and 16199. The outcrop surface on the north end has been partially modified with the addition of angular a'a pebbles, cobbles, and small boulders to form a crude platform (Figure 2.61). One side of this platform is a two-course high (0.4 m) stacked stone retaining wall, along which there are two standing uprights (No.'s 1 and 2 in upright data table below) and one fallen, possible, upright (No. 6). Three other fallen uprights (No.'s 3 through 5) are located within 2.0 m of the main feature.

**Site 16200, Metric and Non-Metric Upright Data.**

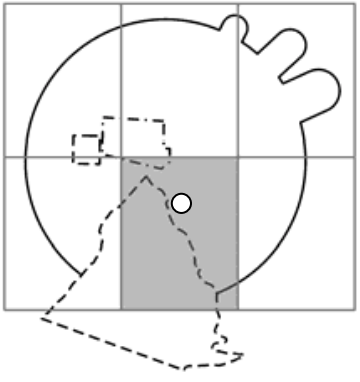
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Platform	T	S	4	Beveled	60	25	25
1/2 <sup>E</sup>	Platform	T	P	-	Flat	55	10	15
1/3	Platform	T	I	4	Crescent shaped/ Flat	90	25	5
1/4	Platform	T	P	4	Beveled	55	25	7
1/5	Platform	T	D	-	Flat	55	25	15
<b>1/6</b>	<b>Platform</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Gabled</b>	<b>61</b>	<b>23</b>	<b>10</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.61. Site 16200, Plan View and Photograph.**

**STATE SITE 50-10-23-16201**

<b>Additional Site Numbers:</b> BPBM		50-Ha-G28-83
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5	
<b>Site Dimensions:</b> 5.5 m by 1.0 m		
<b>Number of Features:</b> 1		
<b>Topographic Location:</b> Ridge flank (slope)		
<b>Approximate U.S.G.S. Elevation:</b> 12,884 ft a.m.s.l.		
<b>2005 GPS File No.:</b> Trimble Point R090723a		
<b>Date First Recorded:</b> 1984		
<b>Current Status:</b> Unchanged.		
<b>Subsequent Site Visits:</b> 1995, 2005		

**DESCRIPTION:**

Site 16201, first recorded in 1984 (McCoy 1984), is located on the margin of a boulder outcrop and consists of a single row of three dispersed, vertical uprights (Feature 1; Figure 2.62). The westernmost upright is situated on bedrock and is supported by a small pile of rubble (No. 1 in upright data table below). The central upright (No. 2) is located on a small boulder with two support cobbles 3.0 m from the first. The third upright (No. 3) is similarly situated on a boulder 2.0 m away.

**Site 16201, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	N	S	-	Flat	60	44	20
1/2 <sup>E</sup>	Boulder	T	S	-	Pointed/Beveled	50	25	15
1/3 <sup>E</sup>	Boulder	T	S	4	Mesial notch/Flat	44	47	12

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



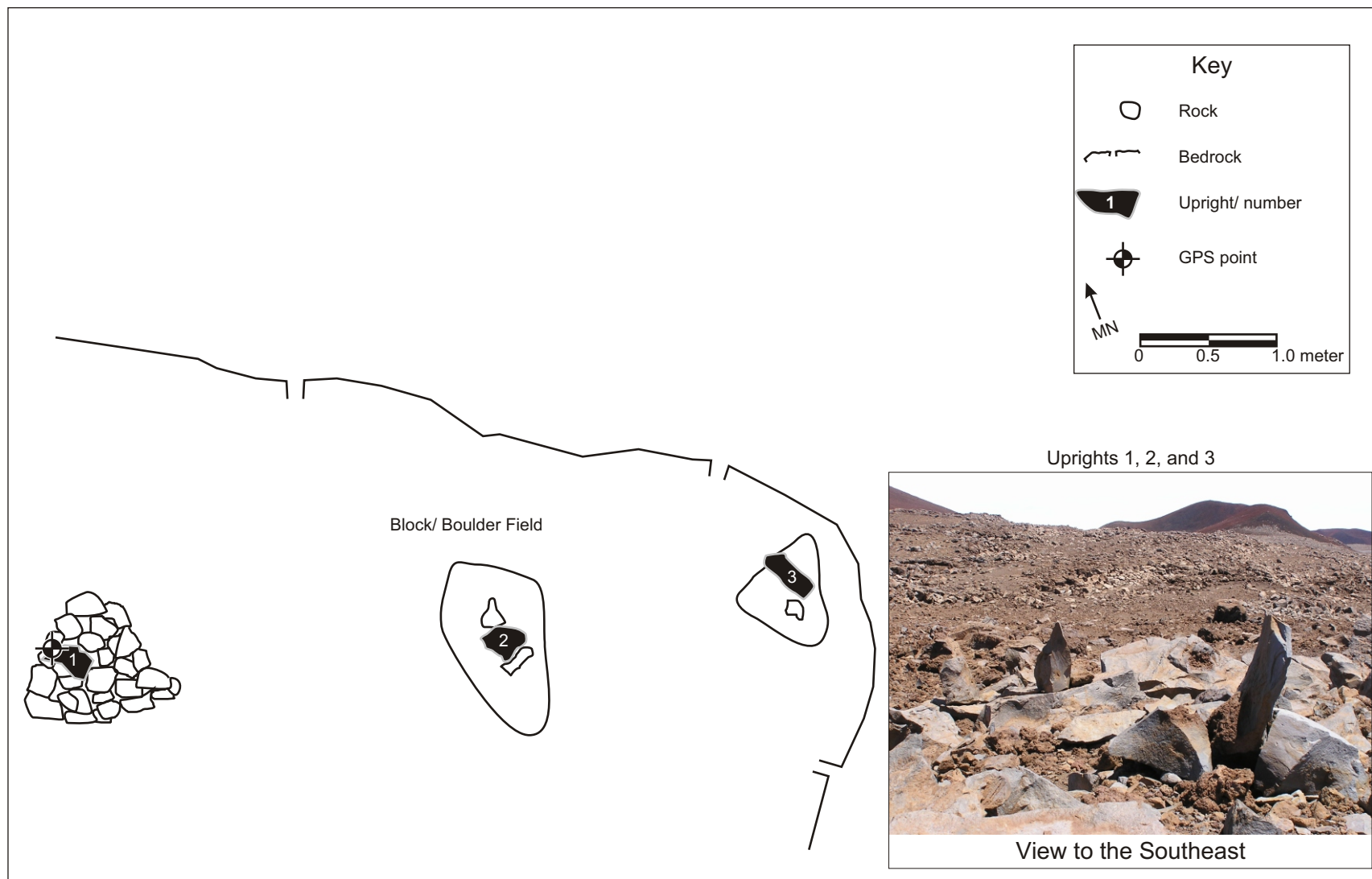
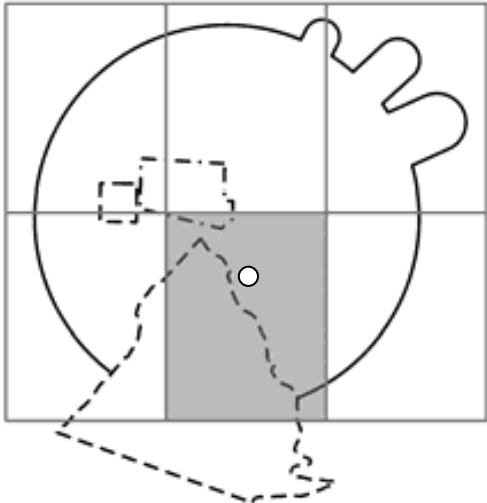


Figure 2.62. Site 16201, Plan View and Photograph.

**STATE SITE 50-10-23-18682**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-82	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 2.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank (slope)	
<b>Approximate U.S.G.S. Elevation:</b> 12,883 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090723b	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered. Upright No.1 was recorded as standing erect in 1984 and fallen in 1995. In 2005 Upright No.1 was observed to be erect, though slightly leaning.	
<b>Subsequent Site Visits:</b> 1995; 2005	

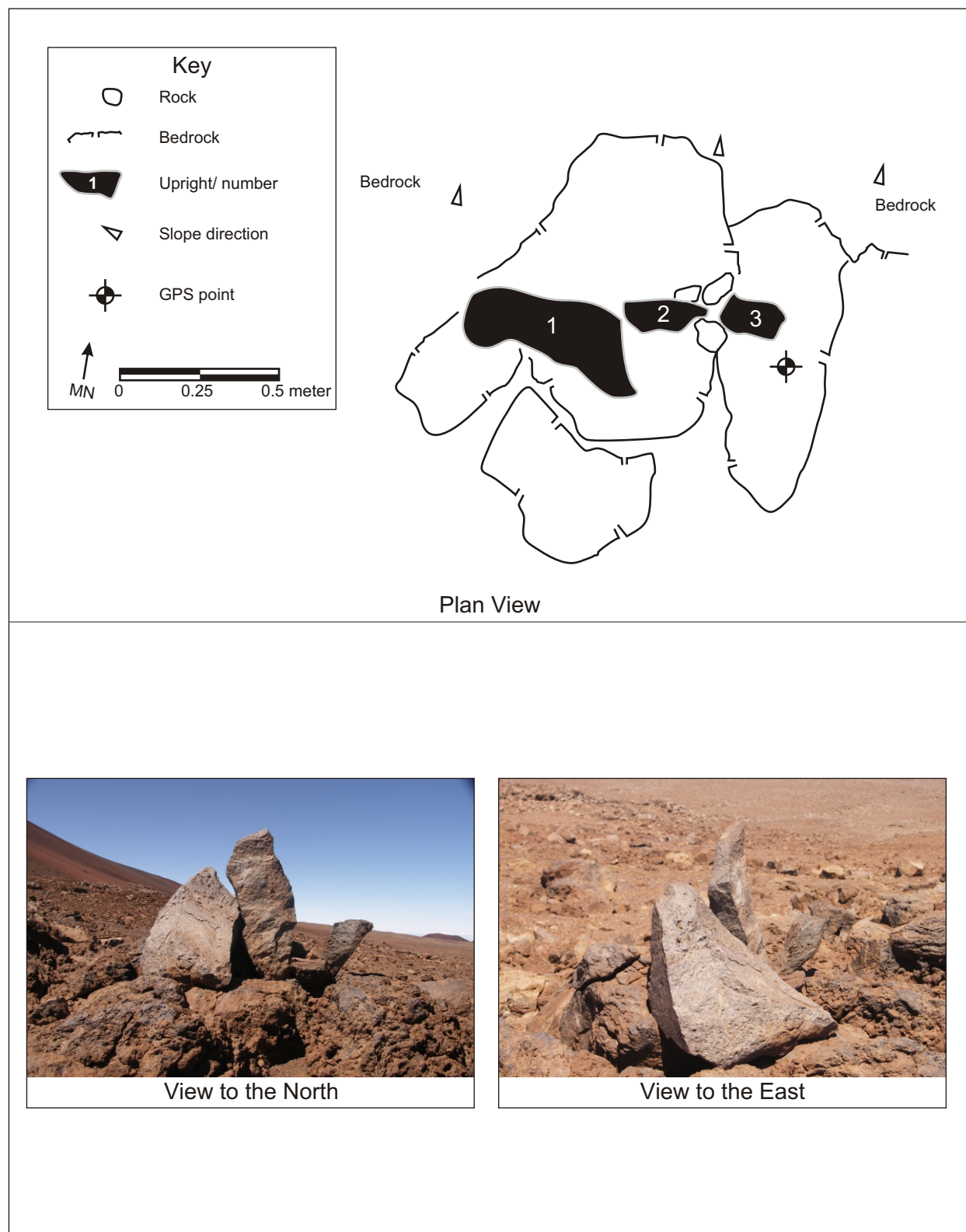
**DESCRIPTION:**

Site 18682, first recorded in 1984 (McCoy 1984), consists of a single row of three uprights wedged into a crevice on an outcrop (Figure 2.63; see upright data table below). Several support cobbles were observed near Uprights 2 and 3.

**Site 18682, Metric and Non-Metric Upright Data.**

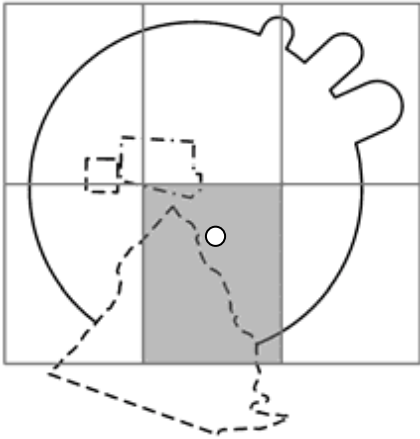
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	N	D	-	Pointed	76	50	18
1/2 <sup>E</sup>	Bedrock crack	T	I	-	Beveled	73	26	9
1/3 <sup>E</sup>	Bedrock crack	N	S	-	Flat	42	15	15

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.63. Site 18682, Plan View and Photographs.**

**STATE SITE 50-10-23-18683**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-85	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 4.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 12,960 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090721a	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> A shallow depression was recorded on the bedrock east of the platform.	
<b>Subsequent Site Visits:</b> 1995; 2005	

**DESCRIPTION:**

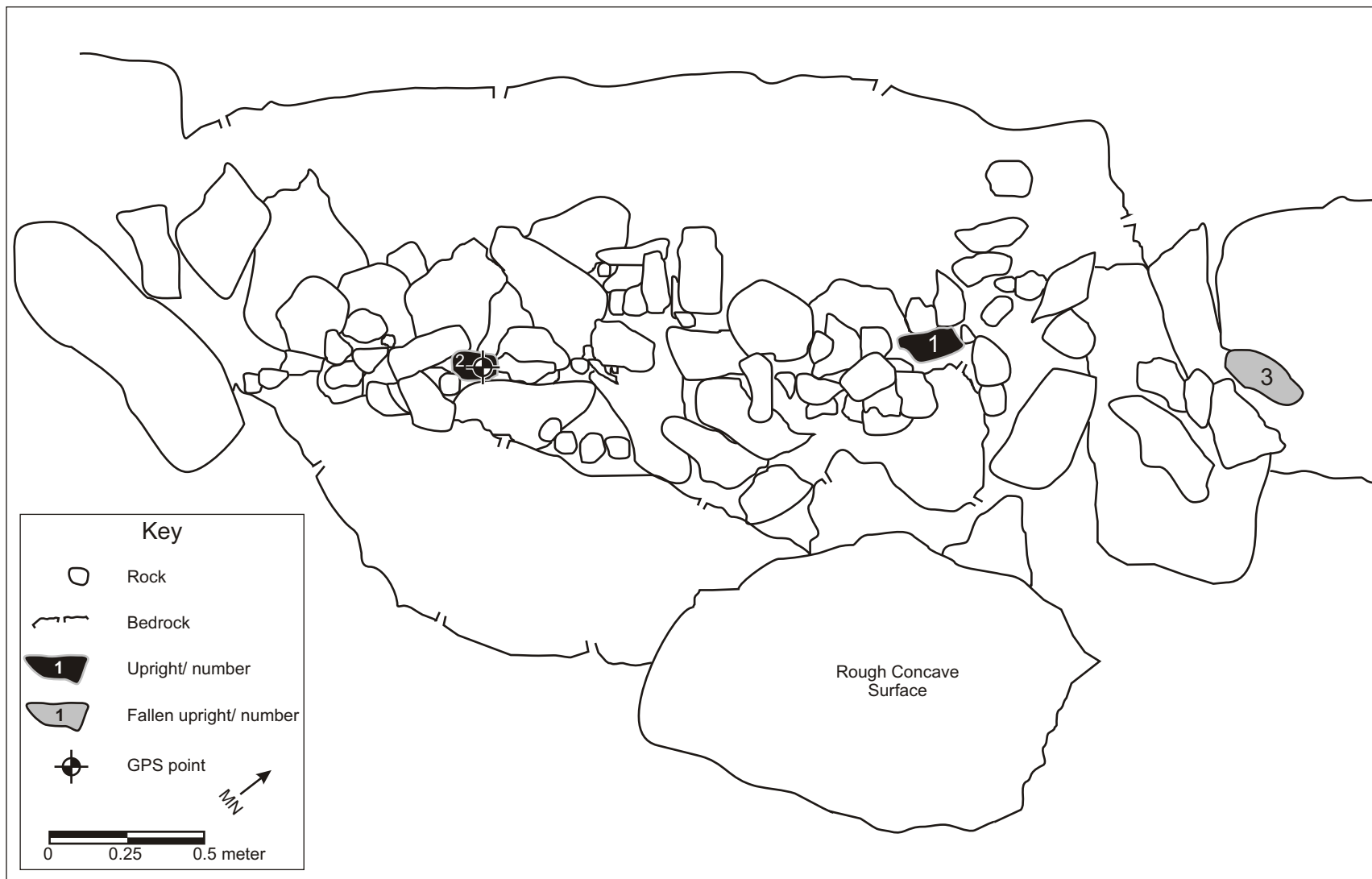
Site 18683, first recorded in 1984 (McCoy 1984), consists of platform constructed of cobbles and small boulders with three uprights placed on top (Figure 2.64). The platform is roughly 3.6 m long by 1.2 m wide and 0.3 m high. The two erect uprights (No.'s 1-2) are approximately 1.6 m apart and the fallen one (No. 3) is located at the north end of the platform (see upright data table). Upright No. 2 is an example of a relatively rare form, a narrow base with a wide top (i.e., convergent).

A concave depression on the exposed bedrock is located approximately 0.9 m east of Upright No. 1. The depressed area measures roughly 0.8 m long by 0.4 m wide.

**Site 18683, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Platform	T	S	-	Pointed	30	56	8
1/2 <sup>E</sup>	Platform	T	C	2	Flat	28	68	15
1/3	Platform	N	S	-	Pointed	35	17	11

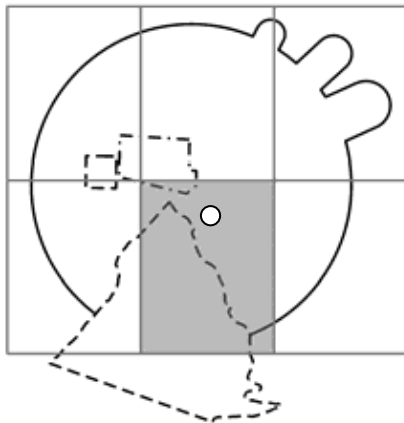
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.64. Site 18683, Plan View.**



# STATE SITE 50-10-23-21197

<b>Additional Site Numbers:</b> Temporary T-01	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 7.0 m by 7.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,960 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 059 R090723b	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Unchanged	
<b>Subsequent Site Visits:</b> 2005	

## DESCRIPTION:

Site 21197, first recorded in 1995 (McCoy 1999), is located roughly 43.0 m north-northwest of Site 16202, and consists of two adjacent terraces both containing uprights (Figure 2.65). The terraces, designated as Features 1 and 2, are located on the edge of a gelifluction terrace that has developed on the top of a ridge. The features are oriented parallel to the long axis of the ridge from which there is a good view of Pu'u Līlinoe (see Figure 2.65).

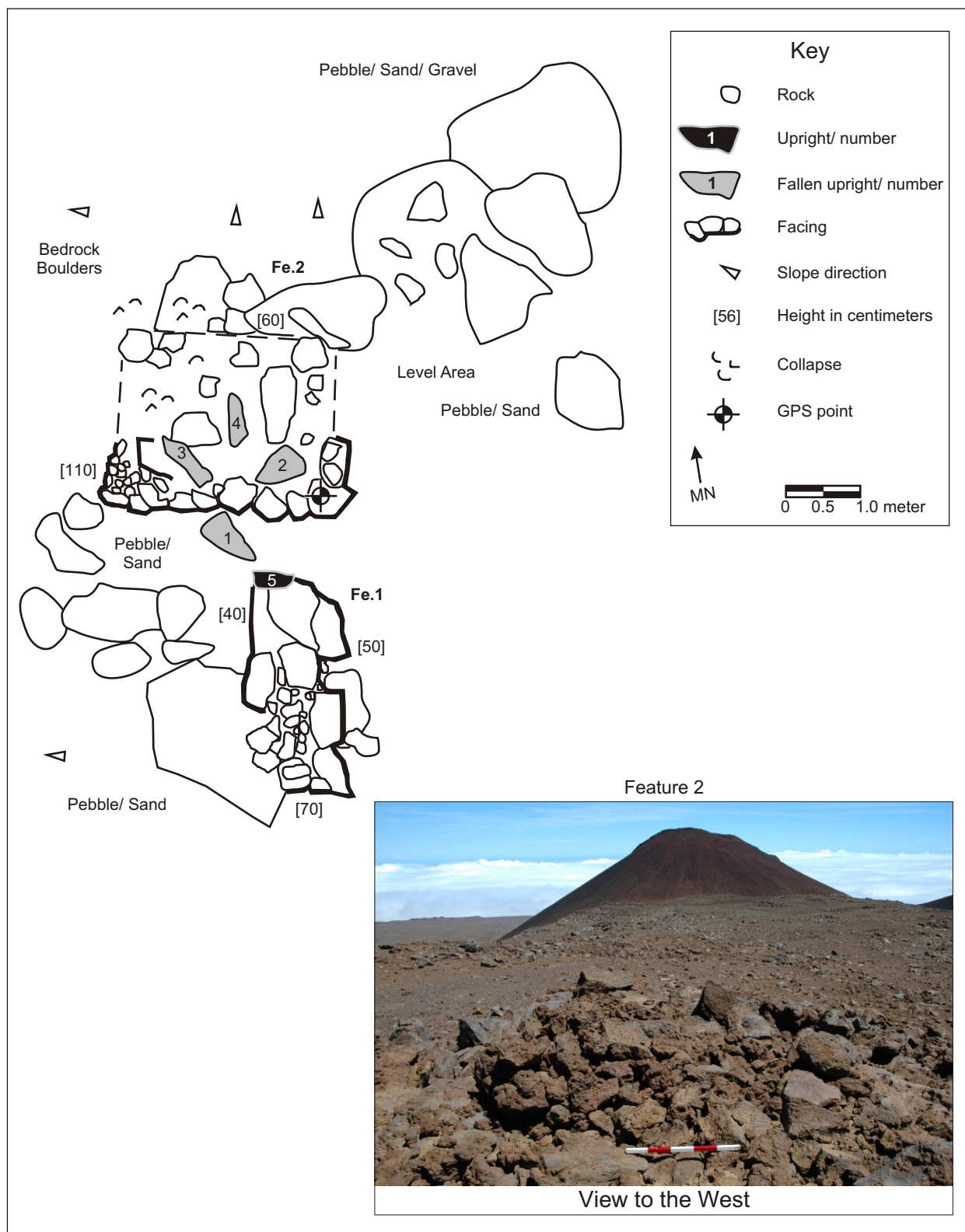
Feature 1 is a rectangular terrace constructed of stacked cobbles and small boulders and measures 1.9 m by 0.9 m and 0.9 m high. The terrace fill consists of small cobble and pebble size rocks and has a single upright on the west end of the terrace that is erect (No. 5 – see upright data table below).

Feature 2 is a slightly larger rectangular terrace measuring 2.8 m by 1.9 m, and 1.1 m high with the long axis perpendicular to Feature 1. Three, possibly four uprights (No.'s 1-4 in upright data table), all fallen, are associated with this feature.

## Site 21197, Metric and Non-Metric Upright Data.

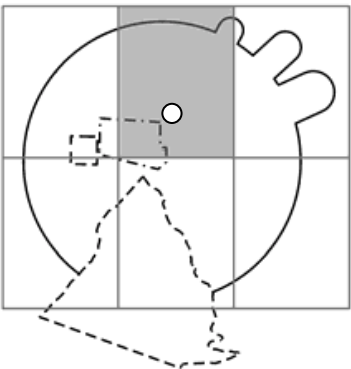
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/5 <sup>E</sup>	Terrace	T	D	-	Pointed	45	30	10
2/1	Terrace	T	D	-	Pointed	60	25	15
<b>2/2</b>	<b>Terrace</b>	<b>N</b>	<b>D</b>	<b>-</b>	<b>Gabled</b>	<b>40</b>	<b>40</b>	<b>10</b>
2/3	Terrace	T	D	-	Pointed	50	20	13
2/4	Terrace	T	P	4	Pointed	40	15	11

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.65. Site 21197, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-21201**

<b>Additional Site Numbers:</b> Temporary T-05	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 4.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (mid-elevation)	
<b>Approximate U.S.G.S. Elevation:</b> 12,989 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 036	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Unchanged	
<b>Subsequent Site Visits:</b> 2005	

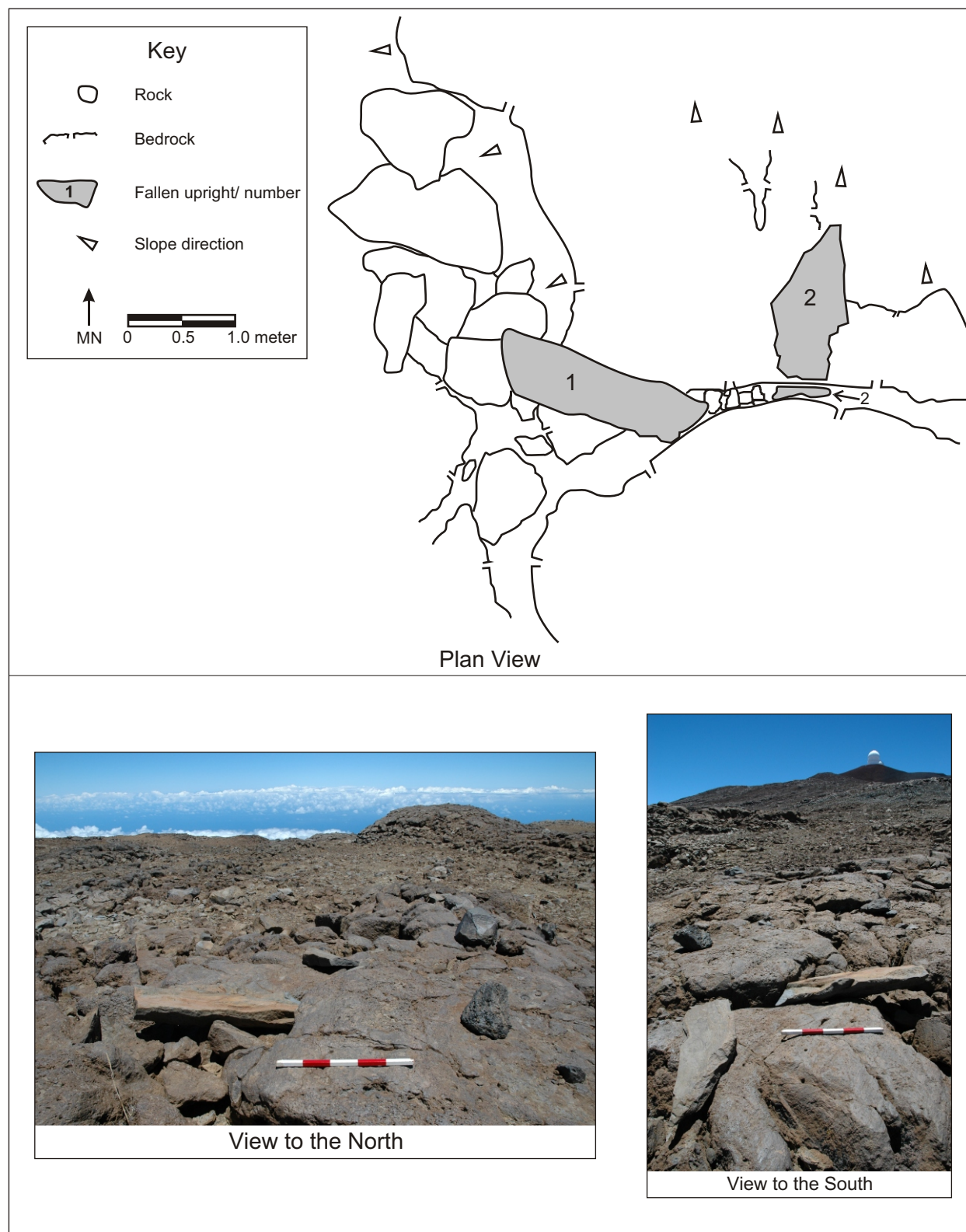
**DESCRIPTION:**

Site 21201, first recorded in 1995 (McCoy 1999), is a small shrine with two fallen uprights located on a ridge crest (Figure 2.66). The uprights are located in and adjacent to a bedrock crack (see upright data table). Upright No. 2, which is the larger of the two, is broken into two pieces (the dimensions in the table below are the sum total for the two pieces); the base is still *in situ* in the bedrock crack. No support cobbles were noted in the general area.

**Site 21201, Metric and Non-Metric Upright Data.**

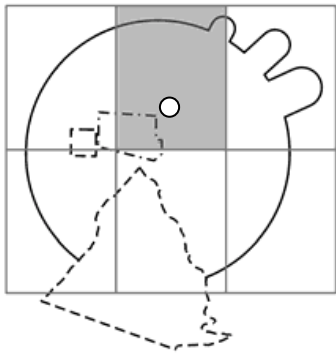
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock crack	T	D	4	Pointed/Beveled	80	26	5
1/2	Bedrock crack	T	S	4	Flat	84	24	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.66. Site 21201, Plan View and Photographs.**

# STATE SITE 50-10-23-21202

<b>Additional Site Numbers:</b> Temporary T-06	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.5 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank (slope)	
<b>Approximate U.S.G.S. Elevation:</b> 12,965 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 049	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Unchanged	
<b>Subsequent Site Visits:</b> 2005	

## DESCRIPTION:

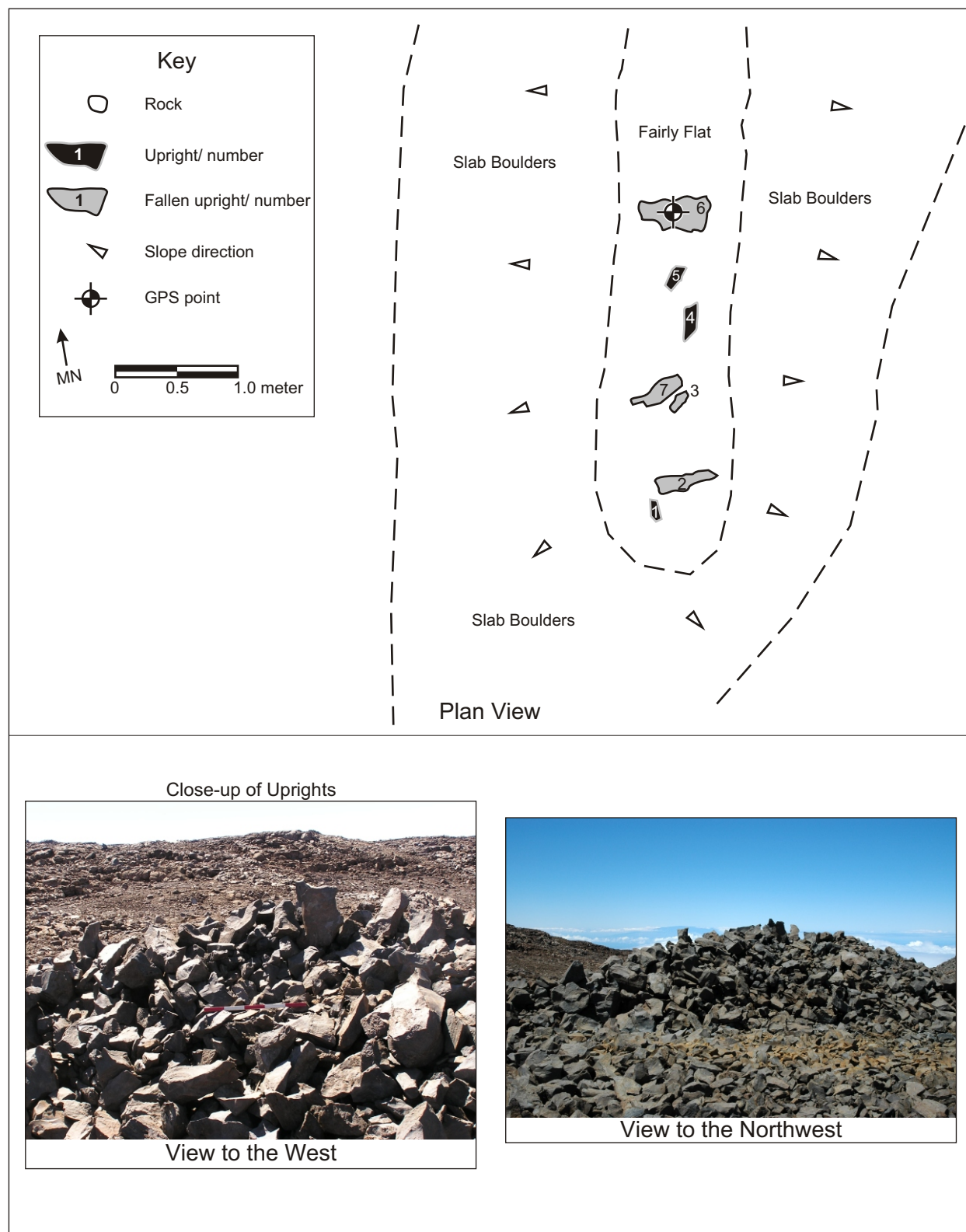
Site 21202, first recorded in 1995 (McCoy 1999), is located on top of a prominent north-south oriented ridge, just upslope of Site 16184. The ridge has a tear drop shape and measures roughly 8.0 m long and 4.0 m high. The sides and top of the ridge are a mass of platy slabs with a mound of platy slabs on the west side of the ridge. On the top of the mound (comprised of platy slabs) is a 3.5 m-long row of six (No.'s 1 through 6), possibly seven (No. 7), uprights (Figure 2.67; see upright data table below). The uprights are difficult to discern due to the extensive mass of naturally occurring slabs on the ridge top.

## Site 21202, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	S	-	Mesial notched	23	14	6
1/2	Mound	T	P	3	Pointed	45	12	10
1/3	Mound	T	I	-	Pointed	44	20	6
1/4 <sup>E</sup>	Mound	T	I	2/4	Flat	37	27	7
1/5 <sup>E</sup>	Mound	T	I	4	Flat	34	15	8
1/6	Mound	T	I	4	Beveled	52	25	9
<b>1/7</b>	<b>Mound</b>	<b>N</b>	<b>S</b>	<b>3</b>	<b>Flat</b>	<b>62</b>	<b>15</b>	<b>12</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

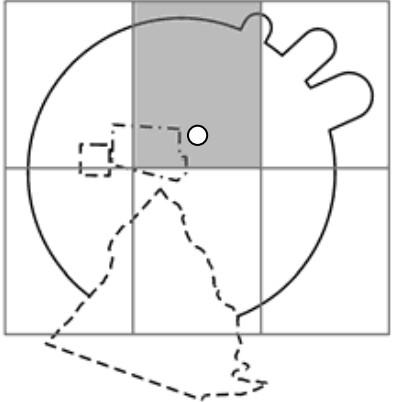




**Figure 2.67. Site 21202, Plan View and Photographs.**



**STATE SITE 50-10-23-21203**

<b>Additional Site Numbers:</b> Temporary T-07	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 12,932 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090620a	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Upright designation reversed.	
<b>Subsequent Site Visits:</b> 2005	

**DESCRIPTION:**

Site 21203, first recorded in 1995 (McCoy 1999), consists of two uprights located on a 2.0 m-high ridge top (Figure 2.69). The uprights are located 0.93 m in from the western edge of the outcrop in a crack in the bedrock (Figure 2.68). The uprights are oriented parallel to the long axis of the ridge. One upright (No. 2) is erect and the other fallen (see upright table below).

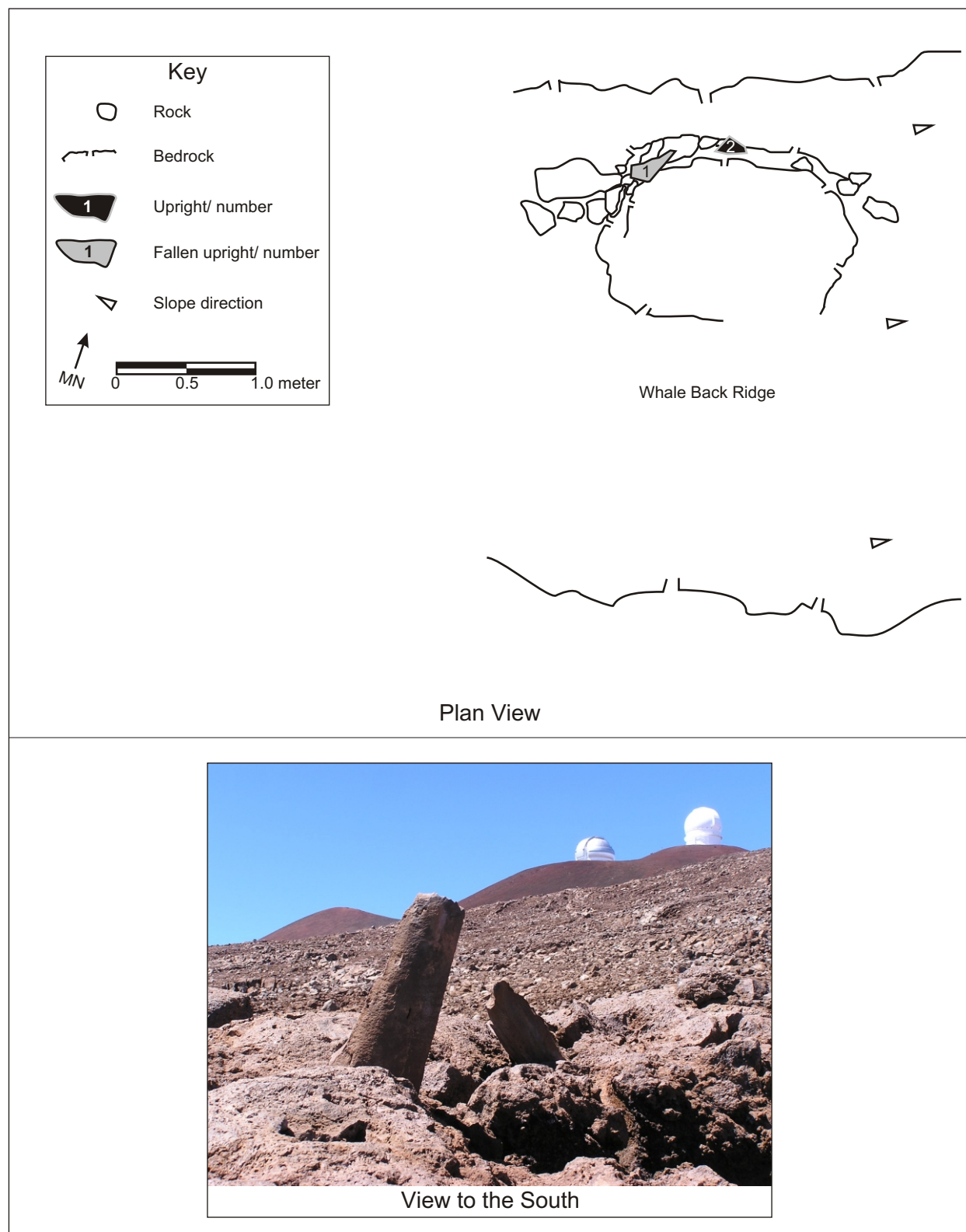
**Site 21203, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock crack	N	D	-	Beveled	36	13	10
1/2 <sup>E</sup>	Bedrock crack	N	D	-	Round	46	15	5

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

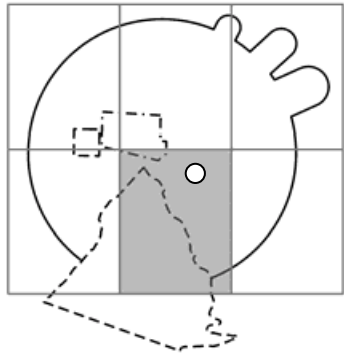


**Figure 2.68. Photograph of Site 21203; View to South**



**Figure 2.69. Site 21203, Plan View and Photograph.**

**STATE SITE 50-10-23-21208**

<b>Additional Site Numbers:</b> Temporary T-12	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,691 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM080	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2006	

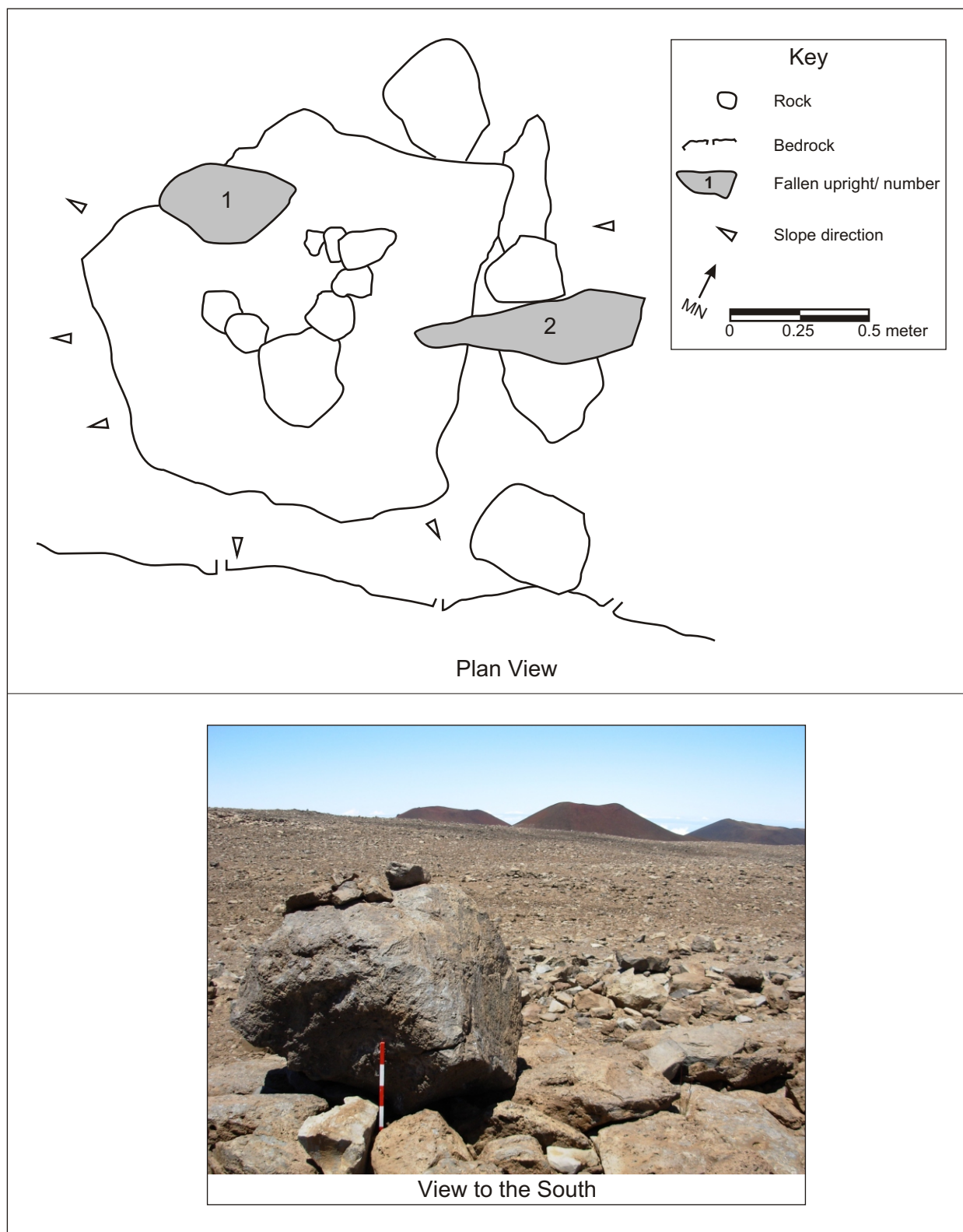
**DESCRIPTION:**

Site 21208 was first recorded in 1995 (McCoy 1999), and is an upright structure located on top of a long ridge on the eastern flank of the mountain. It consists of one and possibly two uprights situated on top of a boulder and supported by 4 stones (Figure 2.70). Both uprights were found in a fallen position when the site was recorded in 1995 (see upright data table below). The field check in 2006 raised questions about one of the uprights (No. 2), which is now considered as questionable. The one definite upright is non-tabular (No. 1). This site is similar to Sites 21206 and 21207 in the use of a boulder as the "platform" or "altar."

**Site 21208, Metric and Non-Metric Upright Data.**

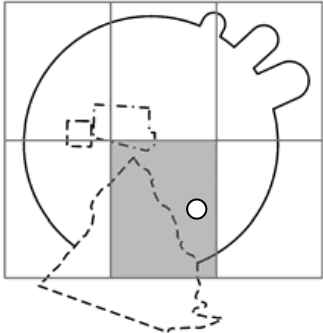
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Boulder	N	I	-	Pointed	44	20	10
<b>1/2</b>	<b>Boulder</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Pointed/Beveled</b>	<b>72</b>	<b>20</b>	<b>18</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.70. Site 21208, Plan View and Photograph.**

# **STATE SITE 50-10-23-21212**

<b>Additional Site Numbers:</b> Temporary T-16	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 6.0 m by 4.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,313 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN118	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2006	

## **DESCRIPTION:**

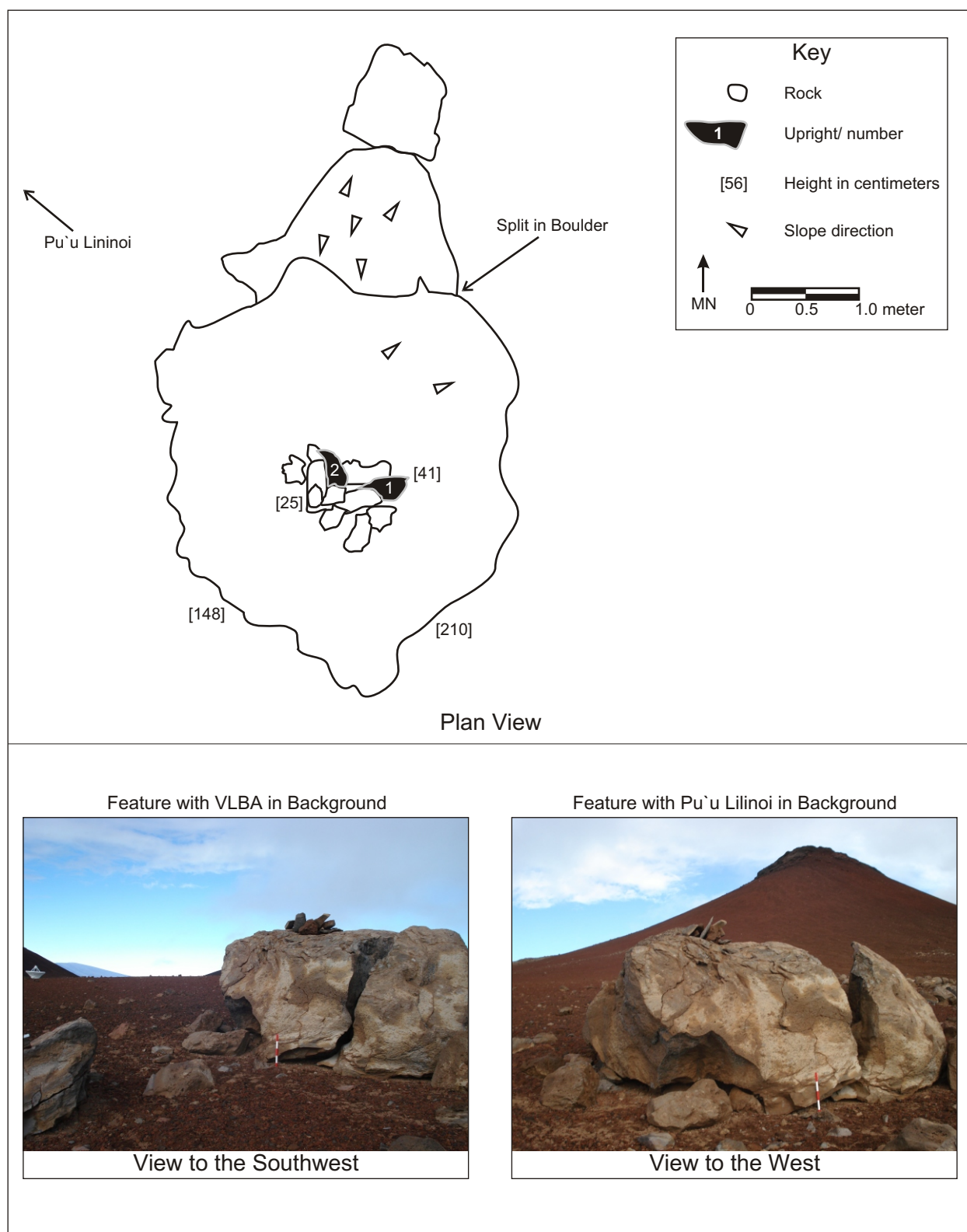
Site 21212 is an upright site located in the midst of a red cinder deposit on the southeastern slope of Pu'u Līlinoe (Figure 2.71).

Two tabular uprights, both leaning but still erect, were found on top of the boulder, which has a relatively flat upper surface (see upright table below). Approximately 12 stones, mostly basalt but including at least 2 chunks of red cinder, are clustered around the uprights as supports.

## **Site 21212, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Boulder	T	P	-	Mesial curve	45	26	5
1/2 <sup>E</sup>	Boulder	T	D	4	Beveled	47	17	5

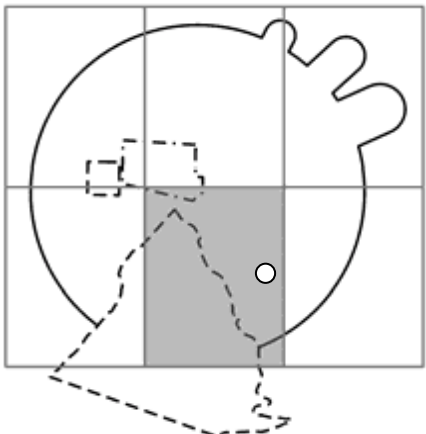
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.71. Site 21212, Plan View and Photographs.**



**SITE 50-10-23-21213**

<b>Additional Site Numbers:</b> Temporary T-17	
<b>Site Function:</b> Possible Shrine, Unknown	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 25.0 m by 18.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,187 ft a.m.s.l.	
<b>2005 GPS File No.:</b> 21213	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> One additional feature recorded. No uprights observed. Function changed to shrine to unknown due to absence of obvious uprights	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

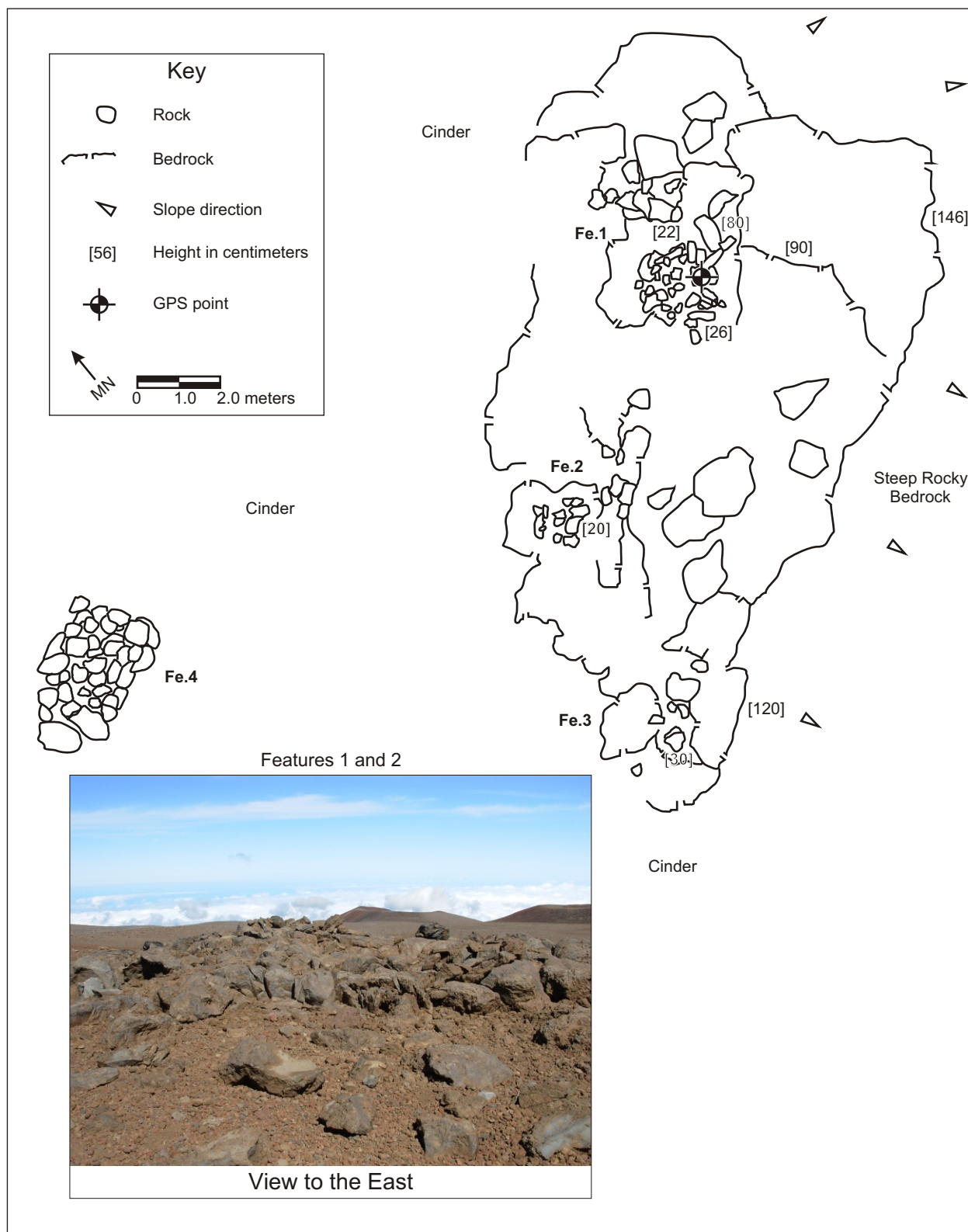
This site, located on a ridge in close proximity to Site 21211 (Figure 2.72). It consists of a possible shrine (Feature 1), two mounds (Features 2 and 3), and a crude pavement (Feature 4).

Feature 1 is a possible shrine with a circular arrangement of cobbles and small boulders located at the northeast end of the bedrock outcrop (Figure 2.73). The circular arrangement measures approximately 1.6 m by 1.6 m and 0.26 m high. There is a small depression in the center with a maximal width of 0.6 m and depth of 0.15 to 0.2 m. A possible upright, fallen, is located on the southwest end of the feature (see Upright Data Table below).

**Site 21213, Metric and Non-Metric Upright Data.**

Fe. /Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T		-	Pointed	50	30	17

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.72. Site 21213, Features 1 through 4, Plan View and Photograph.**



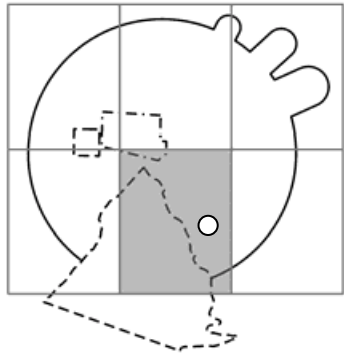
**Figure 2.73. Photograph of Site 21213, Feature 1; View to the Southeast.**

Feature 2 is a mound located on the west side of the bedrock outcrop. It is constructed of piled 10-12 boulders and measures 1.3 m by 1.2 m and 0.2 m high.

Feature 3 is a mound located 4.3 m south of Feature 2 at the southwest end of the bedrock outcropping. It is constructed of three small boulders and measures 1.0 m by 0.8 m and 0.3 m high. Feature 3 was previously recorded with a possible upright; however, during the 2006 survey no upright was noted.

Feature 4 is a crude pavement located approximately 11.0 m west of Feature 2. It is constructed of a single course of small boulders placed on a cinder surface, and it measures 3.85 m by 2.5 m.

**STATE SITE 50-10-23-21214**

<b>Additional Site Numbers:</b> Temporary T-18	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 12.0 m by 6.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,147 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM086	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Upright form, map and site description up-dated.	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

Site 21214, located on the edge of a lava flow and gelifluction lobe on the southeastern side of the mountain, below Pu'u Līlīnoe, was first found by SHPD staff in 1995 (McCoy 1999). This site was described as an elaborate shrine with five uprights (and possibly as many as seven) and a pavement (see upright table below). The plan of the site was shown as in 1995 as a single row of uprights oriented roughly north-south (perpendicular to the slope), and the pavement as a mixture of locally available flat slabs and rounded boulders (Figures 2.74 and 2.75).

Review of the site plan in 2006 indicated that one more possible upright (No. 8) appeared on the site map but had not been included in the list of uprights. The data on this upright was added to the summary table. In reviewing the site it was also noted that Upright No.'s 1 and 6 are aligned perpendicular to the row of other uprights (No.'s 2 through 5), thus forming a short-sided U-shaped enclosure. The paved "court" area measures 4.4 m (north/south) by 5.0 m (east/west). In the middle of the "court" is a grey stone that stands out against the other pavement stones because of its unusual color. South of the uprights and pavement is a natural terrace, along the edges of which are piled cobbles that help to define the southern limit of the site, which has maximum dimensions of 12.0 m (north/south) by 6.5 m (east/west).

**Site 21214, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Pavement	T	S	4	Flat	53	26	9
1/2 <sup>E</sup>	Pavement	T	C	4	Gabled	60	30	5
1/3 <sup>E</sup>	Pavement	T	P	4	Crescent/ Round	70	30	9
1/4 <sup>E</sup>	Mound	T	S	-	Flat/ Beveled	65	33	8

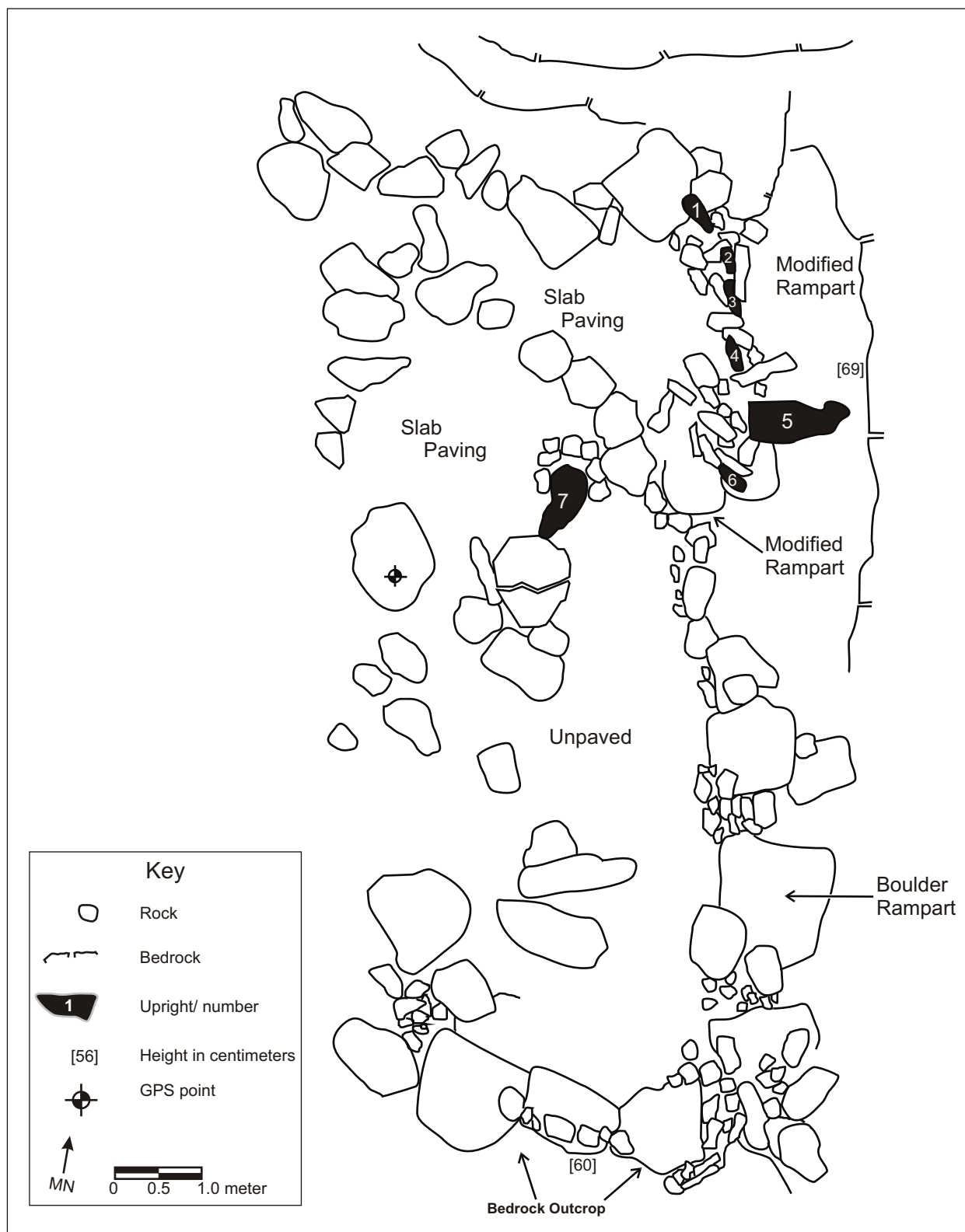


Figure 2.74. Site 21214, Plan View.

### Site 21214, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/5	Mound	T	I	-	Pointed	110	35	20
1/6 <sup>E</sup>	Mound	T	D	-	Gabled	50	20	7
1/7	Mound	T	I	4	Flat	61	30	9
1/8	Pavement	T	I	4	Flat/ Beveled	67	22	9

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



View of Upright No.'s 1 Through 3; View to South.

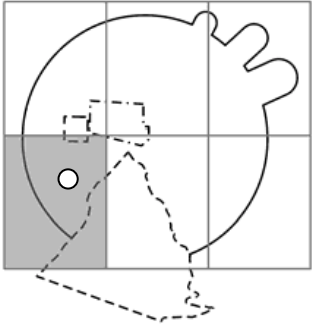


View of Upright No.'s 1 Through 3; View to Northeast.

**Figure 2.75. Photograph of Site 21214, Two Views of Upright No.'s 1 through 3.**



**STATE SITE 50-10-23-21410**

<b>Additional Site Numbers:</b> Temporary E-18	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 4.0 m by 4.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,741 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM157	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2007	

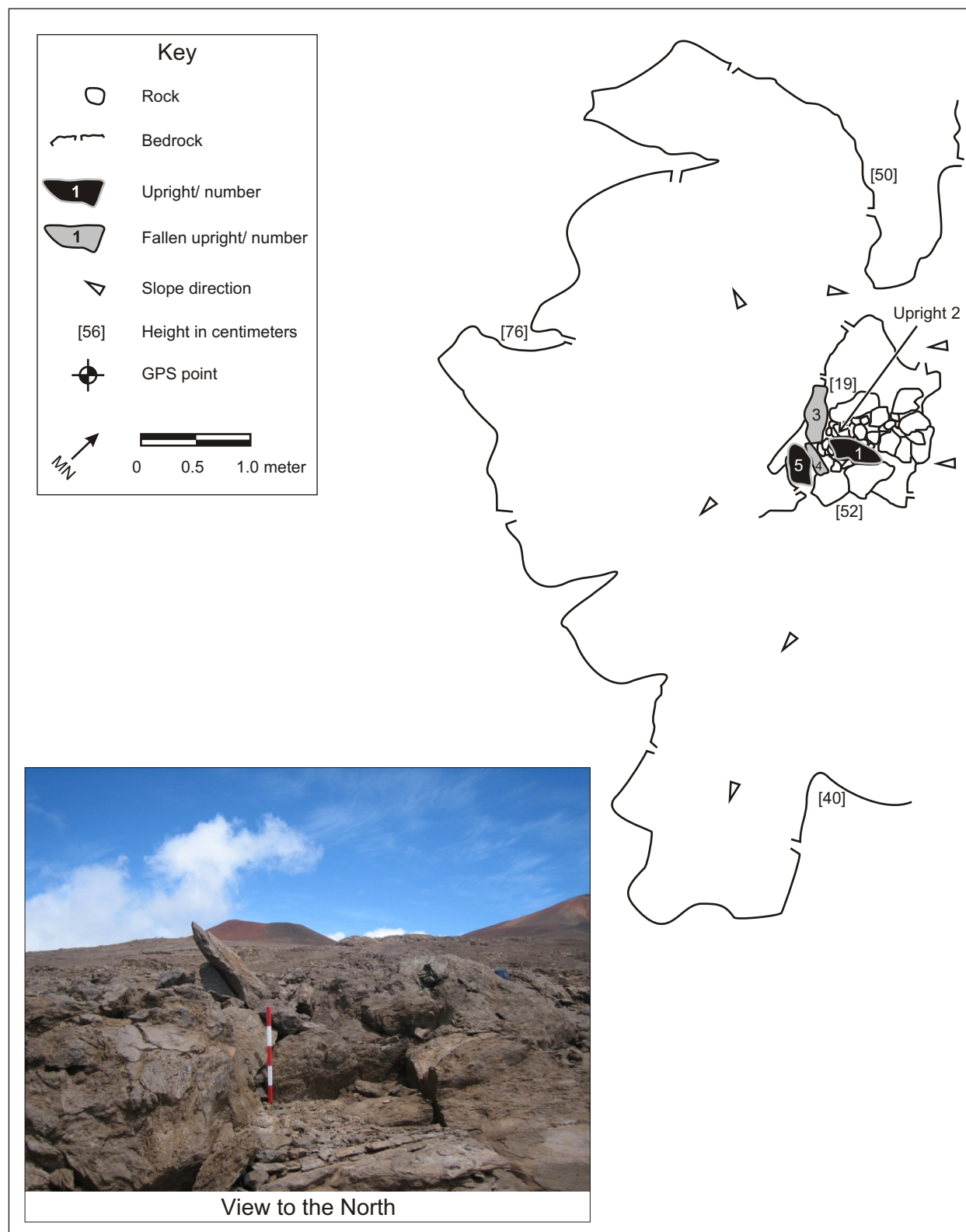
**DESCRIPTION:**

This site, located on a boulder outcrop on the southwestern slope of the mountain, is a shrine with five uprights. The uprights are located in a rock mound constructed of cobbles and small boulders with a possible cobble paving located along the north side (Figure 2.76).

### Site 21410, Metric and Non-Metric Upright Data.

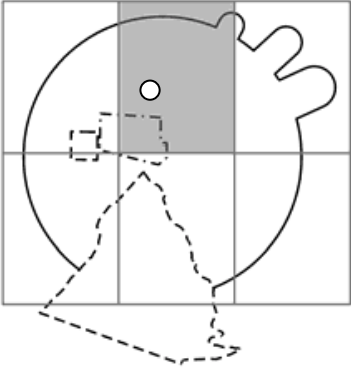
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	Cr	-	Pointed	70	20	13
1/2 <sup>E</sup>	Mound	T	P	3	Pointed	36	27	11
1/3	Mound	N	D	-	Flat	50	18	11
<b>1/4</b>	<b>Mound</b>	<b>T</b>		<b>-</b>	<b>Flat</b>	<b>36</b>	<b>10</b>	<b>6</b>
1/5 <sup>E</sup>	Mound	N		-	Flat	46	17	16

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.76. Site 21410, Plan View and Photograph.**

**STATE SITE 50-10-23-21418**

<b>Additional Site Numbers:</b> Temporary B-4	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 2.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (mid-elevation)	
<b>Approximate U.S.G.S. Elevation:</b> 12,780 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090600a	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2005	

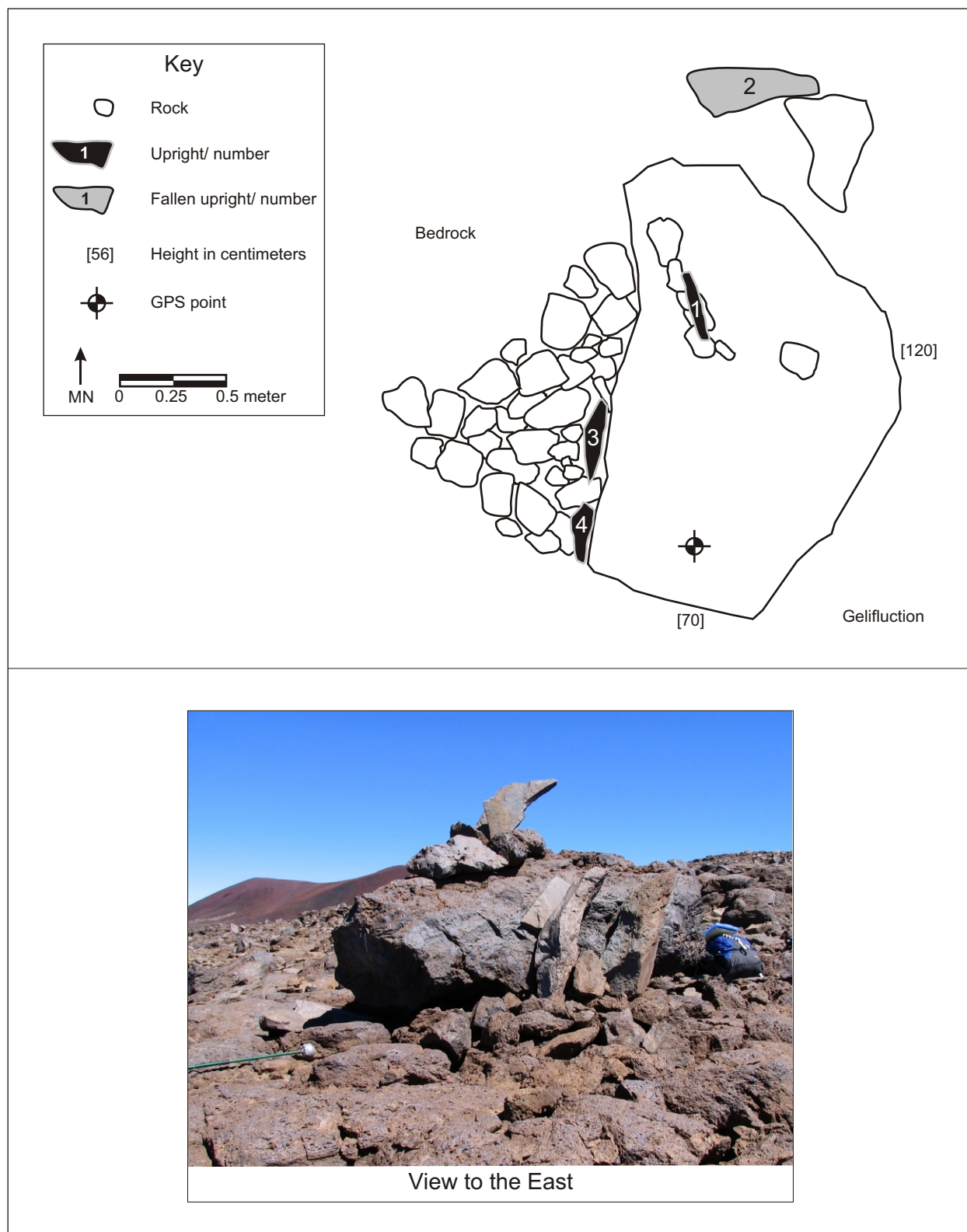
**DESCRIPTION:**

Site 21418, first recorded in 1997 (McCoy 1999), is a small shrine with three (No.'s 1, 3, and 4), possibly four (No. 2), uprights located on top of and to the side of a large boulder situated on a ridge top (Figure 2.77; see upright data table below). Upright No. 1 stands erect, and is located on top of a boulder and is supported by cobbles. Upright No.'s 3 and 4, (both erect and leaning against a boulder), are located at ground level on the western side of the boulder on the edge of a cobble pavement. The possible upright (No. 4) is located on the ground north and below Upright No.1.

**Site 21418, Metric and Non-Metric Upright Data.**

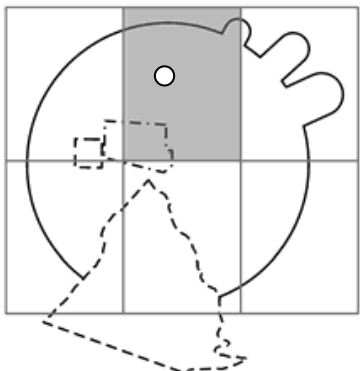
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Boulder	T	P	-	Beveled	76	21	4
<b>1/2</b>	<b>Bedrock Surface</b>	<b>N</b>	<b>P</b>	-	<b>Flat/Gabled</b>	<b>56</b>	<b>23</b>	<b>14</b>
1/3 <sup>E</sup>	Pavement	N	I	-	Crescent shaped/Beveled	74	19	12
1/4 <sup>E</sup>	Pavement	N	P	-	Beveled	72	22	17

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.77. Site 21418, Plan View and Photograph.**

**STATE SITE 50-10-23-21419**

<b>Additional Site Numbers:</b> Temporary PM2007-002	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,776 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM047	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> The site was re-evaluated in 2007 and it was determined that it has three uprights instead of one.	
<b>Subsequent Site Visits:</b> 2007	

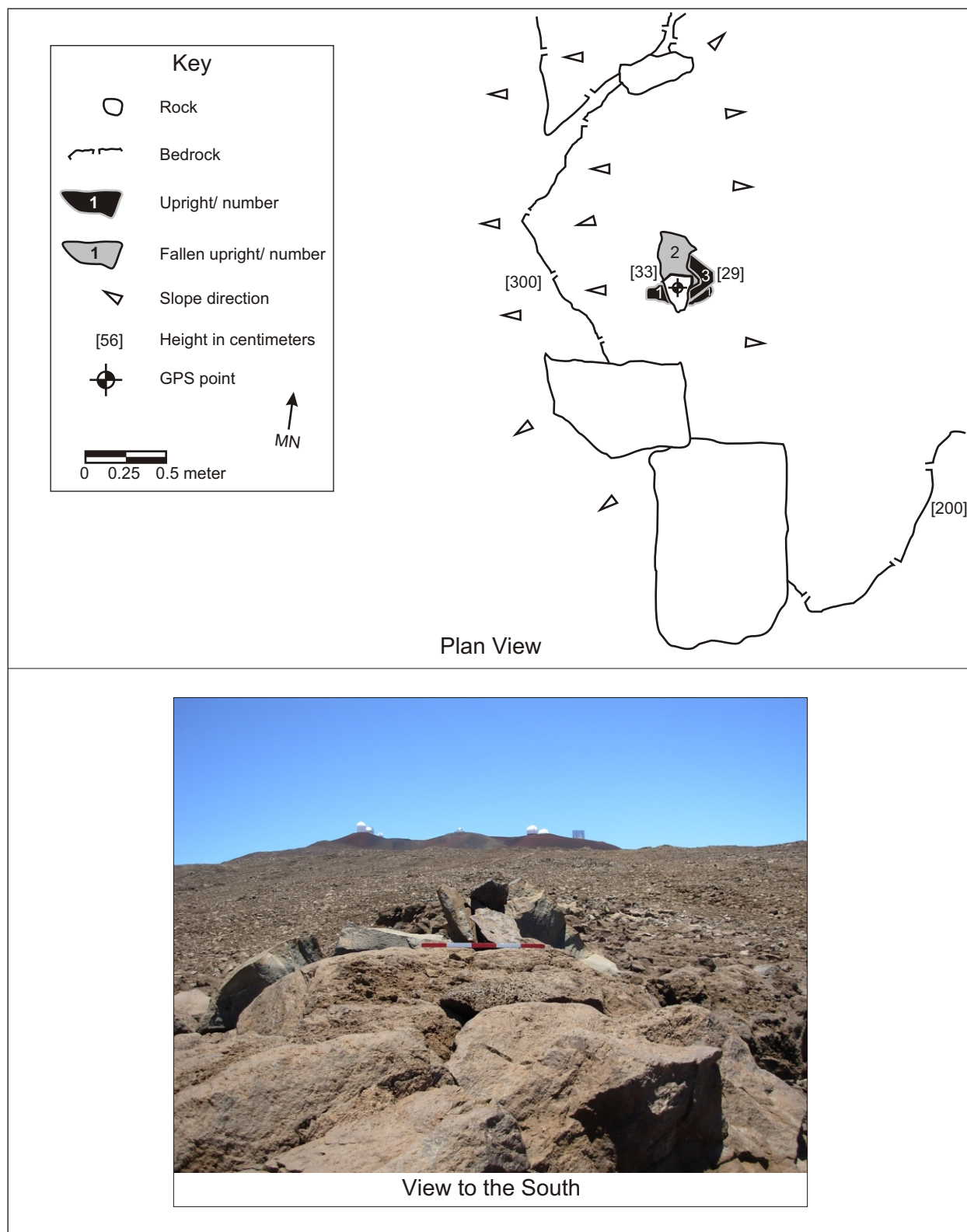
**DESCRIPTION:**

Site 21419 is located on a whaleback ridge and consists of a three uprights (Upright No.'s 1 through 3) and support stones. Upright No.'s 1 and 3 stand erect and are situated in a crack in the outcrop (see upright data table below). Upright No. 2 is leaning against the other two uprights (Figure 2.78). Underneath and on top of the displaced Upright No. 2 are support stones.

**Site 21419, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock	T	CR	-	Flat	45	13	5
1/2	Bedrock	T	CR	-	Gabled	43	24	5
1/3 <sup>E</sup>	Bedrock	T	S	-	Gabled	42	20	6

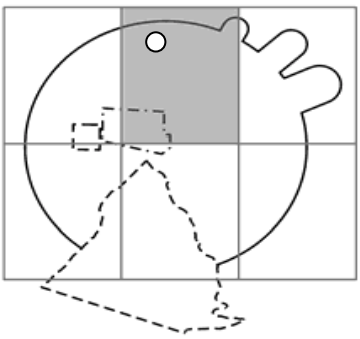
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.78. Site 21419, Plan View and Photograph.**



**STATE SITE 50-10-23-21420**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Shrine, Marker, and Unknown	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 5.0 m by 3.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,077 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN032	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2007	

**DESCRIPTION:**

Site 21420 is located on the crest of glacial moraine on the north slope of the mountain, not far above the head of Hanaipoe Gulch. The site consists of four features; an upright structure (Feature 1), a platform (Feature 2), a cairn (Feature 3), and a rock pile (Feature 4) (Figures 2.79 and 2.80).

Feature 1 consists of 11, possibly 12, uprights situated along the northern and eastern walls of a crude rectangular enclosure (see upright data table below). The enclosure is approximately 11.0 m long by 7.0 m wide. The enclosure walls along the northern and eastern sides are constructed of piled cobbles and boulders with a maximum height of 0.83 m along the exterior. Some stacking is evident along the north wall; this wall has a height of 0.6 m and a maximum width of 1.3 m. The western and southern walls are defined by scattered cobbles and boulders.

The interior surface of the enclosure is a gelifluction lobe consisting of well-sorted cinder and small cobbles with occasional boulder. Nine (No.'s 1 through 9) of the twelve uprights are located along the north wall, two uprights are located on the east wall (No.'s 10 and 11), and the twelfth upright (No. 12) is located on the southeast corner of the south wall (see Figure 2.80).

**Site 21420, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Wall	T	D	-	Pointed	37	19	8
1/2	Wall	T	D	-	Pointed	67	42	18

### Site 21420, Metric and Non-Metric Upright Data.

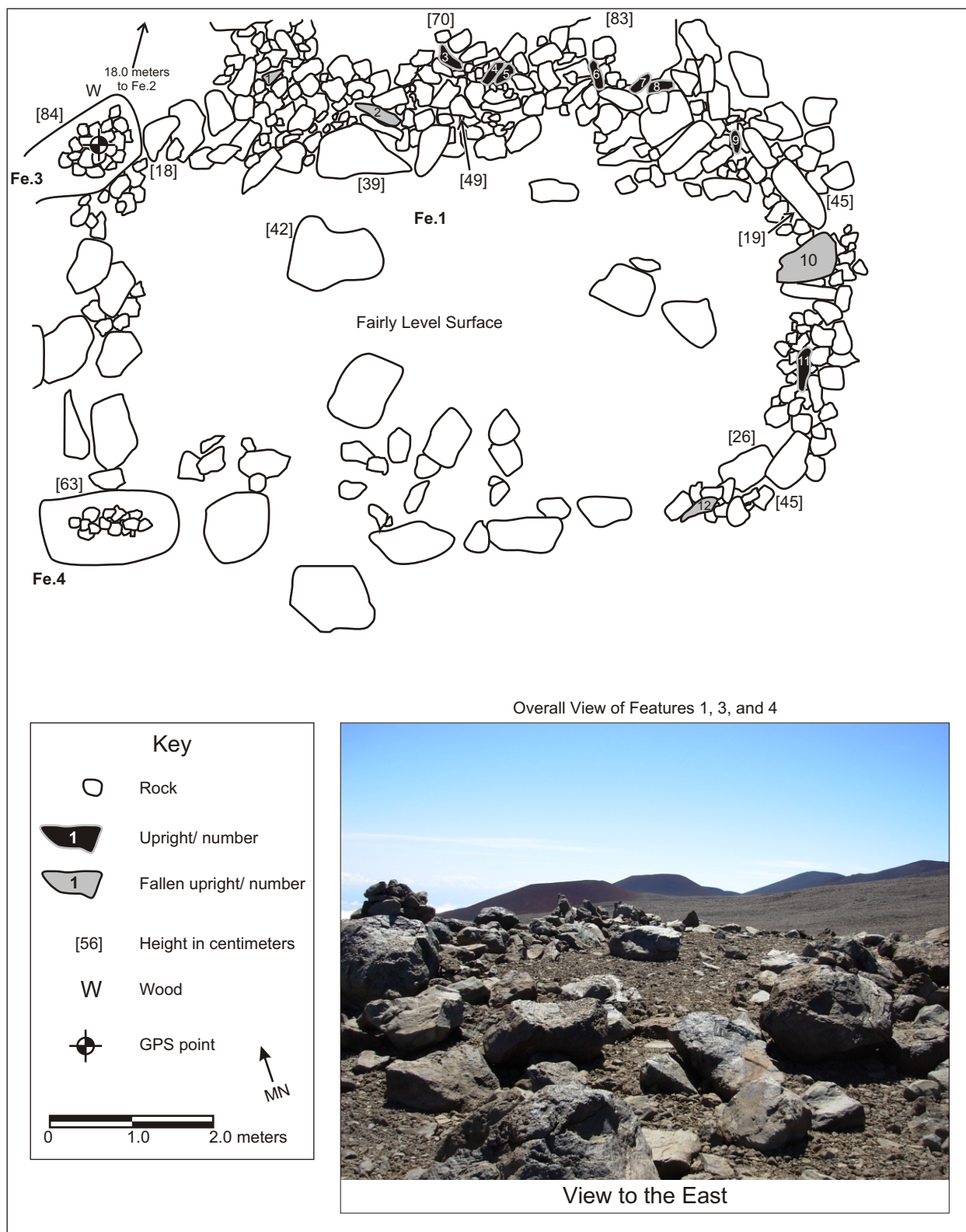
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/3	Wall	T	S	5	Beveled	60	29	15
1/4 <sup>E</sup>	Wall	T	I	-	Pointed/ Gabled	53	33	15
1/5 <sup>E</sup>	Wall	T	C	-	Pointed/ Gabled	60	35	17
1/6 <sup>E</sup>	Wall	T	S	3	Pointed	61	33	10
1/7 <sup>E</sup>	Wall	T	P	-	Flat	48	28	8
1/8 <sup>E</sup>	Wall	T	P	-	Mesial curve	46	26	8
1/9 <sup>E</sup>	Wall	T	C	-	Pointed/ Gabled	52	38	9
1/10	Pavement	T	P	-	Flat	60	37	7
1/11 <sup>E</sup>	Wall	T	D	-	Pointed	54	42	8
1/12	Wall	T	P	-	Pointed	55	27	7

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

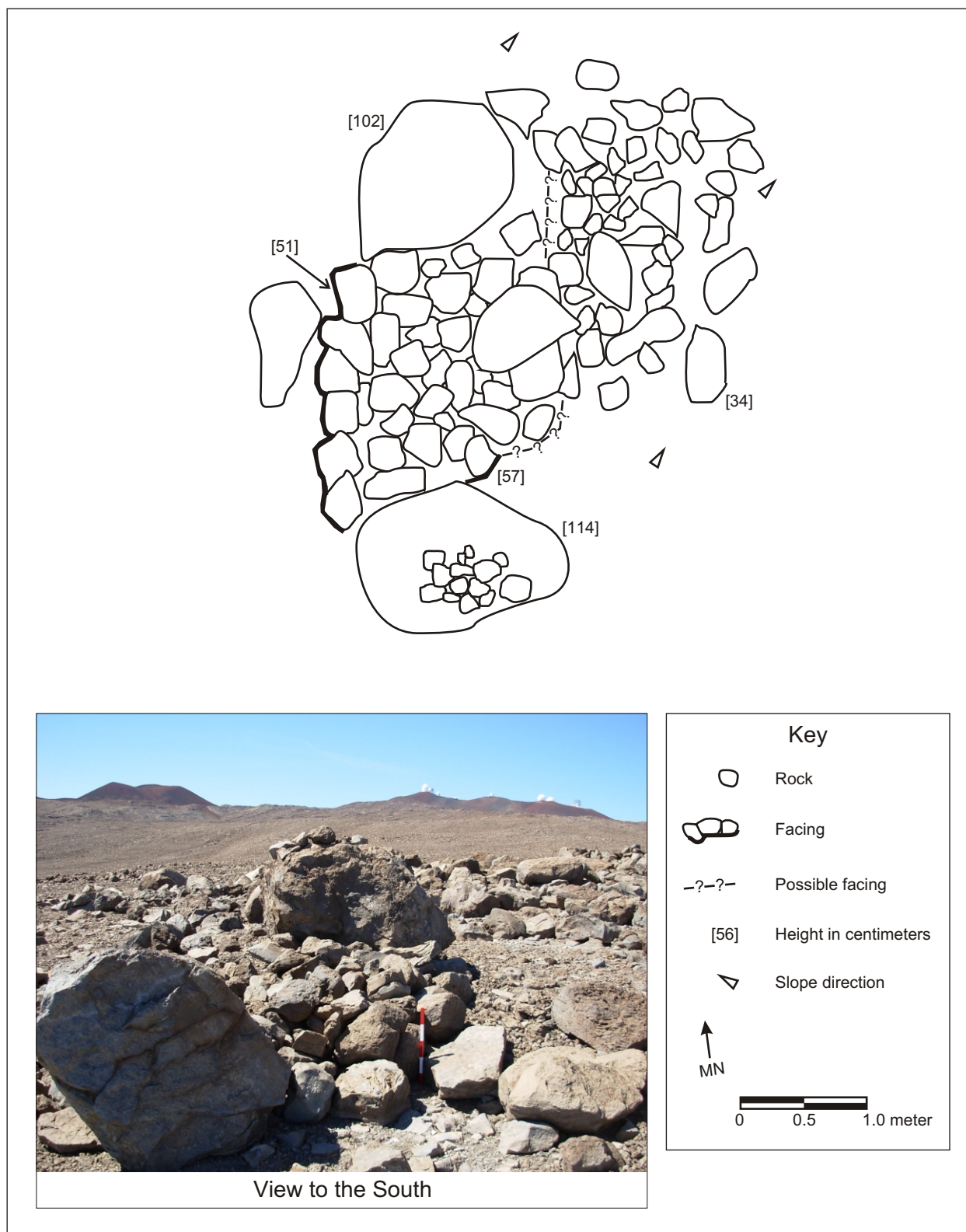
Feature 2 is platform located approximately 18.0 m north/northeast of Feature 1's northwest corner (see Figure 2.80). The platform is constructed of stacked cobbles and small boulders placed between two boulders that form the north and south ends. Collapse is evident along the east side. Inclusive of the boulders, the platform is, 4.5 m long (approximately 2.5 m without) by 1.8 m wide, with collapsed portions extending an additional 1.0 m to the east.

Feature 3 is a cairn located at the northwest corner of the enclosure on a boulder (see Figure 2.80). The cairn is 1.0 m by 0.7 m with a maximum height of 1.2 m and constructed of piled cobbles and small boulders. The boulder on which the cairn is situated is 0.84 m high. A piece of wood is located at the base of the cairn.

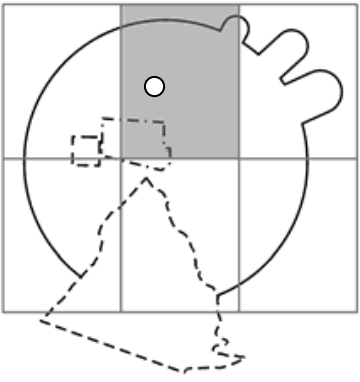
Feature 4 is a rock pile located in the southwest corner of the enclosure on a boulder, similar to Feature 3 (see Figure 2.79). The feature is constructed of piled cobbles and small boulders and is 1.0 m by 0.5 m with a maximum height of 0.3 m. The boulder on which the rock pile is situated is 0.63 m high.



**Figure 2.79. Site 21420, Features 1, 3, and 4, Plan View and Photograph.**



**STATE SITE 50-10-23-21421**

<b>Additional Site Numbers:</b> Temporary B-7	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 11.0 m by 6.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,641 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN164	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Location of Upright No.1 has moved from the northeast side of Feature 2 to the southeast side.	
<b>Subsequent Site Visits:</b> 2007	

**DESCRIPTION:**

Site 21421 is located on the eastern edge of glacial ridge crest on the north slope of the mountain. It consists of two mounds (Features 1 and 2), with a possible upright associated with Feature 2, and one isolated upright (Feature 3) (Figure 2.81).

Feature 1, a mound, is located at the northern end of the site at the crest of the ridge (see Figure 2.81). The mound, measuring 1.5 m by 1.0 m, with a maximum height of 0.42 m, is constructed of eleven piled cobbles and small boulders.

Feature 2, a mound, is located approximately 3.8 m south of Feature 1 on a raised outcrop, approximately 0.70 m above Feature 1. The mound is constructed of cobbles and small boulders and measures 1.12 m by 0.75 m, with a maximum height of 0.4 m. A fallen possible upright is located 0.4 m southeast of the mound (No. 1 in upright table below).

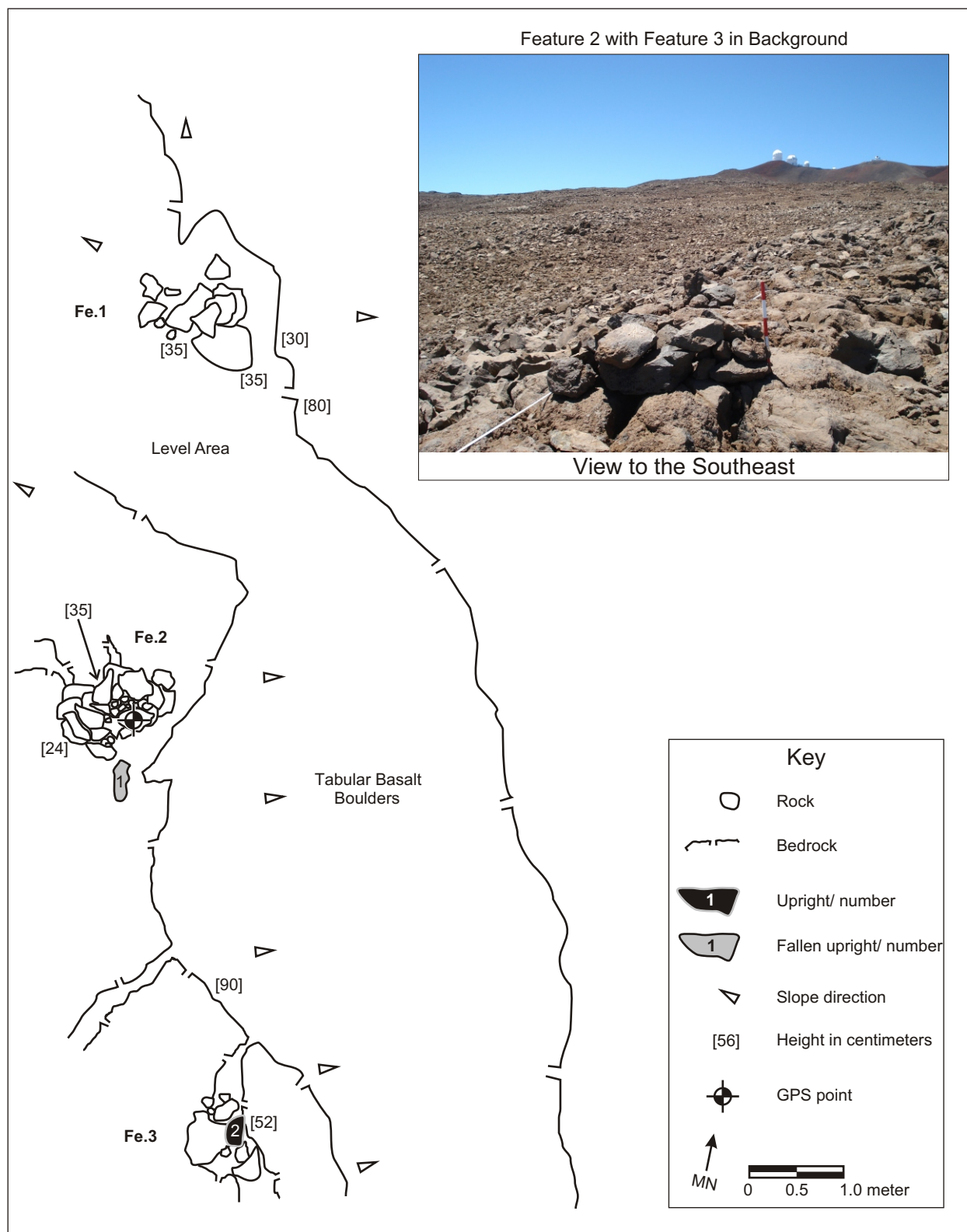
Feature 3, an isolated upright (No. 2; stands erect), is located approximately 4.5 m south of Feature 2, along the same raised outcrop (see Figure 2.81). This upright is positioned within a crack in the outcrop on top of a cobble base with additional support on the west side by a single cobble.

**Site 21421, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
2/1	Mound	T	D	-	Flat	43	21	8
3/2 <sup>E</sup>	Mound/ Bedrock	N	C	-	Rounded	63	30	17

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

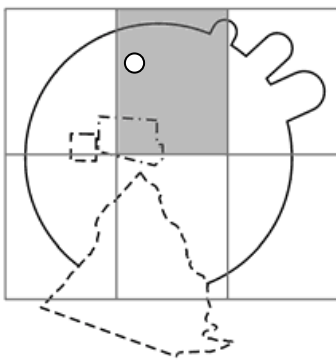




**Figure 2.81. Site 21421, Features 1 through 3, Plan View and Photograph.**



**STATE SITE 50-10-23-21424**

<b>Additional Site Numbers:</b> Temporary E-32	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 5.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,231 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN135	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2007	

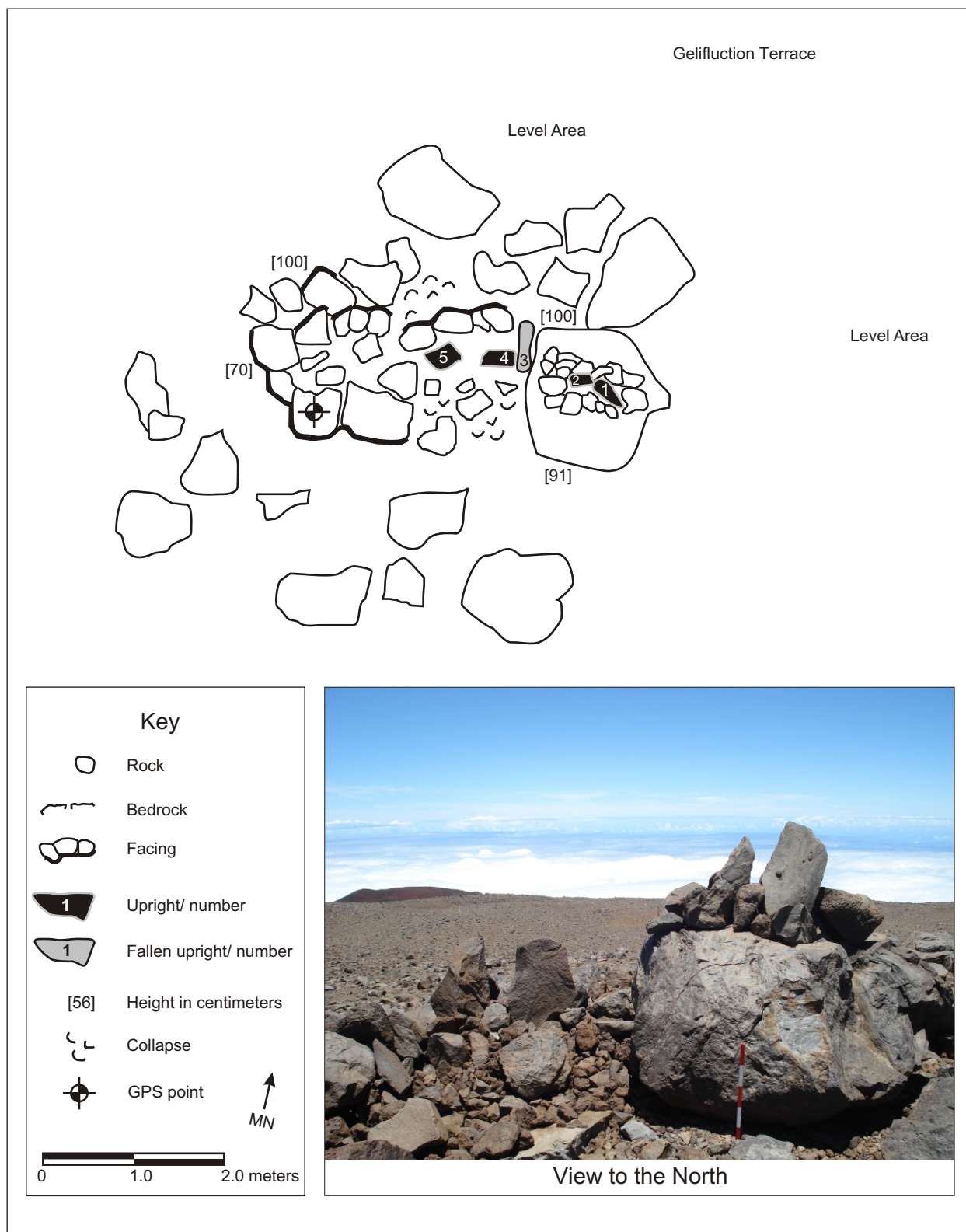
**DESCRIPTION:**

This site is a structure with five uprights located at the toe of a moraine (boulder rubble slope) on the north side of Mauna Kea. Two uprights (No.'s 1 and 2; see upright table below) are located on top of a large boulder; the other three (No.'s 3, 4, and 5) are located west/northwest on an adjacent mound (Figure 2.82). Upright No.'s 1, 2, 4, and 5 have significant bracing on the north side and all appear to be leaning to the east.

**Site 21424, Metric and Non-Metric Upright Data.**

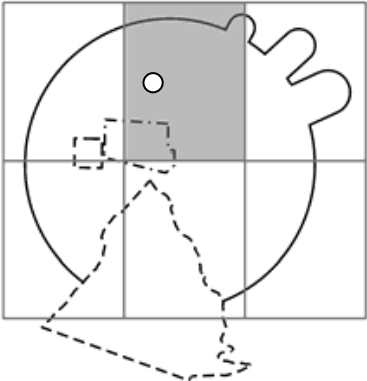
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Boulder	T	P	-	Beveled	66	33	22
1/2 <sup>E</sup>	Boulder	T	D	-	Pointed	53	17	10
1/3	Mound	T	P	-	Beveled	51	22	13
1/4 <sup>E</sup>	Mound	T	D	5	Rounded	56	39	17
1/5 <sup>E</sup>	Mound	T	I		Pointed	62	23	21

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.82. Site 21424, Plan View and Photograph.**

**STATE SITE 50-10-23-21426**

<b>Additional Site Numbers:</b> Temporary E-34	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,490 ft a.m.s.l.	
<b>2007 GPS File No.:</b> none	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Upright No.4 recorded in 1997 is no longer erect and could not be relocated.	
<b>Subsequent Site Visits:</b> 2007	

**DESCRIPTION:**

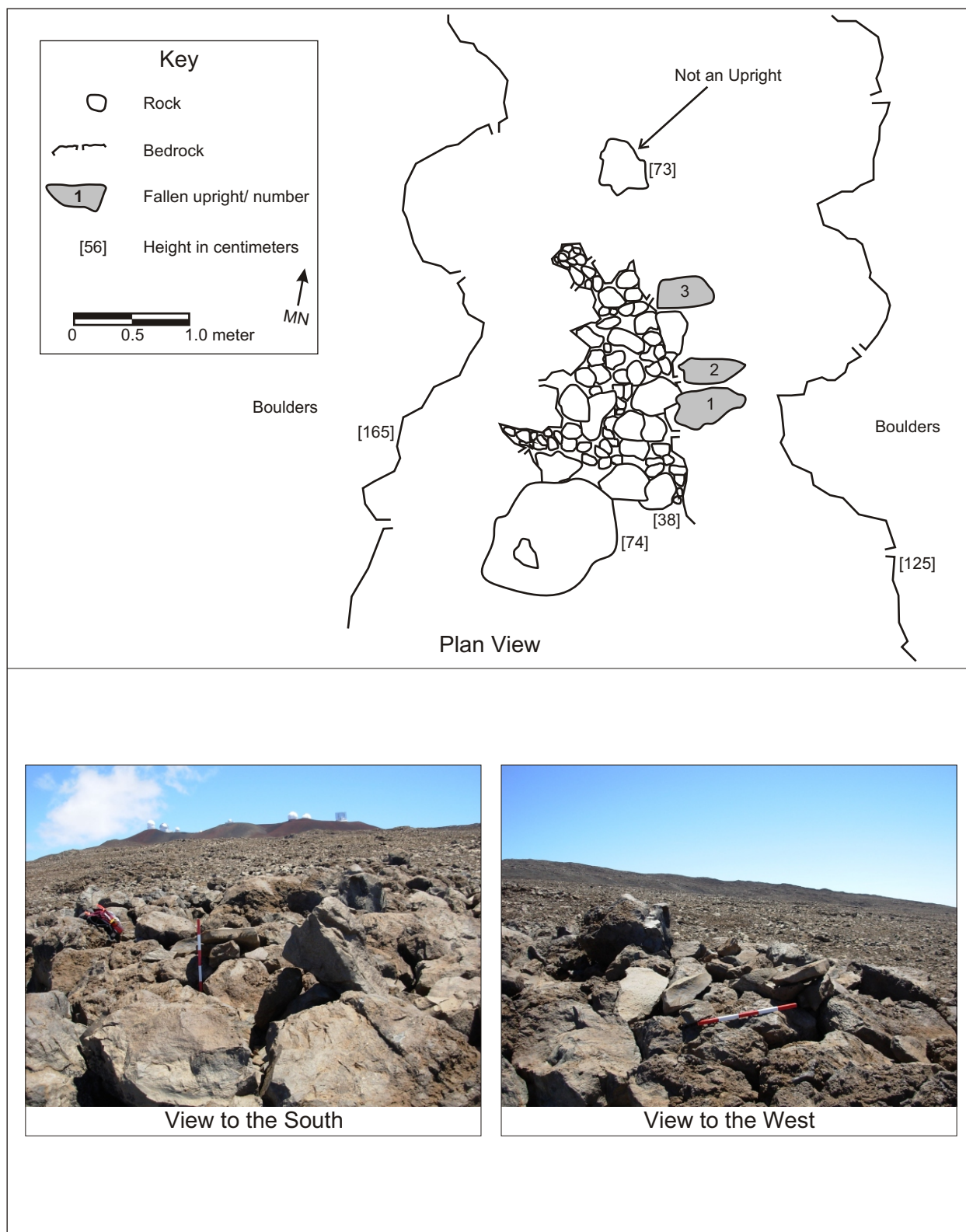
Site 21426, located on a ridge crest, consists of three fallen uprights on a cobble-filled crack that forms a pavement. It was first recorded in 1997.

The pavement is irregular in shape, flush with the outcrop surface, and approximately 2.4 m long by 1.2 m wide. The three fallen uprights (No.'s 1 through 3 in upright data table below) are located on the east side of the pavement (Figure 2.83). The fourth upright (No. 4), previously located 75 cm to the northwest, could not be relocated during the recent survey.

### Site 21426, Metric and Non-Metric Upright Data.

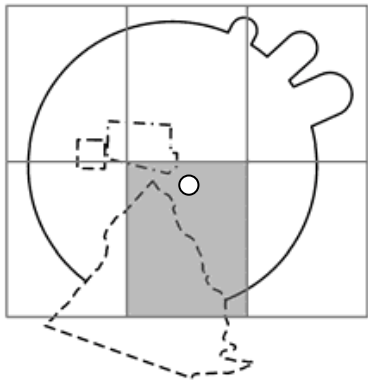
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Pavement	T	S	6	Pointed	59	28	5
1/2	Pavement	T	S	6	Pointed	49	21	10
1/3	Pavement	T	P	6	Beveled	42	24	6

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.83. Site 21426, Plan View and Photographs.**

**STATE SITE 50-10-23-21430**

<b>Additional Site Numbers:</b> Temporary B-9	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 7.0 m by 3.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,984 ft a.m.s.l.	
<b>2006 GPS File No.:</b> 21430	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Upright designations were revised to reflect additional, newly recorded uprights.	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

This site is a small shrine site first found in 1997 (McCoy 1999) on an isolated rock outcrop on the flank of one of the summit cinder cones. It consists of the shrine with uprights (Feature 1) and a mound (Feature 2). It is one of the highest elevation sites that have been found in the immediate summit area.

The 1997 sketch map of Feature 1 showed a total of three uprights, only one of which stood erect. The uprights, which are aligned in a single row, are spaced approximately 2.0 m apart (Figure 2.84). Two additional possible uprights were found in 2006 and the number of upright numbers revised to a total of five (see upright data table below).

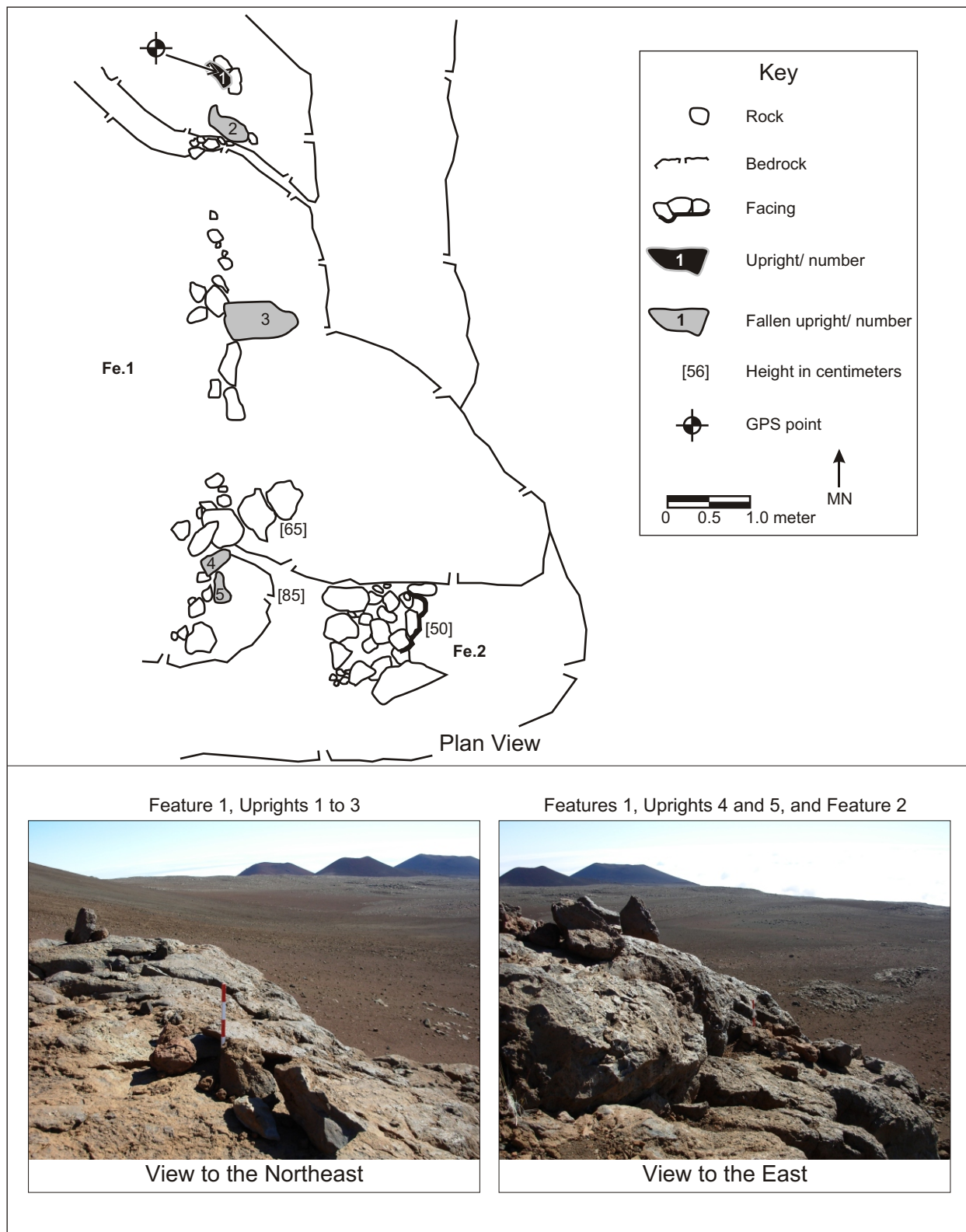
Feature 2 is a low mound found during the 2006 survey. It is constructed of piled cobbles and is 1.0 m wide and 0.5 m high. No apparent uprights were observed.

**Site 21430, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock	N	P	3	Flat	39	31	12
1/2	Bedrock	N	C	3	Pointed	49	31	8
1/3	Bedrock	N	P	4	Pointed	76	37	12
1/4	Bedrock	N	D	-	Pointed	42	29	15
1/5	Bedrock	N	D	-	Beveled	43	21	8

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

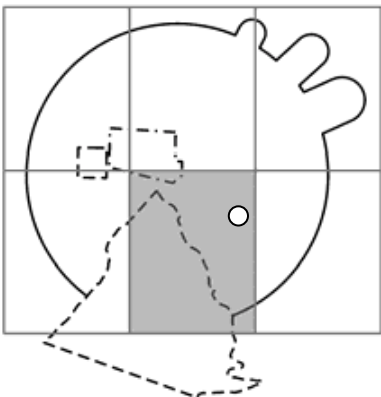




**Figure 2.84. Site 21430, Features 1 and 2, Plan View and Photographs.**



**STATE SITE 50-10-23-21431**

<b>Additional Site Numbers:</b> Temporary B-15	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 4.0 m by 4.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,423 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM082	
<b>Date First Recorded:</b> 1991	
<b>Current Status:</b> No apparent change. The upright form was completed in 2006, but the site was not mapped because of the lack of time.	
<b>Subsequent Site Visits:</b> 1997, 2006	

**DESCRIPTION:**

This site is a series of uprights first recorded by SHPD archaeologists during a walk to inspect possible burials on the top of Pu'u Makanaka in 1991. During that year, a sketch and brief description of this site were made. The location (by GPS) and attribute data on the uprights were documented by SHPD during another brief site visit in 1997. A new site form was completed during the PCSI survey in 2006, but it was not re-mapped due to time constraints coupled by bad weather.

There are seven, and possibly as many as 10 uprights arranged in a U-shaped configuration (Figure 2.85; see upright data table below). A majority of the uprights are wedged into cracks in the top of the lava flow, much of which has been covered by an active gelifluction lobe. Thus, much of the site area surface consists of a well-sorted gelifluction deposit.

There are several tabular slabs resting on this surface which have been identified as uprights or possible uprights, including one large slab with a side notch. The open area in the middle of the site is regarded as a possible "court" area (see Figure 2.85).

**Site 21431, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	N	D	-	Rounded	45	20	18
1/2 <sup>E</sup>	Mound	T	S	4	Beveled	48	30	6
1/3 <sup>E</sup>	Bedrock	N		-	Rounded	55	25	18

**Site 21431, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
	crack							
1/4 <sup>E</sup>	Bedrock crack	T	D	-	Gabled	53	30	15
1/5 <sup>E</sup>	Other	T	D	-	Gabled	47	25	11
1/6	Bedrock crack	T	I	4	Rounded/gabled	48	14	8
<b>1/7</b>	<b>Bedrock crack</b>	<b>T</b>	<b>S</b>	<b>-</b>	<b>Flat</b>	<b>48</b>	<b>23</b>	<b>17</b>
<b>1/8</b>	<b>Other</b>	<b>T</b>	<b>S</b>	<b>4</b>	<b>Rounded</b>	<b>38</b>	<b>24</b>	<b>16</b>
1/9	Other	T	C	-	Mesial curve	48	35	10
<b>1/10</b>	<b>Other</b>	<b>T</b>	<b>I</b>	<b>-</b>	<b>Gabled</b>	<b>44</b>	<b>32</b>	<b>10</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

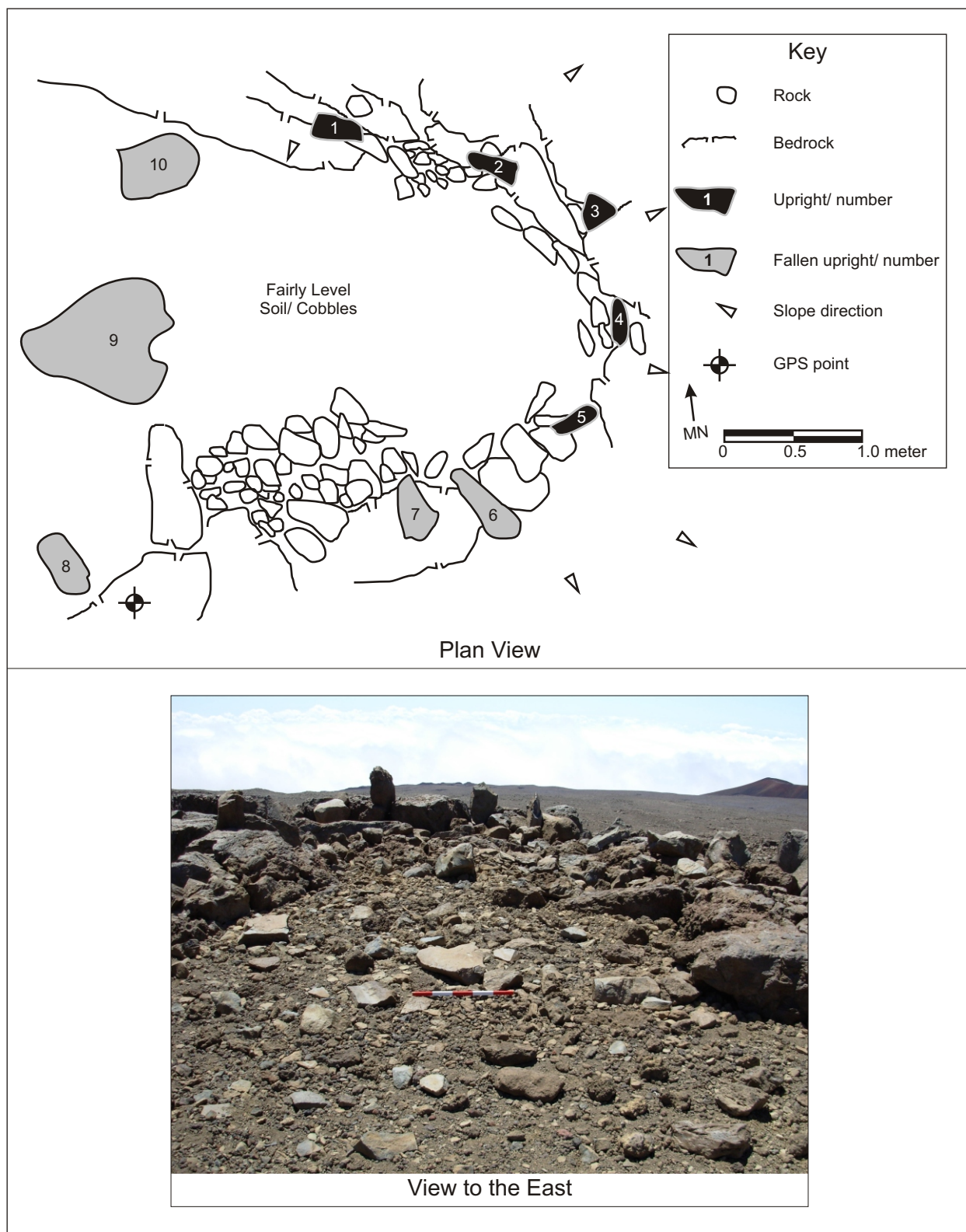
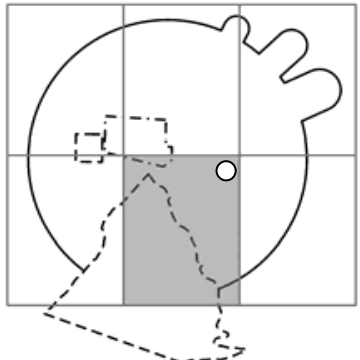


Figure 2.85. Site 21431, Plan View and Photograph.

**STATE SITE 50-10-23-21435**

<b>Additional Site Numbers:</b> Temporary E-50	
<b>Site Function:</b> Shrine and marker	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 2.0 m by 1.5 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,477 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN144	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

Site 21435 is located in a boulder outcrop on the east flank of the mountain. It consists of a boulder with an upright (Feature 1) and a cairn (Feature 2) (Figure 2.86).

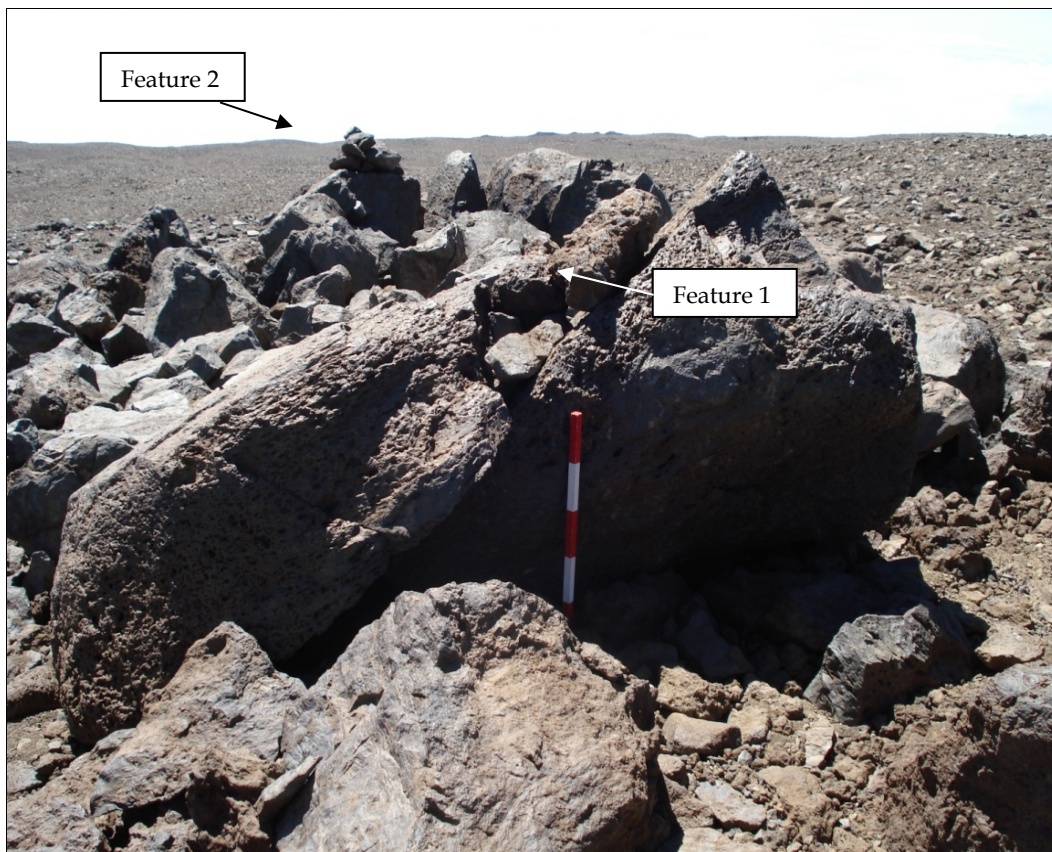
Feature 1 consists of five cobbles placed on a boulder with a fallen upright lying among them (see upright data table below).

Feature 2 is a small cobble pile located approximately 7.5 m east of Feature 1. It contains approximately ten cobbles, measures 0.69 m by 0.68 m, and is 0.35 m high.

**Site 21435, Metric and Non-Metric Upright Data.**

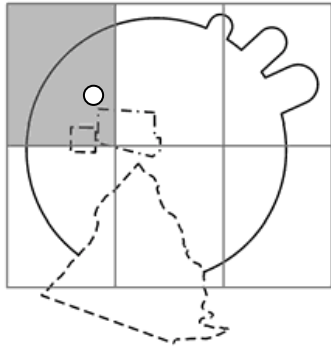
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Boulder	T	D	4	Pointed	31	10	8

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.86. Photograph of Site 21435, Features 1 and 2.**

**STATE SITE 50-10-23-21441**

<b>Additional Site Numbers:</b> Temporary 2005-01	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 12.0 m by 7.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 12,785 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 010	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 21441 consists of three discrete features with 13 uprights and is located on the crest and edge of a whaleback ridge (Figure 2.87).

Feature 1, the largest of the three features, consists of a linear mound constructed of piled basalt cobbles and small boulders. It measures approximately 2.8 m long and 1.4 m wide, and has at least 10 uprights (No.'s 1 through 10 in the upright data table below). The uprights in Feature 1 are standing erect or leaning, and are located along the long axis of the mound.

Feature 2 is located approximately 2.0 m south of Feature 1 and consists of an erect upright supported by a pile of basalt cobbles (No. 11 in upright data table below). The pile measures approximately 1.0 m by 1.0 m.

Feature 3 consists of an erect upright supported by cobbles located approximately 8.9 m southwest of Feature 2. The upright (No. 12 in upright table below) has been placed in a crack of a 1.1 m -high outcrop. One edge of the upright has been modified (flaked). A possible upright (No. 13) is located east of Feature 3 at the base of the outcrop.

**Site 21441, Metric and Non-Metric Upright Data**

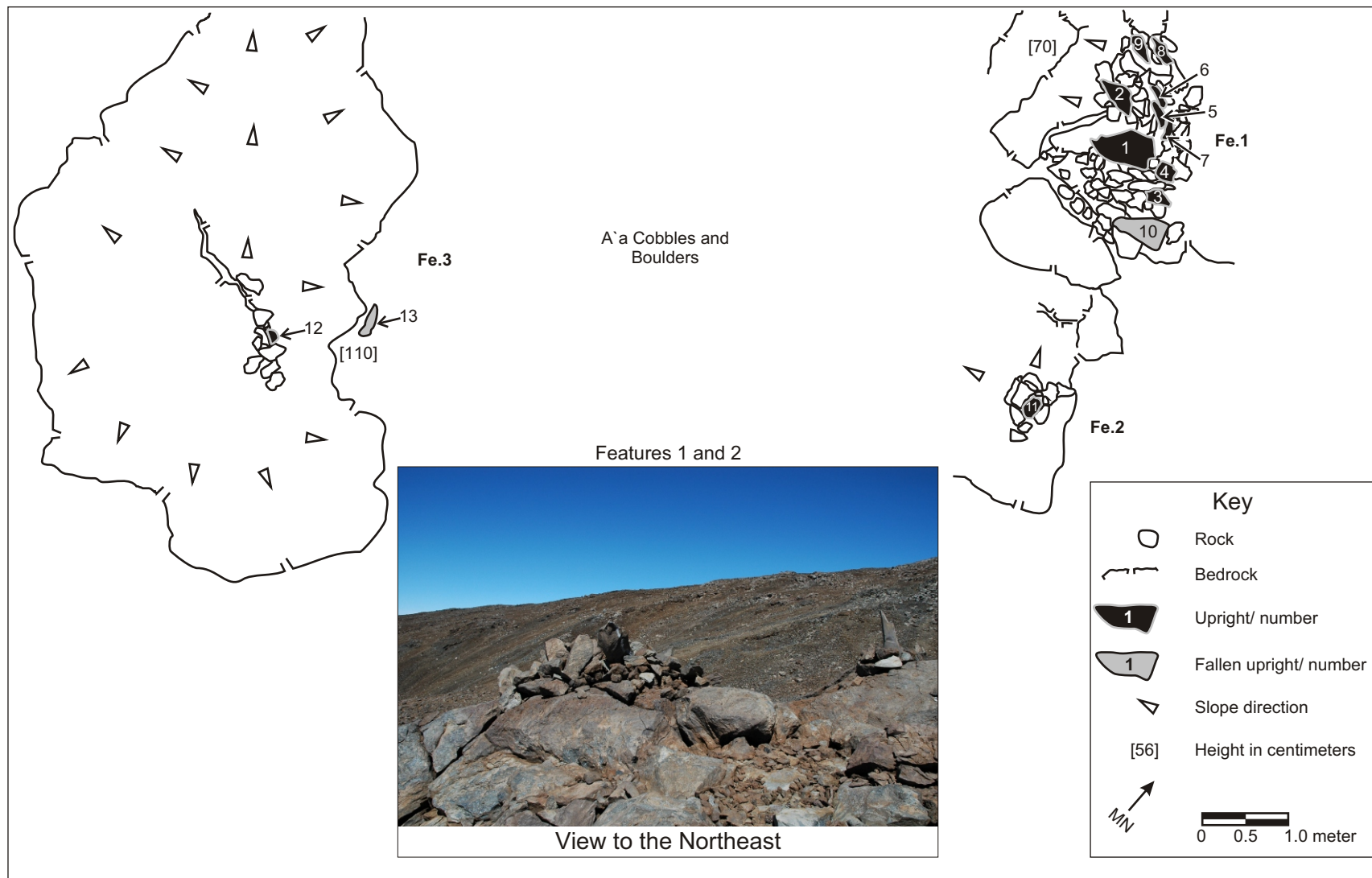
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	P	4	Gabled	89	39	22
1/2 <sup>E</sup>	Mound	T	P	-	Gabled	65	24	22
1/3 <sup>E</sup>	Bedrock surface	T	D	-	Pointed	51	23	15
1/4 <sup>E</sup>	Bedrock	T	D	-	Flat	48	30	12



### Site 21441, Metric and Non-Metric Upright Data

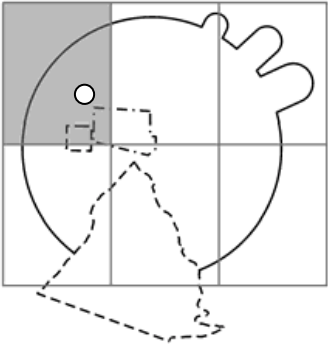
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
	surface							
1/5 <sup>E</sup>	Bedrock surface	T	S	4	Flat	42	25	8
1/6 <sup>E</sup>	Bedrock surface	T	P	-	Gabled	60	30	6
1/7 <sup>E</sup>	Bedrock surface	T	D	-	Mesial notched/ Pointed	53	35	13
1/8 <sup>E</sup>	Bedrock surface	T	C	4	Gabled	51	39	8
1/9 <sup>E</sup>	Bedrock surface	T	C	-	Rounded	47	29	18
<b>1/10<sup>E</sup></b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>4</b>	<b>Pointed</b>	<b>63</b>	<b>28</b>	<b>9</b>
2/11 <sup>E</sup>	Bedrock surface	T	P	3	Gabled	78	18	25
3/12 <sup>E</sup>	Bedrock crack	T	D	-	Rounded	40	15	10
<b>3/13</b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>4</b>	<b>Pointed</b>	<b>38</b>	<b>11</b>	<b>5</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.87. Site 21441, Features 1 through 3, Plan View and Photograph.**

**STATE SITE 50-10-23-21445**

<b>Additional Site Numbers:</b> Temporary 2005-05	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 9.0 m by 3.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 12,936 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 015	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 21445 is located approximately 100 m northwest of Site 16168, and consists of three features (Figure 2.88), with four uprights (three fallen and one standing erect- see upright data table below).

Feature 1 consists of a mound constructed of cobbles and small boulder measuring 1.77 m by 1.55 m with one erect upright (No. 1) and one fallen upright (No. 2).

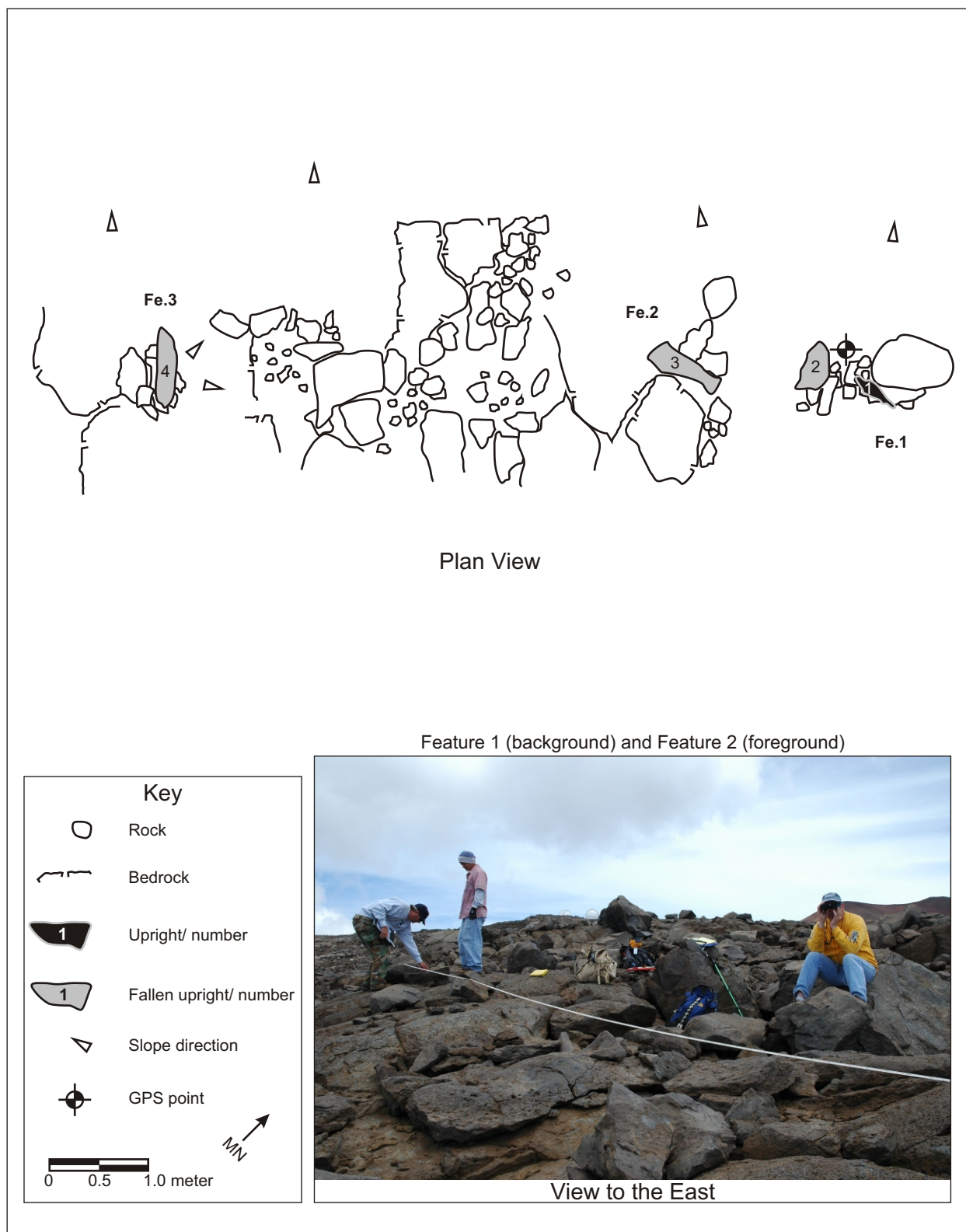
Feature 2 is single upright (No. 3) located approximately 1.0 m southwest of Feature 1. The upright is situated near a bedrock crack with several support cobbles nearby.

Feature 3 is located 5.0 m southwest of Feature 2, and consists of a single fallen upright (No. 4) with several support cobbles nearby.

**Site 21445, Metric and Non-Metric Upright Data.**

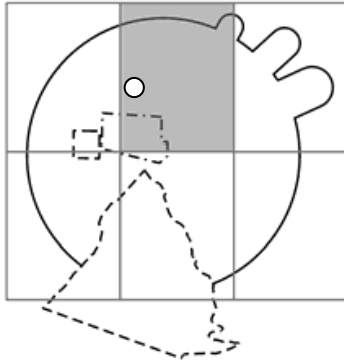
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	P	-	Gabled	62	28	14
1/2	Bedrock surface	T	D	4	Pointed/Beveled	51	40	14
2/3	Bedrock surface	T	S	-	Flat	84	30	13
3/4	Bedrock surface	T	P	-	Beveled	70	25	13

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.88. Site 21445, Features 1 through 3, Plan View and Photograph.**

**STATE SITE 50-10-23-21446**

STATE CHECK IS COMPLETE	
<b>Additional Site Numbers:</b> Temporary 2005-06	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 26.0 m by 7.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 12,716 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 023	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 21446, is a complex of three uprights located near the base of a prominent whaleback ridge (Figure 2.89).

Feature 1 consists of a discontinuous linear cobble and small boulder mound, approximately 5.0 m long by 1.5 m wide. A total of four uprights are located on and around the mound (see upright data table below). Two of the uprights are erect (No.'s 3 and 6), and five are fallen and considered to be possible uprights (No.'s 1, 2, and 7 through 9).

Feature 2, a single, fallen, upright (No. 10) with support stones is located approximately 6.0 m northwest of Feature 1. Feature 3, a single (leaning) upright (No. 11) and support cobbles is located 17.2 m southeast of Feature 1.

**Site 21446, Metric and Non-Metric Upright Data.**

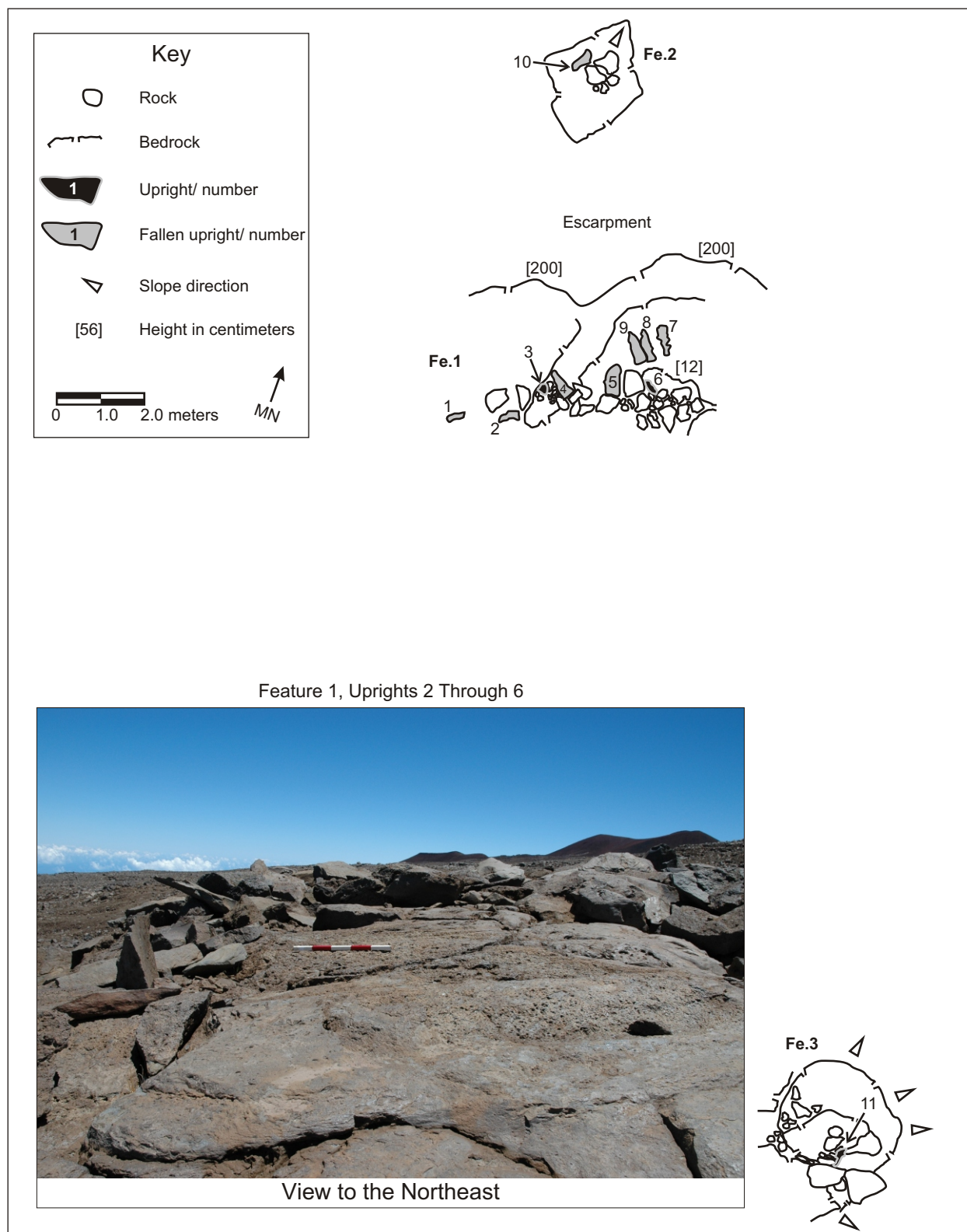
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	S	-	Beveled	44	11	10
1/2	Bedrock crack	T	D	4	Beveled	51	22	26
1/3 <sup>E</sup>	Bedrock crack	T	P	-	Flat	39	16	19
1/4	Bedrock surface	T	D	-	Flat	72	29	14
1/5	Bedrock surface	T	S	-	Rounded	73	34	9

**Site 21446, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/6 <sup>E</sup>	Bedrock crack	T	S	-	Rounded / Gabled	46	29	11
<b>1/7</b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Flat/ Rounded</b>	<b>70</b>	<b>23</b>	<b>7</b>
<b>1/8</b>	<b>Bedrock surface</b>	<b>T</b>	<b>I</b>	<b>4</b>	<b>Flat</b>	<b>61</b>	<b>23</b>	<b>17</b>
<b>1/9</b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Flat</b>	<b>63</b>	<b>30</b>	<b>7</b>
2/10	Bedrock surface	T	S	-	Beveled	54	20	6
3/11 <sup>E</sup>	Bedrock surface	T	P	4	Gabled	75	22	14

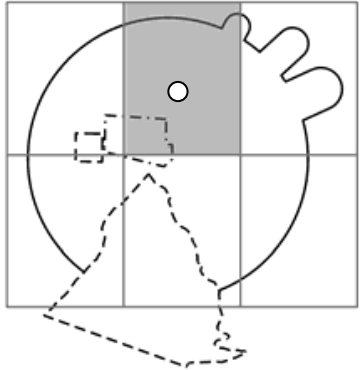
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright





**Figure 2.89. Site 21446, Features 1 through 3, Plan View and Photograph.**

**STATE SITE 50-10-23-21448**

<b>Additional Site Numbers:</b> Temporary 2005-08	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (toe)	
<b>Approximate U.S.G.S. Elevation:</b> 12,611 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090523a	
<b>Current Status:</b> New site.	

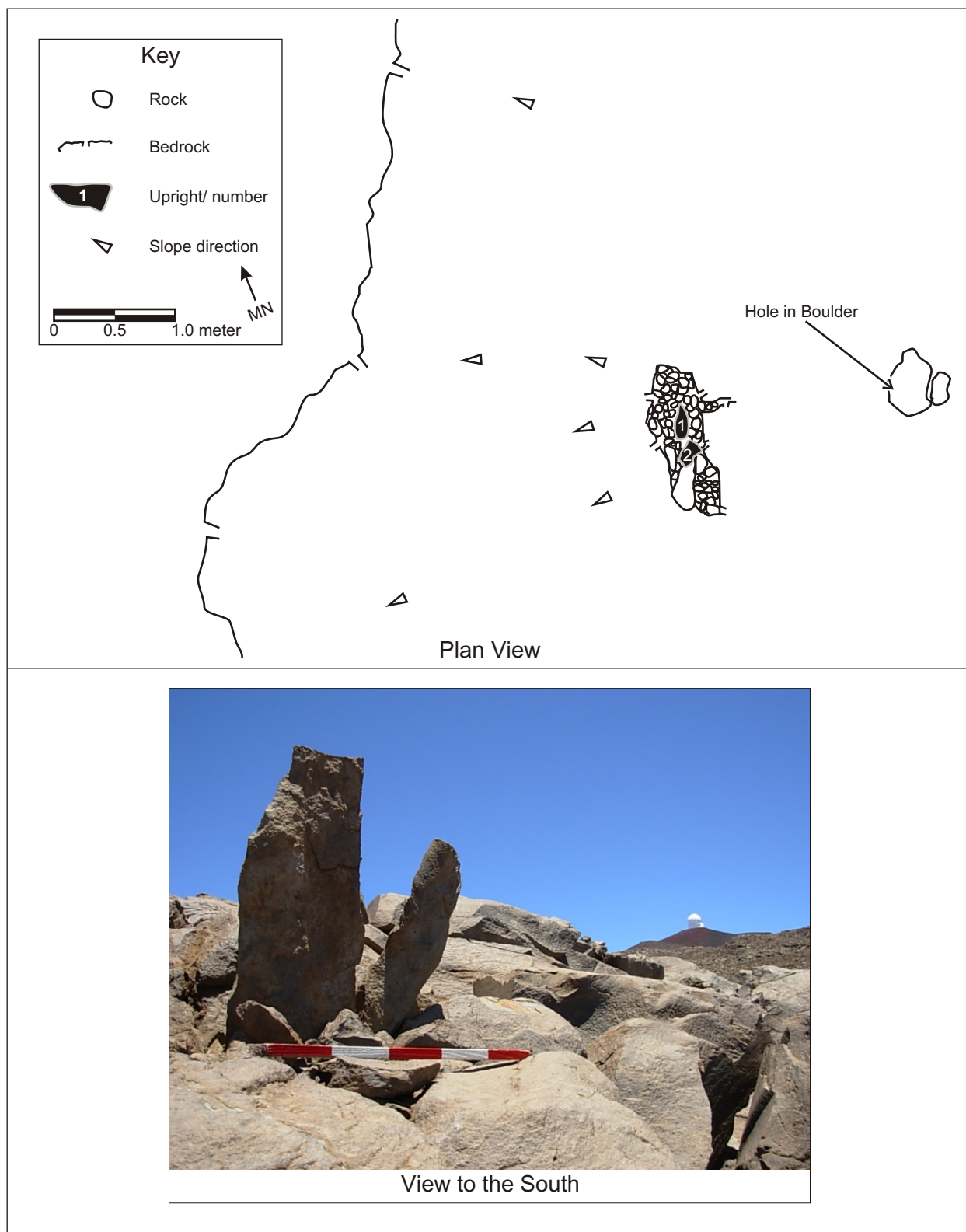
**DESCRIPTION:**

Site 21448 is located on the west side of a ridge crest and consists of two uprights surrounded by numerous support cobbles (Figure 2.90). Both uprights are standing erect (see upright data table below).

**Site 21448, Metric and Non-Metric Upright Data.**

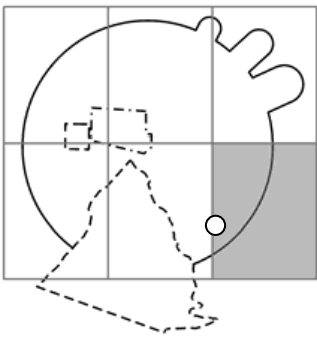
Fe./Upright #	Upright		Upright Form			Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	T	S	-	Flat	59	24	7
1/2 <sup>E</sup>	Bedrock crack	T	I	-	Flat	54	19	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**Figure 2.90. Site 21448, Plan View and Photograph.**

**STATE SITE 50-10-23-25764**

<b>Additional Site Numbers:</b> Temporary		RN2006-51
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-6	
<b>Site Dimensions:</b> 4.0 m by 3.0 m		
<b>Number of Features:</b> 1		
<b>Topographic Location:</b> Ridge crest		
<b>Approximate U.S.G.S. Elevation:</b> 12,130 ft a.m.s.l.		
<b>2006 GPS File No.:</b> RN051		
<b>Current Status:</b> New site.		

**DESCRIPTION:**

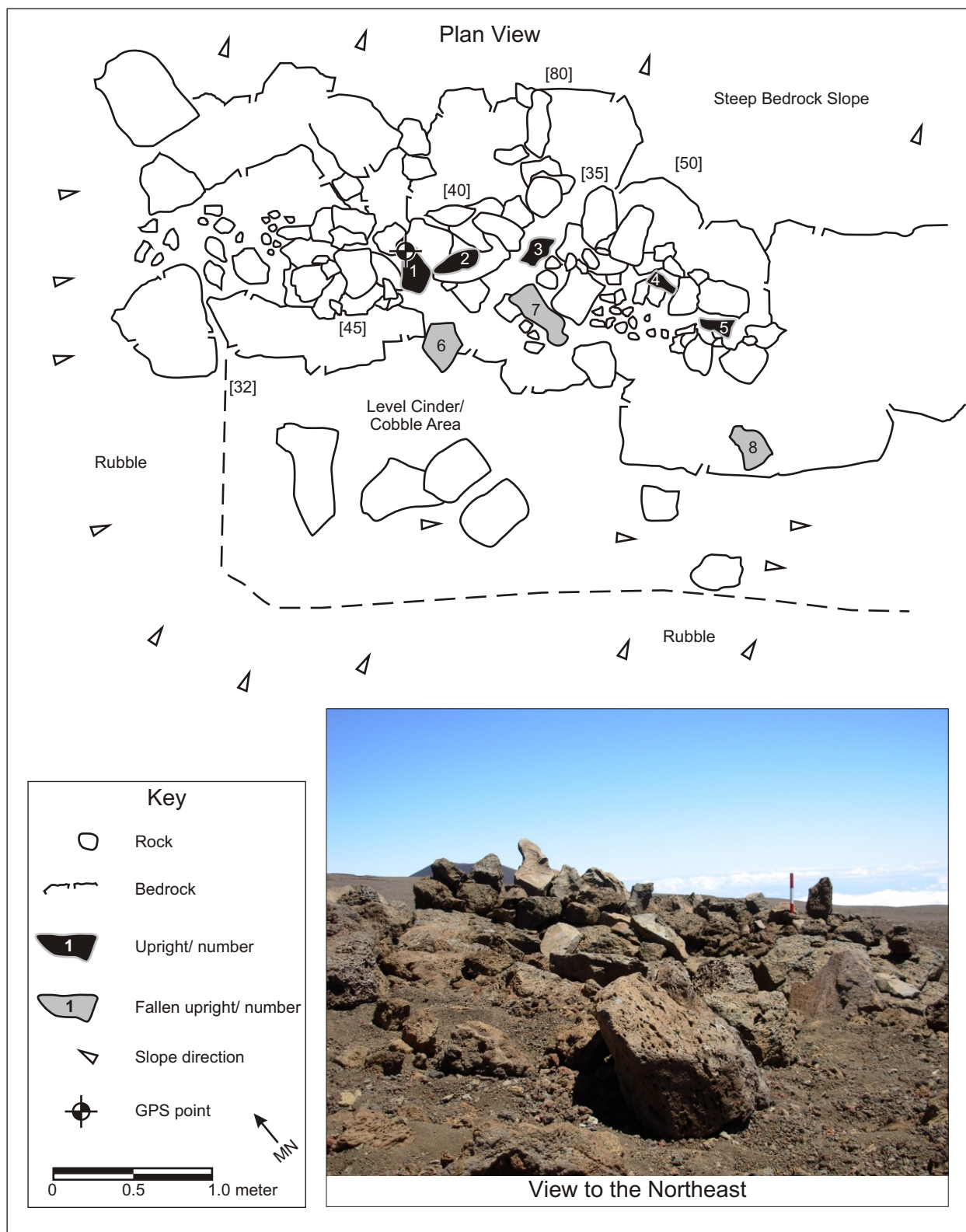
Site 25764 consists of a rock mound with five, possibly eight, uprights. This site is situated on a ridge crest (Figure 2.91).

The mound is constructed of piled cobbles, measures 3.5 m by 2.5 m, and has a maximum height of 0.6 m. The uprights appear to have been placed in two parallel rows. Upright No.'s 1 through 5 are located along the mound's east side; Upright No.'s 6 through 8 are situated along the west side. Upright No.'s 1 through 5 are standing erect while uprights No.'s 6 through 8 are fallen (see upright data table below).

**Site 25764, Metric and Non-Metric Upright Data.**

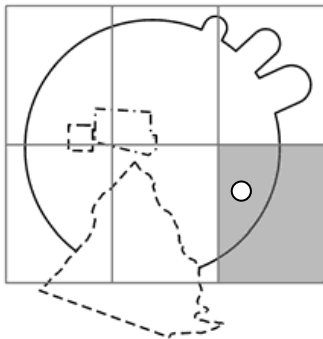
Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	Cr/I	-	Gabled	49	28	12
1/2 <sup>E</sup>	Mound	T	D	-	Pointed	31	29	14
1/3 <sup>E</sup>	Mound	T	P	4	Flat	35	14	13
1/4 <sup>E</sup>	Mound	T	P	1	Rounded	34	16	12
1/5 <sup>E</sup>	Mound	N	P	-	Beveled	43	19	10
1/6	Mound	T	D	-	Pointed	40	27	6
1/7	Mound	T	P	-	Beveled	48	20	10
1/8	Mound	T	D	-	Pointed	44	29	8

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.91. Site 25764, Plan View and Photograph.**

**STATE SITE 50-10-23-25775**

<b>Additional Site Numbers:</b> Temporary PM2006-05	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 11,970 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM066	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25775 is an upright on a boulder located in a glacial moraine. The boulder is roughly 1.5 m by 1.5 m and 1.5 m high. The top of the boulder is beveled and has one, possibly two, uprights with several support stones (see upright data table below). Unfortunately, due to time constraints no upright data were collected at the time of its initial discovery and the site was not subsequently revisited.

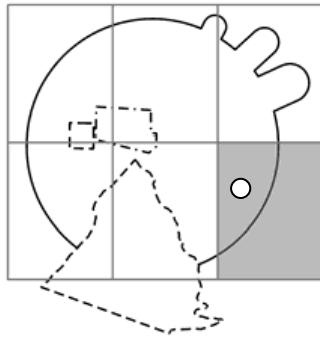
**Site 25775, Metric and Non-Metric Upright Data.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Boulder	T	Insufficient data collected at this time					
1/2	Boulder	T	Insufficient data collected at this time					

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**STATE SITE 50-10-23-25778**

<b>Additional Site Numbers:</b> Temporary		PM2006-06
<b>Site Function:</b> Shrine		<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 3.0 m by 2.5 m		
<b>Number of Features:</b> 1		
<b>Topographic Location:</b> Ridge flank		
<b>Approximate U.S.G.S. Elevation:</b> 11,953 ft a.m.s.l.		
<b>2006 GPS File No.:</b> PM059		
<b>Current Status:</b> New site.		

**DESCRIPTION:**

Site 25778 is a small shrine with one and possibly two uprights located on top of a relatively large boulder (Figures 2.92 and 2.93). The boulder, which is situated on the flank of a ridge, is roughly 2.4 m by 2.25 m and 1.7 m high. The one definite upright and second possible upright were both found in a fallen position (see upright data table below). Three bracing stones were observed next to the definite upright.

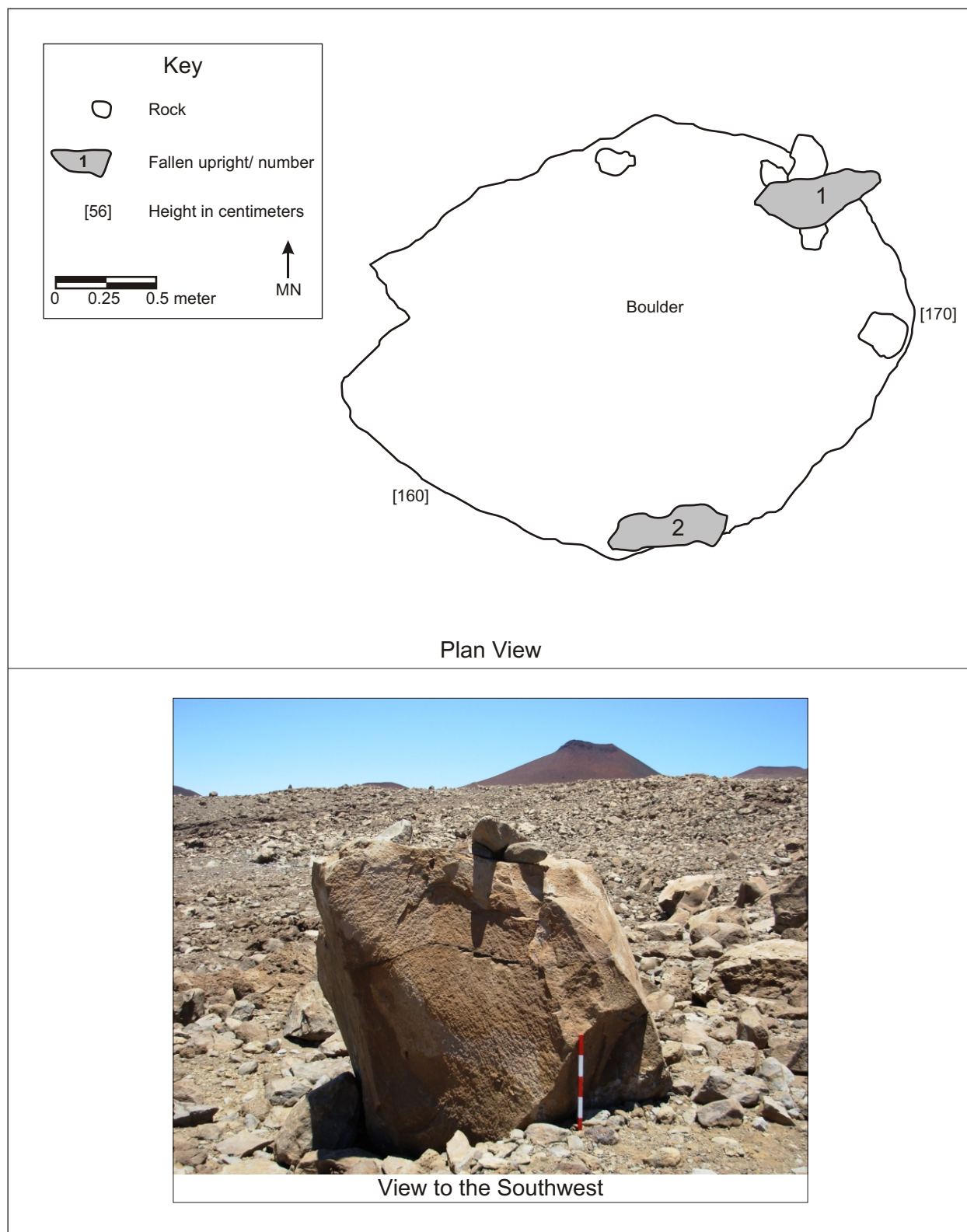
**Site 25778, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Boulder	T	D	4	Rounded	43	23	13
1/2	<b>Boulder</b>	<b>T</b>	<b>D</b>	--	<b>Beveled</b>	<b>51</b>	<b>19</b>	<b>11</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

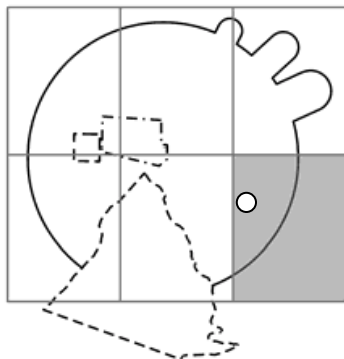


**Figure 2.92. Photograph of Site 25778; View to the Southeast.**



**Figure 2.93. Site 25778, Plan View and Photograph.**

**STATE SITE 50-10-23-25783**

<b>Additional Site Numbers:</b> Temporary PM2006-08	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 6.0 m by 5.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Ridge crest/ flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,224 ft a.m.s.l.	
<b>2006 GPS File No.</b> PM061	
<b>Current Status:</b> New site.	

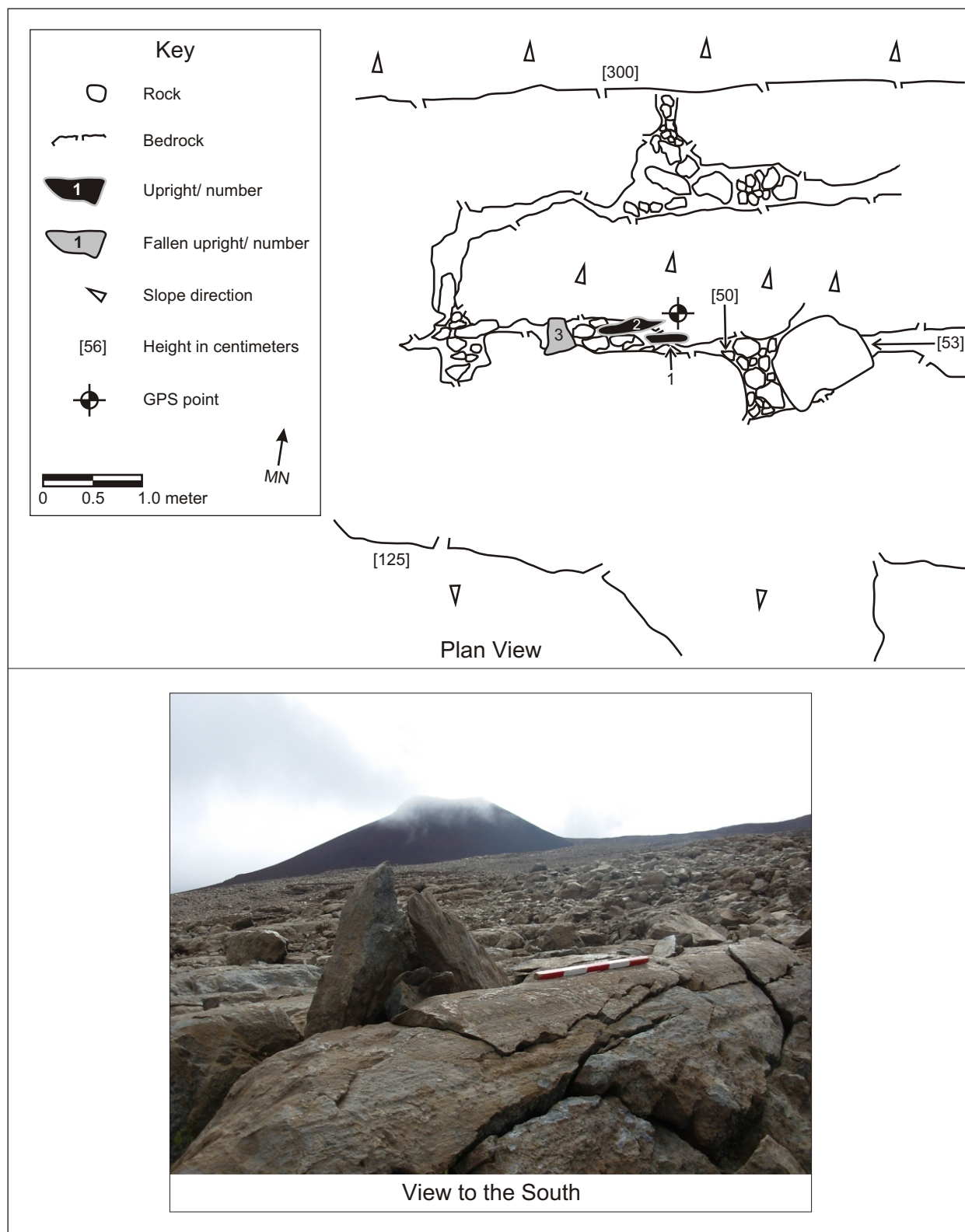
**DESCRIPTION:**

Site 25783 is a shrine located on a ridge crest and flank, and consists of two, possibly three uprights wedged in a crack in the bedrock (Figure 2.94). The crack extends in an east/west direction for over 8.0 m long and is between 10.0 and 70.0 cm wide. The shrine is constructed over a cobble filled portion of the crack which measures approximately 5.0 m long. A medium to large sized boulder defines the eastern end of the filled area. The uprights (Upright No.'s 1 through 3) are situated in the central portion of the filled crack (see upright data table below).

**Site 25783, Metric and Non-Metric Upright Data.**

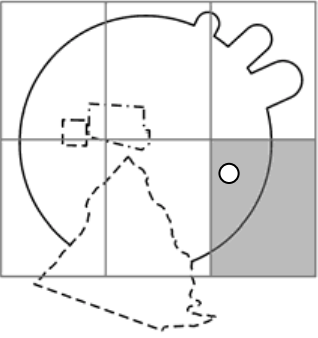
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	T	D	-	Pointed	52	37	9
1/2 <sup>E</sup>	Bedrock crack	T	D	-	Pointed	78	30	9
1/3	Bedrock crack	T	D	-	Beveled	42	24	7

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.94. Site 25783, Plan View and Photograph.**

**STATE SITE 50-10-23-25786**

<b>Additional Site Numbers:</b> Temporary RN2006-015	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 3.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,157 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN104	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25786 is a shrine that consists of one and possibly two additional fallen uprights on a ridge crest (Figures 2.95 and 2.96). Upright No.'s 1 and 2 would have been placed in the bedrock crack and Upright No. 3 likely would have been supported by cobbles (see upright data table below). The cobbles, placed in a circular alignment, are located on the west side of Upright No. 3.

**Site 25786, Metric and Non-Metric Upright Data.**

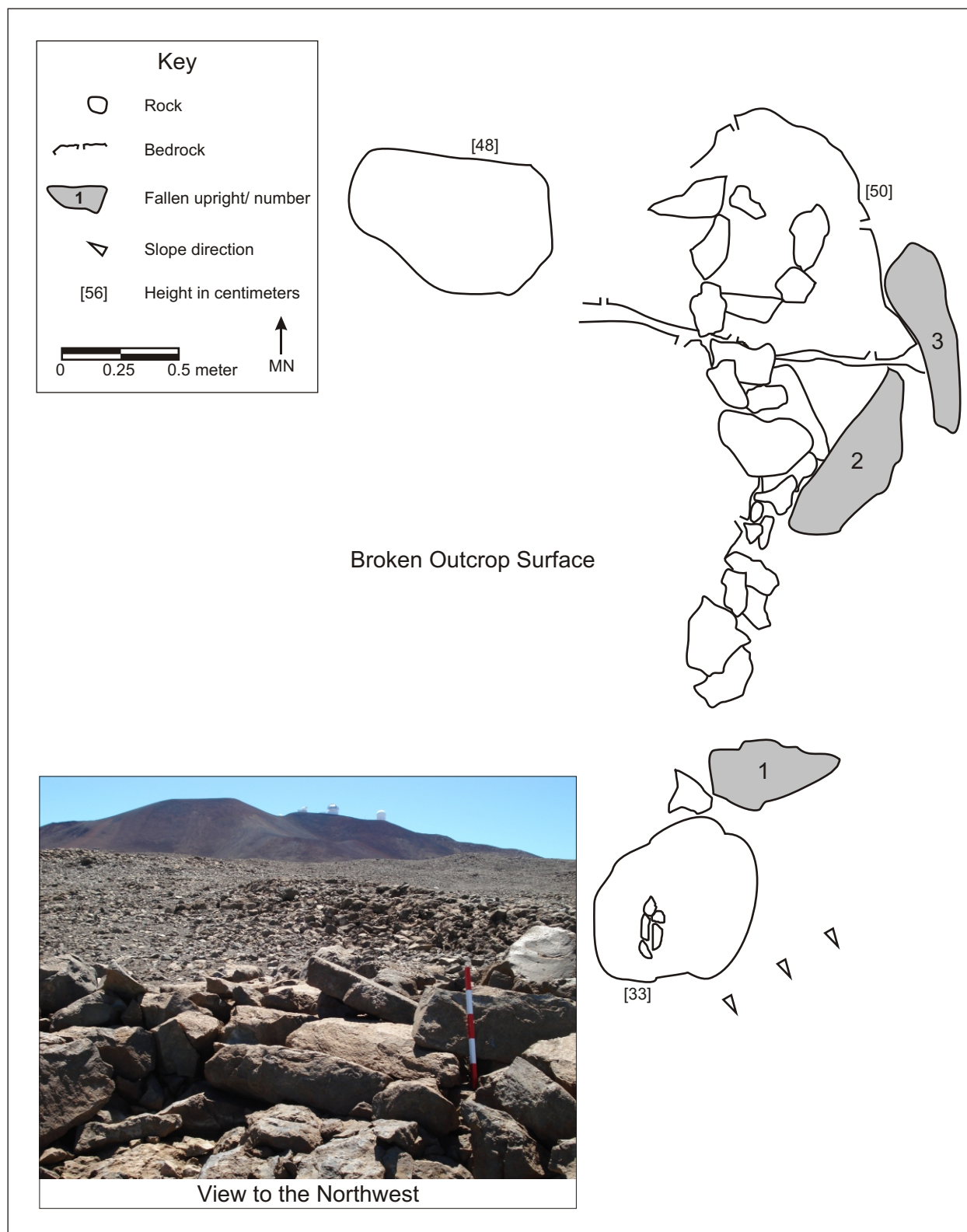
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock	T	CR	-	Pointed	59	29	10
1/2	<b>Bedrock</b>	<b>T</b>	<b>S</b>	<b>4</b>	<b>Flat/ beveled</b>	<b>82</b>	<b>29</b>	<b>13</b>
1/3	<b>Bedrock</b>	<b>T</b>	<b>S</b>	-	<b>Beveled</b>	<b>75</b>	<b>34</b>	<b>21</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.95. Photograph of Site 25786; View to the South.**

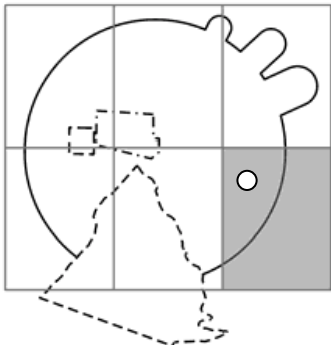




**Figure 2.96. Site 25786, Plan View and Photograph.**



**STATE SITE 50-10-23-25787**

<b>Additional Site Numbers:</b> Temporary PM2006-04	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,051 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM055	
<b>Current Status:</b> New site.	

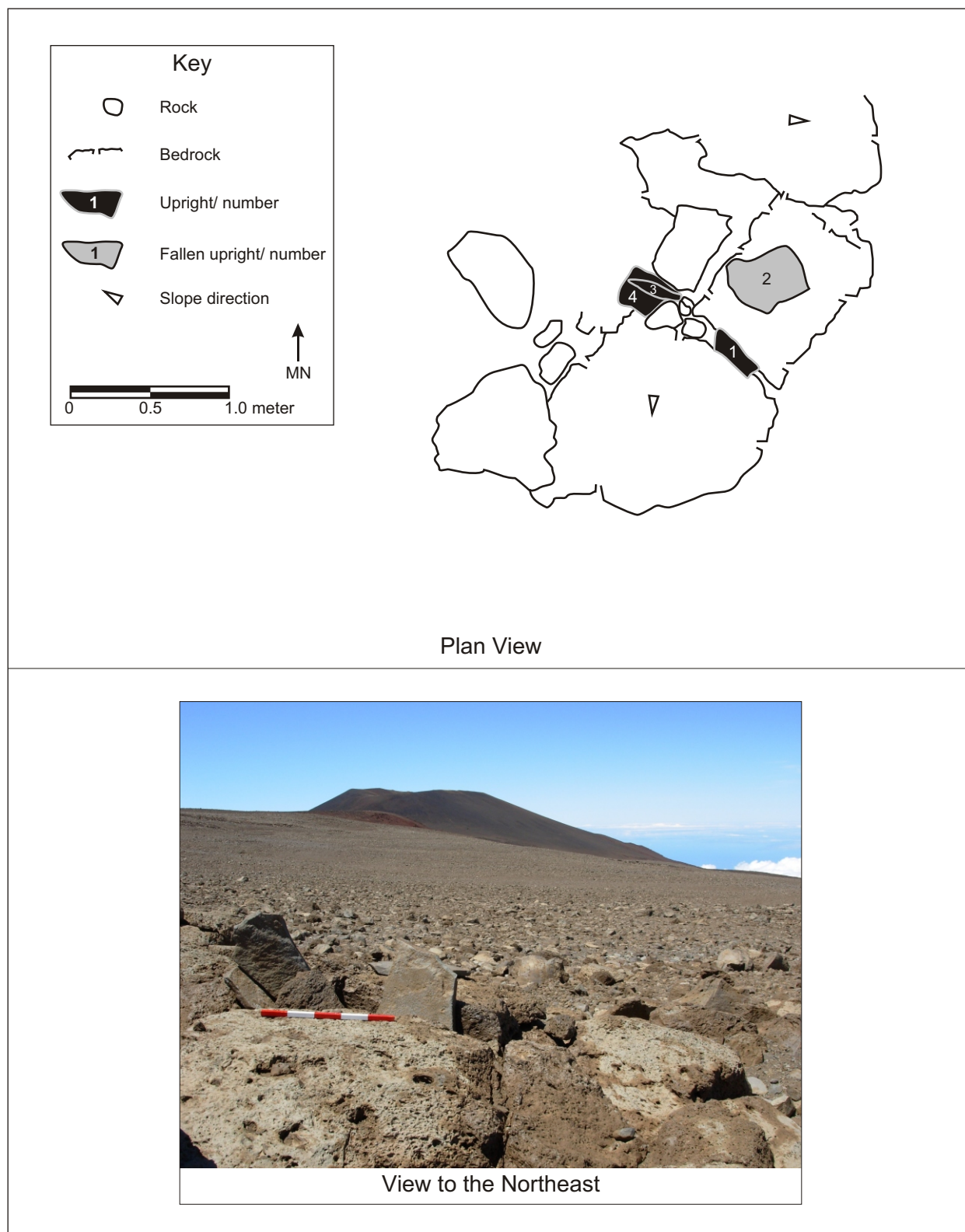
**DESCRIPTION:**

Site 25787 is a small shrine with three and possibly four uprights located on the crest of a ridge near the base (Figures 2.97; see upright data table below). The site is not visible from any great distance, partly because of its location at the toe of a ridge and because the tops of the erect uprights, which are in a crack do not project much above the surface of the bedrock. Also, the uprights are oriented approximately 45 degrees to the long axis of the ridge.

**Site 25787, Metric and Non-Metric Upright Data.**

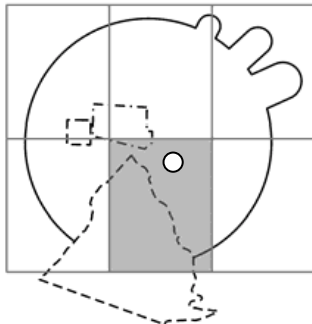
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock crack	T	D	-	Beveled	43	34	4
1/2	Bedrock	T	I	6	Flat	46	30	3
1/3	Bedrock crack	T	C	1	Flat	52	26	5
<b>1/4</b>	<b>Bedrock crack</b>	<b>T</b>	<b>P</b>	<b>1</b>	<b>Flat</b>	<b>32</b>	<b>19</b>	<b>5</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.97. Site 25787, Plan View and Photograph.**

**STATE SITE 50-10-23-25790**

STATE SITE NO. 10-20-20700	
<b>Additional Site Numbers:</b> Temporary	RN2006-09
<b>Site Function:</b> Shrine	<b>Map Number:</b> 5
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,843 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN120	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

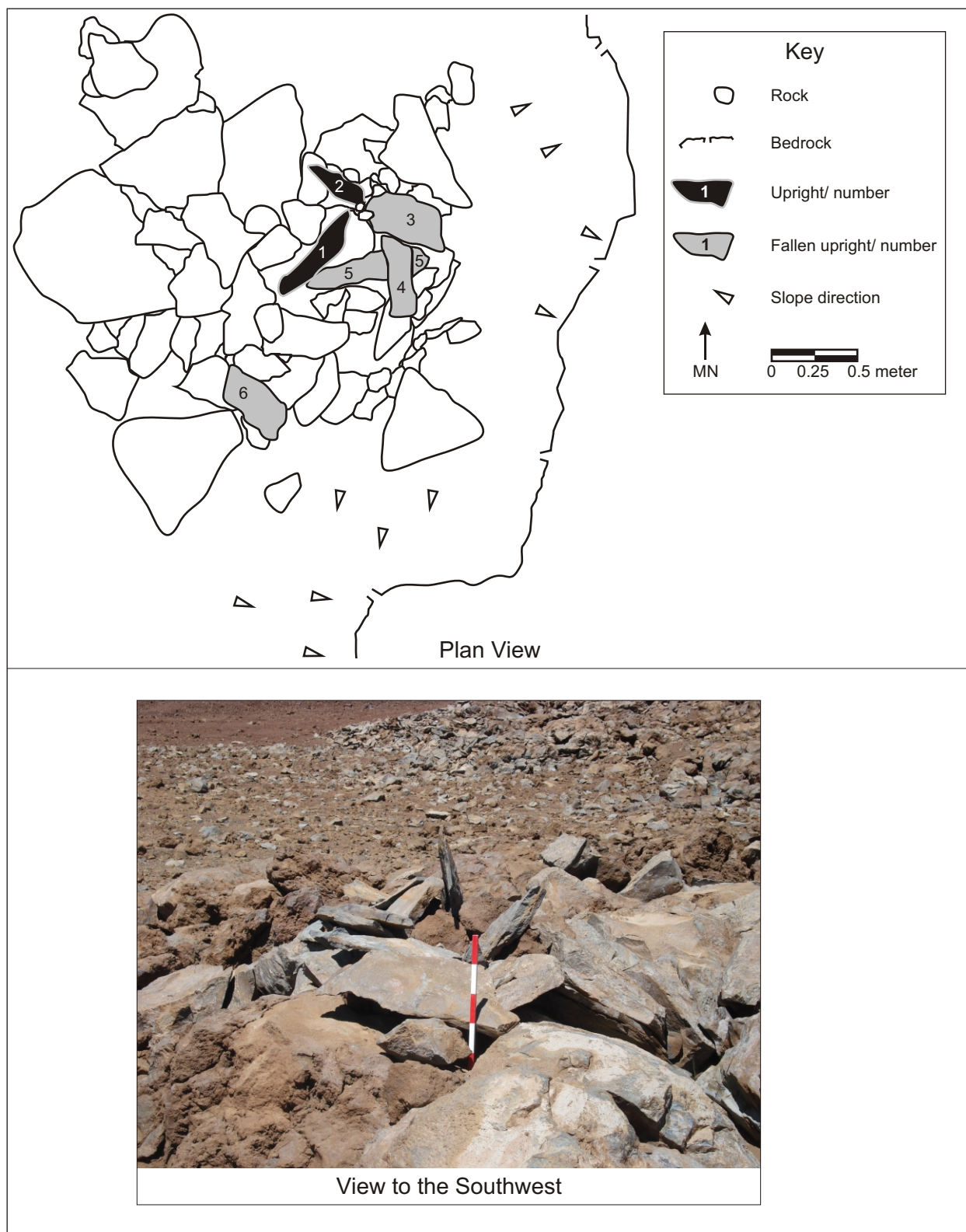
Site 25790 is a mound on which are two, possibly six, uprights (Figure 2.98). It is located approximately 20.0 m northwest of Site 25789.

The foundation for the uprights consists of a mound of cobbles and slabs that is approximately 2.0 m by 2.0 m, with a maximum height of 0.6 m. Five of the possible six uprights, including the two standing uprights, are located on the east side of the mound (see upright data table below). Two of the possible uprights (No.'s 3 and 5) are of the same material as the other uprights, but no place on the mound could be found where they once might have stood. The location of No. 6 (possible upright) on the south end of the mound is more definite.

**Site 25790, Metric and Non-Metric Upright Data.**

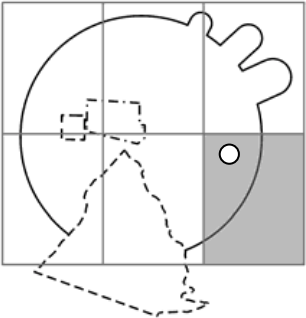
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	I	2	Flat	68	33	8
1/2 <sup>E</sup>	Mound	T	P	4	Pointed	47	13	7
<b>1/3</b>	<b>Mound</b>	<b>T</b>	<b>S</b>	-	<b>Beveled</b>	<b>47</b>	<b>26</b>	<b>3</b>
<b>1/4</b>	<b>Mound</b>	<b>T</b>	<b>P</b>	-	<b>Flat</b>	<b>48</b>	<b>12</b>	<b>5</b>
<b>1/5</b>	<b>Mound</b>	<b>T</b>	<b>S</b>	-	<b>Flat</b>	<b>41</b>	<b>13</b>	<b>5</b>
<b>1/6</b>	<b>Mound</b>	<b>T</b>	<b>CR</b>	<b>4</b>	<b>Beveled</b>	<b>45</b>	<b>25</b>	<b>11</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.98. Site 25790, Plan View and Photograph.**

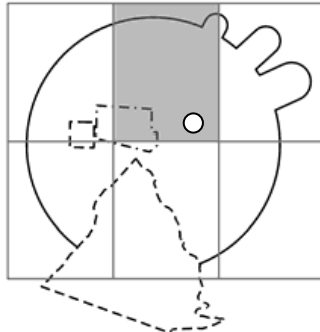
**STATE SITE 50-10-23-25792**

<b>Additional Site Numbers:</b> Temporary RN2006-019	
<b>Site Function:</b> Possible shrine	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 2.0 m by 1.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,078 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN029	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25792 is a possible shrine consisting of a boulder with at least 15 tabular slabs and several cobbles placed on top. The boulder is 1.5 m by 1.35 m and 0.35 m high. None of the slabs were upright and it is difficult to say if any of the slabs were standing upright in the past. The maximum height of the boulder and slabs is 0.88 m, making it easily visible. On the surface of the feature is one aluminum can.

**STATE SITE 50-10-23-25793**

<b>Additional Site Numbers:</b> Temporary RN2006-017	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.5 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,757 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN139	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

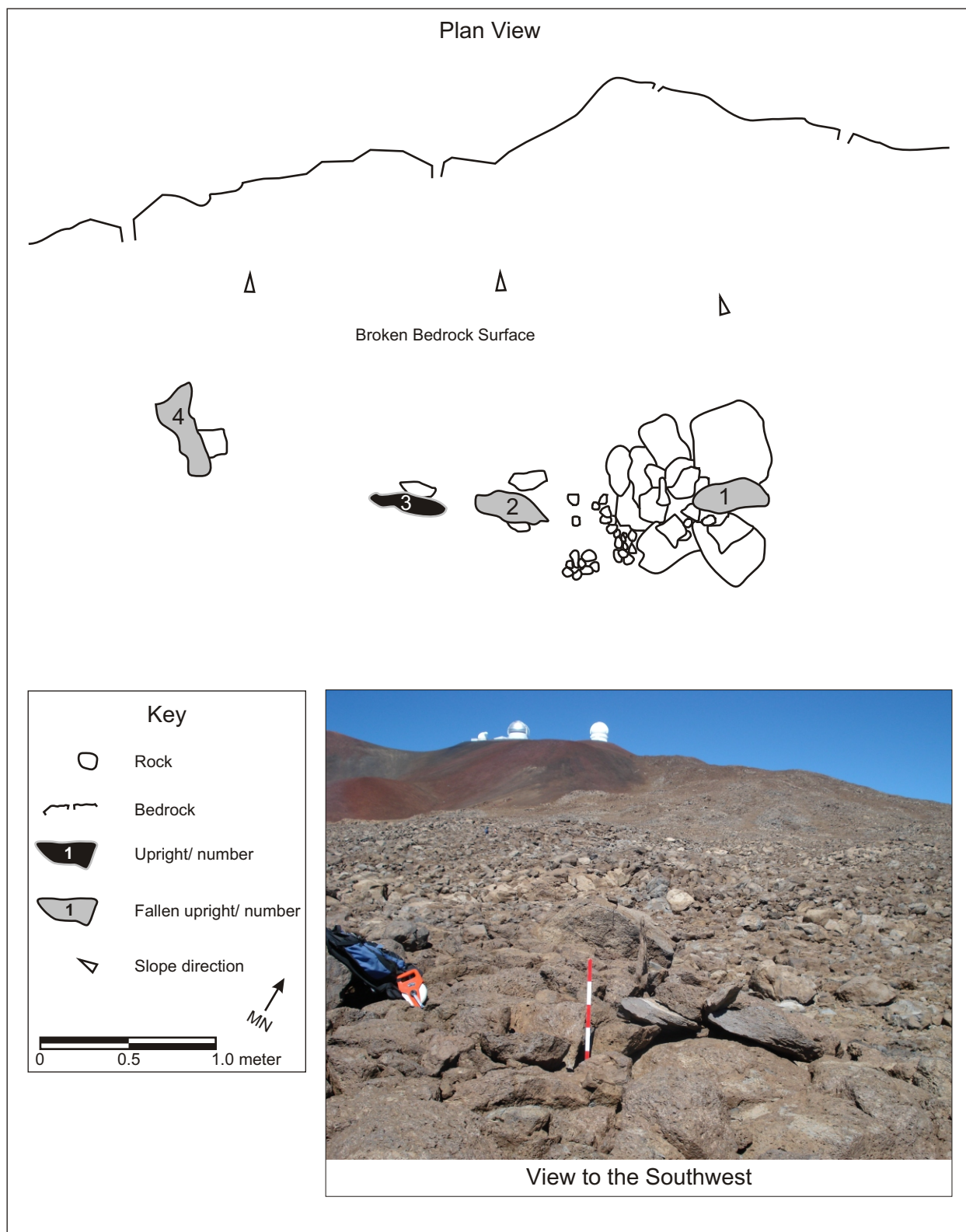
Site 25793 consists of a rock alignment with four dispersed uprights oriented parallel to the long axis of the ridge on which they are located (Figure 2.99). The ridge surface consists of broken blocks of outcrop and scattered boulders. Upright No.1 is leaning and braced by at least eight cobbles (see upright data table below). Upright No. 2, which has fallen, was once wedged into a crack and supported by two cobbles. Upright No. 3, standing, is wedged into a crack and has one support stone. Upright No. 4, which has fallen, appears to have been supported by at least five cobbles.

**Site 25793, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock	T	C	2	Flat/ Beveled	39	23	8
1/2	Bedrock	T	I	1, 3	Flat	45	21	5
1/3	Bedrock	T	S	4	Rounded/ Gabled	68	37	4
1/4	Bedrock	N	P	-	Mesial curve	51	18	14

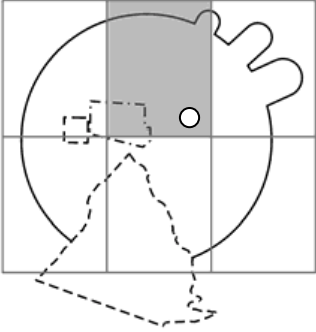
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright





**Figure 2.99. Site 25793, Plan View and Photograph.**

**STATE SITE 50-10-23-25799**

<b>Additional Site Numbers:</b> Temporary RN2006-013	
<b>Site Function:</b> Shrine complex	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Features:</b> 5	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,555 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN094	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25799 consists of a retaining wall with uprights (Feature 1), a platform (Feature 2), a rough pavement (Feature 3), a possible boulder upright structure (Feature 4), and a possible fallen upright and support stones (Feature 5). All five features are found in an area roughly 10.0 m by 10.0 m (Figure 2.100).

Feature 1 consists of a retaining wall approximately 7.0 m long (east/west) by 1.0 m wide (north/south), and has a maximum facing height of 0.8 m. The facing is constructed of boulders and large cobbles, stacked one to two courses high. Along the length of the wall is one, possibly four upright slabs (see upright data table below). One upright (No. 3) is erect and is located near the west end of the terrace, above the platform (Feature 2) (see Figure 2.100). The other three uprights are located south of the erect slab.

Feature 2 consists of a small rectangular-shaped platform located near the east end of Feature 1. The north side of the platform abuts Feature 1. It is constructed of large cobbles and boulders and has a cobble surface.

Feature 3 is a rough pavement located on the south side of Feature 1. It is 6.7 m long by 3.0 m wide and consists of cobbles, slabs, and a level soil area.

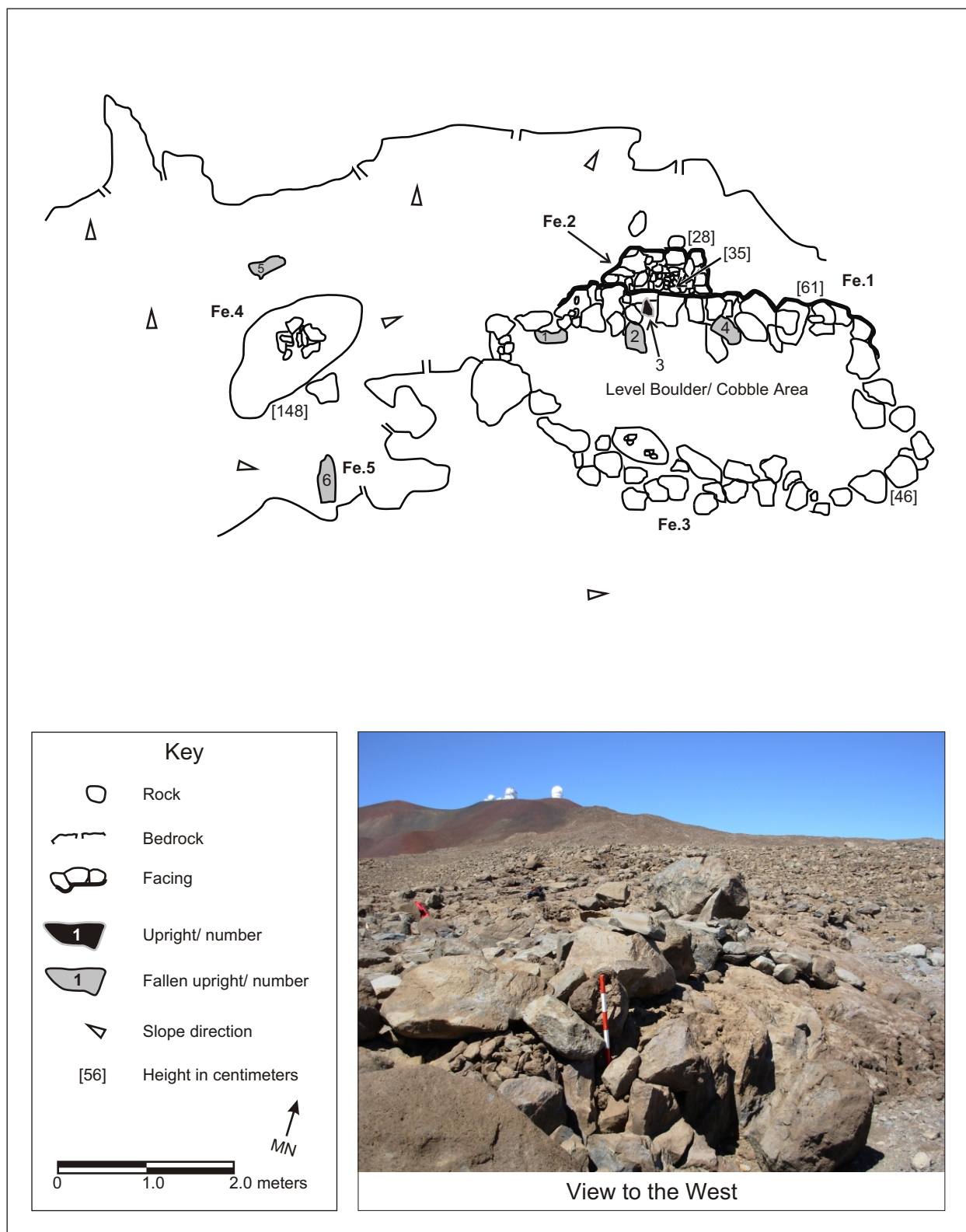
Feature 4, a possible boulder shrine, is located approximately 3.5 m southeast of Feature 1. The boulder is approximately 3.0 m long by 2.0 m wide and 1.5 m high. On the top of the boulder are approximately 10 cobbles. The cobbles have a gap in the center where an upright would have been placed. The fallen upright is located on the west side of the boulder.

Feature 5 is a possible fallen upright located on the bedrock approximately 1.5 m east of the boulder. Possible bracing stones were observed west of the upright.

**Site 25799, Metric and Non-Metric Upright Data.**

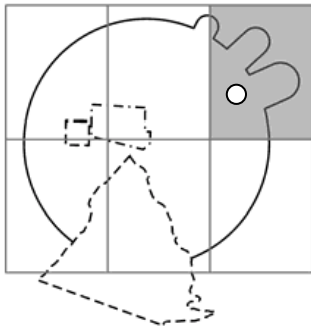
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Wall	T	P	4	Beveled	50	18	7
1/2	Wall	T	I	6	Beveled	74	35	15
1/3 <sup>E</sup>	Wall	T	P	-	Pointed/ Beveled	73	22	13
<b>1/4</b>	<b>Wall</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Round</b>	<b>54</b>	<b>38</b>	<b>4</b>
<b>4/5</b>	<b>Boulder</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Gabled</b>	<b>66</b>	<b>32</b>	<b>12</b>
<b>5/6</b>	<b>Bedrock</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Beveled/ Flat</b>	<b>84</b>	<b>33</b>	<b>14</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent; CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.100. Site 25799, Features 1 through 5, Plan View and Photograph.**

**STATE SITE 50-10-23-25810**

<b>Additional Site Numbers:</b> Temporary RN2006-039	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 90.0 m by 62.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,061 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN031	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25810 is located on a ridge crest, and consists of one possible shrine (Feature 1) and three rock mounds (Features 2 through 4). The ridge is located south and west of Pu'u Makaanaka (Figure 2.101).

Feature 1 is a mound constructed of a small boulder with two cobbles stacked on top (see Figure 2.101). The small boulder is 0.9 m by 0.62 m and 0.5 m high. On the east side of the boulder are approximately three (3) tabular slabs, one of which is possibly a fallen upright, and five (5) small cobbles that appear to be filling in a crack (see upright data table below).

Feature 2 is a mound located 1.2 m west/northwest of Feature 1. It is constructed of piled cobbles and measures 1.4 m by 1.1 m and is 0.44 m high. It appears the mound is constructed over a crack in the ridge.

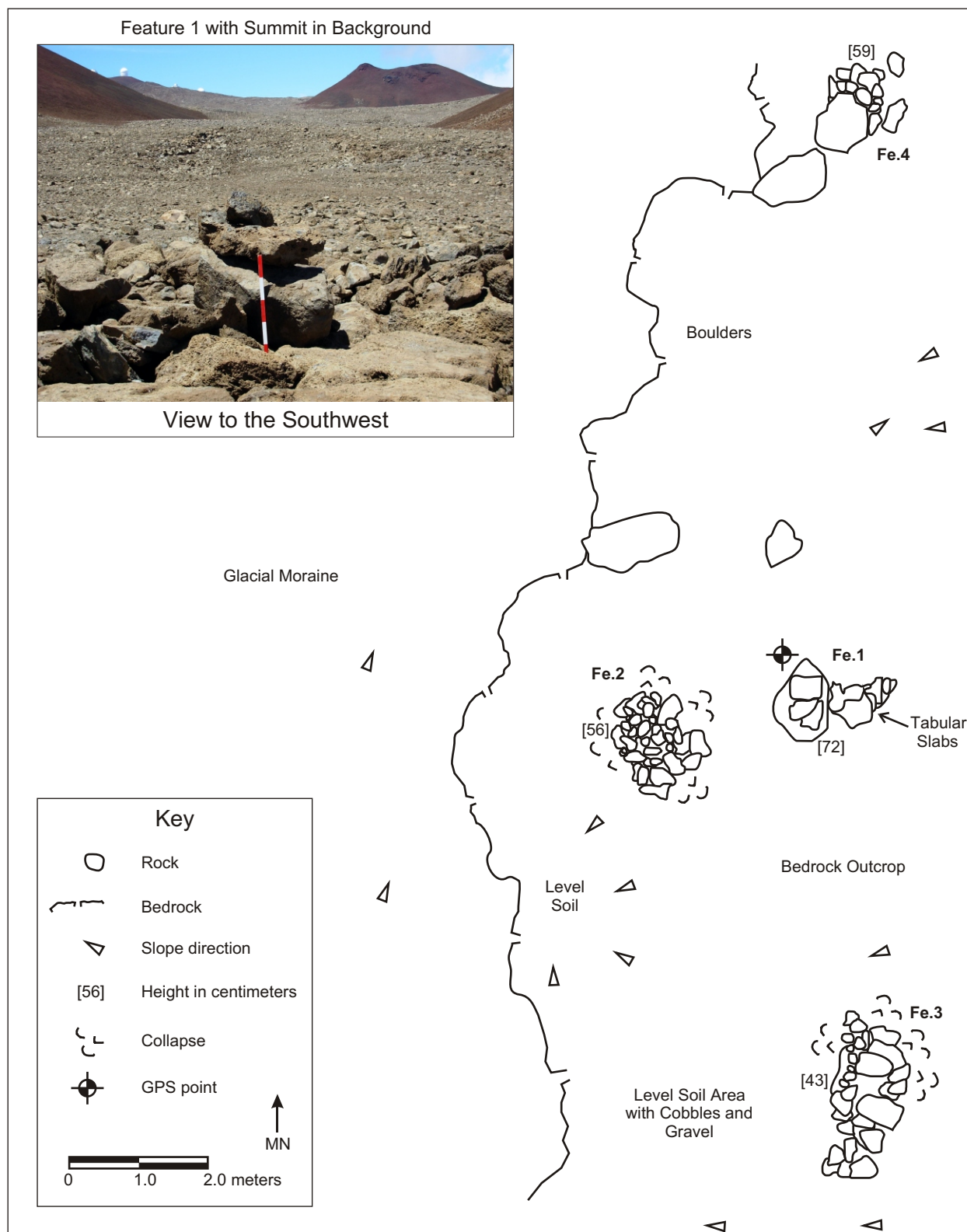
Feature 3 is a mound located 5.0 m south of Feature 1. It is constructed of piled cobbles and small boulders and measures approximately 2.5 m by 1.2 m and is 0.5 m high.

Feature 4 is a mound located approximately 7.0 m northeast of Feature 1. It is constructed of piled medium-sized boulder with cobbles on the south side with a slab leaning against the boulder. The mound measures approximately 1.5 m by 1.2 m and 0.78 m high.

**Site 25810, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T	CR/I	4	Round	63	25	10

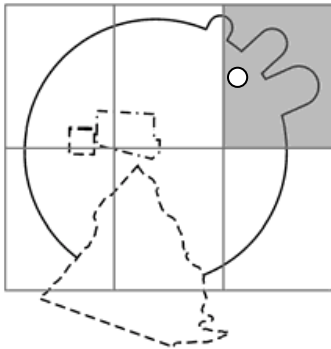
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.101. Site 25810, Features 1 through 4, Plan View and Photograph.**



# STATE SITE 50-10-23-25818

<b>Additional Site Numbers:</b> Temporary RN2006-040	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 5.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,324 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN051	
<b>Current Status:</b> New site.	

## DESCRIPTION:

Site 25818, located at the base of Pu'u Ala, is a rock terrace on which are five, possibly seven, uprights (Figure 2.102). Site 25817 is located approximately 15.0 m east of Site 25818.

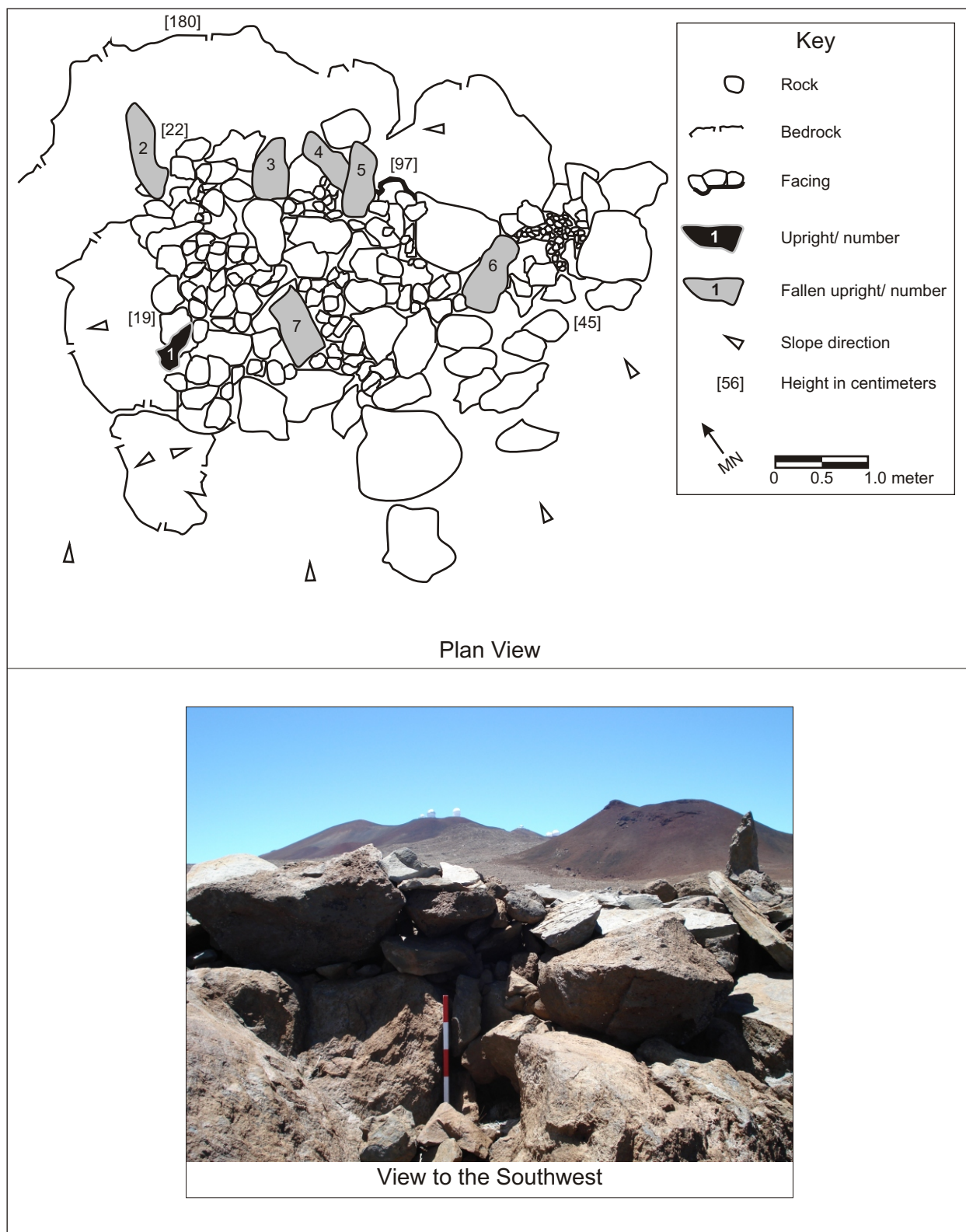
The terrace facing is constructed of piled cobbles and small boulders and measures approximately 5.0 m long and 0.5 m high. The terrace surface is constructed of slabs, cobbles, and small boulders along the edges. It measures approximately 4.0 m by 2.0 m.

The uprights, only one erect (Upright No.1), are located along the north and west sides and one in the central portion of the terrace (see upright data table below). Upright No. 1 is the only upright located on the terrace's west side. Upright No.'s 2 through 6 are located along the north side, and Upright No. 7 is located in the center of the terrace.

## Site 25818, Metric and Non-Metric Upright Data.

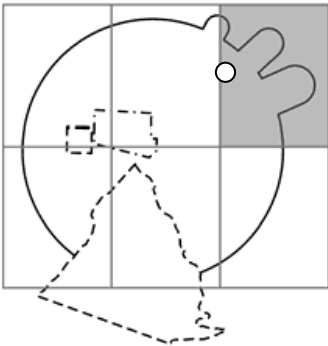
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Terrace	T	D	I	Beveled	75	34	19
1/2	Terrace	N	S	-	Beveled	82	25	17
1/3	Terrace	T	P	5	Beveled	65	35	7
1/4	Terrace	T	P	-	Beveled	65	23	4
1/5	Terrace	T	P	4	Round	65	28	11
<b>1/6</b>	<b>Terrace</b>	<b>T</b>	<b>S</b>	<b>4</b>	<b>Round</b>	<b>78</b>	<b>34</b>	<b>4</b>
<b>1/7</b>	<b>Terrace</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Beveled</b>	<b>76</b>	<b>32</b>	<b>8</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.102. Site 25818, Plan View and Photograph.**

**STATE SITE 50-10-23-25819**

<b>Additional Site Numbers:</b> Temporary    RN2006-041	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 9.0 m by 5.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,311 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN041	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25819 is a shrine located on a ridge crest, and consists of 15 and possibly 16 total uprights in two separate groups (Figure 2.103).

The first group of uprights consist of ten uprights, seven of which are fallen, situated amongst a concentration of cobbles (see upright data table below). The standing uprights have been placed on bedrock and supported by small cobbles. The second group is located approximately 1.5 m north of Feature 1 and consists of six uprights, only one (No. 15) of which is erect; it is supported by small cobbles.

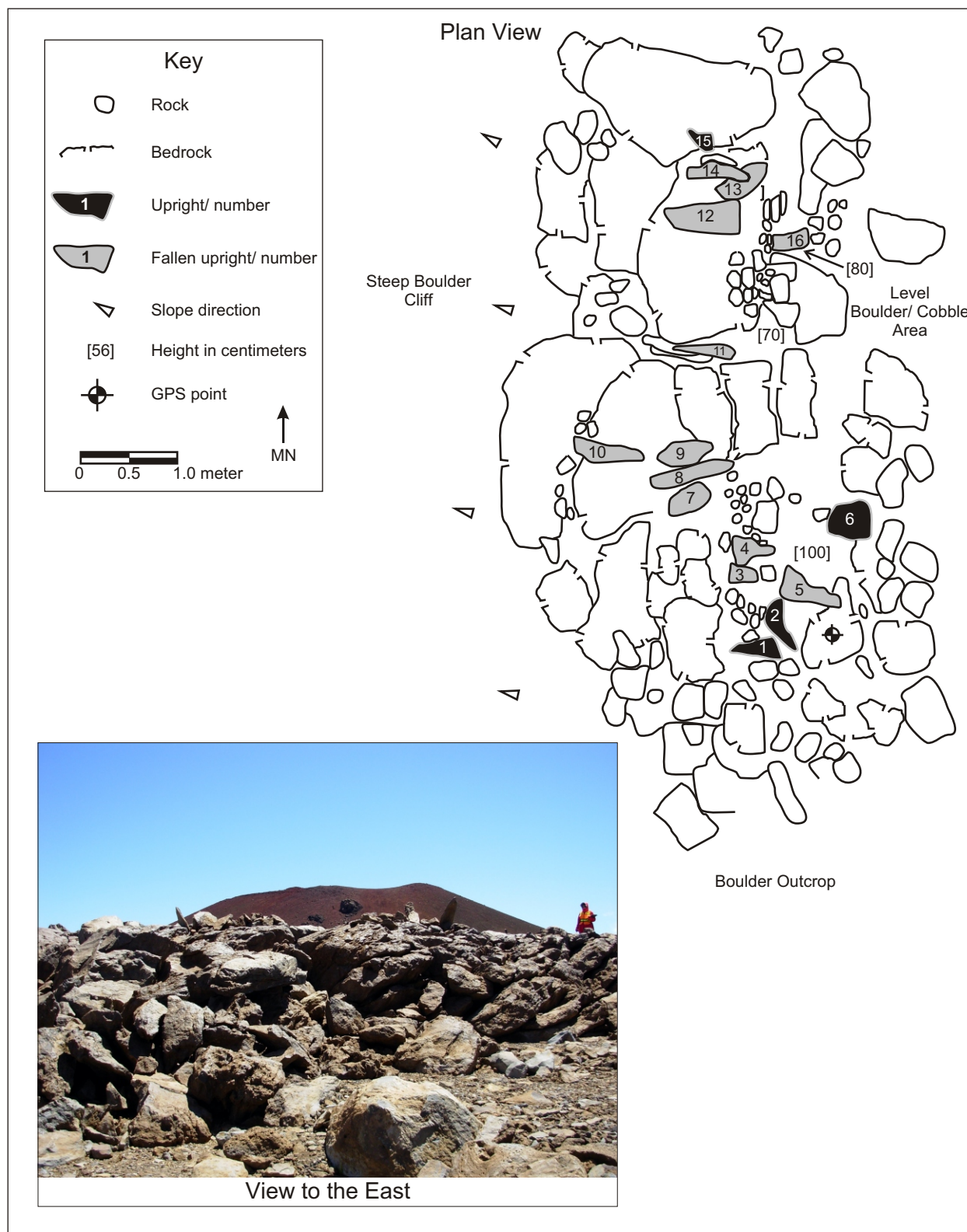
**Site 25819, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock	T	S	1	Pointed	78	30	17
1/2 <sup>E</sup>	Bedrock	N	C	-	Beveled	61	18	17
1/3	Bedrock	T	P	-	Beveled	38	22	11
1/4	Bedrock	T	D	-	Flat	46	39	26
1/5	Bedrock	T	S	-	Beveled	57	39	11
1/6 <sup>E</sup>	Bedrock	T	P	-	Flat	93	37	8
1/7	Bedrock	T	S	-	Beveled	52	36	6
1/8	Bedrock	N	S	-	Beveled	82	16	14
1/9	Bedrock	T	P	-	Beveled	68	37	5

**Site 25819, Metric and Non-Metric Upright Data.**

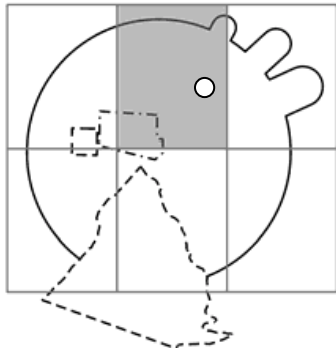
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/10	Bedrock	N	D	-	Beveled	77	24	19
<b>1/11</b>	<b>Bedrock</b>	<b>T</b>	<b>P</b>	-	<b>Pointed</b>	<b>72</b>	<b>20</b>	<b>14</b>
1/12	Bedrock	T	S	-	Beveled	87	31	7
1/13	Bedrock	T	P	-	Beveled	58	27	7
1/14	Bedrock	N	D	-	Flat	57	23	13
1/15 <sup>E</sup>	Bedrock	T	D	-	Pointed	57	28	7
1/16	Bedrock	T	C	-	Flat	44	19	4

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.103. Site 25819, Plan View and Photograph.**

**STATE SITE 50-10-23-25820**

<b>Additional Site Numbers:</b> Temporary      RN2006-042	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 12,557 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN054	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

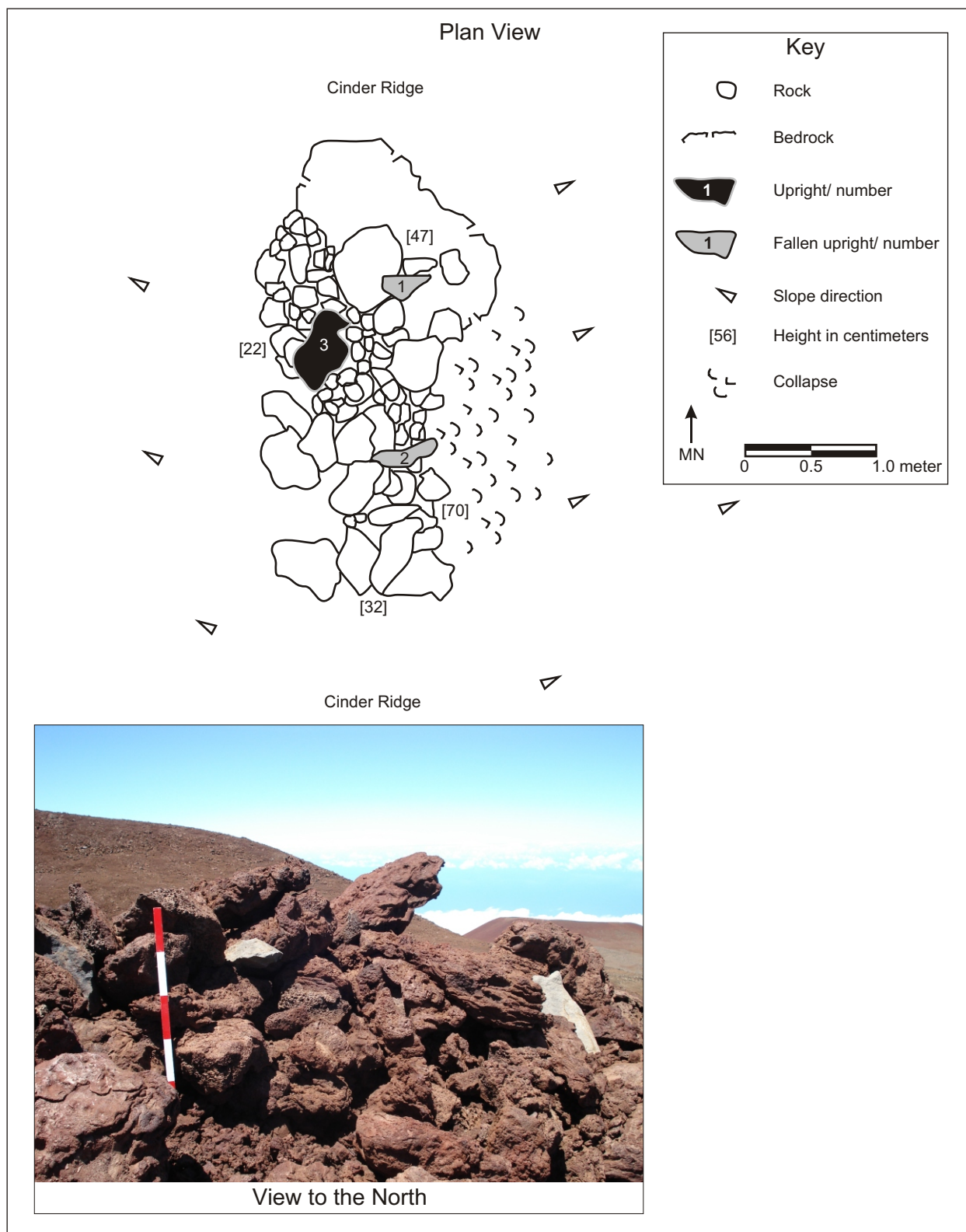
Site 25820 is a mound (Feature 1) located on the south rim of a small *pu'u* that extends off of Pu'u Mahoe. The mound is crudely constructed of cobble-sized chunks of reddish-colored lava (Figure 2.104). It measures roughly 2.7 m by 1.8 m and has a height between 0.2 m on the north side and 0.7 m on the south side. On the mound are two, possibly three, fallen uprights (see upright data table below). Upright No.'s 1 and 2 are located along the south side and consist of light grey tabular slabs. Upright No. 3 is a possible upright located along the north side near the center of the mound, and is consists of a red-colored irregular-shaped boulder.

**Site 25820, Metric and Non-Metric Upright Data.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	D	-	Pointed	40	17	5
1/2 <sup>E</sup>	Mound	T	P	6	Flat	41	11	8
<b>1/3</b>	<b>Mound</b>	<b>N</b>	<b>P</b>	<b>3</b>	<b>Beveled/ Round</b>	<b>67</b>	<b>44</b>	<b>15</b>

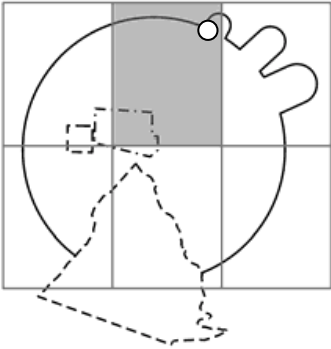
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright





**Figure 2.104. Site 25820, Plan View and Photograph.**

**STATE SITE 50-10-23-25825**

<b>Additional Site Numbers:</b> Temporary      RN2006-043	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 11,745 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN063	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25825 consists of a rock mound with two, possibly three uprights (Figures 2.105 and 2.106). The mound is constructed of piled small to medium-sized cobbles with small boulders on the north and south ends. It measures roughly 2.2 m by 1.0 m and has a height of 30.0 cm.

On the mound are two erect uprights (No.'s 1 and 2) and one possible upright (No. 3- see upright data table below). The two erect uprights are located near the south end of the mound and the possible upright, which is fallen, is located north of Upright No. 1.

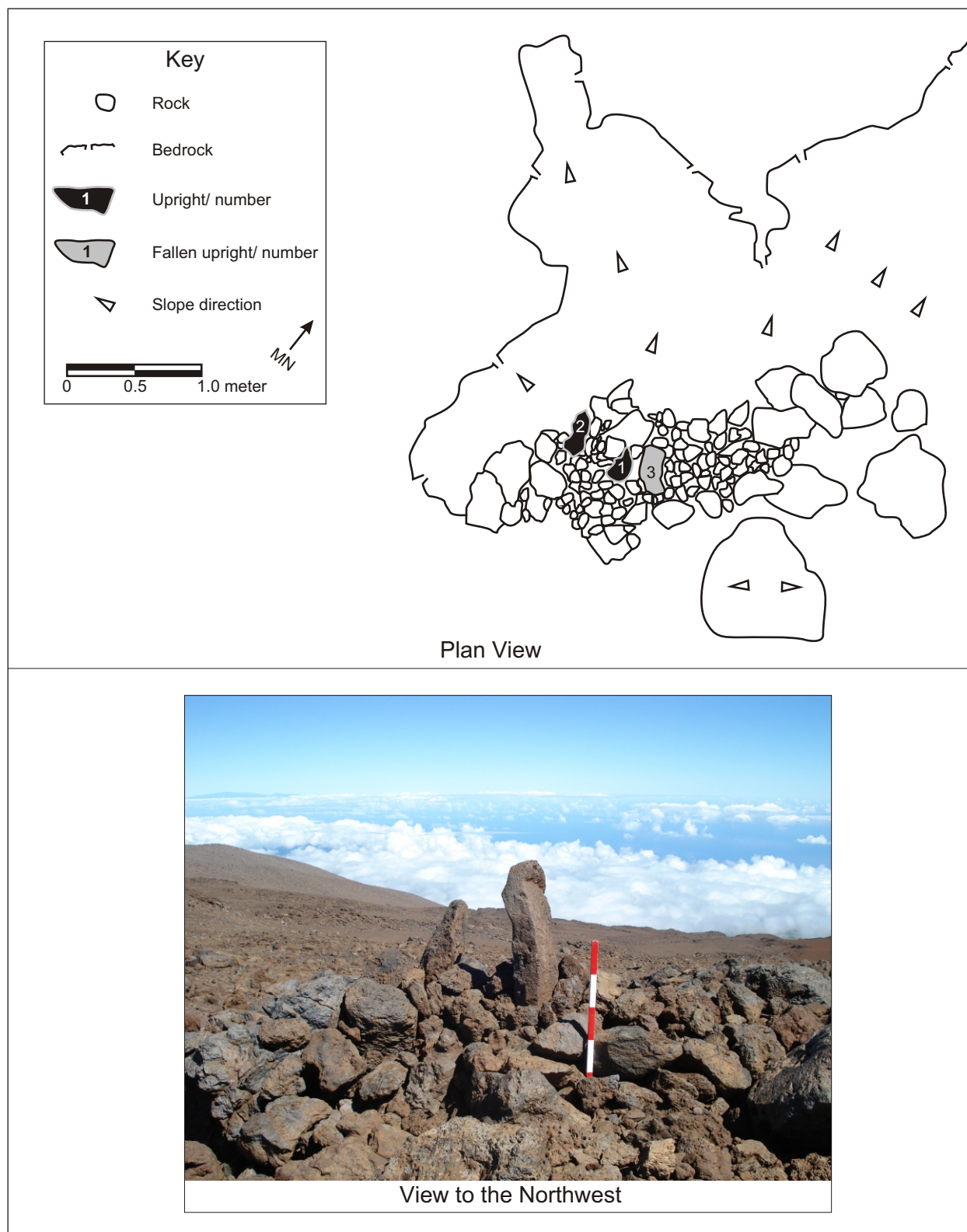


**Figure 2.105. Photograph of Site 25825; View to the Southwest.**

**Site 25825, Metric and Non-Metric Upright Data.**

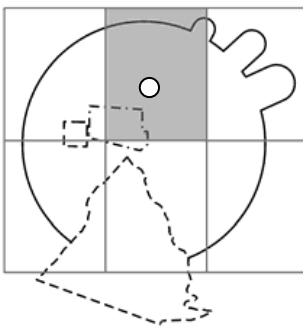
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	D	-	Pointed	57	27	9
1/2 <sup>E</sup>	Mound	T	P	6	Flat	40	22	14
<b>1/3</b>	<b>Mound</b>	<b>N</b>	<b>P</b>	<b>3</b>	<b>Beveled/ Round</b>	<b>35</b>	<b>14</b>	<b>5</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.106. Site 25825, Plan View and Photograph.**

**STATE SITE 50-10-23-25826**

<b>Additional Site Numbers:</b> Temporary PM2006-019	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 5.0 m by 4.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,758 ft a.m.s.l.	
<b>2006 GPS File No.:</b> JK,PM2006-19	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

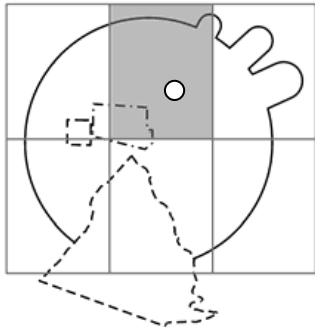
Site 25826 is a small shrine with two uprights. Both uprights were wedged into a boulder outcrop (see upright data table below). Upright No. 1 is still in place; Upright No. 2 has fallen.

**Site 25826, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	T	C	--	Pointed	30	20	5
1/2	Bedrock crack	T	C	--	Mesial notched	43	25	16

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

**STATE SITE 50-10-23-25827**

<b>Additional Site Numbers:</b> Temporary PM2006-017	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-
<b>Site Dimensions:</b> 2.0 m by 1.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,839 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM2006-17	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

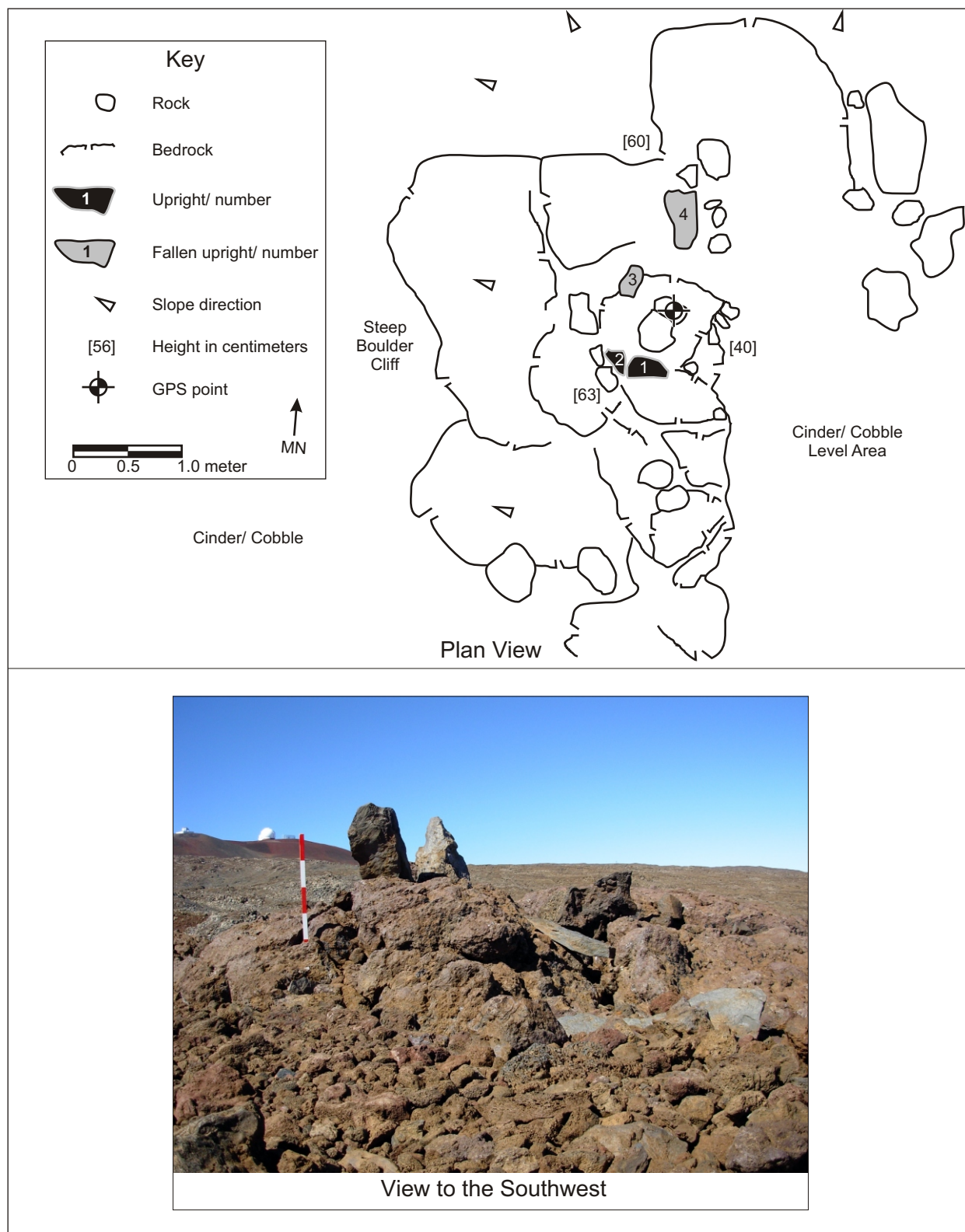
Site 25827 is located on the crest of a ridge, and consists of a small shrine with two, and possibly as many as four, upright slabs (Figures 2.107). Three of the four uprights (Upright No.'s 1 through 3) are located on a pile of cobbles and small boulders and the fourth upright (a possible upright) is located approximately 30.0 cm north of Upright No. 3 (see upright data table below). Upright No.'s 1 and 2 stand erect.

**Site 25827, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	P	-	Pointed	50	21	16
1/2 <sup>E</sup>	Bedrock surface	T	D	4	Pointed	43	25	16
<b>1/3</b>	<b>Bedrock surface</b>	<b>T</b>	<b>P</b>	<b>--</b>	<b>Flat</b>	<b>39</b>	<b>16</b>	<b>5</b>
<b>1/4</b>	<b>Bedrock crack</b>	<b>T</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>57</b>	<b>29</b>	<b>5</b>

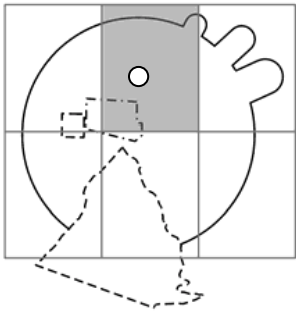
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright





**Figure 2.107. Site 25827, Plan View and Photograph.**

**STATE SITE 50-10-23-26217**

<b>Additional Site Numbers:</b> Temporary		PM2007-001
<b>Site Function:</b> Shrine		<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 5.0 m by 3.0 m		
<b>Number of Features:</b> 1		
<b>Topographic Location:</b> Ridge crest		
<b>Approximate U.S.G.S. Elevation:</b> 12,742 ft a.m.s.l.		
<b>2007 GPS File No.:</b> PM2007-041		
<b>Current Status:</b> New site.		

**DESCRIPTION:**

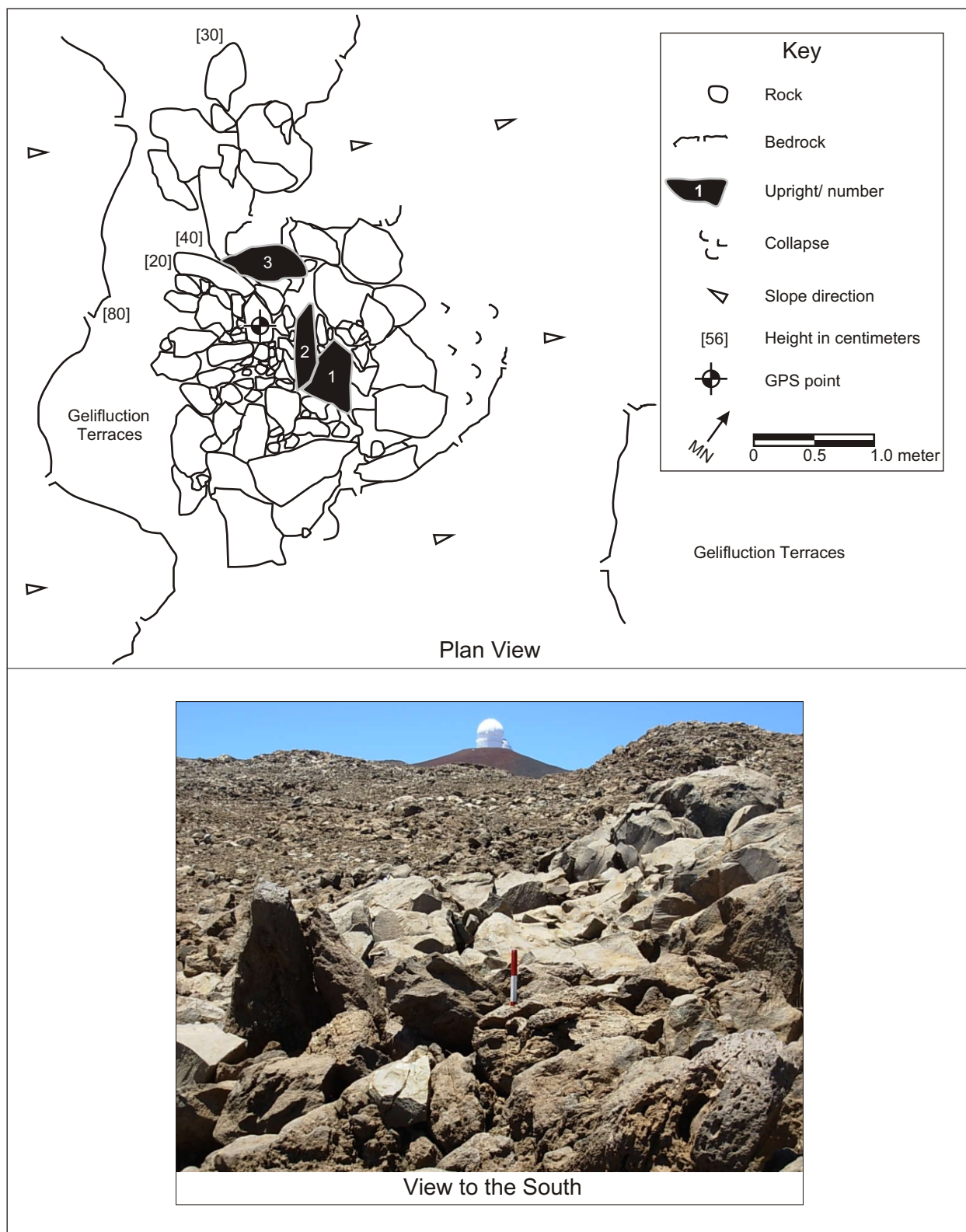
Site 26217 is a mound with three uprights, and is located on the front of a gelifluction terrace on the east side of a ridge with a large gelifluction terrace below (Figure 2.108). The mound is constructed piled cobbles and small boulders and measures approximately 3.5 m long by 2.1 m wide with a maximum height of 0.4 m.

The three uprights are located on the top of the mound and are standing erect. Upright No. 2 is leaning on Upright No. 1 (see upright data table below).

**Site 26217, Metric and Non-Metric Upright Data.**

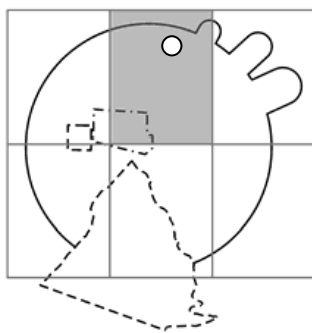
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	D	-	Flat	100	55	15
1/2 <sup>E</sup>	Mound	T	I	4	Flat	77	50	15
1/3 <sup>E</sup>	Mound	T	C	-	Flat	80	35	20

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.108. Site 26217, Plan View and Photograph.**

**STATE SITE 50-10-23-26219**

<b>Additional Site Numbers:</b> Temporary PM2007-005	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 1.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,039 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM024	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

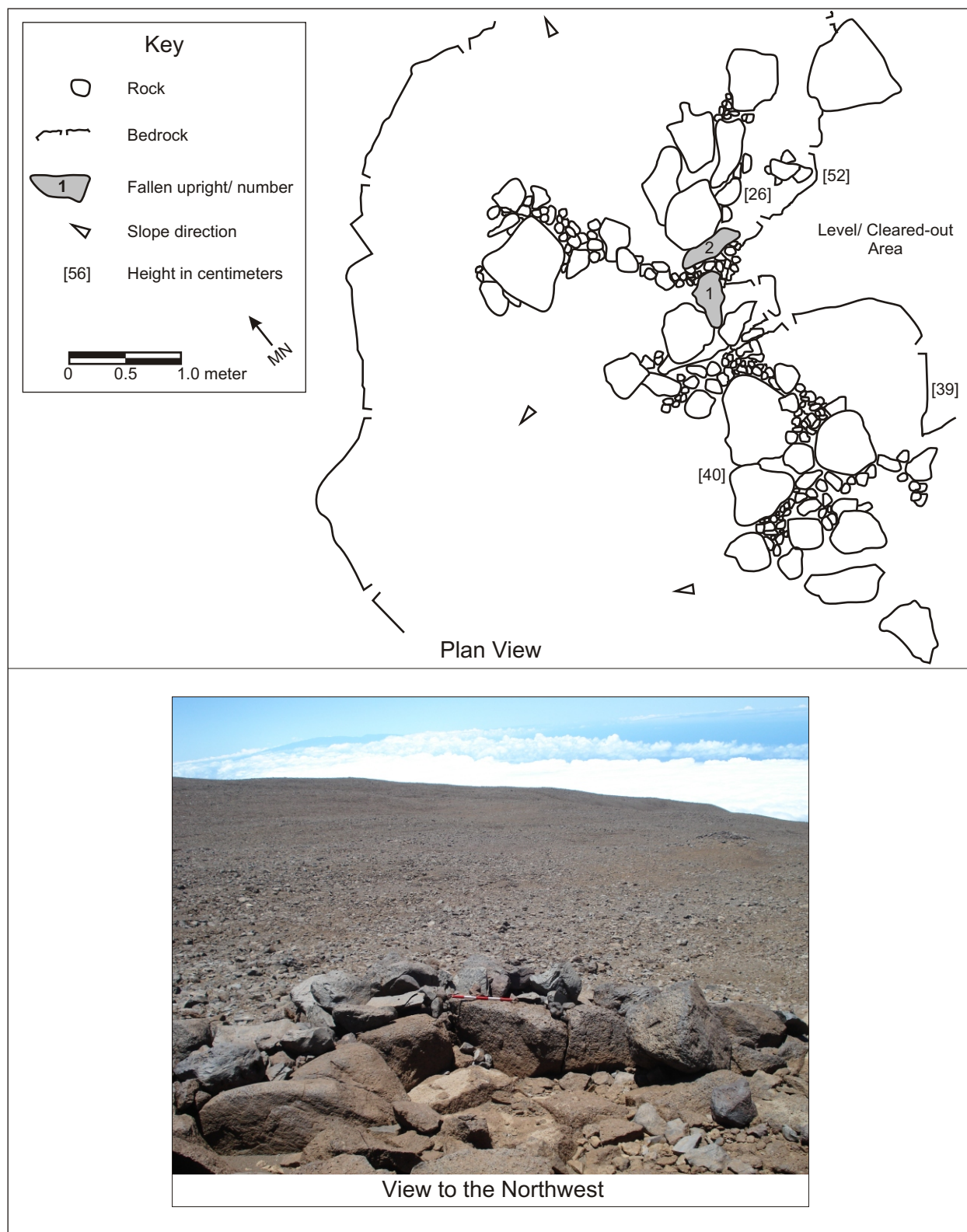
Site 26219 is located on the west slope of a north/south extending ridge, and consists of a rock mound with two uprights (Figure 2.109). The mound is constructed of piled cobbles and small to medium-sized boulders, and is 4.0 m long (north/south) 1.5 m wide (maximum), and 0.5 m high along the west side.

At the north end of the mound are two possible fallen uprights with evidence of bracing, or support stones, on the mound (see upright data table below). The uprights would have been visible only when approached from the west side.

**Site 26219, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T	P	-	Flat/ Beveled	61	25	6
1/2	Mound	T	P	-	Flat	56	34	14

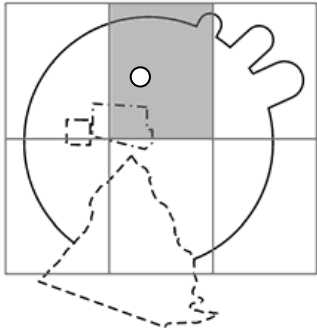
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.109. Site 26219, Plan View and Photograph.**



**STATE SITE 50-10-23-26222**

<b>Additional Site Numbers:</b> Temporary      RN2007-003	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,395 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN130	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26222 is an elongated rock mound with two uprights located on the west side of an outcrop (Figure 2.110). The mound is constructed of piled cobbles and medium to large-size boulders. The piled portion of the mound is 1.25 m long and is situated between two boulders. The south end of the mound continues an additional 2.3 m and is constructed of medium to large-size boulders.

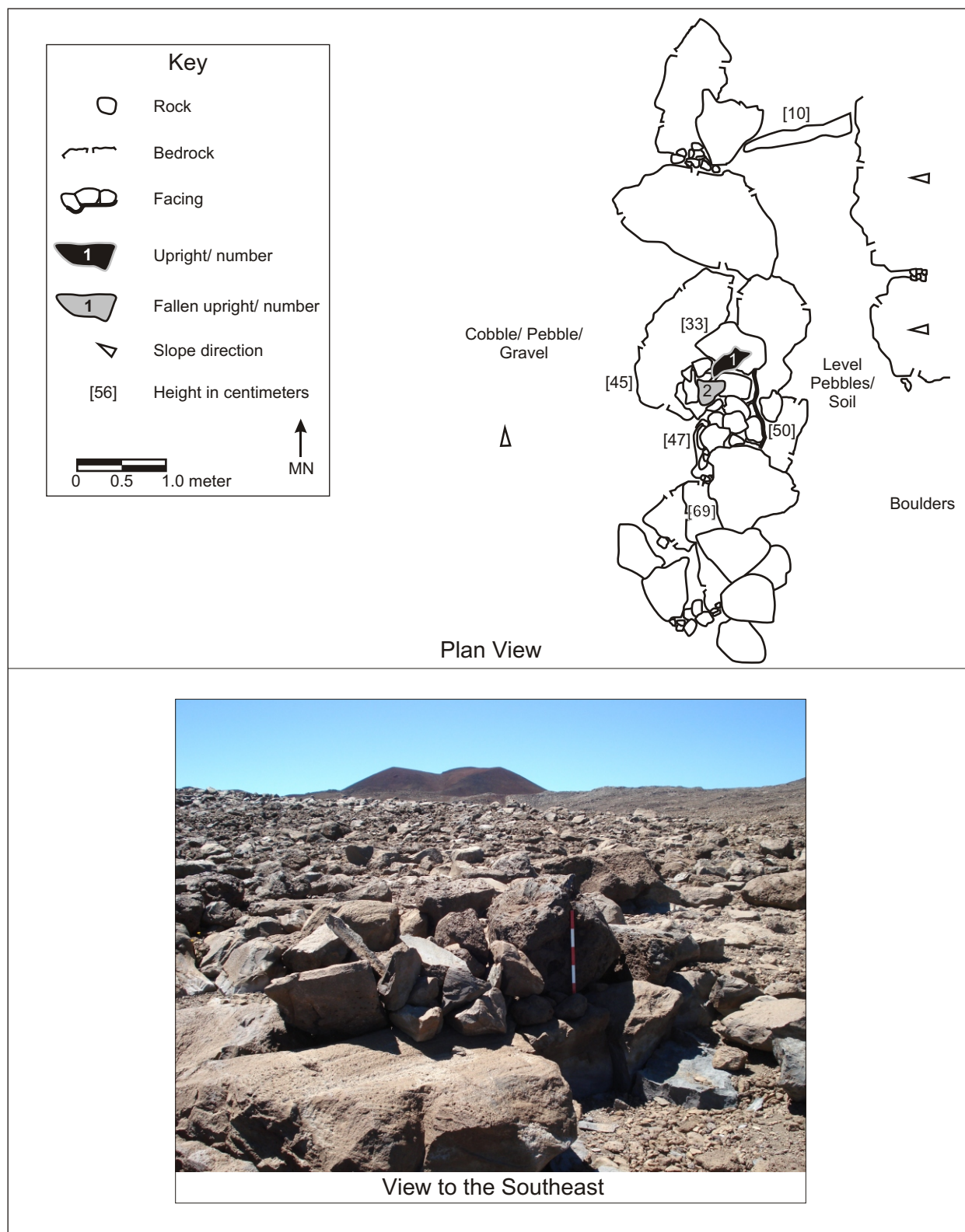
One, possibly two uprights are situated on the mound (see upright data table below). Upright No. 1 is located at the north end of the mound, and Upright No. 2 is located near its center. A circular depression at the south end of the mound may have held a third upright in the past. No surface cultural material was observed.

**Site 26222, Metric and Non-Metric Upright Data.**

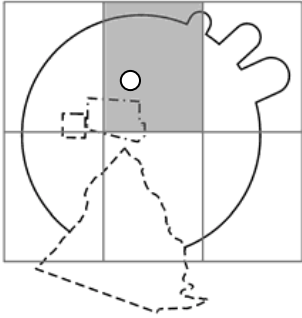
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	I	5	Mesial curve	44	20	7
1/2	<b>Mound</b>	<b>T</b>	<b>D</b>	-	<b>Round</b>	<b>28</b>	<b>26</b>	<b>4</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



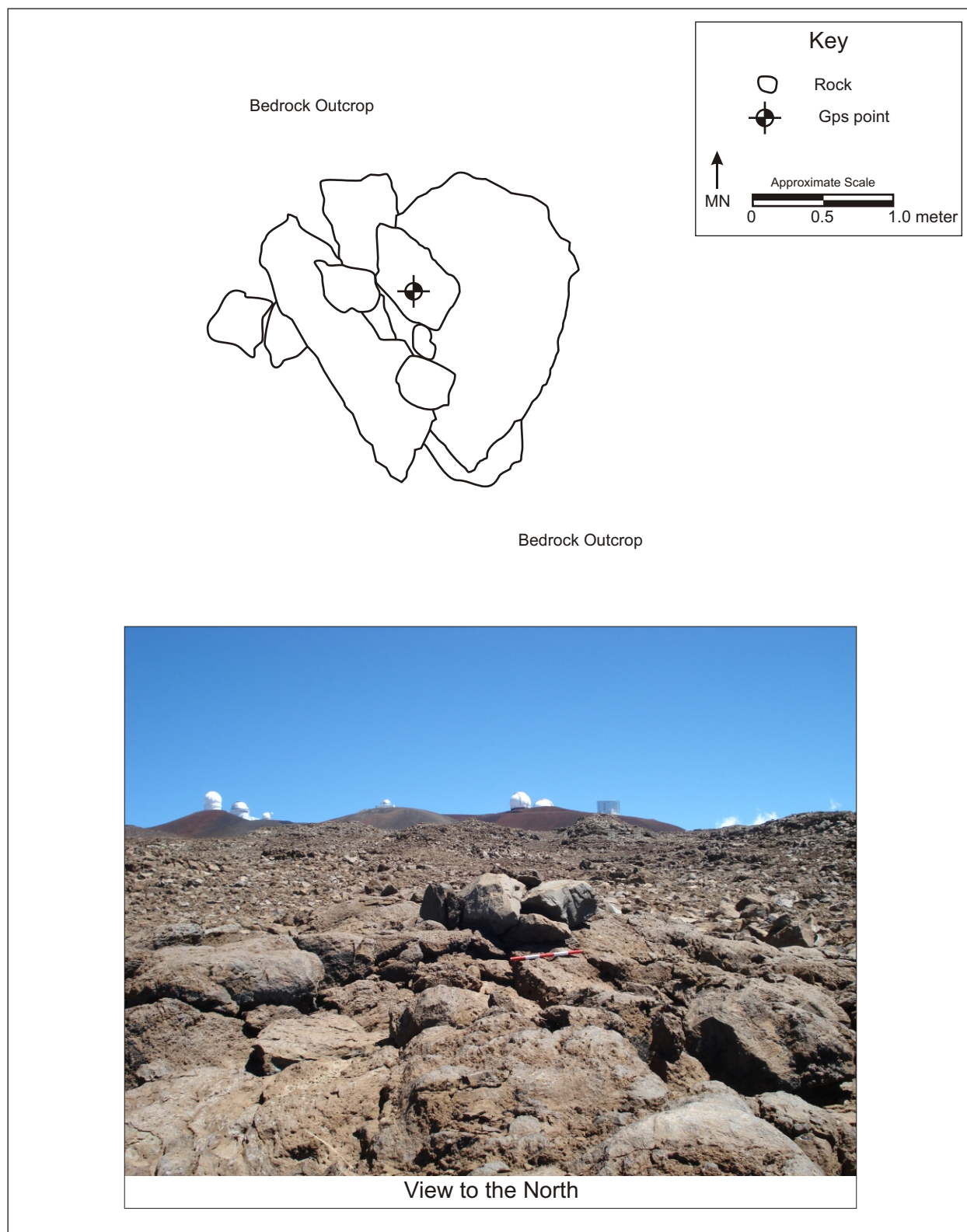


**STATE SITE 50-10-23-26226**

<b>Additional Site Numbers:</b> Temporary PM2007-001	
<b>Site Function:</b> Possible shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,767 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN119	
<b>Current Status:</b> New site.	

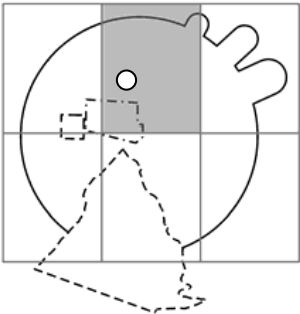
**DESCRIPTION:**

Site 26226 is located on a whaleback ridge and consists of a pile of cobbles and small boulder measuring 1.38 m by 1.3 m with a maximum height of 0.41 m (Figure 2.111). The center of the pile has a depressed, or cleared, area likely for an upright to be placed. No upright was observed.



**Figure 2.111. Site 26226, Plan View and Photograph.**

**STATE SITE 50-10-23-26227**

<b>Additional Site Numbers:</b> Temporary PM2007-006	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,795 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN035	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26227 is located at the toe of a ridge and consists of a rock mound with a fallen upright (Feature 1) and a lava tube (Feature 2).

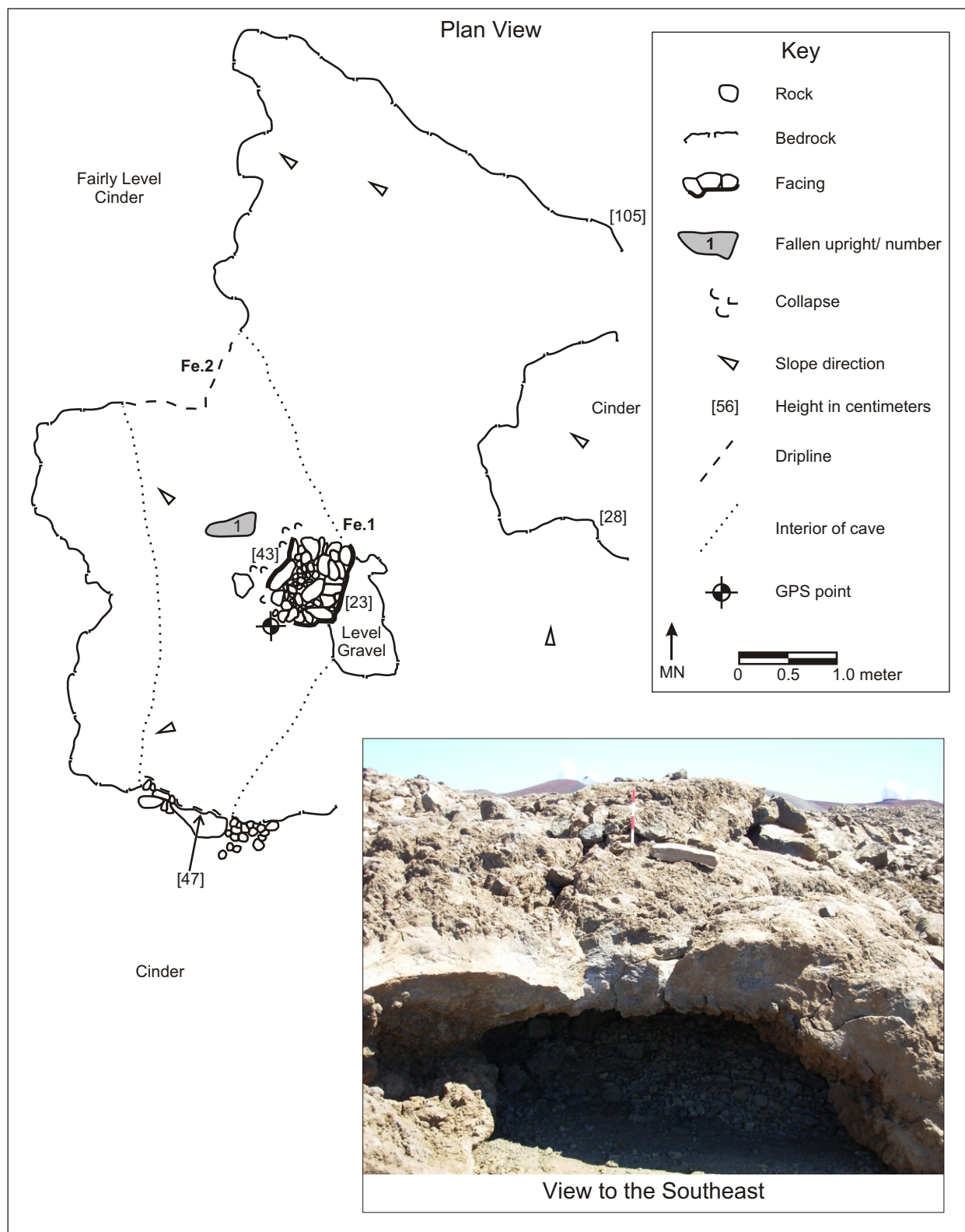
Feature 1, situated adjacent and above the Feature 2 lava tube, is a rock mound constructed of two courses of piled and stacked cobbles and small boulders (Figure 2.112). It is approximately 1.0 m by 1.0 m and has a maximum height of 0.43 m. A fallen upright is located 0.5 m west of the mound (see upright data table below). No cultural material was observed.

Feature 2 is a short lava tube, approximately 4.0 m long (north/south), with a maximum width of 2.0 m at the center and a maximum height of 0.7 m (see Figure 2.112). The interior slopes downward from south to north. Two entrances were noted, one at the north end and another at the south. The north entrance is approximately 1.5 m wide and 0.7 m high. Just inside the north entrance is a level soil deposit with an adjacent cobble pile extending the width of the tube. The southern entrance is 1.0 m wide and 0.47 m high. No cultural material was observed.

**Site 26227, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T	P	-	Round	50	40	-

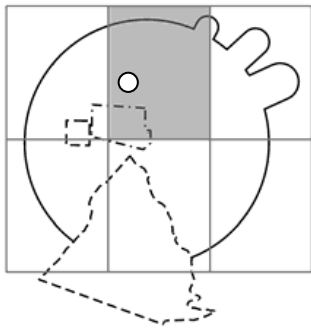
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.112. Site 26227, Features 1 and 2, Plan View and Photograph.**



**STATE SITE 50-10-23-26228**

<b>Additional Site Numbers:</b> Temporary RN2007-010	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 10.0 m by 8.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,711 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN001	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26228 is located on a whaleback ridge and consists of a mound with multiple uprights (Feature 1) and a rock pile with a single upright (Feature 2) (Figure 2.113).

Feature 1 is a J-shaped rock mound with at least six, possibly 12, uprights. The mound is constructed of piled cobbles and small boulders and is 8.0 m long (east/west) before bending to the south for an additional 3.0 m. Upright No. 1 is located near the west end, with a space of 0.6 m separating it from the main body of the mound and Upright No.'s 2 through 13. Support cobbles are located west/southwest of Upright No. 1. Upright No.'s 2 through 6 are located at the west end of the mound, Uprights 7-11 are located in the central portion, and Uprights 12 and 13 are located at the east end of the mound before the bend (see Figure 2.113). Only Upright No. 5 is erect (see upright data table below).

Feature 2 is a rock pile with a fallen upright. It is separated from Feature 1 by a large crack in the outcrop, is located approximately 4.0 m north of Upright No. 5 in Feature 1. The feature is constructed of cobbles and small boulders and is 1.0 m by 1.0 m. A fallen upright is present on the west side of the feature.

All the fallen uprights appear to have been deliberately displaced. No cultural material was observed.

**Site 26228, Metric and Non-Metric Upright Data.**

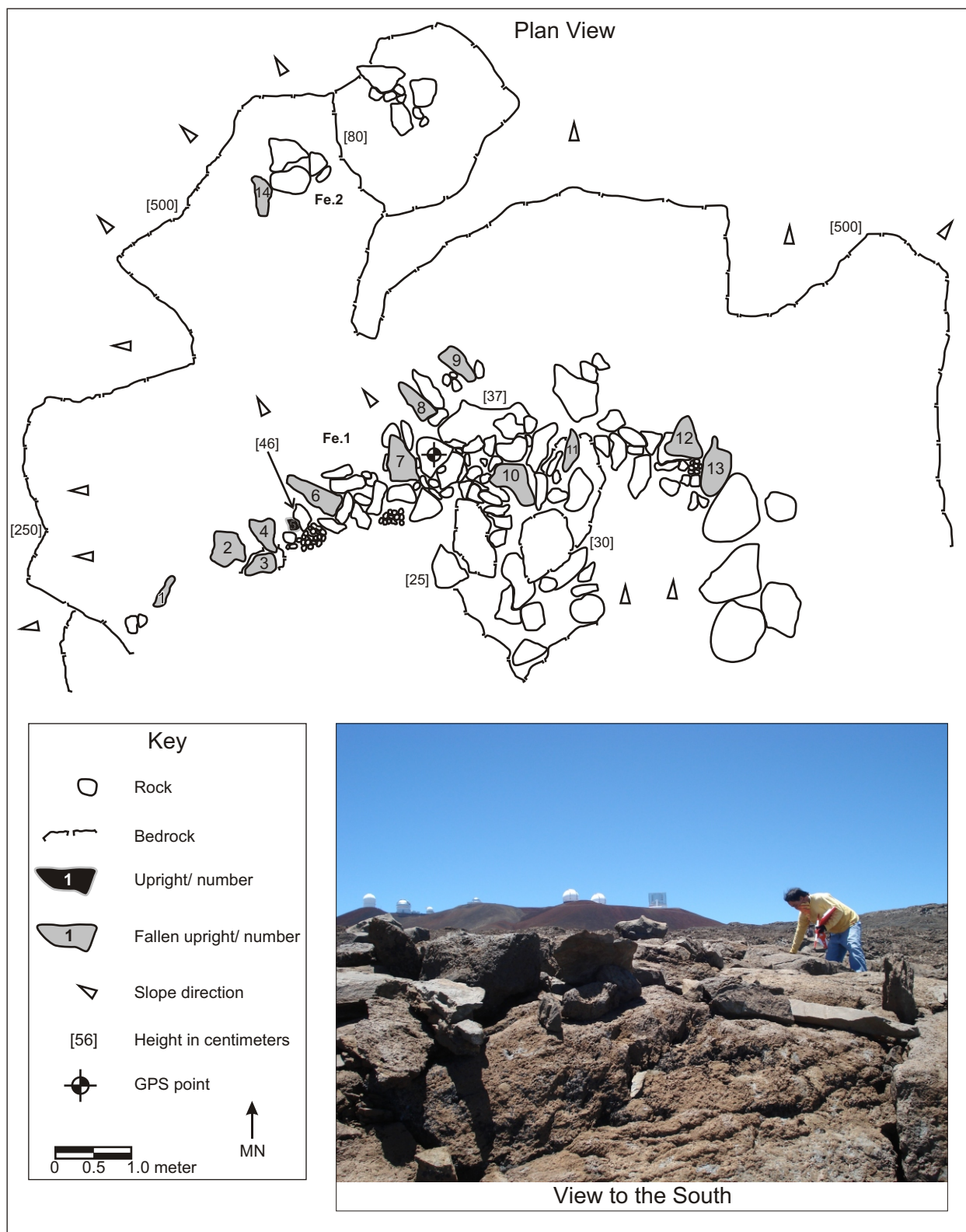
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	I	-	Beveled	44	12	8
1/2	Bedrock crack	T	I	-	Flat	45	39	9
1/3	Bedrock	T	CR	-	Pointed	46	22	10



**Site 26228, Metric and Non-Metric Upright Data.**

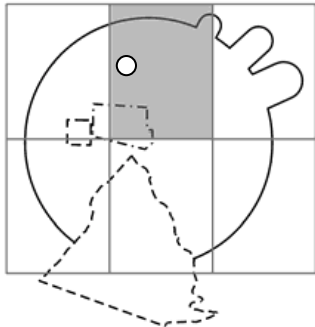
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
	crack							
<b>1/4</b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>1</b>	<b>Flat</b>	<b>50</b>	<b>24</b>	<b>9</b>
1/5 <sup>E</sup>	Bedrock crack	T	D	-	Pointed	46	19	18
1/6	Bedrock surface	T	P	-	Flat	71	24	12
1/7	Bedrock surface	T	S	5	Pointed	68	36	10
1/8	Bedrock surface	N	D	-	Pointed	64	22	20
1/9	Bedrock surface	T	D	-	Round	60	22	7
1/10	Mound	T	D	5	Flat	79	62	15
1/11	Bedrock surface	N	P	-	Pointed	53	16	16
1/12	Bedrock surface	N	D	-	Pointed	71	42	27
1/13	Bedrock surface	T	C	-	Unknown	71	41	11
2/14	Bedrock surface	T		-	Broken	52	20	7

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.113. Site 26228, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-26229**

<b>Additional Site Numbers:</b> Temporary PM2007-007	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,385 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN143	
<b>Current Status:</b> New site.	

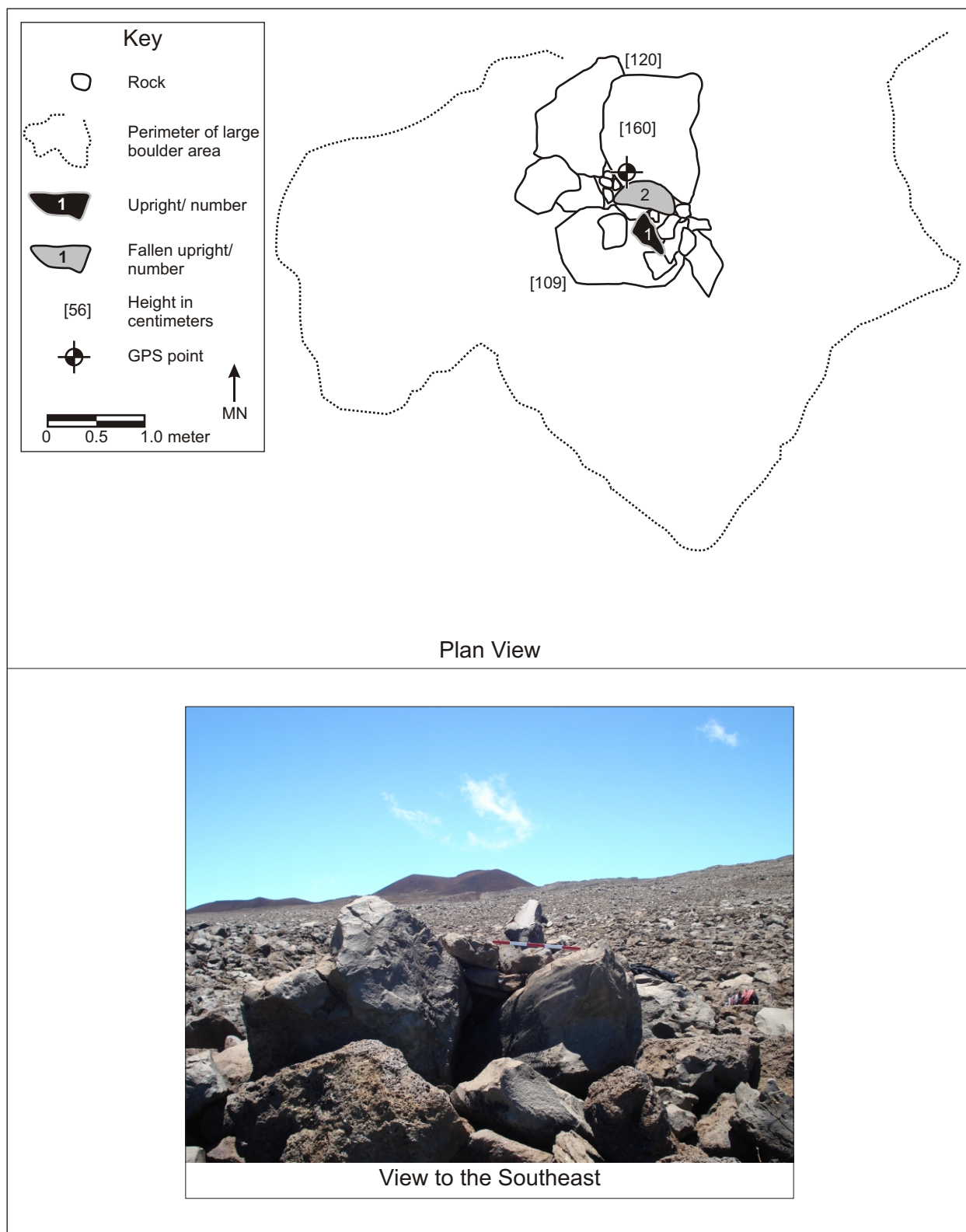
**DESCRIPTION:**

Site 26229 is located in a boulder concentration on a glacial moraine and consists of several adjoining large boulders with one, possibly two uprights placed on the highest point of the boulders (Figure 2.114; see upright data table below). The boulders associated with this shrine cover an area approximately 2.2 m by 1.2 m and have a maximum height of 1.2 m. Upright No. 1 is erect and Upright No. 2 is lying north of Upright No. 1.

**Site 26229, Metric and Non-Metric Upright Data.**

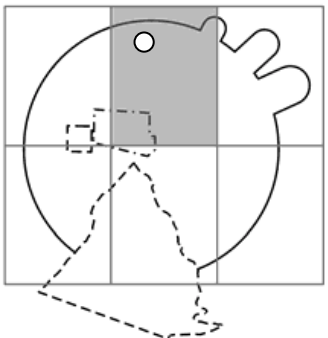
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Boulder	N	P	I	Flat	62	22	22
1/2	Boulder	T	S	-	Flat/ Beveled	61	30	12

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.114. Site 26229, Plan View and Photograph.**

**STATE SITE 50-10-23-26231**

<b>Additional Site Numbers:</b> Temporary PM2007-007	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,043 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM044	
<b>Current Status:</b> New site.	

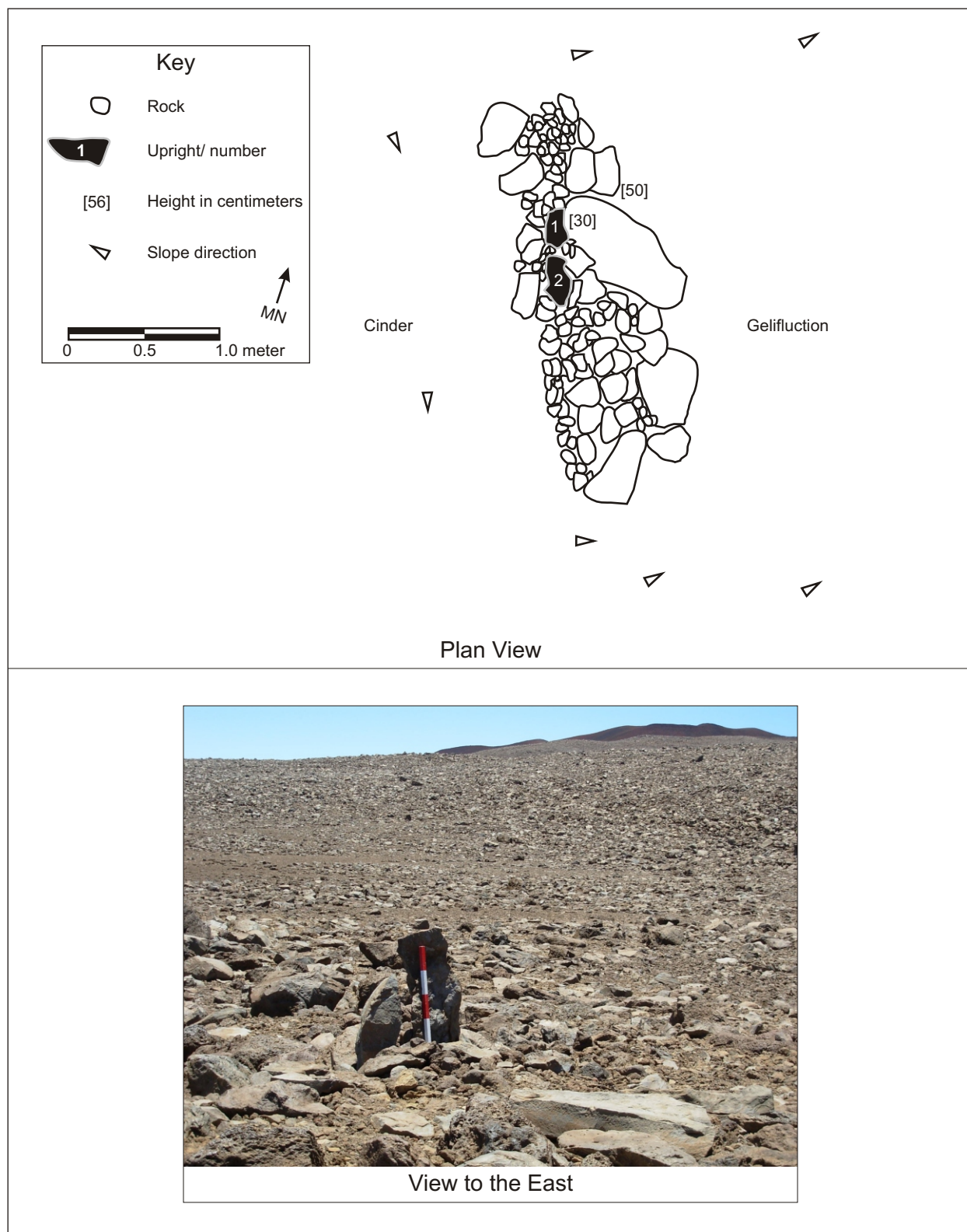
**DESCRIPTION:**

Site 26231 is a mound located cobble and small boulder mound located on a gelifluction terrace with two uprights, both erect, in the center (see upright data table below). The mound constructed with cobbles and small boulders, and is 2.6 m long by 0.75 m wide and 0.5 m high (Figure 2.115).

**Site 26231, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	S	I	Beveled	50	23	12
1/2 <sup>E</sup>	Mound	T	D	-	Flat	65	30	15

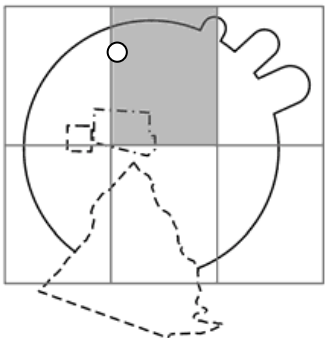
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.115. Site 26231, Plan View and Photograph.**



**STATE SITE 50-10-23-26233**

<b>Additional Site Numbers:</b> Temporary RN2007-006	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 7.0 m by 6.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,129 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN136	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26233 is a U-shaped enclosure open to the southwest with 12 uprights. The site is located on a gelifluction lobe (Figure 2.116). The enclosure walls are constructed of piled and stacked cobbles and small boulders. It is 6.0 m (northeast/southwest) by 4.8 m and has a maximum height of 0.4 m along the northwest side. The enclosure walls range in thickness from 0.5 m (along the northeast side) to 1.5 m (along the southeast side).

The interior surface of the enclosure contains three different types of pavements. The first is located along the southwest corner and is consists of small boulders. The second pavement is constructed of tabular slabs and is located adjacent and east of the small boulder pavement. The third pavement is constructed of cobbles and small boulders and is located in northern portions of the enclosure (see Figures 2.116). No cultural material was observed.

Along the walls are a series of 12 uprights dispersed around the structure (see upright data table below). Upright No.'s 1 through 4 are located in the pavement along the north wall; Upright No.'s 5 through 8 are located on the pavement and on the east wall. Upright No.'s 9 through 12 are located on the south wall. Upright No.'s 2 and 9 are standing erect; the rest of the uprights have fallen.

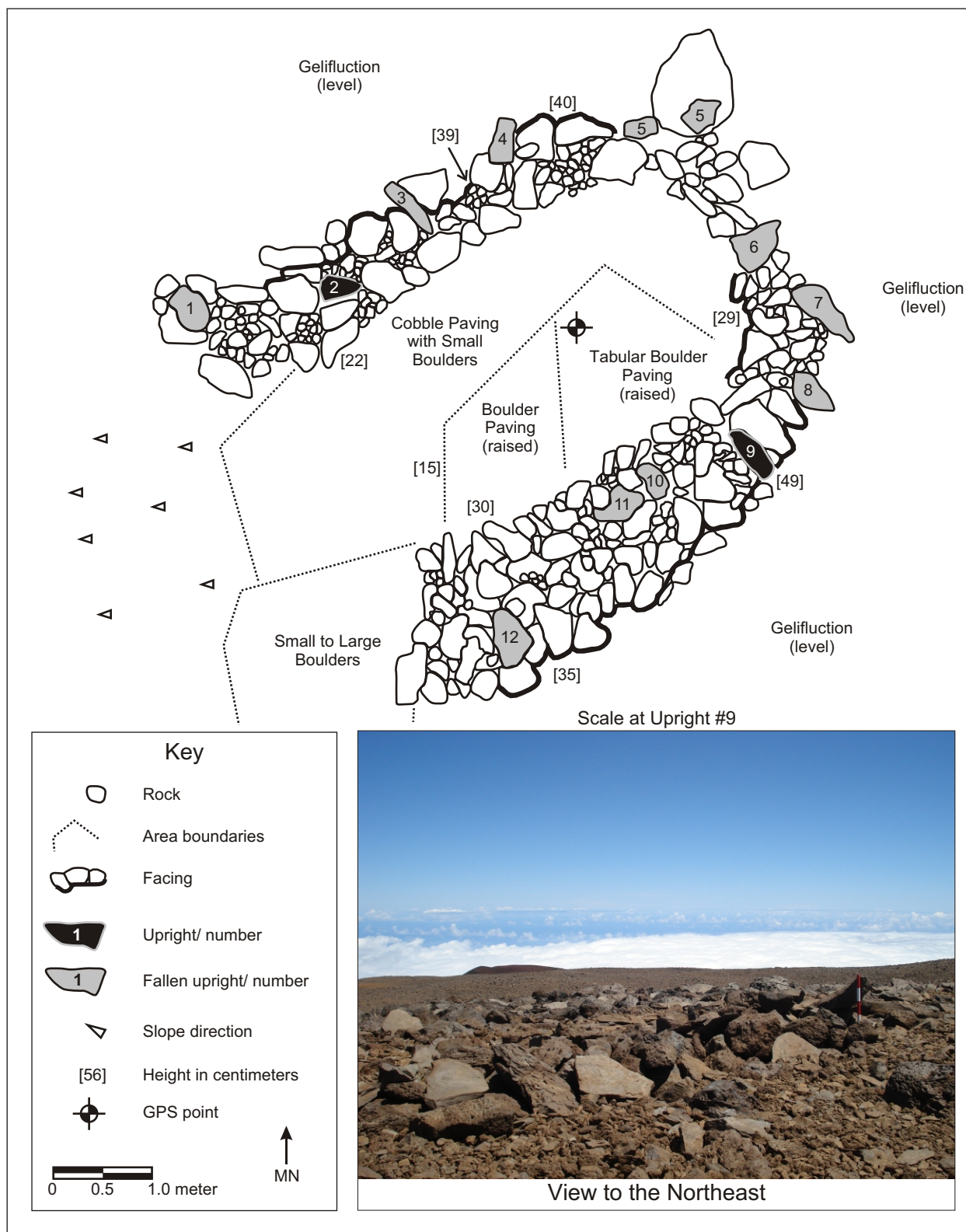
**Site 26233, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Pavement	T	P	-	Flat	50	28	5
1/2 <sup>E</sup>	Pavement	T	S	6	Flat/ Beveled	52	41	4
1/3	Pavement	T	S	-	Pointed/ Beveled	74	37	13

**Site 26233, Metric and Non-Metric Upright Data.**

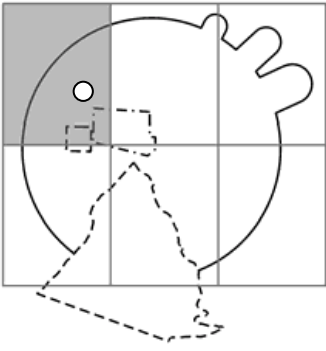
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/4	Pavement	T	D	-	Flat	47	27	9
1/5	Pavement	T	P	-	Pointed	79	32	6
1/6	Wall	T	D	-	Pointed	58	43	9
1/7	Wall	T	D	-	Beveled	78	38	8
1/8	Wall	T	P	-	Beveled	62	25	13
1/9 <sup>E</sup>	Wall	T	P	-	Pointed	68	28	16
1/10	Wall	T	CR	-	Round	55	25	8
1/11	Wall	T	P	6	Round	60	40	4
1/12	Wall	T	S	-	Flat	48	34	6

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.116. Site 26233, Plan View and Photograph.**

**STATE SITE 50-10-23-26240**

<b>Additional Site Numbers:</b> Temporary RN2007-012	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.0 m by 1.5 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,590 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN113	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26240 consists of a rock mound (Feature 1) and an overhang with a pile of slabs inside (Feature 2). It is located in horseshoe-shaped topographical depression at the toe of a ridge crest (Figure 2.118).

Feature 1, a mound, is situated parallel to the ridge and is constructed of piled cobbles and small boulders. It is roughly 3.4 m long by 0.7 m wide and 0.31 m high. On top of the mound are four uprights (No.'s 1 through 4 - three fallen and one erect) and a fifth upright (No. 5) is located at the northwest end just off the mound mixed with some scattered cobbles (see upright data table below).

Feature 2, a small overhang, is located below Feature 1, approximately 3.0 m to the northwest (see Figure 2.118). The overhang is located in a horseshoe-shaped topographical depression that opens to the west. The overhang is 2.5 m wide by 2.1 m high at the entrance, and 2.5 m deep. The ceiling height ranges from 2.1 m at the entrance to 0.7 m at the back. The interior surface consists of cobbles and small boulders and slopes down to the west. A pile of slabs, 2.2 m by 2.0 m, is present at the back of the overhang with a single upright leaning against several slabs (Figure 2.117).

No cultural material was observed at this site.

**Site 26240, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T	P	-	Mesial curve	52	15	6
1/2	Mound	T	P	-	Flat	42	15	9
1/3	Mound	T	P	-	Beveled	43	17	15
1/4 <sup>E</sup>	Mound	T	P	3	Pointed	48	18	10

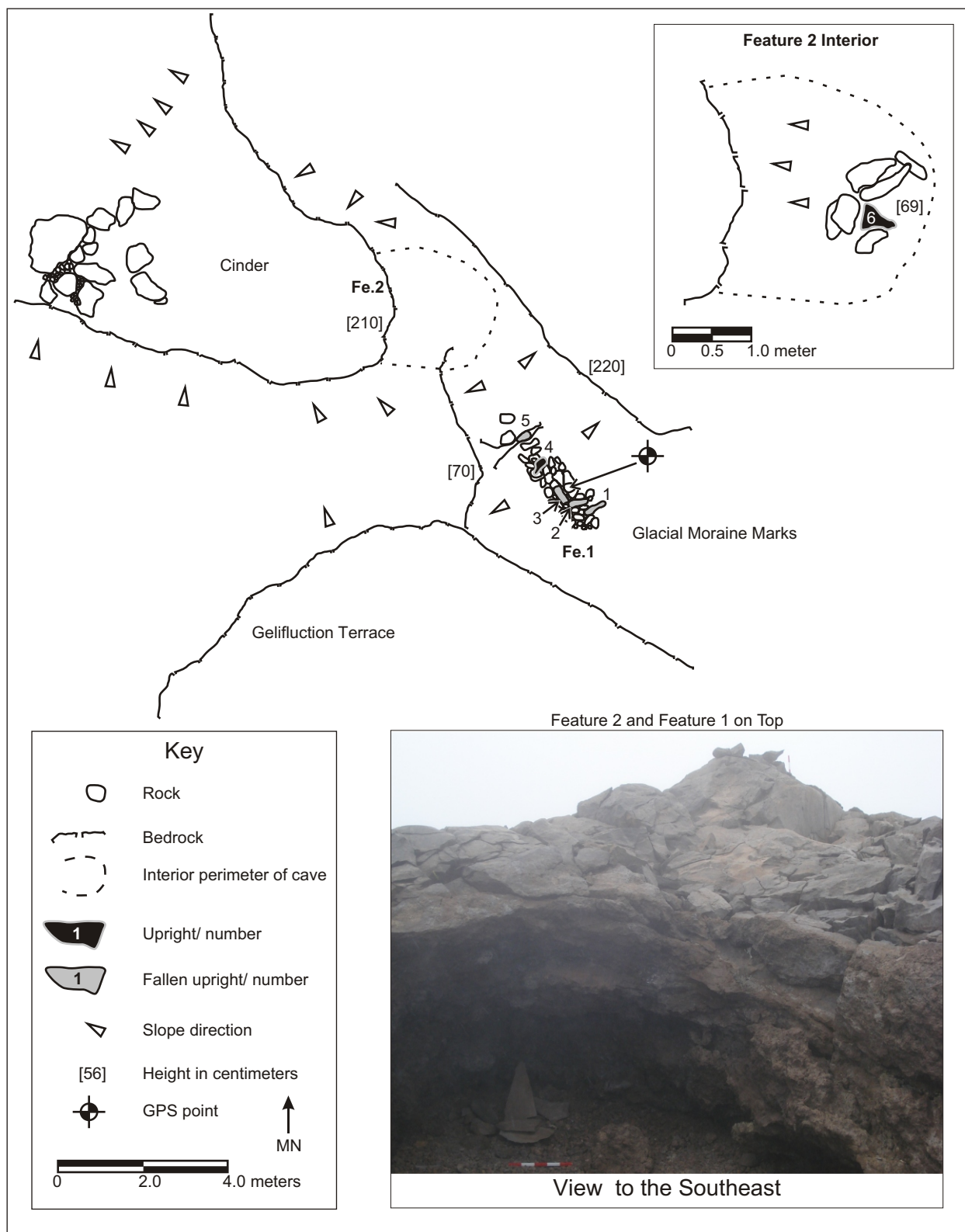
**Site 26240, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/5	Bedrock Surface	T	P	-	Pointed	42	20	10
2/6 <sup>E</sup>	Mound	T	D	6	Beveled	58	24	20

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



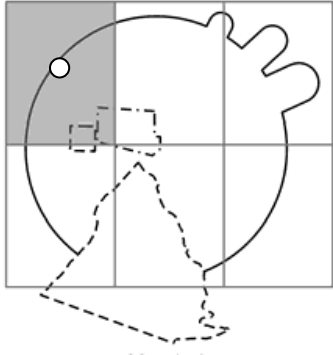
**Figure 2.117. Photograph of Site 26240, Feature 2, Overhang with Interior Shrine.**



**Figure 2.118. Site 26240, Features 1 and 2, Plan View and Photograph.**



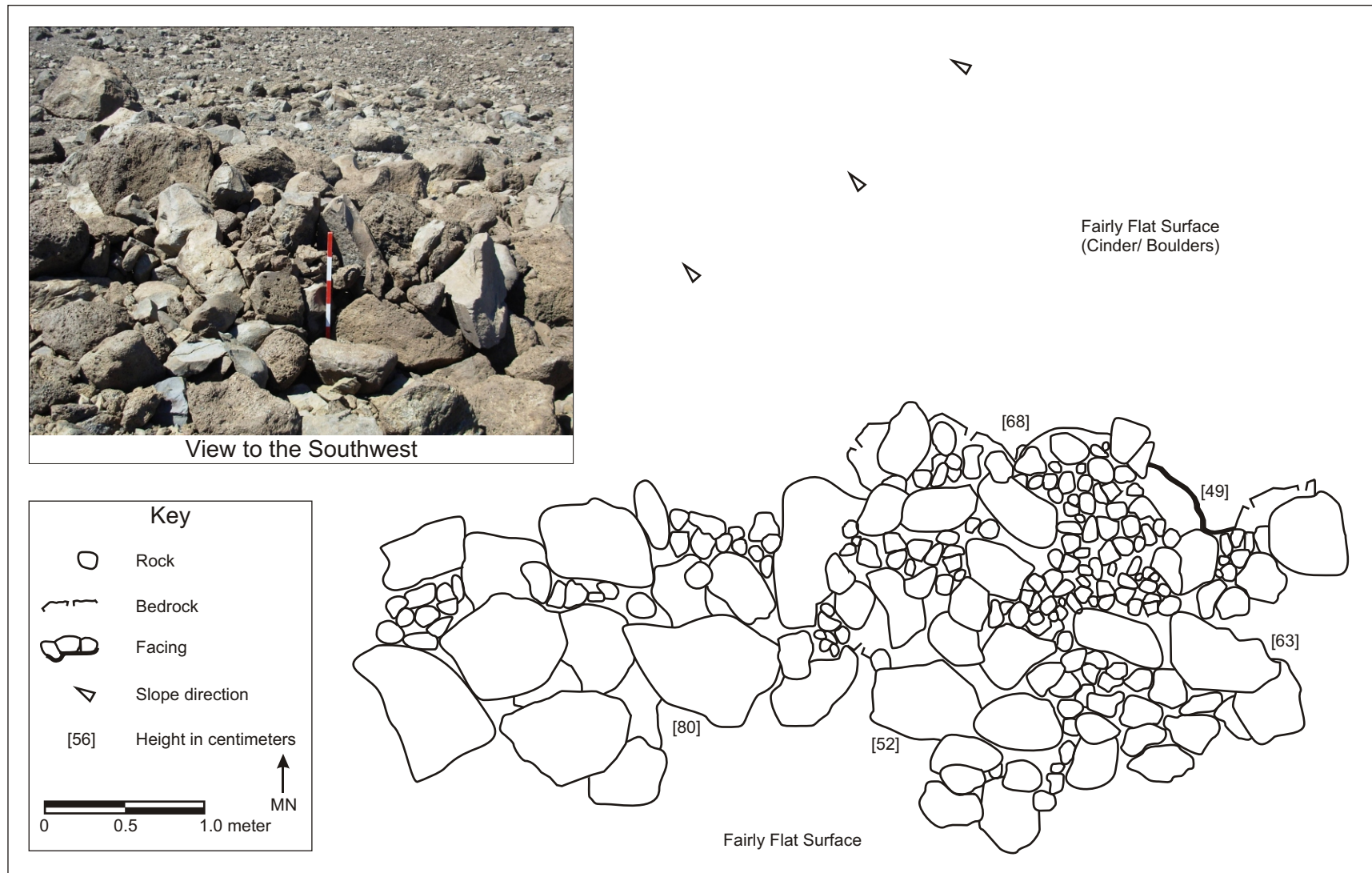
**STATE SITE 50-10-23-26241**

<b>Additional Site Numbers:</b> Temporary PM2007-010	
<b>Site Function:</b> Possible shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 6.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction lobe	
<b>Approximate U.S.G.S. Elevation:</b> 11,812 ft a.m.s.l.	
<b>2007 GPS File No.:</b> KN47	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

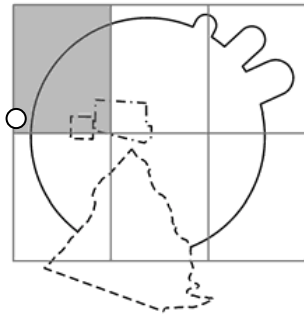
Site 26241 is located on a gelifluction lobe in the northwest flank of the mountain, and consists of a single mound (Feature 1).

Feature 1 is a roughly rectangular-shaped mound constructed with two to four courses of cobbles and small boulders (Figure 2.119). It measures approximately 5.6 m by 2.8 m and has a maximum height of 0.65 m. It was built on bedrock boulders that have also been modified with added smaller boulders. No visible fallen uprights are present.



**Figure 2.119. Site 26241, Plan View and Photograph.**

**STATE SITE 50-10-23-26242**

<b>Additional Site Numbers:</b> Temporary      RN2007-014	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 30.0 m by 10.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,115 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN130	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26242 is located on the toe of a ridge and consists of a mound with a single upright (Feature 1) and a possible cairn (Feature 2) (Figure 2.120).

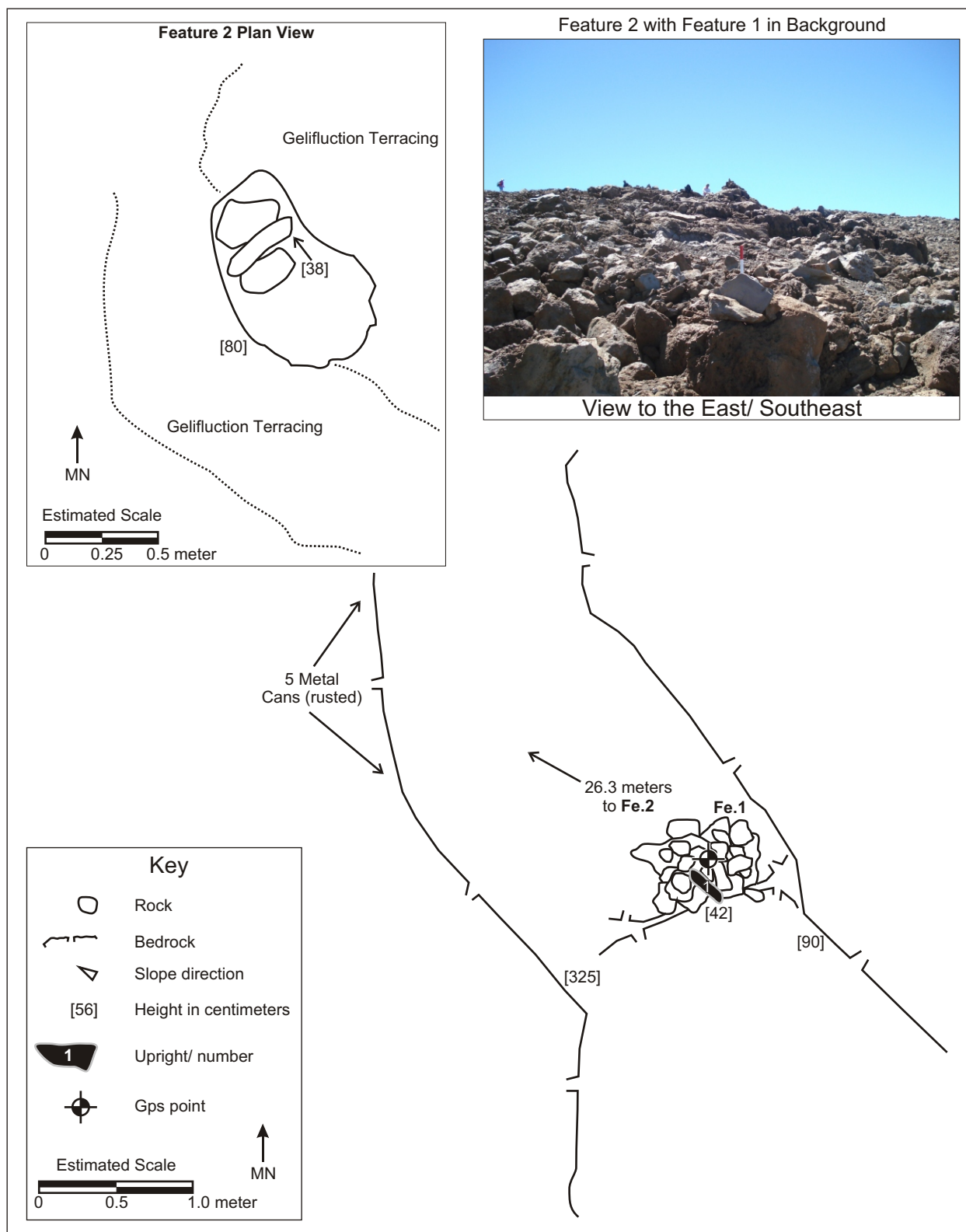
Feature 1 is a pyramid-shaped mound constructed of cobbles and small boulders. It measures 1.0 m by 0.75 m and has a maximum height of 1.0 m. An upright is placed at the apex of the mound and is supported by cobbles. To the west and southwest of Feature 1, where it drops down 0.9 m, is a level soil area with scattered rusted cans and sheep bones.

Feature 2 is located 26.3 m southwest of Feature 1 and consists of a possible cairn constructed of three cobbles on a medium-sized boulder. One of the three cobbles is a flat slab placed on edge and is supported by the other two cobbles. No cultural material was observed at this feature.

**Site 26242, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	D	-	Flat	46	32	8

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.120. Site 26242, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-26243**

<b>Additional Site Numbers:</b> Temporary      RN2007-013	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.0 m by 1.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,856 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN127	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26243 is located on the toe of a ridge and consists of a single upright (Feature 1) and a cairn (Feature 2) (Figure 2.121).

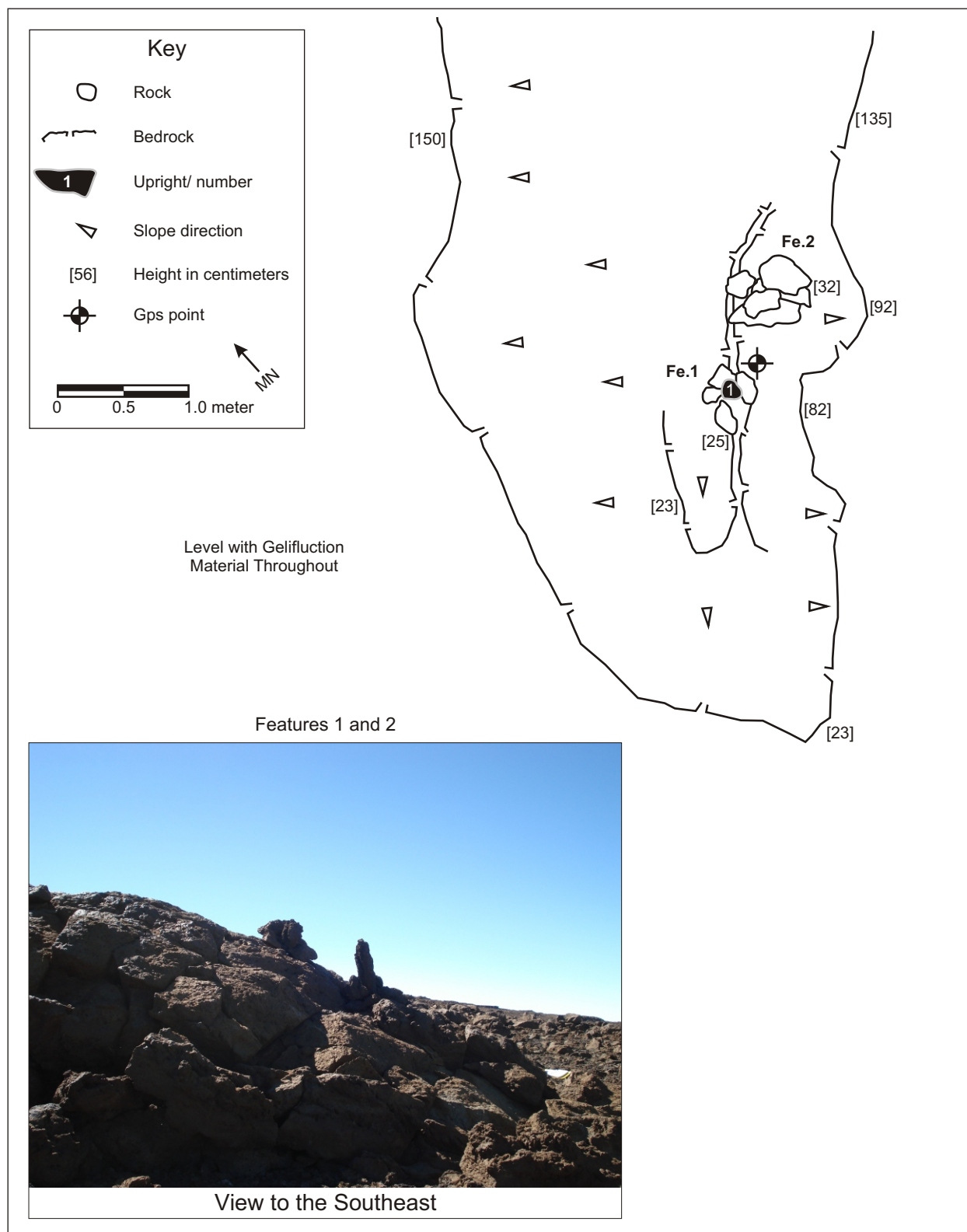
Feature 1 consists of a single upright placed in a crack in the bedrock outcrop and supported by small cobbles (see upright data table below).

Feature 2, a cairn, is located approximately 0.3 m upslope (northeast) of Feature 1 on a raised outcrop. The cairn is constructed with six piled cobbles and is 0.58 m long by 0.55 m wide and 0.32 m high.

### Site 26243, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock	T	P	-	Pointed/ Flat	48	15	12

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.121. Site 26243, Features 1 and 2, Plan View and Photograph.**



## STATE SITE 50-10-23-26244

<b>Additional Site Numbers:</b> Temporary	PM2007-015
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,826 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM119	
<b>Current Status:</b> New site.	

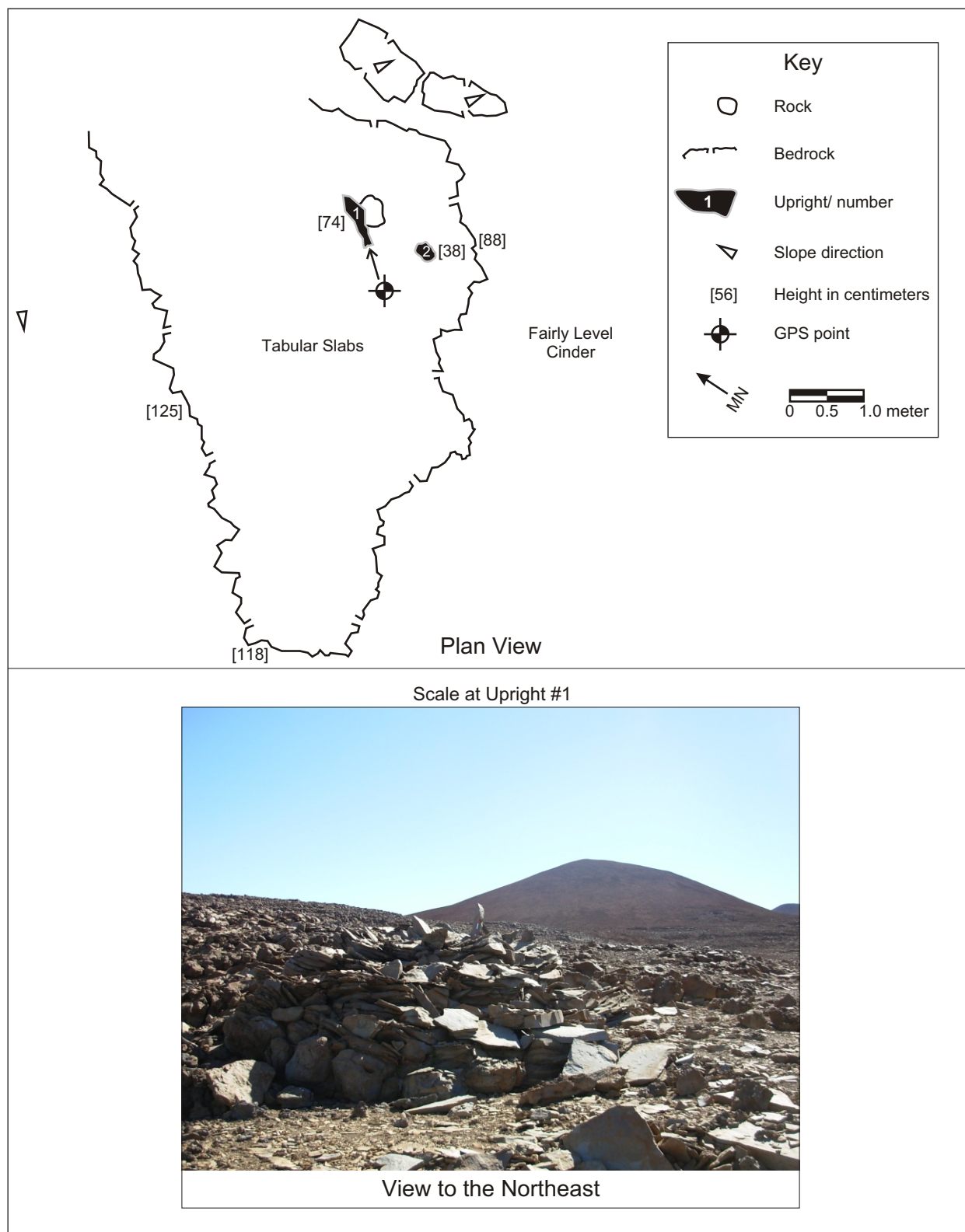
**DESCRIPTION:**

Site 26244, a shrine, is located on flank of a ridge and consists of one, possibly two uprights (Figure 2.122). Upright 1 is placed on the surface of the bedrock outcropping and supported by a leaning slab. A second, possible, upright is located approximately 0.5 m south of Upright 1 and consists of a flat bottom, globular-shaped, cobble with no support stones.

### Site 26244, Metric and Non-Metric Upright Data.

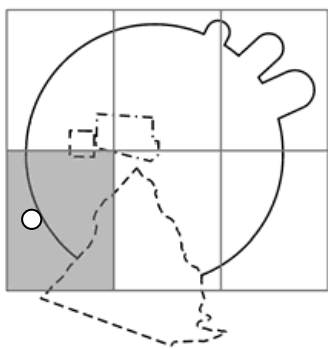
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	S	6	Pointed	70	51	10
1/2	Bedrock surface	N	I	6	Rounded	34	18	15

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.122. Site 26244, Plan View and Photograph.**

**STATE SITE 50-10-23-26248**

<b>Additional Site Numbers:</b> Temporary      RN2007-012	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 2.0 m by 1.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 11,960 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN116	
<b>Current Status:</b> New site.	

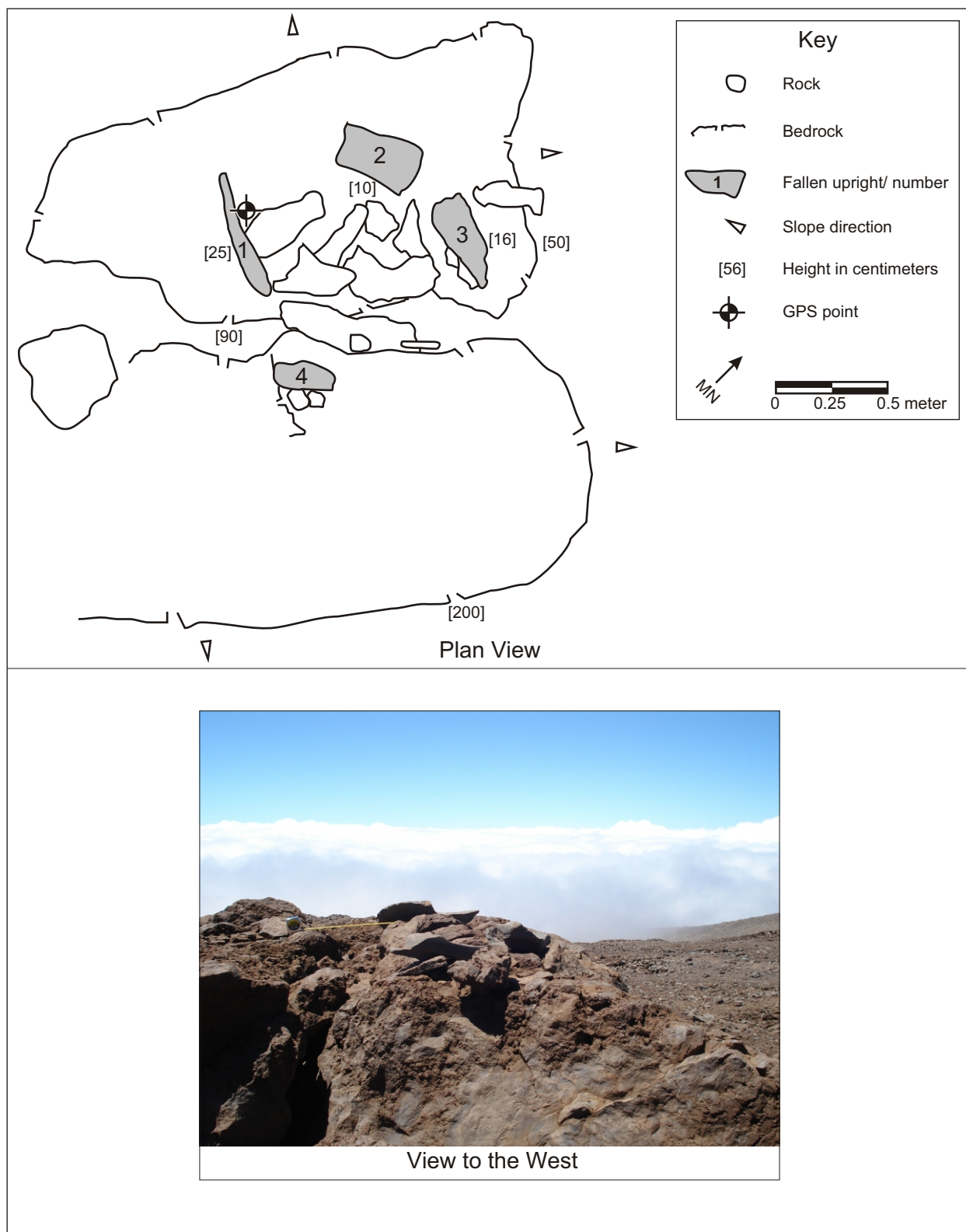
**DESCRIPTION:**

Site 26248 is located on the summit of a high, narrow ridge and consists of four fallen uprights (see upright data table below; Figure 2.123). Associated with the uprights are numerous cobbles, possibly serving as support stones. The uprights appear to have been deliberately displaced. No cultural material was observed.

**Site 26248, Metric and Non-Metric Upright Data.**

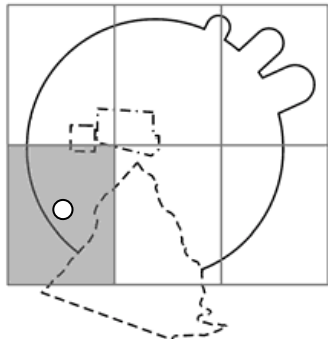
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	CR	-	Beveled	63	25	4
1/2	Bedrock surface	T	P	-	Flat/Beveled	42	22	6
1/3	Bedrock surface	T	P	-	Pointed	47	16	6
1/4	Bedrock surface	T	P	-	Flat	32	17	6

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.123. Site 26248, Plan View and Photograph.**

**STATE SITE 50-10-23-26252**

<b>Additional Site Numbers:</b> Temporary PM2007-022	
<b>Site Function:</b> Shrine	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,397 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM080	
<b>Current Status:</b> New site.	

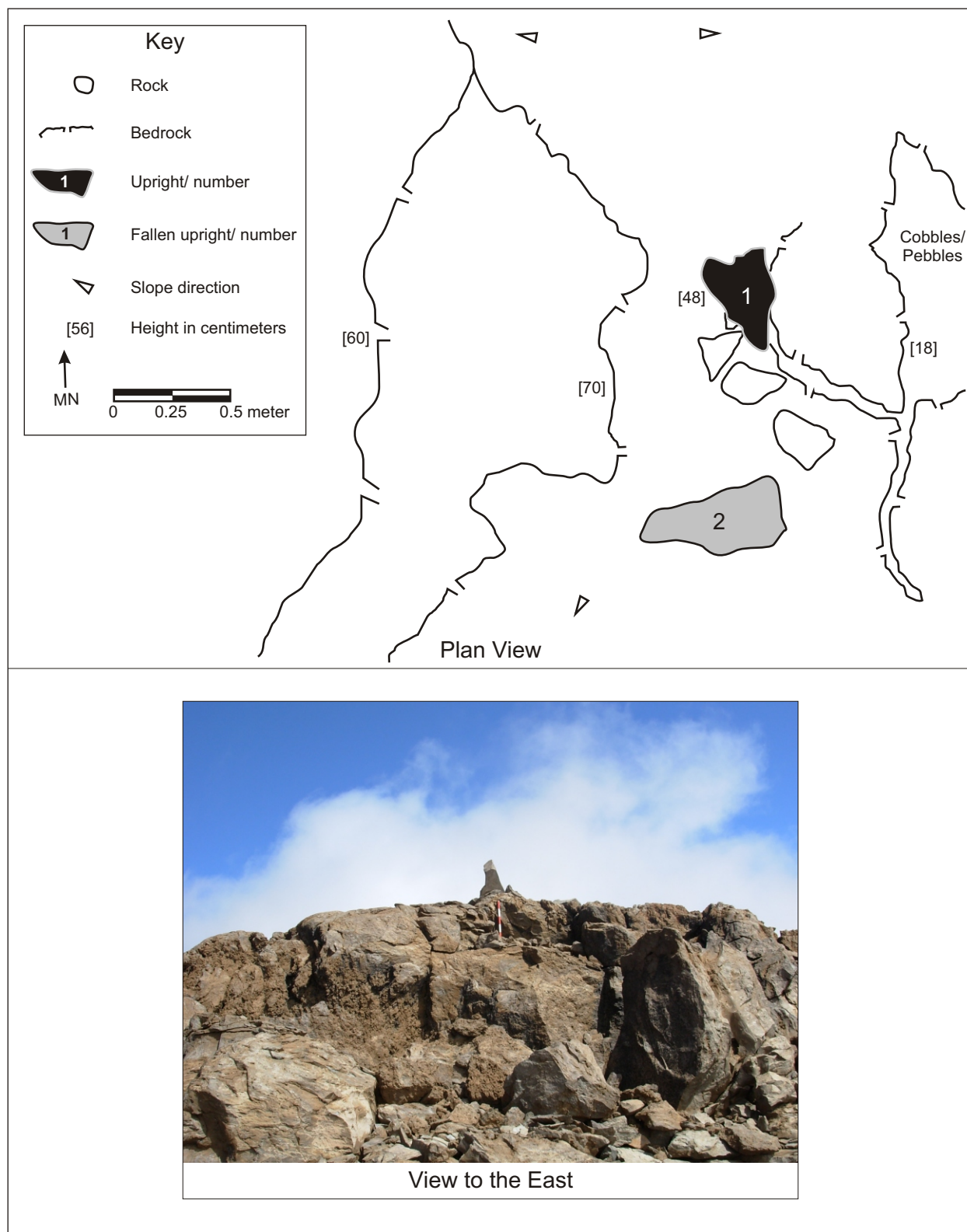
**DESCRIPTION:**

Site 26252 consists of two uprights located on a ridge crest (see upright data table below; Figure 2.124). Upright No. 1 is standing erect in a bedrock crack and is supported by a single cobble. Upright No. 2 is situated 0.75 m south of Upright No. 1, and has fallen. Several cobbles were noted between Uprights 1 and 2. No cultural material was observed.

**Site 26252, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock crack	T	I	-	Pointed	70	14	9
1/2	Bedrock surface	T	D	-	Beveled	59	28	14

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 2.124. Site 26252, Plan View and Photograph.**



### **3.0 MAUNA KEA ADZE QUARRY COMPLEX**

This section presents site descriptions for a previously unrecorded portion of the Mauna Kea Adze Quarry Complex (MKAQC). This newly discovered portion of the MKAQC is designated as the Pōhakuloa Gulch Adze Quarry and Workshop Complex.

#### **3.1. PŌHAKULOA GULCH ADZE QUARRY/WORKSHOP COMPLEX**

The 41 sites and site components documented for the Pōhakuloa Gulch Adze Quarry and Workshop Complex are summarized in Table 3.1 below. Site descriptions for this complex follow Table 3.1.

**Table 3.1. Summary of Sites and Site Components for the Pōhakuloa Gulch Adze Quarry/Workshop Complex.**

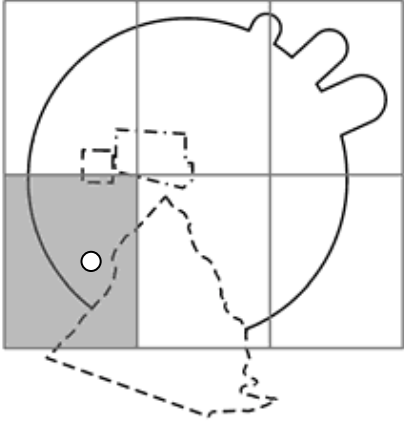
<b>Site Number 50-10-23-</b>	<b>Burial/ Possible Burial</b>	<b>Shrine</b>	<b>Stone Marker/ Memorial</b>	<b>Adze Workshop</b>	<b>Flake Scatter</b>	<b>Hammerstone Workshop</b>	<b>Temporary Shelter</b>	<b>Unknown</b>	<b>Isolated Artifacts</b>	<b>Total Components</b>
26253		1		66	6		2		4	79
26254		2	2							4
26255		1								1
27581				1						1
27582		1	1	2						4
27583				3						3
27584						1				1
27585				4						4
27586		1		<b>12</b>	1					14
27587				1						1
27588		2		4	3				1	10
27589				5	1					6
27590				9	2				2	13
27591						<b>2</b>				2
27592				1	1	1			1	4
27593				1						1
27594						1				1
27595						<b>2</b>				2
27596				2		1				3
27597				2		1				3
27598				<b>73</b>	5	1			2	81
27599					1					1

**Table 3.1. Summary of Sites and Site Components for the Pōhakuloa Gulch Adze Quarry/Workshop Complex.**

<b>Site Number 50-10-23-</b>	<b>Burial/ Possible Burial</b>	<b>Shrine</b>	<b>Stone Marker/ Memorial</b>	<b>Adze Workshop</b>	<b>Flake Scatter</b>	<b>Hammerstone Workshop</b>	<b>Temporary Shelter</b>	<b>Unknown</b>	<b>Isolated Artifacts</b>	<b>Total Components</b>
27600				1						1
27601	1			<b>68</b>		2	3		3	78
27602									1	1
27603					2					2
27604				14	1					15
27605				<b>84</b>			2			86
27606				1			1	1		4
27607				2		4				6
27608				1						1
27609						1				1
27610				1						1
27611					1					1
27612				1						1
27613				3						3
27614				<b>6</b>						6
27615						<b>6</b>				6
27616	1	5	1	<b>107</b>				5		119
27617		5		1	1					7
27618		2		10						12
<b>Total</b>	2	20	4	486	25	23	8	6	14	590

Counts in bold font include extraction areas.

**STATE SITE 50-10-23-26253**

<b>Additional Site Numbers:</b> Temporary Site T	
<b>Site Function:</b> Adze manufacturing complex, habitation, shrine	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 80.0 m by 72.0 m	
<b>Number of Components:</b> 79	
<b>Topographic Location:</b> Knoll, glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,366 +/- ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN14, RN191, RN192, RN238-245, RN251-254, RN287-292, RN296-339, RN348, RN375-396	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26253 consists of approximately 76 components including one extraction area (EA1), 65 workshops (WS1-65), six basalt flake scatters (Features 1-6), one upright structure (Shrine 1), two rockshelters (R1 and R2) (Figure 3.1). The site is situated on a glacial moraine and a knoll east of Site 27598 and north of Site 27601. The topography to the north of the knoll is relatively level and the west, east, and south sides are sloping towards the south.

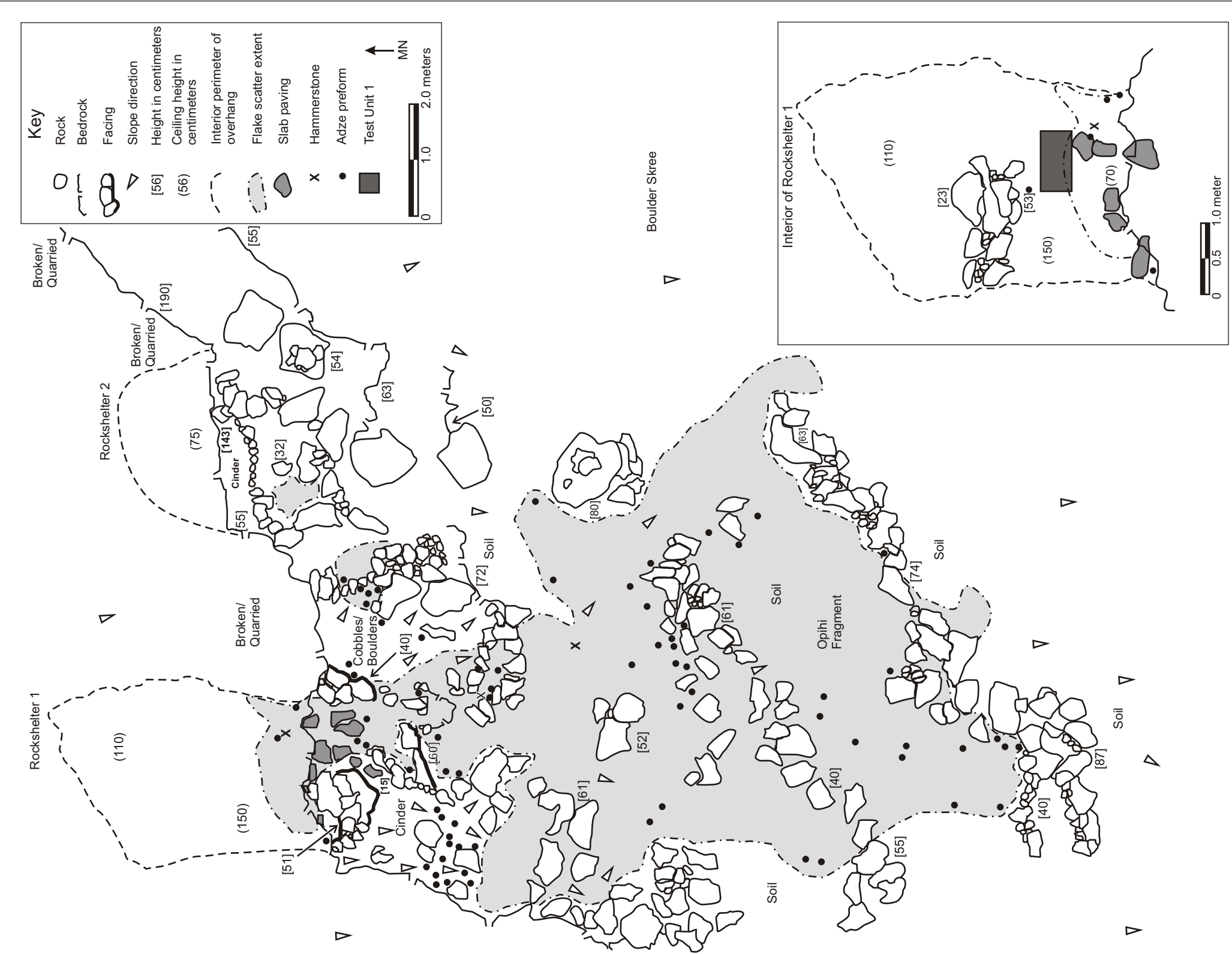
Extraction area 1 (EA1) is located around the perimeter of the crest of the knoll in areas of fractured basalt outcropping. The extraction is evident from the numerous flake scars on the outcropping. One such example is located along the south/southwest side of the knoll and measures roughly 2.0 m long with flake debitage and cores located within a 2.0 m area.

Shrine 1 is located along the northeast side of the knoll amongst a pile of cobbles and boulders. The shrine consists of a single upright held erect by cobbles and small boulders. At least ten basalt flakes and one hammerstone are present at the shrine.

Rockshelter 1 (R1) is located approximately 135 m south of the crest of the knoll on the south facing slope (Figure 3.2). The rockshelter is roughly 3.0 m wide and 0.7 m high at the entrance and extends north for approximately 4.0 m. The interior ground surface is level at the entrance with flat laying slabs forming a pavement that extends outside onto the terrace that fronts the rockshelter. Inside the rockshelter is a crude wall that abuts the west side of the overhang and extends east for approximately 1.8 m. The wall, roughly 0.5 m wide and 0.5 m high, is constructed of piled cobbles and small



Figure 3.1 Site 26253 Showing Locations of Site Components.



Overall View of Site  
View to the North to East



Figure 3.2. Site 26253, Rockshelters 1 and 2, Plan View and Photograph.



boulders. The wall is constructed on cinder deposits that slope upwards towards the north (back) end of the rockshelter. Within Rockshelter 1 there were approximately 76 adze preforms and three hammerstones.

Outside of Rockshelter 1, along the west side of the entrance, is another wall constructed of stacked cobbles and small boulders with at least one slab placed on its' side. It extends southeast for approximately 1.9 m and is 0.6 m high on the north side and almost flush with the surface on the south side. The area south of the wall consists of piled, red-colored, cinder that covers an area roughly 2.0 m by 1.5 m and is bounded on the west side by outcropping, the south side by piled, with possible stacking, cobbles and small boulders (it has tumbled at the southwest end), and the east side by placed cobbles and small boulders and two slabs placed on end in the southeast corner. There are nine adze preforms, one hammerstone (discoïdal), and a concentration of basalt flakes located in and just outside the entrance to the rockshelter (Preforms No.'s 65, 66, 67, 68, 69, 70, 71, 75, and 76). Of the nine adze preforms, five were analyzed in the field for metric and non-metric data (see table below).

**Site 26253, Rockshelter 1, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
R1	65	24.8 x 7.9 x 6.6	Rectangular	Whole	Present	Present
R1	67	22.3 x 4.8 x 3.5	Rectangular	Whole	Present	Present
R1	69	20.7 x 8.4 x 5.9	Rectangular	Whole	Present	Present
R1	70	13.8 x 5.7 x 2.7	Reverse Trapezoid	Unknown	Absent	Absent
R1	71	13.0 x 4.7 x 4.9	Square	Whole	Absent	Absent

South and downslope of the red cinder pile is a concentration of 13 adze preforms. They appear to have fallen from the red cinder area when the collapse occurred in the southwest corner. Of the 13 preforms six were analyzed in the field for metric and non-metric data (see adze preform data table below for artifacts found outside R1). Of the 13 adze preforms one, Preform No. 69 (Lab Sample #7), was submitted for EDXRF Analyze. Volume 1, Section 6.0 provides a summary of the results and Appendix M provides a detailed result of the analyses.

**Site 26253, Outside Rockshelter 1, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
Outside R1	53	17.2 x 4.0 x 4.2	Square	Whole	Present	Absent
Outside R1	54	28.4 x 7.5 x 5.0	Rectangular	Whole	Present	Present
Outside R1	56	23.0 x 8.5 x 7.4	Rectangular	Whole	Present	Present
Outside R1	58	26.0 x 8.0 x 6.4	Rectangular	Whole	Present	Present

### Site 26253, Outside Rockshelter 1, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
Outside R1	59	30.9 x 12.0 x 7.5	Reverse trapezoid	Whole	Present	Present
Outside R1	63	27.7 x 7.4 x 6.5	Square	Broken	Present	Present

A possible entry way for the rockshelter is located east of the slabs on end and west of a pile of cobbles and boulders that extend from the east side of the overhang south for roughly 3.5 m (see Figure 3.2). In this area between the rock pile and the slabs on end are two flat laying slabs and a cobble that are placed in such a way that they overlap one another giving the appearance of steps.

The terrain south of R1 slopes at least 25 degrees downward into the valley below. There are at least two natural terraces on the slope below the overhang where numerous basalt adze preforms, hammerstones, and flakes have accumulated. Approximately 48 adze preforms and two hammerstones (one spherical and one discoidal) were observed. Of the 48 adze preforms, metric and non-metric data for 21 adze preforms was collected in the field (see adze preform data table below for artifacts found downslope from R1).

### Site 26253, Downslope of Rockshelter 1, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
DwnslpeR1	1	21.0 x 6.2 x 4.2	Square	Whole	Present	Present
DwnslpeR1	3	15.4 x 6.3 x 6.7	Square	Broken	Present	Indeterminate
DwnslpeR1	5	19.4 x 7.8 x 6.3	Square	Broken	Indeterminate	Absent
DwnslpeR1	7	13.4 x 6.5 x 6.5	Square	Broken	Indeterminate	Indeterminate
DwnslpeR1	15	15.5 x 6.7 x 3.4	Rectangular	Whole	Present	Absent
DwnslpeR1	19	34 x 10.0 x 8.2	Rectangular	Whole	Present	Present
DwnslpeR1	20	10.7 x 6.5 x 6.4	Square	Broken	Present	Indeterminate
DwnslpeR1	24	17.8 x 7.4 x 6.6	Rectangular	Broken	Indeterminate	Present
DwnslpeR1	26	9.4 x 4.1 x 3.6	Rectangular	Broken	Present	Indeterminate
DwnslpeR1	28	13.0 x 5.4 x 6.0	Square	Broken	Indeterminate	Present
DwnslpeR1	29	10.6 x 4.5 x 2.8	Rectangular	Whole	Present	Absent
DwnslpeR1	31	7.9 x 5.3 x 2.5	Rectangular	Broken	Present	Indeterminate
DwnslpeR1	33	17.5 x 8.2 x 5.0	Rectangular	Whole	Present	Present
DwnslpeR1	36	13.8 x 6.0 x 4.0	Reverse triangular	Broken	Indeterminate	Present
DwnslpeR1	37	18.3 x .32 x 2.9	Rectangular	Whole	Present	Present
DwnslpeR1	40	23.0 x 6.2 x 7.6	Square	Whole	Present	Present

#### Site 26253, Downslope of Rockshelter 1, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
DwnslpeR1	41	12.0 x 5.8 x 3.3	Reverse trapezoid	Whole	Present	Absent
DwnslpeR1	45	23.0 x 7.8 x 8.3	Square	Whole	Present	Present
DwnslpeR1	46	13.5 x 4.0 x 2.5	Rectangular	Broken	Indeterminate	Absent
DwnslpeR1	48	12.4 x 4.6 x 3.5	Square	Whole	Present	Absent
DwnslpeR1	49	29.7 x 8.1 x 7.4	Rectangular	Broken	Present	Present

Of the 76 adze preforms a total of 14 were collected for additional analyses to be conducted in the laboratory, and of these 14 adze performs, three (Preforms 37, 46, and 48 - Lab Sample No. 4-6) were sent for EDXRF Analyze (for the results of the EDXRF see Volume 1, Section 6.0 and Appendix M).

Rockshelter 2 is located approximately 3.0 m east of R1 along the same outcropping (see Figure 3.2). The overhang entrance is roughly 1.4 m above the ground surface and appears to be unmodified. The entrance to the rockshelter is 3.3 m wide by 0.75 m high. The interior, from the dripline to the back (north) of the rockshelter, is roughly 1.8 m. The interior surface slopes slightly eastward and consists of red cinder. Fronting the rockshelter is a naturally formed gelifluction terrace measuring approximately 2.0 m by 1.5 m.

Rockshelter 2 contained four isolated artifacts (IO1-4). Several basalt flakes were noted at the dripline and several more downslope (south) of the gelifluction terrace.

#### Workshops at Site 26253

Figure 3.1 shows the locations of the 65 workshops identified at Site 26253. Workshops 2 through 65 are widely dispersed along the north, west, and south sides of the knoll at this site. Workshop 1 is located outside of Rockshelter 1. The workshop table below provides a summary of metric and non-metric data for each workshop.

#### Site 26253, Metric and Non-Metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
1	Outside R1 at the south end of the site.	15.0 x 8.0	Numerous adze preforms, hundreds of basalt flakes, and hammerstones.
2	Along the southeast flank of the knoll approximately 86.0 m northeast of R1.	35.0 m x 35.0	Minimum of 100 basalt flakes (med-lg), at least five (5) adze preforms, and one (1) hammerstone.
3	Approximately 15.0 m east of WS2.	5.0 x 2.0	Minimum of 25 basalt flakes and three (3) cores.
4	Approximately 18.0 m east/southeast of WS3 along the east boundary of the site.	1.0 x 1.0	Approximately seven (7) basalt flakes and one (1) adze preform.

**Site 26253, Metric and Non-Metric Workshop Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
5	Approximately 8.0 m southeast of WS4.	3.0 x 3.0	Minimum of 50 basalt flakes, one (1) adze preform, and a possible extraction area.
6	Approximately 3.0 m southeast of Shrine 1 and 42.0 m north/northwest of WS2.	3.5 x 1.5	Minimum of 25 basalt flakes (med-lg) and three (3) cores.
7	Approximately 7.0 m northeast of WS6.	3.0 x 2.6	Minimum of 25 basalt flakes (med-lg) with more downslope.
8	Approximately 7.0 m northwest of WS7.	3.5 x 1.5	Minimum of 50 basalt flakes (sm-lg) and four (4) adze preforms. Material is poor quality.
9	Approximately 2.0 m northeast of WS8.	2.5 x 2.0	Minimum of 50 basalt flakes and one (1) core.
10	Approximately 6.0 m northwest of WS9.	3.5 x 2.5	Minimum of 200 basalt flakes (sm-lg).
11	Approximately 7.0 m southwest of WS10.	1.0 x 1.0	Minimum of 50 basalt flakes and two (2) adze preforms.
12	Approximately 61.0 m north of Shrine 1, along the north boundary of the site.	3.5 x 2.5	Minimum of 40 basalt flakes, hammerstone flakes, and one (1) adze preform.
13	Approximately 21.0 m southwest of WS12.	2.0 x 2.0	Minimum of 40 basalt flakes
14	Approximately 11.0 m southeast of WS13 and 43.0 m north/northwest of Shrine 1.	2.0 x 2.0	Minimum of 15 basalt flakes and one (1) adze preform.
15	Located at the north side of the knoll, along the base on three (3) gelifluction terraces and approximately 30.0 m northwest of Shrine 1.	5.0 x 4.0	Minimum of 100 basalt flakes (sm-lg).
16	Approximately 5.0 m south/southwest of WS15.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
17	Approximately 8.0 m west of WS16.	4.0 x 2.0	Minimum of 100 basalt flakes (sm-lg) and eight (8) adze preforms.
18	Approximately 5.0 m south of WS17.	4.0 x 1.5	Minimum of 25 basalt flakes and numerous "chunks" of basalt with red cortex (possible cores).
19	Approximately 11.0 m south of WS18.	5.5 x 2.0	Minimum of 25 basalt flakes (med-lg), possible extraction area, and one (1) broken hammerstone.
20	Approximately 17.0 m north of WS 19 and 3.0 m west of WS17.	2.5 x 2.0	Minimum of 100 basalt flakes (sm-lg) and two (2) adze preforms.
21	Approximately 4.0 m southwest of WS20.	2.5 x 2.0	Minimum of 50 basalt flakes (sm-lg) and one (1) adze preforms.

**Site 26253, Metric and Non-Metric Workshop Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
22	Approximately 7.0 m west of WS21.	6.0 x 3.0	Minimum of 100 basalt flakes (med-lg), four (4) adze preforms, and one (1) hammerstone.
23	Approximately 5.0 m west/southwest of WS18 and 8.0 m south of WS20.	3.0 x 2.0	Minimum of 100 basalt flakes, one (1) adze preform, and one (1) hammerstone.
24	Approximately 10.0 m southwest of WS21.	3.5 x 3.0	Minimum of 20 basalt flakes (sm-lg) and one (1) hammerstone.
25	Approximately 2.0 m southwest of WS24.	10.0 x 3.0	Minimum of 100 basalt flakes (sm-lg) and four (4) adze preforms.
26	Approximately 10.0 m south of WS25.	1.5 x 1.0	Minimum of 20 basalt flakes (med-lg).
27	Approximately 3.0 m south of WS26	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
28	Approximately 15.0 m south of WS26.	1.5 x 1.5	Minimum of 20 basalt flakes (med-lg). Material is of poor quality.
29	Approximately 16.0 m east of WS28.	10.0 x 5.0	Minimum of 100 basalt flakes (med-lg), four (4) adze preforms, one (1) hammerstone, and an extraction area (EA1).
30	Approximately 8.0 m southeast of WS28.	4.0 x 4.0	Minimum of 50 basalt flakes (sm-lg).
31	Approximately 4.0 m south/southeast of WS30	2.5 x 2.0	Minimum of 50 basalt flakes (sm-lg), one (1) adze preform, one (1) hammerstone, and cores.
32	Approximately 15.0 m northwest of WS30 and 11.0 m west of WS28.	2.0 x 1.5	Minimum of 15 basalt flakes.
33	Approximately 9.0 m southwest of WS32.	2.5 x 2.0	Minimum of 15 basalt flakes.
34	Approximately 11.0 m southeast of WS33.	4.0 x 3.0	Minimum of 40 basalt flakes and possible core.
35	Approximately 5.0 m southwest of WS34.	3.0 x 1.5	Minimum of 20 basalt flakes.
36	Approximately 11.0 m southwest of WS34.	2.5 x 1.0	Minimum of 30 basalt flakes (med to lg).
37	Approximately 12.0 m southwest of WS36.	2.5 x 2.0	Minimum of 20 basalt flakes and one (1) core.
38	Approximately 12.0 m southeast of WS37.	4.0 x 4.0	Minimum of 40 basalt flakes (med to lg).
39	Approximately 9.0 m east of WS37 and 12.0 m northeast of WS38.	1.5 x 1.0	Minimum of 25 basalt flakes (med to lg) and two (2) adze preforms.
40	Approximately 5.0 m southeast	3.0 x 2.5	Minimum of 20 basalt flakes (med to lg)

**Site 26253, Metric and Non-Metric Workshop Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
	of WS39 and 12.0m northeast of WS38.		and at least two (2) adze preforms.
41	Approximately 8.0 m southeast of WS40 and 15.0m southeast of WS38.	5.0 x 4.0	Minimum of 100 basalt flakes (sm to lg), at least four (4) adze preforms, one (1) hammerstone, and cores.
42	Approximately 3.0 m southwest of WS41.	7.5 x 5.0	Minimum of 200 basalt flakes and two (2) cores.
43	Approximately 18.0 m southwest of WS42 and 13.0 m south/ southeast of WS38.	2.0 x 2.0	Minimum of 10 basalt flakes (lg).
44	Approximately 15.0 m northwest of WS43.	3.0 x 3.0	Minimum of 50 basalt flakes, one (1) adze preform, and one (1) hammerstone.
45	Approximately 17.0 m southwest of WS44 and 12.0 m south of WS34.	5.0 x 3.0	Minimum of 100 basalt flakes (med to lg) and one (1) adze preform.
46	Approximately 9.0 m west of the west end of WS2.	1.0 x 1.0	Minimum of 20 basalt flakes (lg).
47	Approximately 14.0 m west of WS22.	1.5 x 1.0	Approximately 10 basalt flakes (lg).
48	Approximately 9.0 m south of WS47.	1.0 X 1.0	Approximately 10 basalt flakes (lg).
49	Approximately 9.0 m southwest of WS48.	2.0 x 2.0	Approximately 10 basalt flakes (med-lg).
50	Approximately 16.0 m south/ southwest of WS49.	2.0 x 1.5	Minimum of 50 basalt flakes (sm-lg).
51	Approximately 17.0 m southwest of WS49 and 11.0 m northwest of WS50.	2.8 x 1.7	Approximately 20 basalt flakes (sm-med), two (2) adze preforms, and one (1) hammerstone.
52	Approximately 9.0 m south of WS50 and 13.0 m northwest of WS33.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
53	Approximately 5.0 m northeast of WS38.	2.0 x 1.0	Minimum of 20 basalt flakes (med) and one (1) adze preform.
54	Approximately 6.0 m south of WS51.	2.1 x 1.7	Minimum of 20 basalt flakes (med).
55	Approximately 32.0 m north of WS54.	1.0 x 1.0	Minimum of 20 basalt flakes (sm-lg), one (1) adze preform, and one (1) hammerstone.
56	Approximately 6.0 m northeast of WS55.	1.0 x 1.0	Minimum of 20 basalt flakes (med) and two (2) cores.
57	Approximately 23.0 m east of WS56.	3.0 x 1.8	Minimum of 50 basalt flakes (med) and one (1) core.
58	Approximately 13.0 m south of WS57.	2.8 x 2.2	Minimum of 20 basalt flakes (med) and one (1) core.



**Site 26253, Metric and Non-Metric Workshop Data**

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
59	Approximately 19.0 m south of WS55.	2.3 x 1.6	Minimum of 25 basalt flakes, one (1) adze preform, and two (2) hammerstones.
60	Approximately 18.0 m northeast of WS59.	1.0 x 1.0	Minimum of 20 basalt flakes (med) and one (1) hammerstone.
61	Approximately 34.0 m north of WS13.	1.8 x 1.0	Approximately 15 basalt flakes (sm-med).
62	Approximately 42.0 m south/ southwest of WS61 and 27.0 m west/ southwest of WS13.	1.0 x 1.0	Approximately 4 basalt flakes(sm-lg) and one (1) core.
63	Approximately 4.0 m southeast of WS48.	3.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
64	Approximately 7.0 m west of WS13.	2.0 x 1.0	Minimum of 20 basalt flakes (med-lg)
65	Approximately 5.0 m northwest of WS26.	1.0 x 1.0	Minimum of 15 basalt flakes (lg).

**Flake Scatters**

A total of six basalt flake scatters (Fs1-6) were noted and briefly recorded as examples of flake scatters within the boundaries of Site 26253. Flake scatter 1 consists of approximately 20 basalt flakes scattered over a 7.0 m area. The scatter is on a fairly level area northeast of the knoll, approximately 20.0 m north of Shrine 1 and 24.0 m west of WS10.

Flake scatter 2 consists of approximately 20 basalt flakes scattered over a 5.0 m area. The scatter is situated on the northwest side of the crag, approximately 8.0 m west of WS25 and 4.0 m southeast of WS63.

Flake scatter 3 consists of four (4) vesicular basalt flakes in an area roughly 1.0 m<sup>2</sup>. The scatter is located on a south facing slope 15.0 m west of R1.

Flake scatter 4 consists of approximately 10 basalt flakes scattered in a 10.0 m by 10.0 m area. The scatter is located on a gentle south facing slope approximately 8.0 m east of WS41 and 20.0 m west of Fs6.

Flake scatter 5 consists of eight (8) basalt flakes scattered in a 1.0 m<sup>2</sup> area. The scatter is located on a south facing slope adjacent (west) to Fs3 and 21.0 m west of R1.

Flake scatter 6 consists of five (5) large basalt flakes in a 2.0 m<sup>2</sup> area. The scatter is located along the south side of the knoll 7.0 m southwest of WS46 and 18.0 m east of Fs4.

In addition to the flake scatters observed four isolated artifacts were noted (IO1-4), all of which were adze preforms located in the vicinity of workshops.

### 3.1.1 Site 26253, Rockshelter 1 (R1), Excavation Results

A single test unit (TU1) was placed at the entrance of R1 to determine the presence/absence and vertical extent of any subsurface cultural deposits. TU1 measured 1.0 m by 0.5 m and was positioned parallel to the long axis of the dripline (see Figure 3.2). Standard excavation and recording procedures were used during testing and included screening all excavated material in a 1/8 inch-mesh screen. Excavations were conducted by natural stratigraphic layers and arbitrary 10 cm levels within each layer. All soils and sediments were documented and described based on standard USDA soil descriptions; including soil color (Munsell 2000), texture, consistency, and plasticity (Schoenenberger et al. 1998). Color photographs were taken before, during, and after excavation.

The ground surface within TU1 consisted of soil and ash with numerous basalt flakes. Excavation yielded two stratigraphic layers (Layers I and II) with an ash lens separating the two. Layer I is a brown (7.5YR 3/4, moist) silty loam, 2-8 cm thick. This layer contained basalt flakes, two pieces of marine shell (*o`pihi*), and ash.

Underlying Layer I was an ash lens that was between 1 and 5 cm thick. The ash lens contained basalt flakes and charcoal.

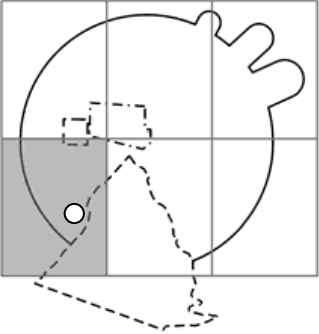
Layer II was found directly underlying the ash lens, and was a brown (7.5YR 3/3, moist) loam. Layer II was between 3-5 cm thick and contained basalt flakes, charcoal, and ash. Excavation was terminated on bedrock at roughly 10.0 cm below surface.

Cultural materials recovered from excavations include over 10,000 basalt flakes (fine-grained and vesicular basalt), one piece of fragmented marine shell, one possible broken basalt tool, and one piece of volcanic glass. The analyses of the flakes are presented in Volume 1, Section 6: Data Analyses.

Two charcoal samples (OMKM-1 and OMKM-2) from the TU1 excavation were submitted for wood charcoal identification at the Wood Identification Laboratory (WIDL) in Honolulu (International Archaeological Research Institute, Inc.). The two samples contained native trees/shrubs, including *māmane* (*Sophora chrysophylla*), *Na`ena`e*, *kūpaoa* (cf. *Dubautia* spp.), *olomea* (cf. *Perrottetia sandwicensis*), *na`ena`e*, *kūpaoa* (*Dubautia*), and *pilo* (cf. *Coprosma* spp.). Two pieces (WIDL No.'s 907-3 and 907-8) were not identified. For additional data regarding the identification results see Volume 1: Section 6 Data Analyses.

Based on the results of the wood charcoal identifications one sample was selected for radiocarbon dating. PCSI Sample No. OMKM-1, WIDL No. 0907-5, was sent to Beta Analytic for radiocarbon dating ( $^{14}\text{C}$ ) using the AMS dating technique (Accelerator Mass Spectrometer). The results of the  $^{14}\text{C}$  yielded a conventional radiocarbon age of 450 +/- 40 B.P. (Before Present) with a 13C/12C ration of -22.9. At two sigma (95% probability) the sample yielded a calibration age of CAL AD 1420-1480 (cal BP 540-470).

**STATE SITE 50-10-23-26254**

<b>Additional Site Numbers:</b> Temporary Site T	
<b>Site Function:</b> Shrines, markers	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 35.0 m by 15.0 m	
<b>Number of Components:</b> 4	
<b>Topographic Location:</b> Knoll	
<b>Approximate U.S.G.S. Elevation:</b> 12,289 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM83	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26254 consists of 4 components, including two upright structures, designated as Shrines 1 and 2, and two mounds, designated as Features 1 and 2. The site is located on the crest of a rock formation called a “crag” (Figure 3.3). The top of the crag, oriented roughly north/south, is 33.0 m long by 11.0 m wide and over 6.0 m high. The sides of the crag are vertical along the north, east, and west sides with a long, gentle cobble and boulder strewn slope to the south extending into a gulch.

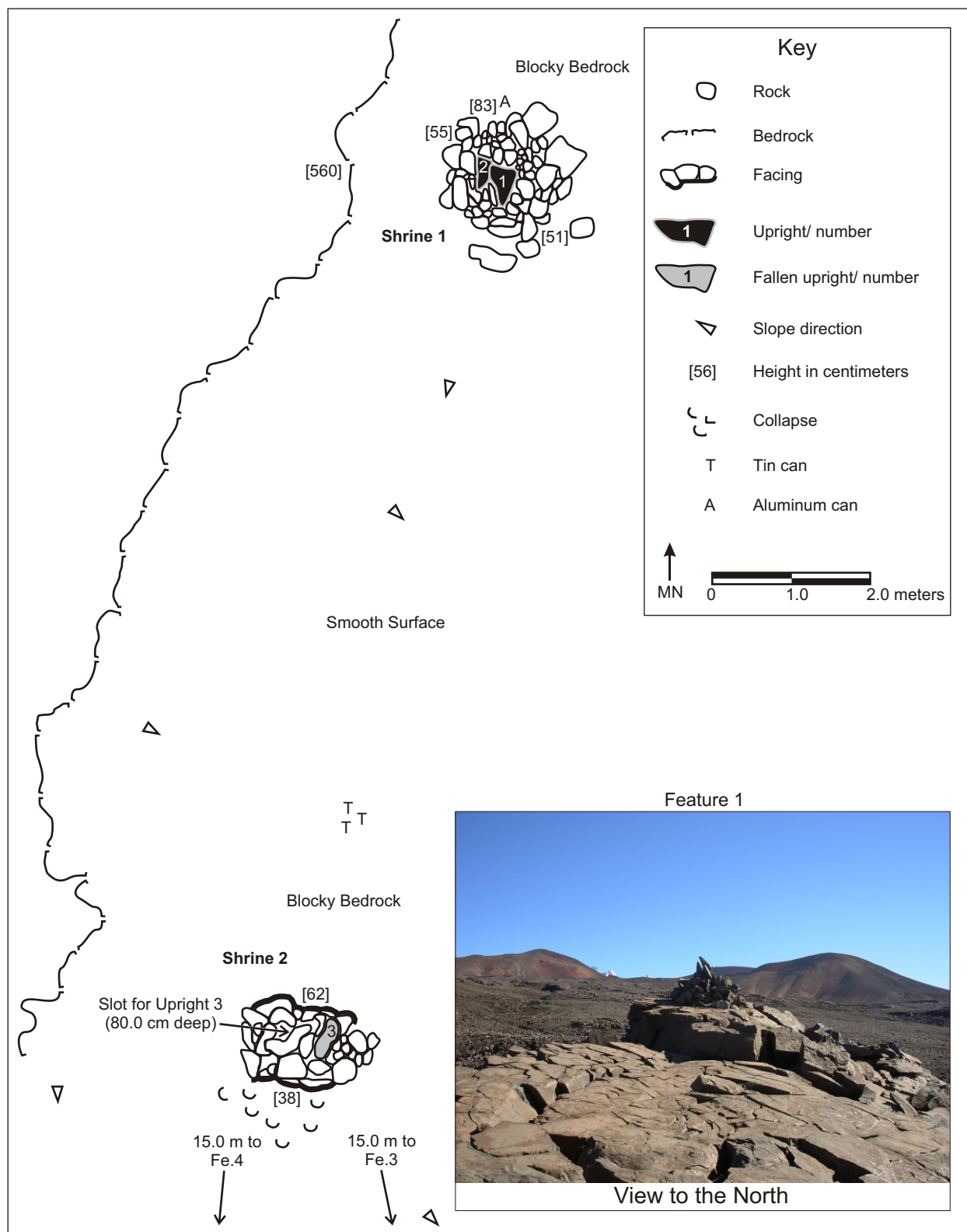
Shrine 1, located at the north end of the crag, is constructed of piled cobbles and small boulders and is 2.0 m in diameter with a maximum height of 0.83 m. In the center of the mound are two erect uprights (see upright data table below). An aluminum can is located at the base mound on the north side.

Shrine 2 is located approximately 10.0 m south of Shrine 1 and consists of a mound constructed with stacked cobble and small boulders. It is roughly 1.8 m by 1.3 m with a maximum height of 0.61 m with stacking visible on the north and south side. A fallen upright is located on the east side of the mound with a depression for the upright located in the center of the mound (see upright data table below). Three rusted cans are located 2.0 m north.

**Site 26254, Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	mound	T	D	-	Pointed	80	40	11
1/2 <sup>E</sup>	mound	T	I	-	Pointed	60	19	12
2/3	mound	N	I	-	Flat	45	24	16

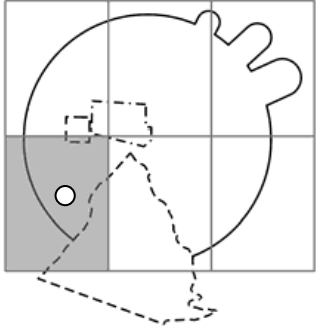
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 3.3. Site 26254, Shrines 1 and 2, Plan View and Photograph.**

Features 3 and 4 are low mounds located at the south end of the crag and could not be recorded due to the unstable ground conditions in the locale of the mounds. The mounds appear to be piled slabs and cobbles. No uprights were visible.

**STATE SITE 50-10-23-27581**

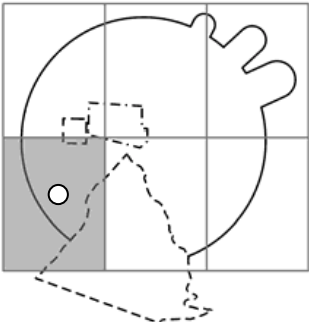
<b>Additional Site Numbers:</b> Temporary Site LL	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,656 ft a.m.s.l.	
<b>2009 GPS File No.:</b> RN004	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27581 is an isolated artifact scatter located on glacial drift approximately 120 m northeast of Site 27582 and 280 m west of Site 27583. The scatter measures 1.0 m by 1.0 m and consists of two basalt cobble cores and three basalt flakes.



**STATE SITE 50-10-23-27582**

<b>Additional Site Numbers:</b> Temporary Site NN	
<b>Site Function:</b> Adze manufacturing, shrine	<b>Map Number:</b> A-4 
<b>Site Dimensions:</b> 150.0 m by 4.0 m	
<b>Number of Components:</b> 4	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,587 +/- ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN168, RN172 <b>2009 GPS File No.:</b> RN004	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27582 consists of two workshops (WS1 and WS2) with dispersed basalt flakes located on a glacial outwash, an upright structure (Shrine 1) and a cairn (Feature 1). Figure 3.4 shows the locations of Shrine 1 and Feature 1. Site 27582 is located approximately 145 m southwest of Site 27581 and 370 m west of Site 27583).

Workshop 1 measures approximately 7.0 m by 3.6 m and consists of basalt flakes ranging in size from less than 5.0 cm to 14.0 cm in length, three adze preforms, and two basalt cores (see table below for adze preform data). Additional basalt flakes extend downslope (south) of the workshop for approximately 2.0 m.

**Site 27582, Workshop 1, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	1	31.4 x 10 x 11.8	Rectangular	Whole	Absent	Present
	2	26.2 x 13.6 x 5.0	Rectangular	Broken	Absent	Absent
	3	17.8 x 6.8 x 8.5	Rectangular	Broken	Absent	Present

Workshop 2 is located approximately 138 m southwest of WS1. WS2 measures 1.0 m by 1.0 m and contains a minimum of 50 basalt flakes.

The upright structure designated as Shrine 1 is located approximately 115 m southeast of WS2. It consists of a boulder with single upright placed on top (Figure 3.5). The boulder measures 2.0 m by 2.0 m and 0.9 m high and has a crack extending through the middle. On top of the boulder are eight cobbles and a tabular slab. Upright data is presented in the table below.

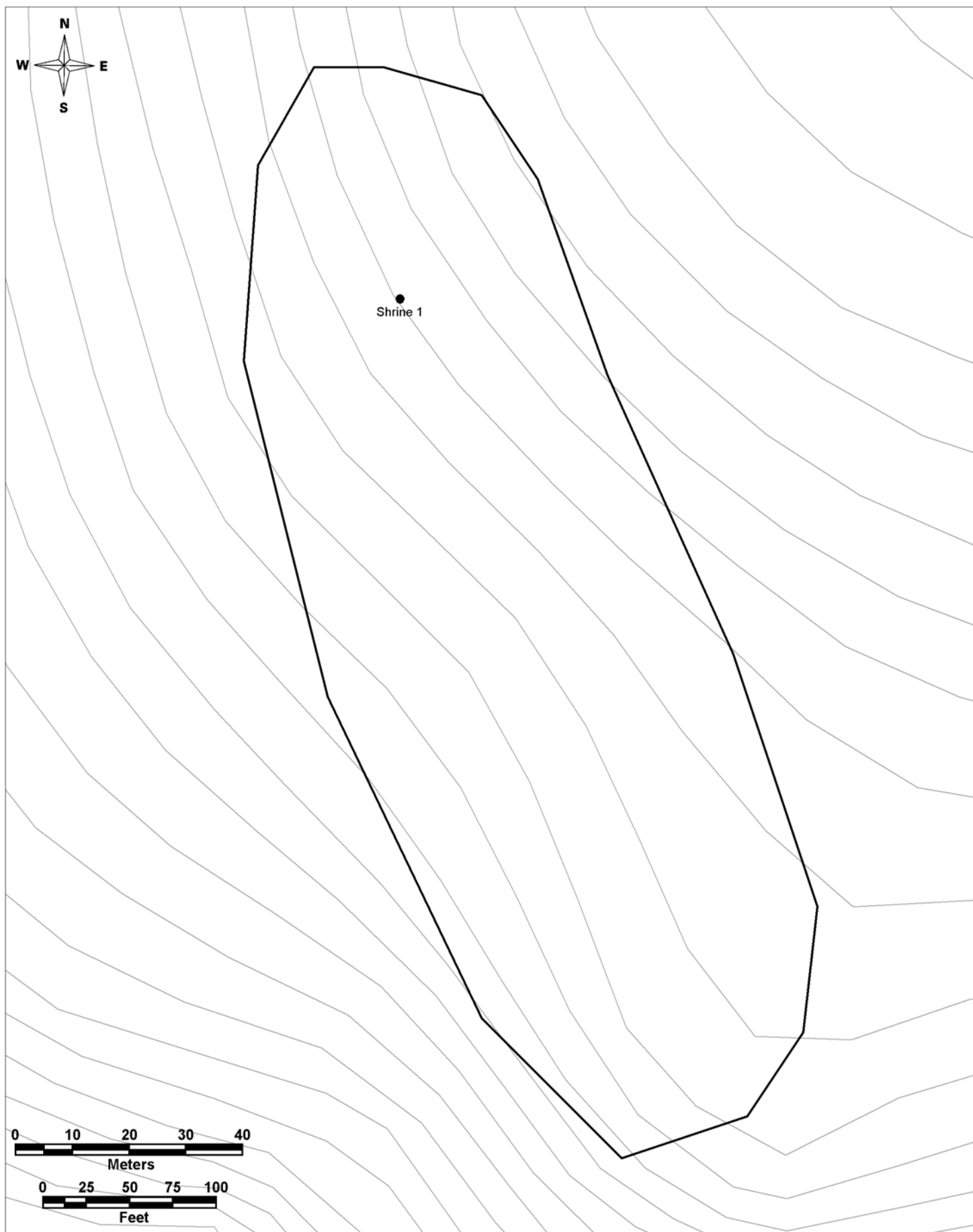
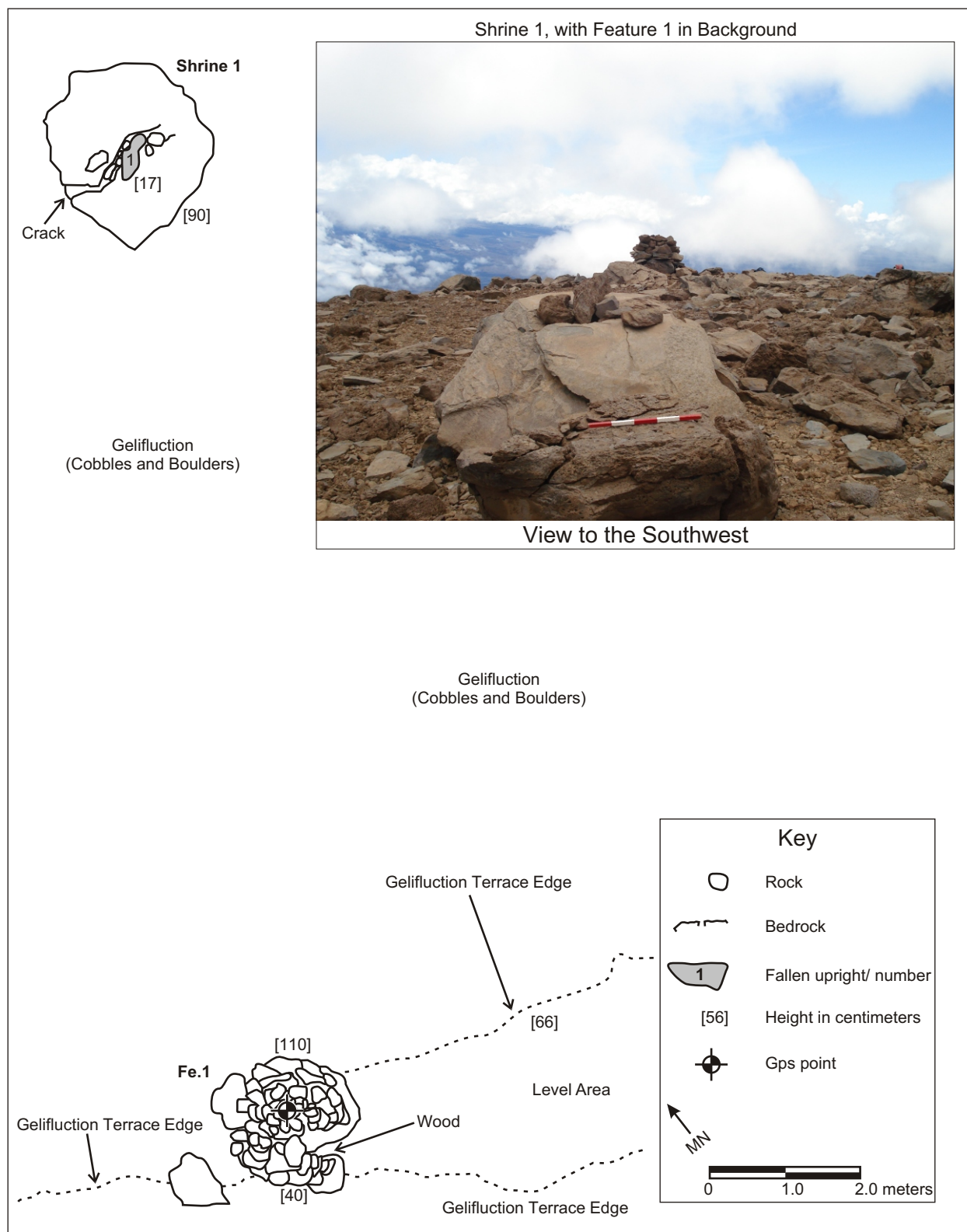


Figure 3.4 Site 27582 Showing Locations of Site Components.



**Figure 3.5. Site 27582, Shrine 1 and Feature 1, Plan View and Photograph.**

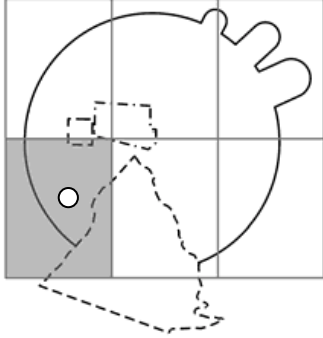
### Site 27582, Shrine 1, Metric and Non-Metric Upright Data

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Boulder	T	S	-	Flat/ Beveled	60	18	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

Feature 1 is a cairn located approximately 13.0 m southwest of Shrine 1. It is constructed of stacked cobbles, small boulders, and slabs (see Figure 3.5). The east, west, and north sides of the cairn are constructed on the edge of a gelifluction terrace and the south side extends off the terraces. The cairn measures approximately 2.0 m in diameter at the base with heights of 1.1 m along the north, east, and west sides and 1.4 m on the south side. A piece of wood has been placed along the south side of the cairn.

**STATE SITE 50-10-23-27583**

<b>Additional Site Numbers:</b> Temporary Site KK	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 80.0 m by 40.0 m	
<b>Number of Components:</b> 3	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,681 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM089, PM091 <b>2009 GPS File No.:</b> RN003	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27583 consists of three workshops (WS1 - 3) located on a ridge flank approximately 173 m northwest of Site 27585 and 240 m east/southeast of Site 27581.

Workshop 1 is the northernmost workshop and is 1.2 m by 1.2 m and contains a minimum of 50 basalt flakes.

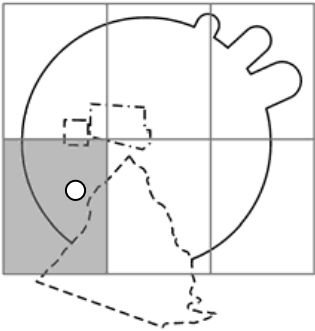
Workshop 2 is located approximately 28.0 m south of WS1 and is 1.0 m by 1.0 m. It contains a minimum of 50 basalt flakes.

Workshop 3 is located approximately 64.0 m east/southeast of WS1 and 61.0 m east of WS2. This workshop is 1.3 m by 1.0 m, and contains a minimum of 100 basalt flakes, two adze preforms, and two hammerstones. Metric and non-metric data were collected in the field for the adze preforms. These data are summarized in the adze preform data table below.

**Site 27583, Workshop 3, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
3	1	28.0 x 8.4 x 6.2	Rectangular	Whole	Present	Absent
	2	31.6 x 6.9 x 8.4	Rectangular	Whole	Present	Present

**STATE SITE 50-10-23-27584**

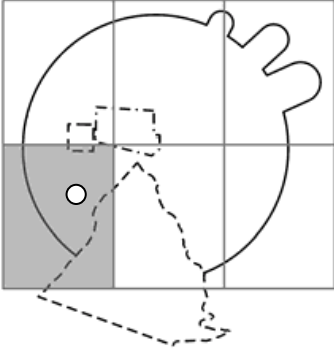
<b>Additional Site Numbers:</b> Temporary	Site HH
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 3.0 m by 3.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Gelifluction drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,509 ft a.m.s.l.	
<b>2009 GPS File No.:</b> RN081	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27584 consists of an isolated workshop located approximately 150 m northeast of Site 27586. The workshop measures approximately 3.0 m by 3.0 m and consists of more than 50 vesicular basalt flakes of various sizes. Two rusted tin cans are also present in the site area.



**STATE SITE 50-10-23-27585**

<b>Additional Site Numbers:</b> Temporary Site JJ	
<b>Site Function:</b> Workshop complex	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 20.0 m by 20.0 m	
<b>Number of Components:</b> 4	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,638 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM093 <b>2009 GPS File No.:</b> RN67, RN68, RN069, RN070, KN08, KN09	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27585, consisting of four workshops (WS1-4), is located on a glacial moraine approximately 80.0 m northwest of Site 27586 (Figure 3.6).

Workshop 1, the northernmost workshop, is comprised of four work areas within an area approximately 3.0 m by 3.0 m. Each of the four areas is approximately 1.0 m by 1.0 m and has more than 50 basalt flakes.

Workshop 2 is located approximately 11.0 m southeast of WS1 and is approximately 1.5 m by 1.5 m, and contains over 100 basalt flakes, cores, and two discoidal hammerstones.

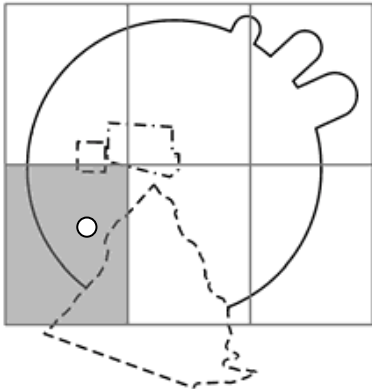
Workshop 3 is located 12.0 m southwest of WS1 and measures 1.0 m by 1.0 m, and contains over 50 basalt flakes.

Workshop 4 is located 12.0 m west of WS3 and 9.0 m south of WS1. It measures 1.0 m by 1.0 m, and contains over 50 basalt flakes and one discoidal hammerstone.



Figure 3.6 Site 27585 Showing Locations of Site Components.

**STATE SITE 50-10-23-27586**

<b>Additional Site Numbers:</b> Temporary		Site GG
<b>Site Function:</b> Adze manufacturing, basalt extraction, shrine		<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 400.0 m by 125.0 m		
<b>Number of Components:</b> 14		
<b>Topographic Location:</b> Ridge crest/flank, glacial outwash		
<b>Approximate U.S.G.S. Elevation:</b> 12,476 +/- ft a.m.s.l.		
<b>2007 GPS File No.:</b> RN174-176, PM94 <b>2009 GPS File No.:</b> RN071-RN079, KN36, KN37		
<b>Current Status:</b> New site.		

**DESCRIPTION:**

Site 27586 is located on a ridge and glacial outwash approximately 250 m northeast of 27588 (Figure 3.7). The site consists of 14 components, including 11 workshops (WS1-11), one basalt extraction area (EA1; associated with WS3), one shrine (Shrine 1), and dispersed artifact scatters (Fs) extending downslope from EA1.

**Workshops at Site 27586**

Workshop 1 (WS1) is located at the northern end of the site and measures approximately 8.0 m by 1.0 m. It contains approximately a minimum of 50 basalt flakes of various sizes, a minimum of three adze preforms, and two hammerstones. Metric and non-metric data were collected in the field for two of the three adze preforms; this data is presented in the preform data table below.

**Site 27586, Workshop1 Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	1	33 x 10 x 8.5	Rectangular	Whole	Present	Present
	2	45 x 18 x 10	Rectangular	Whole	Absent	Absent

Workshop 2 (WS2) is located approximately 39.0 m southeast of WS1 and consists of six poor quality basalt flakes (i.e., coarse grained) in a 1.0 m by 1.0 m area. No adze preforms or hammerstones were observed.



Figure 3.7 Site 27586 Showing Locations of Site Components.

Workshop 3 (WS3) and associated extraction area 1 (EA1) are located at the toe of a ridge, approximately 33.0 m southeast of WS2 (see Figure 3.7). Extraction area 1 (EA1) is a raised basalt outcrop that has been extensively modified along the west and south faces. WS3 is located along the southwest side of this raised outcrop, and measures approximately 3.0 m by 2.0 m. It contains basalt cores and a minimum of 100 basalt flakes.

Workshop 4 (WS4) is located 11.0 m downslope (southeast) of WS3 (see Figure 3.7). The workshop measures approximately 3.0 m by 2.0 m and contains a minimum of 50 basalt flakes, one adze preform, and three cores. Metric and non-metric data for the adze preform was collected in the field; this data is summarized in the preform data table below.

**Site 27586, Workshop 4 Adze Preform Metric and Non-metric Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/ Present/ Indeterminate	Tang Absent/Present/ Indeterminate
4	1	30 x 11.9 x 11.4	Reverse triangular	Whole	Absent	Absent

Workshop 5 (WS5) is located approximately 40.0 m downslope (southeast) of WS4 (see Figure 3.7). The workshop measures approximately 4.0 m by 2.0 m and contains a minimum of 100 basalt flakes, one adze preform, and two cores. Metric and non-metric data for the adze preform was collected in the field; this data is summarized in the preform data table below.

**Site 27586, Workshop 5 Adze Preform Metric and Non-metric Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/ Indeterminate	Tang Absent/Present/ Indeterminate
5	1	22 x 7.5 x 7.5	Rectangular	Broken	Absent	Absent

Workshop 6 (WS6) is located approximately 13.0 m downslope (southeast) of WS5 (see Figure 3.7). The workshop measures approximately 5.0 m by 3.5 m and contains a minimum of 100 basalt flakes, one adze preform, one discoidal hammerstone, and nine cores. Metric and non-metric data for the adze preform was collected in the field; this data is summarized in the preform data table below.

**Site 27586, Workshop 6 Adze Preform Metric and Non-metric Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/ Present/ Indeterminate	Tang Absent/Present/ Indeterminate
6	1	37.6 x 11.2 x 9.6	Rectangular	Whole	Absent	Absent

Workshop 7 (WS7) is located approximately 15.0 m downslope (southwest) of WS6 (see Figure 3.7). The workshop measures approximately 2.0 m by 1.0 m and contains a minimum of 50 basalt flakes and four cores.

Workshop 8 (WS8) is located approximately 3.0 m downslope (southwest) of WS5 (see Figure 3.7). The workshop measures approximately 2.0 m by 2.0 m and contains a minimum of 100 basalt flakes, four adze preforms, one discoidal hammerstone, and one core. Metric and non-metric data for three of the four adze preforms were collected in the field; this data is summarized in the adze preform data table below.

**Site 27586, Workshop 8 Adze Preform Metric and Non-metric Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
8	1	23.8 x 8.5 x 8.7	Rectangular	Broken	Absent	Absent
	2	23.9 x 10.0 x 9.0	Rectangular	Broken	Absent	Indeterminate
	3	33.5 x 11.7 x 12.2	Indeterminate	Indeterminate	Absent	Indeterminate

Workshop 9 (WS9) is located approximately 6.0 m upslope (north) of WS8 (see Figure 3.7). The workshop measures approximately 2.0 m by 1.0 m and contains a minimum of 50 basalt flakes and one core.

Workshop10 (WS10) is located approximately 7.0 m downslope (south) of WS6 (see Figure 3.7). The workshop measures approximately 2.5 m by 2.0 m and contains a minimum of 100 basalt flakes, two adze preforms, and one core. Metric and non-metric data were collected in the field for the two adze preforms; this data is summarized in the preform data table below.

**Site 27586, Workshop 10 Adze Preform Metric and Non-metric Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
10	1	29.4 x 12.9 x 9.7	Rectangular	Whole	Absent	Absent
	2	28.2 x 9.9 x 6.7	Rectangular	Whole	Absent	Absent

Workshop11 (WS11) is located approximately 5.0 m downslope (southwest) of WS10 and 13.0 m east of WS8 (see Figure 3.7). The workshop measures approximately 3.0 m by 1.5 m and contains 100 basalt flakes, one adze preform, and one core. The adze preform was analyzed in the field for metric and non-metric data and a summary of the analysis is presented in the table below.

**Site 27586, Workshop 11, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
11	1	18 x 11.6 x 8.8	Rectangular	Whole	Absent	Absent

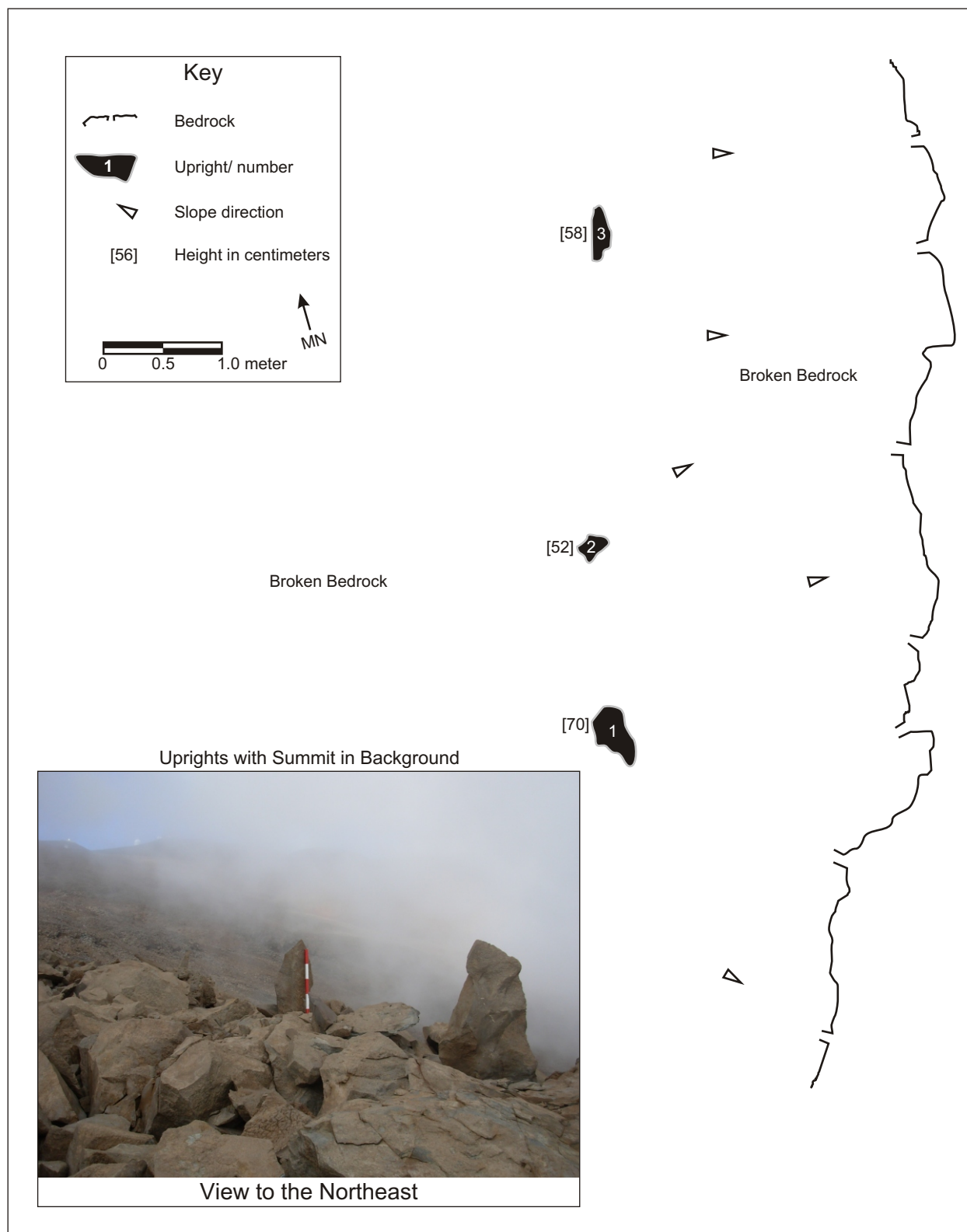


Shrine 1 is located on a ridge crest overlooking Pohakuloa Gulch and is 12.0 m southwest of WS2 and 35.0 m west/northwest of WS3/EA1 (Figure 3.8). The shrine consists of three erect upright slabs placed in a crack in the bedrock and supported by cobbles. The uprights are dispersed, with Upright No. 1 located at the south end of the shrine. Upright No. 2 is situated 1.2 m north of Upright No. 1 and 2.2 m south of Upright No. 3. Upright No. 3, located at the north end of the shrine, is approximately 50.0 cm lower in elevation than Upright No.'s 1 and 2 (see Figure 3.8). The table below presents the upright data for Shrine 1.

**Site 27586, Shrine 1, Metric and Non-Metric Upright Data**

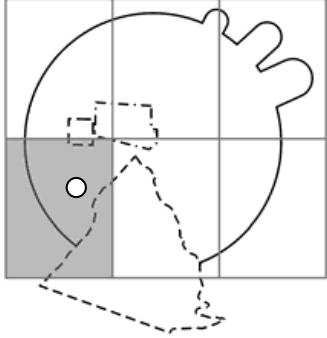
Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Bedrock surface	T	D	-	Beveled	90	50	30
1/2 <sup>E</sup>	Bedrock surface	T	P	-	Pointed	50	27	17
1/3 <sup>E</sup>	Bedrock surface	T	D	-	Pointed	57	44	8

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 3.8. Site 27586, Shrine 1, Plan View and Photograph.**

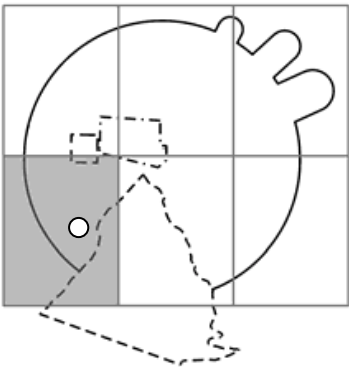
**STATE SITE 50-10-23-27587**

<b>Additional Site Numbers:</b> Temporary Site II	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 2.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,600 ft a.m.s.l.	
<b>2009 GPS File No.:</b> RN066	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27587 consists of an single feature, an isolated workshop (WS1), located on a glacial moraine southwest of Site 27585 and 130 m northwest of Site 27588. The workshop is approximately 2.0 m by 1.0 m, and consists of a minimum of 20 basalt flakes and one adze preform.

**STATE SITE 50-10-23-27588**

<b>Additional Site Numbers:</b> Temporary Site FF	
<b>Site Function:</b> Adze manufacturing complex, shrines	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 80.0 m by 50.0 m	
<b>Number of Components:</b> 10	
<b>Topographic Location:</b> Ridge crest and glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,464 +/- ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN173 <b>2009 GPS File No.:</b> RN064, RN065, RN082-85, KN035	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27588 consists of 10 site components located approximately 190 m west/southwest of Site 27586 and north of Site 27590. The site's components include four workshops (WS1-4), two shrines (Shrines 1-2), three flake scatters (Fs1-3), and a battered bedrock surface (Feature 1) (Figure 3.9). The site area is located along the west side of a ridge with Shrine 1 located on the ridge overlooking Shrine 2 and the four workshops (Figure 3.11).

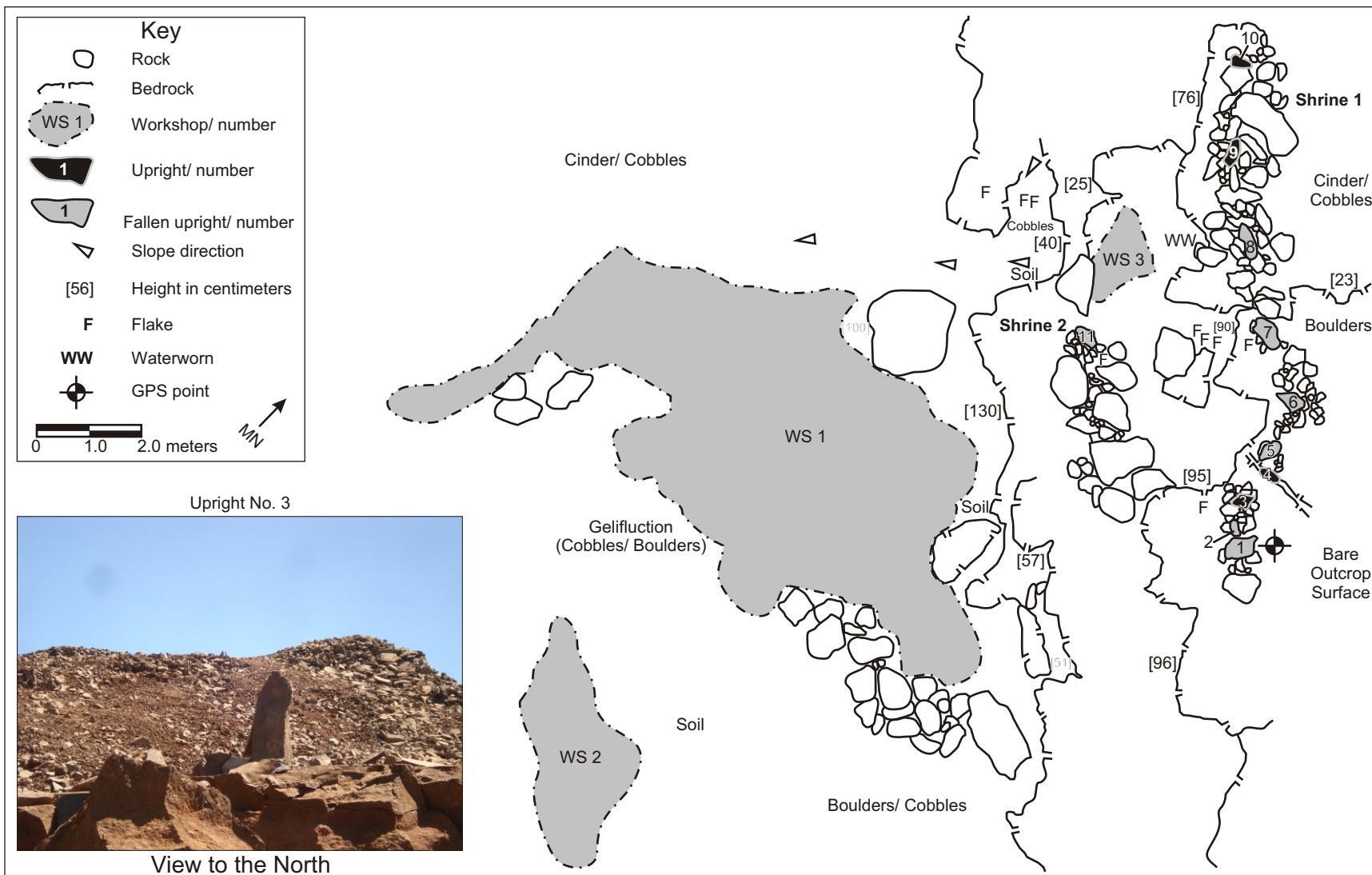
Workshop 1 is located south/southwest of Shrine 2 and covers an area roughly 9.0 m (northwest/southeast) by 7.0 m (Figure 3.10). The workshop consists of thousands of basalt flakes, at least 21 basalt adze preforms, two hammerstones, and seven cores. At least two material types were observed at the workshop. One, not of good quality, is the local source (actually found at the workshop) and the other is of good quality and may be from a nearby source located at Site 27586. Metric and non-metric data for 10 of the 21 adze preforms were recorded in the field. These data are presented in the adze preform data table below.

Workshop 2 is located on a gelifluction terrace 3.0 m south of WS1 and measures approximately 4.0 m by 4.0 m. The workshop consists of more than 1,000 basalt flakes, two (2) adze preforms, and three (3) cores. The material observed at Workshop 2 is of good quality.

Workshop 3 is located approximately 4.0 m north of WS1, on a gelifluction terrace where Shrine 3 is located (Figure 3.10). The workshop is roughly 2.0 m by 1.0 m and consists of more than 70 basalt flakes.



Figure 3.9 Site 27588 Showing Locations of Site Components.



**Figure 3.10. Site 27588, Shrines 1 and 2, and Workshops 1 through 3, Plan View and Photograph.**



### Site 27588, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	1	28.2 x 14.3 x 12.9	Rectangular	Whole	Present	Absent
	2	12.9 x 7.4 x 2.5	Rectangular	Whole	Present	Absent
	3	19.1 x 7.7 x 6.8	Rectangular	Whole	Present	Absent
	4	34.3 x 9.8 x 7.6	Rectangular	Whole	Absent	Absent
	5	8.3 x 4.6 x 3.3	Reverse Trapezoid	Broken	Present	Indeterminate
	6	29.5 x 13.0 x 11.5	Rectangular	Whole	Absent	Indeterminate
	7	33.5 x 12.0 x 9.5	Indeterminate	Whole	Indeterminate	Indeterminate
	8	15.0 x 4.0 x 3.5	Rectangular	Whole	Absent	Absent
	9	11.0 x 4.0 x 3.5	Reverse Trapezoid	Broken	Indeterminate	Indeterminate
	10	13.8 x 5.3 x 5.0	Indeterminate	Broken	Indeterminate	Indeterminate

Workshop 4 located approximately 50.0 m south of Shrine 1, measures 1.5 m by 1.5 m and consists of one core and more than 15 basalt flakes. Approximately 9.0 m south of WS4 is a battered bedrock surface with two basalt flakes present.

Flakes scatter 1 is located 2.0 m north of the northern end of Shrine 1 and measures roughly 2.0 m in diameter. It contains six basalt flakes.

Flake scatter 2 is located approximately 20.0 m north of FS1 and measures roughly 1.0 m in diameter. It contains three basalt flakes.

Flake scatter 3 is located approximately 30.0 m east of Shrine 1 and measures roughly 1.0 m in diameter. It contains approximately 15 vesicular basalt flakes.

Shrine 1 is located on the west edge of the ridge crest and its construction follows the natural topography (Figure 3.9). It has an overall length of approximately 6.0 m and is roughly 0.5 m wide

The uprights, 10 in all, are dispersed over a length of approximately 6.0 m and are oriented parallel to the ridge (see upright data table below). Shrine 1 has three uprights that are standing erect; two are supported by cobbles and the third placed in a crack in the basalt outcrop of the ridge. The rest are fallen. Two of the uprights, Upright No.'s 4 and 10, are unusual because they are perpendicular to the ridge.

Shrine 2 is located approximately 3.0 m southwest (below and on a lower shelf) of Upright No. 7 of Shrine 1 (see Figure 3.10). It consists of a single leaning upright (Upright No. 11 in the upright data table below) situated in a cobble pile oriented parallel to the shelf ledge.

### Site 27588, Metric and Non-Metric Upright Data.

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	P	3	Beveled	63	37	13.5
1/2 <sup>E</sup>	Bedrock surface	T	P	-	Flat	39.5	10	8
1/3 <sup>E</sup>	Bedrock surface	T	I	-	Pointed	70	30	24
1/4 <sup>E</sup>	Bedrock crack	T	S	-	Pointed	42	32	8
1/5	Bedrock surface	T	P	-	Pointed	58	24	12
1/6	Bedrock surface	T	I	-	Pointed	47	35	6
1/7	Bedrock surface	T	S	-	Flat	55	25	7
1/8	Bedrock surface	T	S	1	Round	64	17	14.5
1/9 <sup>E</sup>	Bedrock surface	T	D	-	Pointed	58	32	14
1/10 <sup>E</sup>	Bedrock surface	T	P	-	Flat	51	14	5.5
2/11	Bedrock surface	T	I	-	Pointed	54	25	20

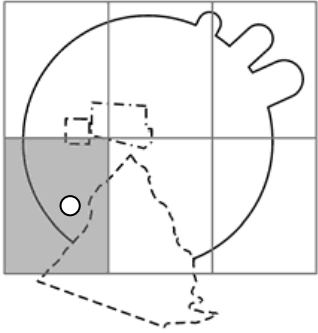
Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

Feature 1 is a battered bedrock outcrop surface located approximately 8.0 m south/southwest of WS4. The battered surface measures less than 1.0 m in diameter and has five-six small basalt flakes (6.0 cm in length) taken off the surface.



**Figure 3.11. Site 27588, Workshop 4; View to the Northeast**

**STATE SITE 50-10-23-27589**

<b>Additional Site Numbers:</b> Temporary Site EE	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 40.0 m by 15.0 m	
<b>Number of Components:</b> 6	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,427 +/- ft a.m.s.l.	
<b>2009 GPS File No.:</b> RN057-063	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27589 consists of six site components and is located approximately 160 m southeast of Site 27588 and 120 m northeast of Site 27590 (Figure 3.12). The site components include five (5) workshops (WS1-5) and one flake scatter (Fs1). The site covers an area approximately 40.0 m (northeast/southwest) by 15.0 m.

Workshop 1 is the northernmost workshop and measures approximately 1.0 m by 1.0 m. It contains one adze preform and a minimum of 20 basalt flakes. One additional adze preform was observed 2.0 m to the southeast.

Workshop 2 is located approximately 6.0 m southwest of WS1 and measures approximately 1.0 m by 1.0 m. It contains a minimum of 20 basalt flakes. No adze preforms, cores, or hammerstones were present.

Workshop 3 is located approximately 16.0 m southwest of WS2 and is approximately 3.0 m by 2.0 m in size. It contains a minimum of 50 basalt flakes. No adze preforms, cores, or hammerstones were present.

Workshop 4 is located approximately 21.0 m southwest of WS2 and measures approximately 1.0 m by 1.0 m. It contains one adze preform, and one spherical hammerstone, and a minimum of 50 basalt flakes. No cores were present.

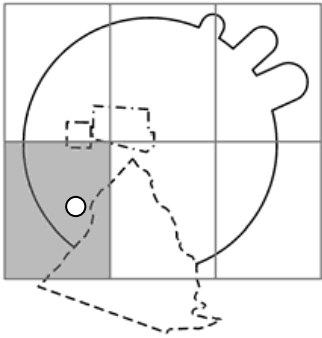
Workshop 5 is located approximately 27.0 m southwest of WS2 and measures approximately 2.0 m by 2.0 m, and contains two adze preforms and a minimum of 100 basalt flakes. No cores or hammerstones were present.

Flake scatter 1 is located approximately 8.0 m east of WS5, and contains one adze preform and a minimum of 25 basalt flakes over an area approximately 5.0 m long by 1.0 m wide.



Figure 3.12 Site 27589 Showing Locations of Site Components.

**STATE SITE 50-10-23-27590**

<b>Additional Site Numbers:</b> Temporary Site DD	
<b>Site Function:</b> Adze and hammerstone manufacturing complex	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 75.0 m by 50.0 m	
<b>Number of Components:</b> 13	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,416 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN294, RN295, RN381, RN397, RN531 <b>2009 GPS File No.:</b> RN086-093	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27590 consists of 13 site components, situated on a glacial moraine between Sites 26253 and 27588 (Figure 3.13). The site complex covers an area approximately 125 m long (north/south) by 60.0 m wide. The sites components include 11 workshops (WS1-11) and two isolated objects (IO-1 and IO-2).

The two isolated objects were observed but not collected. IO-1 consists of one basalt core and one basalt flake found 25.0 m south of WS8 and 31.0 m north of WS10. A hammerstone, designated IO-2 is located approximately 16.0 m southeast of WS10 and 15.0 m northeast of WS11.

**Workshops at Site 27590**

Workshops 1-7 are clustered at the northern end of the site and WS8-11 are dispersed (see Figure 3.13). Presented below is a table with metric and non-metric data for the 11 workshops. Two workshops (WS7 and WS11) contain flakes related to both adze and hammerstone manufacturing.

**Site 27590, Metric and Non-Metric Workshop Data**

Workshop Number	Dimensions L x W (m)	Location	Cultural Material Present
1	2.0 x 2.0	north end of site	Minimum of 50 basalt flakes and one adze preform
2	8.0 x 4.0	9.0 m south of WS1	Minimum of 100 basalt flakes and one basalt core
3	2.0 x 1.0	11.0 m south of WS2	Minimum of 20 basalt flakes and one adze preform
4	1.0 x 1.0	6.0 m west/northwest of WS3	Minimum of 20 basalt flakes

### Site 27590, Metric and Non-Metric Workshop Data

Workshop Number	Dimensions L x W (m)	Location	Cultural Material Present
5	1.0 x 1.0	5.0 m southwest of WS5 and 6.0 m southeast of WS4	Minimum of 20 basalt flakes
6	1.0 x 1.0	3.0 m south of WS5	Minimum of 20 basalt flakes
7	3.0 x 3.0	3.0 m south of WS6	Minimum of 50 basalt flakes dispersed. Fine-grained and vesicular basalt flakes present
8	1.0 x 1.0	33.0 m southwest of WS7	Minimum of 10 basalt flakes and one core
9	2.0 x 2.0	32.0 m east/southeast of WS8	Minimum of 15 basalt flakes
10	2.0 x 1.5	56.0 m south of WS8	Minimum of 20 basalt flakes
11	10.0 x 10.0	18.0 m south/southeast of WS10	Minimum of 25 basalt flakes. Fine- grained and vesicular basalt flakes present



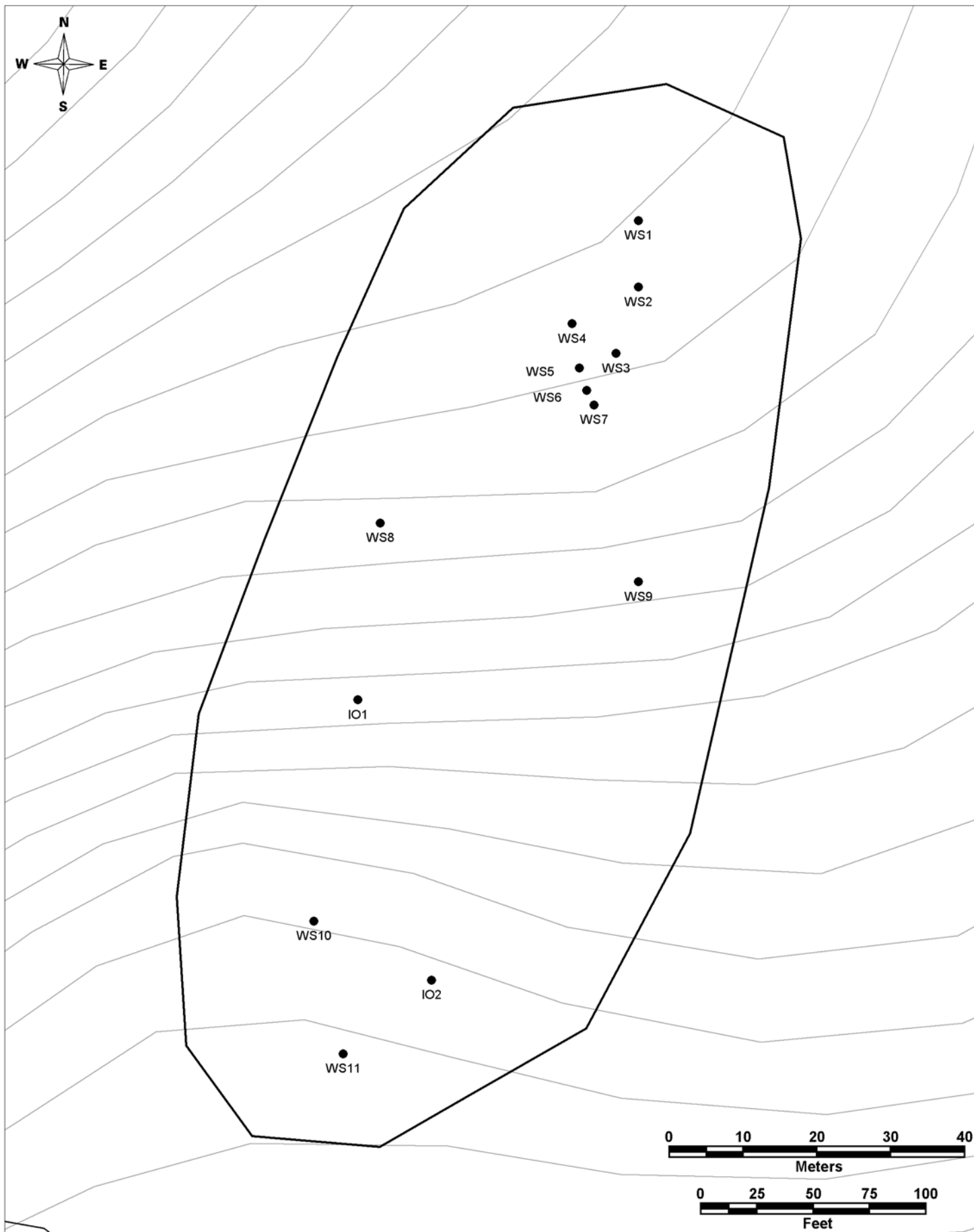
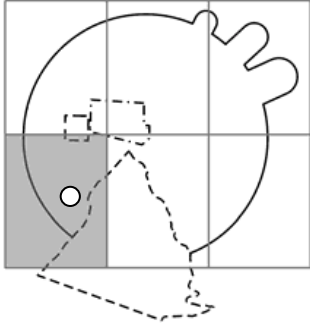


Figure 3.13 Site 27590 Showing Locations of Site Components.

**STATE SITE 50-10-23-27591**

<b>Additional Site Numbers:</b> Temporary Site AA	
<b>Site Function:</b> Hammerstone manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 25.0 m by 5.0 m	
<b>Number of Components:</b> 2	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,329 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN248, RN249	
<b>Current Status:</b> New site.	

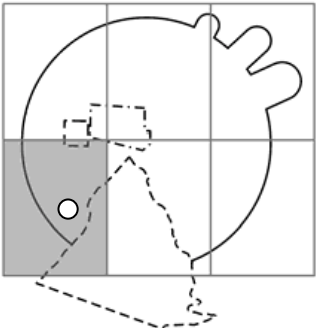
**DESCRIPTION:**

Site 27591 consists of two components, a hammerstone workshop (WS1) and an extraction area for basalt raw material (Extraction Area 1) located approximately 115 m northwest of Site 27594. The site is approximately 25.0 m by 5.0 m in size, and the source area is situated to the northwest of the workshop.

Extraction Area 1 consists of basalt chunks and flakes dispersed over an area approximately 10.0 m by 10.0 m. Based on the raw material, this source was likely being extracted for hammerstone manufacturing.

Workshop 1 (WS1) is approximately 16.0 m southeast of Extraction Area 1, and is approximately 2.0 m by 2.0 m. It consists of a minimum of 20 vesicular basalt flakes.

**STATE SITE 50-10-23-27592**

<b>Additional Site Numbers:</b> Temporary Site Y	
<b>Site Function:</b> Hammerstone and adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 80.0 m by 30.0 m	
<b>Number of Components:</b> 4	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,366 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN246, RN247, RN250	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27592 consists of four components located on bedrock approximately 300 m north/northwest of Site 26254, which is located on a natural land formation called a “crag” (Figure 3.14). The site components include two workshops (WS1-2), a flake scatter (Fs1), and an isolated adze preform (IO-1).

Workshop 1 is located at the northwest end of the site and measures approximately 1.0 m by 1.0 m and contains over 15 vesicular and fine-grained basalt flakes.

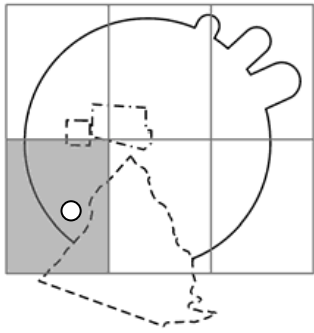
Workshop 2, approximately 60.0 m southeast of WS 1, measures 3.0 m by 3.0 m and consists of more than 10 vesicular basalt flakes.

The area between the two workshops contains scattered basalt flakes (Fs1). One isolated adze preform (IO1) is located approximately 39.0 m west of WS2.



Figure 3.14 Site 27592 Showing Locations of Site Components.

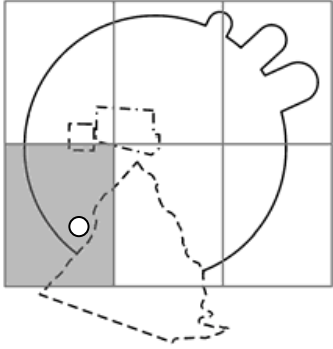
**STATE SITE 50-10-23-27593**

<b>Additional Site Numbers:</b> Temporary      Site Z	
<b>Site Function:</b> Hammerstone manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 15.0 m by 15.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,315 ft a.m.s.l.	
<b>2009 GPS File No.:</b> RN003	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27593 consists of an isolated hammerstone workshop (WS1) located on glacial drift approximately 100 m south/southwest of Site 27591 and 70.0 m northwest of Site 27594. The workshop measures roughly 15.0 m by 15.0 m and contains a 2.0 m by 2.0 m area with a minimum of 20 vesicular basalt flakes, and a 10.0 m by 10.0 m area with scattered vesicular basalt flakes and hammerstone “preforms” or “chunks” of vesicular basalt.

**STATE SITE 50-10-23-27594**

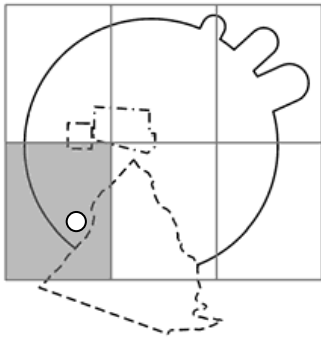
<b>Additional Site Numbers:</b> Temporary Site U	
<b>Site Function:</b> Hammerstone manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 15.0 m by 7.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Gulch bottom on gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,282 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN013, RN530	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27594, a hammerstone workshop, is located approximately 84.0 m northeast of the natural landform known as the “crag.” It is situated approximately 180 m west/northwest of Site 26255. The workshop is located on a gelifluction terrace bounded along the north and south by the gulch sides and a gelifluction terrace face on the east side, and is dispersed over an area approximately 12.0 m by 6.0 m. It contains vesicular basalt flakes as well approximately 20 fine-grained basalt flakes.



**STATE SITE 50-10-23-27595**

<b>Additional Site Numbers:</b> Temporary Site N	
<b>Site Function:</b> Hammerstone extraction, manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 20.0 m by 10.0 m	
<b>Number of Components:</b> 2	
<b>Topographic Location:</b> Glacial moraine and bedrock	
<b>Approximate U.S.G.S. Elevation:</b> 12,264 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN030, RN031	
<b>Current Status:</b> New site.	

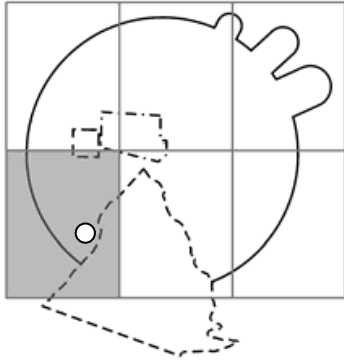
**DESCRIPTION:**

Site 27595 consists of an extraction area (EA1) and a workshop (WS1), located 13.0 m northeast of Site 26255 on a glacial moraine.

The extraction area measures approximately 8.0 m by 3.0 m. It contains an area of exposed vesicular bedrock where chunks of rock have been removed.

Workshop 1 is located 15.0 m north of the extraction area. It consists of flakes scattered over an area approximately 3.0 m by 3.0 m.

**STATE SITE 50-10-23-27596**

<b>Additional Site Numbers:</b> Temporary Site Q	
<b>Site Function:</b> Adze manufacturing complex	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 50.0 m by 30.0 m	
<b>Number of Components:</b> 3	
<b>Topographic Location:</b> Outcrop	
<b>Approximate U.S.G.S. Elevation:</b> 12,285 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN156 <b>2008 GPS File No.:</b> RN527, RN528, RN529	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27596 consists of three (3) workshops (WS1-3) and is located approximately 50.0 m north/northeast of Site 26254 on an exposed basalt outcropping.

Workshop 1 is a workshop approximately 4.0 m by 4.0 m with more than 50 basalt flakes, two adze preforms (one collected), and at least four basalt cores. Additional scattered basalt flakes were observed on the south side of the feature.

Workshop 2 is located approximately 13.0 m south of WS1 and measures approximately 7.0 m by 3.0 m. It consists of more than 20 vesicular basalt flakes and three basalt cores.

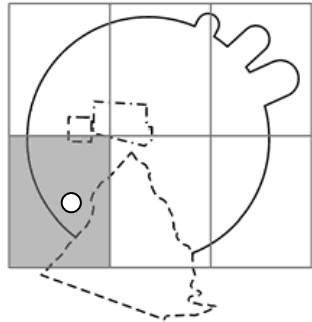
Workshop 3 is located approximately 21.0 m southeast of WS1 and 22.0 m east/northeast of WS2. The workshop is 3.0 m by 1.0 m and consists of at least seven large (greater than 15.0 cm) basalt flakes and one adze preform.

The adze preform from WS1 was analyzed in the laboratory for metric and non-metric data and was collected for EDXRF geochemical analysis. The result of the analysis is presented in Volume 1, Section 6.0: Data Analyses and details are presented in Appendix M.

**Site 27596, Workshop 1, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	1	34.0 x 7.0 x 7.5	Square	Whole	Present	Present

**STATE SITE 50-10-23-27597**

<b>Additional Site Numbers:</b> Temporary Site M	
<b>Site Function:</b> Adze and hammerstone manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 15.0 m by 10.0 m	
<b>Number of Components:</b> 3	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,248 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN027, RN028, RN029	
<b>Current Status:</b> New site.	

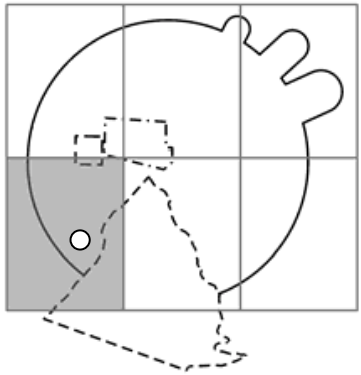
**DESCRIPTION:**

Site 27597 consists of three components located approximately 44.0 m southwest of Site 26255 and 230 m east of the crag on a glacial moraine. All three components are workshops and designated as WS1-3.

Workshop 1, a hammerstone workshop, is located at the northern end of the site, approximately 9.0 m northwest of WS2. This workshop measures 1.0 m by 1.0 m and consists of vesicular flakes and cores related to hammerstone manufacturing.

Workshops 2 and 3 are related to adze manufacturing and are located southeast of WS1. Workshop 2 is 1.0 m by 1.0 m and contains only basalt flakes. Workshop 3, located 3.0 m southeast of WS2, measures 1.0 m by 1.0 m and consists of basalt flakes and one adze preform.

**STATE SITE 50-10-23-27598**

<b>Additional Site Numbers:</b> Temporary Site S	
<b>Site Function:</b> Adze manufacturing complex	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 281.0 m by 83.0 m	
<b>Number of Components:</b> 81	
<b>Topographic Location:</b> Ridge, glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,256 +/- ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN015-018, RN237, RN255-259, RN261-285, RN340-347, RN355-374, RN399, RN488-497, RN526, KN-012	
<b>Current Status:</b> New site.	

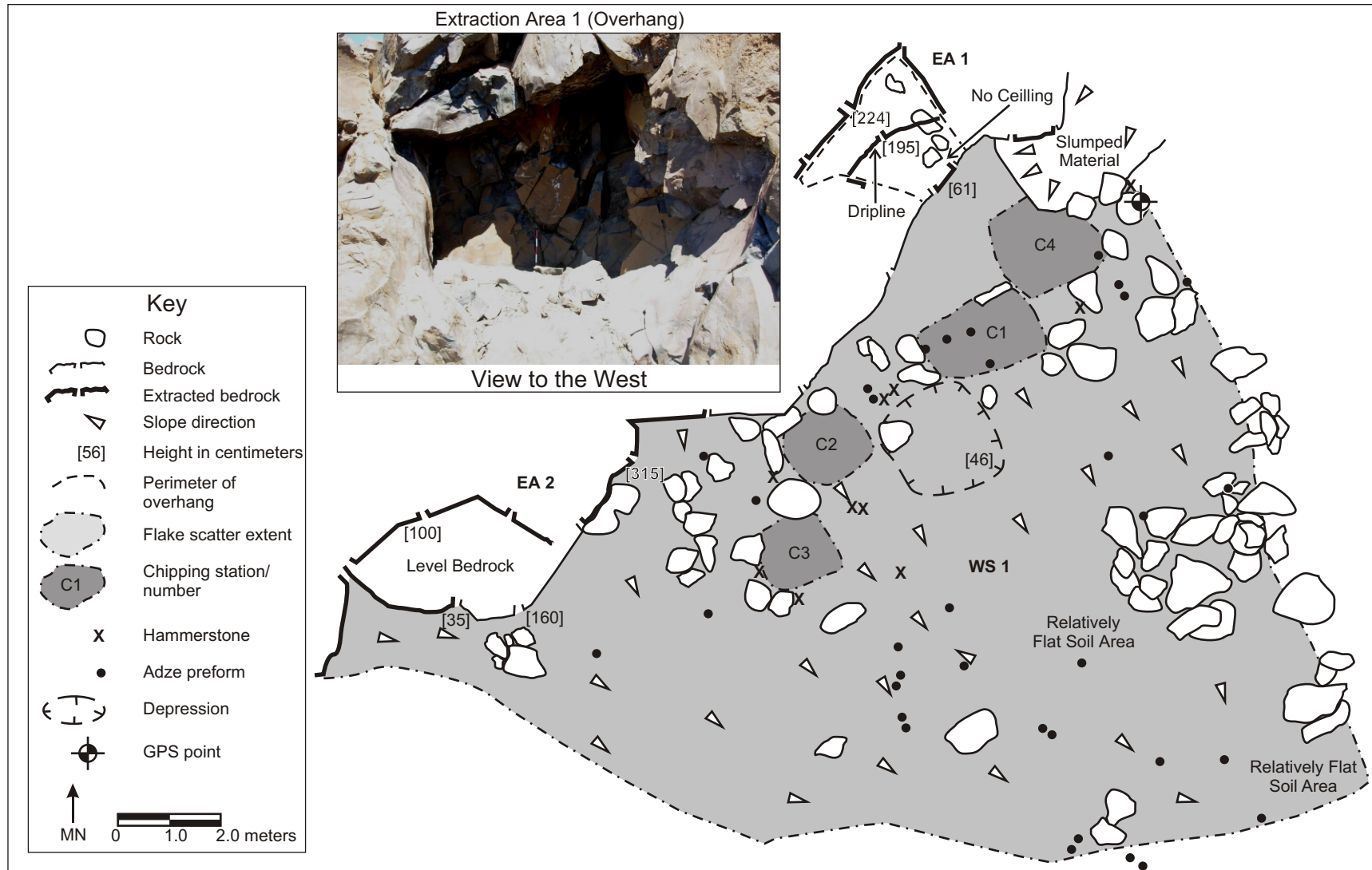
**DESCRIPTION:**

Site 27598 consists of approximately 81 components including four extraction areas (EA1-4), 70 workshops (WS1-70), five basalt flake scatters (Fs1-5), and two isolated artifacts (IO1-2). The site is situated along the south facing escarpment and a glacial moraine 40.0 m west of Site 26253 (Figure 3.15). The area south of the escarpment is relatively level in the central portion with scattered boulders and cobbles. The west side is defined by a north/south extending ridge and the east side is defined by a drainage that extends roughly north/south, separating Site 27598 from Site 26253 and Site 27605 (see Figure 3.15).

Extraction Area 1 (EA1) and Workshop 1 (WS1) are located at the northern end of the site, along the south facing escarpment (Figure 3.16). Extraction Area 1 is along the escarpment base which is approximately 3.0 m below the crest of the ridge and approximately 15.0 m above the base of a talus slope fronting EA1 (see Figure 3.16). EA1 is inside an overhang measuring approximately 2.0 m wide at the entrance by 1.0 m deep (see Figure 3.16). The overhang's interior surface is exposed bedrock and soil and the vertical facing has natural fractures (Figure 3.16). Outside the overhang is a natural terrace, or ledge, which extends southeast for approximately 1.0 m where it terminates 0.6 m above WS1.

Fronting EA1, to the southeast, is WS1 which covers an area roughly 17.0 m (northeast/ southwest) by 13.0 m (northwest/southeast). The entire surface is covered with thousands of basalt flakes. Within WS1 are four areas containing concentrations of smaller flakes designated as chipping stations 1-4 (C1-C4), and one depression (see Figure 3.16). A total of 40 adze preforms and ten (10) hammerstones were observed on WS1. Metric and non-metric data were collected in the field for 20 of the 40 adze preforms. A summary of the data is in the adze preform data table below. Detailed analyses can be found in Volume 1, Section 6.0 Data Analyses.





**Figure 3.16. Site 27598, Workshop 1, and Extraction Areas 1 and 2, Plan View and Photograph.**



### Site 25798, Workshop 1, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	2	24.0 x 8.3 x 6.8	Rectangular	Whole	Present	Absent
	4	18.4 x 5.3 x 5.3	Quadrangular	Broken	Indeterminate	Indeterminate
	6	17.7 x 12.1 x 3.8	Rectangular	Broken	Present	Indeterminate
	8	27.6 x 12.5 x 7.4	Quadrangular	Whole	Present	Absent
	10	24.6 x 6.9 x 5.6	Rectangular	Whole	Present	Present
	12	29.9 x 8.2 x 7.3	Rectangular	Whole	Present	Absent
	14	15.8 x 12.5 x 7.8	Rectangular	Broken	Present	Indeterminate
	16	28.1 x 11.6 x 8.4	Rectangular?	Whole	Present	Absent
	18	29.0 x 13.0 x 6.6	Rectangular	Whole	Present	Absent
	20	18.7 x 12.5 x 8.8	Indeterminate	Broken	Indeterminate	Indeterminate
	22	14.8 x 6.8 x 3.3	Rectangular	Whole	Present	Absent
	24	16.9 x 5.5 x 3.9	Rectangular	Whole	Indeterminate	Indeterminate
	26	18.6 x 7.3 x 6.7	Square	Broken	Present	Absent
	28	28.4 x 13.9 x 11.7	Rectangular	Whole	Indeterminate	Indeterminate
	30	18.5 x 6.6 x 6.6	Reverse triangular	Whole	Present	Absent
	32	19.6 x 7.8 x 5.7	Rectangular	Whole	Absent	Absent
	34	9.5 x 7.5 x 4.1	Quadrangular	Broken	Indeterminate	Indeterminate
	36	20.2 x 8.0 x 8.6	Square	Whole	Present	Absent
	38	34.2 x 9.6 x 8.4	Reverse triangular	Whole	Indeterminate	Indeterminate
	40	20.9 x 9.6 x 7.6	Rectangular	Whole	Absent	Absent

Chipping Station 1 (C1), located 2.0 m south of the overhang, is 2.1 m by 1.5 m and contains hundreds of small basalt flakes (less than 6.0 cm long), six (6) adze preforms, and ten (10) cores (see Figure 3.16). Chipping Station 2 (C2) is located approximately 1.8 m west/southwest of C1 and measures 1.5 m by 1.4 m and contains hundreds of basalt flakes of various sizes. No adze preforms or hammerstones were noted. Chipping Station 3 (C3) is located approximately 0.6 m southwest of C2 and is separated by a medium-sized boulder. C3 is 1.4 m by 1.3 m and contains hundreds of basalt flakes of various sizes, three (3) adze preforms, one (1) hammerstone, and three (3) cores. Chipping Station 4, located adjacent to (northeast) C1, is 2.0 m by 1.8 m and contains hundreds of basalt flakes of various sizes and one (1) adze preform.

Extraction Area 2 is located approximately 6.0 m southwest of EA1 and WS1 along the same escarpment (see Figure 3.16). Extraction Area 2 is a discontinuous area roughly 10.0 m long and appears to have been less utilized than EA1.

Extraction Area 3 and Workshop 2 (EA3 and WS2) are located approximately 40.0 m southwest of EA1 and WS1 along a ridge crest. The extraction area consists of

exposed bedrock and battered boulders. The area is roughly 3.0 m<sup>2</sup> with over 100 basalt flakes scattered around the area.

Workshop 3 is located along the west side of the site and approximately 40.0 m southwest of WS5 and 20.0 m west of Fs3. It measures roughly 7.0 m by 6.0 m and contains a minimum of 100 basalt flakes of various sizes, four (4) adze preforms and one hammerstone. Metric and non-metric data were collected in the field for two of the four adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

#### Site 27598, Workshop 3, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
3	1	14.0 x 6.5 x 6.5	Rectangular	Broken	Indeterminate	Indeterminate
	3	17.8 x 8.0 x 4.5	Quadrangular	Broken	Present	Indeterminate

Workshop 4 is located on two gelifluction terraces approximately 19.0 m south/southwest of WS5 and 11.0 m northwest of WS19. It measures roughly 12.0 m by 8.0 m and contains two chipping stations (C1-2) within the workshop area with a chipping station on each of the terraces. Chipping Station 1 (C1) is roughly 6.5 m by 6.5 m contains a minimum of 100 basalt flakes of various sizes, four (4) adze preforms and two (2) hammerstones. Chipping Station 2 is adjacent to and east of C1 and measures approximately 5.5 m by 5.0 m. It contains a minimum of 20 basalt flakes of various sizes and one (1) adze preform. Between the two chipping stations are scattered basalt flakes. Metric and non-metric data were collected in the field for three of the five adze preforms (two from C1 and one from C2) (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

#### Site 27598, Workshop 4, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
4/C1	1	46.1 x 19.0 x 17.0	Quadrangular	Whole	Present	Absent
4/C1	3	41.5 x 13.0 x 10.5	Plano-convex	Whole	Present	Present
4/C2	5	36.0 x 16.0 x 12.0	Indeterminate	Broken	Indeterminate	Indeterminate

Workshop 5 is located on a gelifluction terrace along the west side of the site and approximately 40.0 m northeast of WS3. It measures roughly 3.5 m by 1.5 m and consists of approximately 20 basalt flakes, one (1) adze preform, and one (1) hammerstone. No data collection was conducted on the adze preform.

Workshop 6 is located approximately 36.0 m northeast of WS5 and 3.0 m north of WS7. It measures approximately 7.0 m by 5.5 m and consists of a minimum of 1,000 basalt flakes of various sizes, 12 adze preforms, and roughly 10 cores. Metric and non-

metric data were collected in the field for six of the 12 adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

#### Site 27598, Workshop 6, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
6	2	46.5 x 16.0 x 13.0	Reverse triangular	Broken	Present	Indeterminate
	4	22.0 x 9.0 x 4.4	Quadrangular	Broken	Present	Indeterminate
	6	39.0 x 13.0 x 7.5	Rectangular	Broken	Present	Indeterminate
	8	12.7 x 4.6 x 3.5	Rectangular	Broken	Present	Indeterminate
	10	15.0 x 5.1 x 4.7	Rectangular	Broken	Present	Indeterminate
	12	17.1 x 8.0 x 6.7	Rectangular	Broken	Present	Indeterminate

Workshop 7 is located on a gelifluction terrace approximately 3.0 m south of WS6 and northeast of WS5. It measures roughly 8.0 m by 6.0 m and contains a minimum of 1,000 basalt flakes, 29 adze preforms, five hammerstones, two hammerstone preforms, and 10 cores. Metric and non-metric data were collected in the field for 15 of the 29 adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

#### Site 27598, Workshop 7, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
7	1	13.1 x 2.6 x 2.2	Square	Whole	Present	Present
	3	14.6 x 7.0 x 6.3	Square	Broken	Present	Indeterminate
	5	24.8 x 9.6 x 10.0	Square	Broken	Present	Indeterminate
	7	32.5 x 13.1 x 9.4	Quadrangular	Whole	Present	Absent
	9	8.2 x 2.6 x 1.0	Rectangular	Broken	Present	Indeterminate
	11	28.4 x 10.7 x 7.8	Reverse triangular	Whole	Present	Absent
	13	8.8 x 3.1 x 2.6	Reverse triangular	Whole	Present	Absent
	15	17.5 x 7.8 x 6.0	Square	Broken	Present	Indeterminate
	17	29.4 x 10.3 x 7.7	Rectangular	Whole	Present	Absent
	19	13.5 x 4.4 x 3.0	Rectangular	Broken	Indeterminate	Present
	21	28.8 x 10.9 x 9.9	Square	Whole	Present	Absent
	23	16.2 x 5.8 x 5.2	Square	Whole	Present	Absent
	25	30.3 x 10.2 x 7.8	Quadrangular	Whole	Present	Absent
	27	10.8 x 5.6 x 3.1	Rectangular	Whole	Present	Absent

### Site 27598, Workshop 7, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present Indeterminate	Tang Absent/Present/ Indeterminate
7	29	16.0 x 6.1 x 6.3	Quadrangular	Broken	Present	Indeterminate

Workshops 8 through 21 are relatively small in size. To facilitate presentation of data for these workshops, they have been summarized in the workshop data table below. Each of the workshops is located at the base of the talus slope fronting EA1 on a relatively flat glacial moraine which extends to the south.

### Site 27598, Workshops 8 – 21, Metric and Non-Metric Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
8	Approximately 10.0 m south/ southwest of WS4.	3.0 x 2.0	Approximately 15 basalt flakes (med-lg).
9	Approximately 30.0 m south/ southeast of WS8	4.0 x 3.0	Minimum of 50 basalt flakes(sm-lg), one (1) adze preform, and five (5) cores.
10	Approximately 53.0 m south of WS3.	5.0 x 5.0	Minimum of 50 basalt flakes (sm-lg) and over four (4) cores.
11	Approximately 22.0 m east of WS10 and 60.0 m south/ southeast of WS3.	2.0 x 2.0	Minimum of 5 basalt flakes (lg), one (1) hammerstone, and one (1) core.
12	Approximately 20.0 m east of WS11.	4.0 x 4.0	Minimum of 20 basalt flakes (med) and two (2) cores.
13	Approximately 24.0 m northeast of WS11 and 39.0 m southeast of WS9.	4.0 x 2.0	Minimum of 40 basalt flakes (sm-lg). Material is of poor quality.
14	Approximately 12.0 m north/ northeast of WS10.	8.0 x 8.0	Three discrete workshops with a minimum of 20 basalt flakes in each (med-lg).
15	Approximately 11.0 m northeast of WS14.	3.0 x 3.0	Minimum of 25 basalt flakes (sm-lg).
16	Approximately 7.0 m east of WS15 and 19.0 m north of WS11.	2.0 x 2.0	Minimum of 25 basalt flakes (sm-lg).
17	Approximately 10.0 m northeast of WS16 and 8.0 m southwest of WS9.	1.0 x 1.0	Minimum of 25 basalt flakes (lg).
18	Approximately 15.0 m north of WS17 and 12.0 m northwest of WS9.	2.0 x 2.0	Minimum of 10 basalt flakes (lg), one (1) hammerstone, and one (1) core.
19	Approximately 14.0 m northeast of WS18 and 12.0 m northeast of WS8.	2.0 x 2.0	Minimum of 15 basalt flakes (lg).

### Site 27598, Workshops 8 – 21, Metric and Non-Metric Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
20	Approximately 10.0 m southeast of WS19 and 15.0 m east of WS18.	3.0 x 1.0	Minimum of 12 basalt flakes (lg) and two (2) cores.
21	Approximately 70.0 m south of WS20 and 8.0 m north of Fs4.	1.0 x 1.0	Minimum of 15 basalt flakes (lg) and one (1) adze preform.

Workshop 22 is located approximately 13.0 m southeast of WS6 and 38.0 m east of WS5 and adjacent to WS23. It is situated on a gelifluction terrace within a drainage at the base of a southeast facing ridge slope. It is roughly 4.0 m by 3.0 m and consists of a minimum of 100 basalt flakes, five (5) adze preforms, one (1) hammerstone, and two (2) cores. Metric and non-metric data were collected in the field for three of the five adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

### Site 27598, Workshop 22, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
22	1	20.0 x 9.4 x 5.1	Quadrangular	Broken	Indeterminate	Indeterminate
	3	27.8 x 6.8 x 7.5	Quadrangular	Whole	Present	Present
	5	23.5 x 9.5 x 10.5	Quadrangular	Broken	Present	Indeterminate

Workshop 23 is located gelifluction terrace adjacent to and east of WS22 and west of WS24. It measures roughly 7.0 m by 7.0 m and consists of over one thousand basalt flakes of various sizes, 29 adze preforms, two (2) hammerstones, and 10 cores. Metric and non-metric data were collected in the field for 14 of the 29 adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

### Site 27598, Workshop 23, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
23	2	14.8 x 6.2 x 4.8	Rectangular	Broken	Indeterminate	Indeterminate
	4	15.2 x 5.4 x 3.5	Rectangular	Whole	Present	Present
	6	15.6 x 10.8 x 6.9	Reverse trapezoid	Broken	Indeterminate	Indeterminate
	8	27.8 x 12.8 x 11.0	Reverse trapezoid	Whole	Present	Absent

### Site 27598, Workshop 23, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
23	10	18.4 x 7.5 x 4.6	Rectangular	Whole	Present	Absent
	12	17.2 x 6.1 x 6.2	Reverse trapezoid	Whole	Present	Absent
	14	21.5 x 6.5 x 5.8	Indeterminate	Whole	Present	Absent
	16	17.7 x 6.9 x 7.3	Rectangular	Whole	Present	Present
	18	11.2 x 7.2 x 2.9	Rectangular	Broken	Present	Indeterminate
	20	25.5 x 7.0 x 6.5	Rectangular	Broken	Present	Absent
	22	9.0 x 4.1 x 3.3	Quadrangular	Whole	Present	Absent
	24	17.4 x 7.9 x 6.6	Rectangular	Broken	Indeterminate	Indeterminate
	26	9.4 x 4.2 x 2.6	Rectangular	Whole	Present	Present
	28	26.5 x 12.3 x 8.7	Reverse trapezoid	Whole	Present	Absent

Workshop 24 is located on a gelifluction terrace adjacent to and east of WS23. It measures roughly 6.0 m by 6.0 m and consists of over one thousand basalt flakes of various sizes, 51 adze preforms, two hammerstones, and 15 cores. Metric and non-metric data were collected in the field for 12 of the 51 adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

### Site 27598, Workshop 24, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
24	4	23.8 x 10.1 x 10.2	Reverse trapezoid	Whole	Present	Absent
	8	24.6 x 6.5 x 6.2	Quadrangular	Whole	Indeterminate	Absent
	12	18.1 x 6.2 x 6.7	Reverse trapezoid	Whole	Present	Present
	16	9.4 x 5.0 x 3.2	Reverse triangular	Broken	Indeterminate	Indeterminate
	20	17.8 x 6.9 x 5.4	Rectangular	Whole	Present	Absent
	24	13.4 x 5.5 x 5.0	Reverse trapezoid	Whole	Present	Present
	28	20.9 x 8.3 x 5.5	Rectangular	Whole	Present	Absent
	32	13.7 x 5.8 x 3.2	Rectangular	Whole	Indeterminate	Indeterminate
	36	18.2 x 9.0 x 7.9	Triangular	Broken	Present	Indeterminate
	40	16.0 x 8.0 x 6.1	Rectangular	Broken	Indeterminate	Indeterminate
	44	23.9 x 8.0 x 7.1	Square	Whole	Present	Absent
	48	38.8 x 14.2 x 15.1	Rectangular	Whole	Present	Present



Workshops 25-44, 47-49, and 51-57 are relatively small. To facilitate data presentation for these workshops, they have been summarized in the workshop data table below. Workshops 45, 46, and 50 are relatively large and are described following the table.

**Site 27598, Workshops 25-40, 43-45, 48-70, Metric and Non-metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
25	Approximately 13.0 m south of WS23 and 40.0 m east of WS5.	1.5 x 1.5	Minimum of 25 basalt flakes (sm-lg), three (3) adze preforms and three (3) hammerstones.
26	Approximately 18.0 m south of WS25.	1.0 x 1.0	Minimum of 25 basalt flakes (med) and one (1) core.
27	Approximately 18.0 m northeast of WS26.	3.0 x 1.3	Minimum of 25 basalt flakes (med), one (1) hammerstone, and two (2) cores.
28	Adjacent and east of WS27.	1.0 x 1.0	Minimum of 20 basalt flakes (med). Flakes moving downslope an additional 8.0 m
29	Approximately 4.0 m northeast of WS28.	1.0 x 1.0	Minimum of 20 basalt flakes (med) and three (3) cores.
30	Approximately 2.0 m north of WS29.	1.5 x 1.0	Minimum of 20 basalt flakes and one (1) core.
31	Approximately 31.0 m northeast of WS26 and 18.0 m east of WS30.	3.0 x 2.0	Minimum of 50 basalt flakes (sm-lg) and one (1) core.
32	Approximately 27.0 m southeast of WS31.	2.5 x 1.2	Minimum of 20 basalt flakes (sm-med) and one (1) hammerstone.
33	Approximately 36.0 m north/northeast of WS32 and 28.0 m northeast of WS31.	1.0 x 1.0	Minimum of 25 basalt flakes (sm-med) and one (1) core.
34	Approximately 17.0 m west/northwest of WS33 and 15.0 m northeast of WS31.	3.0 x 2.5	Minimum of 50 basalt flakes (sm-med), one (1) adze preform, and one (1) core.
35	Approximately 12.0 m northwest of WS34.	5.2 x 2.0	Minimum of 25 basalt flakes (sm-med) and two (2) cores.
36	Approximately 8.0 m north of WS35.	1.6 x 1.5	Minimum of 25 basalt flakes (sm-med).
37	Approximately 11.0 m north of WS36	8.7 x 3.8	Minimum of 100 basalt flakes (sm-med), one (1) adze preform, and five (5) cores.
38	Approximately 10.0 m northeast of WS37.	4.0 x 3.0	Minimum of 35 basalt flakes (med), one (1) adze preform, and three (3) hammerstones.
39	Approximately 12.0 m	1.7 x 1.4	Minimum of 25 basalt flakes (sm-lg),

**Site 27598, Workshops 25-40, 43-45, 48-70, Metric and Non-metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
	southeast of WS38 and 19.0 m east of WS37.		one (1) adze preform, and one (1) core.
40	Approximately 7.0 m southwest of WS39 and 10.0 m north/northeast of WS36.	6.5 x 4.0	Minimum of 50 basalt flakes (sm-lg), two (2) adze preforms, one (1) hammerstone, and seven (7) cores.
43	Approximately 32.0 m west of WS37 and 9.0 m north of WS42.	7.3 x 6.0	Minimum of 25 basalt flakes (sm-med), four (4) adze preforms, and one (1) hammerstone.
44	Approximately 6.0 m north of WS43.	3.5 x 3.3	Minimum of 100 basalt flakes (sm-lg), two adze preforms and 20 cores.
45	Approximately 13.0 m northeast of WS43 and 13.0 m east/southeast of WS44.	13.0 x 6.0	Minimum of 100 basalt flakes (med), six (6) adze preforms and nine (9) cores.
48	Approximately 24.0 m south of EA1/ WS1 and 43.0 m northeast of WS45.	13.5 x 8.8	Minimum of 50 basalt flakes (sm-lg) and five (5) adze preforms.
49	Approximately 21.0 north/northeast of WS48 and 10.0 southeast of WS46.	3.2 x 2.5	Minimum of 25 basalt flakes (med-lg), four (4) adze preforms, and cores.
50	Approximately 6.0 m southeast of WS49.	1.6 x 1.5	Minimum of 25 basalt flakes (med) and one (1) adze preform.
51	Approximately 8.0 m south of WS50.	5.4 x 5.0	Minimum of 100 basalt flakes and one (1) adze preform.
52	Approximately 8.0 m south of WS51.	3.0 x 2.8	Minimum of 50 basalt flakes, three (3) adze preforms, one (1) hammerstone, and two (2) cores.
53	Approximately 6.0 west of WS52	4.9 x 4.2	Minimum of 100 basalt flakes (sm-lg), seven (7) adze preforms and 12 cores.
54	Approximately 12.0 m southwest of WS8 and 11.0 m west of WS18.	3.5 x 2.0	Minimum of 25 basalt flakes (med-lg).
55	Approximately 56.0 m south/southwest of WS54 and 29.0 m southwest of WS11.	4.5 x 3.5	Minimum of 50 basalt flakes (sm-lg), three (3) adze preforms, and two (2) cores.
56	Approximately 15.0 m northwest of WS55 and 20.0 m southwest of WS10.	3.2 x 3.2	Minimum of 25 basalt flakes (med-lg).
57	Approximately 15.0 , west/northwest of WS56 and 27.0 m southwest of Fs5.	4.0 x 3.0	Minimum of 25 basalt flakes (med-lg).
58	Approximately 28.0 m south of WS57 and 25.0 m southwest of WS55.	3.0 x 3.0	Minimum of 25 basalt flakes (med-lg).
59	Approximately 5.0 m south/southwest of WS58 and 31.0 m	3.0 x 3.0	Minimum of 25 basalt flakes (med-lg).

**Site 27598, Workshops 25-40, 43-45, 48-70, Metric and Non-metric Data**

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
	south WS57.		
60	Approximately 3.0 m southwest of WS59.	4.5 x 2.5	Minimum of 30 basalt flakes (sm-lg), three (3) adze preforms, and one (1) core.
61	Approximately 9.0 m south of WS60.	5.0 x 4.0	Minimum of 50 basalt flakes (med-lg).
62	Approximately 6.0 m south of WS61.	4.0 x 3.5	Minimum of 40 basalt flakes (med-lg) and three (3) adze preforms.
63	Approximately 21.0 m south of WS62 at the southern end of the site.	2.0 x 2.0	Approximately 10 basalt flakes (lg).
64	Approximately 7.0 m south/southeast of WS51 and 4.0 m east of WS52	2.0 x 2.0	Minimum of 25 basalt flakes (med-lg).
65	Approximately 3.0 m northwest of WS23 and adjacent to and southeast of WS22.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
66	Approximately 7.0 m northeast of WS38 and 10.0 m north/northwest of WS39.	4.0 x 2.0	Minimum of 50 basalt flakes (med-lg) and three (3) adze preforms.
67	Approximately 6.0 m northeast of WS66.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg.)
68	Approximately 20.0 m northeast of WS67 and 3.0 m south of WS64.	1.0 x 1.0	Minimum of 15 basalt flakes (med-lg).
69	Approximately 6.0 m west of WS68 and 2.0 m south of WS52.	2.0 x 1.0	Minimum of 25 vesicular basalt flakes (med).
70	Approximately 8.0 m east of WS20 and 21.0 m north of WS13.	1.0 x 1.0	Minimum of 25 basalt flakes (sm-med).

Metric and non-metric data were collected in the field for adze preforms found in workshops WS43, 45, 47, 48, and 53. These data are presented in the adze preform data table below.

**Site 27598, Workshops 43, 45, 47, 48, and 53, Metric & Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
43	2	18.6 x 5.2 x 6.8	Square	Whole	Absent	Absent
	4	10.3 x 5.8 x 5.6	Square	Broken	Present	Indeterminate

**Site 27598, Workshops 43, 45, 47, 48, and 53, Metric & Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
45	2	38.5 x 12.4 x 16.3	Reverse trapezoid	Whole	Present	Absent
	4	21.7 x 10.4 x 10.2	Reverse trapezoid	Whole	Present	Absent
	6	14.9 x 7.2 x 5.2	Reverse triangular	Broken	Present	Indeterminate
47	1	20.3 x 5.2 x 6.1	Square	Whole	Present	Present
	3	14.5 x 9.6 x 6.3	Rectangular	Broken	Indeterminate	Absent
	5	23.3 x 7.1 x 5.4	Reverse trapezoid	Broken	Indeterminate	Present
	7	19.6 x 7.3 x 4.4	Reverse trapezoid	Whole	Present	Present
	9	11.1 x 5.7 x 4.3	Rectangular	Broken	Indeterminate	Absent
48	1	22.1 x 7.8 x 6.9	Rectangular	Broken	Present	Indeterminate
	3	27.5 x 7.7 x 6.5	Quadrangular	Whole	Present	Absent
	5	24.6 x 7.6 x 8.7	Rectangular	Whole	Present	Present
53	2	26.9 x 12.1 x 8.4	Reverse trapezoid	Whole	Present	Absent
	4	26.5 x 6.6 x 3.7	Quadrangular	Whole	Present	Present
	6	24.6 x 5.6 x 6.3	Quadrangular	Whole	Present	Present

Workshop 41 is located approximately 11.0 m north/northeast of and upslope of WS22 and WS23. It measures roughly 9.0 m by 8.5 m and consists of over one thousand basalt flakes of various sizes, 21 adze preforms, two hammerstones, and 15 cores. Metric and non-metric data were collected in the field for 11 of the 21 adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

**Site 27598, Workshop 41, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
41	1	7.9 x 4.9 x 2.9	Rectangular	Broken	Present	Indeterminate
	3	29.2 x 10.2 x 7.7	Rectangular	Whole	Present	Absent
	5	16.3 x 9.1 x 6.3	Rectangular	Broken	Present	Indeterminate
	7	24.2 x 8.5 x 7.4	Rectangular	Whole	Present	absent
	9	35.3 x 11.8 x 12.4	Reverse trapezoid	Whole	Indeterminate	Indeterminate
	11	10.4 x 5.3 x 4.0	Reverse trapezoid	Whole	Present	absent

### Site 27598, Workshop 41, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
41	13	11.9 x 4.8 x 2.6	Reverse trapezoid	Whole	Present	Absent
	15	33.4 x 9.9 x 5.0	Rectangular	Whole	Absent	Absent
	17	21.5 x 8.6 x 5.9	Reverse triangular	Whole	Absent	Absent
	19	12.2 x 4.2 x 2.8	Rectangular	Whole	Present	Absent
	21	10.1 x 4.2 x 2.5	Reverse trapezoid	Broken	Present	Indeterminate

Workshop 42 is located approximately 9.0 m south of WS43 and 12.0 m northwest of WS41. It measures roughly 10.0 m by 5.7 m and consists of over one hundred basalt flakes of various sizes, ten (10) adze preforms and two (2) hammerstones. Metric and non-metric data were collected in the field for five of the 10 adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

### Site 27598, Workshop 42, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
42	1	23.6 x 7.7 x 8.0	Square	Whole	Absent	Absent
	3	10.2 x 6.2 x 3.4	Rectangular	Broken	Present	Indeterminate
	5	14.8 x 5.6 x 6.1	Reverse trapezoid	Broken	Present	Indeterminate
	7	15.8 x 6.0 x 3.5	Reverse trapezoid	Whole	Absent	Absent
	9	24.7 x 10.3 x 7.6	Quadrangular	Whole	Present	Absent

Extraction Area 4 and Workshop 46 (EA4 and WS46) are located at the base of an escarpment approximately 8.0 m east of EA1 and WS1 at the northern end of the site. Loose talus soil and cobbles/boulders have partially covered the workshop. The extraction area is roughly 11.0 m long with modification to the rock face roughly 3.0 m high. Immediately fronting EA4 are numerous cores and basalt flakes with WS46 extending down the talus slope. The workshop consists of hundreds of basalt flakes of various sizes, three (3) adze preforms, and one (1) hammerstone.

Workshop 47 is located roughly 7.0 m south (downslope) of WS46 and measures approximately 7.0 m by 5.0 m. It contains more than 500 basalt flakes of various sizes, nine (9) adze preforms, one (1) hammerstone, and several cores. Metric and non-metric data were collected in the field for five of the nine adze preforms (see adze preform data table below). Detailed data can be found in Volume 1, Section 6.0 Data Analyses.

### Site 27598, Workshop 47, Metric and Non-Metric Adze Preform Data

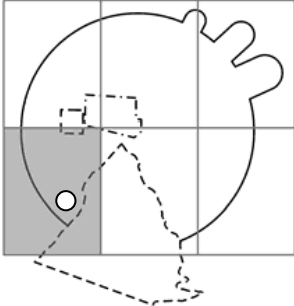
Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
47	1	20.3 x 5.2 x 6.1	Rectangular	Whole	Present	Present
	3	14.5 x 9.6 x 6.3	Rectangular	Broken	Present	Indeterminate
	5	23.3 x 7.1 x 5.4	Quadrangular	Broken	Indeterminate	Present
	7	19.6 x 7.3 x 4.4	Quadrangular	Whole	Present	Present
	9	11.1 x 5.7 x 4.3	Rectangular	Broken	Present	Indeterminate

In addition to the workshops and extraction areas within Site 27598 the entire site area contains surface basalt flakes. The flake density over the entire site area is usually represented by one to four flakes in a 2.0 m area. There are, however, five (5) flake scatters (Fs1-5) with more than 15 flakes in a 2.0 m. Flake scatters 1-5 are located in the following areas: Fs 1 is approximately 3.0 m north of WS47 and 5.0 m southeast of WS46; Fs2 is isolated along the east side of the site and is 45.0 m southeast of WS13 and 49.0 m northeast of WS21; Fs3 is approximately 20.0 m east of WS3 and 15.0 m southwest of WS4; FS4 is approximately 8.0 m southeast of WS2; Fs5 is approximately 40.0 m south/southwest of WS3 and 27.0 m northeast of WS57.

Two isolated artifacts (IO1-2) were noted as examples of the different types of isolated artifacts found in the Site 27598 site area. Isolated Object 1, two basalt cores, is located approximately 20.0 m east of WS39 and 67.0 m north/northeast of WS33. No basalt flakes were observed with the cores. Isolated Object 2, an adze preform and two basalt flakes, is located approximately 6.0 m east of WS4 and 16.0 m south of WS5.



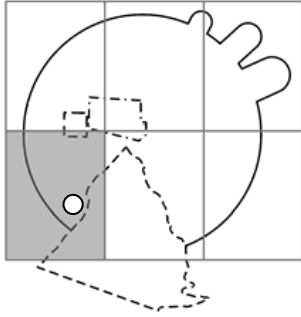
**STATE SITE 50-10-23-27599**

<b>Additional Site Numbers:</b> Temporary Site P	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,144 ft a.m.s.l.	
<b>2008 GPS File No.:</b> PM422	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27599, an isolated basalt flake scatter, is located approximately 60.0 m northeast of Site 27600. The flake scatter is roughly 1.0 m by 1.0 m and consists of roughly 8 basalt flakes. No basalt cores or adze preforms observed.

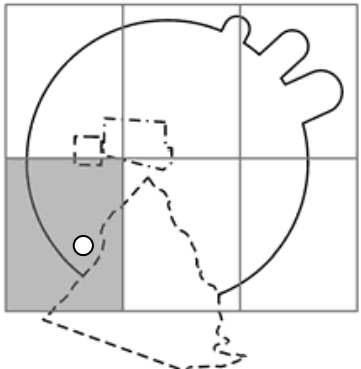
**STATE SITE 50-10-23-27600**

<b>Additional Site Numbers:</b> Temporary	Site O
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 6.0 m by 4.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,133 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN423	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27600, an isolated workshop, is located approximately 190 m southwest of Site 26254, 120 m southeast of Site 26253, and 110 m northeast of Site 27601. The workshop is roughly 5.0 m by 3.0 m and consists of two basalt cores, one adze preform, and a minimum of 25 basalt flakes.

**STATE SITE 50-10-23-27601**

<b>Additional Site Numbers:</b> Temporary	Site J
<b>Site Function:</b> Adze manufacturing complex, temporary shelters	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 150.0 m by 140.0 m	
<b>Number of Components:</b> 78	
<b>Topographic Location:</b> Talus slope glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,095 +/- ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN286, RN351-253, RN400-421, RN424-465	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27601 consists of 78 components including 70 workshops (WS1-70), two extraction pits (EP1-2), three walled structures (Features 1-3), and three isolated artifacts (IO1-3). The site is situated on the west side of Pohakuloa Gulch tributary, along an east facing escarpment and talus slope. It is south and adjacent to the southern boundary of Site 26253 and east and adjacent to the eastern boundary of Site 27598 (Figure 3.17).

**Workshops at Site 27601**

The workshops are located along, and at the base of, the east facing talus slope on the west side of the site (see Figure 3.17). The entire site area is covered in sparse scatter of basalt flakes and the occasional isolated artifact. For ease of reporting all the workshops are presented in table format. The table, below, provides the workshop number, location, dimensions, and cultural material present. Figures 3.18 and 3.19 illustrate Workshops 4 through 9 and 50 through 62.

**Site 27601, Workshops 1 through 70, Metric and Non-Metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
1	At the base of the escarpment at the northwest end of the site within the Silversword Exclosure.	3.5 x 1.6	Minimum of 25 basalt flakes (med-lg) and one (1) adze preform.
2	At the base of the escarpment approximately 16.0 m southwest of WS1.	4.2 x 3.2	Minimum of 50 basalt flakes (sm-med).

**Site 27601, Workshops 1 through 70, Metric and Non-Metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
3	Adjacent to the southwest corner of the Silversword Exclosure.	7.0 x 4.0	Minimum of 250 basalt flakes sm-lg), three (3) adze preforms, one (1) hammerstone, and one (1) core. Also contains a minimum of 50 vesicular basalt flakes. Flakes are being moved downslope (east) from the workshop approximately 8.0 m by natural forces.
4	Adjacent and north of Feature 1 and east of Extraction Pit 1.	2.0 x 1.0	Minimum of 50 basalt flakes (sm-lg), three (3) adze preforms, and eight (8) cores.
5	Adjacent and north of Feature 1 and northeast of WS4.	3.0 x 2.0	Minimum of 100 basalt flakes (sm-lg), two (2) adze preforms, one (1) hammerstone, and 20 cores.
6	Adjacent and south of Extraction Pit 2 and 4.0 m north of WS5.	2.0 x 1.5	Minimum of 50 basalt flakes (sm-lg) and three (3) cores.
7	Approximately 1.0 m southeast of WS6.	2.0 x 1.0	Minimum of 100 basalt flakes (sm-lg) and one (1) hammerstone.
8	Adjacent and north of Feature 2 and 3.5 m east of WS7.	2.0 x 2.0	Minimum of 1,000 basalt flakes (sm-lg), one (1) adze preform, four (4) hammerstones, and 10 cores.
9	Adjacent and north of WS8.	2.5 x 1.0	Minimum of 1,000 basalt flakes (sm-lg).
10	Approximately 1.0 m north/northeast of WS9.	1.0 x 1.0	Minimum of 25 basalt flakes (med-lg) and one (1) adze preform.
11	Approximately 6.0 m south of WS16.	1.0 x 1.0	Minimum of 25 vesicular basalt flakes.
12	Approximately 45.0 m southeast of WS21 and east of Feature 3.	2.5 x 1.8	Minimum of 100 basalt flakes, three (3) adze preforms, and one (1) core.
13	Approximately 4.0 m south/southeast of WS12.	2.0 x 1.0	Minimum of 100 basalt flakes (med).
14	Approximately 5.0 m southwest of WS12 and 7.0 m west of WS13.	2.0 x 2.0	Minimum of 50 basalt flakes (med-lg), vesicular basalt flakes, and two (2) hammerstones.
15	Approximately 14.0 m west of WS14.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg) and one (1) possible core.
16	Approximately 4.0 m west/southwest of WS15.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
17	On the talus slope east of the escarpment and 1.0 m south of the south side of the Silversword	5.0 x 1.5	Minimum of 250 basalt flakes (sm-lg), four (4) adze preforms and one (1) hammerstone. Similar to WS400

**Site 27601, Workshops 1 through 70, Metric and Non-Metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
	Exclosure.		flakes are being moved downslope (east) approximately 4.0 m by natural forces.
18	On the talus slope approximately 10.0 m southeast of WS17.	8.0 x 4.0	Minimum of 100 basalt flakes (sm-lg).
19	On talus slope approximately 13.0 m south/southwest of WS401 and 14.0 m west of WS18.	6.5 x 3.0	Minimum of 250 basalt flakes (sm-lg) and three (3) adze preforms.
20	Approximately 3.0 m southeast of WS18.	3.0 x 2.0	Minimum of 100 basalt flakes (med-lg).
21	Approximately 13.0 m southeast of WS18.	4.7 x 3.0	Minimum of 250 basalt flakes (sm-lg).
22	On the talus slope approximately 20.0 m south of the Silversword Exclosure's south side and 21.0 m east of WS33.	5.0 x 2.5	Minimum of 250 basalt flakes (sm-lg), one (1) adze preform and more than 15 cores. Possibly an extraction area.
23	Near the base of the talus slope approximately 41.0 m northeast of WS42 and 20.0 m east/southeast of WS33.	7.5 x 4.0	Minimum of 250 basalt flakes (sm-lg), three (3) adze preforms and three (3) cores.
24	Approximately 17.0 m south of WS19.	5.0 x 2.0	Minimum of 250 basalt flakes (sm-lg), one (1) adze preform, and several cores.
25	Approximately 9.0 m southwest of WS24 along the escarpment.	4.5 x 3.0	Minimum of 250 basalt flakes (sm-lg), one (1) adze preform, and two (2) hammerstones.
26	Approximately 6.0 m south/southwest of WS25 along the escarpment.	4.5 x 4.4	Minimum of 250 basalt flakes (sm-lg), two (2) adze preforms, and several cores.
27	Approximately 3.0 m southwest of WS26 along the escarpment.	4.0 x 2.5	Minimum of 300 basalt flakes (sm-lg) and five (5) cores.
28	Approximately 13.0 m west/northwest of WS36 and 4.0 m south/southwest of WS27.	3.0 x 2.6	Minimum of 250 basalt flakes (sm-lg), three (3) adze preforms, and several cores.
29	Approximately 6.0 m south/southeast of WS27.	5.0 x 3.8	Minimum of 1,000 basalt flakes (sm-lg), four (4) adze preforms, and 10 cores.
30	Approximately 8.0 m south of WS25 and 6.0 m east of WS27.	3.5 x 3.5	Minimum of 300 basalt flakes (sm-lg), three (3) adze preforms, and one (1) core.
31	Approximately 4.0 m southeast of WS25.	3.7 x 2.0	Minimum of 1,000 basalt flakes (sm-lg), several hammerstone flakes, and two (2) adze preforms.

**Site 27601, Workshops 1 through 70, Metric and Non-Metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
32	Approximately 6.0 m southeast of WS24 and 9.0 m east of WS25.	3.0 x 2.5	Minimum of 1,000 basalt flakes (sm-lg), four (4) adze preforms, and three (3) hammerstones.
33	Approximately 13.0 m east of WS25 and 16.0 m north/northeast of WS36.	2.7 x 2.5	Minimum of 250 basalt flakes (sm-lg) and several cores.
34	Approximately 9.0 m south of WS32.	4.0 x 2.0	Minimum of 500 basalt flakes (sm-lg) and four (4) adze preforms.
35	Approximately 31.0 m south of WS19 and 4.0 m southwest of WS34.	5.0 x 4.0	Minimum of 1,000 basalt flakes (sm-lg), eight (8) adze preforms, and one (1) hammerstone.
36	Approximately 10.0 m southeast of WS30 and 9.0 m east of WS29.	4.0 x 4.0	Minimum of 250 basalt flakes (sm-lg), three (1) adze preforms, one (1) hammerstone, and several cores.
37	Approximately 13.0 m northeast of WS36.	1.8 x 1.8	Minimum of 250 basalt flakes (sm-lg), two adze preforms, and several cores.
38	Adjacent to and northeast of WS39.	3.3 x 2.3	Minimum of 250 basalt flakes (sm-lg) and three (3) adze preforms.
39	Approximately 7.0 m northeast of WS40.	4.0 x 2.7	Minimum of 250 basalt flakes (sm-lg), six (6) adze preforms, and several cores.
40	Approximately 14.0 m south/southwest of WS36.	3.3 x 2.2	Minimum of 250 basalt flakes (sm-lg) and one (1) hammerstone.
41	Approximately 10.0 m south/southeast of WS36.	3.0 x 2.0	Minimum of 1,000 basalt flakes (sm-lg), three (3) adze preforms, four (4) hammerstones, and one (1) core.
42	At the base of the talus slope approximately 25.0 m east of WS36 and 23.0 m northeast of WS47.	3.8 x 3.6	Minimum of 250 basalt flakes (sm-lg), one (1) adze preform, one (1) hammerstone, and one (1) core.
43	Approximately 3.0 m northeast of WS44.	1.7 x 1.5	Minimum of 250 basalt flakes (sm-lg), two (2) adze preforms and one (1) hammerstone.
44	Approximately 25.0 m northeast of WS49 and 21.0 m east/southeast of WS36.	6.0 x 2.7	Minimum of 250 basalt flakes (sm-lg), one (1) adze preform and six (6) cores.
45	Near the base of the talus slope and 5.0 m southeast of WS44.	2.7 x 2.1	Minimum of 1,000 basalt flakes (sm-lg), two (2) adze preforms, and one (1) hammerstone.
46	At the base of the talus slope and approximately 7.0 m northeast of WS47.	10.5 x 3.5	Minimum of 250 basalt flakes (sm-lg), four (4) adze preforms, one (1) hammerstone, and three (3) cores.
47	At the base of the talus slope and approximately 16.0 m southwest of WS45 and 18.0 m southeast of	3.4 x 3.0	Minimum of 30 basalt flakes (med-lg), four (4) adze preforms, and one (1)



**Site 27601, Workshops 1 through 70, Metric and Non-Metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
	WS40.		hammerstone.
48	At the base of the talus slope and approximately 3.0 m southwest of WS47.	3.6 x 2.5	Minimum of 25 basalt flakes (lg), two (2) hammerstones, and two (2) cores.
49	Approximately 22.0 m south of WS36.	4.5 x 2.5	Minimum of 50 basalt flakes (sm-lg), two (2) adze preforms, and one (1) core.
50	At the north end of the site and approximately 15.0 m north of WS58.	2.0 x 1.2	Minimum of 100 basalt flakes (med) and one (1) adze preform.
51	Approximately 8.0 m east of WS52 at the northeast corner of the site complex.	2.0 x 1.0	Minimum of 25 basalt flakes (med) and one (1) hammerstone.
52	Adjacent to and northwest of the west wall of Feature 3.	2.5 x 1.0	Minimum of 25 basalt flakes (med).
53	Approximately 10.0 m southwest of WS50, at the base of the talus slope.	5.0 x 1.5	Minimum of 25 basalt flakes (med) and one (1) adze preform.
54	Adjacent and west of WS53, at the base of the talus slope.	4.7 x 3.0	Minimum of 25 basalt flakes (med), three (3) adze preforms, and one (1) hammerstone.
55	The largest workshop and associated with Feature 3.	6.5 x 5.5	Minimum of 100 basalt flakes (sm-lg), ten (10) adze preforms and one (1) core.
56	Situated at the south end of the east wall of Feature 3.	9.5 x 6.0	Minimum of 100 basalt flakes (sm-lg) and eight (8) adze preforms.
57	Approximately 6.0 m south/southwest of WS55.	3.4 x 2.3	Minimum of 100 basalt flakes (sm-med) and two (2) adze preforms.
58	Approximately 2.0 m northeast of WS57.	1.0 x 1.0	Minimum of 25 basalt flakes (med-lg).
59	Approximately 4.0 m east/northeast of WS60.	4.3 x 2.2	Minimum of 25 basalt flakes (med).
60	Approximately 5.0 m south of WS57.	1.0 x 1.0	Minimum of 20 basalt flakes (med).
61	At the southwest end of the site and approximately 3.0 m west of WS62.	6.0 x 4.4	Minimum of 100 basalt flakes (sm-lg), 14 adze preforms, and six (6) hammerstones.
62	Approximately 3.0 m east of WS6.	1.4 x 1.2	Minimum of 25 basalt flakes (med) and two (2) adze preforms.
63	Approximately 9.0 m southeast of WS62.	3.5 x 2.0	Minimum of 25 basalt flakes (med.) and one (1) adze preform.
64	Approximately 12.0 m south of WS63, near the southern end of the site boundary.	3.5 x 2.2	Minimum of 25 basalt flakes (med).

**Site 27601, Workshops 1 through 70, Metric and Non-Metric Data**

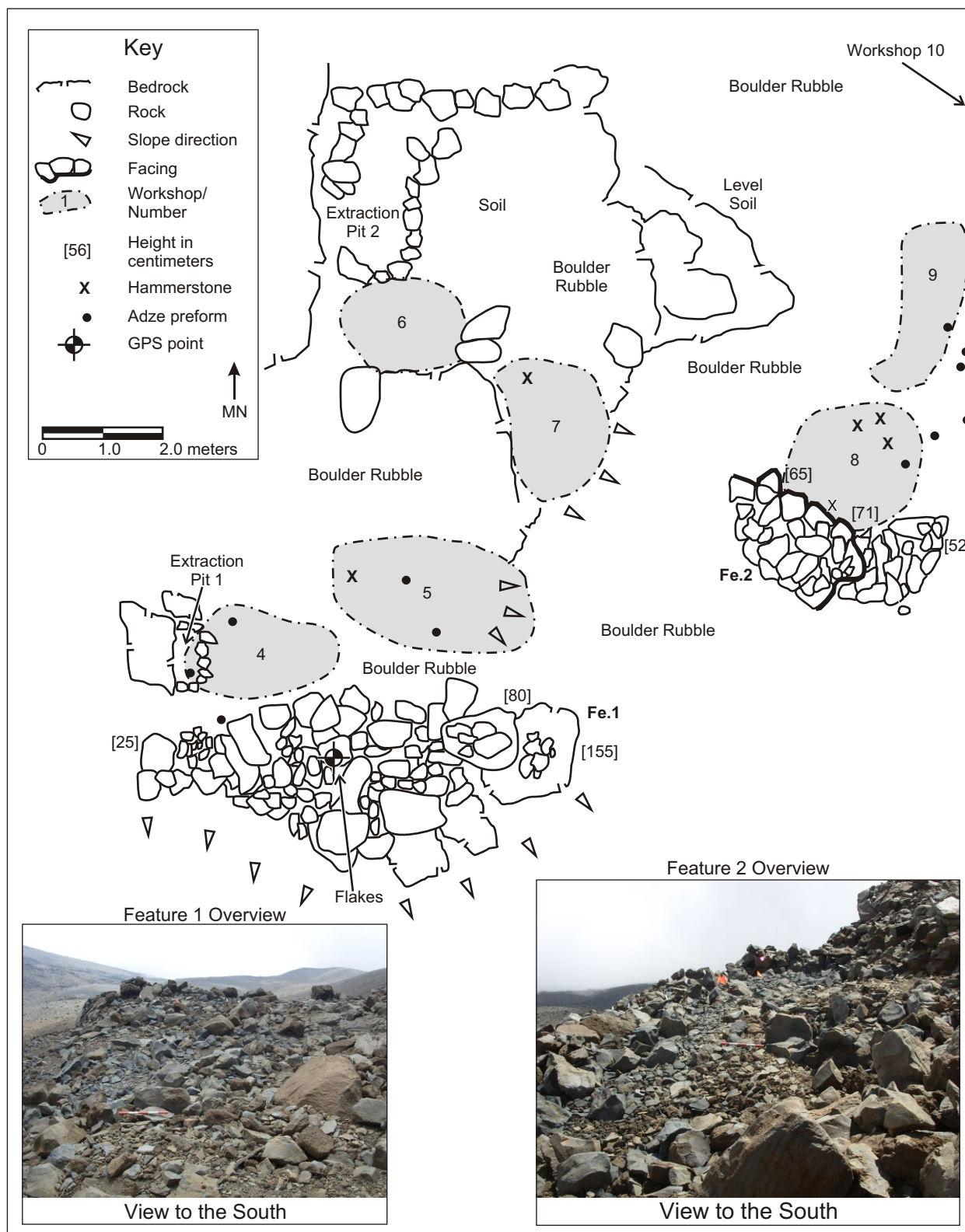
Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
65	Approximately 27.0 m west of WS63 near the southern boundary of the site.	4.7 x 1.4	Minimum of 50 basalt flakes (med-lg).
66	Approximately 6.0 m east of WS64	1.0 x 1.0	Minimum of 25 basalt flakes (med-lg).
67	Approximately 22.0 m southeast of WS65 near the southern boundary of the site.	2.8 x 1.7	Minimum of 25 basalt flakes (med) and one (1) adze preform.
68	Approximately 11.0 m southeast of WS66 at the southern boundary of the site.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
69	Above and west of the main portion of the site, approximately 30.0 m away.	2.0 x 2.0	Minimum of 20 vesicular basalt flakes.
70	Approximately 62.0 m south of Site 26253, Rockshelter 1 and north of the Silversword Exclosure.	2.0 x 1.6	Minimum of 50 basalt flakes (sm-lg), one (1) adze preform, and two (2) cores.

Seven (7) of the workshops (WS12, 19, 35, 38, 43, and 49) presented in the table above contained adze preforms for which metric and non-metric data were collected in the field. This data is presented in the adze preform data table below. For more detail on the adze preform data see Volume 1, Section 6.0 Data Analyses.

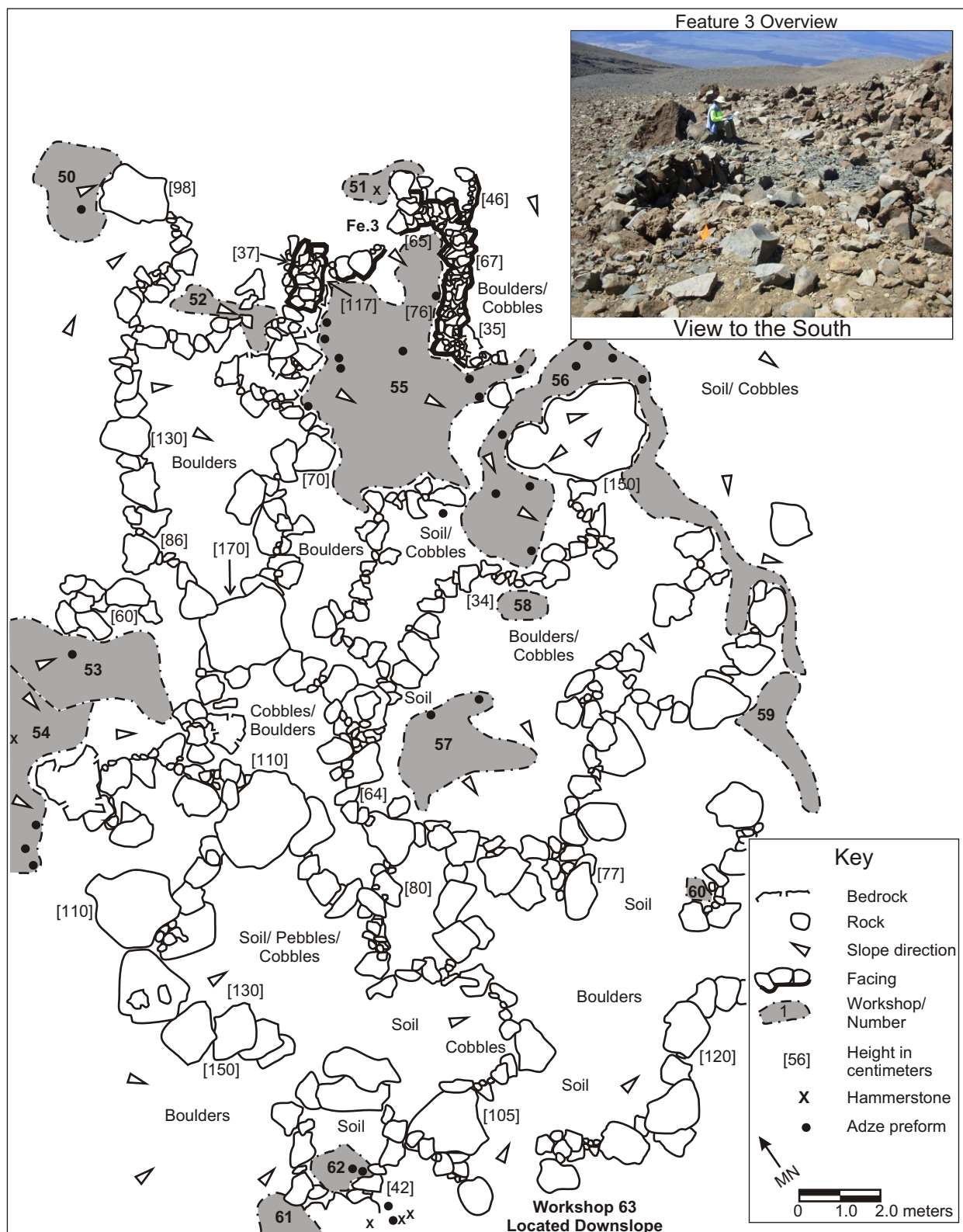
**Site 27601, Workshops 12, 19, 34, 35, 38, 43, and 49, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
12	1	33.0 x 9.0 x 10.5	Reverse trapezoid	Whole	Indeterminate	Indeterminate
	3	33.0 x 14.0 x 10.5	Lenticular?	Whole	Indeterminate	Indeterminate
19	1	22.5 x 7.4 x 7.3	Reverse triangular	Whole	Present	Absent
34	4	28.8 x 25.8 x 25.2	Rectangular	Whole	Present	Present
35	1	23.0 x 8.8 x 6.7	Rectangular	Whole	Present	Present
	5	30.0 x 12.4 x 12.0	Square	Broken	Indeterminate	Present
38	1	34.3 x 11.2 x 6.5	Rectangular	Whole	Present	Absent
43	1	26.2 x 9.5 x 8.2	Rectangular	Whole	Present	Present
49	1	22.5 x 8.7 x 4.3	Rectangular	Whole	Present	Present





**Figure 3.18. Site 27601, Features 1 and 2, Workshops 4 Through 9, and Extraction Pits 1 and 2, Plan View and Photographs.**



**Figure 3.19. Site 27601, Feature 3, Workshops 50 Through 62, Plan View and Photograph.**

### Features 1, 2, and 3

Features 1 and 2 are two rock walls located on a whaleback ridge south of Rockshelter 1 of Site 26253 along the west flank of Pohakuloa Gulch (see Figure 3.18). The area occupied by these features is roughly 15.0 m (north/south) long by 11.0 m. Feature 1 is constructed at the toe of the ridge and is associated with two small extraction pits (EP1 and 2) and seven workshops (WS4-11). The wall is constructed of piled cobbles and boulders and measures 4.7 m (east/west) by 1.4 m and has a maximum height of 0.8 m. Basalt flakes are scattered adjacent to and on top of the wall.

Extraction Pit 1 is located at the base of Feature 1 along the northwest end (see Figure 3.18). It consists of a rectangular-shaped excavated area approximately 1.2 m by 1.0 m with a maximum depth of 0.35 m. Adjacent and east of EP1 are two workshops (Workshops 4 and 5 summarized in the workshop data table above).

Extraction Pit 2 is located approximately 8.0 m north of Feature 1 and is rectangular in shape and measuring 3.0 m long by 1.2 m wide with a maximum depth of 0.4 m. Like EP1, EP2 has adjacent workshops (Workshops 6 and 7); Workshop 6 is situated to the south and Workshop 7 is located to the southeast.

Feature 2 is a crescent-shaped rock wall located below and east of Feature 1 (see Figure 3.18). The wall is constructed of piled cobbles and boulders and measures 3.0 m by 1.5 m, and has a maximum height of 0.75 m. Scattered basalt flakes are found adjacent to and on top of the wall. Two workshops (Workshops 8 and 9) are associated with Feature 2. Workshop 8 is located adjacent and north of the feature and Workshop 9 is located approximately 2.0 m north and adjacent to the north end of Workshop 8.

A total of 12 adze preforms and six (6) hammerstones were observed at Workshops 4, 8, and 9 near Features 1 and 2. Metric and non-metric data were collected in the field for six of the 12 adze preforms. This data is summarized in the adze preform data table below.

**Site 27601, Feature 1, Workshops 4, 8, and 9, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
Fe1	1	29.7 x 9.6 x 11.4	Rectangular	Whole	Indeterminate	Indeterminate
4	3	27.7 x 7.9 x 8.4	Rectangular	Whole	Present	Present
8	5	20.3 x 7.3 x 9.1	Rectangular	Whole	Present	Absent
	7	18.1 x 9.1 x 6.9	Rectangular	Broken	Indeterminate	Indeterminate
9	9	40.3 x 14.3 x 8.6	Reverse triangular	Broken	Present	Indeterminate
	11	31.4 x 9.2 x 9.7	Square	Whole	Present	Absent

Feature 3 is located approximately 44.0 m south/southwest of Feature 1 and 2 and consists of a U-shaped rock wall with 11 associated workshops (WS 50-61] (see Figure 3.19). Feature 3 and associated workshops cover an area approximately 25.0 m (northeast/southwest) by 20.0 m and are located in an area strewn with surface cobbles and large boulders at the base of the talus slope.



Feature 3 measures approximately 7.0 m wide by 5.0 m long with the opening facing southwest (downslope). The walls are constructed of stacked boulders and cobbles and between 0.7 and 1.0 m wide with a maximum height of 0.8 m. The southeast portion of the wall appears to be intact and measures 3.3 m long and bends to the northwest at northeast end. This short segment of the wall is only 1.0 m long before terminating, and appears to incorporate the surrounding bedrock. Approximately 1.5 m to the west, the wall begins again and extends in a northeast/southwest direction for 1.5 m and terminates at a pile of small boulders. The area inside the enclosure is covered in basalt flakes from WS55. The workshop extends outside the enclosed area and covers an area 3.0 m by 3.0 m.

Along the southeast side of Feature 3 is a rock pile constructed against the wall that measures 5.0 m long by 2.0 m wide. The pile slopes upward and terminates 40.0 cm below the top of the stacked wall.

The workshops associated with Feature 3 are described in the workshop data table above. A total of 42 adze preforms and eight (8) hammerstones were observed at Feature 3. Metric and non-metric data were collected for 17 of the 42 adze preforms. These data are summarized in the adze preform data table below.

**Site 27601, Workshops 54, 55, 56, and 61, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
54	1	25.0 x 11.5 x 8.5	Quadrangular	Whole	Indeterminate	Indeterminate
55	1	31.0 x 16.0 x 11.0	Quadrangular	Whole	Indeterminate	Indeterminate
	3	33.0 x 12.0 x 10.0	Rectangular	Whole	Indeterminate	Indeterminate
	5	20.0 x 9.0 x 8.0	Quadrangular	Whole	Indeterminate	Indeterminate
	7	32.5 x 11.5 x 11.0	Rectangular	Whole	Present	Absent
	9	26.0 x 14.5 x 11.5	Rectangular	Whole	Indeterminate	Indeterminate
56	1	21.0 x 13.5 x 10.5	Square	Broken	Indeterminate	Indeterminate
	3	41.0 x 13.5 x 13.0	Reverse trapezoid	Whole	Indeterminate	Indeterminate
	5	22.0 x 16.0 x 11.5	Rectangular	Whole	Indeterminate	Indeterminate
	7	27.0 x 11.0 x 10.0	Rectangular	Whole	Indeterminate	Indeterminate
61	1	34.0 x 10.0 x 6.5	Reverse trapezoid	Whole	Present	Absent
	3	34.0 x 9.5 x 10.0	Rectangular	Whole	Present	Present
	5	24.0 x 12.5 x 9.0	Rectangular	Broken	Indeterminate	Indeterminate
	7	17.5 x 8.0 x 6.5	Rectangular	Broken	Indeterminate	Indeterminate
	9	34.0 x 8.0 x 11.0	Rectangular	Whole	Present	Present
	11	19.0 x 7.5 x 7.5	Square	Broken	Indeterminate	Present
	13	27.5 x 8.5 x 7.0	Rectangular	Broken	Indeterminate	Indeterminate

In addition to the workshops and the general flake scatter present across the site area, three (3) isolated artifacts (IO1-3) were observed within Site 27601 (see Figure 3.18). The three (3) IO's (two preforms [IO1-2] and one basalt flake [IO3]) were observed along the northwest corner of the site area on a relatively level glacial moraine.

### **3.1.2 Monitoring at Site 27601 for New Mauna Kea Silversword Enclosure**

Near the end of the 2007 field survey, several Mauna Kea Silversword plants were encountered along the escarpment of the west flank of the Pohakuloa Gulch drainage system, approximately 40.0 m northwest of Features 3 and 4 of Site 27601 (see Figure 3.17). Due to the sparse number of parent plants in the wild and the fact that silverswords have been listed on the endangered species list since 1986, the Office of Mauna Kea Management, in consultation with Lisa Hadway, Director of the Natural Area Reserves System (Department of Land and Natural Resources, Division of Forestry and Wildlife) on Mauna Kea decided that a fence would be constructed around the plants to protect them from mouflon sheep and feral goats that graze and trample the plants.

Archaeological monitoring was conducted in conjunction with the installation of an enclosure fence in April of 2008 (Figure 3.20). A team from the Natural Area Reserve and Pacific Island Ecosystems Research Center installed the fence around the plants. During the archaeological monitoring for fence installation, Site 27601, Workshops 1 and 2 (WS1-2) and numerous lithic scatters were observed inside and in close proximity of the enclosure fence line (Figure 3.21). All workshops and basalt flake scatters were avoided and their locations plotted using Global Positioning System (GPS).



**Figure 3.20. Photograph of Silversword Enclosure Fence Installation at Site 27601.**



**Figure 3.21. Site 27601, Workshop 1 Located within the Silversword Enclosure.**

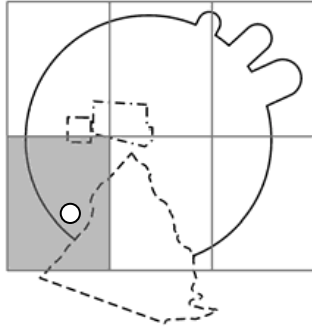
**STATE SITE 50-10-23-27602**

<b>Additional Site Numbers:</b> Temporary	Site K
<b>Site Function:</b> Isolated artifact	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,051 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN19	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27602 is an isolated adze preform located along the southwest flank of the landform known as the “crag”, south of Site 27600 and east of Site 27601.

**STATE SITE 50-10-23-27603**

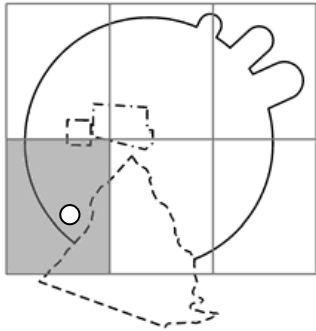
<b>Additional Site Numbers:</b> Temporary	Site CC
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 25.0 m by 4.0 m	
<b>Number of Components:</b> 2	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,404 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN506, RN507	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27603 consists of two basalt flake scatters (Fs1 and Fs2) located approximately 73.0 m northwest of Site 27604. These basalt flake scatters, which overlook the valley containing Sites 27606, 27607, and 27605, are approximately 20.0 m apart, with Fs1 located to the east.

Flake scatter 1 is approximately 1.0 m by 1.0 m. It contains a minimum of 20 fine-grained basalt flakes. Flake scatter 2 is a smaller flake scatter and contains approximately seven fine-grained basalt flakes.

**STATE SITE 50-10-23-27604**

Additional Site Numbers: Temporary		Site X
<b>Site Function:</b> Adze manufacturing complex		<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 80.0 m by 72.0 m		
<b>Number of Components:</b> 15		
<b>Topographic Location:</b> Glacial moraine		
<b>Approximate U.S.G.S. Elevation:</b> 12,317 ft a.m.s.l.		
<b>2008 GPS File No.:</b> RN197-211		
<b>Current Status:</b> New site.		

**DESCRIPTION:**

Site 27604 consists of fourteen (14) workshops (WS1-14) and one flake scatter (Fs1) located approximately 135 m northeast of Site 27607 (Figure 3.22). The workshops cover an area approximately 76.0 m (northeast/southwest) by 70.0 m.

Workshops 1-5 are located at the northern end of the site and are dispersed over an area approximately 33.0 m by 18.0 m. Workshops 7-12 and the flake scatter are centrally located within the site and clustered in an area approximately 28.0 m by 13.0 m. Workshops 13 and 14 are located at the southern end of the site and are approximately 9.0 m apart. Workshop 6, one of the largest workshops, is isolated from the north and central workshops by approximately 30.0 m.

Workshop 1 is the northernmost workshop of the site and is dispersed over an area approximately 3.0 m by 3.0 m and consists of approximately 25 basalt flakes. No adze preforms, cores, or hammerstones were noted.

Workshop 2 is located approximately 12.0 m southeast of WS1 and consists of approximately 25 basalt flakes scattered over an area approximately 3.0 m by 3.0 m. No adze preforms, cores, or hammerstones were noted.

Workshop 3 is located 14.0 m west/southwest of WS1 and consists of a minimum of 25 basalt flakes over an area approximately 3.0 m by 3.0 m. No adze preforms, cores, or hammerstones were noted.

Workshop 4, located 7.0 m southwest of WS1, measures 1.0 m by 1.0 m and consists of a minimum of 10 basalt flakes and one adze preform. No cores or hammerstones were noted.

Workshop 5 is located approximately 11.0 m south of WS4 and measures approximately 3.5 m by 3.5 m. It contains four hammerstones and a minimum of 25 basalt flakes. The hammerstones consisted of two discoidal, one spherical, and one large "basher" (bashers are usually greater than 25.0 cm in diameter and irregular in shape). No adze preforms or cores were noted.



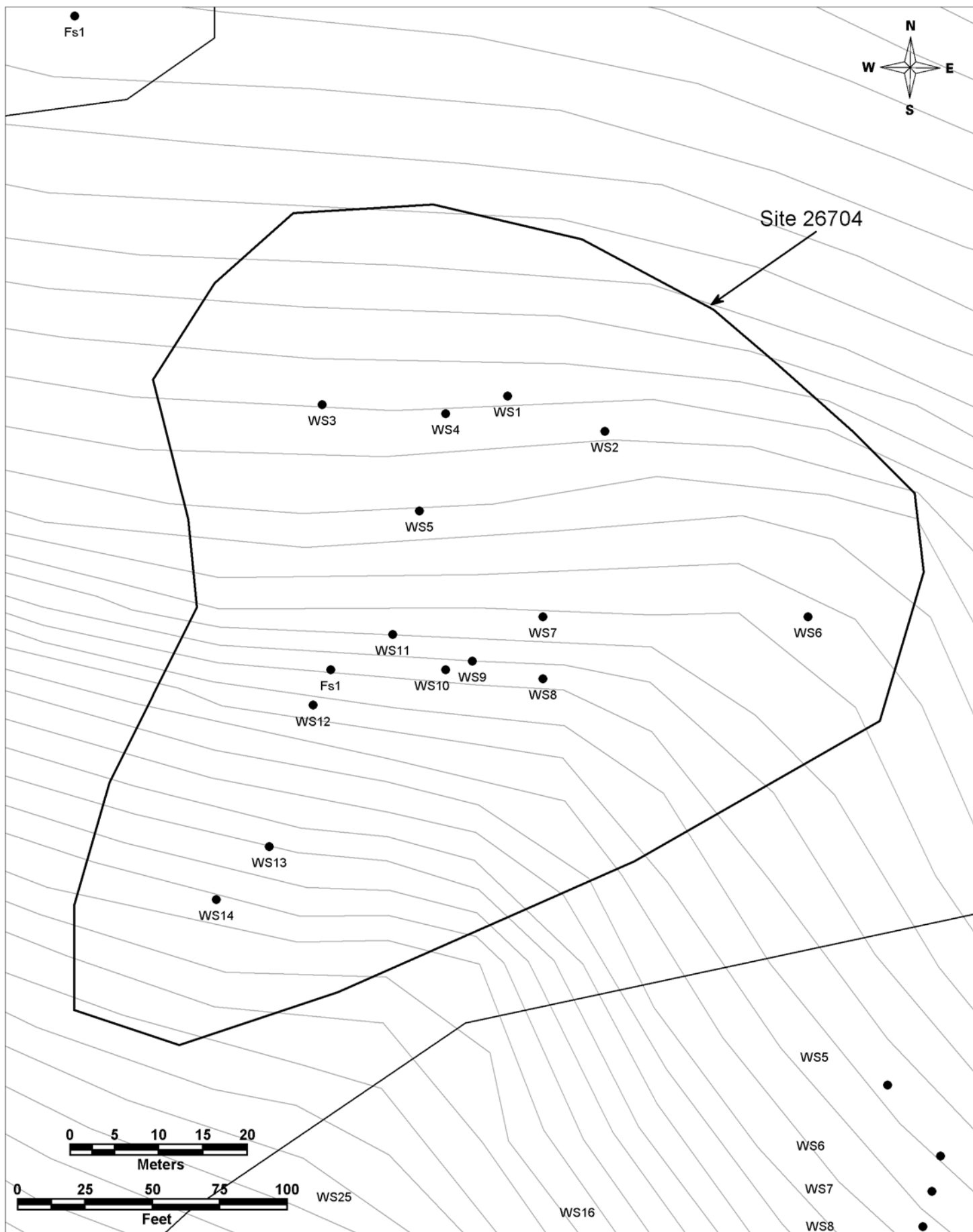


Figure 3.22 Site 27604 Showing Locations of Site Components.

Workshop 6 is located approximately 31.0 m southeast of WS2. The workshop is approximately 6.2 m by 3.0 m and contains one adze preform, several basalt cores, and a minimum of 1,000 basalt flakes. No hammerstones were noted.

Workshop 7, located 32.0 m west of WS6, consists of two chipping stations and covers an area approximately 3.0 m by 2.0 m. The first chipping station is 2.0 m by 1.2 m and contains approximately 25 basalt flakes and two discoidal hammerstones. The second chipping station is located 1.0 m south and measures approximately 2.0 m by 1.0 m and contains approximately 20 basalt flakes. No adze preforms or cores were noted.

Workshop 8 is located approximately 7.0 m south of WS7 and measures 1.0 m by 1.0 m. It contains approximately 25 basalt flakes. No adze preforms, hammerstones, or cores were noted.

Workshop 9 is located 9.0 m west of WS9 and measures 1.0 m by 1.0 m. It contains approximately 25 basalt flakes. No adze preforms, hammerstones, or cores were noted.

Workshop 10 is located 11.0 m west of WS8 and approximately 3.0 m southwest of WS9. It measures approximately 1.0 m by 1.0 m, and contains one adze preform and a minimum of 25 basalt flakes. No hammerstones or cores were noted.

Workshop 11 is located 15.0 m south of WS5 and approximately 10.0 m west of WS9. It measures 4.0 m by 2.0 m and consists of two small chipping stations. The first chipping station contains one adze preform and a minimum of 25 basalt flakes. The second chipping station is approximately 1.0 m downslope (south) of the first station and contains a minimum of 20 basalt flakes. No hammerstones or cores were noted.

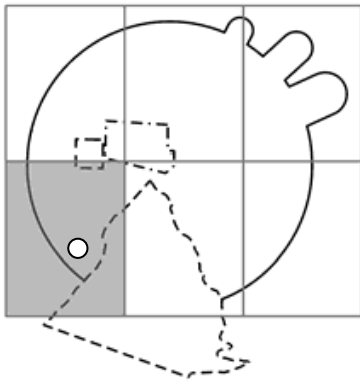
Workshop 12 is located 8.0 m southwest of WS11 and 15.0 m west/southwest of WS10. It measures approximately 1.0 m by 1.0 m and contains a minimum of 25 basalt flakes with more flakes extending south towards WS13. No adze preforms, hammerstones, or cores were noted.

Workshop 13, located approximately 15.0 m south/southwest of WS12, measures 5.0 m by 5.0 m and contains a minimum of five adze preforms, and two hammerstones (one discoidal and one spherical), and a minimum of 100 basalt flakes. The workshop also contains a small concentration of smaller basalt flakes. No cores were noted.

Workshop 14 is located approximately 9.0 m south/southwest of WS13 and measures 3.0 m by 2.0 m. It contains two adze preforms and a minimum of 25 basalt flakes. No hammerstones or cores were noted.

Flake scatter 1 is located 8.0 m southwest of WS11 and 5.0 m north of WS12. The flake scatter contains one adze preform and a minimum of 20 basalt flakes. The flake scatter extends 2.0 m downslope (south) towards WS12. No hammerstones or cores were noted.

# **STATE SITE 50-10-23-27605**

<b>Additional Site Numbers:</b> Temporary Site H	
<b>Site Function:</b> Adze manufacturing complex, extraction areas	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 600.0 m by 150.0 m	
<b>Number of Components:</b> 86	
<b>Topographic Location:</b> Talus slope, outcrop, glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 11,869 +/- ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN193-196, RN212-236, RN260, RN467-524, KN013 <b>2009 GPS File No.:</b> RN005-032, KN001-002	
<b>Current Status:</b> New site.	

## **DESCRIPTION:**

Site 27605 consists of 86 site components including 74 workshops (WS1-74), nine extraction pits (EP1-9), an extraction area (EA1), and two rock walls (Features 1 and 2). The site complex is situated within a U-shaped valley adjacent and west of the northwestern edge of Site 27598 and covers an area approximately 600 m long (north/south) by 150 m wide (Figure 3.23).

## **Workshops at Site 27605**

To facilitate reporting of information for the 74 workshops identified at Site 27605, metric and non-metric data have been summarized in the workshop data table below. The information includes workshop number, location within the site, workshop dimensions, and the nature and approximate number of artifacts present. Figure 3.23 shows the locations of the 74 workshops.

**Site 27605, Metric and Non-metric Workshop Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
1	At the northern end of the site.	2.0 x 1.0	Minimum of 25 basalt flakes (sm-lg) and two (2) adze preforms.
2	Approximately 5.0 m southwest of WS1	3.0 x 2.0	Minimum of 100 basalt flakes (sm-lg) and five (5) adze preforms.
3	Approximately 5.0 m southeast of WS2.	3.0 x 3.0	Minimum of 100 basalt flakes (sm-lg) and three (3) adze preforms.

### Site 27605, Metric and Non-metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
4	Approximately 16.0 m southwest of WS3.	10.0 x 7.0	Minimum of 100 basalt flakes (sm-lg), 14 adze preforms, nine (9) hammerstones, and several cores. Workshop contains two "chipping" areas and possible extraction area.
5	Approximately 39.0 m southwest of WS1.	2.0 x 2.0	Minimum of 50 basalt flakes (sm-lg). Flakes extending to EA1.
6	Approximately 13.0 m southeast of WS5 and south/southeast of EA1.	3.0 x 3.0	Minimum of 500 basalt flakes (sm-lg), two (2) adze preforms, and several cores.
7	Approximately 4.0 m south of WS6.	2.0 x 2.0	Minimum of 50 basalt flakes (sm-lg).
8	Approximately 4.0 m south/southwest of WS7.	5.0 x 2.0	Minimum of 100 basalt flakes (sm-lg): flakes are extending downslope.
9	Approximately 11.0 m southwest of WS4 and 15.0 m east of WS8.	2.0 x 2.0	Minimum of 50 basalt flakes (sm-lg) and two (2) adze preforms.
10	Approximately 23.0 m south of WS9.	3.0 x 1.5	Minimum of 50 basalt flakes (sm-lg) and one (1) adze preform.
11	Approximately 4.0 m south of WS10.	4.0 x 1.0	Minimum of 50 basalt flakes (sm-lg) extending downslope.
12	Approximately 17.0 m southwest of WS11.	2.0 x 2.0	Minimum of 25 basalt flakes (sm-lg) and one (1) adze preform.
13	Approximately 6.0 m southwest of WS12.	2.0 x 2.0	Minimum of 50 basalt flakes (sm-lg).
14	Approximately 22.0 m southeast of WS13.	1.0 x 1.0	Minimum of 15 basalt flakes (med-lg) and one (1) adze preform.
15	Approximately 53.0 m northwest of WS14 and 46.0 m south/southwest of WS5.	3.0 x 3.0	Minimum of 50 basalt flakes (sm-lg) and two (2) adze preforms.
16	Approximately 21.0 m northwest of WS15 and 48.0 m southwest of WS5.	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg).
17	Approximately 4.0 m south of WS16 and 5.0 m northwest of WS18.	1.0 x 1.0	Minimum of 15 basalt flakes (sm-lg) and one (1) adze preform.
18	Approximately 6.0 m south/southeast of WS16 and 5.0 m southeast of WS17.	2.0 x 2.0	Minimum of 100 basalt flakes (sm-lg) and four (4) adze preforms.
19	Approximately 2.0 m north of WS20.	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg).
20	Approximately 2.0 m south of WS19.	2.5 x 2.0	Minimum of 50 basalt flakes (sm-lg), two (2) adze preforms and two (2) hammerstones.

### Site 27605, Metric and Non-metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
21	Approximately 12.0 m east of WS19 and 6.0 m south/southeast of WS18.	3.0 x 1.5	Minimum of 100 basalt flakes (sm-lg) and eight (8) adze preforms.
22	Approximately 3.0 m southwest of WS21.	2.0 x 2.0	Minimum of 1,000 basalt flakes (sm-lg), six (6) adze preforms, one (1) hammerstone, and two (2) cores.
23	Approximately 1.0 m southeast of WS22 and 3.0 m east of WS24.	3.0 x 1.5	Minimum of 1,000 basalt flakes (sm-lg), four (4) adze preforms, one (1) hammerstone, and eight (8) cores.
24	Approximately 8.0 m southwest of WS23.	3.0 x 2.0	Minimum of 100 basalt flakes (sm-lg).
25	Approximately 17.0 m west of WS16, along the west boundary of the site.	2.0 x 1.0	Minimum of 25 basalt flakes (med-lg).
26	Approximately 12.0 m northwest of WS30 and 16.0 m south of WS25.	2.0 x 1.0	Minimum of 15 basalt flakes (med-lg) and one (1) adze preform.
27	Approximately 9.0 m east of WS26.	2.0 x 2.0	Minimum of 25 basalt flakes (sm-lg), three (3) adze preforms, and one (1) hammerstone.
28	Approximately 13.0 m south of WS24.	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg) and one (1) adze preform.
29	Approximately 17.0 m west of WS28.	2.0 x 2.0	Minimum of 40 basalt flakes (med-lg).
30	Approximately 4.0 m northwest of WS29.	1.0 x 1.0	Minimum of 20 basalt flakes (lg).
31	Approximately 10.0 m southwest of WS30.	2.0 x 2.0	Minimum of 20 basalt flakes (med-lg) and two (2) cores.
32	Approximately 12.0 m south of WS31.	3.0 x 3.0	Minimum of 100 basalt flakes (sm-lg) and one (1) hammerstone.
33	Approximately 32.0 m south of WS32.	4.0 x 2.0	Minimum of 100 basalt flakes (sm-lg) and one (1) adze preform.
34	Approximately 13.0 m south/southwest of WS33.	2.0 x 1.5	Minimum of 20 basalt flakes (med-lg) and one (1) core.
35	Approximately 48.0 m southwest of WS34.	3.0 x 3.0	Minimum of 25 basalt flakes (med-lg), two (2) adze preforms, and one (1) core.
36	Approximately 33.0 m southwest of WS35.	1.7 x 1.0	Minimum of 15 basalt flakes (med-lg).
37	Approximately 44.0 m east/southeast of WS36.	4.0 x 2.0	Minimum of 20 basalt flakes (med-lg) and one (1) core.
38	Approximately 10.0 m south of WS37.	2.0 x 1.5	Minimum of 25 basalt flakes (sm-lg).

### Site 27605, Metric and Non-metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Materials Present
39	Approximately 11.0 m south/southwest of WS38.	5.0 x 4.0	Minimum of 100 basalt flakes (sm-lg) two (2) adze preforms, one (1) hammerstone, and one (1) core.
40	Approximately 9.0 m south of WS39	4.0 x 2.5	Minimum of 100 basalt flakes (med-lg) and several cores.
41	Approximately 23.0 m west of WS39 and 32.0 m southeast of WS36.	2.0 x 1.5	Minimum of 20 basalt flakes (med-lg) and one (1) adze preform.
42	Approximately 2.0 m southeast of WS41.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg) and one (1) adze preform.
43	Approximately 4.0 m southwest of WS42.	5.0 x 2.0	Minimum of 70 basalt flakes (med-lg) and one (1) core.
44	Approximately 15.0 m south/southeast of WS43.	2.5 x 2.0	Minimum of 50 basalt flakes (med-lg).
45	Approximately 16.0 m northeast of WS44 and 7.0 m southwest of WS40.	4.0 x 4.0	Minimum of 40 basalt flakes (med-lg) and two (2) cores.
46	Approximately 12.0 m southeast of WS40.	1.0 x 1.0	Minimum of 25 basalt flakes (med-lg) and one (1) core.
47	Approximately 8.0 m southeast of WS46.	1.0 x 1.0	Minimum of 25 basalt flakes (med-lg).
48	Approximately 20.0 m south/southwest of WS44.	2.0 x 1.5	Minimum of 20 basalt flakes (med-lg), two (2) adze preforms, and one (1) core.
49	Approximately 7.0 m south of WS48.	4.0 x 4.0	Minimum of 40 basalt flakes (med-lg) and one (1) adze preform.
50	Approximately 30.0 m southeast of WS49.	5.0 x 3.0	Minimum of 25 basalt flakes (med-lg).
51	Approximately 23.0 m south/southwest of WS49.	2.0 x 1.5	Minimum of 25 basalt flakes (med-lg).
52	Approximately 1.0 m east/southeast of WS51.	2.0 x 2.0	Minimum of 25 basalt flakes (med-lg).
53	Approximately 30.0 m southwest of WS51.	2.0 x 1.5	Minimum of 20 basalt flakes (med-lg).
54	Approximately 6.0 m southeast of WS53.	2.0 x 2.0	Minimum of 10 basalt flakes (med-lg), one (1) adze preform, and one (1) hammerstone.
55	Approximately 59.0 m south of WS54.	2.0 x 2.0	Minimum of 25 basalt flakes (med-lg) – extends to the southwest.
56	Approximately 18.0 m northwest of WS55.	1.0 x 1.0	Minimum of 25 basalt flakes (med-lg) and one (1) hammerstone.
57	Approximately 9.0 m west/southwest of WS56.	2.0 x 2.0	Minimum of 25 basalt flakes (sm-lg) and one (1) adze preform.



**Site 27605, Metric and Non-metric Workshop Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
58	Approximately 15.0 m west of WS57.	3.0 x 3.0	Minimum of 50 basalt flakes (med-lg).
59	Approximately 51.0 m south/ southwest of WS58.	5.0 x 3.0	Minimum of 100 basalt flakes (sm-lg) and three (3) adze preforms.
60	Approximately 14.0 m east of WS59.	1.0 x 1.0	Minimum of 15 basalt flakes (lg) and one (1) adze preform.
61	Approximately 10.0 m southeast of WS60.	2.0 x 2.0	Minimum of 50 basalt flakes (med-lg) and one (1) adze preform. Flakes extend to the south/southwest.
62	Approximately 22.0 m south/ southwest of WS59.	1.0 x 1.0	Minimum of 10 basalt flakes (med-lg).
63	Approximately 6.0 m south of WS62.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg).
64	Approximately 35.0 m south/ southwest of WS59 and 28.0 m southwest of WS62.	1.0 x 1.0	Minimum of 20 basalt flakes (med-lg) and one (1) adze preform.
65	Approximately 45.0 m east/ southeast of WS64.	1.0 x 1.0	Minimum of 25 basalt flakes (med-lg).
66	Approximately 43.0 m southwest of WS65 and 26.0 m south of WS64.	2.0 x 1.0	Minimum of 50 basalt flakes (sm-lg), four (4) adze preforms, and one (1) hammerstone.
67	Approximately 25.0 m south of WS64.	7.0 x 4.0	Minimum of 100 basalt flakes (sm-lg), two (2) adze preforms, and eight (8) cores.
68	Approximately 24.0 m south/ southwest of WS67.	1.0 x 1.0	Minimum of 50 basalt flakes (sm-med) and one (1) core.
69	Approximately 7.0 m south of WS68.	2.0 x 1.0	Minimum of 25 basalt flakes (med-lg).
70	Approximately 9.0 m southwest of WS69.	2.5 x 1.0	Minimum of 50 basalt flakes (med-lg) and one (1) adze preform.
71	Approximately 11.0 m south/ southwest of WS70.	1.0 x 1.0	Minimum of 50 basalt flakes (med-lg).
72	Approximately 99.0 m east/ southeast of WS71.	5.0 x 4.0	Minimum of 50 basalt flakes (sm-med) and two (2) adze preforms.
73	Approximately 78.0 m southeast of WS72.	2.0 x 2.0	Minimum of 25 basalt flakes (med-lg). Flakes extending east.
74	Approximately 135.0 m east of WS55.	6.0 x 6.0	Minimum of 25 basalt flakes (sm-lg).

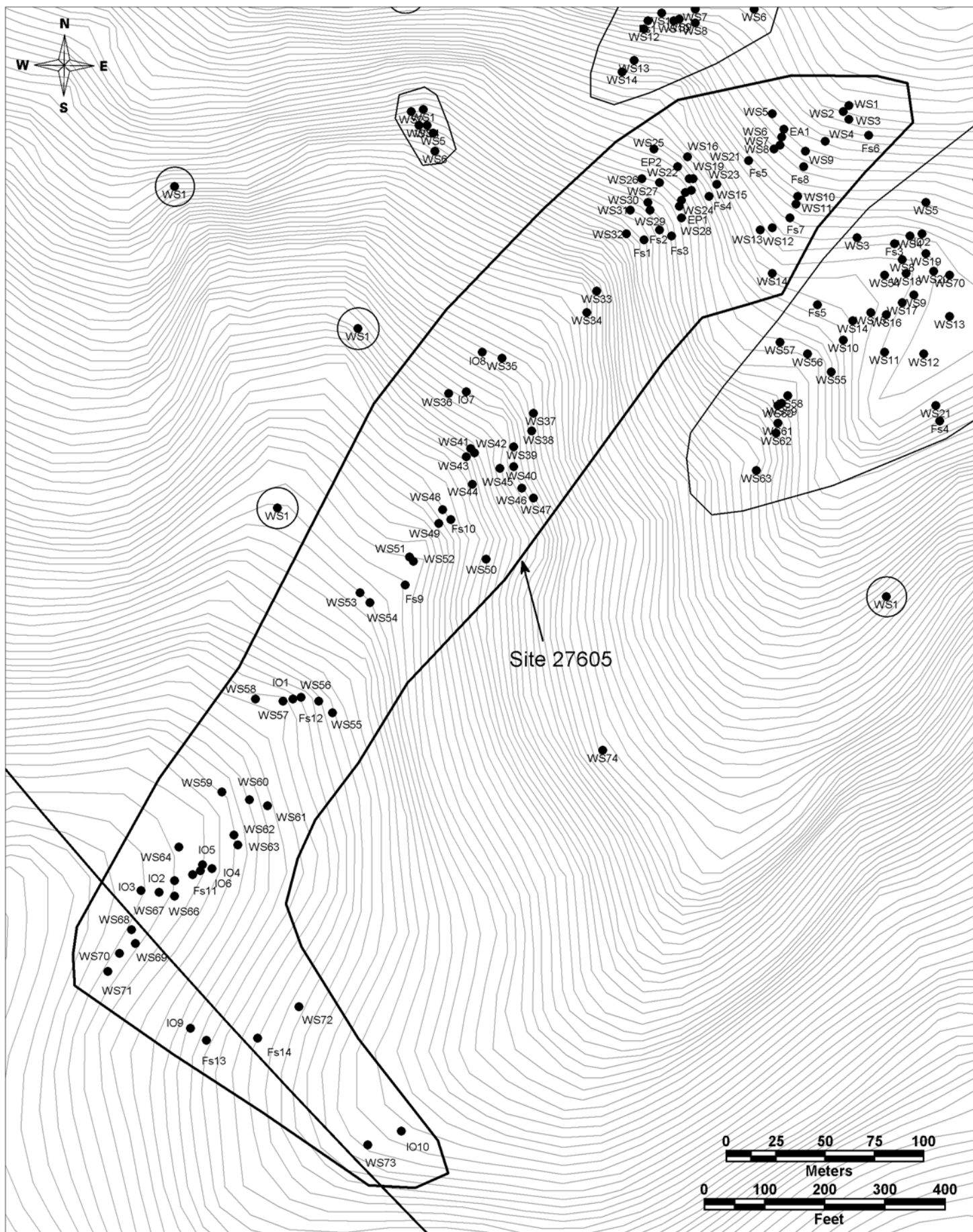


Figure 3.23 Site 27605 Showing Locations of Site Components.

Metric and non-metric data were collected in the field for 29 adze preforms from eight (8) of the site's workshops. These data are summarized in the adze preform data table below.

**Site 27605, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
4	1	17.5 x 2.9 x 2.0	Reverse trapezoid	Whole	Indeterminate	Indeterminate
	2	20.0 x 4.3 x 5.1	Reverse triangular	Broken	Indeterminate	Indeterminate
	3	24.3 x 9.4 x 8.4	Quadrangular	Broken	Indeterminate	Indeterminate
	4	16.9 x 5.0 x 5.3	Square	Broken	Indeterminate	Present
	5	22.1 x 6.5 x 6.0	Rectangular	Broken	Indeterminate	Indeterminate
	6	15.5 x 6.5 x 4.7	Rectangular	Broken	Indeterminate	Indeterminate
	7	25.0 x 7.5 x 7.0	Square	Whole	Present	Present
	8	12.8 x 9.7 x 5.2	Quadrangular	Broken	Indeterminate	Indeterminate
	9	19.0 x 8.0 x 4.3	Rectangular	Whole	Present	Absent
	10	13.7 x 5.9 x 6.5	Square	Broken	Indeterminate	Indeterminate
	11	10.8 x 4.6 x 4.6	Square	Broken	Indeterminate	Present
	12	18.8 x 7.1 x 6.2	Reverse trapezoid	Whole	Present	Absent
	13	27.1 x 10.7 x 7.1	Quadrangular	Whole	Present	Absent
	14	25.1 x 11.2 x 6.1	Reverse trapezoid	Whole	Present	Absent
16	1	19.0 x 12.0 x 7.0	Rectangular	Broken	Indeterminate	Indeterminate
	3	18.5 x 10.1 x 7.0	Quadrangular	Broken	Indeterminate	Indeterminate
17	1	16.3 x 7.5 x 4.6	Reverse trapezoid	Broken	Indeterminate	Absent
18	2	22.8 x 7.8 x 7.5	Reverse trapezoid	Whole	Present	Absent
	4	22.9 x 11.9 x 4.5	Quadrangular	Whole	Present	Present
20	1	15.5 x 10.1 x 7.8	Rectangular	Broken	Indeterminate	Indeterminate
21	2	26.6 x 9.2 x 8.6	Square	Whole	Indeterminate	Indeterminate
	4	20.1 x 6.7 x 5.5	Quadrangular	Whole	Present	Absent
	6	25.1 x 7.8 x 6.6	Rectangular	Whole	Present	Present
	8	30.4 x 10.5 x 7.3	Reverse trapezoid	Whole	Present	Absent
22	2	25.4 x 10.2 x 5.7	Rectangular	Whole	Present	Absent
	4	22.9 x 11.3 x 10.0	Rectangular	Whole	Present	Absent
22	6	18.9 x 7.8 x 11.4	Rectangular	Whole	Present	Present

### Site 27605, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
23	1	15.1 x 6.6 x 4.4	Reverse trapezoid	Whole	Present	Absent
	3	25.2 x 11.4 x 6.3	Quadrangular	Whole	Present	Absent

### Extraction Pits

The nine extraction pits identified at Site 27605 (EP1-9) are located at the north end of this site complex, near the base of the south trending talus slope (Figure 3.24). The EP's are situated amongst, and separated by, basalt boulders and cobbles. The perimeter of each EP consists of piled, and in some cases stacked, extracted material consisting of basalt cobbles and boulders. The extraction pit data table below presents the metric and non-metric data for each of the nine EPs.

### Site 27605, Metric and Non-Metric Data for Extraction Pits 1 Through 9

Extraction Pit Number	Dimensions L x W x D (m)	Associated Workshops	Description
1	2.9 x 2.9 x 1.2	WS6 10.0 m northwest	Concentration of basalt flakes along the south side of pit. A constructed rock pile is located along the east side of the pit (4.0 m by 1.0 m). Some stacking present along the east side of the pit. A cupboard is located in the northwest corner of the pit. Nothing inside the cupboard.
2	2.4 x 2.0 x 1.7	None	Located directly (adjacent) south of EP1. Concentration of basalt flakes from EP1 is located throughout EP2. Partially filled with boulder and cobbles
3	2.7 x 1.8 x 0.8	None	Located 3.0 m east and upslope of EP's 1 and 2. Partially filled with boulders and cobbles. Some basalt flakes are present.
4	2.0 x 1.4 x 1.0	WS2 2.5 m northeast	Located adjacent, north/northwest, of EP3. Some stacking present along the east side of pit.
5	1.3 x 1.0 x 1.0	WS6 and 7 are 8.0 m west and 10.0 m northwest and WS 1 is 2.0 m northeast	Located adjacent, northwest, of EP4. Some stacking along the east side of pit. Basalt flakes present along the southeast side of pit.
6	1.5 x 1.4 x 0.7	WS5 3.0 m northeast	Located 20.0 m north of EP5. Some stacking along the north and east sides. A constructed rock wall/pile is located on the east and connects with EP7 to the south. Wall is 4.0 m long by 1.5 m and 0.6 m high.

### Site 27605, Metric and Non-Metric Data for Extraction Pits 1 Through 9

Extraction Pit Number	Dimensions L x W x D (m)	Associated Workshops	Description
7	5.0 x 3.5 x 1.0	WS8 is adjacent and east	Located 2.0 m south of EP6. Rock wall forms part of the stacking along the northeast corner.
8	1.2 x 1.0 x 1.2	WS3 7.0 m east	Located 1.0 m south of EP7. Contains basalt flakes.
9	6.0 x 2.0 x 1.0	WS7 6.0 m south	Located adjacent to EP7 and 8. Some stacking present along northeast corner. A rock pile, 2.5 m long by 1.0 m wide and 0.8 m high is located along the east side and extends southeast.

### Wall Features 1 and 2

Features 1 and 2, crudely constructed rock walls or rock piles with some stacking are located adjacent to EP1 and 6 (see Figure 3.24). Feature 1 is located on the east side of EP1 and measures 4.0 m long by 1.0 m wide and roughly 1.0 m high.

Feature 2 is located on the east side of EP6 and is 4.0 m long, 1.5 m wide, and 0.6 m high. These walls differ from the piled extracted materials observed at all extract pits in that each feature appears purposefully constructed.

### Extraction Area 1

Extraction Area 1 (EA1) is located along the east ridgeline, adjacent and west the western edge of Site 27601 (Figure 3.25; see Figure 3.23). The extraction area and associated workshops are located along the exposed basalt outcropping (escarpment face) oriented roughly in a north/south direction. The extraction area is dispersed (not concentrated in one area) along the outcropping measuring approximately 20.0 m long. Workshops 5 through 8 are associated with the extraction area and are located on the level area adjacent to the escarpment face. Each of the workshops contains basalt flakes, basalt cores, and several adze preforms and hammerstones.

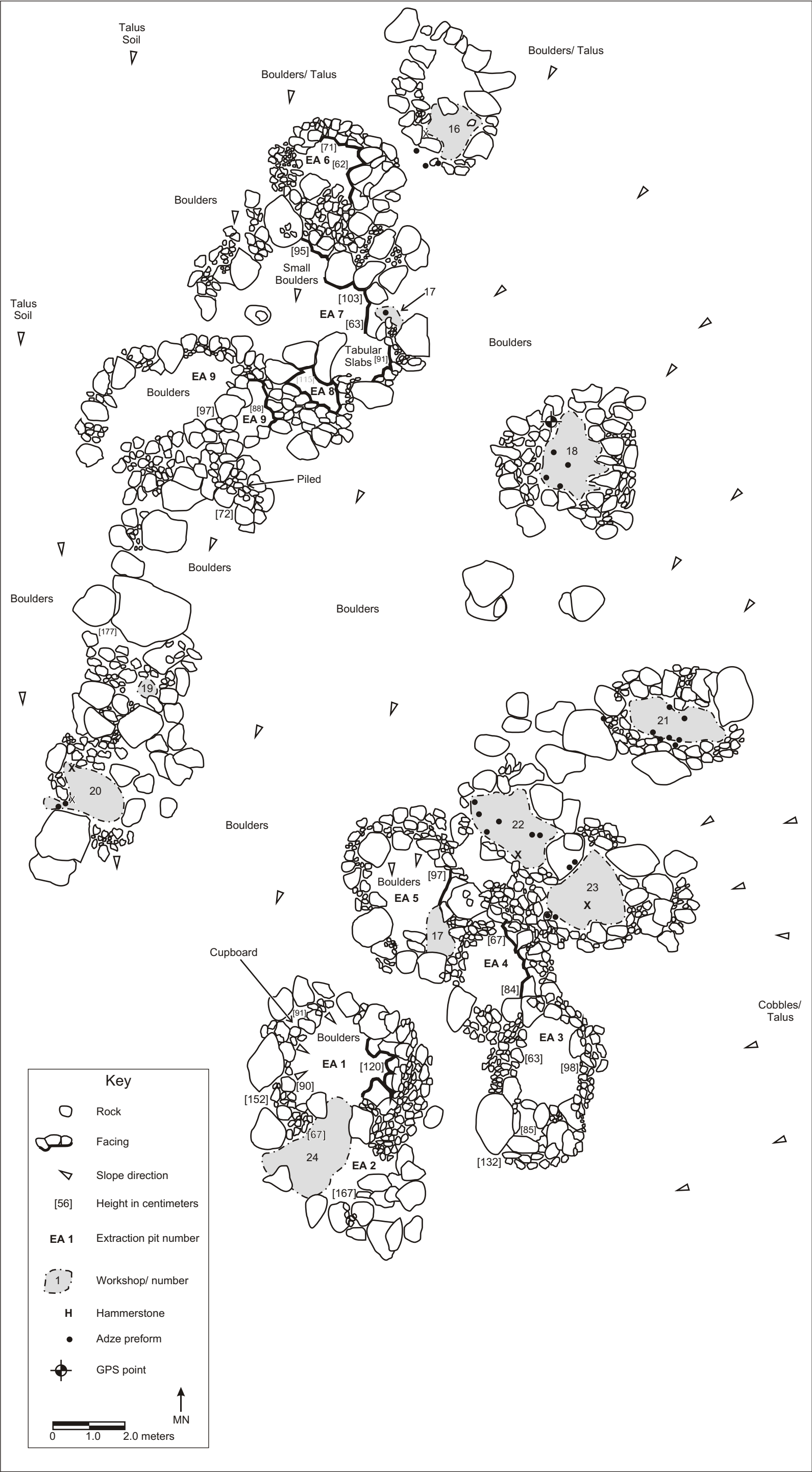


Figure 3.24. Site 27605, Extraction Pits 1 Through 9, and Workshops 16 Through 24, Plan View.

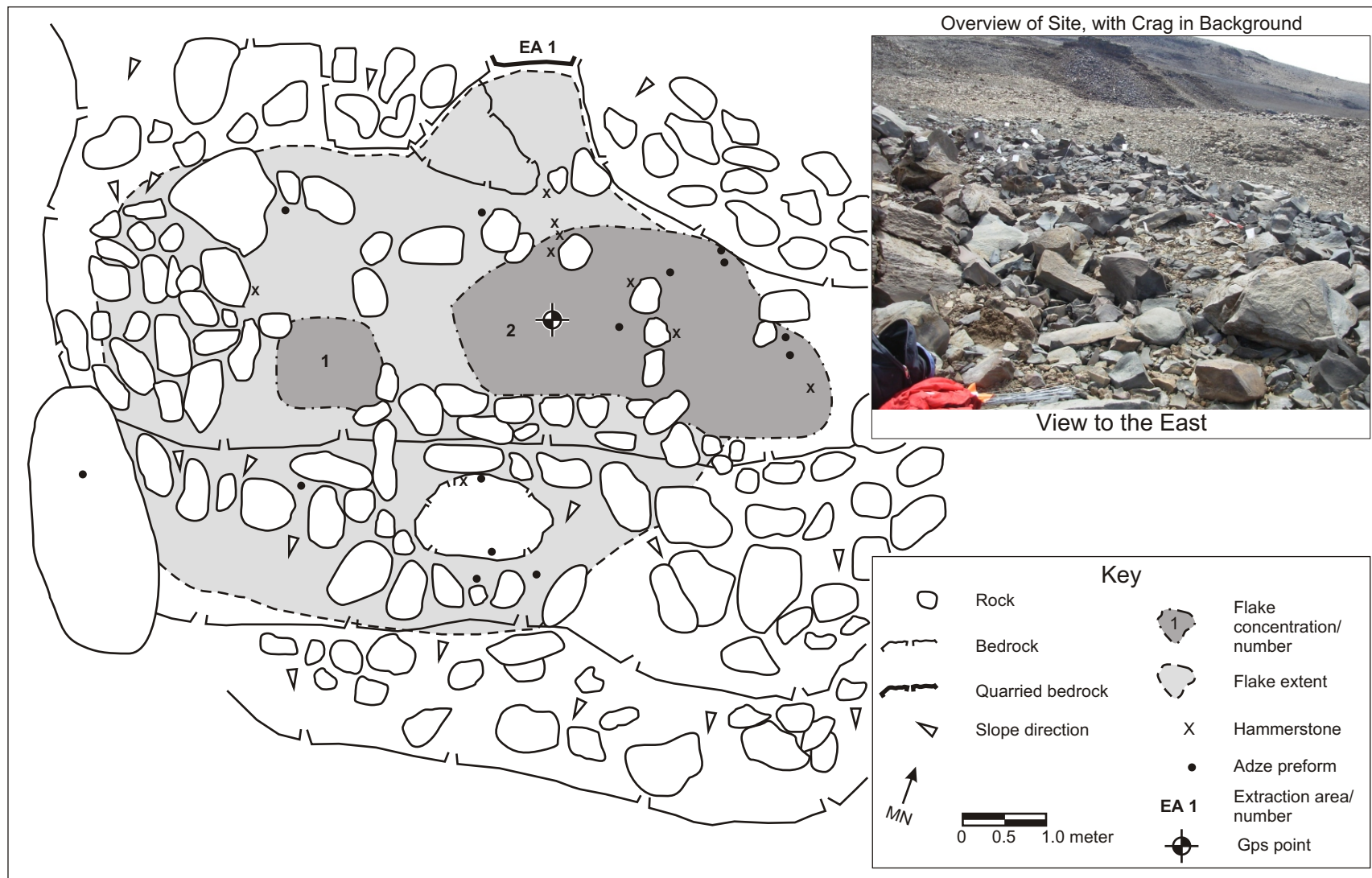
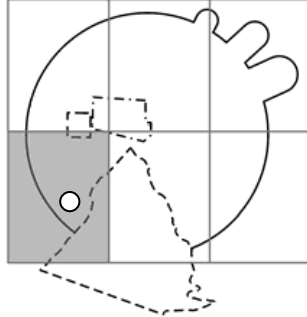


Figure 3.25. Site 27605, Workshop 4, and Extraction Area 1, Plan View and Photograph.



**STATE SITE 50-10-23-27606**

<b>Additional Site Numbers:</b> Temporary Site BB	
<b>Site Function:</b> Adze manufacturing, shelter, wall remnant, terrace, possible burial	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 20.0 m by 20.0 m	
<b>Number of Components:</b> 4	
<b>Topographic Location:</b> Talus Slope	
<b>Approximate U.S.G.S. Elevation:</b> 12,330 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN468	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27606 has four site components including a rockshelter (R1), a wall remnant (Feature 1), a possible terrace (Feature 2), and a workshop (WS1). This site is located approximately 120 m northwest of Site 27604 along the west side of a horse-shoe shaped valley overlooking Sites 27605, 27607, and 27604 (Figure 3.26).

Rockshelter 1 opens to the east and is approximately 4.8 m wide, 1.35 m high at the entrance and 3.8 m deep (Figure 3.27). The interior surface of the rockshelter is relatively level along the south end to the mid-section, and consists of soil and scattered pebbles and small cobbles. At the mid-section and to the north, the surface slopes upwards approximately 40 cm and consists of cobbles and pebbles.

At the north end of the overhang is a small hole that measures approximately 0.5 m by 0.5 m at the entrance and is a little over 1.0 m deep with a ceiling height of approximately 0.6 m. The interior surface is cinder with scattered large cobbles. The interior was not investigated. However, it is possible that a burial is contained within this hole.

At the dripline of the rockshelter, extending northeast off the southwestern end of the rockshelter, is a wall (Feature 1) remnant consisting of cobbles and small boulders. The wall remnant appears to be the foundation stones of the wall that extended for approximately 3.2 m. At the northeast end the wall remnant is a basalt slab placed on end and perpendicular to the wall's length. Two other slabs have been placed on end and adjacent to the first, forming an alignment extending southeast for approximately 1.5 m. At the southwest end of this alignment are piled cobbles and boulders extending south for approximately 1.0 m.

Feature 2 is a possible terrace located outside the rockshelter, southeast of the wall remnant and southwest of the short wall segment. The terrace is covered by numerous cobbles/boulders that possibly fell from the wall, and is approximately 0.5 m

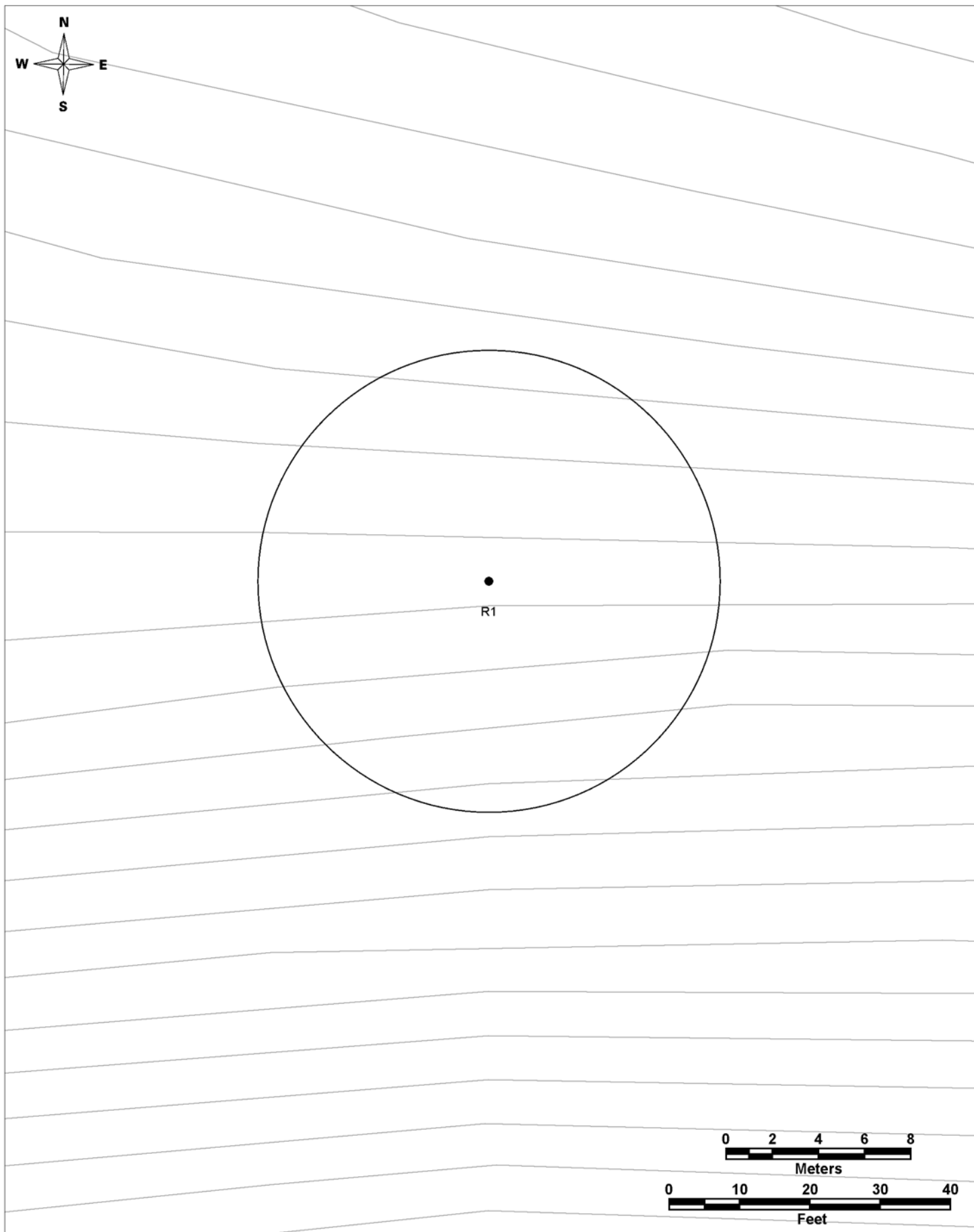


Figure 3.26 Site 27606 Showing Locations of Site Components.

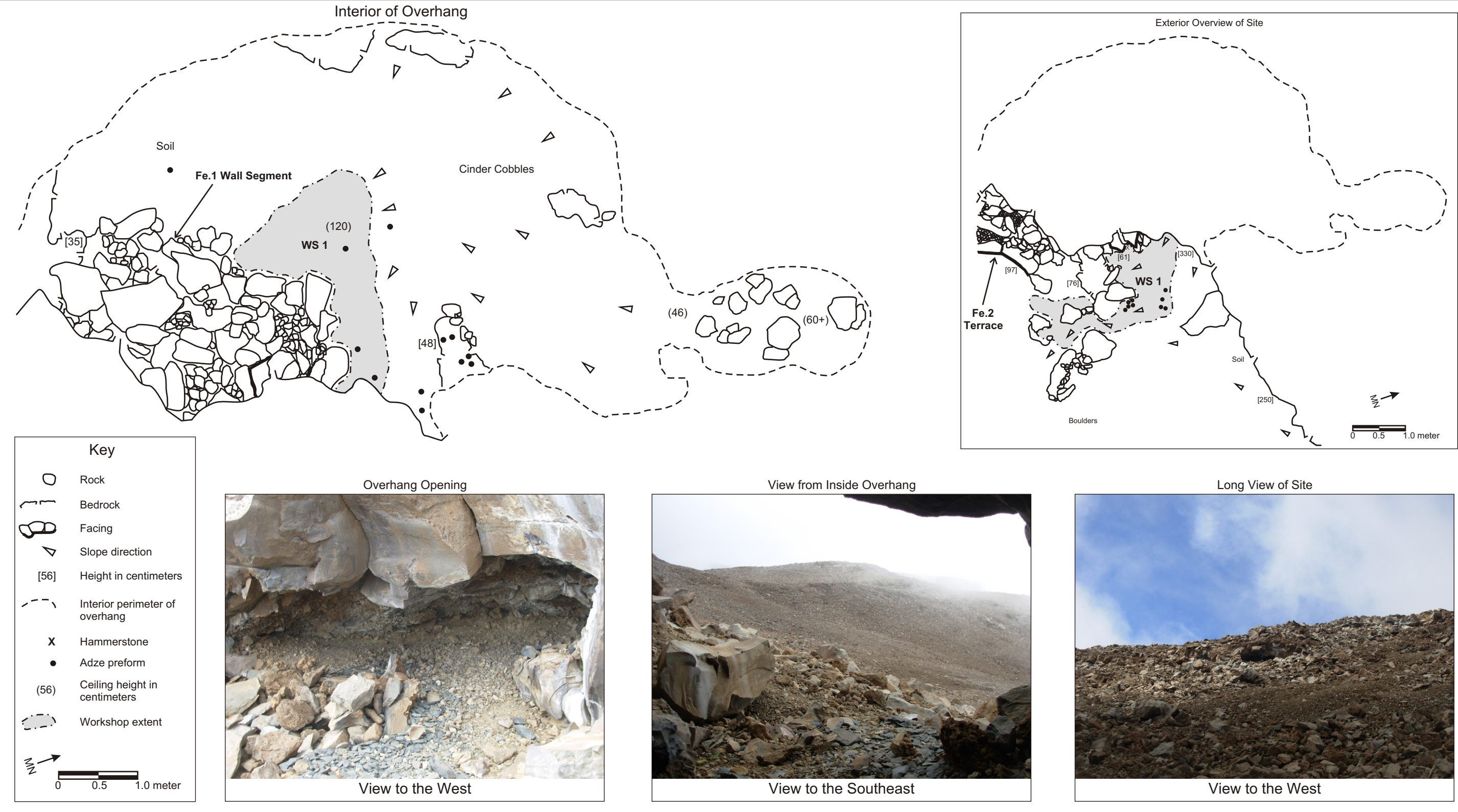


Figure 3.27. Site 27606, Rockshelter 1, Workshop 1, and Features 1 and 2, Plan View and Photographs.

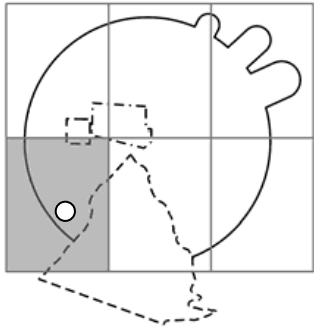
below the wall remnant fronting the rockshelter. The terrace measures 2.0 m by 1.0 m, with the long axis of the terrace roughly parallel to the wall remnant.

A workshop (WS1) is located at the entrance to the rockshelter between the basalt slabs that were placed on end and a raised basalt outcrop to the north (see Figure 3.27). This workshop extends inside the rockshelter as well as downslope from the entrance, and contains basalt flakes and 21 adze preforms. Metric and non-metric data were collected for all 21 adze preforms. This data is summarized in the adze preform data table below. Of the 21 adze preforms, five (5) were collected for EDXRF Analyses. The results of the EDXRF Analyses are presented in Volume 1, Section 6.0 and in Appendix M.

#### Site 27606, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	1	17.9 x 3.0 x 3.2	Square	Whole	Present	Present
	2	14.5 x 5.8 x 3.2	Reverse triangular	Whole	Present	Present
	3	30.0 x 11.0 x 10.5	Indeterminate	Broken	Absent	Indeterminate
	4	21.7 x 6.6 x 5.4	Rectangular	Whole	Present	Present
	5	22.5 x 6.2 x 6.5	Rectangular	Whole	Present	Present
	6	20.2 x 6.5 x 5.3	Rectangular	Broken	Absent	Present
	7	8.5 x 3.4 x 1.6	Rectangular	Whole	Present	Absent
	8	17.2 x 9.8 x 4.0	Rectangular	Broken	Indeterminate	Present
	9	24.8 x 6.7 x 5.7	Rectangular	Whole	Present	Present
	10	24.0 x 12.0 x 3.0	Rectangular	Whole	Present	Absent
	11	13.5 x 7.5 x 4.2	Reverse plano-convex	Whole	Present	Absent
	12	23.0 x 11.5 x 6.9	Rectangular	Whole	Present	Present
	13	26.3 x 11.2 x 5.2	Rectangular	Whole	Present	Absent
	14	15.2 x 5.0 x 2.6	Rectangular	Broken	Absent	Absent
	15	12.1 x 6.8 x 2.6	Rectangular	Whole	Present	Absent
	16	9.3 x 4.7 x 2.1	Rectangular	Broken	Indeterminate	Absent
	17	21.5 x 7.6 x 4.0	Rectangular	Broken	Present	Present
	18	19.5 x 7.6 x 4.1	Rectangular	Whole	Present	Absent
	19	29.0 x 13.0 x 10.2	Indeterminate	Indeterminate	Indeterminate	Indeterminate
	20	14.0 x 5.0 x 3.5	Reverse triangular	Whole	Present	Present
	21	15.8 x 6.8 x 7.7	Square	Whole	Indeterminate	Present

**STATE SITE 50-10-23-27607**

<b>Additional Site Numbers:</b> Temporary	Site W
<b>Site Function:</b> Hammerstone and adze manufacturing complex	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 27.0 m by 25.0 m	
<b>Number of Components:</b> 6	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,176 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN469, RN470, RN471, RN472, RN473, RN474	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27607 consists of six (6) workshops (WS1-6) on a glacial moraine located approximately 70.0 m south of Site 27606 (Figure 3.28). All the workshops are located on gelifluction terraces near the base of the talus slope and cover an area approximately 27.0 m by 25.0 m.

Workshop 1 is the northernmost workshop in the complex and is approximately 2.7 m by 1.5 m. It contains a minimum of 20 vesicular basalt flakes. No adze preforms, cores, or hammerstones were present. Workshop 1 is a hammerstone manufacturing workshop based on raw material type.

Workshop 2 is located 6.0 m west of WS1 and is approximately 2.0 m by 1.5 m. It contains a minimum of 25 fine-grained basalt flakes. No adze preforms, cores, or hammerstones were observed.

Workshop 3 is located approximately 8.0 m south/southeast of WS2 and is approximately 2.5 m by 2.0 m. It contains a minimum of 20 fine-grained basalt flakes and one basalt core. The flakes are 10.0 cm in diameter and larger in size.

Workshop 4 is located approximately 11.0 m southeast of WS2 and is approximately 3.0 m by 2.0 m. It contains a minimum of 20 vesicular basalt flakes and two cores. Workshop 4 is a hammerstone manufacturing workshop based on raw material type.

Workshop 5 is located approximately 9.0 m southeast of WS3 and is approximately 2.0 m by 2.0 m. It contains a minimum of 20 vesicular basalt flakes. No adze preforms, hammerstones, or cores were present. Workshop 5 is a hammerstone manufacturing workshop based on raw material type.

Workshop 6 is located approximately 8.0 m south of WS5 and is approximately 3.0 m by 2.0 m. It contains a minimum of 50 vesicular basalt flakes. The flakes are greater than 15.0 cm in length. Workshop 6 is a hammerstone manufacturing workshop based on raw material type.

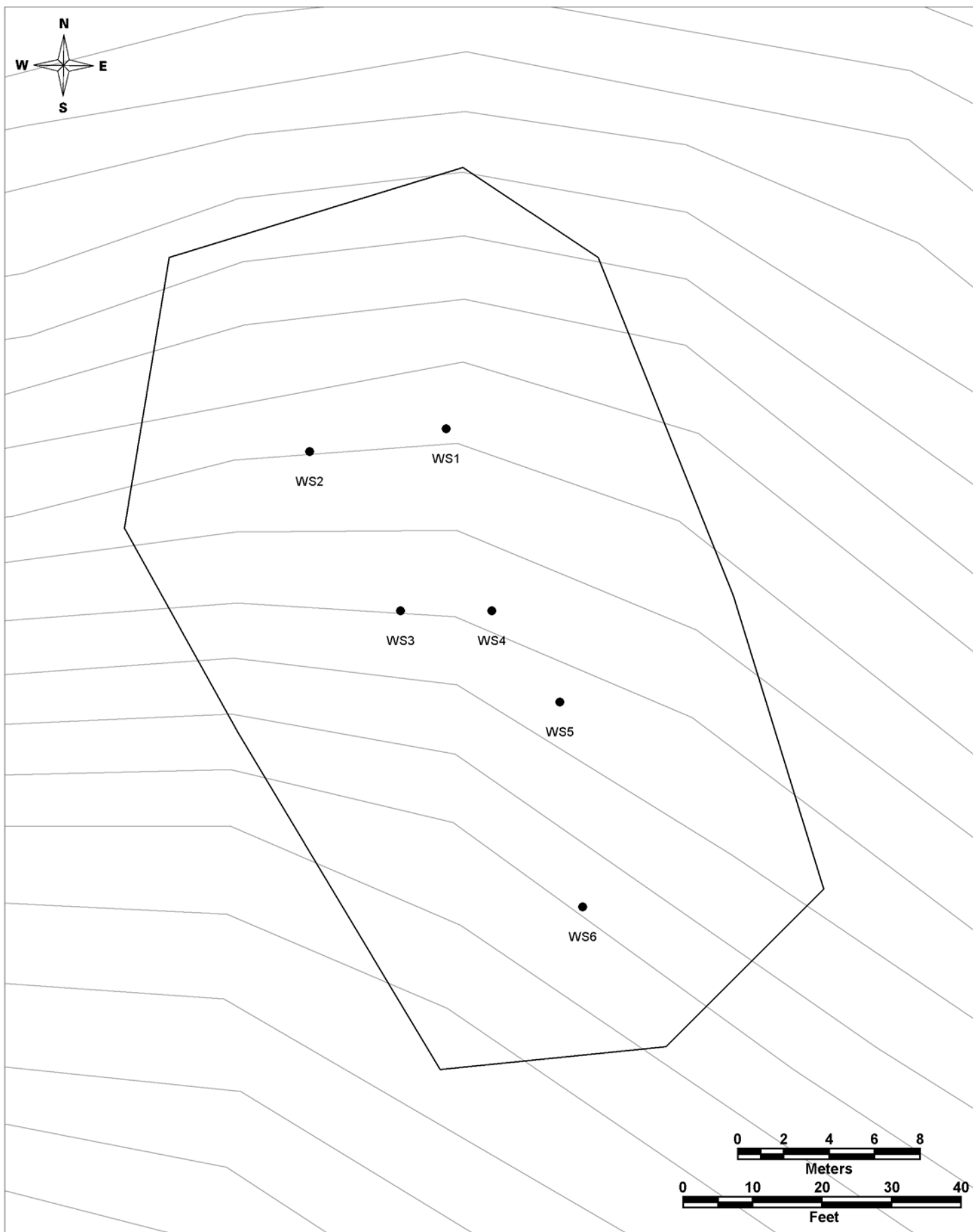
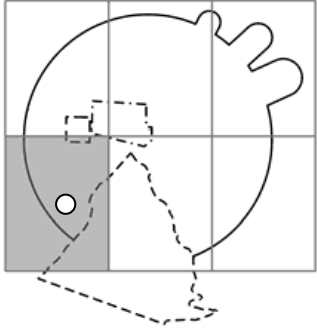


Figure 3.28 Site 27607 Showing Locations of Site Components.



**STATE SITE 50-10-23-27608**

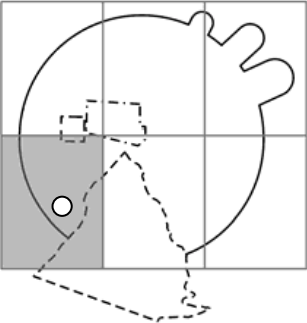
<b>Additional Site Numbers:</b> Temporary	Site V
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 2.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,164 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN508	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27608 is an adze workshop on a glacial drift deposit approximately 127 m southwest of Site 27607. The workshop measures 2.0 m by 1.0 m and contains approximately seven large basalt flakes. No adze preforms, cores, or hammerstones were present.



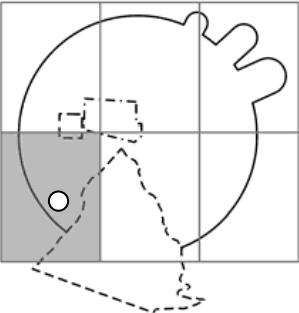
**STATE SITE 50-10-23-27609**

<b>Additional Site Numbers:</b> Temporary Site R	
<b>Site Function:</b> Hammerstone manufacturing/Extraction	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial Drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,028 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN475	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27609 consists of an isolated hammerstone extraction area (EA1) located at the base of a talus slope on the west side of the valley. It measures roughly 10.0 m by 10.0 m and consists of an area of broken vesicular basalt cobbles and small boulders and flakes.

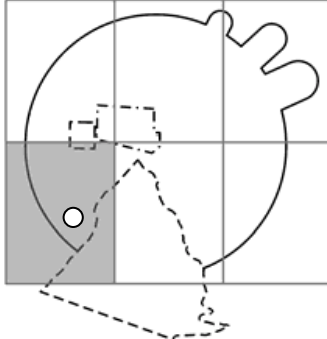
**STATE SITE 50-10-23-27610**

<b>Additional Site Numbers:</b> Temporary	Site MM
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 1.5 m by 1.5 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 11,949 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN509	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27610 is an isolated adze workshop located on glacial drift approximately 270 m south of Site 27606. The workshop measures 1.5 m by 1.5 m and contains a minimum of 20 basalt flakes of various sizes.

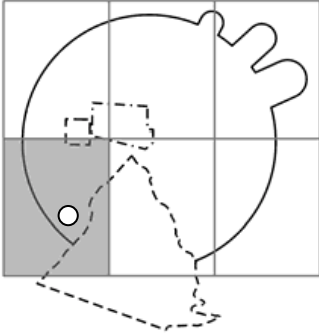
**STATE SITE 50-10-23-27611**

<b>Additional Site Numbers:</b> Temporary Site I	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 30.0 m by 2.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Ridge flank, Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,171 ft a.m.s.l.	
<b>2009 GPS File No.:</b> RN33	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27611 consists of an isolated basalt flake scatter located approximately 464 m southwest of 27601 and 400 m south of 27598. The flake scatter measures 3.0 m by 2.0 m and contains a minimum of 25 basalt flakes. No adze preforms and hammerstones were observed.

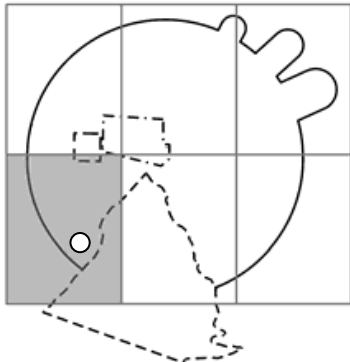
**STATE SITE 50-10-23-27612**

<b>Additional Site Numbers:</b> Temporary Site G	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 11,933 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN349	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27612, an isolated workshop, is located in the valley below (south of) the crag (a natural land formation) and approximately 140 m northwest of Site 27615. The workshop measures approximately 1.0 m by 1.0 m and contains a minimum of 20 basalt flakes.

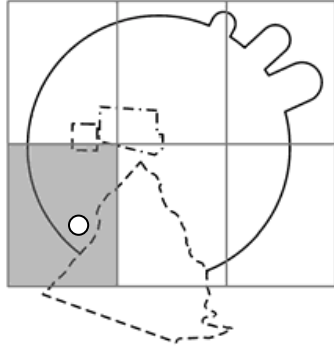
**STATE SITE 50-10-23-27613**

<b>Additional Site Numbers:</b> Temporary	Site F
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 30.0 m by 20.0 m	
<b>Number of Components:</b> 3	
<b>Topographic Location:</b> Slope of Crag	
<b>Approximate U.S.G.S. Elevation:</b> 11,958 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN020, RN021, RN022	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27613 consists of three small basalt workshops (WS1-3) located on the slope, near the base, of the south side of the natural landform known as the “crag.” These workshops are located approximately 50.0 m north of Site 27615. The workshops are situated amongst large basalt boulders measuring, on average, 1.5 m high. The workshops can not be seen unless one is standing above them on the boulders looking down. Each of the three workshops is between 1.0 m and 2.0 m in diameter and consists of approximately 20 basalt flakes. No adze preforms or hammerstones were observed. Because of the difficulty in seeing the workshops, it is highly likely that additional workshops may exist in this area.

**STATE SITE 50-10-23-27614**

<b>Additional Site Numbers:</b> Temporary	Site D
<b>Site Function:</b> Workshop complex	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 70.0 m by 40.0 m	
<b>Number of Components:</b> 6	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 11,992 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN063	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27614 is located along a ridge crest at the head of one of the Pohakuloa Gulch tributaries and southeast of a natural land formation referred to as the “crag” (Figure 3.29). The site consists of five basalt adze manufacturing workshops (WS1-5) and a basalt extraction area (EA1) covering an area approximately 70.0 m long by 40.0 m wide (east/west). Three of the workshops (WS1-3) are located on gelifluction terraces along the north and northeast sides of the extraction area. Workshops 4 and 5 (WS4-5) are located on a glacial drift deposits, east of the extraction area and north Site 27616.

**Site 27614, Workshop Metric and Non-metric Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Materials Present</b>
1	At the northern end of the site.	5.0 x 2.3	Minimum of 50 basalt flakes (sm-lg) and five (5) adze preforms.
2	Adjacent and south/southeast of WS1.	4.5 x 2.8	Minimum of 50 basalt flakes (sm-lg), three (3) adze preforms, and one (1) hammerstone.
3	Approximately 2.0 m east of WS2.	3.5 x 3.5	Minimum of 50 basalt flakes (sm-lg).
4	Approximately 16.0 m southeast of WS3.	2.5 x 2.0	Minimum of 25 basalt flakes (med-lg).
5	Approximately 8.0 m southwest of WS4.	2.0 x 2.0	Minimum of 50 basalt flakes (sm-lg) and one (1) adze preform.



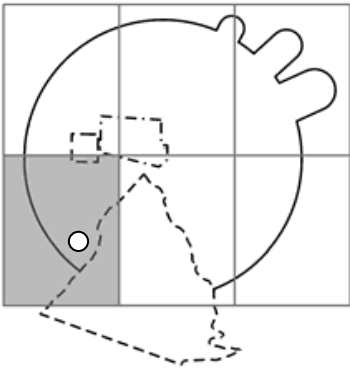
Figure 3.29 Site 27614 Showing Locations of Site Components.



The extraction area, EA1, is located on the north end of an exposed basalt outcrop, adjacent to an escarpment extending downslope into a branch of Pohakuloa Gulch (see Figure 3.29). The extraction area in the outcrop measures approximately 7.0 m by 6.0 m with the northern end of the outcrop more extensively modified (e.g., numerous areas of battering with large flakes removed).

In addition to the workshops, numerous basalt flakes were observed extending south (downslope) towards Site 27616.

**STATE SITE 50-10-23-27615**

<b>Additional Site Numbers:</b> Temporary Site E	
<b>Site Function:</b> Hammerstone manufacturing complex	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 50.0 m by 30.0 m	
<b>Number of Components:</b> 6	
<b>Topographic Location:</b> Base of outcrop	
<b>Approximate U.S.G.S. Elevation:</b> 11,871 ft a.m.s.l.	
<b>2008 GPS File No.:</b> RN185, RN186, RN187. Find Spot is RN184	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27615 is located approximately 90.0 m south of Site 27613 and approximately 100 m north of Site 27617 (Figure 3.30). The site is located along the margins of a raised basalt outcrop that is roughly 50.0 m long (north/south) by 30.0 m wide with a maximum height of 2.0 m. Site 27615 consists of six components, including three extraction areas for hammerstones, designated as Extraction Areas 1 through 3 (EA1-3) and three lithic scatters designated as Workshops 1 through 3 (WS1-3).

The three extraction areas are located along the south and west sides of the outcrop. Each of the extraction areas are situated along the vertical face of the outcrop and are relatively small, no wider than 3.0 m, and each is associated with a workshop. The workshops are located at the base of each extraction area and are approximately 2.0 m in diameter and contain basalt flakes and cores.

A Find Spot, a low rock wall, is located approximately 15.0 m south of Site 27615. The rock wall is constructed of piled cobbles and small boulders and measures approximately 3.7 m by 3.6 m with a maximum height of 0.5 m. The rock wall is roughly C-shaped with the north and south ends terminating at large boulders which appear to be natural and not placed (Figure 3.31). The east side of the enclosed area is defined by raised outcropping. The interior surface is level and consists of cinder and pebbles and void of any cultural materials (see Figure 3.31). Two tin cans were noted about 2.0 m to the northeast of the enclosed area.



**Figure 3.31. Find Spot near Site 27615, Hammerstone Extraction and Workshop Complex. View to South.**

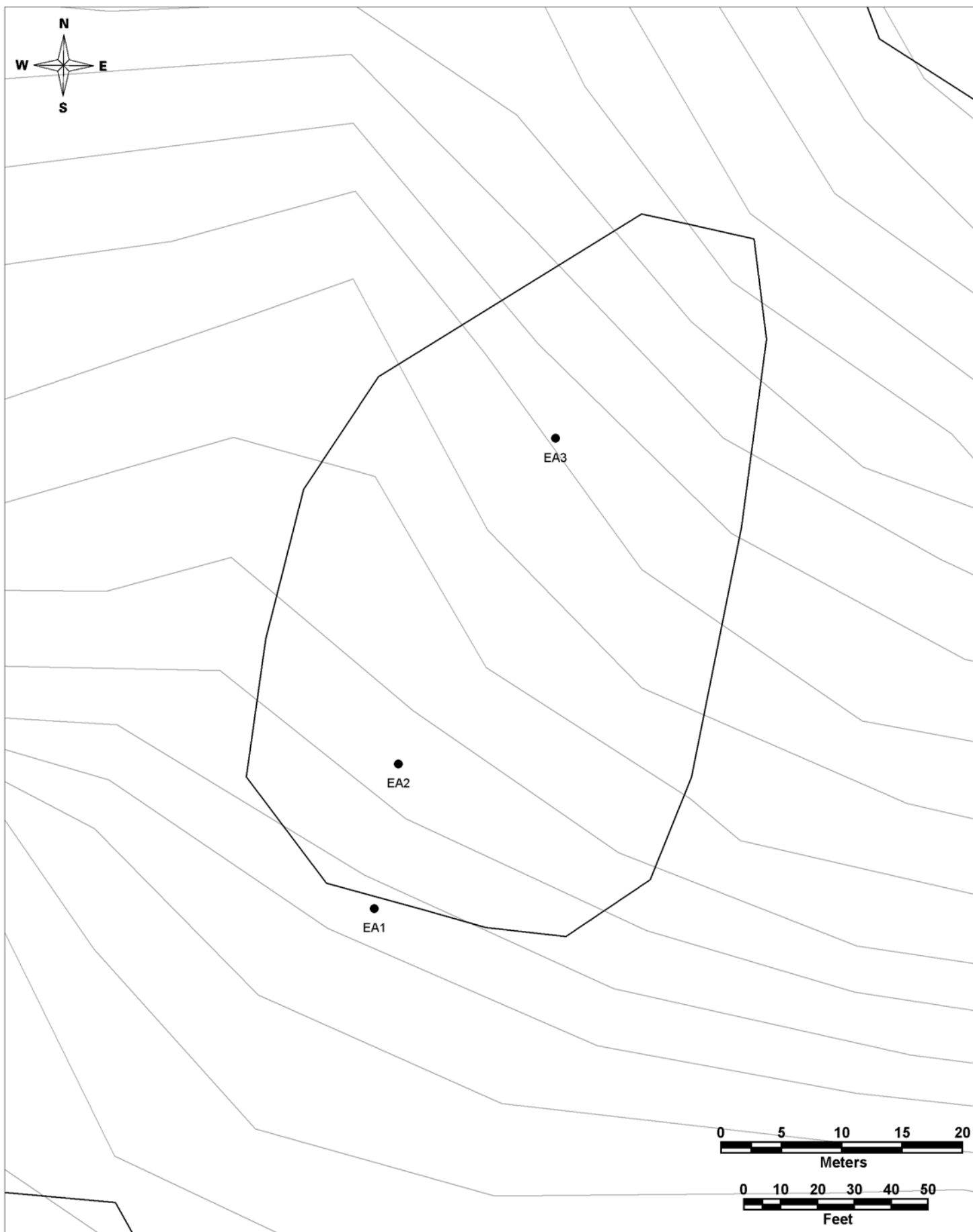
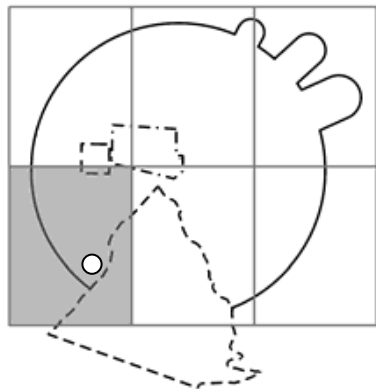


Figure 3.30 Site 27615 Showing Locations of Site Components.

**STATE SITE 50-10-23-27616**

<b>Additional Site Numbers:</b> Temporary Site B	
<b>Site Function:</b> Workshop complex, shrines, possible burial	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 300.0 m by 200.0 m	
<b>Number of Components:</b> 119	
<b>Topographic Location:</b> Ridge crest, talus slope, gulch	
<b>Approximate U.S.G.S. Elevation:</b> 11,853 ft a.m.s.l.	
<b>2007 GPS File No.</b> RN040, RN042 <b>2008 GPS File No.:</b> RN107, KN08, KN09	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27616 consists of 119 components and is located along a ridge crest near the head of one of the Pohakuloa Gulch tributaries and south/southeast of a natural land formation called the “crag” (Figure 3.32.). The site’s components include 96 workshops (WS1-96), seven extraction areas (EA1-7), one extraction pit (EP1), three basalt testing areas (TA1-3), five shrines (Shrines 1-5), two terraces (Features 1 and 2), one piled wall (Feature 3), one mound/rock pile (Feature 4), two mounds (Features 5 and 6), and one platform (Feature 7); Feature 7, is a possible burial. Workshops 1-56 are located at the top of a ridge and on the talus slope extending west into the gulch and Workshops 57-90 are located in the gulch on gelifluction terraces. Three of the shrines (Shrines 1-3) are located above and east of EA1 on an outcrop and Shrine 4 is located in the gulch (see Figure 3.32).

**Workshops at Site 27616**

Ninety-six (96) workshops were identified at Site 27616. Workshops 1 through 10 are located along the west facing escarpment adjacent to Extraction Areas 1-6 (EA1-6). The workshops are situated on a terrace that parallels the escarpment face and slopes slightly southward (Figures 3.33 through 3.36).

Workshop 5 is located on two terraces (Features 1 and 2) approximately 7.0 m south/southwest of EA2 and WS2 (see Figure 3.33). The workshop measures roughly 8.0 m by 8.0 m and covers both terraces. There are a minimum of 1,000 basalt flakes of various sizes, 25 adze preforms (sixteen on Feature 1 and nine on Feature 2), seven hammerstones (four on Feature 1 and three on Feature 2), and several cores.

Workshop 6 is located approximately 6.0 m south of Workshop 5 and separated by a cobble/boulder wall (Feature 4). The boundaries of the workshop are defined by EA3 along the east side and a basalt cobble and small boulder mound (Feature 3) along

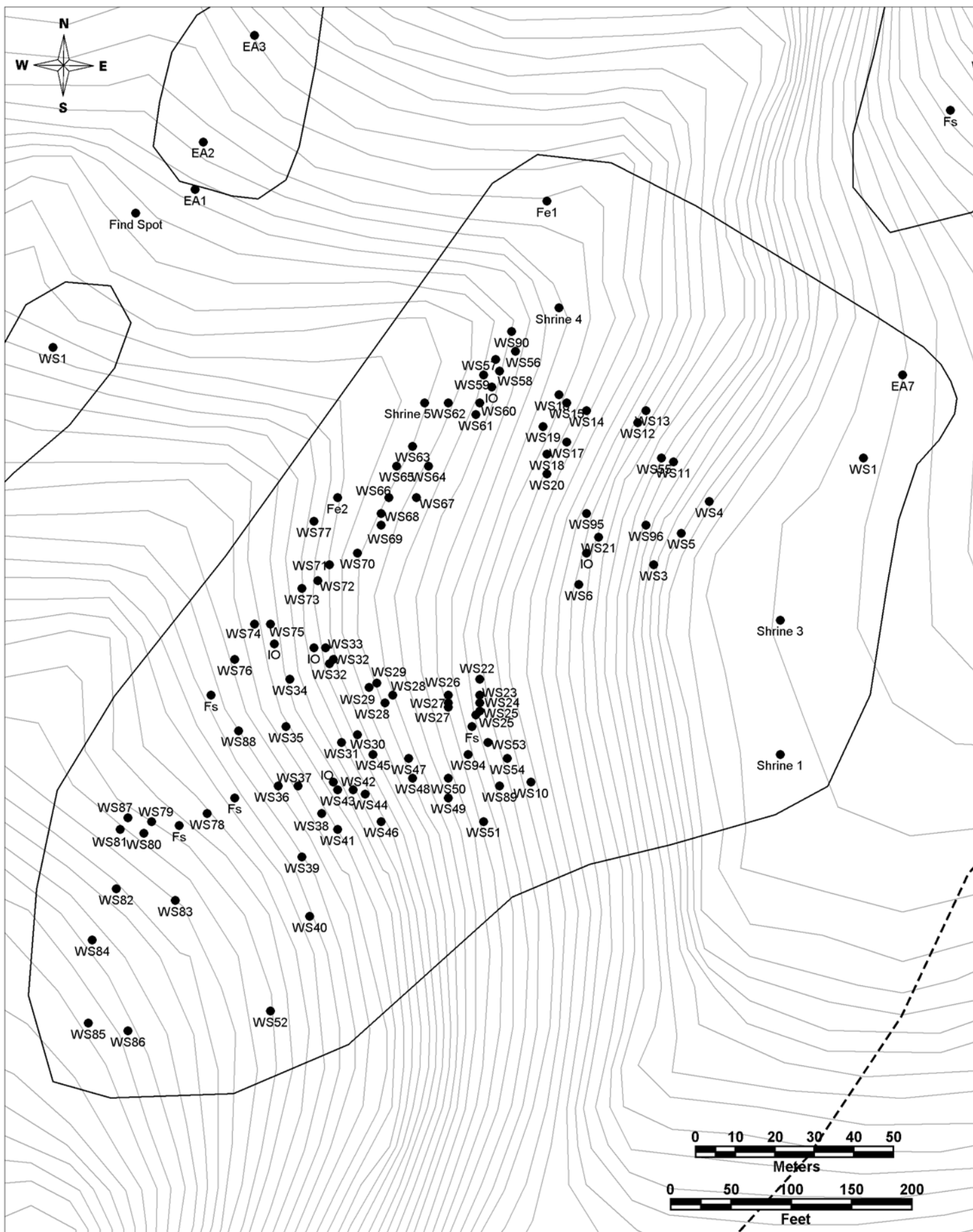


Figure 3.32 Site 27616 Showing Locations of Site Components.

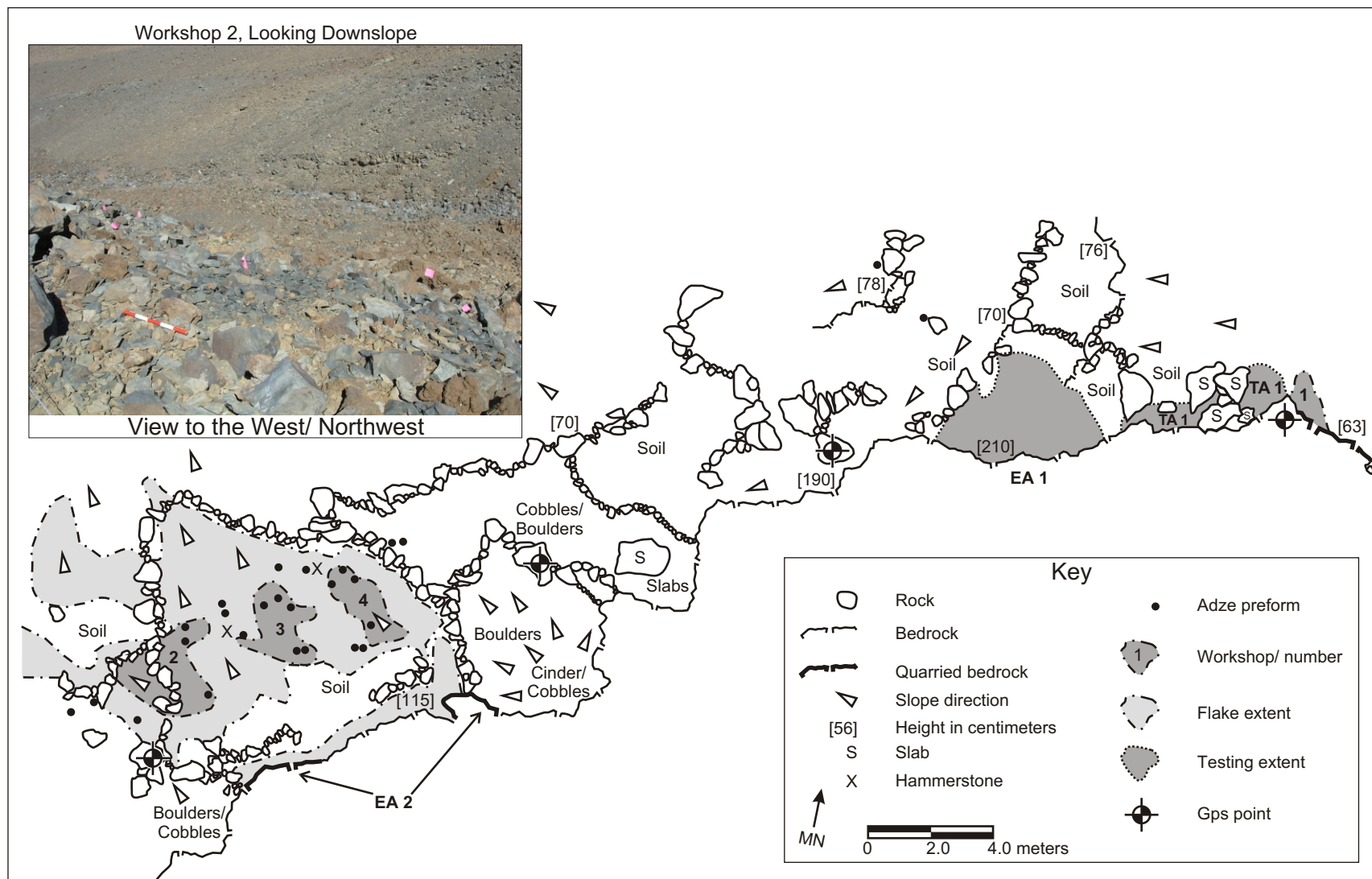


Figure 3.33. Site 27616, Workshops 1 through 4, Extraction Areas 1 and 2, and TestArea 1, Plan View and Photograph.



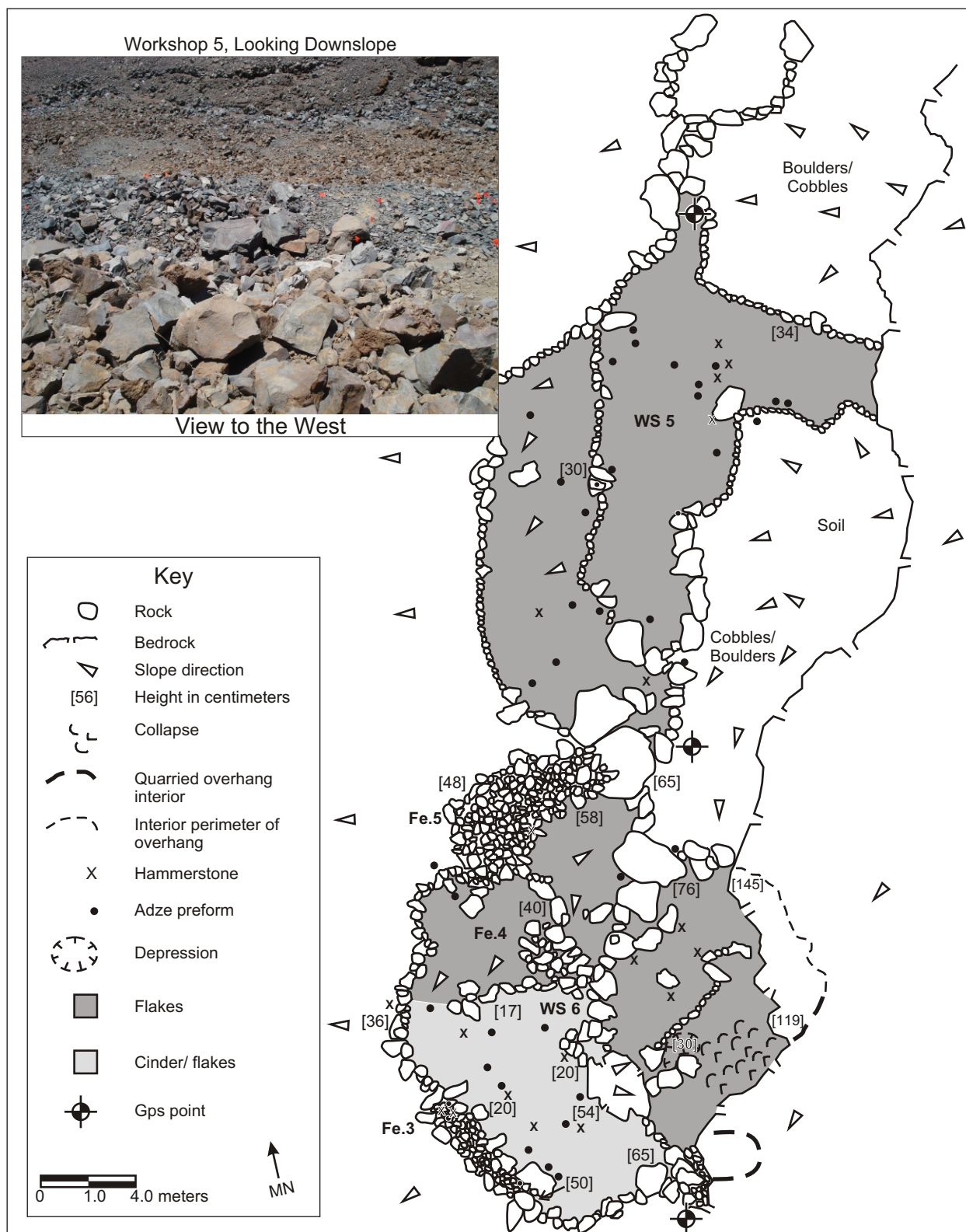


Figure 3.34. Site 27616, Workshops 5 and 6, and Features 3 through 5, Plan View and Photograph.



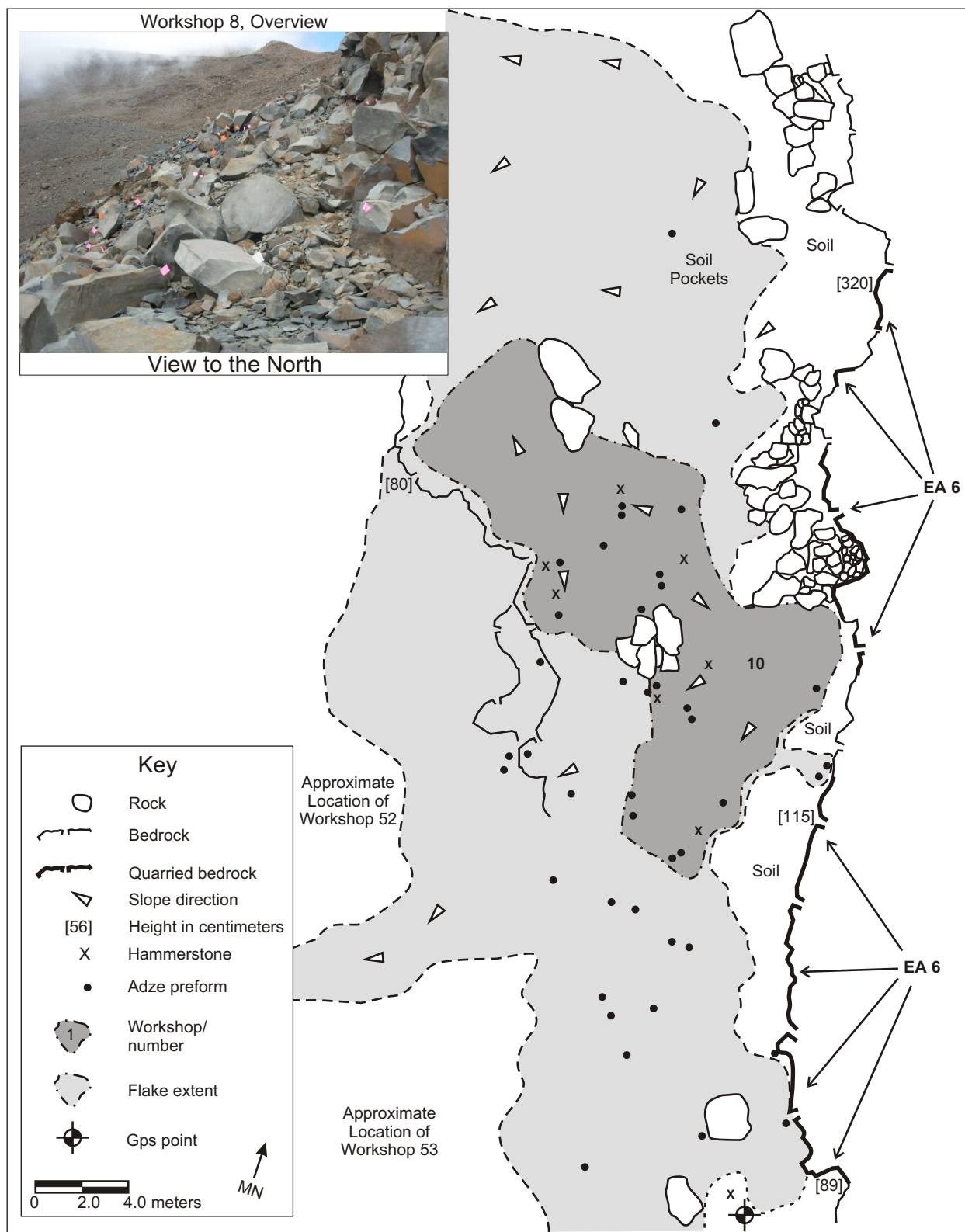


Figure 3.36. Site 27616, Workshop 10, and Extraction Area 6, Plan View and Photograph.

the west and south sides. Directly associated with WS6 are three rock mound/wall features (Features 3-5), EA3, and an extraction pit (EP1) (see Figure 3.34).

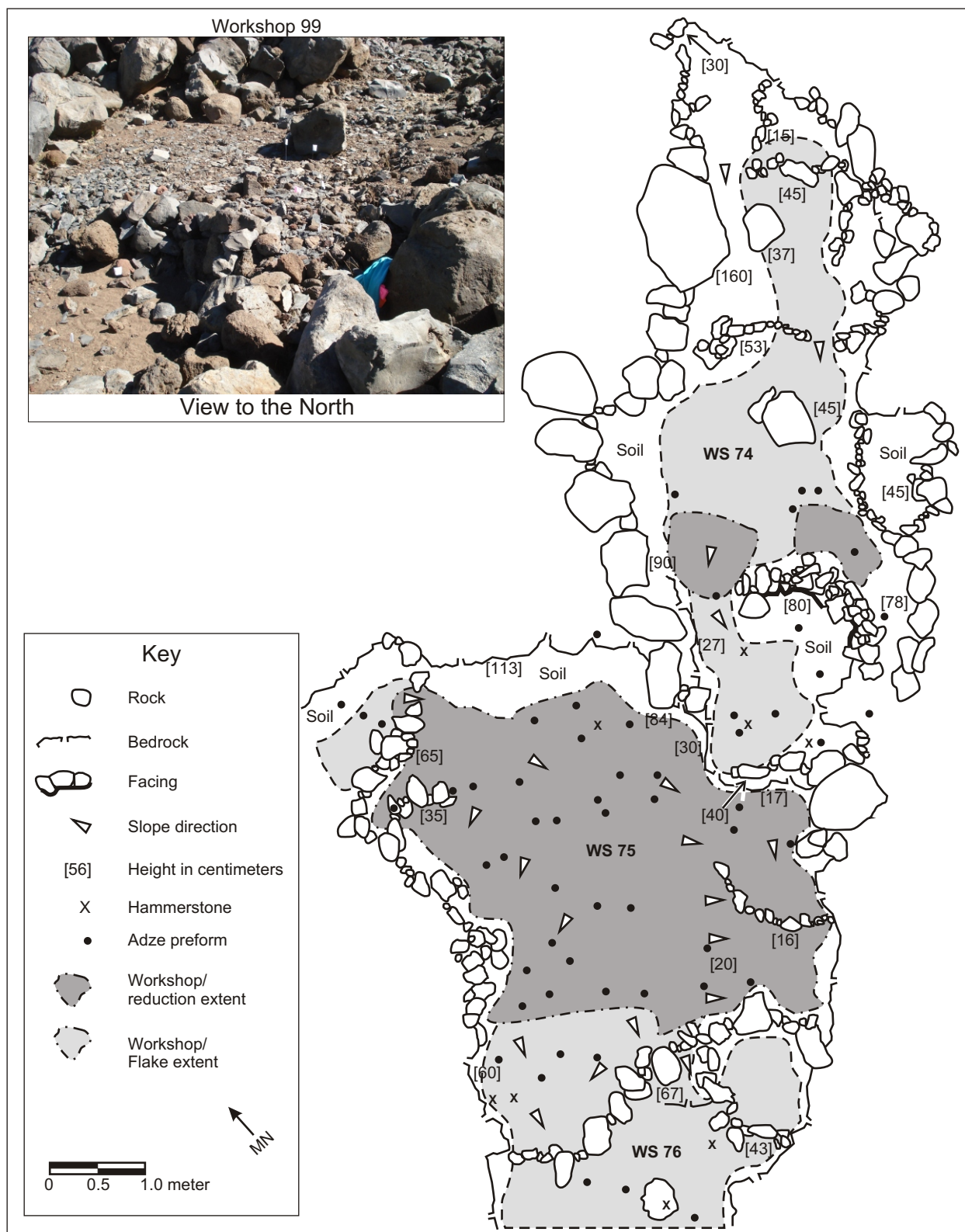
Workshops 11 through 55 are located on the talus slope below Workshops 1-8 and extending down into one of Pohakuloa Gulch's drainages (see Figure 3.32). The workshops are located on a 30 degree slope comprised of basalt cobbles and boulders and small terraces whose surfaces appeared to have been cleared of cobbles and boulders. Of these, Workshops 11 through 21 are located at the north end of the site, below Workshops 4, 5, and 6 and Workshops 22 through 55 are located at the south end of the site below Workshops 9 and 10 (see Figure 3.32). Workshops 11 through 55 range from 1.0 m by 1.0 m to 9.0 m by 8.0 m with a majority of the larger workshops located at the south end of the site below Workshop 10. The workshops contain basalt flakes of various sizes, adze preforms, and hammerstones.

Workshops 56 through 77 are located on gelifluction terraces along the east side of the gulch at the base of the talus slope associated with Workshops 1-55 (see Figure 3.32). Workshops 56-77 cover an area roughly 120.0 m (northeast/southwest) by 50.0 m. The workshops range from 2.8 m by 2.1 m to 15.0 m by 13.0 m and contain basalt flakes, adze preforms, and basalt hammerstones. The workshops are slightly lower than the surrounding area and are bounded by cobbles and large boulders on the east and west sides. Each of the gelifluction terraces have piled, and in some cases stacked, rock facings that extend perpendicular to the gulch. The surfaces of the terraces are level and consist of cinder and cobbles with numerous basalt flakes.

Workshops 78 through 89 are located southwest of Workshop 76, between the drainage where Workshop 76 is located and the drainage to the west where current seasonal run-off occurs. The workshops are located on a mounded area of cobbles and boulders that separate the two drainages (Figure \*\*). As with the other workshops mentioned above, Workshops 78 through 89 are located on gelifluction terraces and consist of numerous basalt flakes, adze preforms, and hammerstones, though not as abundant as with Workshops 56 through 77. Figure 3.37 illustrates Workshops 74 through 76.

In addition to the workshops, isolated adze preforms, basalt hammerstones, and scattered basalt flakes were observed on the steep slopes of this site area. Many of these artifacts were likely associated with the workshops in the area but have since lost their provenience due to slope movement associated with the adverse weather conditions that are experienced at this elevation.





**Figure 3.37. Site 27616, Workshops 74 through 76, Plan View and Photograph.**

Metric and non-metric data for the 96 workshops are presented in the table below.

**Site 27616, Summary of Metric and Non-Metric Workshop Data**

<b>Workshop Number</b>	<b>Location</b>	<b>Dimensions L x W (m)</b>	<b>Cultural Material Present</b>
1	North end of the site	1.7 x 1.0	Minimum of 50 basalt flakes (med-lg).
2	Adjacent and west of EA2	3.5 x 2.5	Minimum of 50 basalt flakes (sm-lg) and four (4) adze preforms.
3	1.0 m east of WS2	2.5 x 2.5	Minimum of 50 basalt flakes (sm-lg) and five (5) adze preforms.
4	1.0 m northeast of WS3	2.7 x 1.5	Minimum of 50 basalt flakes (sm-lg) and three (3) adze preforms.
5	7.0 m south/ southwest of WS2	8.0 x 8.0	Minimum of 1,000 basalt flakes (sm-lg), 25 adze preforms, seven (7) hammerstones, and several cores.
6	6.0 m south of WS5	10.0 x 9.0	Minimum of 100 basalt flakes (sm-lg), 12 adze preforms, and one (1) hammerstone.
7	8.0 m downslope and south of WS6	3.8 x 1.4	Minimum of 100 basalt flakes (sm-lg), 10 adze preforms, and one (1) hammerstone.
8	2.0 m southwest of WS7	2.5 x 2.5	Minimum of 50 basalt flakes (sm-lg) and two (2) adze preforms.
9	18.0 m south of WS8	2.7 x 1.9	Minimum of 100 basalt flakes (sm-lg) with four (4) adze preforms and two (2) hammerstones adjacent to the WS.
10	3.0 m south of WS9	12.0 x 9.0	Minimum of 1,000 basalt flakes (sm-lg), 18 adze preforms (with an additional 21 adze preforms associated with the WS), and six of the eight hammerstones.
11	East of WS54 and northwest of WS5	2.3 x 1.9	Minimum of 100 basalt flakes (sm-lg), nine (9) adze preforms, and several cores.
12	West/northwest of WS11	6.0 x 5.0	Minimum of 25 basalt flakes (sm-lg), one (1) adze preform, and one (1) hammerstone.
13	North/northwest of WS12	1.5 x 1.5	Minimum of 25 basalt flakes (sm-lg).
14	Southeast of WS16 and west of WS13	4.0 x 2.2	Minimum of 100 basalt flakes (sm-lg), four (4) adze preform, four (4) hammerstones, and several cores.
15	West of WS14	2.4 x 2.0	Minimum of 100 basalt flakes (sm-lg), two (2) hammerstones, and several cores.

### Site 27616, Summary of Metric and Non-Metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Material Present
16	3.0 m northwest of WS15	3.0 x 2.5	Minimum of 50 basalt flakes (sm-lg), one (1) hammerstone, and several cores.
17	7.0 m south/southwest of WS10	6.0 x 5.0	Minimum of 100 basalt flakes (sm-lg), nine (9) adze preforms, three (3) hammerstones, and several cores.
18	3.3 m southwest of WS17	6.8 x 2.9	Minimum of 25 basalt flakes (sm-lg), two (2) adze preforms, one (1) hammerstone, and several cores.
19	5.0 m north and downslope of WS18	2.1 x 1.8	Minimum of 25 basalt flakes (sm-lg), four (4) adze preforms, one (1) hammerstone, and several cores.
20	South and slightly upslope of WS18	4.5 x 2.8	Minimum of 100 basalt flakes (sm-lg), four (4) adze preforms, three (3) hammerstones, and several cores.
21	10.5 m northwest of WS	2.1 x 2.0	Minimum of 100 basalt flakes (sm-lg) and four (4) adze preforms.
22	15.0 m west and downslope WS10	1.9 x 1.1	Minimum of 25 basalt flakes (sm-lg).
23	2.5 m south of WS22	1.7 x 1.0	Minimum of 25 basalt flakes (sm-lg).
24	3.0 m south/southeast of WS23	3.2 x 2.2	Minimum of 50 basalt flakes (sm-lg).
25	3.0 m south/southwest of WS24	5.3 x 2.9	Minimum of 100 basalt flakes (sm-lg), one (1) adze preform, one (1) hammerstone, and several cores.
26	3.5 m northwest of WS25	3.3 x 3.1	Minimum of 100 basalt flakes (sm-lg), six (6) adze preforms, and several cores.
27	3.5 m west/southwest of WS26	3.2 x 2.9	Minimum of 100 basalt flakes (sm-lg), two (2) adze preforms, one (1) hammerstone, and several cores.
28	Southeast of WS29 and west of WS26	2.8 x 1.2	Minimum of 100 basalt flakes (sm-lg), three (3) adze preforms, and a core.
29	4.2 m west/northwest of WS28	2.5 x 1.6	Minimum of 100 basalt flakes (sm-lg), two (2) adze preforms, one (1) hammerstone, and several cores.
30	3.0 m northeast of WS31	2.0 x 1.6	Minimum of 25 basalt flakes (sm-lg) and two (2) adze preforms.
31	3.0 m southwest of WS30	9.1 x 5.7	Minimum of 100 basalt flakes (sm-lg), six (6) adze preforms, two (2) hammerstones, and several cores.



### Site 27616, Summary of Metric and Non-Metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Material Present
32	2.0 m south of WS33	1.7 x 1.4	Minimum of 25 basalt flakes (sm-lg), two (2) adze preforms and one (1) hammerstone.
33	2.0 m north of WS30	2.1 x 1.9	Minimum of 25 basalt flakes (sm-lg).
34	Southwest of WS31 and 32	2.2 x 1.8	Minimum of 100 basalt flakes (sm-lg), four (4) adze preforms, and one (1) hammerstone.
35	9.0 m south of WS34	8.0 x 7.6	Minimum of 100 basalt flakes (sm-lg), 11 adze preforms, nine (9) hammerstones, and several cores.
36	Southwest of WS37 and southeast of WS88	3.7 x 3.4	Minimum of 100 basalt flakes (sm-lg), two (2) adze preforms, two (2) hammerstone, and several cores.
37	1.0 m northeast of WS36	2.5 x 1.9	Minimum of 100 basalt flakes (sm-lg), two (2) adze preforms, one (1) hammerstone, and several cores.
38	3.0 m southwest of WS42	6.0 x 4.5	Minimum of 100 basalt flakes (sm-lg), seven (7) adze preforms, two hammerstones, and several cores.
39	4.0 m southwest of WS41	2.7 x 1.8	Minimum of 500 basalt flakes (sm-lg), four (4) adze preforms, and several cores. Flakes extending downslope.
40	Southeast of WS39	1.8 x 1.3	Minimum of 50 basalt flakes (sm-lg) and one (1) adze preform. Flakes extending downslope.
41	3.0 m south/southeast of WS38	5.0 x 3.5	Minimum of 100 basalt flakes (sm-lg), seven (7) adze preforms, and several cores.
42	South of WS31 and west of WS43	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg).
43	Adjacent to WS42	3.2 x 2.8	Minimum of 100 basalt flakes (sm-lg), five (5) adze preforms, one (1) hammerstone, and several cores.
44	5.0 m southeast of WS43	2.5 x 2.0	Minimum of 100 basalt flakes (sm-lg), six (6) adze preforms, one (1) hammerstone, and several cores.
45	8.5 m north of WS43	2.4 x 1.2	Minimum of 50 basalt flakes (sm-lg), one (1) adze preform, and several cores.
46	4.0 m southwest of WS42	4.5 x 3.2	Minimum of 50 basalt flakes (sm-lg), one (1) adze preform, six (6) hammerstones, and several cores.

### Site 27616, Summary of Metric and Non-Metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Material Present
47	2.4 m northwest of WS48	3.6 x 2.8	Minimum of 50 basalt flakes (sm-lg), five (5) adze preforms, and several cores.
48	2.4 m southeast of WS47	3.3 x 2.2	Minimum of 100 basalt flakes (sm-lg), six (6) adze preforms, two (2) hammerstones, and several cores.
49	2.0 m south of WS50	2.2 x 1.9	Minimum of 100 basalt flakes (sm-lg), three (3) adze preforms, and several cores.
50	2.0 m north of WS49	1.6 x 1.4	Minimum of 50 basalt flakes (sm-lg), one (1) adze preform, two (2) hammerstones, and several cores.
51	6.5 m south/southwest of WS54	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg), one (1) adze preform, and one (1) core.
52	3.0 m southwest of WS53	4.0 x 3.6	Minimum of 100 basalt flakes (sm-lg), six (6) adze preforms, and several cores.
53	7.5 m northwest of WS54	3.8 x 3.4	Minimum of 100 basalt flakes (sm-lg), ten (10) adze preforms, eight (8) hammerstones, and several cores.
54	Downslope of WS10	3.0 x 2.8	Minimum of 50 basalt flakes (sm-lg), six (6) adze preforms, one (1) hammerstone, and several cores.
55	Downslope of WS11	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg).
56	Northernmost terrace in gulch	7.0 x 6.0	Minimum of 100 basalt flakes (sm-lg), nine (9) adze preforms, three (3) hammerstones, and several cores.
57	Adjacent to WS58	4.1 x 3.0	Minimum of 100 basalt flakes (sm-lg), nine (9) adze preforms, one (1) hammerstone, and several cores.
58	2.1 m south of WS56	5.0 x 3.5	Minimum of 100 basalt flakes (sm-lg) and four (4) adze preforms.
59	Southwest of WS58	3.5 x 2.0	Minimum of 100 basalt flakes (sm-med), four (4) adze preforms and one (1) hammerstone.
60	South/southeast of WS59	2.7 x 2.4	Minimum of 50 basalt flakes (med-lg).
61	2.0 m west of WS60	2.8 x 2.1	Minimum of 50 basalt flakes (med-lg).
62	2.5 m west of WS61	4.7 x 3.6	Minimum of 100 basalt flakes (sm-lg), three (3) adze preforms, and three (3) hammerstones.

### Site 27616, Summary of Metric and Non-Metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Material Present
63	Southwest of WS62	15.0 x 13.0	Minimum of 1,000 basalt flakes (sm-lg), 21 adze preforms, six (6) hammerstones, and several cores.
64	South of WS63	4.0 x 3.5	Minimum of 50 basalt flakes (sm-lg) and two (2) adze preforms.
65	Southwest of WS66	5.0 x 3.0	Minimum of 50 basalt flakes (sm-lg), one (1) adze preform, and one (1) hammerstone.
66	Northeast of WS68	3.0 x 3.0	Minimum of 50 basalt flakes (sm-lg), three (3) adze preforms, and one (1) hammerstone.
67	Located on three (3) gelifluction terraces	8.0 x 5.5	Minimum of 1,000 basalt flakes (sm-lg), six (6) adze preforms, three (3) hammerstones, and several cores.
68	North of WS69 and south of WS66	3.2 x 3.2	Minimum of 100 basalt flakes (sm-lg), three (3) adze preforms, and one (1) hammerstone.
69	East of WS77 on three (gelifluction terraces)	5.0 x 3.6	Minimum of 300 basalt flakes (sm-lg), 11 adze preforms, seven (7) hammerstones, and several cores.
70	Southeast of WS68	4.3 x 3.3	Minimum of 100 basalt flakes (sm-lg), four (4) adze preforms, two (2) hammerstones, and several cores.
71	Northeast of WS72	3.0 x 2.5	Minimum of 100 basalt flakes (sm-lg).
72	Southwest of WS71	5.0 x 4.0	Minimum of 100 basalt flakes (sm-lg), 11 adze preforms, and two hammerstones.
73	Northeast of WS74 and southwest of WS72	4.0 x 3.5	Minimum of 300 basalt flakes (sm-lg), three (3) adze preforms, one (1) hammerstone, and several cores.
74	North of WS76 and west of WS75	8.0 x 5.0	Minimum of 500 basalt flakes (sm-lg), 14 adze preforms, and three (3) hammerstones.
75	North of WS76 and east of WS74	12.0 x 7.5	Minimum of 500 basalt flakes (sm-lg), 40 adze preforms, and three (3) hammerstones.
76	Southern end of the terrace complex	5.5 x 3.8	Minimum of 25 basalt flakes (sm-lg), three (3) adze preforms, and two (2) hammerstones.
77	Adjacent and west of WS68	4.0 x 3.0	Minimum of 500 basalt flakes (sm-lg).
78	South/southwest of WS88	1.5 x 1.5	Minimum of 50 basalt flakes (sm-lg) and one (1) adze preform.
79	West/southwest of WS78	2.0 x 1.0	Minimum of 25 basalt flakes (med-lg).

### Site 27616, Summary of Metric and Non-Metric Workshop Data

Workshop Number	Location	Dimensions L x W (m)	Cultural Material Present
80	Southwest of WS79	2.0 x 1.0	Minimum of 50 basalt flakes (med-lg) and one (1) adze preform.
81	West of WS80	2.0 x 1.0	Minimum of 50 basalt flakes (med-lg) and one (1) adze preform.
82	South of WS81	7.0 x 5.0	Minimum of 50 basalt flakes (med-lg).
83	East of WS82	5.0 x 5.0	Minimum of 50 basalt flakes (med-lg).
84	South/southwest of WS82	2.0 x 2.0	Minimum of 50 basalt flakes (med-lg).
85	South of WS84	3.0 x 2.0	Minimum of 100 basalt flakes (sm-med).
86	East of WS85	1.0 x 1.0	Minimum of 100 basalt flakes (sm-lg) and one (1) adze preform.
87	Northeast of WS81 and west of WS79	3.0 x 3.0	Minimum of 25 basalt flakes (sm-lg) and one (1) adze preform.
88	West of WS35	4.2 x 2.0	Minimum of 100 basalt flakes (sm-lg) and one (1) adze preform.
89	South of WS54 and north of WS51	1.0 x 1.0	Minimum of 50 basalt flakes (med-lg).
90	7.0 m west of Shrine 3	11.0 x 5.5	Minimum of 50 basalt flakes (sm-lg) and one (1) adze preform.
91	Associated with Shrine 5	2.0 x 2.0	Minimum of 25 basalt flakes (sm-lg) and three (3) adze preforms.
92	Associated with Shrine 5	4.0 x 3.0	Minimum of 50 basalt flakes (sm-lg) and four (4) adze preforms.
93	Associated with Shrine 5	6.0 x 6.0	Minimum of 100 basalt flakes (sm-lg) and 12 adze preforms.
94	Southwest of WS53	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg).
95	Northwest of WS21	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg).
96	East of WS95	1.0 x 1.0	Minimum of 25 basalt flakes (sm-lg).

A total 256 adze preforms from 66 workshops were analyzed in the field and the results are summarized in the adze preform data table below and detailed results are found in Volume 1, Appendix I.

### Site 27616, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
2-4	1	17.5 X 8.5 X 7.0	Rectangular	Whole	Absent	Absent
	2	16.5 x 5.6 x 4.0	Rectangular	Whole	Present	Absent
	3	15.4 x 6.7 x 4.0	Rectangular	Whole	Present	Absent
	4	10.2 x 7.0 x 2.8	Rectangular	Broken	Present	Absent

# Site 27616, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
2-4	5	18.4 x 6.9 x 7.0	Rectangular	Broken	Absent	Absent
	6	16.4 x 7.6 x 6.0	Reverse Triangular	Whole	Present	Absent
	7	19.5 x 10.3 x 4.0	Reverse Triangular	Whole	Present	Absent
	8	18.8 x 8.4 x 7.2	Rectangular	Whole	Present	Absent
	9	11.1 x 7.1 x 4.8	Rectangular	Broken	Absent	Absent
	10	9.3 x 7.9 x 3.1	Rectangular	Broken	Absent	Absent
	11	10.9 x 6.1 x 6.0	Reverse Trapezoidal	Broken	Present	Indeterminate
	12	13.7 x 6.9 x 6.6	Rectangular	Broken	Present	Indeterminate
	13	17.0 x 8.0 x 6.2	Rectangular	Broken	Present	Indeterminate
	14	14.1 x 7.8 x 6.6	Rectangular	Broken	Absent	Absent
	15	20.2 x 9.1 x 8.9	Rectangular	Broken	Present	Absent
	16	14.0 x 10.7 x 5.9	Rectangular	Broken	Absent	Absent
	17	15.8 x 5.7 x 2.0	Rectangular	Whole	Present	Absent
	18	19.4 x 5.0 x 5.1	Indeterminate	Indeterminate	Absent	Absent
	19	10.9 x 5.2 x 3.7	Reverse Trapezoidal	Whole	Present	Absent
	20	13.9 x 8.1 x 3.8	Rectangular	Broken	Present	Indeterminate
	21	17.3 x 6.1 x 3.8	Quadrangular	Whole	Present	Absent
	22	16.9 x 8.1 x 4.1	Rectangular	Whole	Present	Absent
	23	10.0 x 4.4 x 3.8	Rectangular	Whole	Present	Present
	24	13.6 x 6.4 x 4.0	Rectangular	Whole	Present	Absent
	25	21.7 x 8.3 x 5.0	Rectangular	Whole	Present	Present
5	1	27.5 x 10.2 x 7.0	Rectangular	Whole	Present	Absent
	2	15.8 x 9.5 x 6.6	Rectangular	Broken	Absent	Present
	3	11.9 x 5.9 x 6.5	Rectangular	Broken	Absent	Indeterminate
	4	14.3 x 6.4 x 3.8	Rectangular	Whole	Present	Absent
	5	27.2 x 11.5 x 5.5	Rectangular	Whole	Present	Absent
	6	21.6 x 6.2 x 6.0	Rectangular	Whole	Present	Absent
	7	17.7 x 6.7 x 7.8	Rectangular	Whole	Indeterminate	Absent
	8	28.5 x 7.2 x 5.5	Indeterminate	Whole	Present	Absent
	9	28.0 x 12.4 x 10.4	Rectangular	Whole	Present	Absent
	10	29.8 x 8.1 x 8.6	Quadrangular	Whole	Present	Absent
	11	31.1 x 13.5 x 11.3	Rectangular	Whole	Present	Absent
	12	28.5 x 10.1 x 10.5	Quadrangular	Whole	Present	Absent
	13	22.5 x 10.0 x 6.9	Reverse Triangular	Whole	Present	Absent
	14	29.0 x 10.5 x 6.1	Reverse Triangular	Indeterminate	Indeterminate	Absent
	15	17.5 x 7.2 x 4.5	Rectangular	Whole	Present	Absent
	16	14.1 x 9.1 x 4.2	Reverse Triangular	Whole	Present	Absent
	17	22.5 x 6.3 x 3.6	Rectangular	Whole	Present	Absent
	18	19.4 x 8.1 x 7.9	Quadrangular	Broken	Absent	Present
5	19	14.4 x 5.3 x 3.8	Reverse	Broken	Present	Present

# Site 27616, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
			Trapezoidal			
	20	21.1 x 9.5 x 6.9	Reverse Triangular	Whole	Present	Absent
	21	23.0 x 7.1 x 5.1	Rectangular	Broken	Indeterminate	Present
	22	20.0 x 6.6 x 5.3	Rectangular	Whole	Present	Present
	23	20.6 x 7.4 x 5.2	Indeterminate	Whole	Present	Absent
	24	20.8 x 10.1 x 9.3	Indeterminate	Whole	Absent	Absent
	25	26.6 x 9.3 x 9.7	Indeterminate	Broken	Absent	Absent
6	1	26.0 x 11.0 x 6.5	Reverse Trapezoidal	Whole	Absent	Absent
	2	25.0 x 8.0 x 6.0	Reverse Triangular	Whole	Present	Absent
	3	17.0 x 6.5 x 4.0	Reverse Trapezoidal	Whole	Absent	Absent
	4	20.0 x 11.0 x 5.5	Reverse Triangular	Whole	Absent	Absent
	5	24.2 x 7.0 x 7.1	Reverse Triangular	Whole	Absent	Absent
	6	28.0 x 9.5 x 8.4	Reverse Triangular	Whole	Absent	Absent
	7	26.7 x 8.3 x 5.0	Indeterminate	Whole	Absent	Absent
	8	9.9 x 3.2 x 3.5	Reverse Triangular	Broken	Absent	Indeterminate
	9	11.5 x 4.4 x 3.0	Indeterminate	Broken	Absent	Absent
	10	28.3 x 11.0 x 6.0	Lenticular	Whole	Present	Absent
	11	31.8 x 8.1 x 6.4	Rectangular	Whole	Present	Absent
	12	11.9 x 4.4 x 4.6	Square	Broken	Present	Present
	13	23.6 x 8.6 x 6.5	Trapezoidal	Whole	Present	Present
	14	30.0 x 9.0 x 7.2	Indeterminate	Whole	Present	Absent
	15	18.6 x 5.2 x 5.5	Reverse Trapezoidal	Whole	Present	Absent
	16	18.0 x 6.4 x 5.0	Reverse Trapezoidal	Whole	Present	Absent
7	2	25.2 x 7.6 x 7.7	Rectangular	Whole	Present	Present
	4	29.9 x 9.1 x 5.6	Rectangular	Whole	Present	Absent
	6	28.6 x 11.5 x 5.2	Reverse Triangular	Whole	Present	Absent
	9	23.4 x 6.6 x 5.7	Rectangular	Whole	Present	Present
	10	24.9 x 6.2 x 5.5	Indeterminate	Whole	Present	Absent
8	12	39.3 x 12.8 x 3.2	Plano-Convex	Whole	Present	Absent
	14	27.7 x 14.0 x 8.7	Indeterminate	Whole	Absent	Absent
9	1	22.0 x 12.4 x 8.3	Rectangular	Whole	Absent	Absent
	4	23.1 x 7.3 x 5.4	Rectangular	Whole	Present	Present
10	2	17.2 x 6.1 x 7.3	Rectangular	Broken	Present	Absent
	3	18.2 x 5.3 x 4.9	Rectangular	Broken	Absent	Present
	4	19.6 x 4.2 x 4.1	Square	Whole	Present	Present
	5	18.9 x 5.1 x 4.0	Rectangular	Whole	Present	Present
	6	26.1 x 5.1 x 6.2	Rectangular	Whole	Present	Present
	8	17.4 x 6.6 x 4.3	Indeterminate	Whole	Absent	Absent
10	10	18.4 x 9.7 x 8.4	Reverse	Broken	Absent	Indeterminate

# Site 27616, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
			Trapezoidal			
	12	28.1 x 9.0 x 9.0	Rectangular	Whole	Present	Absent
	14	20.5 x 7.7 x 7.6	Rectangular	Broken	Absent	Present
	16	37.5 x 9.1 x 8.5	Reverse Trapezoidal	Whole	Present	Absent
	18	23.5 x 7.8 x 7.7	Quadrangular	Whole	Present	Absent
	20	27.9 x 6.6 x 7.1	Quadrangular	Whole	Present	Absent
	22	23.1 x 10.1 x 7.3	Rectangular	Whole	Present	Absent
	24	26.2 x 10.6 x 7.2	Rectangular	Whole	Present	Absent
	26	33.7 x 9.2 x 6.7	Quadrangular	Whole	Present	Absent
	29	20.0 x 6.4 x 6.1	Quadrangular	Whole	Absent	Indeterminate
	30	8.9 x 7.3 x 5.1	Quadrangular	Broken	Absent	Indeterminate
	32	12.6 x 7.1 x 7.4	Indeterminate	Broken	Absent	Indeterminate
	34	19.9 x 12.4 x 7.5	Reverse Trapezoidal	Broken	Absent	Absent
	36	23.3 x 8.5 x 4.8	Rectangular	Whole	Absent	Absent
	38	23.8 x 8.6 x 7.0	Rectangular	Whole	Present	Present
	40	12.3 x 7.7 x 4.8	Rectangular	Broken	Indeterminate	Indeterminate
11	2	20.4 x 7.3 x 6.8	Rectangular	Whole	Present	Absent
	4	25.0 x 10.9 x 5.9	Rectangular	Whole	Present	Present
	6	23.3 x 8.1 x 5.8	Rectangular	Whole	Present	Absent
	8	25.4 x 5.6 x 5.4	Quadrangular	Whole	Present	Present
12	1	27.7 x 8.5 x 9.4	Rectangular	Whole	Present	Absent
14	1	20.2 x 4.8 x 4.3	Rectangular	Whole	Present	Present
	3	37.2 x 8.5 x 8.2	Rectangular	Whole	Present	Present
17	1	29.0 x 5.5 x 8.3	Quadrangular	Whole	Present	Absent
	3	17.6 x 6.6 x 3.8	Reverse Triangular	Whole	Present	Absent
	5	18.7 x 5.8 x 5.0	Rectangular	Whole	Absent	Absent
	7	26.5 x 8.2 x 7.2	Rectangular	Whole	Present	Absent
18	1	28.5 x 7.6 x 6.7	Rectangular	Whole	Present	Present
19	1	30.2 x 9.1 x 8.4	Rectangular	Whole	Present	Present
	3	29.6 x 8.1 x 6.2	Rectangular	Whole	Present	Present
20	2	24.9 x 7.3 x 9.6	Rectangular	Whole	Present	Absent
	4	26.8 x 4.9 x 5.4	Reverse Trapezoidal	Whole	Present	Present
21	2	27.5 x 7.4 x 9.6	Rectangular	Whole	Present	Absent
	4	28.6 x 11.9 x 8.4	Rectangular	Whole	Present	Absent
25	1	22.9 x 11.4 x 7.7	Rectangular	Whole	Present	Absent
26	1	28.9 x 9.8 x 10.1	Quadrangular	Whole	Present	Present
	3	18.4 x 9.9 x 5.9	Rectangular	Broken	Present	Absent
	5	28.9 x 9.0 x 8.0	Rectangular	Whole	Present	Present
27	1	21.5 x 10.7 x 8.4	Reverse Triangular	Whole	Present	Absent
28	2	29.8 x 9.9 x 6.2	Rectangular	Whole	Present	Absent
29	1	19.3 x 7.1 x 6.4	Rectangular	Broken	Absent	Present



# **Site 27616, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
30	1	14.4 x 6.0 x 4.3	Rectangular	Whole	Present	Absent
31	1	26.9 x 8.7 x 7.9	Reverse Trapezoidal	Whole	Present	Absent
	3	24.2 x 14.1 x 9.7	Rectangular	Whole	Indeterminate	Absent
	6	30.5 x 8.0 x 10.1	Indeterminate	Whole	Indeterminate	Absent
32	1	27.2 x 14.1 x 7.2	Reverse Triangular	Whole	Present	Absent
34	1	28.3 x 10.9 x 7.7	Indeterminate	Broken	Absent	Present
	3	14.3 x 5.8 x 4.6	Rectangular	Whole	Present	Present
35	1	19.0 x 6.3 x 6.3	Reverse Triangular	Whole	Indeterminate	Absent
	3	30.8 x 7.3 x 7.3	Rectangular	Whole	Present	Present
	5	12.0 x 7.8 x 6.1	Rectangular	Broken	Present	Indeterminate
	7	12.2 x 8.6 x 6.7	Rectangular	Broken	Absent	Indeterminate
	10	25.8 x 7.7 x 6.7	Rectangular	Whole	Present	Absent
	11	26.0 x 6.1 x 6.6	Rectangular	Whole	Present	Present
36	1	29.2 x 9.9 x 6.2	Rectangular	Whole	Present	Absent
37	1	26.4 x 6.6 x 8.0	Quadrangular	Whole	Present	Absent
38	2	17.2 x 6.8 x 6.2	Quadrangular	Broken	Absent	Present
	4	20.1 x 8.1 x 7.2	Rectangular	Broken	Absent	Absent
	6	28.8 x 5.7 x 6.5	Reverse Trapezoidal	Whole	Present	Present
39	1	27.1 x 7.8 x 5.4	Rectangular	Whole	Present	Present
41	1	25.5 x 7.5 x 8.3	Rectangular	Whole	Present	Absent
42	1	24.6 x 7.6 x 7.3	Reverse Trapezoidal	Whole	Present	Present
42	3	26.3 x 7.2 x 6.4	Rectangular	Whole	Present	Absent
	5	27.9 x 9.0 x 10.2	Reverse Triangular	Whole	Present	Absent
	7	42.3 x 11.9 x 6.9	Lenticular	Whole	Present	Absent
	9	15.9 x 6.0 x 5.5	Quadrangular	Broken	Absent	Absent
	11	23.1 x 8.7 x 4.5	Indeterminate	Whole	Present	Present
	13	22.4 x 7.4 x 6.6	Rectangular	Whole	Present	Absent
	15	22.2 x 7.9 x 4.2	Rectangular	Whole	Present	Absent
44	2	24.3 x 10.1 x 10.2	Rectangular	Whole	Present	Absent
	4	22.7 x 8.8 x 6.8	Quadrangular	Whole	Present	Absent
	6	26.1 x 8.0 x 5.9	Reverse Triangular	Whole	Present	Present
45	1	28.7 x 9.4 x 7.3	Rectangular	Whole	Present	Absent
46	1	21.3 x 7.9 x 6.6	Rectangular	Whole	Present	Present
47	1	27.8 x 8.2 x 7.9	Rectangular	Whole	Present	Absent
	2	19.0 x 8.4 x 7.6	Rectangular	Broken	Absent	Indeterminate
48	2	30.6 x 11.9 x 7.6	Rectangular	Whole	Present	Absent
	4	26.0 x 8.8 x 5.0	Rectangular	Whole	Present	Present
	6	14.2 x 10.9 x 11.8	Quadrangular	Broken	Absent	Indeterminate
49	1	19.5 x 8.0 x 6.9	Quadrangular	Whole	Present	Absent
49	3	23.1 x 6.5 x 5.3	Rectangular	Whole	Present	Present

# Site 27616, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
50	1	29.3 x 6.5 x 7.6	Quadrangular	Whole	Present	Present
51	1	25.1 x 7.3 x 6.1	Rectangular	Whole	Present	Absent
52	2	26.5 x 9.0 x 8.8	Quadrangular	Whole	Present	Absent
	4	26.3 x 8.8 x 5.7	Indeterminate	Whole	Present	Absent
	6	30.7 x 8.7 x 9.2	Rectangular	Whole	Present	Absent
53	3	29.1 x 7.6 x 7.8	Rectangular	Whole	Present	Absent
	7	27.3 x 6.9 x 4.4	Reverse Trapezoidal	Whole	Present	Absent
	10	20.2 x 4.6 x 4.5	Rectangular	Whole	Present	Absent
54	1	29.2 x 10.0 x 7.8	Rectangular	Broken	Present	Indeterminate
	3	20.6 x 10.2 x 8.2	Rectangular	Broken	Absent	Absent
	5	17.5 x 9.4 x 7.3	Rectangular	Broken	Absent	Absent
56	1	24.2 x 9.4 x 6.8	Rectangular	Whole	Present	Present
	3	25.5 x 9.8 x 9.0	Quadrangular	Whole	Present	Present
	5	26.4 x 6.5 x 6.0	Rectangular	Whole	Present	Present
	7	20.5 x 7.3 x 4.2	Rectangular	Whole	Present	Present
	9	20.5 x 10.2 x 7.5	Reverse Triangular	Broken	Present	Absent
57	2	25.0 x 7.0 x 6.6	Rectangular	Whole	Present	Present
	4	16.8 x 7.8 x 4.1	Indeterminate	Whole	Absent	Absent
	6	21.1 x 7.1 x 6.1	Reverse Triangular	Whole	Present	Absent
	8	28.0 x 7.4 x 7.0	Rectangular	Broken	Present	Present
58	1	24.7 x 15.5 x 8.0	Reverse Trapezoidal	Whole	Absent	Absent
58	3	23.5 x 7.6 x 7.5	Quadrangular	Whole	Present	Present
59	1	20.2 x 4.2 x 6.2	Quadrangular	Whole	Present	Present
	3	16.5 x 8.0 x 4.6	Rectangular	Whole	Present	Absent
62	1	20.5 x 12.6 x 9.2	Rectangular	Whole	Present	Absent
	2	28.0 x 8.5 x 7.5	Rectangular	Whole	Present	Present
	3	20.6 x 7.1 x 7.3	Quadrangular	Whole	Absent	Absent
63	1	24.0 x 9.6 x 8.0	Quadrangular	Whole	Present	Present
	3	18.1 x 10.1 x 7.0	Rectangular	Whole	Present	Absent
	5	18.0 x 6.7 x 3.5	Lenticular	Whole	Present	Absent
	8	29.0 x 9.6 x 8.5	Rectangular	Whole	Present	Present
	10	23.3 x 7.5 x 6.5	Reverse Trapezoidal	Broken	Absent	Present
	12	16.5 x 6.3 x 5.7	Reverse Trapezoidal	Broken	Present	Absent
	14	26.2 x 9.8 x 11.0	Quadrangular	Whole	Present	Present
	16	17.2 x 7.0 x 4.5	Rectangular	Broken	Present	Present
	18	26.0 x 8.8 x 8.0	Indeterminate	Whole	Absent	Absent
65	1	15.4 x 5.5 x 2.8	Quadrangular	Broken	Present	Absent
66	1	30.0 x 11.0 x 8.5	Rectangular	Whole	Present	Absent
	3	18.5 x 6.9 x 6.0	Rectangular	Whole	Present	Absent
67	2	27.4 x 8.9 x 4.5	Reverse	Whole	Present	Absent
67			Trapezoidal			

### Site 27616, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
	3	31.5 x 9.2 x 8.0	Indeterminate	Whole	Absent	Absent
	5	23.4 x 9.0 x 9.5	Reverse Trapezoidal	Whole	Present	Present
68	1	17.2 x 7.5 x 5.9	Reverse Trapezoidal	Whole	Present	Present
	3	30.0 x 8.1 x 9.4	Quadrangular	Broken	Present	Present
69	2	15.2 x 5.2 x 3.7	Rectangular	Whole	Present	Absent
	4	47.5 x 18.0 x 13.0	Indeterminate	Whole	Present	Absent
	6	25.0 x 8.5 x 6.9	Quadrangular	Broken	Absent	Present
	8	22.5 x 7.9 x 7.4	Rectangular	Whole	Present	Present
	10	32.1 x 10.6 x 10.8	Rectangular	Whole	Absent	Absent
70	1	16.6 x 5.5 x 4.0	Reverse Trapezoidal	Whole	Present	Absent
	3	19.5 x 10.6 x 7.0	Quadrangular	Broken	Absent	Absent
72	2	20.5 x 8.3 x 6.8	Rectangular	Broken	Absent	Absent
	4	24.5 x 9.1 x 6.2	Rectangular	Whole	Present	Present
	6	29.5 x 9.3 x 8.8	Rectangular	Whole	Present	Present
	8	34.0 x 10.5 x 11.4	Reverse Trapezoidal	Whole	Present	Present
	10	25.0 x 11.0 x 12.0	Rectangular	Whole	Present	Absent
73	1	34.4 x 10.5 x 9.2	Reverse Trapezoidal	Whole	Present	Absent
	2	21.2 x 6.1 x 3.7	Rectangular	Whole	Present	Present
	3	15.4 x 9.5 x 8.6	Rectangular	Whole	Absent	Absent
74	1	27.0 x 7.3 x 8.2	Rectangular	Broken	Absent	Present
	3	17.5 x 8.1 x 4.0	Reverse Trapezoidal	Whole	Present	Absent
	4	16.1 x 5.4 x 5.0	Indeterminate	Broken	Absent	Absent
	5	23.5 x 9.2 x 8.0	Indeterminate	Whole	Present	Absent
	9	28.7 x 10.1 x 5.4	Reverse Trapezoidal	Whole	Present	Absent
	12	19.7 x 9.9 x 8.2	Indeterminate	Broken	Absent	Absent
	14	25.4 x 9.3 x 6.3	Indeterminate	Whole	Present	Absent
75	3	13.4 x 8.8 x 9.1	Reverse Triangular	Broken	Absent	Absent
	4	21.0 x 9.5 x 8.4	Reverse Triangular	Broken	Absent	Absent
	11	14.5 x 5.7 x 4.2	Rectangular	Whole	Present	Absent
	13	22.0 x 7.9 x 7.5	Rectangular	Whole	Present	Absent
	15	25.1 x 13.0 x 8.3	Rectangular	Whole	Present	Absent
	17	44.1 x 15.8 x 17.1	Reverse Triangular	Whole	Present	Absent
	18	30.9 x 11.0 x 12.0	Rectangular	Whole	Present	Absent
	22	31.2 x 10.0 x 6.2	Rectangular	Whole	Present	Present
	23	18.7 x 9.0 x 4.5	Rectangular	Broken	Absent	Absent
	31	17.7 x 6.5 x 4.9	Rectangular	Broken	Present	Absent
75	33	15.8 x 7.1 x 3.4	Reverse Triangular	Whole	Present	Absent
	36	19.9 x 8.5 x 7.9	Rectangular	Broken	Absent	Absent

### Site 27616, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
76	2	19.1 x 4.9 x 4.3	Reverse Trapezoidal	Whole	Present	Present
	3	16.5 x 4.7 x 2.7	Reverse Trapezoidal	Whole	Present	Present
78	1	18.7 x 7.5 x 8.0	Quadrangular	Broken	Absent	Absent
	2	28.7 x 14.2 x 9.2	Reverse Trapezoidal	Whole	Present	Absent
	3	32.0 x 12.0 x 10.3	Quadrangular	Whole	Absent	Absent
	4	29.3 x 15.1 x 11.7	Indeterminate	Whole	Absent	Absent
	5	31.0 x 17.4 x 13.0	Indeterminate	Whole	Absent	Absent
79	1	21.2 x 8.4 x 7.7	Indeterminate	Broken	Absent	Absent
	2	30.4 x 6.5 x 7.9	Indeterminate	Whole	Present	Present
	3	24.9 x 8.9 x 7.0	Indeterminate	Whole	Absent	Absent
80	1	19.0 x 6.5 x 3.1	Reverse Triangular	Broken	Present	Absent
	2	19.5 x 6.9 x 4.3	Indeterminate	Broken	Absent	Absent
	3	25.4 x 6.5 x 5.2	Indeterminate	Broken	Absent	Present
81	1	30.5 x 9.5 x 10.6	Reverse Triangular	Broken	Absent	Present
	2	20.7 x 11.8 x 10.5	Reverse Triangular	Broken	Absent	Absent
	3	30.1 x 8.9 x 7.2	Reverse Triangular	Broken	Present	Present
90	1	35.0 x 13.0 x 9.0	Rectangular	Broken	Absent	Indeterminate

### Extraction Areas 1-7 and Extraction Pit 1

Extraction Area 1 is located at the north end of the site along a north facing escarpment, and approximately 5.0 m south of TA1 along a west facing escarpment overlooking Pōhakuloa Gulch (see Figure 3.33). The vertical face of the exposed bedrock has a red cortex where basalt has not been extracted (quarried). Areas exhibiting signs of extraction have a dark gray color. The extraction area extends approximately 6.0 m (roughly east/west) and also contains basalt testing area 2 (TA2). Basalt testing area 2 consists of large boulders which exhibit signs of battering (e.g., areas where basalt flakes were taken off).

Extraction Area 2 (EA2) is associated with WS2-4 and is located south of the workshops (see Figure 3.33). The extraction area measures approximately 8.0 m long and consists of basalt rock removed from the vertical facing and pecked marks on the basalt rock.

Extraction Area 3 is located along the west facing escarpment and exhibits signs of extensive battering. The extraction area measures roughly 4.0 m long and has undercut the escarpment near the base.

Extraction Pit 1 (EP1) is located adjacent and west of EA3. All that remains of the pit is an outline of the pit because the pit has been filled in with cobbles and boulders (Figures \*\*).

Extraction Area 4 (EA4) is associated with WS7 and WS8 and basalt Testing Area 3 (TA3) (see Figure 3.35). Extraction Area 4 starts in the vicinity of WS7 and extends for roughly 23.0 m to the south. There are eight (8) small individual extraction areas along a 23.0 m stretch of the west facing escarpment which range in size from 1.0 m to 4.0 m in length and 1.0 m to 2.0 m in height. The north end of the extraction area appears to be the source of the material found at the workshops.

Extraction Area 5 (EA5) is associated with WS9, and is located east of WS9 and measures roughly 13.0 m by 7.0 m (see Figure 3.35).

Extraction Area 6 (EA6) is associated with WS10, and is located along the west facing escarpment. EA6 measures approximately 21.0 m long where it terminates where the escarpment makes a right angle to the east (see Figure 3.36).

Extraction Area 7 is located approximately 30.0 m north/northeast of EA1 of Site 27616 and 56.0 m south of Site 27614. It consists of a raised basalt outcrop with areas of battering along the north side. Large basalt flakes extend down (west) into the gulch.

### **Basalt Testing Areas 1 Through 3**

There are three basalt testing areas identified in Site 27616. These features are likely areas that were tested to determine the quality of basalt raw material and do not show signs of extensive quarrying. Basalt Testing Area 1 (TA1) is located at the north end of the site along a north facing escarpment and adjacent and south of WS1 (see Figure 3.33). TA1 measures approximately 1.4 m along the escarpment face and consists of areas where bedrock has been removed from the outcrop's vertical face.

Basalt Testing Area 2 (TA2) is in the vicinity of Extraction Area 1, located approximately 5.0 m south of TA1 along a west facing escarpment overlooking Pohakuloa Gulch. TA2 consists of large boulders which exhibit signs of battering (e.g., areas where basalt flakes were taken off).

Basalt Testing Area 3 (TA3) is located adjacent and south of WS7 and consists of boulders with large flake scars and large flakes.

### **Features 1 through 5**

As mentioned previously, Workshop 5 is located on terrace Features 1 and 2 (see Figure 3.34). Feature 1 is located above and east of Feature 2 and measures 8.0 m by 6.0 m. The actual construction details of the terrace are unknown due to the large number of surface basalt flakes present associated with Workshop 5.

Feature 2 is situated below and west and south of Feature 1 and measures 8.0 m by 3.5 m. The height difference between the two terraces is slight and the surface of the terrace slopes gradually from east to west. Like Feature 1, the construction of the Feature 2 terrace is undetermined due to the large number of surface basalt flakes.

Feature 3 is a perimeter wall associated with WS6 and EA3 (see Figure 3.34). The wall is constructed of piled basalt cobbles and small boulders and is situated along the south, west, and north sides of the WS6. The south end of the wall abuts EA3 and extends west for approximately 4.0 m then bends slightly to the northwest for an additional 4.0 m and then bends to the northeast for 4.0 m before terminating at the southwest end of Feature 5 (see Figure 3.34).

Feature 4 is a rock mound/pile located south of Feature 5 and north of WS6 (see Figure 3.34). The pile consists of basalt cobbles and boulders that appear to have come from EA3. On the pile are discarded basalt cores, flakes, and basalt slabs.

Feature 5 is a linear mound located at the north end of Feature 3 and separates Workshop 5 from Workshop 6 (see Figure 3.34). The mound is located on top of a portion of Feature 4 and is constructed of piled, with some stacked (4-5 courses), basalt cobbles and boulders. Feature 5 measures 3.5 m by 1.1 m and has a maximum height of 0.9 m. One basalt hammerstone was observed on the mound.

Feature 6 is a mound located at the north end of the gulch, approximately 30.0 m north/northwest of Shrine 4 (Figure 3.38). The mound is constructed on a boulder in the middle of the drainage of the Pōhakuloa Gulch tributary. The mound, semi-circular in shape, is constructed of piled cobbles and boulders and measures 3.6 m by 2.0 m with a maximum height of 1.2 m. The mound is likely a marker.

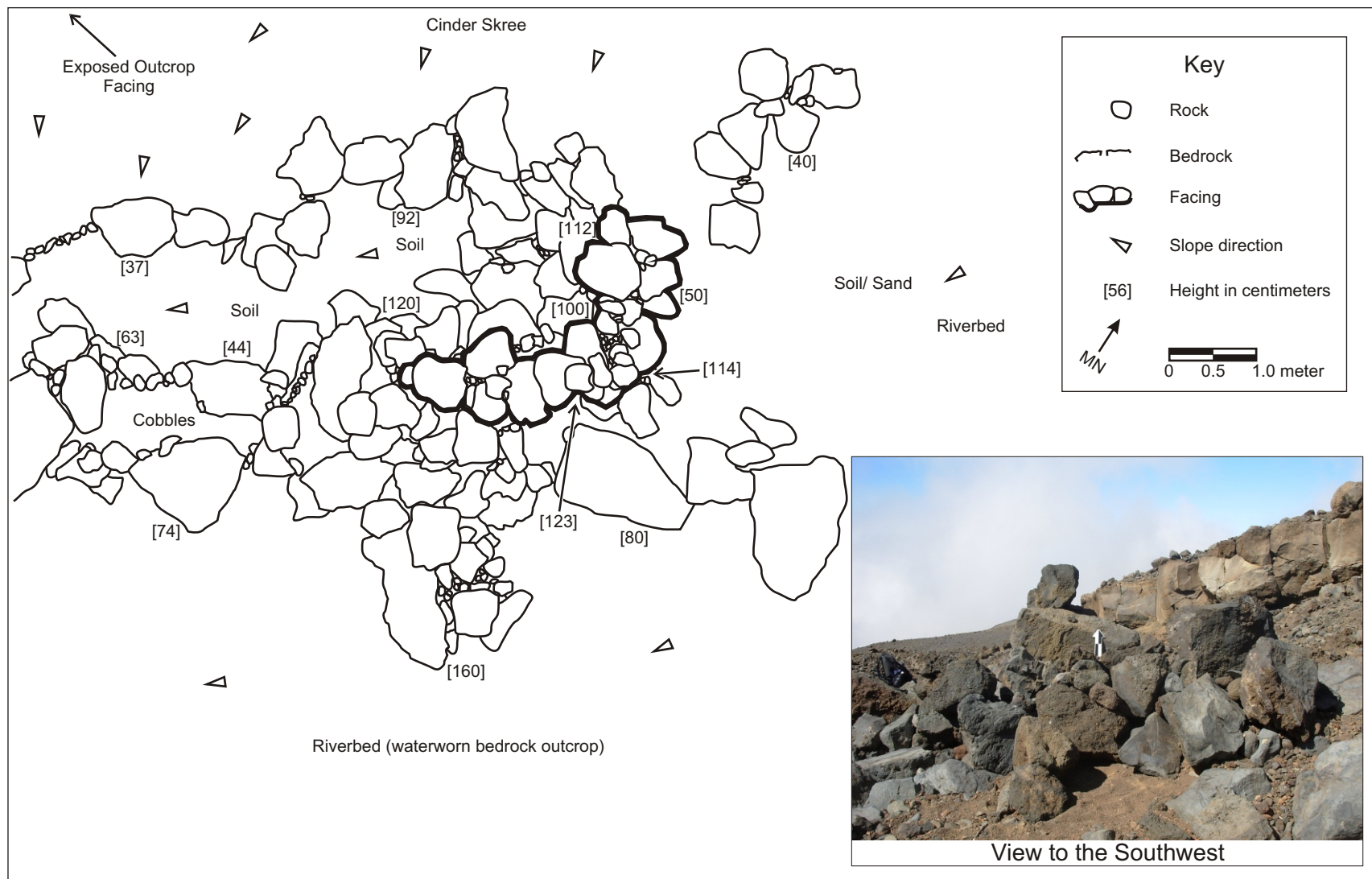
Feature 7, a platform, is located 13.0 m west of WS66 on a raised gelifluction lobe within Pohakuloa Gulch (Figure 3.39). The platform is perpendicular to the lobe and measures 5.9 m long by 3.1 m wide with a maximum height of 0.7 m (see Figure 3.39). It is constructed of piled and stacked cobbles and small boulders with a cobble surface that slopes to the northwest. The surface of the platform also contains 10-20 basalt flakes placed near the center of the platform. Additional basalt flakes were observed on the northeast and southwest sides of the platform. The platform is likely a burial.

### **Shrines 1 Through 5**

Five upright structures, designated as Shrines 1-5, were identified at Site 27616. Shrines 1 through 3 form a shrine complex located approximately 46.0 m south/southeast of the northern end of the Extraction Area 1 and WS1, and 35.0 m southeast of WS6 (Figure 3.40).

Shrine 1 is located at the southern end of the shrine complex and consists of a rock pile with at least one upright, and possibly three uprights (Upright No.'s 1 through 3). The rock pile consists of piled cobbles and small boulders placed against a larger boulder. It measures 1.0 m by 1.0 m and has a maximum height of 0.9 m (See Figure 3.40). Upright No. 1 is the largest of the uprights; Upright No.'s 2 and 3 appear to be similar to support stones associated with shrine uprights. However Upright No.'s 2 and 3 have been placed upright next to and support Upright No. 1 (see upright data table below). Associated with the shrine are approximately 15 basalt flakes and several pieces of light grey basalt. The flakes are placed on and around the rock pile.

Shrine 2 is located approximately 12.0 m north of Shrine 1 on an exposed, fractured, basalt outcrop (see Figure 3.40). The shrine consists of 1, possibly 3 uprights (Upright No.'s 4 through 6 in upright data table below), placed along the long axis of this outcrop. The uprights are of a light gray basalt, not commonly found in the area. In



**Figure 3.38. Site 27616, Feature 6, Plan View and Photograph.**



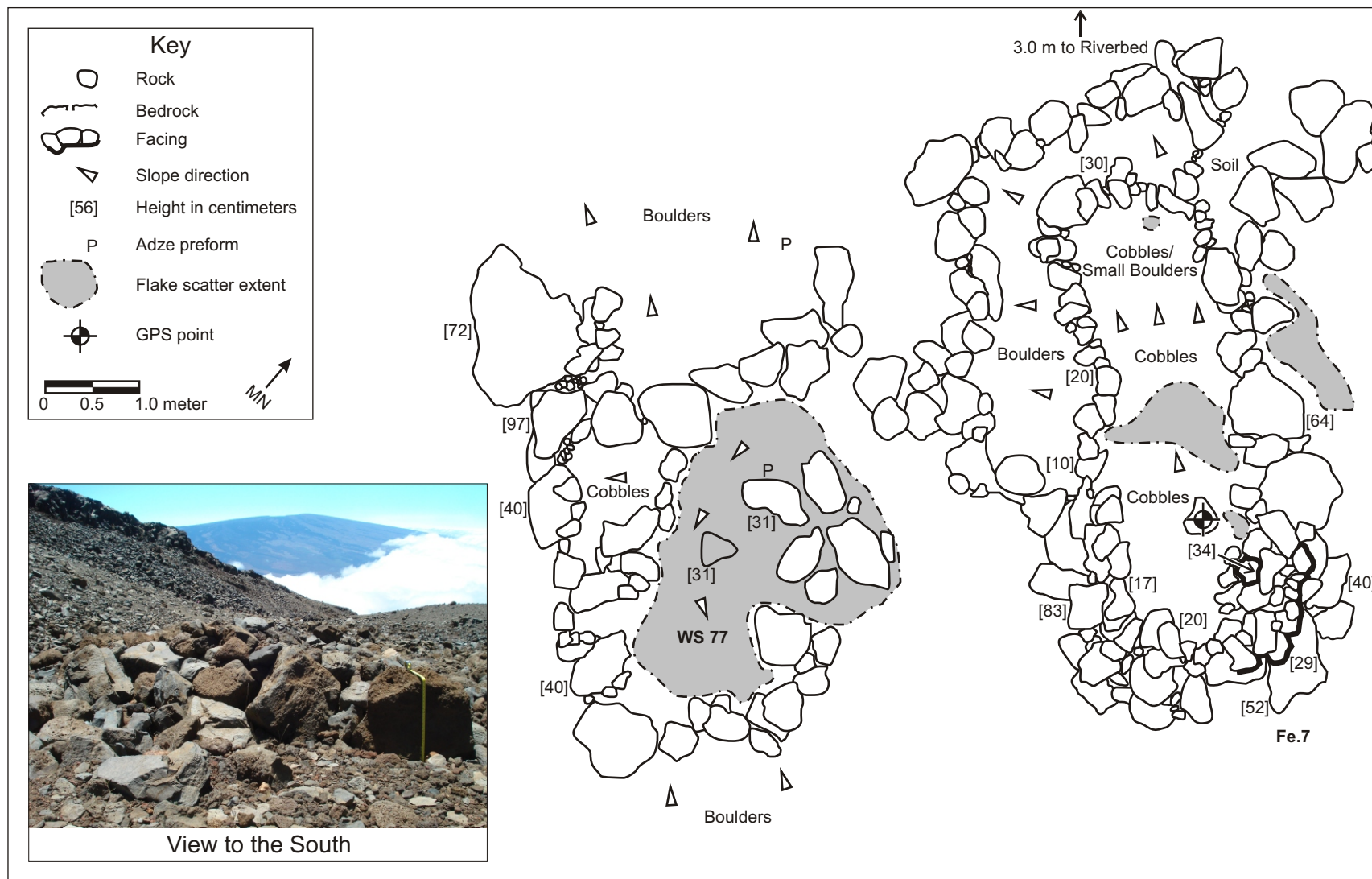
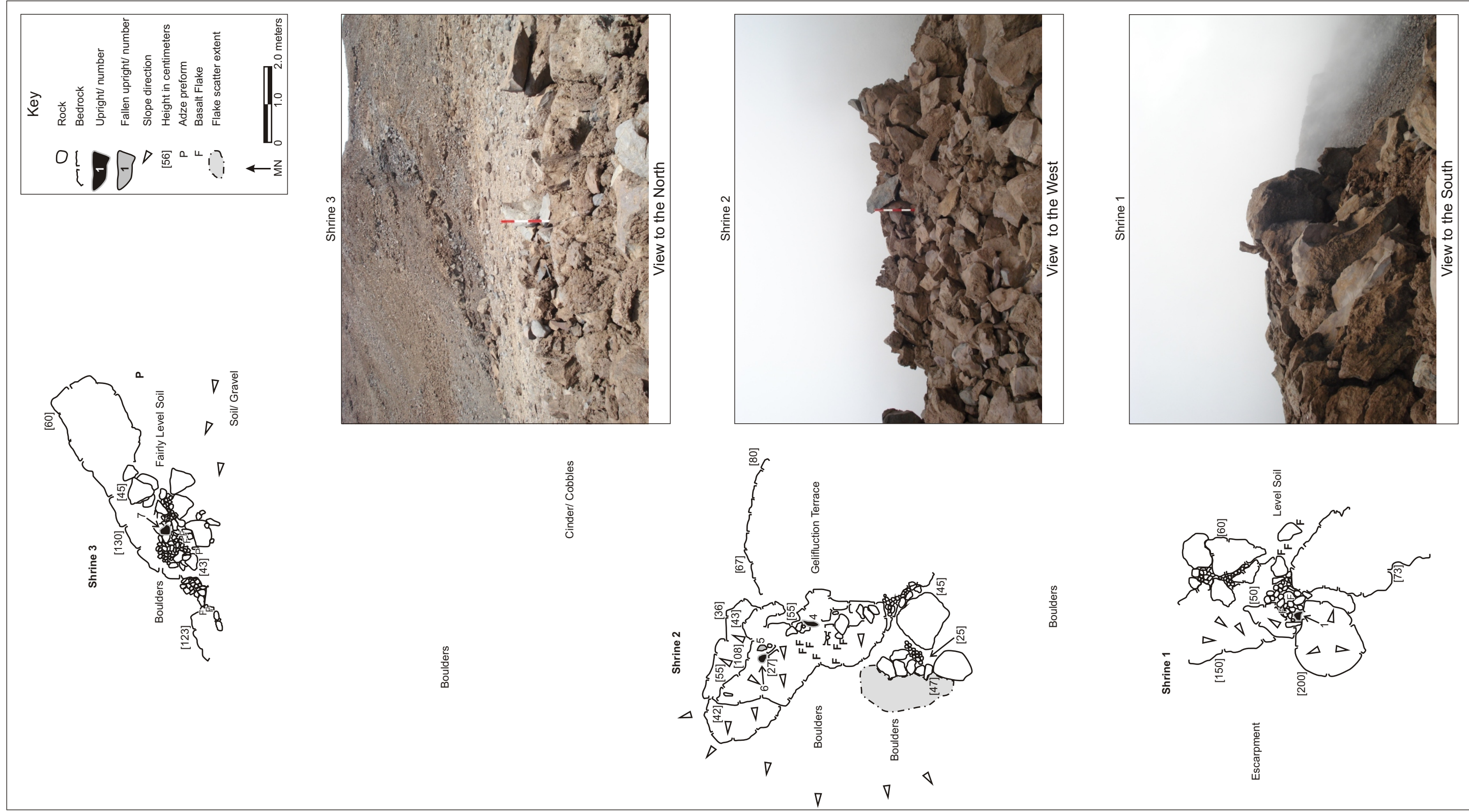


Figure 3.39. Site 27616, Feature 7, and Workshop 77, Plan View and Photograph.



addition to the uprights numerous pieces of light gray basalt are present on and around Shrine 2. Also noted, along the west side of the shrine, are at least five basalt flakes.

Shrine 3 is located approximately 15.0 m north of Shrine 2 on a gelifluction terrace oriented roughly east/west (see Figure 3.40). The foundation of the shrine consists of piled cobbles and small boulders, and is approximately 5.5 m long by 1.5 m wide with a maximum height of 0.4 m. The upright (Upright No. 7 in the upright data table below) is located near the eastern end of the shrine along with a number of basalt flakes. Additional basalt flakes were observed approximately 1.0 m west of the shrine. Like Shrines 1 and 2, several of pieces of light gray basalt were observed on and around Shrine 3.

One basalt adze preform was observed approximately 1.0 m south of the upright. Metric and non-metric data for this adze preform were collected in the field and are summarized in the adze preform data table below. The adze preform was also selected for EDXRF Analysis. The results of the analysis can be found in Volume 1, Section 6 and in Appendix M.

#### Site 27616, Shrines 1 through 3, Metric and Non-Metric Upright Data

Shrine/Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Rock pile	T	S/I	-	Beveled	64	28	20
1/2 <sup>E</sup>	Rock pile	T	D	-	Flat	52	18	9
1/3 <sup>E</sup>	Rock pile	T	I	-	Beveled	50	17	8
2/4 <sup>E</sup>	Bedrock surface	T	D	-	Mesial curve	55	33	15
2/5	Bedrock surface	T	P	-	Beveled	26	10	7
2/6 <sup>E</sup>	Bedrock surface	T	D	-	Beveled	28	19	9
3/7 <sup>E</sup>	Mound	T	I	-	Pointed/beveled	41	23	12

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

#### Site 27616, Shrine 3, Metric and Non-Metric Adze Preform Data

Shrine No.	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
3	1	14.0 x 4.9 x 3.5	Rectangular	Whole	Absent	Indeterminate

Shrines 4 and 5 are located in a tributary of Pohakuloa Gulch and west and downslope of WS1-89 and Shrines 1-3. Shrine 4 is a rock mound located at the north end of the tributary on a large basalt outcrop adjacent to and east of the dry streambed.

It is constructed of piled cobbles and small boulders and measures approximately 1.5 m long by 0.85 m wide (Figure 3.41). No uprights were observed with the shrine, however one adze preform was observed next to the shrine. The adze preform is made from dark gray basalt not observed elsewhere at Site 27616. A second adze preform was observed within a basalt flake scatter located 2.0 m south. Metric and non-metric data for the two adze preforms at Shrine 4 were collected in the field and are summarized in the adze preform data table below.

**Site 27616, Shrine 4, Metric and Non-Metric Adze Preform Data**

Shrine No.	Adze Sample Number	Dimensions L x W x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
4	1	25.8 x 8.1 x 6.4	Rectangular	Whole	Present	Present
	2	30.0 x 8.0 x 6.5	Rectangular	Whole	Present	Present

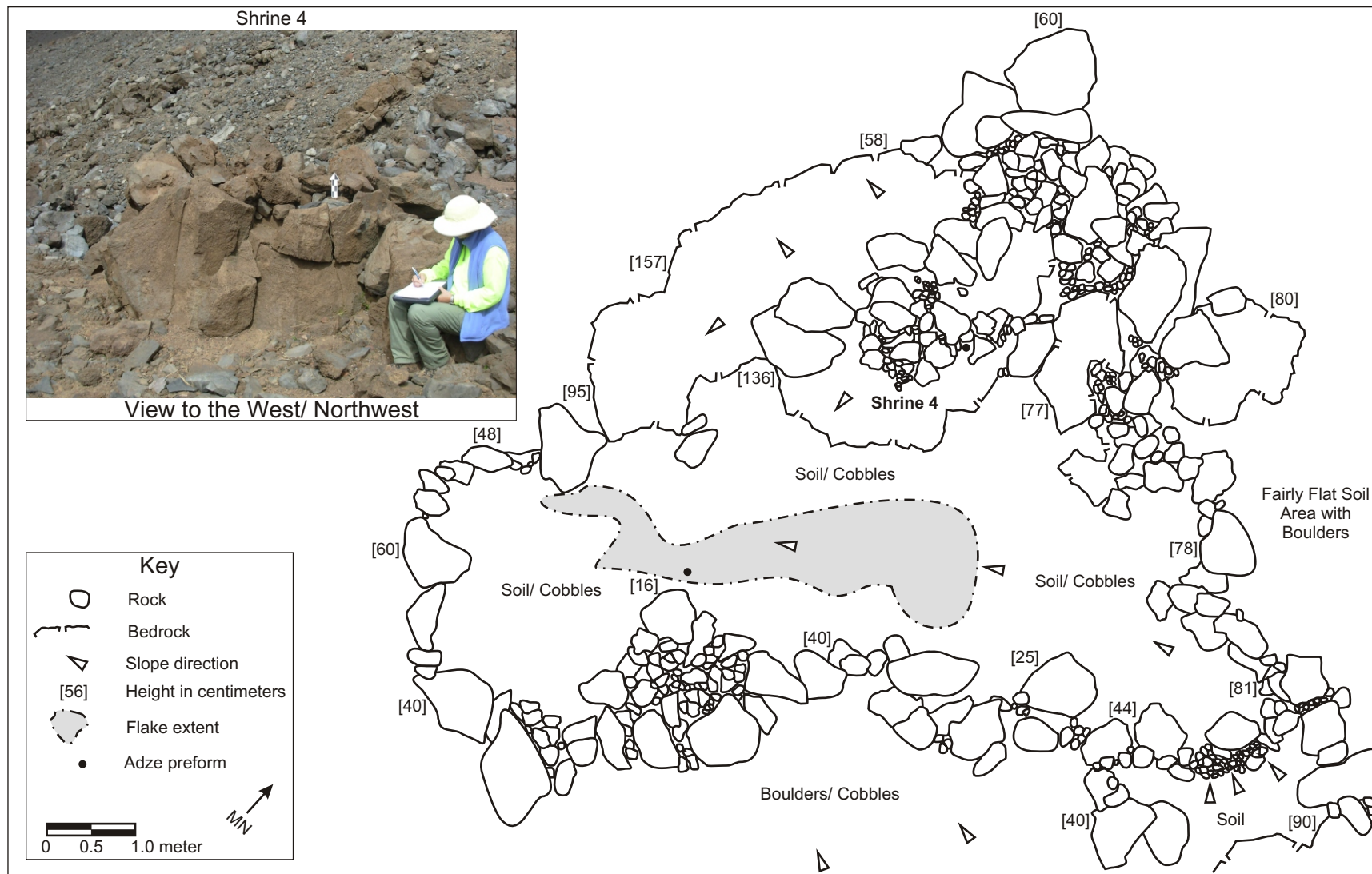
Shrine 5 is located in the middle of the gulch bottom on a raised glacial outwash that has been eroded on both sides by excessive water run-off over the years. This shrine is constructed of piled cobbles and small boulders and measures approximately 4.1 m by 2.6 m with a maximum height of 0.7 m (Figure 3.42). Along the perimeter of the shrine is one, possibly 6, uprights with only one upright (UR1) erect; Upright 1 is located in the southeast corner of the shrine (Site 27616, Shrine 5 Upright Metric and Non-metric Data Table). The surface of the shrine contains over fifty large basalt flakes in two concentrations and at least two adze preforms. The basalt flakes range from 8.0 cm to 20 cm in length. The two adze preforms were analyzed in the field for metric and non-metric data. A summary of the data is present in the table below and detailed data presented in Volume 1, Section 6.

**Site 27616, Shrine 5 Upright Metric and Non-Metric Upright Data**

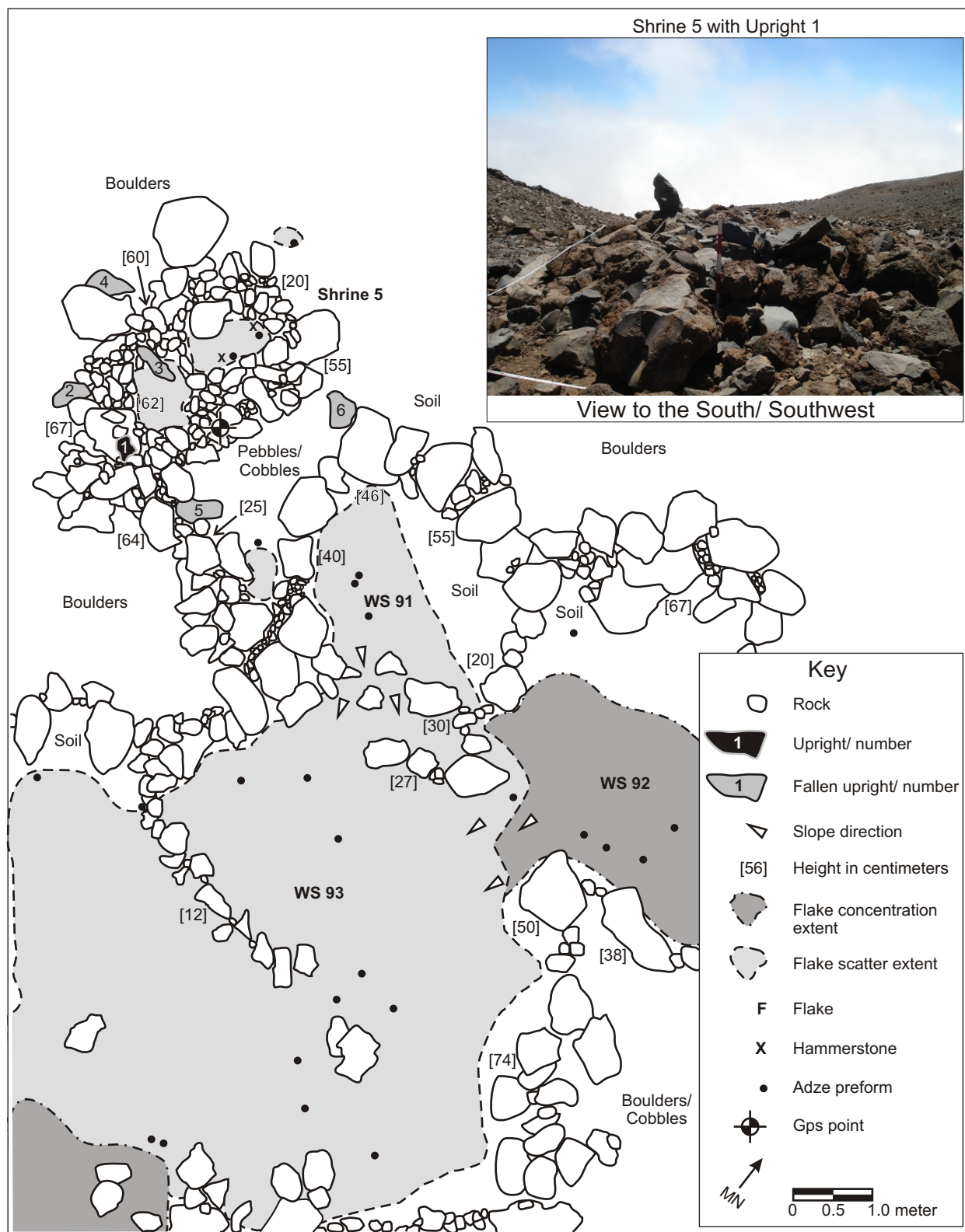
Shrine/Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
5/1 <sup>E</sup>	Mound	T	D	-	Rounded	51	31	20
5/2	Mound	T	CR	-	Flat	59	22	14
5/3	Mound	T	P	-	Beveled	55	12	5
<b>5/4</b>	<b>Mound</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Unknown</b>	<b>53</b>	<b>17</b>	<b>5</b>
<b>5/5</b>	<b>Mound</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Flat</b>	<b>59</b>	<b>29</b>	<b>13</b>
<b>5/6</b>	<b>Other</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Rounded</b>	<b>51</b>	<b>40</b>	<b>11</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular, CR = crescent; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright





**Figure 3.41. Site 27616, Shrine 4, Plan View and Photograph.**



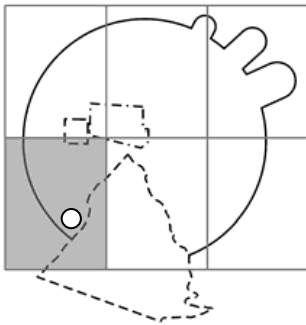
**Figure 3.42. Site 27616, Shrine 5, and Workshops 91 through 93, Plan View and Photograph.**

**Site 27616, Shrine 5, Metric and Non-Metric Adze Preform Data**

<b>Shrine No.</b>	<b>Adze Sample Number</b>	<b>Dimensions L x W x Th (cm)</b>	<b>Cross-Section</b>	<b>Condition</b>	<b>Cutting Edge Absent/Present/Indeterminate</b>	<b>Tang Absent/Present/Indeterminate</b>
5	1	16.0 x 6.8 x 5.75	Square	Broken	Present	Indeterminate
	2	18.5 x 3.0 x 3.5	Square	Broken	Present	Indeterminate



**STATE SITE 50-10-23-27617**

<b>Additional Site Numbers:</b> Temporary		Site C
<b>Site Function:</b> Adze manufacturing complex and shrines		<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 50.0 m by 14.0 m		
<b>Number of Components:</b> 7		
<b>Topographic Location:</b> Ridge crest		
<b>Approximate U.S.G.S. Elevation:</b> 11,800 ft a.m.s.l.		
<b>2008 GPS File No.:</b> RN182, KN11		
<b>Current Status:</b> New site.		

**DESCRIPTION:**

Site 27617 is situated along a ridge crest within a gulch, or valley, associated with Pohakuloa Gulch and south of the natural land formation called the “crag” (Figure 3.43). It is located south/southwest of Site 27615 and west of Site 27616. It consists of four or possibly five shrines (Shrines 1-5), one workshop (WS1), and one basalt flake scatter (Fs1) located within an area approximately 50.0 by 14.0 m.

Shrine 1 consists of a small platform with two upright basalt slabs placed along the southeast and southwest ends of the platform (Figure 3.44). An additional seven possible basalt uprights, all fallen, are positioned around the perimeter of the platform (see upright data table below).

**Site 27617, Shrine 1 Metric and Non-metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Platform	T	I	-	Flat	62	49	18
1/2 <sup>E</sup>	Platform	T	I	-	Pointed	40	24	4
<b>1/3</b>	<b>Platform</b>	<b>T</b>	<b>CR</b>	<b>-</b>	<b>Pointed</b>	<b>64</b>	<b>29</b>	<b>14</b>
<b>1/4</b>	<b>Platform</b>	<b>T</b>	<b>I</b>	<b>-</b>	<b>Flat</b>	<b>56</b>	<b>35</b>	<b>13</b>
<b>1/5</b>	<b>Platform</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Beveled</b>	<b>63</b>	<b>29</b>	<b>14</b>
<b>1/6</b>	<b>Platform</b>	<b>T</b>	<b>S</b>	<b>-</b>	<b>Pointed</b>	<b>52</b>	<b>30</b>	<b>13</b>
<b>1/7</b>	<b>Platform</b>	<b>T</b>	<b>S</b>	<b>-</b>	<b>Mesial</b>	<b>57</b>	<b>25</b>	<b>11</b>
<b>1/8</b>	<b>Platform</b>	<b>T</b>	<b>I</b>	<b>-</b>	<b>Pointed</b>	<b>57</b>	<b>31</b>	<b>37</b>
<b>1/9</b>	<b>Platform</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Beveled</b>	<b>61</b>	<b>30</b>	<b>9</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

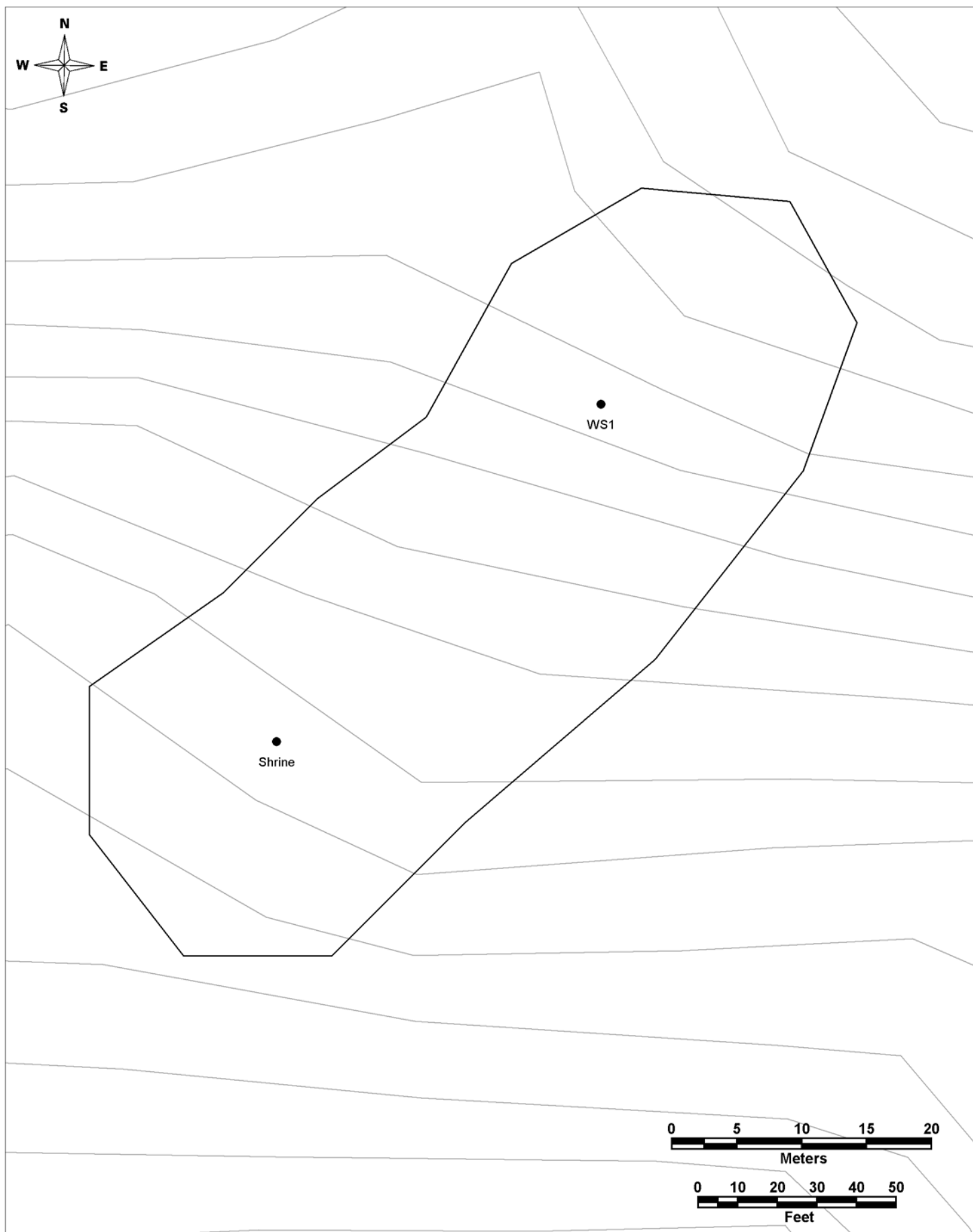


Figure 3.43 Site 27617 Showing Locations of Site Components.

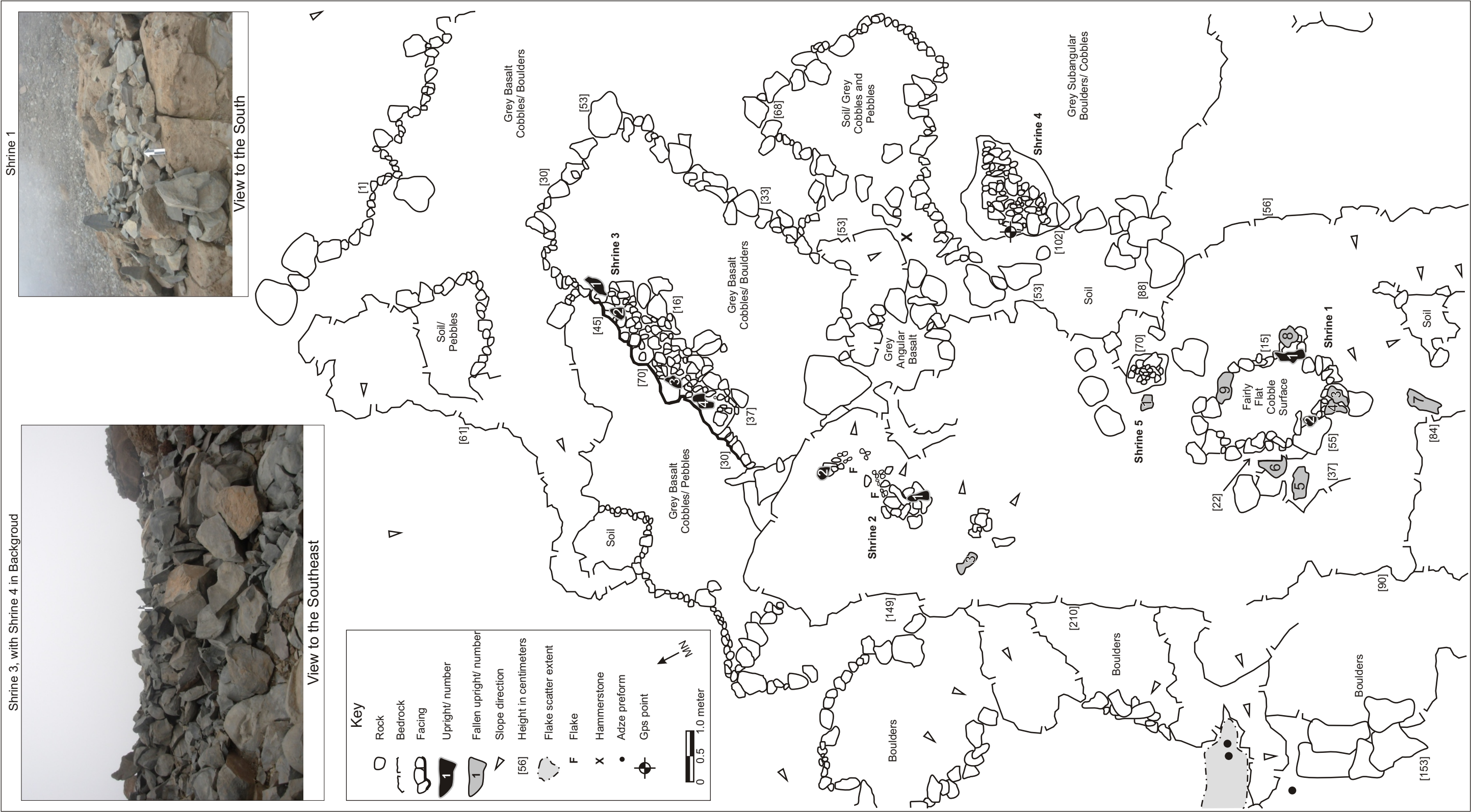


Figure 3.44. Site 27617, Shrine Complex, Plan View and Photographs.

The platform for Shrine 1 is built in a shallow U-shaped depressed area of the bedrock and is constructed of piled basalt cobbles and small boulders. The north and south sides of the platform are constructed of piled basalt boulders extending east/west and abutting the bedrock. The platform measures approximately 3.2 m (north/south) by 2.0 m (east/west) with heights ranging between 15.0 cm along the west side and 51.0 cm along the east, south, and north sides.

Shrine 2 consists of three rock piles (RP1 - RP3) with uprights located approximately 7.0 m north of Shrine 1 (see upright data table below; see Figure 3.44). The shrine is located on bedrock with each of the rock piles approximately 1.0 m apart and oriented parallel to the ridge. The rock piles are constructed of piled basalt cobbles and small boulders measuring, on average, 0.75 m in diameter with a maximum height of 50.0 cm. Upright No. 1 is located in the center of the three rock piles and is placed erect on RP2. Upright No. 2 is located approximately east of Upright No. 1 and is also placed erect on RP1. Upright No. 3 is located on RP3 and is approximately west of Upright No. 1, but has fallen. Between RP1 and RP2 are at least 10 basalt flakes and two basalt cores.

#### Site 27617, Shrine 2, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Platform	T	I	-	Flat	62	49	18
1/2 <sup>E</sup>	Platform	T	I	-	Pointed	40	24	4
1/3	Platform	T	CR	-	Pointed	64	29	14

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

Shrine 3 is a linear rock mound situated on a possible platform located approximately 2.0 m east of Shrine 2 (see Figure 3.44). This possible platform is oriented approximately parallel (east/west) to the ridge, and is constructed of piled basalt cobbles and small boulders with some stacking evident along the north side. The platform is approximately 7.0 m long by 4.0 m wide with a maximum height of 70.0 cm along the north side. The mound, located at the north edge of the platform, is approximately 3.6 m long by 0.9 m wide and has a maximum height of 91.0 cm. The mound is constructed of piled basalt cobbles and small boulders. There are four uprights placed on the mound, two at each end of the mound and all four are erect (see upright data table below).

#### Site 27617, Shrine 3, Metric and Non-Metric Upright Data

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	I	-	Pointed	54	51	12

### Site 27617, Shrine 3, Metric and Non-Metric Upright Data

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/2 <sup>E</sup>	Mound	T	P	-	Rounded	27	21	14
1/3 <sup>E</sup>	Mound	T	P	-	Flat	35	21	9
1/4 <sup>E</sup>	Mound	T	D	-	Rounded	29	38	16

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

Shrine 4 is located approximately 2.0 m south of Shrine 3 and consists of a rock mound on a large basalt boulder (see Figure 3.44). The mound, measuring approximately 2.0 m by 1.0 m, is constructed of piled cobbles and small boulders placed on a large basalt boulder measuring 2.1 m by 1.3 m and 0.9 m high. Although no uprights were observed on the mound, several basalt flakes were placed on the mound. A single basalt hammerstone was observed approximately 1.5 m north of Shrine 4. It is approximately 13.3 cm by 10.3 cm by 9.5 cm thick and is broken.

Shrine 5 is located 3.0 m west of Shrine 4 and 1.0 m northeast of Shrine 1 (see Figure 3.44), and consists of a rock pile and a fallen upright. The rock pile consists of approximately 24 cobbles and small boulders, and measures 0.76 m by 0.64 m with a maximum height of 40.0 cm. The fallen, possible upright is located along the west/northwest side of the shrine (see upright data table below).

### Site 27617, Shrine 5, Metric and Non-Metric Upright Data

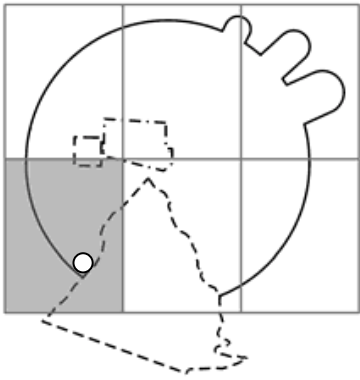
Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T	P	-	Flat	30	20	3

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

Workshop 1 (WS1) is located approximately 35.0 m northeast of the northern end of the shrine complex (see Figure 3.43). The workshop is approximately 3.0 m by 3.0 m and consists of basalt flakes of various sizes. No adze preforms or hammerstones were observed at this workshop.

A dispersed basalt flake scatter (Fs1) is located 5.0 m northwest of Shrine 1 and extends roughly in a west/northwest direction. It covers an area approximately 2.0 m in diameter. No adze preforms or hammerstones were observed.

**STATE SITE 50-10-23-27618**

<b>Additional Site Numbers:</b> Temporary Site A	
<b>Site Function:</b> Adze manufacturing complex, shrines	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 200.0 m by 100.0 m	
<b>Number of Components:</b> 16	
<b>Topographic Location:</b> Gulch and talus slope	
<b>Approximate U.S.G.S. Elevation:</b> 11,709 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN044, RN045 <b>2008 GPS File No.:</b> RN166-180	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27618 is located along the southern boundary of the Science Reserve in one of the Pohakuloa Gulch tributaries. It is situated approximately 85.0 m south of the southern end of Site 27616 and consists of 10 workshops (WS1-10), one shrine (Shrine 1), one possible shrine (Shrine 2), and four isolated artifacts (IO1-4) (Figure 3.45). The workshops are located along the east side of the gulch on an elevated terrace above the seasonal stream bed. Three of the workshops (WS1, 2, and 3) are located on gelifluction terraces and at least seven workshops (WS4-10) are located above Workshops 1 through 3 on the west facing talus slope, near the crest of the ridge. The shrines are located along the west side of the site adjacent to Workshops 1-3, overlooking the gulch drainage.

Workshops 1-3 are located on a relatively level gelifluction terrace, with the exception of the south end of Workshop 3, which slopes south/southwest into the gulch drainage (see Figure 3.45). The workshops are relatively large, ranging from 8.5 m by 3.5 m to 12.0 m by 8.0 m, with hundreds of basalt flakes and a minimum of 26 adze preforms. On Workshop 1 in the northwest corner is a dense concentration of small basalt flakes covering an area approximately 2.0 m in diameter.

Metric and non-metric data were collected in the field for 13 of the 26 adze preforms observed at Workshops 1-3. The data are summarized in the adze preform data table below and detailed results can be found in Volume 1, Appendix I.

**Site 27618, Workshop 1, Metric and Non-Metric Adze Preform Data**

Workshop Number	Adze Sample Number	Dimensions L x Wi x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	2	23.0 x 6.0 x 6.8	Rectangular	Whole	Present	Present
	4	22.5 x 7.2 x 5.0	Rectangular	Whole	Present	Present

### Site 27618, Workshop 1, Metric and Non-Metric Adze Preform Data

Workshop Number	Adze Sample Number	Dimensions L x Wi x Th (cm)	Cross-Section	Condition	Cutting Edge Absent/Present/Indeterminate	Tang Absent/Present/Indeterminate
1	6	25.5 x 6.5 x 6.12	Rectangular	Whole	Present	Present
	8	36.0 x 12.5 x 16.0	Rectangular	Whole	Absent	Absent
2	1	31.3 x 11.2 x 11.5	Rectangular	Whole	Absent	Absent
	3	21.0 x 7.5 x 8.6	Quadrangular	Broken	Absent	Absent
	5	41.0 x 15.0 x 18.0	Rectangular	Whole	Present	Absent
3	1	26.8 x 7.0 x 5.2	Rectangular	Broken	Absent	Present
	3	23.4 x 10.2 x 9.4	Quadrangular	Broken	Absent	Absent
	5	25.5 x 11.0 x 9.4	Quadrangular	Broken	Absent	Present
	7	25.0 x 6.2 x 5.5	Reverse plano-convex	Whole	Present	Present
	9	31.5 x 11.0 x 9.0	Rectangular	Whole	Present	Present
	11	18.5 x 6.8 x 4.4	Reverse trapezoidal	Whole	Present	Absent

Workshops 4 through 10 (WS4-10), located on a talus slope, were not recorded in detail due to the steep and rocky slope. Approximate location was recorded with GPS and the absence/presence of adze performs was noted.

Shrine 1 is located southwest of WS1 and west of WS2, and is situated on an exposed outcrop which is oriented north/south (Figure 3.46). The foundation for the shrine is a mound constructed of piled basalt cobbles and small boulders placed between larger boulders on the south end and outcrop on the north end. The mound is approximately 2.0 m long by 0.95 wide with a maximum height of 0.55 m. On top of the mound are two uprights (see upright data table below). Upright No. 1 is located along the north end of the rock pile and is leaning. Upright No. 2 is fallen, and is located near the center of the rock pile. Basalt flakes are scattered on and around the feature, and one dark gray basalt core is located on the feature.

### Site 27618, Shrine 1, Metric and Non-Metric Upright Data.

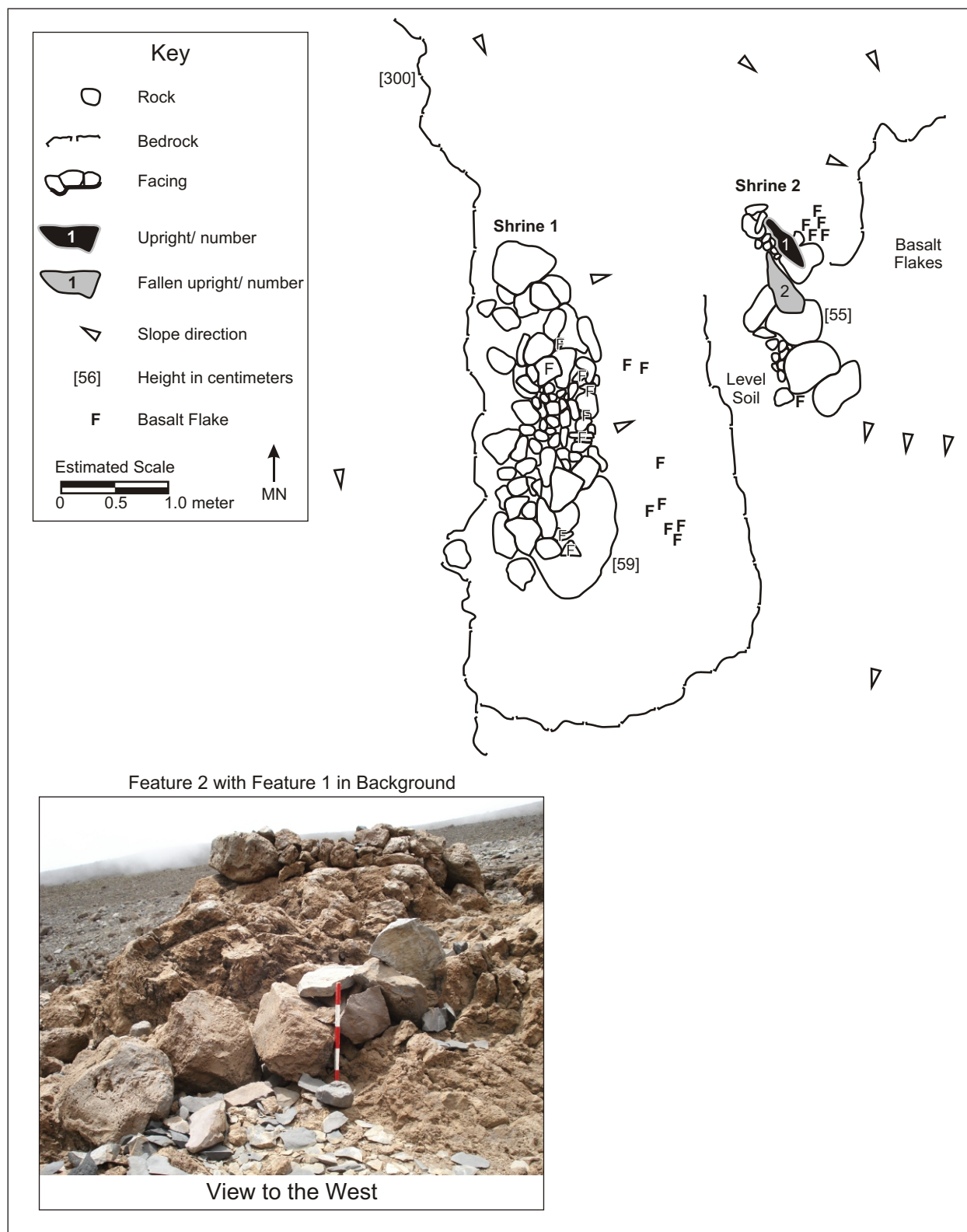
Shrine/Upright #	Upright Foundation Material		Upright Form			Upright Dimensions (cm)		
			Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	C	-	Beveled	47	28	9
1/2	Mound	T	C	-	Round	54	26	6

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = Irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright





Figure 3.45 Site 27618 Showing Locations of Site Components.



**Figure 3.46. Site 27618, Shrines 1 and 2, Plan View and Photograph.**

Shrine 2 is a possible shrine without an upright located on an outcrop overlooking the gulch approximately 2.0 m east/northeast of Shrine 1 (see Figure 3.46). The foundation of the shrine consists of a mound constructed of piled basalt cobbles and small boulders. It is approximately 2.25 m long by 0.75 m wide and has a maximum height of 59 cm. On and along the east side of the mound are a minimum of 17 basalt flakes. The flakes range in size from less than 5.0 cm to greater than 10.0 cm in length.

Four isolated objects were also observed at Site 27618. These include one adze preform (IO1), one hammerstone, (IO2), one flaked basalt cobble (IO3), and one boulder that appears to have been battered (IO4). Additional isolated basalt flake scatters and at least two adze preforms were observed outside the gulch on a glacial moraine approximately 50.0 m west of the shrine.

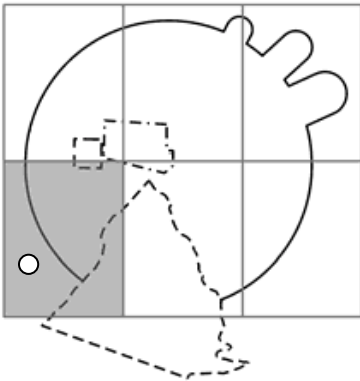
### 3.2 ISOLATED QUARRY/WORKSHOP

Table 3.2 summarizes the site components for sites in the isolated quarry/workshop category.

**Table 3.2 Summary of Site Components for Isolated Quarry/Workshops.**

<b>Site Number 50-10-23-</b>	<b>Shrine</b>	<b>Marker/ memorial</b>	<b>Adze workshop</b>	<b>Flake scatter</b>	<b>Hammerstone workshop</b>	<b>Isolated artifacts</b>	<b>Total number of Components</b>
21437			1				1

**STATE SITE 50-10-23-21437**

<b>Additional Site Numbers:</b> Temporary E-58	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 30.0 m by 20.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 11,864 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN117-119	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Located just outside Science Reserve. Site boundaries expanded to 30.0 by 20.0 m.	
<b>Subsequent Site Visits:</b> 2007	

**DESCRIPTION:**

Site 21437 is a small isolated quarry/workshop located on the southwest flank of Mauna Kea outside the Science Reserve. It was originally found in 1997 (McCoy 1999). The site, which was not mapped, is located on a glacial drift (scree slope) comprised of tabular slabs (Figure 3.47). The raw material source is located at the edge of a flow of fine-grained, dense basalt. The cultural materials observed include six or more cobble-sized cores, 300-400 flakes, and at least two basalt hammerstones. In 2007 the boundaries for the site were expanded from 5.0 m by 5.0 m to 30.0 m north/south by 20.0 m east/west. Because it is located outside the Science Reserve the full extent of the site was not determined.



**Figure 3.47. Photograph of Site 21437; View to the Northeast**

### 3.3 ISOLATED LITHIC SCATTERS AND ARTIFACTS OF UNCERTAIN FUNCTION

Table 3.3 summarizes the sites and site components for the 12 sites in this category.

**Table 3.3. Summary of Site Components for Isolated Lithic Scatters and Artifacts of Uncertain Function.**

Site Number 50-10-23-	Adze workshop	Temporary habitation	Unknown	Isolated artifacts	Total number of Components
21204	1		3		4
25760	1				1
25761	1				1
25762	1	3			4
25767				1	1
25768				1	1
25769	1				1
25779	1				1
25796	1				1
25801	1				1
25828	1				1
26249	1				1
TOTAL	10	3	3	2	18

#### 3.3.1 Artifact Sites

Of the 12 sites in this category, eight consist of one or more isolated artifacts only with no associated surface remains. Table 3.4 summarizes site information for these eight sites.

**Table 3.4. Summary of Artifact Sites.**

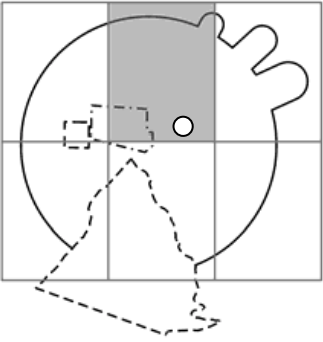
Site No. (50-10-23-)	Temporary Site No.	Date Found	Elevation (Ft. AMSL)	Location	Comments
25760	PM2006-11	2006	11,448	Data not available	Located 180 m outside southeastern boundary of Science Reserve. Site consists of approximately 15 basalt flakes, many of which have cortex on dorsal surface
25761	PM2006-13	2006	11,639	Glacial outwash	Single basalt flake of poor quality; likely not from Mauna Kea Adze Quarry
25768	RN2006-49	2006	12,192	Glacial drift	Single basalt flake

**Table 3.4. Summary of Artifact Sites.**

<b>Site No. (50-10-23-)</b>	<b>Temporary Site No.</b>	<b>Date Found</b>	<b>Elevation (Ft. AMSL)</b>	<b>Location</b>	<b>Comments</b>
25769	RN2006-2	2006	12,160	Data not available	Due to time constraints, no data is available
25779	RN2006-47	2006	11,996	Data not available	Three performs and a hammerstone
25796	RN2006-45	2006	12,627	Data not available	Four preforms, flakes (unknown quantity) and one hammerstone
25801	RN2006-46	2006	11,353	Data not available	Four basalt flakes
25828	RN2006-48	2006	12,712	Data not available	Single basalt flake (collected)



**SITE 50-10-23-21204**

<b>Additional Site Numbers:</b> Temporary T-08	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 23.0 m by 9.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,800 ft a.m.s.l.	
<b>2005 GPS File No.:</b>	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b>	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

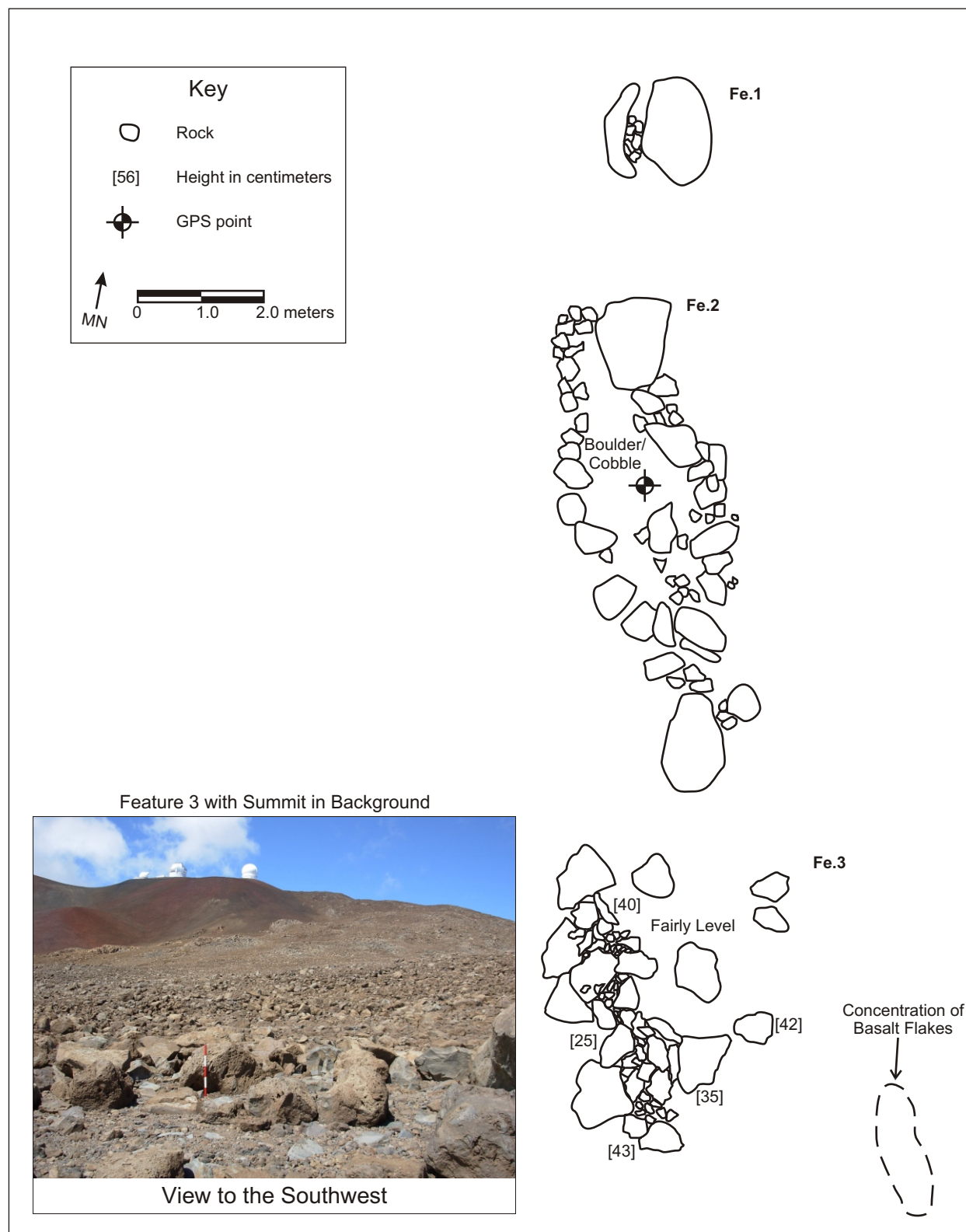
Site 21204 was first recorded in 1995 (McCoy 1999) and is located on a flat-topped ridge mantled with glacial outwash on the northeastern slope of the mountain. It consists of three features along the rampart of a gelifluction lobe, including two mounds (Features 1 and 3), and a terrace (Feature 2) (Figure 3.48).

Feature 1 is located between three boulders and consists of a mound comprised of cobbles and small boulders. It measures 1.0 m by 0.5 m with a maximum height of 0.5 m.

Feature 2, a terrace, is located approximately 3.0 m south of Feature 1. The terrace is defined on all sides by piled and stacked cobbles and small boulders. It is roughly oblong-shaped and measures 7.0 m by 2.5 m with a maximum height of 0.8 m along the southwest side.

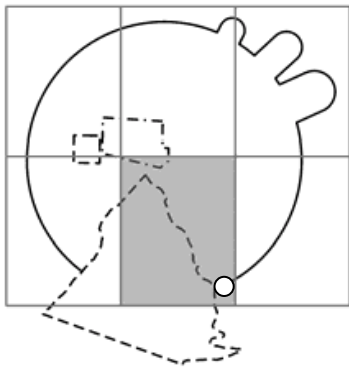
Feature 3 is located approximately 5.0 m south of Feature 2 and is a mound measuring 3.6 m by 1.5 m with a maximum height of 0.5 m. It is constructed of piled cobbles and small boulders.

Feature 4 is located 3.0 m east of the south end of Feature 3 and consists of a lithic scatter. The lithic scatter is roughly 2.0 m by 1.0 m with more than 30 fine-grained basalt flakes.



**Figure 3.48. Site 21204, Features 1 Through 3, Plan View and Photograph.**

**STATE SITE 50-10-23-25760**

<b>Additional Site Numbers:</b> Temporary PM2006-11	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 3.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial outwash	
<b>Approximate U.S.G.S. Elevation:</b> 11,448 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM095	
<b>Date First Recorded:</b> 2006	
<b>Current Status:</b> New Site; located outside Science Reserve	
<b>Subsequent Site Visits:</b>	

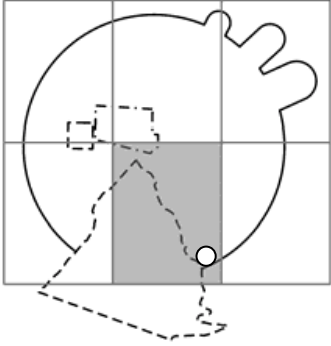
**DESCRIPTION:**

Site 25760 is a small basalt lithic scatter located on the southeast side of the mountain, approximately 260 m outside the Science Reserve (Figure 3.49). It is located on a flat, semi-level area of glacial outwash and measures roughly 2.1 m by 1.0 m and consists of approximately 15 basalt flakes, many of which have cortex on dorsal surface.



**Figure 3.49. Photograph of Site 25760; Plan View**

**STATE SITE 50-10-23-25762**

<b>Additional Site Numbers:</b> Temporary PM2006-12	
<b>Site Function:</b> Possible adze manufacturing workshop with associated open-air enclosures	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 35.0 m by 10.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 11,829 ft a.m.s.l.	
<b>2006 GPS File No.:</b> JKPM2006-12	
<b>Date First Recorded:</b> 2006	
<b>Current Status:</b> New Site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

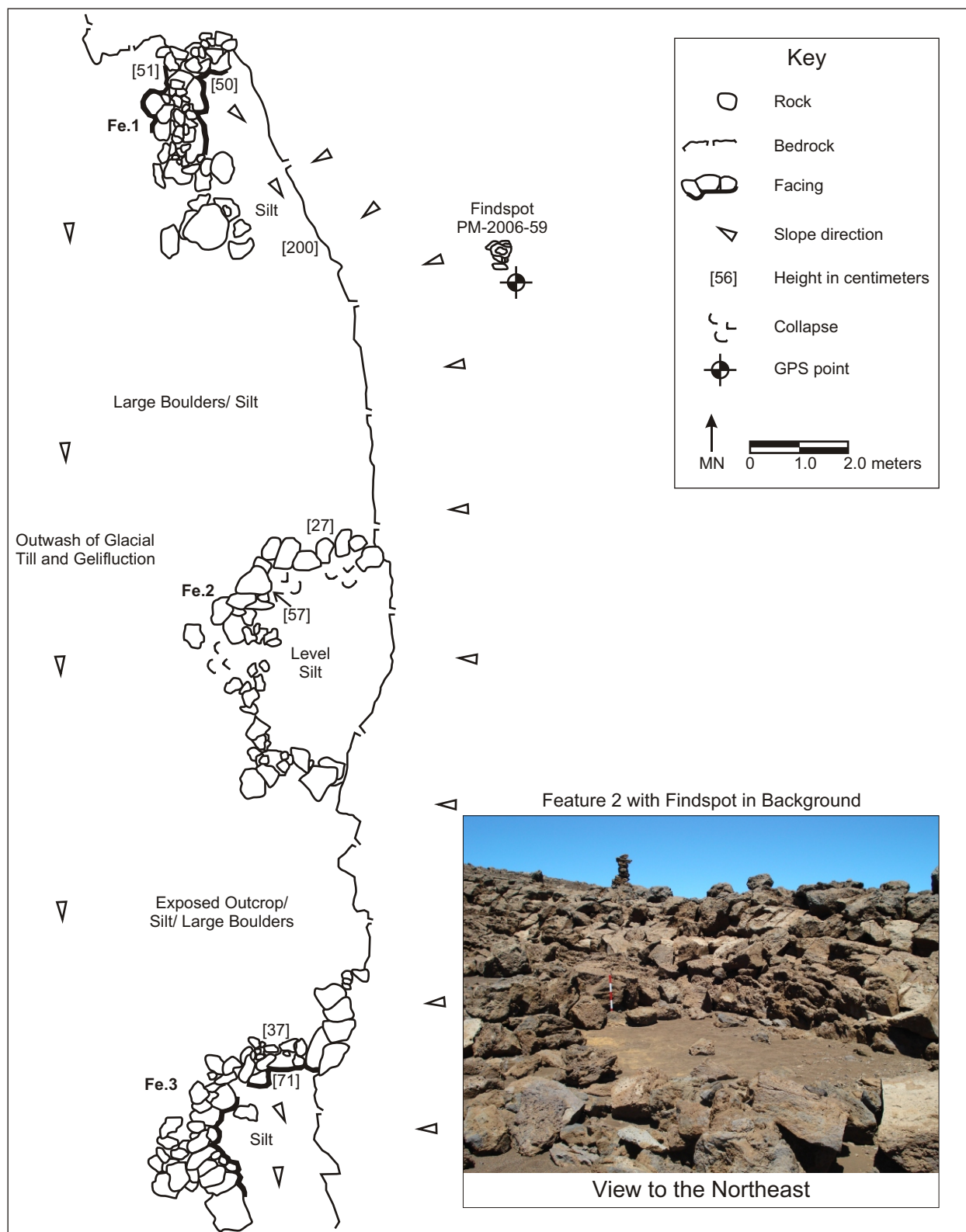
Site 25762 is a complex of three low, stone wall enclosures (Features 1-3) and one lithic scatter (Feature 4) located on the (lee) west side of a ridge (Figure 3.50). Find spot PM2006-59, an 87.0 cm high pile of seven stacked rocks that appears to mark the location of this site, is located on top of the ridge, above Feature 1.

Feature 1 is the northernmost enclosure measuring approximately 3.2 m by 2.1 m with a height of 0.5 m. It is constructed of piled and a few stacked cobbles. The north end of the enclosure abuts the ridge, while the south end, which is open, would presumably have been the entrance. The floor of the enclosure is a thick deposit of fine windblown silt that slopes to the south (down slope).

Feature 2 is an enclosure located approximately 6.0 m south of Feature 1 and measures approximately 3.2 m by 2.4 m with a maximum height of 0.7 m. It is constructed of piled cobbles with the north and south ends abutting the ridge. A possible opening is located along the west side, approximately in the center of the wall. The interior floor area is a mixture of silt and gravel.

Feature 3 is located 5.0 m south of Feature 2. It is constructed of piled cobbles and on the interior side, some stacked cobbles. It measures approximately 3.2 m by 3.0 m, with a maximum height of 0.5 m. Feature 3 is similar to Feature 1, with the north end of the wall abutting the ridge and the south end open, thus allowing access. The interior surface is covered with windblown silt.

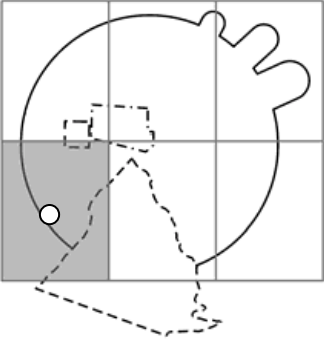
Feature 4 is a lithic scatter located adjacent to (west) of all three enclosures. The scatter covers an area approximately 30.0 m by 5.0 m. There is no known source in the immediate area, indicating that the raw material had to have been imported. Two flakes were collected for sourcing analysis.



**Figure 3.50. Site 25762, Features 1 Through 3 Enclosures, and Findspot PM-2006-59, Plan View and Photograph.**



**STATE SITE 50-10-23-26249**

<b>Additional Site Numbers:</b> Temporary RN2007-028	
<b>Site Function:</b> Adze manufacturing	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,077 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN122	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26249 is a lithic scatter (Feature 1) located on the north side of two large boulders on a glacial moraine. The flake scatter consists of over 100 basalt flakes and at least one adze preform.

### **3.4 ISOLATED SHRINES WITH LITHIC OFFERINGS AND/OR ASSOCIATED LITHIC SCATTERS OF UNCERTAIN FUNCTION**

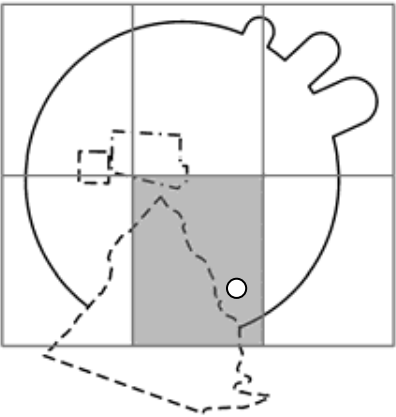
Table 3.5 summarizes the 10 archaeological sites in this category. Site descriptions immediately follow Table 3.5.



**Table 3.5. Summary of Site Components for Isolated Shrines with Lithic Offerings and Associated Lithic Scatters.**

<b>Site Number 50-10-23-</b>	<b>Possible shrine</b>	<b>Shrine</b>	<b>Marker/ memorial</b>	<b>Adze workshop</b>	<b>Flake scatter</b>	<b>Temporary habitation</b>	<b>Unknown</b>	<b>Isolated artifacts</b>	<b>Total number of Components</b>
11079		1	1	1					3
16190		1		1					2
16203		1	1	2	1				5
21211	1			1					2
25772		2	1		1				4
25776		2	1		*	2	3		8
25781	1	1			1	1			4
25782		1			*	1	1		3
25789		1			1				2
26250		2						1	3
<b>TOTAL</b>	<b>2</b>	<b>12</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>36</b>

**STATE SITE 50-10-23-11079**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Shrine with associated lithic scatter	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 20.0 m by 20.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,227 ft a.m.s.l.	
<b>2006 GPS File No.:</b> 11079	
<b>Date First Recorded:</b> 1988	
<b>Current Status:</b> Another lithic scatter and several additional constructed features, possibly find spots, were recorded in 2006	
<b>Subsequent Site Visits:</b> 1995, 2006	

**DESCRIPTION:**

Site 11079 was recorded by Cultural Surveys Hawaii in 1988 during a reconnaissance survey of two proposed antenna sites (Hammatt and Borthwick 1988). It is located on the north side of the Very Long Base Array (VLBA) telescope, adjacent to the chain-link fence that encircles the facility. The site was described as consisting of two features-- a “probable shrine and an *ahu*” (Hammatt and Borthwick 1988:17). This site consists of two features, including the probable shrine (Feature 1) and the *ahu*-like structure (Feature 2). The 2006 survey identified another lithic scatter of adze manufacturing by-products, which has been designated Feature 3 (Figure 3.51).

Feature 1 is the probable shrine, which was described in the Cultural Surveys Hawaii report (Hammatt and Borthwick 1988) as a large boulder with 15 to 20 cobble-sized rocks stacked on top, including a 13 cm long, 5 cm wide, and 3.5 cm thick rectangular adze preform. Approximately 15 basalt flakes were found within 6.0 m of the boulder on the south side. No upright was found on the boulder in the 1988 survey (Hammatt and Borthwick 1988:17).

When the site was revisited in 1995 the preform that had been found on top of the boulder in 1988 was missing. This was not the only change that had taken place since the site was recorded. Two small rocks had been set up in a vertical position on top of the boulder, presumably as “uprights.” While no upright was found during the original survey, there are several reasons for thinking that this boulder was indeed a shrine. First, the rocks on top of the boulder would have supported at least one upright. Second, the adze is in a location that suggests it was an offering because of the deliberate placement on a boulder. Third, all of the other isolated adze manufacturing workshops found prior to 1995 on the eastern margins of the adze quarry (Sites 16203, 16204, and 21211) had associated shrines with lithic artifacts on them.

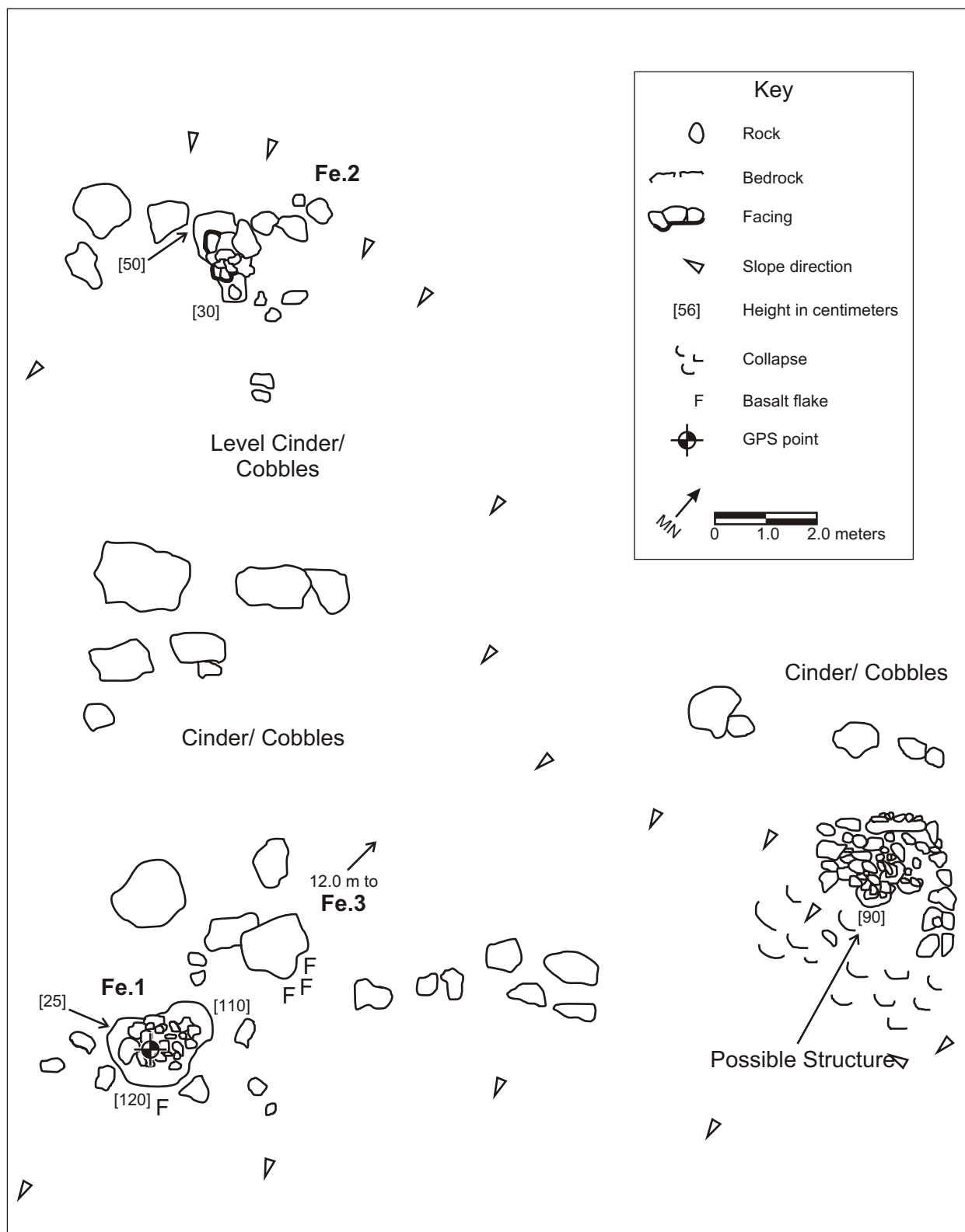


Figure 3.51. Site 11079, Plan View of Features 1 and 2.

Additional adze preforms and flakes were noted in the general vicinity of the boulder in 1995. No hammerstones were seen, but some could be buried in the slope deposits that are actively moving in this area. Selected attribute data were recorded in the field for four adze preforms that were subsequently buried in order to minimize the chances of vandalism. Artifacts 1 and 2 were found near the boulder, while the other two were found approximately 20.0 m upslope. The presence of both quadrangular and reverse-triangular forms is of interest (see adze preform attributes table below). The former, which are most often made on large blocks, tend to be more common in the upper, or main, quarry area at the 12,200 to 12,400 ft elevation; however, the latter, which are usually made on flakes, are much more common in lower elevation sites where the primary source of raw material was cobbles and small boulders contained in glacial outwash deposits. The spatial distribution of artifacts at this site indicates a fairly large scatter.

**Site 11079, Feature 1 Adze Preform Attributes Recorded in 1995.**

Artifact No.	Cross-Section	Dimensions (cm)			Condition
		Length	Width	Thickness	
1	Reverse Triangular	23.0	9.0	7.0	Bevel End
2	Quadrangular	20.5	6.5	5.0	Bevel End
3	Reverse Triangular	8.5	4.0	2.5	Almost Whole
4	Quadrangular	13.0	5.5	2.5	Whole

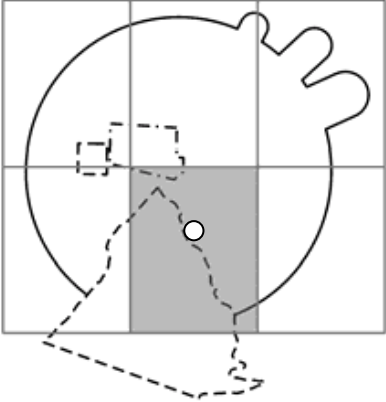
Feature 2 is located roughly 14.0 m northwest of Feature 1 and was described as a “loose pile of rocks that probably represents a collapsed prehistoric *ahu*-type structure” (Hammatt and Borthwick 1988:17).

In 2006 additional information was recorded in a more intensive survey of the site. What is believed to be Feature 2 was found approximately 13.0 m north of Feature 1. It is constructed of piled cobbles and small boulders and measures 2.0 m by 2.0 m and 0.9 m high.

Feature 3 is a second lithic scatter located circa 12.0 m north of Feature 1. The scatter, which covers an area approximately 17.0 m by 5.0 m, is comprised of flakes and at least several adze preforms. Two preforms and three flakes were collected from this feature for EDXRF Analysis (basalt sourcing) in 2006 (see adze preform attributes table).

In addition to the new Feature 3, two new constructions, both believed to be find spots, were found in the vicinity of Feature 1 in 2006. One consists of approximately 20 cobbles placed on a medium-sized boulder and measures 2.2 m by 1.5 m and is 1.1 m high. The second consists of loosely piled cobbles on a small boulder 1.6 m by 0.7 m and 0.5 m high.

**State Site 50-10-23-16163**

<b>Additional Site Numbers:</b> BPBM	50-Ha-G28-38
<b>Site Function:</b> Shrine and workshop	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 50.0 m by 15.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest (toe)/ Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,755 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Point 063	
<b>Date First Recorded:</b> 1976	
<b>Current Status:</b> Additional feature (Feature 2) recorded.	
<b>Subsequent Site Visits:</b> 1984, 1995, 2005	

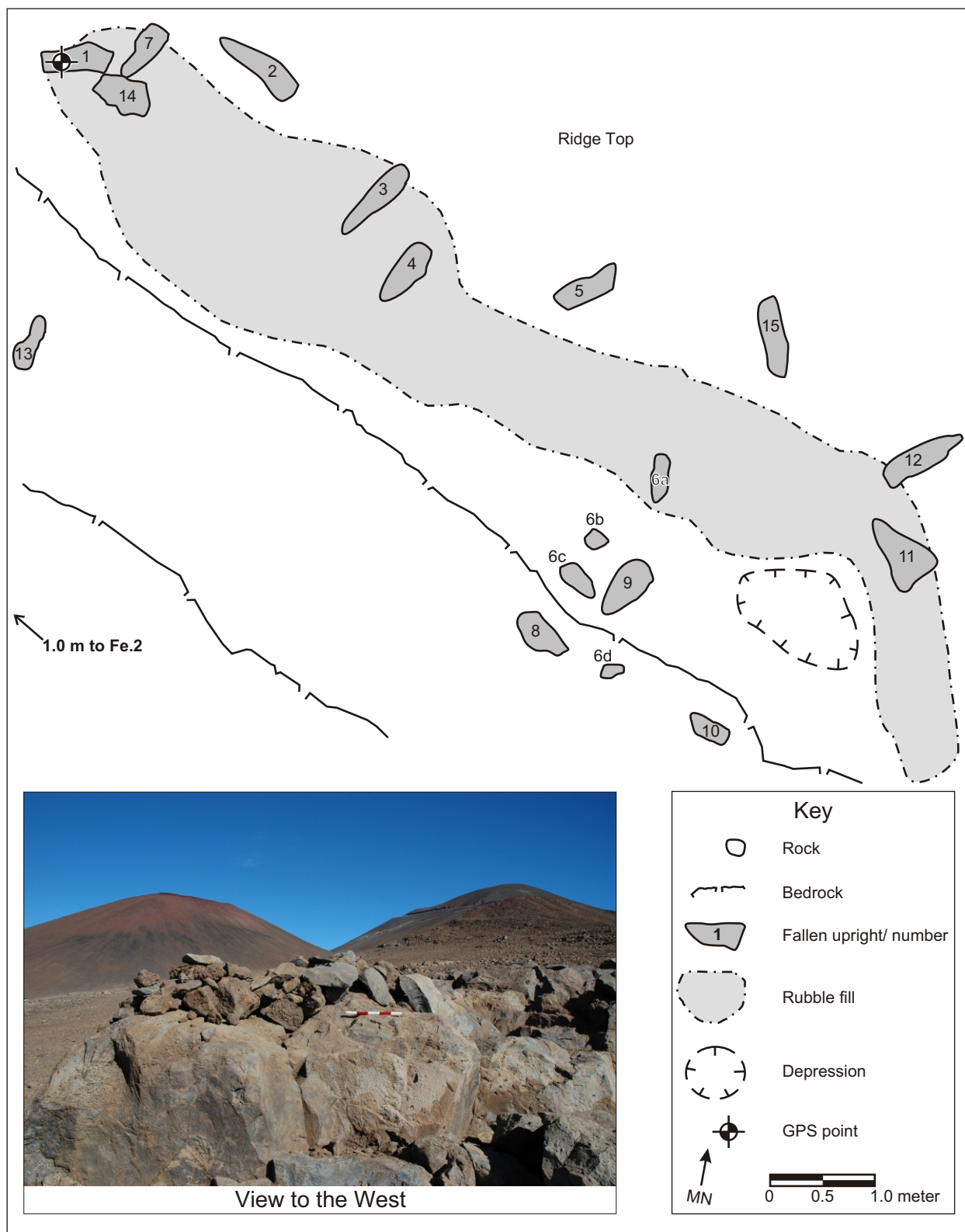
**DESCRIPTION:**

Site 16163 was first recorded in 1976 during research on the Mauna Kea Adze Quarry as a single feature (platform with uprights, Feature 1); however, the recent survey identified a lithic scatter (Feature 2). The shrine is located on the top, downslope margin, of a prominent glaciated whaleback ridge (Figure 3.52).

Feature 1 consists of a roughly rectangular-shaped area with a cobble pavement or low platform with at least 14, possibly 15, associated uprights (see upright data table below). The pavement/platform, oriented roughly northwest-southeast, is 11.0 m long, 0.5 to 2.0 m wide, and 5.0 to 10.0 cm high over most of its length. At the southeastern end are the remnants of a small, 0.5 m high, "cairn" that would appear to have been the seat of one or more uprights. All of the uprights are fallen and one has broken into several pieces.

A photograph of this site, which is not identified as such however, is included in a paper on the geology of the summit region (Gregory and Wentworth 1937: Plate 1, Figure 2). The photograph shows that two of the uprights on the southeastern end of the ridge were still standing at that time. When these uprights were toppled is unknown, but it may have been a deliberate act as one of the broken ones (Upright No. 6) is now located on the side of the ridge.

Feature 2, identified during the current project, is a lithic scatter located below and northwest of the north end of Feature 1. The scatter is approximately 30.0 m long and 3.0 m wide. This feature, which is similar to those previously identified at Sites 11079, 16203, 16204, and 21211, is comprised of small basalt flakes. No adze performs or hammerstones were noted.



**Figure 3.52. Site 16163, Feature 1, Plan View and Photograph.**

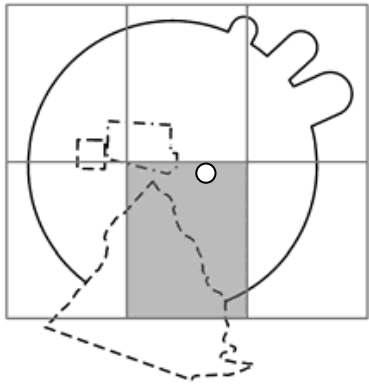
### Site 16163, Metric and Non-Metric Upright Data.

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Platform	T	P	4	Flat/ Beveled	70	26	16
1/2	Platform	T	P	3	Pointed	76	20	11
1/3	Platform	T	P	-	Round	90	20	20
1/4	Platform	T	S	-	Flat/ Gabled	75	30	13
1/5	Platform	T	P	-	Flat	80	25	17
1/6	Platform	T	P	4	Flat	121	12	8
1/7	Platform	T	I	-	Flat	65	24	11
1/8	Platform	T	S	-	Flat/ Gabled	68	31	13
1/9	Platform	T	D	-	Pointed	68	27	15
1/10	Platform	T	S	-	Pointed	44	15	8
1/11	Platform	T	D	-	Pointed	75	42	12
1/12	Platform	T	S	4	Round	100	30	17
1/13	Platform	T	I	-	Beveled	60	15	12
1/14	Platform	T	S	-	Round	49	15	8
<b>1/15</b>	<b>Platform</b>	<b>T</b>	<b>P</b>	<b>-</b>	<b>Flat</b>	<b>77</b>	<b>20</b>	<b>15</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright



**STATE SITE 50-10-23-16190**

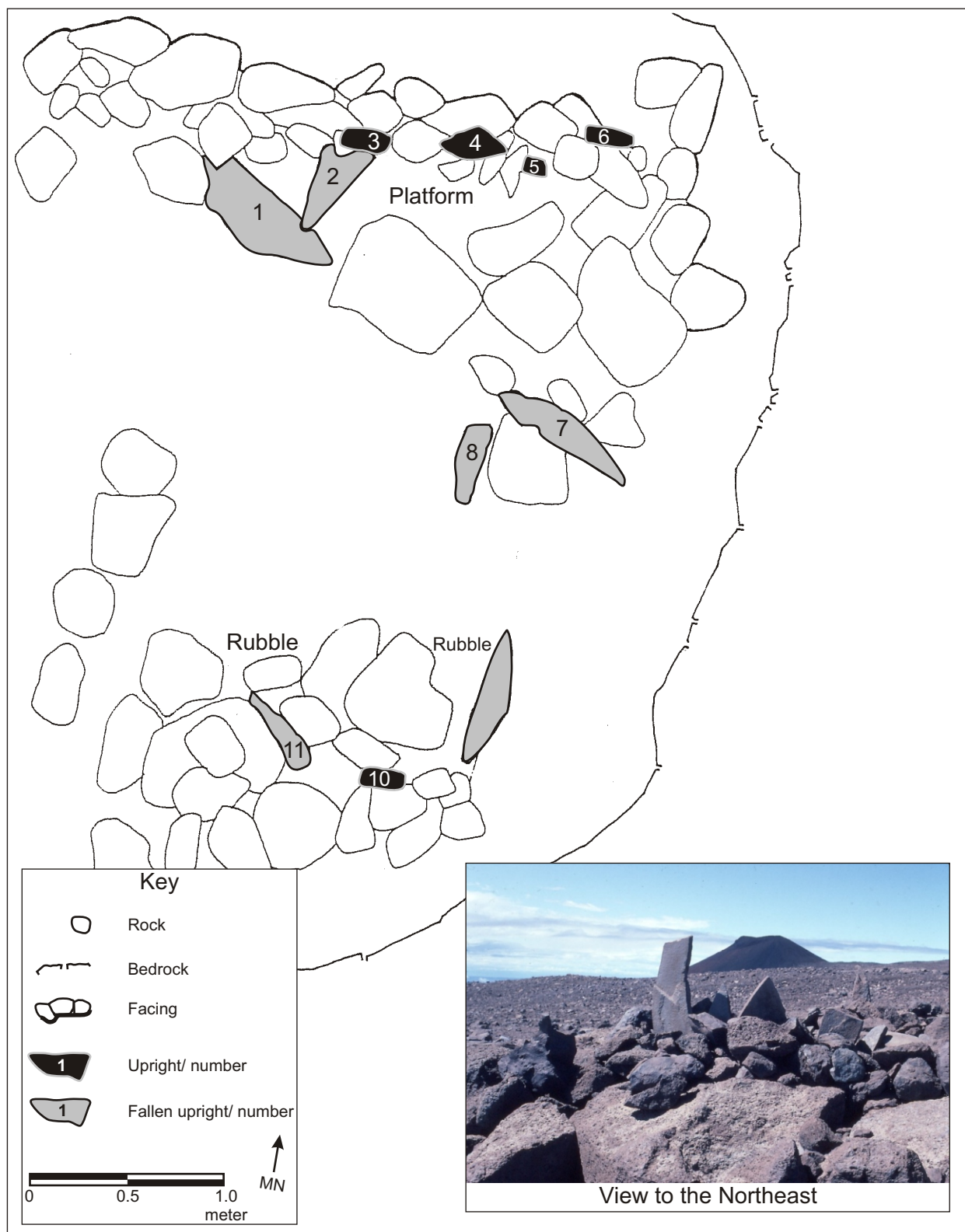
<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-71 Temporary C-7	
<b>Site Function:</b> Shrine with associated lithic scatter	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 4.0 m by 3.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,856 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN136	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> One additional upright recorded (No. 11) and a lithic scatter below (east) the shrine	
<b>Subsequent Site Visits:</b> 1995, 2006	

**DESCRIPTION:**

Site 16190 consists of a multi-component shrine with 11 uprights (Feature 1) found in 1984 (McCoy 1984) and a lithic scatter (Feature 2) found during 2006 fieldwork (Figure 3.53). McCoy (1984) noted the resemblance of the shrine to East Polynesian *marae* in terms of the layout, and more particularly, the variable locations of the constituent uprights.

Feature 1 consists of a single row of uprights and two smaller groups of off-set uprights. The row is an alignment of six uprights on a 4.0 m long and 1.0 m wide mound ("altar") elevated 20.0 to 40.0 cm above ground surface. The uprights, which are oriented essentially east-west, vary between 0.55 and 1.0 m in height, 0.23 and 0.38 m in width, and 6 and 9 cm in width (see upright data table below). The largest are at the ends of the row. Two additional uprights (No.'s 7 and 8) are located opposite the eastern end on what would appear to be the "court." Three more uprights (No.'s 9 through 11) are located further out on the "court." Upright No. 10, which is standing, is roughly in line with the central uprights on the "altar."

Feature 2, a previously unknown lithic scatter, was found below the shrine on the east in 2006. The scatter, which consists of dispersed flakes and at least one adze preform made on a flake blank, covers an area approximately 8.0 m by 6.0 m. The flakes vary in size, the largest of which has a length of approximately 10.0 cm. Some of the flakes have cortex, indicating an early stage in the manufacturing process. Five flakes were collected and submitted for EDXRF Analysis. The results of this analysis is summarized in Volume 1, Section 6 and detailed in Appendix M.



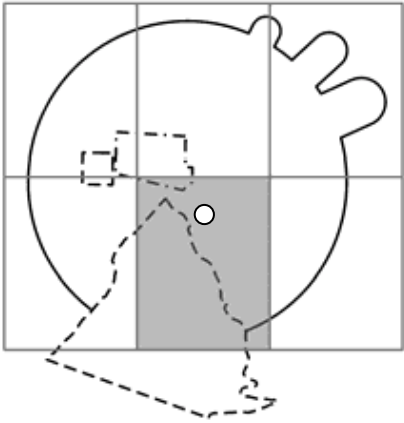
**Figure 3.53. Site 16190, Plan View and Photograph.**

**Site 16190, Metric and Non-Metric Upright Data.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	T	S	-	Beveled	84	27	9
1/2	Mound	T	S	-	Pointed	53	24	6
1/3 <sup>E</sup>	Mound	T	P	-	Flat	54	26	6
1/4 <sup>E</sup>	Mound	T	D	1	Pointed/ Gabled	60	35	3
1/5 <sup>E</sup>	Mound	T	D	-	Pointed	60	25	7
1/6 <sup>E</sup>	Mound	T	CR	1	Gabled	96	34	8
1/7	Mound	T	D	4	Beveled	130	34	7
1/8	Mound	T	S	1	Beveled	45	18	6
1/9	Mound	T	S	4	Pointed/ Beveled	55	35	3
1/10	Mound	T	D	4	Pointed	72	22	7
1/11	Mound	T	P	4	Beveled	45	11	4

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

**STATE SITE 50-10-23-16203**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-86	
<b>Site Function:</b> Shrine and adze manufacturing	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 150.0 m by 100.0 m	
<b>Number of Features:</b> 5	
<b>Topographic Location:</b> Glacial drift	
<b>Approximate U.S.G.S. Elevation:</b> 13,046 ft a.m.s.l.	
<b>2006 GPS File No.:</b> Garmin Points 052-058	
<b>Date First Recorded:</b> 1984	
<b>Current Status:</b> Altered; Adzes noted on Feature 1 are now missing. Feature numbers assigned to “chipping stations” and additional adzes recorded.	
<b>Subsequent Site Visits:</b> 1995, 2006	

**DESCRIPTION:**

Site 16203, first recorded in 1984 (McCoy 1984), consists of one upright structure (Feature 1), two adze manufacturing “workshops” (Features 2 and 3), a “cairn” (Feature 4), and a lithic artifact scatter (Feature 5). The site is located on the southern edge of a lava flow margin (Figure 3.54).

Feature 1 is an irregularly-shaped mound measuring 1.25 m by 1.0 m and 0.5 m high, with three uprights (one standing, two fallen) on top of the mound (see upright data table below). A basalt core, several flakes, and one plano-convex adze preform were observed on the shrine in 1984.

Attribute data were recorded on a sample of eight adze rejects and four cores (the adze data was not included in the summary report -McCoy 1984). The adzes are small to medium in size and have a variety of cross-sections, including plano-convex, lenticular, reverse triangular, and quadrangular (see adze attribute table below).

The four cores are all relatively small. Core 1, found on the shrine, is multi-faceted, with maximal dimensions of 10.0 by 6.0 by 5.0 cm. Core 2 has maximal dimensions of 10.0 by 8.0 by 8.0 cm and is multi-facial. Core 3 is polyhedral, with a single platform and measures 12.0 by 9.0 by 6.0 cm high. Core 4 is a multi-faceted angular cobble with a single platform and measures 21.0 by 10.0 by 12.5 cm high.

In 1984 a single hammerstone was observed on the site. It was a small cobble measuring 11 by 10 by 4 cm with a couple of flake scars, suggesting that it was in the process of being shaped. It did not appear to have been used.

The adze preforms associated with Feature 1 were not found during the current survey.

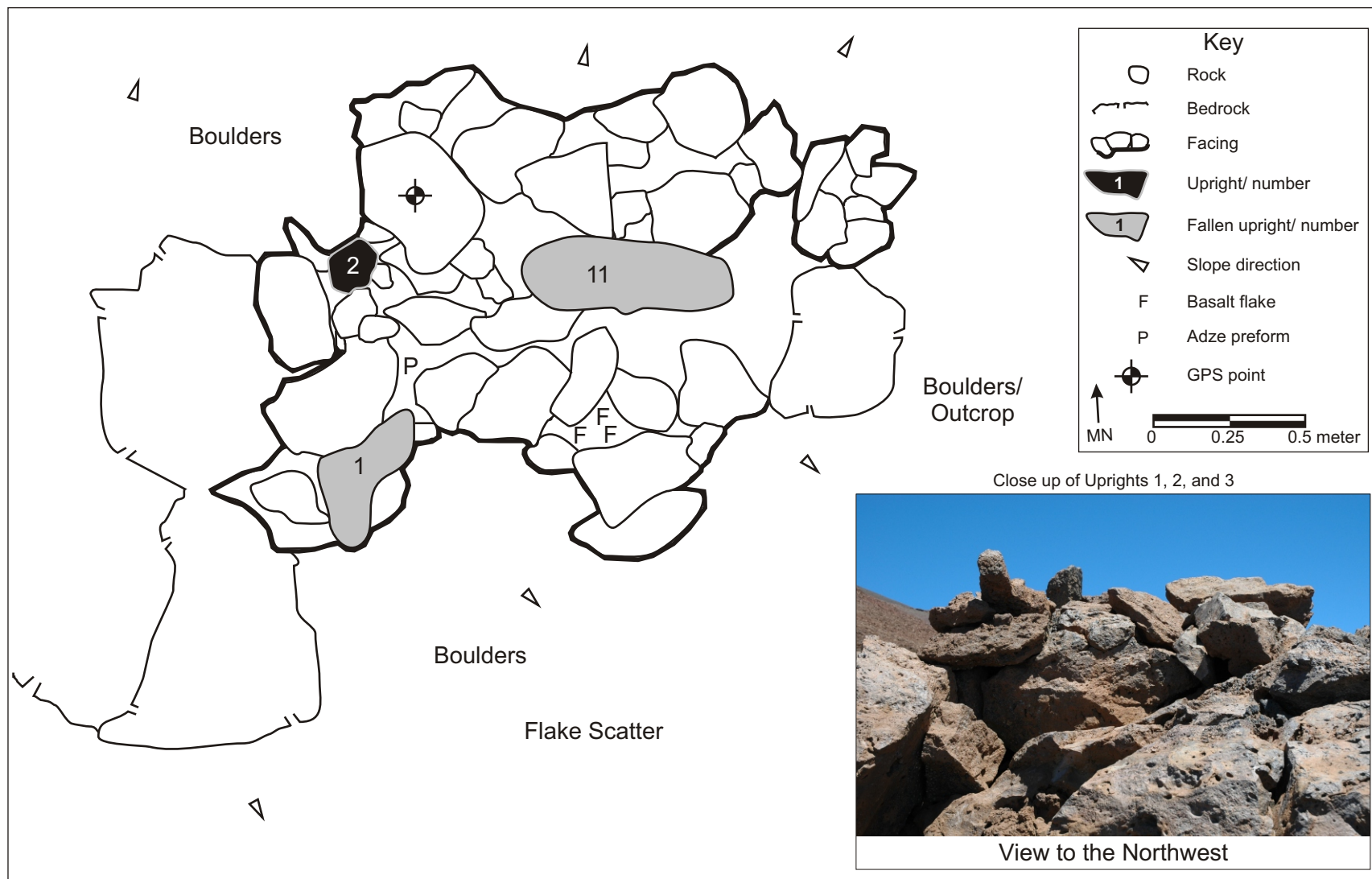


Figure 3.54. Site 16203, Plan View and Photograph.

### Site 16203, Metric and Non-Metric Upright Data.

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Mound	N	I	-	Flat	37	29	10
1/2 <sup>E</sup>	Mound	T	P	-	Beveled	40	15	11
1/3	Mound	T	P	3	Rounded	68	22	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

### Site 16203, Adze Preform Attributes.

No.	Cross- Section	DIMENSIONS		
		Length (cm)	Width (cm)	Thickness (cm)
1*	plano-convex	9.5	3.0	2.0
2	lenticular	6.0	2.7	1.7
3	quadrangular	17.0	7.5	7.0
4	quadrangular	11.0	3.0	2.7
5	quadrangular	15.0	8.0	6.0
6	reverse triangular	9.5	4.0	2.5
7	quadrangular	8.0	4.0	1.5
8	reverse triangular	8.5	4.0	2.5
9	rectangular	16.0	5.0	4.5
10	reverse triangular	20.0	6.0	4.0
11	rectangular	13.0	5.5	2.0

\*Numbers 1-8 were recorded in 1984 and Number 9-11 were recorded in 2005.

Feature 2 is a series of small discrete workshops, or “chipping stations,” located below and northwest of Feature 1. The debitage extends upslope (north) of Feature 1, and primarily consists of small to medium size (5 to 7 cm long) decorticated flakes. There is no apparent local source of the raw material, which is a dark gray, fine-grained Hawaiite with reddish-brown and yellowish-brown cortex. Material with the same cortex characteristics is common in the main quarry site area, approximately 2.0 km to the southeast at an elevation of 12,400 ft.

Feature 3 is a discrete workshop, or “chipping station,” located southeast of Feature 1. The debitage covers an area roughly 15.0 m by 3.0 m, and is similar to Feature 2.

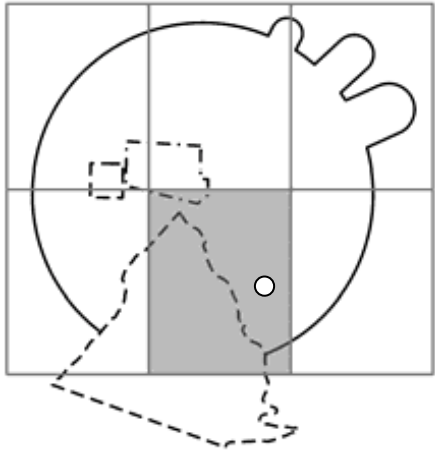
Feature 4 is located east of Feature 1 and consists of a “cairn” situated on top of a shallow overhang. The cairn measures 0.4 by 0.3 m and 0.55 m high, and consists of three

rocks stacked on a small boulder. The overhang is approximately 1.0 m wide and less than 0.4 m high and 1.0 m deep. No cultural material was observed inside the overhang.

Feature 5 consists of three adze preforms and several basalt flakes located east of Feature 1 and outside the overhang below Feature 4 in a soil area. Like the material found at Features 2 and 3, the adze preforms are of a dark gray, fine-grained Hawaiiite with reddish-brown and yellowish-brown cortex similar to materials known to be present at the Mauna Kea Adze Quarry.



**STATE SITE 50-10-23-21211**

<b>Additional Site Numbers:</b> Temporary T-15	
<b>Site Function:</b> Adze manufacturing, shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,194 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN065	
<b>Date First Recorded:</b> 1995	
<b>Current Status:</b> Site remapped and 3 flakes collected for sourcing analysis. Only one possible upright was observed compared to the two possible ones noted in 1995.	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

Site 21211, found by SHPD staff in 1995, was described as an isolated adze manufacturing “workshop” with an associated shrine. It consists of two features, including a shrine (Feature 1) and a lithic scatter (Feature 2). The site is located on an isolated rock outcrop in the midst of a red cinder deposit on the southeastern side of the mountain.

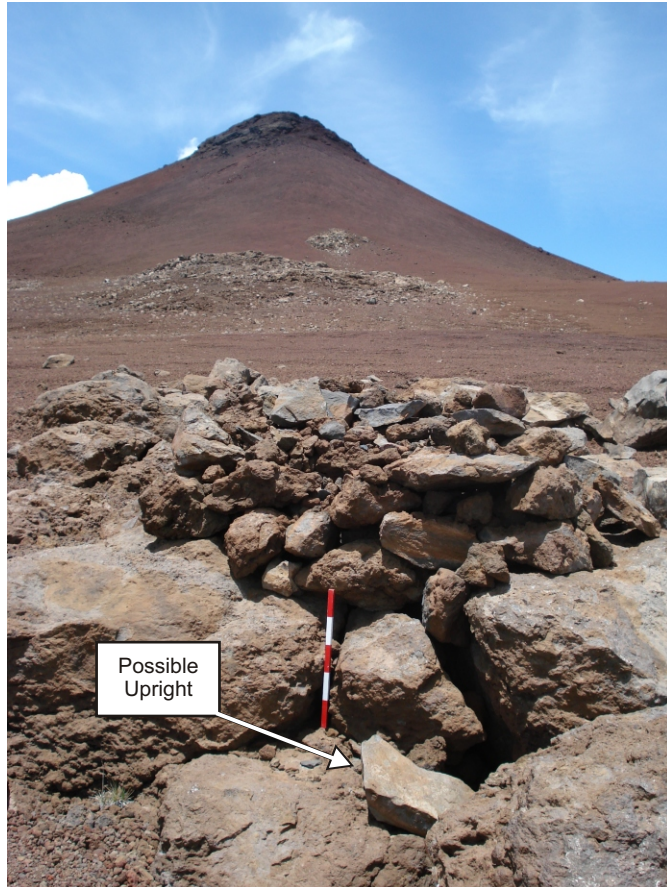
Feature 1, a shrine originally described as a cairn,” is a rectangular platform measuring approximately 2.2 m by 1.5 m and 1.2 m high (three courses high above the boulder) on top of an isolated rock outcrop (see Figure 2.23). The southwest corner is 0.5 m above bedrock. In 1995 two possible uprights of tabular stone were found on top of the platform, which has a relatively level surface of rocks and cinder. In 2006 neither one was relocated, but one possible upright was found at the base of the platform, tucked beneath one of the foundation boulders (Figure 3.55). This may have been one of the uprights noted in 1995, since the fallen upright had to have been deliberately placed (see upright table below). One adze preform and 20 or so waste flakes were also found on top of the platform in 1995 (see Figure 3.55). The preform was made on a side-struck flake. It is an example of a thin rectangular cross-section form. It measures 12 cm by 6 cm by 1.5 cm and has a 2.5 cm wide cutting edge.

**Site 21211 Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Platform	T	S	-	Flat/ Beveled	60	26	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

Southeast Facing of Platform with Possible Upright; View to the West



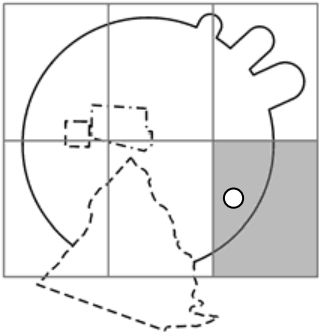
Flakes on top of Platform Surface



Figure 3.55. Photographs of Site 21211, Showing Possible Upright Location and Flakes on top of Platform.

Feature 2 is a basalt flake scatter consisting of approximately 50 to 100 flakes, located below the platform on the south. The flakes are predominantly in the medium size range (7.0-10.0 cm in length). Some flakes have been incorporated into the gelifluction lobe below the rock outcrop, suggesting that there may be more buried beneath the surface. The raw material is a dark gray, fine-grain basalt, which would appear to be from the main adze quarry some 2 km distant to the west. A second small adze preform was found in the gelifluction lobe 11.3 m below the shrine in 1995. It is also a thin rectangular type, measuring 5.0 cm by 3.3 cm by 1.0 cm. The bevel is 3.0 cm wide. The cortex on the dorsal surface is a reddish color. The lower terminus of the flake scatter (at the time the site was recorded in 1995) was approximately 12.0 m below the shrine. Three flakes were collected approximately 3.0 m below the shrine for EDXRF Analysis in 2006. What appears to be a hammerstone fragment was noted in this same general area.

**STATE SITE 50-10-23-25772**

<b>Additional Site Numbers:</b> Temporary RN2006-06	
<b>Site Function:</b> Shrine complex with marker and lithic scatter	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 50.0 m by 50.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,072 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN062 and PM083	
<b>Date First Recorded:</b> 2006	
<b>Current Status:</b> New Site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 25772 consists of two upright structures (Features 1 and 2), a cairn (Feature 3), and a lithic scatter (Feature 4) (Figure 3.56).

Feature 1 consists of a single row of three uprights on a roughly linear mound (see upright data table below). The mound and uprights are oriented perpendicular to the ridge top on which the site is located. The mound is approximately 4.5 m long by 1.3 m wide and 0.4 m high.

Two adze preforms were found below Feature 1. The first preform was found 6.0 m northeast of Upright No. 2; the second preform was found 2.0 m below Upright No. 1. Both preforms were collected for EDXRF Analysis. This analysis is summarized in Volume 1, Section 6 and detailed in Appendix M.

**Site 25772 Metric and Non-Metric Upright Data.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Pavement	T	S	4	Mesial curve	67	26	5
1/2	Pavement	T	S	-	Flat	75	30	28
1/3 <sup>E</sup>	Pavement	N	I	-	Round	76	37	18
2/4	Boulder	N	S	-	Beveled	60	20	15

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



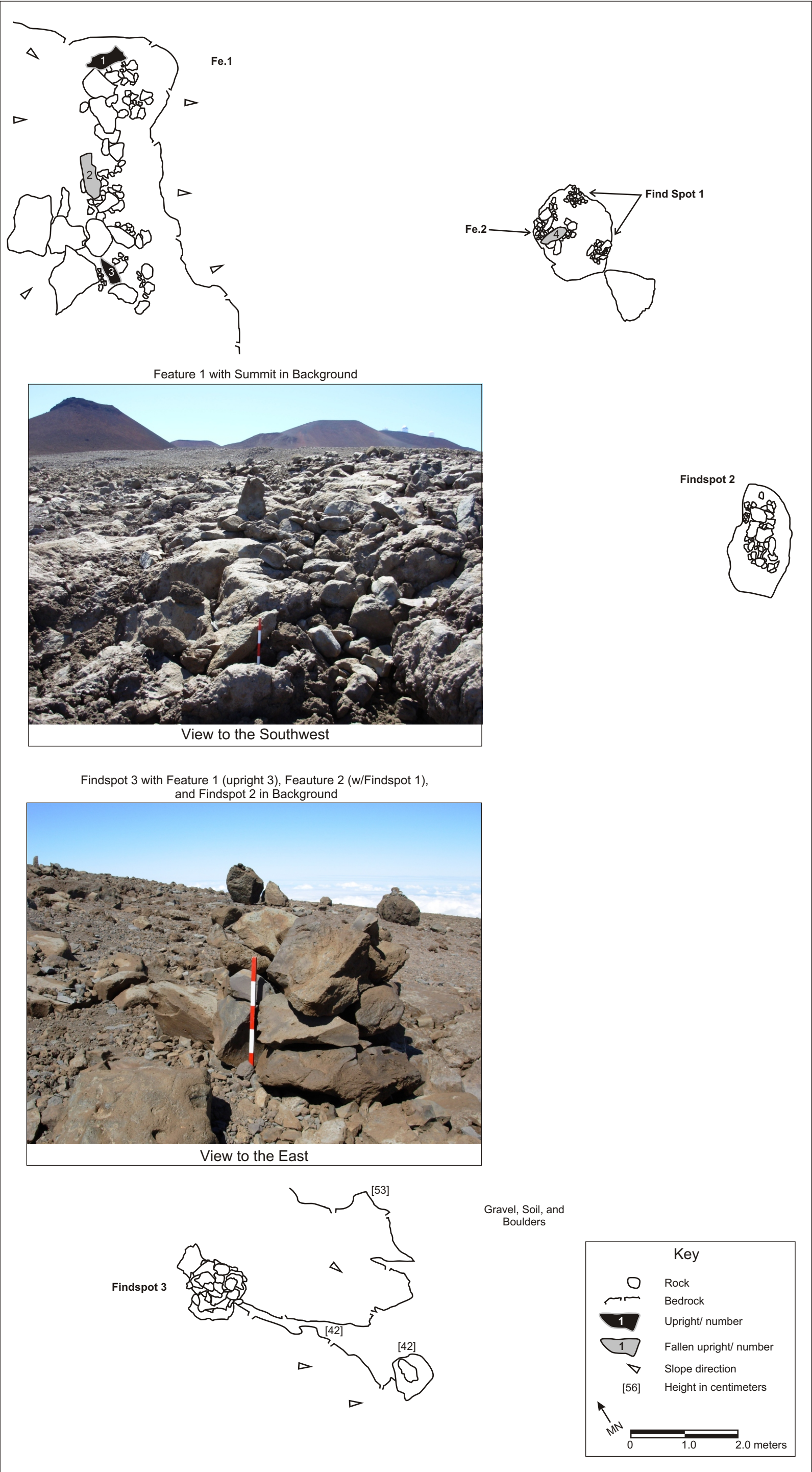


Figure 3.56. Site 25772, Features 1 and 2, and FindSpots 1 Through 3, Plan View and Photograph.

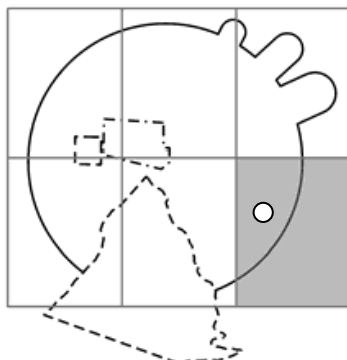
Feature 2 is another upright structure. It is located approximately 18.0 m south of Feature 1 and 20.5 m east-northeast of Feature 3. A primary component of the site is a boulder over 2.0 m long by 2.0 m wide and 2.0 m high. Along the west side of the boulder is a fallen upright (Upright No. 4) and numerous cobbles, which are likely support stones. On the northeast and south ends are find spots consisting of piled cobbles and pebbles. A third adze preform was collected at the base of the boulder.

Feature 3, a cairn, is located approximately 20.0 m west-southwest of Feature 2 and 18.0 m south of Feature 1. It is constructed of piled cobbles and small boulders with several red-colored cobbles in the center. The cairn measures 1.1 m by 1.0 m and 0.87 m high. The cairn is constructed over a natural crack in the bedrock that measures 12.0 cm wide and 47.0 cm deep.

Feature 4, a basalt flake scatter, is located between Features 1 and 3 and extends east (downslope) of Feature 2. The scatter is approximately 22.0 m (east/west) by 12.0 m (north/south). Four basalt flakes and three adze preforms were collected for EDXRF Analysis.

Located within the site area are several "Find Spots." They include both single and multiple rocks stacked on top of boulders.

**STATE SITE 50-10-23-25776**

<b>Additional Site Numbers:</b> Temporary		PM2006-07
<b>Site Function:</b> Lithic scatter, two possible shrines, cairn, terraces		<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 16.0 m by 13.0 m		
<b>Number of Features:</b> 8		
<b>Topographic Location:</b> Ridge crest/flank		
<b>Approximate U.S.G.S. Elevation:</b> 11,979 ft a.m.s.l.		
<b>2006 GPS File No.:</b> PM060		
<b>Current Status:</b> New site.		

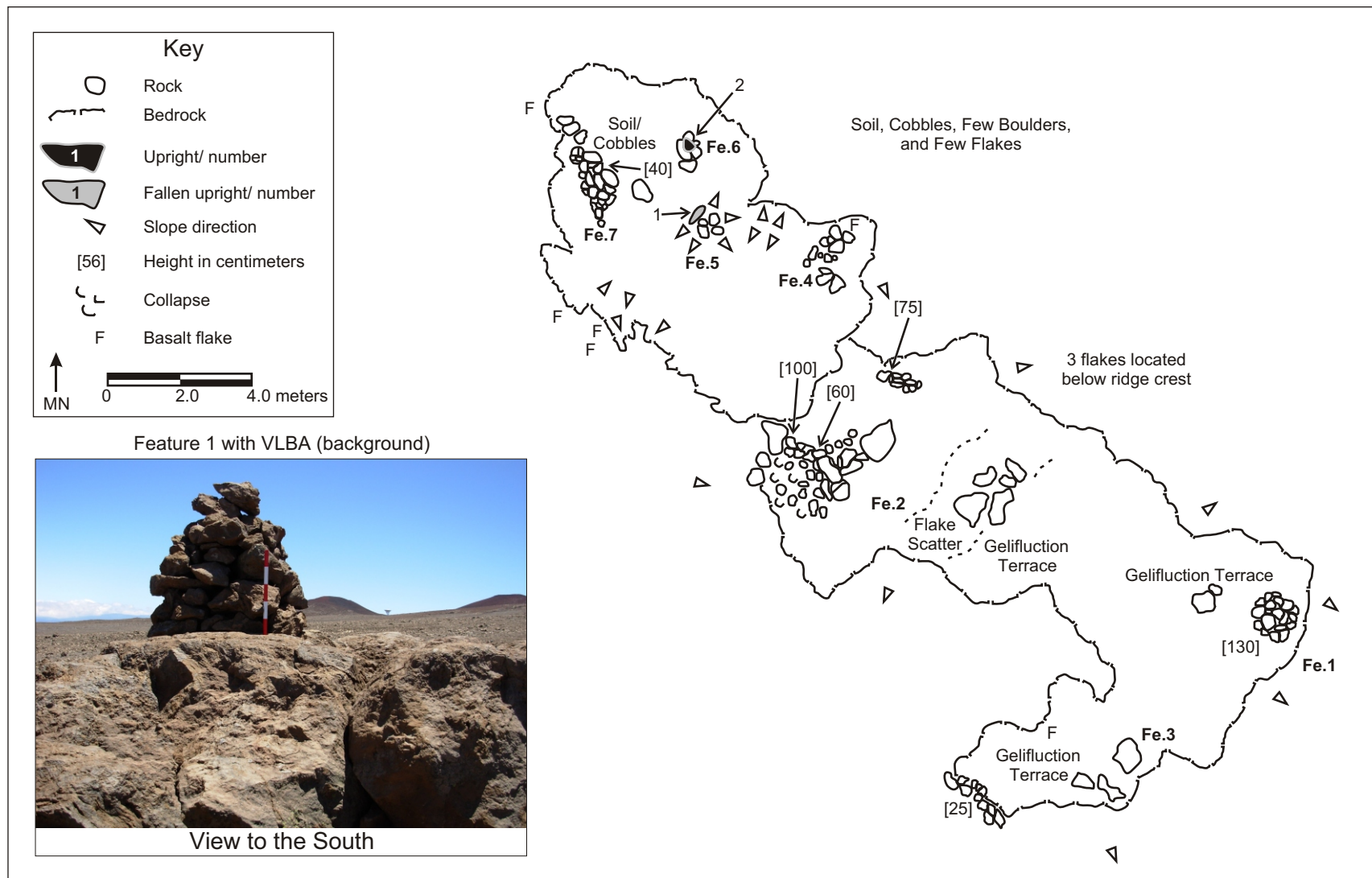
**DESCRIPTION:**

Site 25776 is a multi-component site comprised of eight features (Features 1 to 8) located on the crest and flanks of a small, low ridge, approximately 30.0 m long, 5.0 to 7.0 m wide, and 1.0 to 2.0 m high. Scattered basalt flakes were found at various locations on the site, including the slopes on either side of the ridge and a series of stepped gelifluction terraces on the west side of the ridge. The features include a cairn (Feature 1), two crude open-air enclosures and associated lithic scatters (Features 2-3), three low, non-descript, and functionally ambiguous stone mounds (Features 4-6), and two possible single upright shrines (Features 7 and 8) (Figure 3.57).

Feature 1, the most prominent feature on this site, is a semi-pyramidal or cone shape cairn located at the toe of the ridge. The cairn, which is visible from some distance to the north and south at the approximately 12,000 ft elevation, has a maximum base diameter of 1.2 m and height of 1.3 m. The top is 80.0 cm by 70.0 cm and consists of two rounded stones, leaning against one another. The cairn is comprised of seven to eight levels of closely fitted, stacked stones. The base stones are in the 30.0 to 40.0 cm size range, in contrast to the mid-section of the cairn, which is comprised of smaller cobble-size stones. The feature is extremely well preserved and gives the impression of having either been constructed or repaired in the recent past, since there are no fallen stones or collapse. If the feature is modern, it is possible that it has no functional relationship to the other features on this site, but may instead have been constructed to mark the location of Site 25774, which is a cluster of four possible burial features immediately downslope.

Feature 2 consists of a crude enclosure and lithic scatter on a gelifluction terrace on the south, leeward side of the ridge. The terrace has maximal dimensions of 4.7 m by 4.2 m. The enclosure is situated on the upper end of the terrace, abutting the margins of the ridge. Stones piled 75.0 cm high on the edge of the ridge flank and 60.0 cm high on the terrace, form a crude open-ended enclosure approximately 2.0 to 2.5 m<sup>2</sup> in size. The southern side is partially collapsed.





**Figure 3.57. Site 25776 Features 1 through 7, Plan View and Photograph.**

Approximately 100 or so dark gray, fine-grain basalt flakes are located on the terrace surface and two to three flakes on a smaller 4.0 m by 1.5 m gelifluction terrace below. The flakes, assumed to have come from the Mauna Kea Adze Quarry Complex based on their color, grain size, and relative proximity to the quarry, are incorporated into a well-sorted cinder and gravel surface. The flakes are unusually uniform in terms of size, which is typically 5.0 cm or less in length (measured from the striking platform to the distal end). In addition to the uniform size, most of the flakes have no cortex, suggesting the high probability of a late stage in the manufacturing process. No flakes were observed within the enclosure. Three flakes were collected from the surface of this feature for EDXRF Analysis.

Feature 3, south of Feature 1, is a third gelifluction terrace abutting a 40.0 cm high bedrock exposure on which a few stones were piled to a height of 25.0 cm. The use of this terrace, which has maximal dimensions of 4.7 m by 3.0 m, is unclear, but the presence of piled stones and one basalt flake, suggests that it was an activity area or shelter like the Feature 2 enclosure.

Feature 4 is a concentration of approximately 12 cobble-size pieces of lava in an area 1.6 m by 0.67 m on a bedrock outcrop at the upper end of the ridge. One basalt flake was found in this area.

Feature 5 is comprised of five cobble-size pieces of lava and one tabular slab on the ridgetop. The pieces of lava encompass an area 76.0 cm by 70.0 cm and 32.0 cm high. The slab, which was found in a horizontal position, is interpreted as a possible shrine upright based on its form, size, and context, with the chunks of lava serving as probable bracing stones (see upright data table below).

Feature 6 consists of three cobble-size pieces of lava 68.0 cm by 61.0 cm and 33.0 cm high, and a possible fallen shrine upright in the center (see upright data table below).

Feature 7 is a low mound approximately 1.7 m in diameter and 36.0 cm high constructed of small to large chunks of lava piled on top of the ridge. Three of the stones in the mound are in the 60.0 cm size range. One basalt flake was found approximately 1.0 m away from the mound on the northwest side.

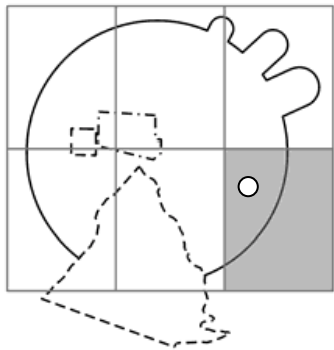
Feature 8, located approximately 7.0 m northwest of Feature 7, is a pile of cobble and small boulder-size stones 3.3 m long, 1.8 m wide, and approximately 0.5 m high.

#### Site 25776, Metric and Non-Metric Upright Data.

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
5/1	Boulder	T	I	6	Flat	79	46	6
6/2	Boulder	N	D	--	Pointed	33	17	13

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

**STATE SITE 50-10-23-25780**

<b>Additional Site Numbers:</b> Temporary RN2006-16	
<b>Site Function:</b> Shrine, Mound	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 4.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,032 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN106	
<b>Current Status:</b> New site.	

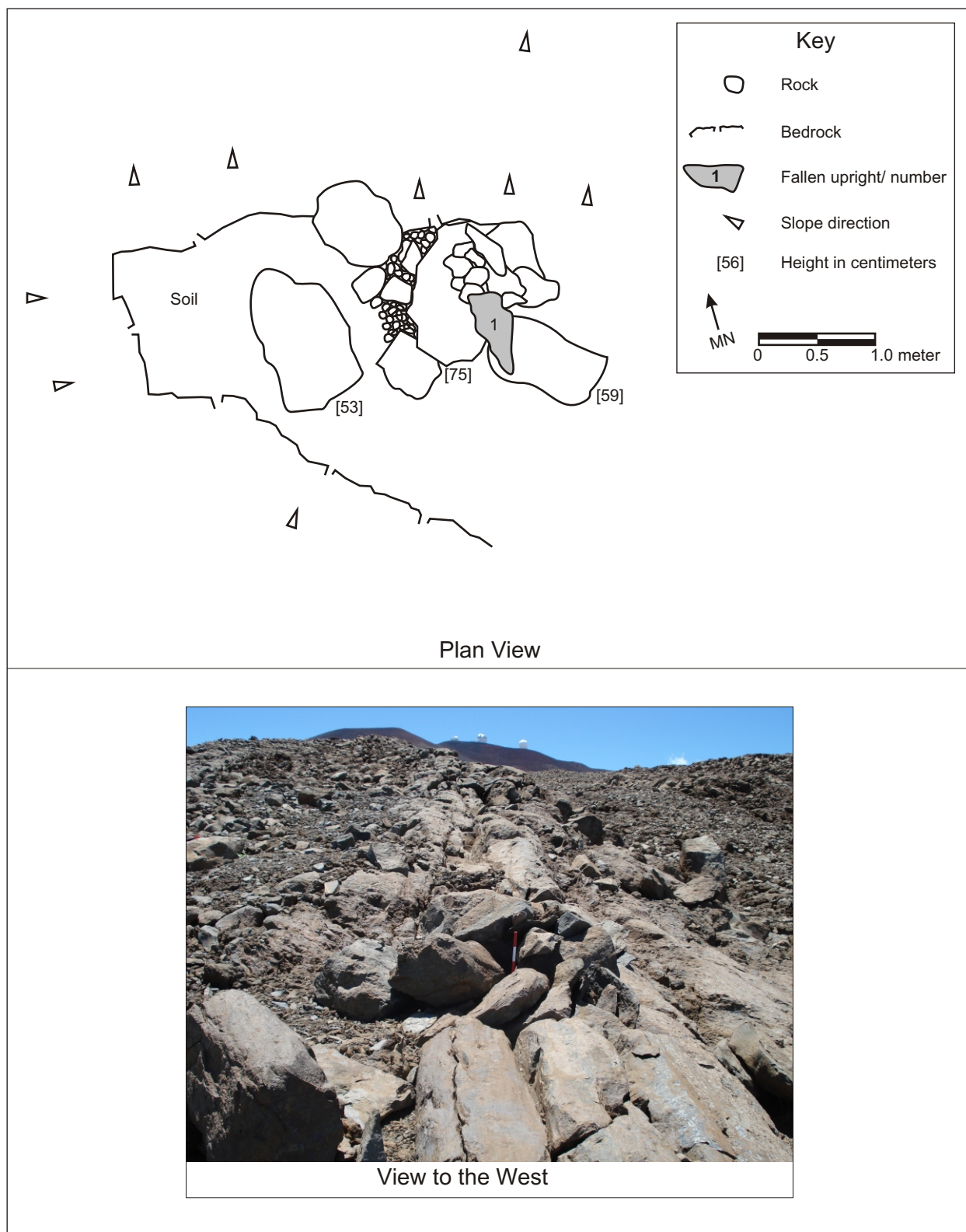
**DESCRIPTION:**

Site 25780 consists of a shrine (Feature 1) and a single flake observed in the proximity. Feature 1 is a shrine consisting of a single fallen upright placed on top of a mound constructed over a natural depressed outcrop surface (Figure 3.58); see upright data table below). The mound is constructed of three medium size boulders with at least nine cobbles and one large cobble. The mound measures approximately 1.8 by 1.1 m with a maximum height of 0.7 m. A shallow, low overhang is located approximately 2.0 m north/northwest of the shrine, below a high ridge (~3.5 m high). The overhang measures approximately 3.0 m wide at the entrance and 1.9 m deep, with an interior ceiling height of 0.6 m. The overhang's interior floor surface consists of cobbles and soil. A single basalt flake (non-Mauna Kea material) was observed outside of the overhang entrance.

**Site 25781 Metric and Non-Metric Upright Data.**

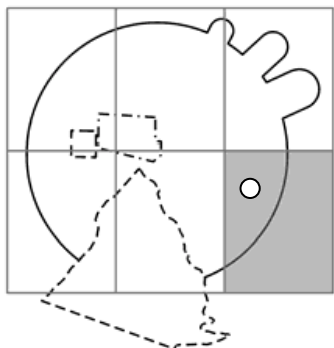
Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Mound	T	D	4	Pointed	68	31	15

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 3.58. Site 25780, Plan View and Photograph.**

**STATE SITE 50-10-23-25781**

<b>Additional Site Numbers:</b> Temporary RN2006-04	
<b>Site Function:</b> Shrine, temporary habitation, adze manufacturing	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 15.0 m by 6.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,032 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN056	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

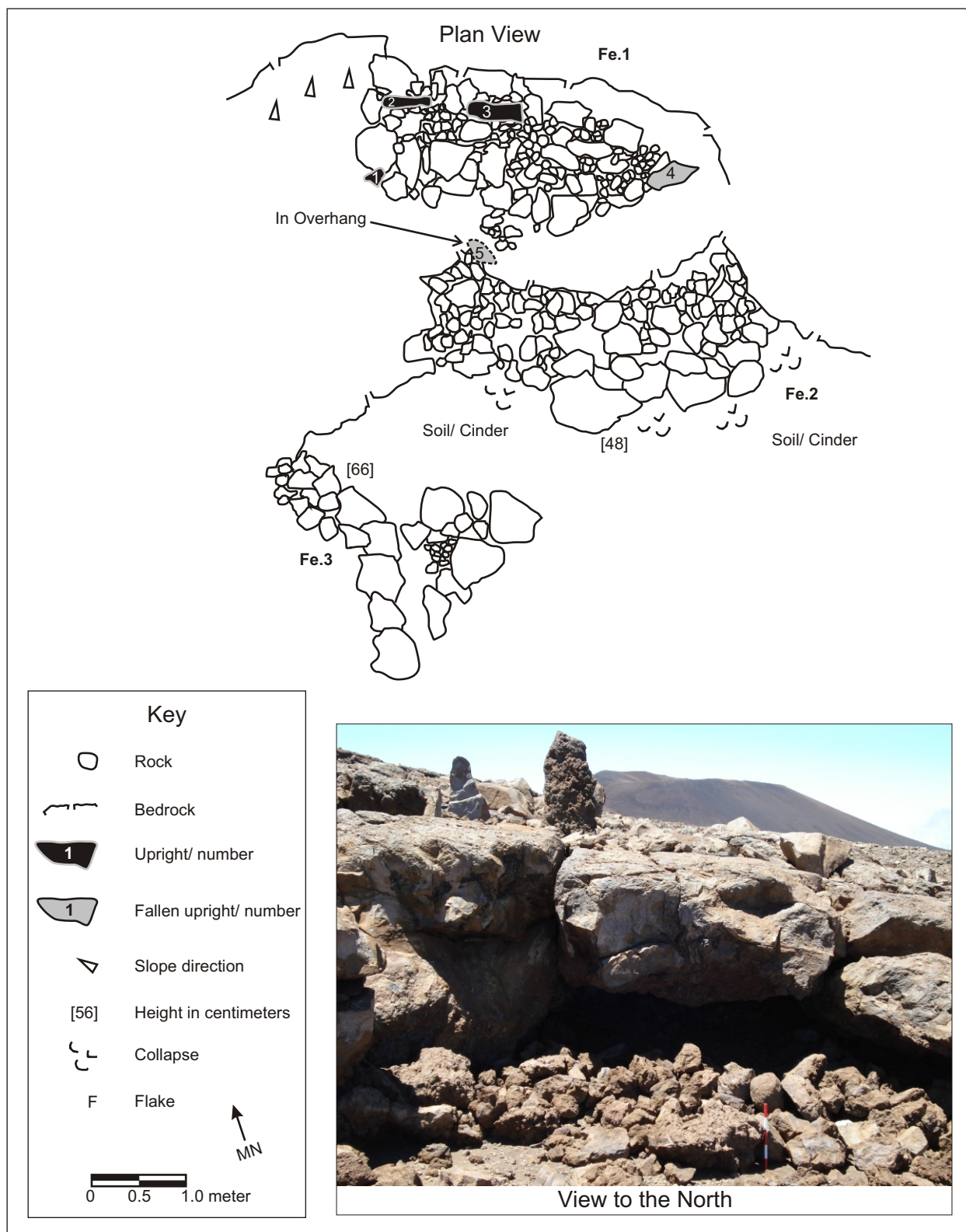
Site 25781 consists of a shrine (Feature 1), a shallow rockshelter with a low enclosing wall (Feature 2), a crude C-shaped enclosure (Feature 3), and a basalt flake scatter (Feature 4). Site 25779 (consisting of three adze preforms and one hammerstone) is located 69.0 m east of Site 25781. The artifacts from Site 25779, which were collected, appear to have no direct relationship with Site 25781.

Feature 1 is a shrine and consists of a four uprights placed on a rough platform/pavement and was constructed over a natural depressed area (Figure 3.59); see upright data table below). The platform/pavement is constructed of small to large cobbles with at least four slabs placed on the surface. The south side of the platform is level with the outcropping and the north side is one to two cobbles high. Uprights 2 and 3 are located along the north edge and Uprights 1 and 4 are located at the southwest and southeast corners.

**Site 25781 Metric and Non-Metric Upright Data.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Pavement	N	D	6	Flat	46	18	15
1/2 <sup>E</sup>	Pavement	T	S	6	Flat	92	42	10
1/3 <sup>E</sup>	Pavement	T	P	6	Beveled	111	50	17
1/4	Pavement	T	D	-	Pointed	58	24	7
2/5	Mound	T	P	6	Flat	49	15	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright



**Figure 3.59. Site 25781, Plan View and Photograph.**



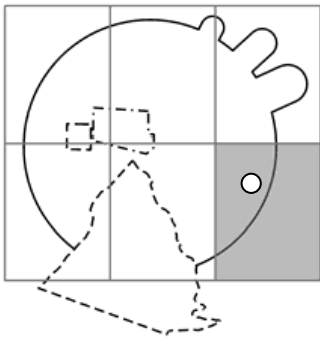
Feature 2, a shallow rockshelter, is located south and below Feature 1. A crude wall has been constructed at the entrance, and a possible fallen upright was observed at the west end of the wall. The rockshelter is 3.4 m wide at the entrance, 4.0 m deep, and has a maximal height of 0.7 m. Soil and small cobbles cover the interior surface of the overhang. The wall at the entrance of the rockshelter is constructed of piled cobbles and small boulders and is 1.6 m long and 0.6 m high.

Feature 3, a crude C-shaped enclosure, is located 1.6 m southwest of the southwest end of Feature 2. It is constructed of piled cobbles and boulders and is 1.8 m by 1.0 m and 0.78 m high.

Feature 4, a basalt flake scatter, is located 5.0 m east-southeast (downslope) of the cave. A cursory search of the area revealed seven basalt flakes.



**STATE SITE 50-10-23-25782**

<b>Additional Site Numbers:</b> Temporary RN2006-03	
<b>Site Function:</b> Shrine, adze manufacturing, temporary habitation	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 15.0 m by 10.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 11,834 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN053	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25782 consists of shrine with an enclosed area with basalt flakes scattered on the surface (Feature 1), a small enclosure (Feature 2), and a mound (Feature 3).

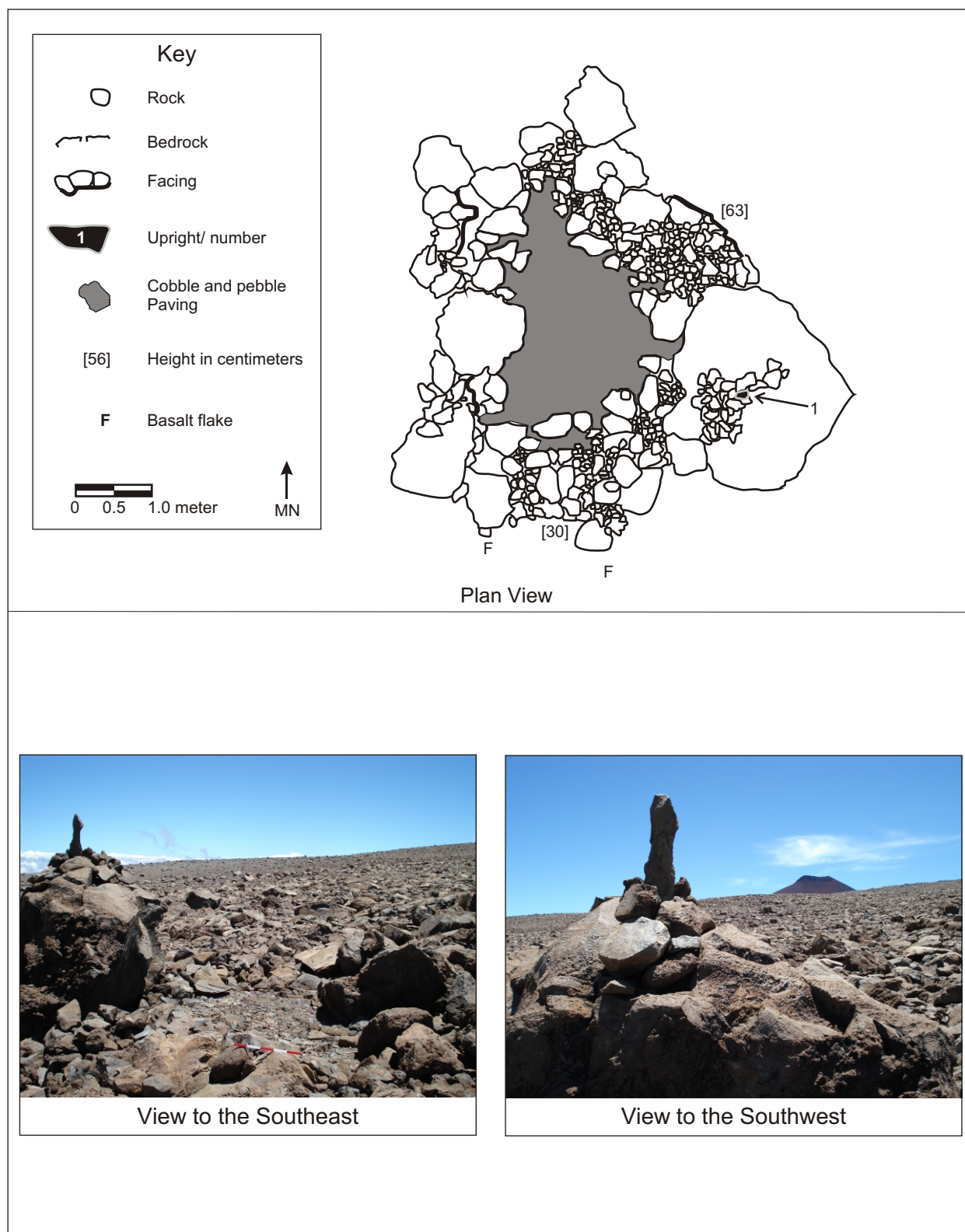
Feature 1 consists of a single upright shrine on a large boulder and a paved enclosure on the west side of the boulder (Figure 3.60; see upright data table below). The boulder is approximately 3.0 m by 2.7 m and 1.8 m high. The upright is supported by 30 or more cobbles and slabs of rock, which are located in a natural depression on top of the boulder. The upright, which is visible from some distance, has an unusual shape (see Figure 3.60). A single red cobble on a boulder was observed 8.9 m east of Feature 1.

**Site 25782 Metric and Non-Metric Upright Data.**

Fe./Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1 <sup>E</sup>	Boulder	T	CR	I	Beveled	69	17	8

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

The paved area, which appears to have been created by removing cobbles and boulders bordering the shrine, is approximately 2.5 m by 2.0 m and consists of soil and pebbles. Over 25 basalt flakes were found in the paved area, mostly on the south side of the enclosure. Five basalt flakes were observed outside the paved area to the south. The pavement is bordered by a low, crude wall along the north and south sides. Boulders along the west side form a wall, and piled rock along the north and south side of the boulder shrine form the east wall. Some stacked rocks were observed between two boulders along the west wall. Three flakes were collected from this feature for EDXRF Analysis.

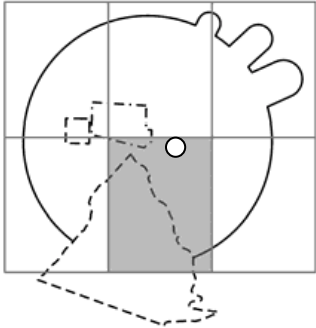


**Figure 3.60. Site 25782, Feature 1 Plan View and Photographs.**

Feature 2, a crude enclosure, is located 17.0 m southwest of Feature 1. It is constructed of piled cobbles along the east side and small boulders along the west side, and is 2.9 m by 2.5 m with a maximum height of 1.15 m (on the west side). The interior ground surface is a mixture of gravel and small cobbles. No basalt flakes were visible within or outside of the enclosure, which may have been used as a temporary shelter.

Feature 3 consists of 12 piled rocks on top of and between two small boulders 10.0 m southwest of Feature 1. The piled rock, which has a maximum height of 0.33 m above the tops of the boulders, is two courses high and 0.75 m in diameter. The boulders cover an area of 2.6 m by 2.4 m and have a maximum height of 0.75 m. The boulders may have provided some shelter from the prevailing winds.

**STATE SITE 50-10-23-25789**

<b>Additional Site Numbers:</b> Temporary RN2006-10	
<b>Site Function:</b> Adze manufacturing, shrine	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 8.0 m by 6.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,822 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN121	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25789 consists of a shrine with 13 and possibly as many as 20 uprights (Feature 1) and a lithic scatter (Feature 2).

Feature 1, a shrine, consists of a row of uprights with additional uprights to the side, almost forming a U-shape (Figure 3.61; see upright data table below). The uprights are placed on bedrock and supported by numerous cobbles. The shrine area is roughly 3.0 m by 2.0 m with the standing uprights located along the east side. A number of slabs, below the alignment, may also have been uprights.

Feature 2, a lithic scatter of three to four flakes, is located less than 1.0 m northeast (downslope) of Upright 5.

**Site 25789 Metric and Non-Metric Upright Data.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock surface	T	I	-	Beveled	64	27	10
1/2	Bedrock surface	T	D	-	Flat	50	19	12
1/3	Bedrock surface	T	D	-	Pointed	70	28	10
1/4	Bedrock surface	T	I	4	Beveled	100	40	10
1/5	Bedrock surface	T	D	-	Flat	65	30	10
1/6	Bedrock surface	T	I	4	Pointed/Beveled	46	25	3

### Site 25789 Metric and Non-Metric Upright Data.

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/7	Bedrock surface	T	C	-	Flat	68	30	13
1/8	Bedrock surface	T	S	-	Beveled	68	22	16
<b>1/9</b>	<b>Bedrock surface</b>	<b>T</b>	<b>I</b>	<b>4</b>	<b>Flat</b>	<b>64</b>	<b>52</b>	<b>18</b>
1/10 <sup>E</sup>	Bedrock crack	T	D	-	Pointed/ Beveled	70	33	9
1/11	Bedrock surface	T	D	-	Beveled	48	21	6
<b>1/12</b>	<b>Bedrock surface</b>	<b>T</b>	<b>I</b>	<b>-</b>	<b>Flat/ Beveled</b>	<b>38</b>	<b>26</b>	<b>8</b>
<b>1/13</b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Flat</b>	<b>66</b>	<b>45</b>	<b>11</b>
<b>1/14</b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Beveled</b>	<b>65</b>	<b>35</b>	<b>7</b>
<b>1/15<sup>E</sup></b>	<b>Bedrock surface</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Beveled</b>	<b>41</b>	<b>18</b>	<b>10</b>
<b>1/16</b>	<b>Bedrock surface</b>	<b>T</b>	<b>S</b>	<b>-</b>	<b>Beveled</b>	<b>44</b>	<b>25</b>	<b>4</b>
<b>1/17<sup>E</sup></b>	<b>Bedrock crack</b>	<b>T</b>	<b>D</b>	<b>-</b>	<b>Rounded</b>	<b>37</b>	<b>18</b>	<b>7</b>
1/18 <sup>E</sup>	Bedrock crack	T	S	-	Flat	40	20	4
1/19	Bedrock crack	T	I	-	Flat	52	20	17
1/20 <sup>E</sup>	Bedrock crack	T	I	4	Flat	60	18	15

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright

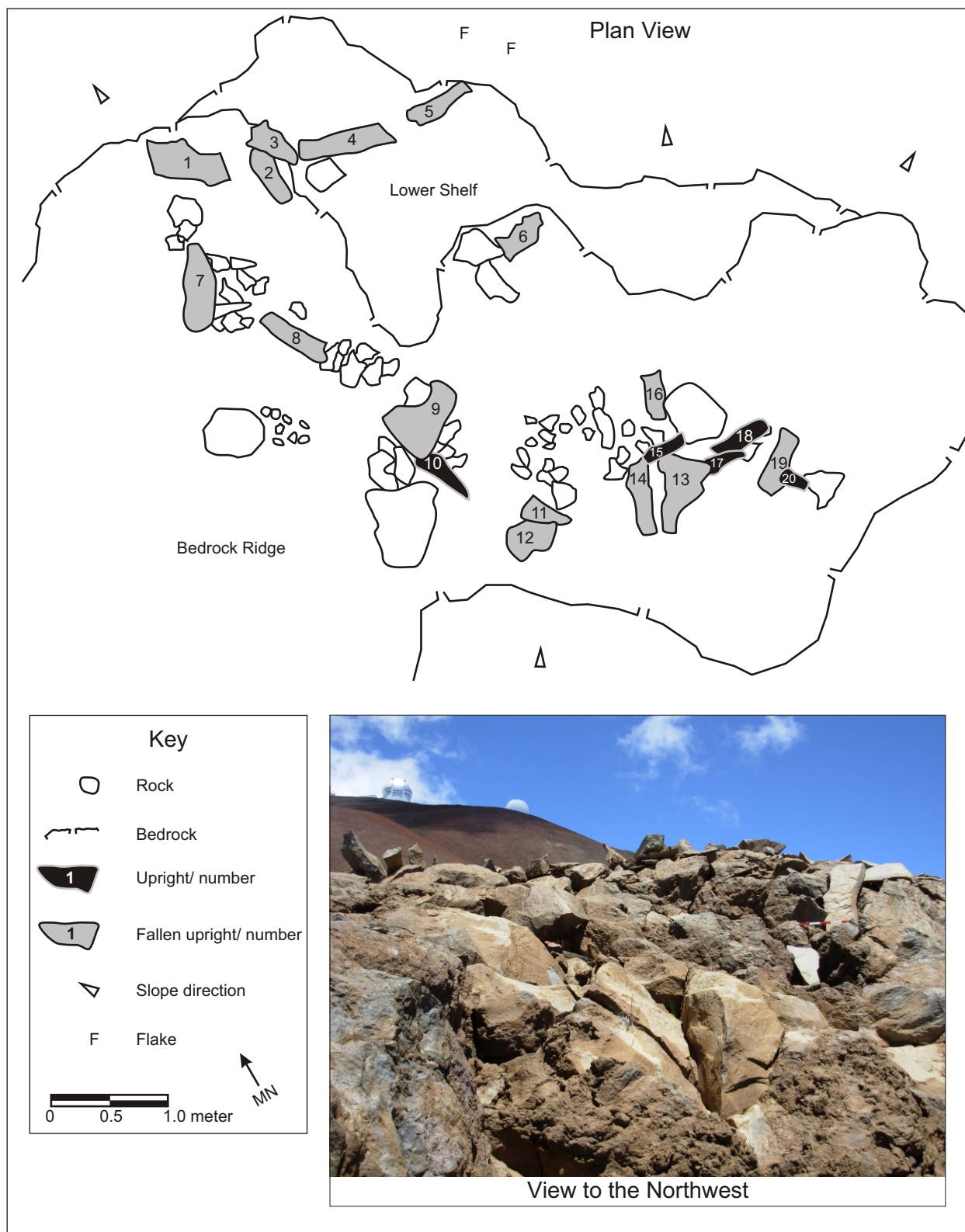
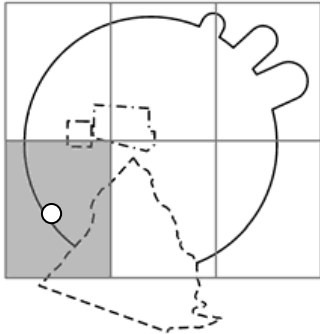


Figure 3.61. Site 25789, Plan View and Photograph.

**STATE SITE 50-10-23-26250**

<b>Additional Site Numbers:</b> Temporary RN2007-016	
<b>Site Function:</b> Shrine and camp site	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,053 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN080	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26250 is located on a glacial moraine gently sloping to the south. The site consists of three features: a mound with one, possibly three uprights (Feature 1), a possible fallen upright (Feature 2), and historic trash and rock pile (Feature 3).

Feature 1 consists of a large mound constructed of piled cobbles and boulders and measures 4.2 m long by 3.5 m wide and has a maximum height of 0.9 m. Upright 1 is located near the center, along the north side, of the mound and is erect (Figure 3.62); see upright data table below). Upright 2 is located near the east end of the mound, along the south side, and is likewise erect. Upright 3 is located at the west end of the mound and has fallen. A single basalt flake, two pieces of basalt, and a rusted can are located at the base of Upright 1. Another basalt flake and a piece of wire are located 1.0 m north of Upright 2 on the natural gelifluction terrace.

Feature 2 is a fallen upright located approximately 11.0 m northwest of Feature 1 on a low, raised finger ridge. The upright appears to have been placed in a crack and then supported by cobbles.

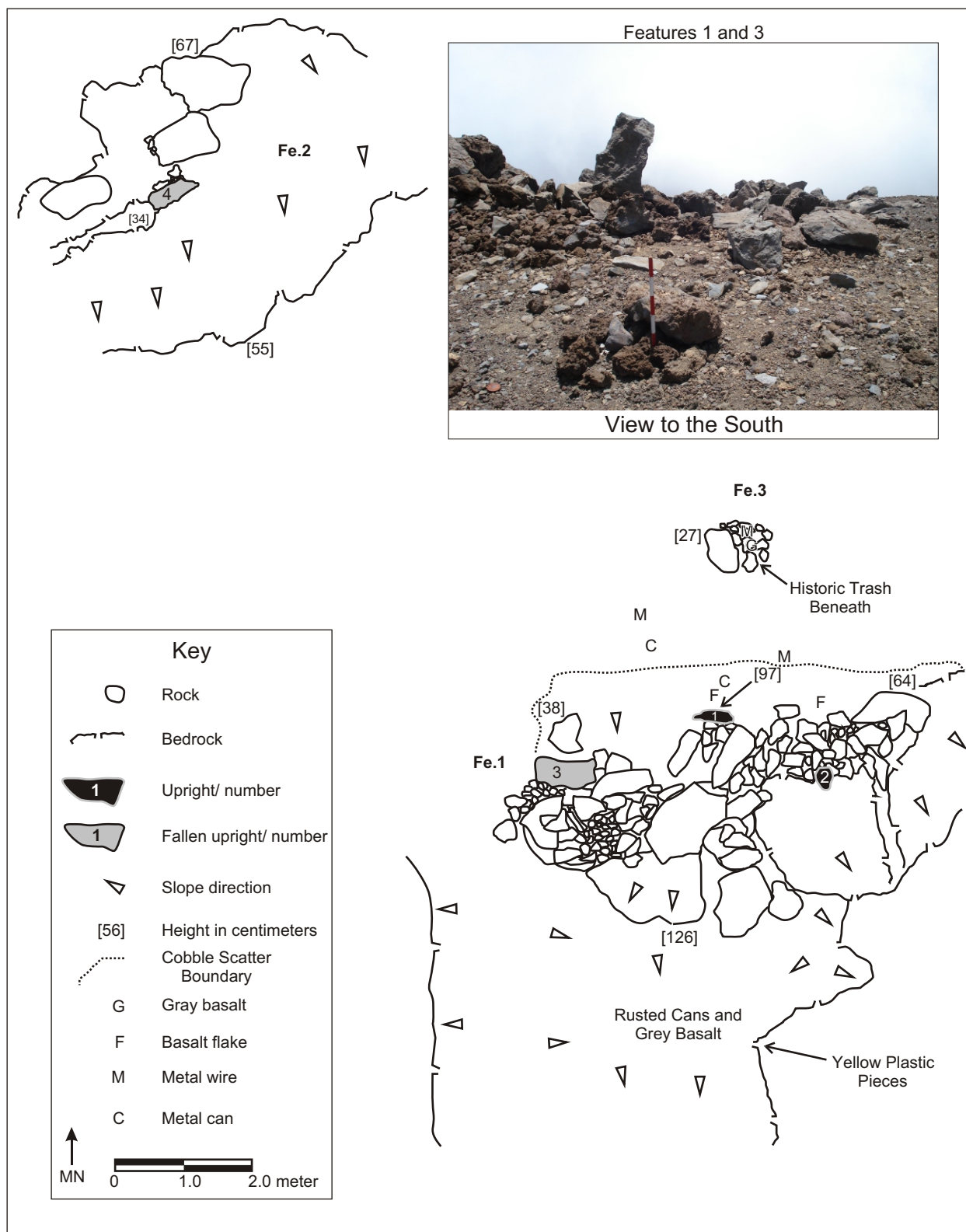
Feature 3, a trash dump covered by cobbles, is located approximately 2.0 m north of Feature 1 on the gelifluction terrace. The trash consists of military-issued ration wrappers and empty contents of the wrappers (e.g., cans and wrappers), and wire.

**Site 26250 Metric and Non-Metric Upright Data.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock	T	P	3	Beveled	93	48	20
1/2	Mound	T	D	-	Pointed	54	35	8
1/3	Mound	T	D	-	Pointed	92	38	18
2/4	Bedrock	T	P	-	Beveled	80	30	16

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed, 6 = Irregular; **BOLD** = Possible Upright





**Figure 3.62. Site 26250, Features 1 Through 3, Plan View and Photograph.**

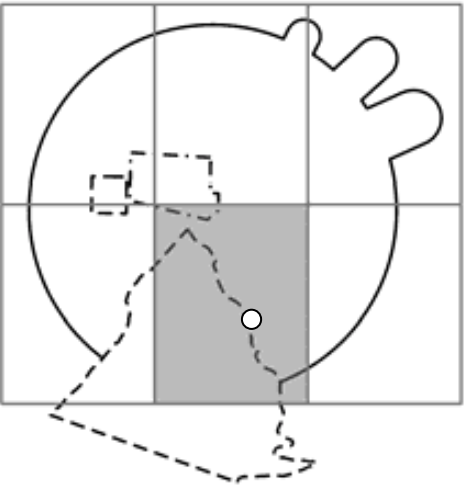
### 3.5 ISOLATED RITUAL COMPLEX

Table 3.6 summarizes the site components for the single ritual complex identified in the Mauna Kea Science Reserve. The description of this site follows Table 3.6.

**Table 3.6. Summary of Site Components for Site 16204, Isolated Ritual Complex**

<b>Site Number 50-10-23-</b>	<b>Shrine</b>	<b>Flake scatter</b>	<b>Temporary habitation</b>	<b>Total number of Components</b>
16204	5	1	26	32

**STATE SITE 50-10-23-16204**

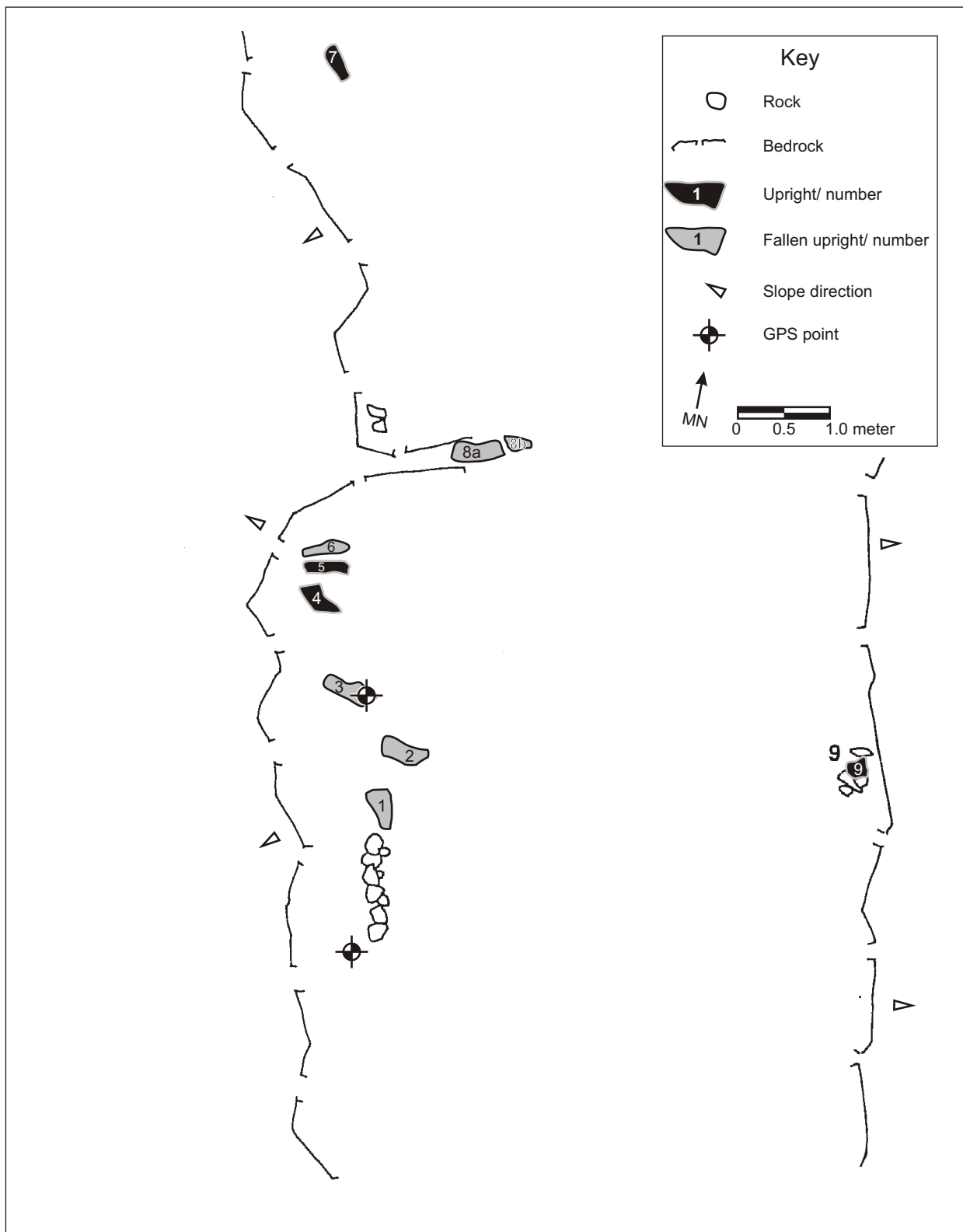
<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-1	
<b>Site Function:</b> Shrine, adze manufacture, temporary habitation	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 150.0 m by 100.0 m	
<b>Number of Features:</b> 32	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,244 +/- ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM081	
<b>Date First Recorded:</b> 1975	
<b>Current Status:</b> Altered; Numerous modifications have occurred at the site, some of which were documented in 2005. The site was not re-visited in 2006 due to time constraints. Feature descriptions presented here are from McCoy 1999).	
<b>Subsequent Site Visits:</b> 1987, 1995, 2005	

**DESCRIPTION:**

This site was first recorded in 1975 (McCoy 1977) and resurveyed in 1987 as part of a larger survey related to a road improvement project. It is included in the proposed boundaries of the Mauna Kea Adze Quarry National Historic Landmark. The site is located on a prominent whale-back ridge on the east side of the summit road between the 12,250 and 12,332 ft elevations. The site, which was recorded using a site definition developed for the adze quarry, was described as consisting of five shrines, 26 open-air enclosures grouped in three physically discrete complexes, and a diffuse scatter of adze manufacturing by-products (McCoy 1999). The original site definition has been retained, but to make the description conform to the recording methodology being employed during the current project, the five shrines are referred to Shrines 1 through 5; the 26 open-air enclosures as Features 1-26, and the diffuse lithic scatter as Feature 27.

**Shrines 1 through 5**

Shrine 1 is the most isolated feature in this site (Figure 3.63). It is located near the toe of the whaleback ridge (McCoy 1999: Figure 3) and consists of nine uprights (No.'s 1 through 9), all but one of which appear to have been aligned in a single row that is 9.5 m long (see upright table for Shrine 1 below). The alignment is parallel to the direction of the lava flow and within a meter of the top, upper edge on which the bases of the uprights rest. At the downslope end of this row of uprights is a short, crude "wall" two courses high. Upright No. 8 appears to have slid down the face of the ridge top into a narrow crack after it broke into two pieces (designated by McCoy (1999: Figure 4 as a and b). Upright No. 9 is roughly 1.0 m lower than the others. A few scattered adze manufacturing waste flakes, or debitage, were observed below the shrine at the toe of the ridge. No obvious alterations were noted at Shrine 1 in 2005.



**Figure 3.63. Site 16204, Shrine 1, Plan View.**

### Site 16204, Metric and Non-Metric Upright Data for Shrine 1.

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
1/1	Bedrock	T	I	-	Pointed	47	24	20
1/2	Bedrock	T	P	3	Pointed	50	28	9
1/3	Bedrock	T	S	2	Flat	55	25	13
1/4 <sup>E</sup>	Bedrock	T	I	5	Pointed	59	35	15
1/5 <sup>E</sup>	Bedrock	T	D	-	Pointed	49	18	16
1/6	Bedrock	T	P	2	Pointed	55	14	14
1/7 <sup>E</sup>	Bedrock	N	I	-	Flat	43	24	18
1/8	Bedrock	T	S	-	Flat	61	22	18
1/9 <sup>E</sup>	Bedrock	N	D	-	Pointed/ Round	60	30	24

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, CR = crescent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

Shrine 2, the best preserved structure on this site, is located approximately 68.0 m upslope of Shrine 1, near the high point of the whaleback ridge at 12,285 ft elevation. There are six erect/semi-erect uprights and one possible upright (see upright table for Shrine 2 below) on a roughly rectangular-shaped mound of stones. The mound is 9.0 m long, 0.9 to 1.75 m wide, and 0.6 m high, and is oriented perpendicular to the long axis of the ridge (Figure 3.64). It occupies nearly the whole breadth of the ridge, which at this point is densely mantled with glacial drift boulders and exhibits prominent glacial polish and grooves. The incorporation of some of these boulders into the foundation of the mound may explain the irregular shape. Upright No. 6, on the eastern end, is noticeably larger than the others. No artifacts were observed in the vicinity of the shrine, but in the mid-1980s a fragment of an *opihi* shell (*Patellidae* sp.) was seen next to the mound.

Shrine 3, located 38.0 m northwest of Shrine 2, consists of two discrete shrines. The main shrine, located on a rocky prominence at the edge of the whaleback ridge, consists of two steps or tiers, each with a low platform, rough pavement, and uprights (see upright table for Shrine 3 below). The two platforms parallel one another and are oriented perpendicular to the direction of the lava flow on which they are located (Figure 3.65).

Three uprights were found on the upper platform. The second component of this "composite shrine," is a cluster of three uprights located 4.0 m northeast of the main shrine. The relationship of this feature to the main shrine is unclear, but it is possible that it was added at a later time.

Situated approximately 3.5 m below the main shrine, at the base of the ridge, is a small enclosure formed of a single course of boulders arranged in a semi-circular pattern against the outcrop. The enclosing wall has a maximum width and height of 0.6 m. The interior dimensions are 1.5 m by 0.8 m. Outside the wall is a small pile of rocks measuring 0.8 m by 0.5 m and 0.47 m high (two to three courses). No artifacts were found on the main shrine or in the immediate vicinity of the dispersed uprights, but a small number of flakes were observed on the ridge top nearby.

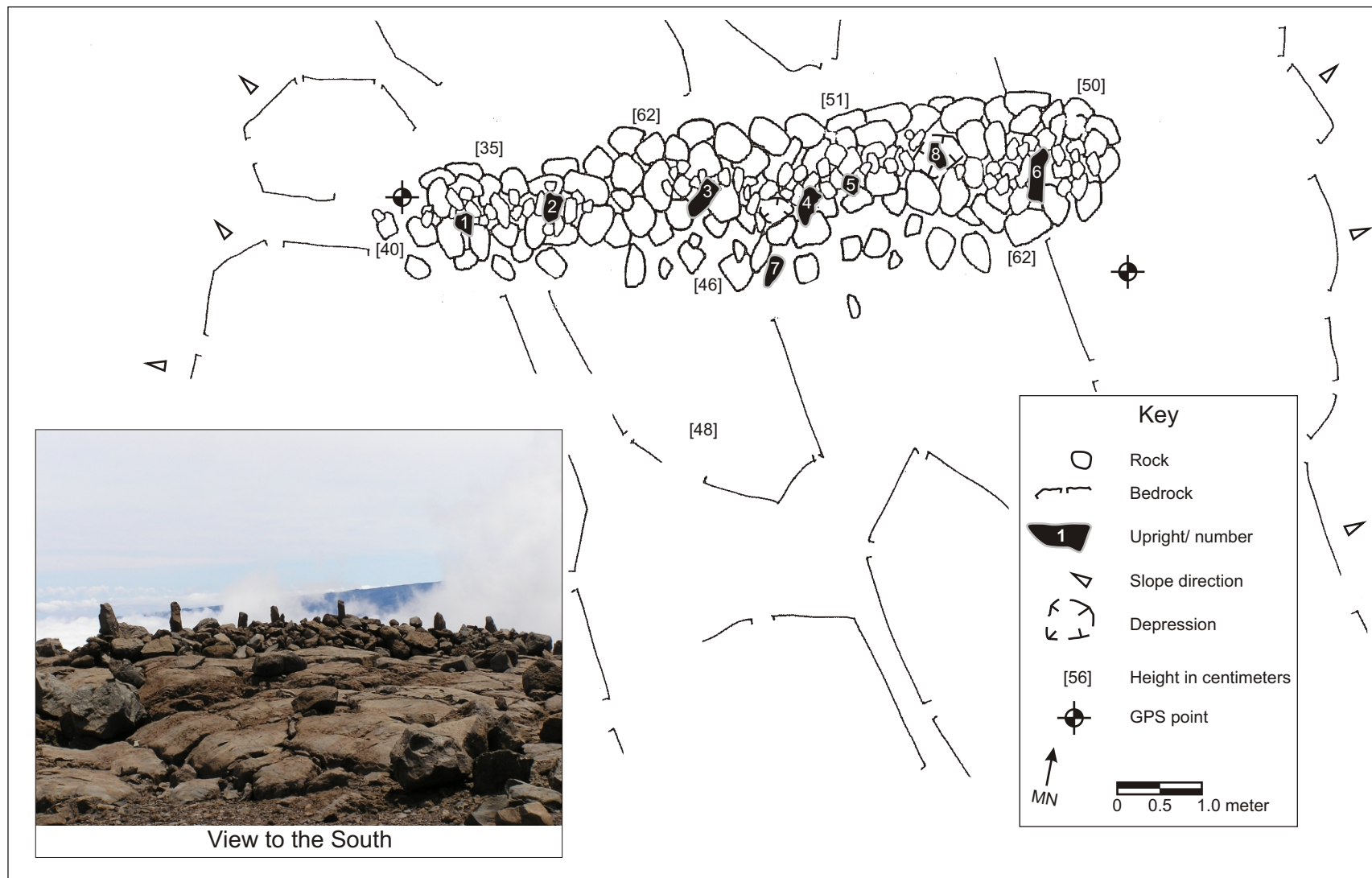


Figure 3.64. Site 16204, Shrine 2, Plan View and Photograph.

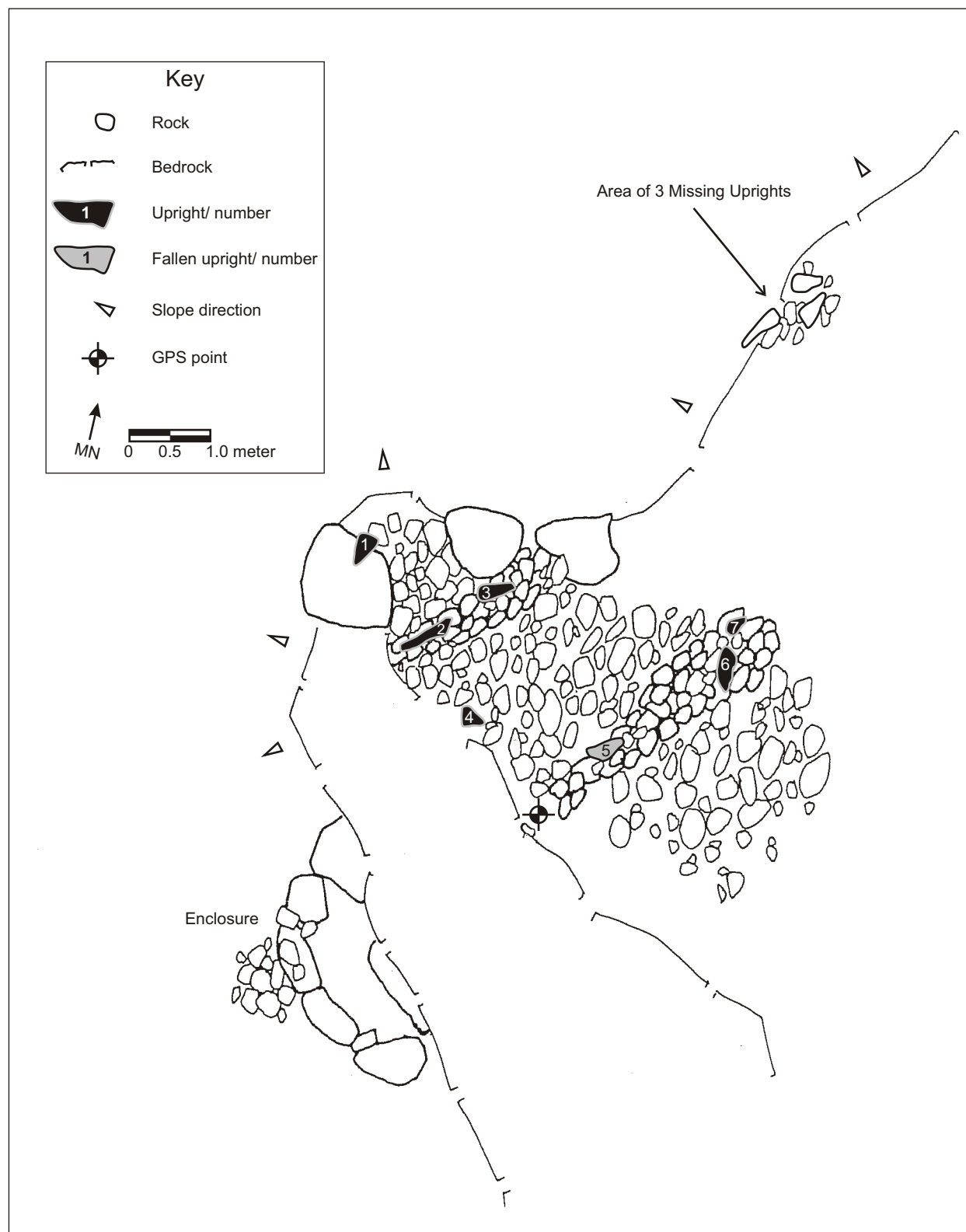


Figure 3.65. Site 16204, Shrine 3, Plan View.



**Site 16204, Metric and Non-Metric Upright Data for Shrine 2.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
2/1 <sup>E</sup>	Platform	T				35	20	9
2/2 <sup>E</sup>	Platform	T				56	20	12
2/3 <sup>E</sup>	Platform	T	D			44	20	12
2/4 <sup>E</sup>	Platform	T	P		Mesial curve	45	15	12
2/5 <sup>E</sup>	Platform	T	P		Beveled	46	20	15
2/6 <sup>E</sup>	Platform	T	I		Flat	77	35	30
2/7	Platform	T				60	17	6
2/8	Platform	T	I		Round	68	28	19

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

**Site 16204, Metric and Non-Metric Upright Data for Shrine 3.**

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
3/1 <sup>E</sup>	Bedrock	N	P		Flat	45	20	15
3/2 <sup>E</sup>	Platform	T	C		Flat	50	72	9
3/3 <sup>E</sup>	Platform	T	D		Gabled	75	44	7
3/4 <sup>E</sup>	Platform	T	P		Flat	52	22	9
3/5		T	D		Pointed	47	19	10
3/6 <sup>E</sup>	Platform	T	S		Beveled	49	22	8
3/7 <sup>E</sup>	Platform	T	S		Beveled	40	20	10
<b>3/8</b>	<b>Bedrock</b>	<b>T</b>			<b>Pointed</b>	<b>42</b>	<b>20</b>	<b>14</b>
<b>3/9</b>	<b>Bedrock</b>	<b>T</b>			<b>Pointed</b>	<b>57</b>	<b>33</b>	<b>9</b>
3/10 <sup>E</sup>	Bedrock	T			Pointed	34	30	9

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

Shrine 4 is located 58.0 m north of Shrine 3 and is constructed on a gelifluction terrace. The feature consists of a modified gelifluction terrace and a "court" on the terrace directly below (Figure 3.66). Many of the stones in the rampart, also called the riser or bank, are oriented at right angles to the direction of flow which has been arrested (cf. Davies 1972:33). The terrace face, which was built by adding stones to the rampart, measures approximately 10.0 m long, 2.5 m wide, and 0.8 m high on the downslope side. The uphill side is 0.35 m above the upper terrace surface, which is approximately 10.0 m wide (front to back). Except for its unusual breadth, volume of rock, and several courses of stacked stone in the southwestern corner, there is little to distinguish this platform from a natural terrace front. Several stones have been stacked in the corner for the likely purpose of surface-leveling. Upon this level surface several uprights are located, indicating the reason for leveling the surface. There are fifteen uprights associated with this shrine.

The "court" area is a loosely "enclosed" area of roughly rectangular shape. It is demarcated by the gelifluction terrace rampart/platform wall on the north and a discontinuous alignment of boulders and cobbles on the other three sides. Eight uprights and possible uprights are located on the east and south sides (see upright table for Shrine 4 below). The edges of Uprights No. 8 and No. 10 are partially flaked. The surface of the open area, which measures 7.5 by 6.4 m, is primarily finely sorted soil, except for the top (north) end, which has the appearance of a boulder pavement.

Two adze preforms were found in the terrace facing. Both specimens are made on flake blanks that were minimally worked before they were discarded. They have all of the attributes of what was previously called a Stage 1 adze blank (McCoy 1986:11; 1991:85) but later described as a Techno-Morphological Type 1 adze "reject" (McCoy et al. 1993:123): the front, back and sides of the incipient tool are indistinguishable, which means that the longitudinal and transverse sections are irregular. In most any other archaeological context both specimens would be described as "modified flakes." The ventral surface of both flakes was used as a platform to remove other flakes, but only minimally before they were discarded, so that there is little indication of the tool-maker's intention. A hammerstone and small number of dispersed adze manufacturing waste flakes of various sizes were found in the court area. No artifacts were noted on the upper terrace surface above the platform; thus, indicating the high probability that these artifacts had been deliberately placed on the platform.

Shrine 5, first recorded in 1986, consists of a possible small platform with two uprights (see Figure 3.65; see upright table for Shrine 5 below). The possible "foundation" is a cluster of cobble-size stones covering an area 3.0 m long by 0.75 m wide and aligned parallel to a shallow crack on the ridge top above Enclosure Complex No. 2 (below). Two uprights, both fallen, are located at one end of the crack. No artifacts are directly associated with the shrine.

### **Enclosure Complexes**

Three enclosure complexes (Complexes 1-3), consisting of 27 enclosures (Features 1-25), are an integral part of this unique site, including the isolated feature associated with Shrine 3. All of the enclosures are located on the west side of a ridge, have the same general architectural style, and are approximately the same size.

Complexes 1 and 2, located on the edge of the same ridge, consist of 20 small enclosures (Features 1-20) built amidst a jumble of large boulders. The majority of the structures are U-shaped or C-shaped and a few are oval to circular. The walls are constructed of piled, with some stacked cobbles and small boulders, one to five courses (0.5 to 1.1 m high). The average interior size of the structures within Complex 1 is 1.7 m by 1.4 m, and 2.0 m by 1.5 m within Complex 2.

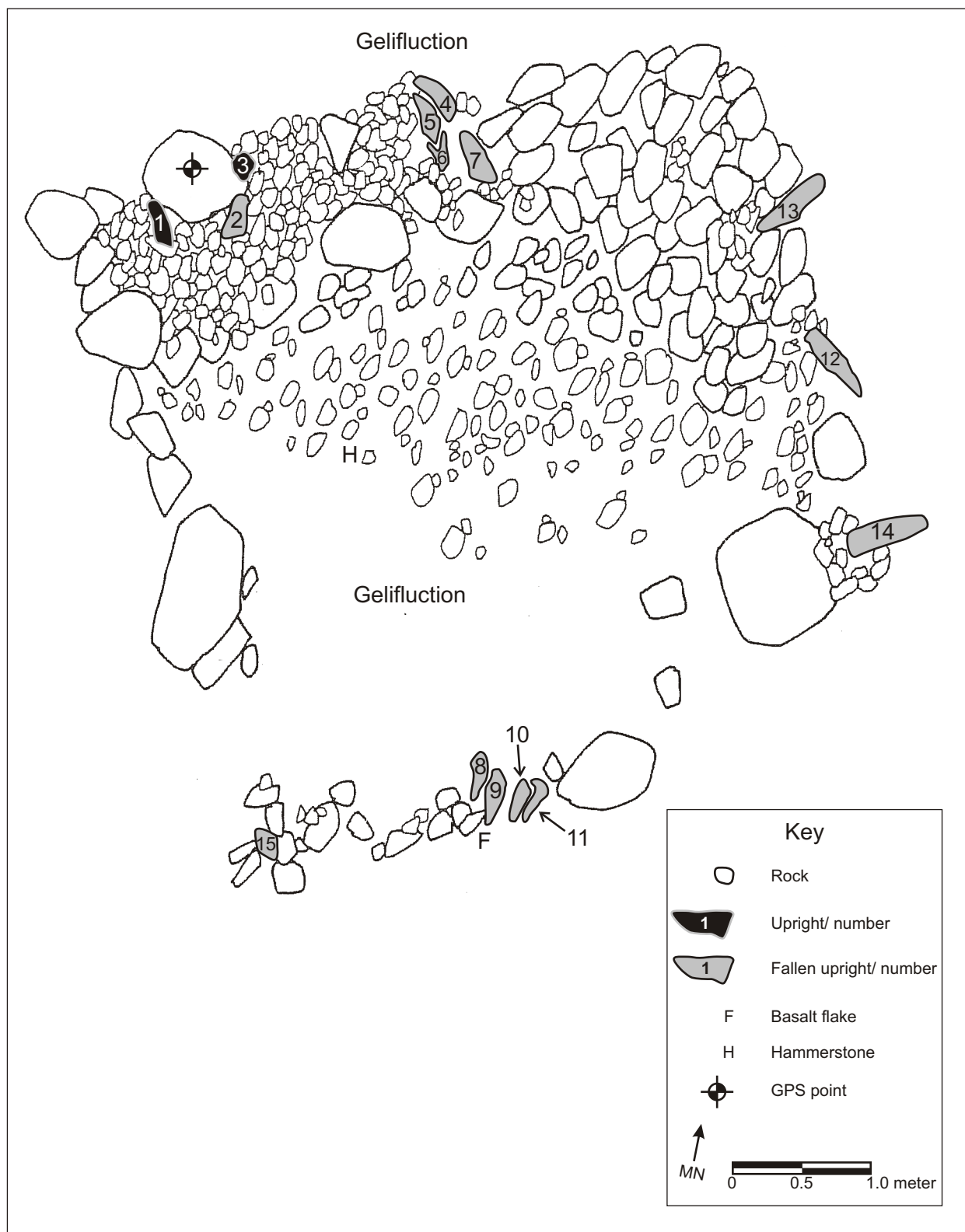


Figure 3.66. Site 16204, Shrine 4, Plan View.

### Site 16204 Metric and Non-Metric Upright Data for Shrine 4.

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
4/1 <sup>E</sup>	Platform	T	S		Beveled	55	20	10
4/2	Platform	T	P		Beveled	64	32	8
4/3 <sup>E</sup>	Platform	T	S			60	26	16
4/4	Platform	T	P		Flat/ Beveled	76	29	20
<b>4/5</b>	Platform	<b>T</b>	<b>D</b>		<b>Pointed/ Beveled</b>	<b>58</b>	<b>30</b>	<b>11</b>
<b>4/6</b>	Platform	<b>T</b>	<b>D</b>		<b>Pointed</b>	<b>45</b>	<b>27</b>	<b>5</b>
<b>4/7</b>	Platform	<b>T</b>	<b>S</b>		<b>Pointed</b>	<b>46</b>	<b>20</b>	<b>4</b>
4/8	Platform	T			Pointed	57	30	7
4/9	Platform	T			Round	77	26	6
4/10	Platform	T	I		Pointed/ Beveled	47	23	4
4/11	Platform	T	D		Pointed	58	29	6
4/12	Bedrock	T	D		Pointed	95	29	14
4/13	Bedrock	T	S		Pointed	69	25	10
4/14	Bedrock	T	S		Flat	72	26	16
<b>4/15</b>	<b>Bedrock</b>	<b>T</b>	<b>S</b>		<b>Beveled</b>	<b>61</b>	<b>29</b>	<b>7</b>

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

### Site 16204 Metric and Non-Metric Upright Data for Shrine 5.

Fe./ Upright #	Upright		Upright Form			Upright Dimensions (cm)		
	Foundation	Material	Body	Treatment	Top	Ht	Wd	Th
5/1	Bedrock	T	D	-	Flat	44	18	10
5/2	Bedrock	T	D	-	Pointed	34	20	10

Fe./Upright # = Feature/Upright Number; <sup>E</sup> = Upright is erect; Material: T = tabular, N = non-tabular; Body Form: P = parallel, S = sub-parallel, D = divergent, C = convergent, I = irregular; Treatment: 1 = shouldered, 2 = unilateral flanged, 3 = corner notched, 4 = side notched, 5 = knobbed; **BOLD** = Possible Upright

There are two examples of enclosures with two internal compartments that are only partly separated by a common wall (Features 3a/3b and 6a/6b). Except where the walls have collapsed inward, the interior ground surfaces are free of large stones, clearly corresponding to the well-sorted surface horizons of active gelifluction deposits. The walls are constructed of loosely stacked boulders and cobble-sized stones obtained from the immediate environs. Additionally, they exhibit no unusual characteristics in terms of the frequencies of particular sizes or shapes.

### Enclosure Complex No. 1

There are 10 enclosures (Features 1-8) in this group, including two of the larger variety with separate compartments, which encompass an area of approximately 250 m<sup>2</sup> on a boulder strewn slope (Figure 3.68; see table below for Enclosure Complex 1). Within the larger grouping, there is the appearance of several smaller clusters of two to three enclosures each. The wall dimensions and floor areas are moderately uniform, though it is also clear that there are small and large extremes. Two adze manufacturing waste flakes were found inside Feature 6a and one inside Feature 6b, with more of the same on the slope below. Flake debitage and three adze preforms made on flake blanks were noted on the surface of the gelifluction lobe below Shrine 3.

**Summary of Enclosure Complex No. 1**

Feature Number	FLOOR		WALL		
	Max. Interior Dimensions (m)	Area (m <sup>2</sup> )	Height (cm)	Thickness (cm)	Number of Rock Courses
1	1.8 by 1.8	1.3	67	100	4
2	2.9 by 1.0	3.0	55	75	3
3a	2.2 by 1.4	1.3	110	90	4
3b	1.3 by 1.2	1.0	100	60	3
4	1.6 by 1.3	1.0	80	80	5
5	0.8 by 1.4	1.0	70	30	2
6a	2.6 by 1.8	2.0	50	50	2
6b	1.1 by 1.5	1.0	60	60	2
7	0.9 by 1.0	0.5	75	65	3
8	1.9 by 1.9	2.5	75	70	3

An adze preform was collected from the edge of the rubble above Feature 4 in Enclosure Complex 1.

### Enclosure Complex 2

Complex 2 is comprised of 12 enclosures (Features 9-20) that are aggregated in an area of approximately 375 m<sup>2</sup> on the same boulder-strewn slope as Complex 1 (see Figure 3.67; see table below for Enclosure Complex 2). Features 1-3 are adjoined. The general form and dimensions are similar to those in Complex 1, but on the whole this group of enclosures is better preserved. Small waste flakes were observed in the gelifluction lobe at the northeast corner of the complex above Features 16-19.

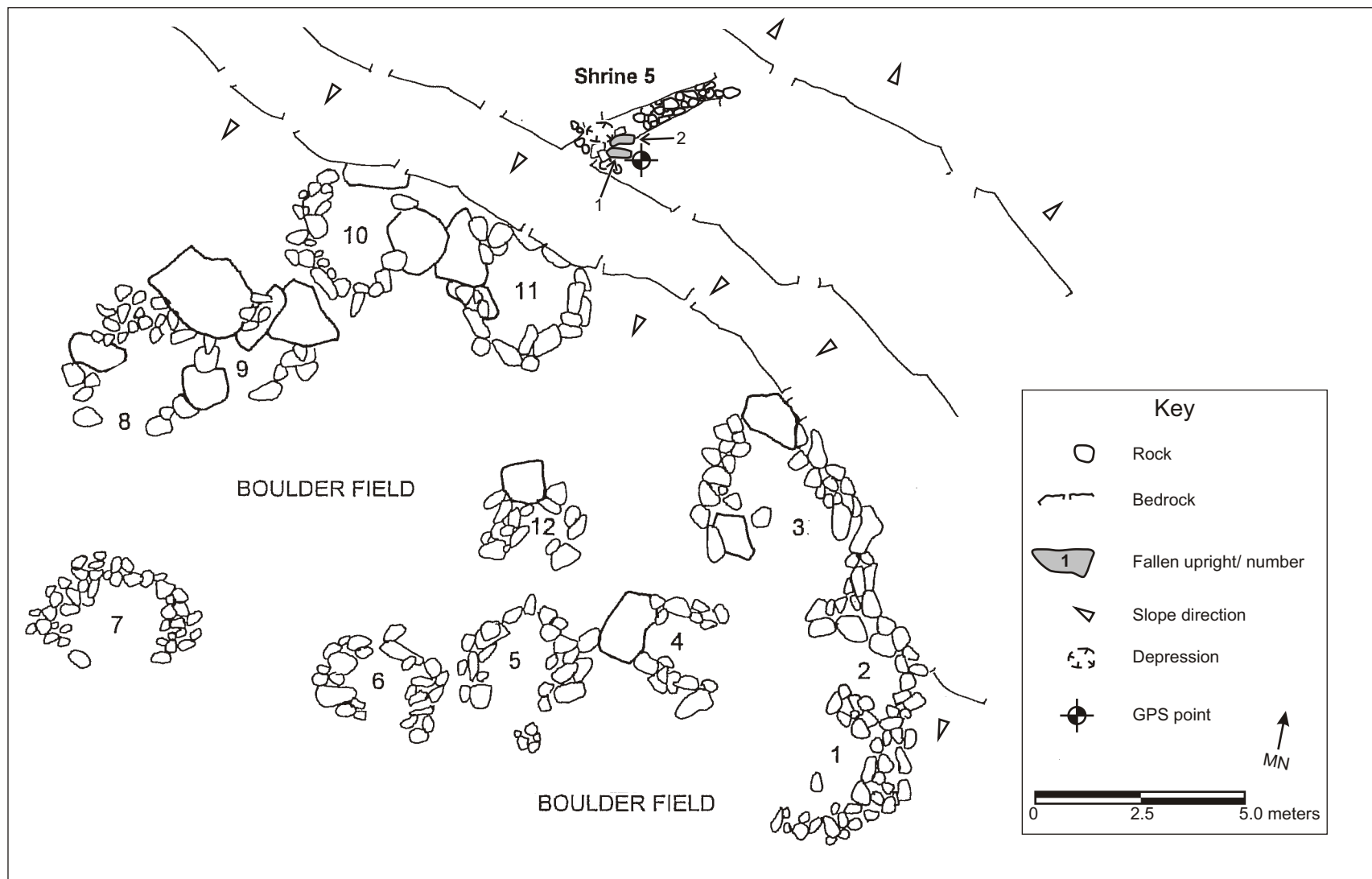
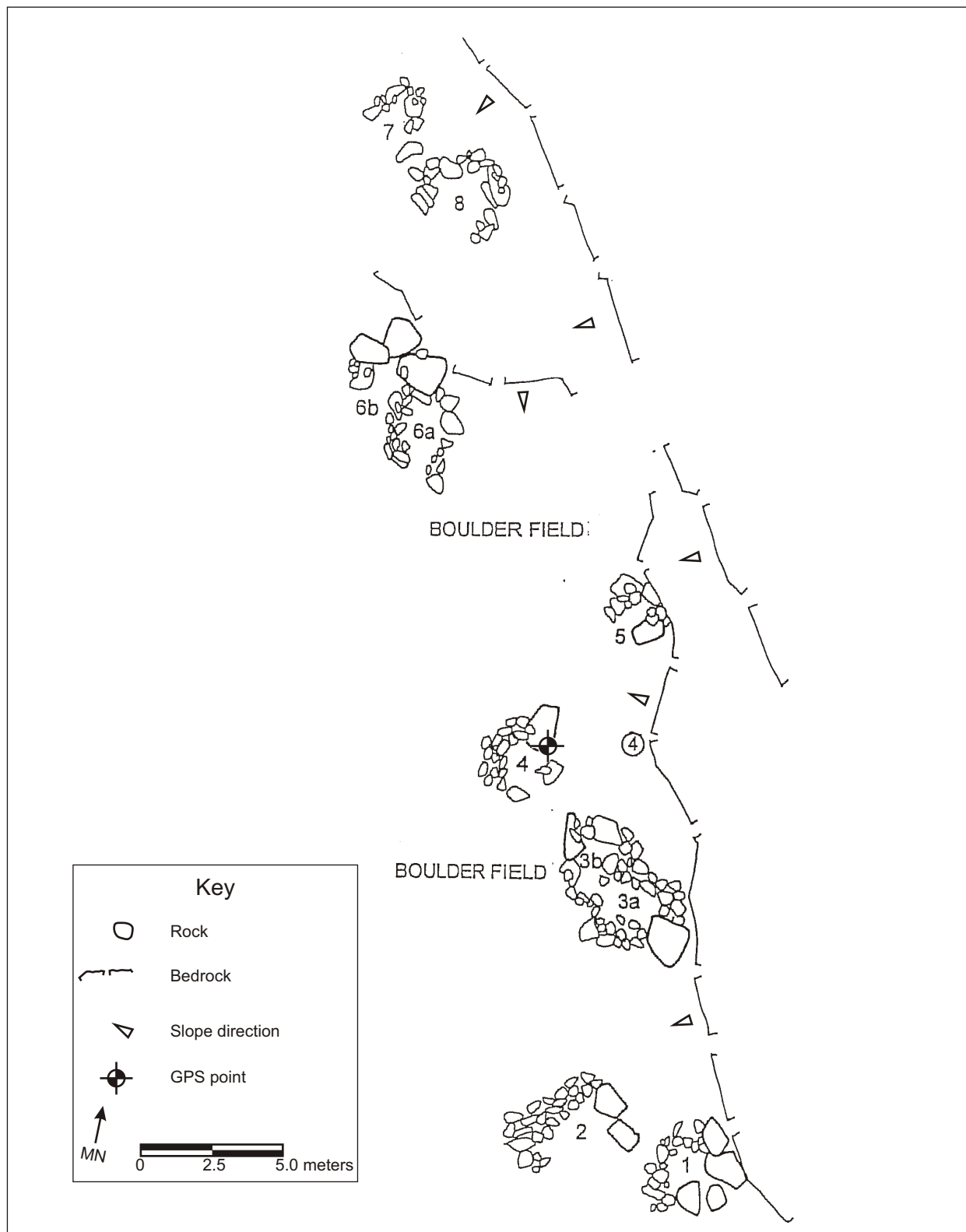


Figure 3.67. Site 16204, Plan View of Enclosure Complex 2 (Enclosures 1 Through 12) and Shrine 5.



**Figure 3.68. Site 16204, Plan View of Enclosure Complex 1.**



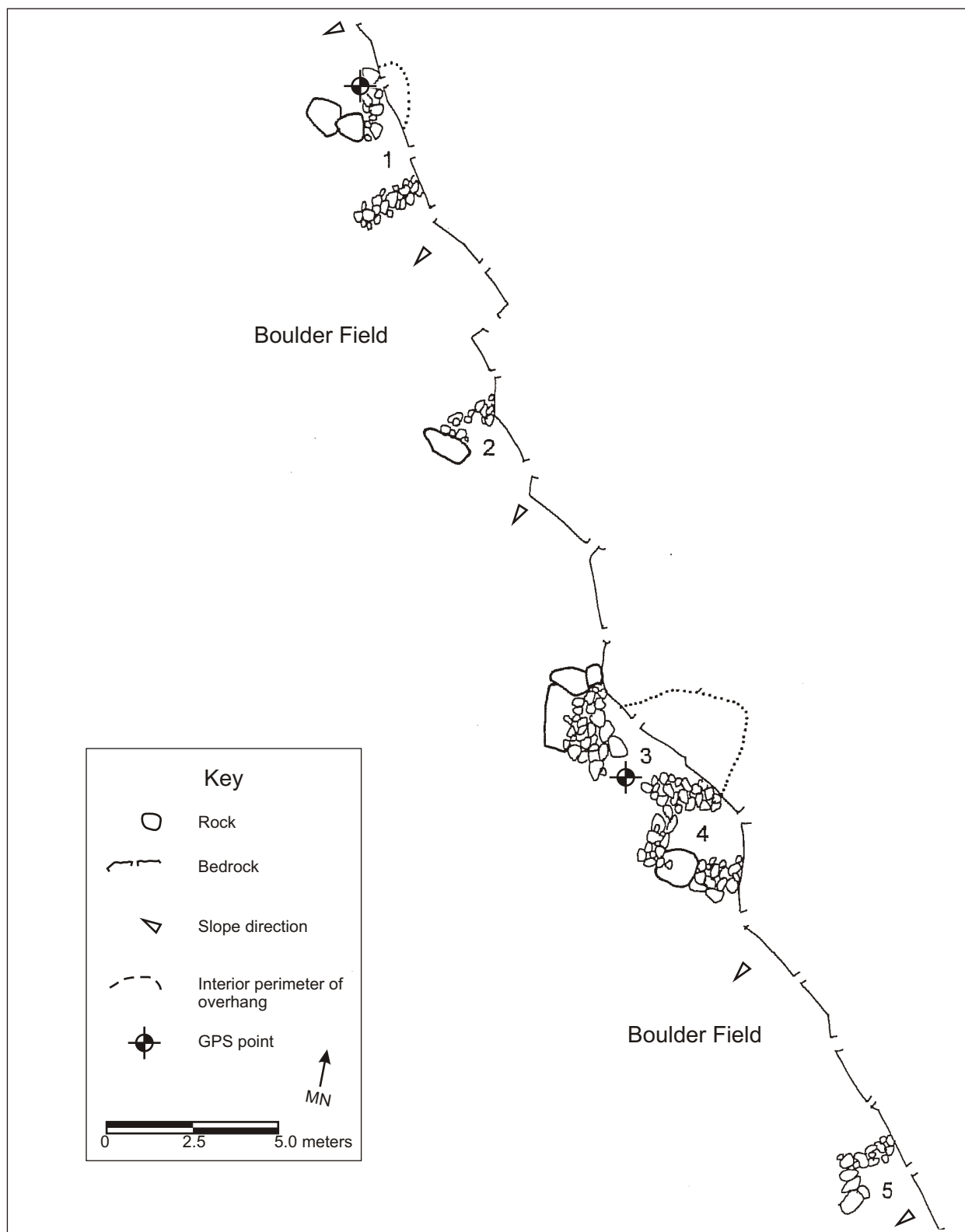
In 1982 a reworked broken adze preform was collected from the surface of a gelifluction lobe approximately 30.0 m southwest of Enclosure Complex 2. Two adze preforms noted in the 1975 survey were collected from the floor of Feature 16 beneath a stone forming the basal course of one side of the enclosing wall. There are no waste flakes on the floor of the enclosure or other evidence to indicate that these specimens were manufactured at this locality.

### Summary of Enclosure Complex No. 2

Feature Number	FLOOR		WALL		
	Max. Interior dimensions (m)	Area (m <sup>2</sup> )	Height (cm)	Thickness (cm)	Number of Rock Courses
9	1.6 by 1.0	1.0	100	70	3
10	1.7 by 1.5	1.5	160	90	3
11	2.2 by 1.6	2.0	110	60	3
12	1.7 by 1.3	1.5	45	50	2
13	2.4 by 1.4	2.0	65	70	2-3
14	1.7 by 1.5	1.5	75	60	3
15	1.7 by 1.9	2.0	70	80	3
16	2.4 by 1.6	2.0	50	80	2-3
17	1.3 by 1.4	1.0	85	45	3
18	2.7 by 1.5	1.5	58	60	2-3
19	2.2 by 1.1	1.5	125	60	2
20	0.5 by 1.0	0.5	66	40	4

### Enclosure Complex 3

Complex 3 has quite a different appearance than the other two complexes, both in terms of its topographic setting and the characteristics of the remains themselves. It is located on a younger lava flow that, though showing the same effects of glacial scouring and abrasion, is considerably less weathered and broken down. Five features (Features 21-25), including two small overhang shelters, are located along a 35.0 m long section of the southwestern, leeward side of the flow, which attains a maximum height of only 2.0 m above ground surface (Figure 3.69.; see table below for Enclosure Complex 3). Features 21 and 22 are small enclosed spaces defined by short, straight walls constructed between the edge of the lava flow and blocks of rubble. The position of the walls in relation to the mouth of the two overhangs of Features 23 and 24, indicates an interest in utilizing the space in back of the dripline; thus, demonstrating that the overhangs were the determinant factors in the construction of the walls. A sardine can, other unidentified tin cans, brown bottle glass fragments, and the bottom of an embossed Mogen David wine bottle were found at the entrance to the larger overhang. A single isolated adze manufacturing waste flake was observed on the ridge top near Feature 23.



**Figure 3.69. Site 16204, Plan View of Enclosure Complex 3**

Enclosure Complex No. 3 is now believed to be unrelated to the other two enclosure complexes and Shrines 1-5. It is probably modern, based on the presence of modern artifacts and the absence of evidence demonstrating relationship to the quarry or other pre-contact activity. The walls may have been built during the construction of the road or by hikers. Test excavations should be undertaken before any final conclusions are reached about these and the other enclosures.

### Summary of Enclosure Complex No. 3

Feature Number	FLOOR		WALL		
	Max. Interior Dimensions (m)	Area (m <sup>2</sup> )	Height (cm)	Thickness (cm)	Number of Rock Courses
21	1.75 by 1.5	2.25	45	60	2-3
22	1.5 by 1.2	1.2	95	75	4
23	5.0 by 3.5	7.5	50	70	2-3
24	2.2 by 2.0	2.5	50	70	3
25	2.0 by 0.8	1.25	100	60	2

### Artifact Assemblages

In addition to the previously mentioned artifacts on Shrine 4—the by-products of adze manufacture, primarily waste flakes, but also including the rare unfinished adze and hammerstone—were found dispersed over an area of approximately 1.48 hectares (3.67 acres) between 12,200 and 12,300 ft elevations. The largest concentration of material is located on the same slope as Enclosure Complexes 1 and 2, but even here there is so little material (perhaps a total of only 100 to 200 flakes at the most) as to preclude the unconditional use of the term *workshop*. This term, though rarely defined in the literature, normally implies in the case of reduction technologies, such as stone tool manufacture, a coherent structure amongst the various by-products of work (cores, waste flakes, rejected tools, etc.) that constitute this category of archaeological remains.

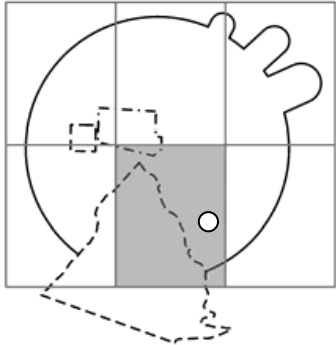
### 3.6: POSSIBLE BURIALS WITH LITHIC SCATTERS

Table 3.7 summarizes the site components for the two burial sites with lithic scatters. The site descriptions follow Table 3.7.

**Table 3.7. Summary of Site Components for Possible Burials with Lithic Scatters.**

<b>Site Number 50-10-23-</b>	<b>Burial/Possible burial</b>	<b>Flake scatter</b>	<b>Temporary habitation</b>	<b>Total number of Components</b>
25770	2	1	1	4
25774	4	1		5
TOTAL	6	2	1	9

**STATE SITE 50-10-23-25770**

<b>Additional Site Numbers:</b> Temporary RN2006-11	
<b>Site Function:</b> Possible burials, temporary habitation, and adze manufacturing	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 20.0 m by 10.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Gelifluction lobe	
<b>Approximate U.S.G.S. Elevation:</b> 12,164 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN084	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25770 is a complex of four features, a mound (Feature 1), a crude stone enclosure (Feature 2), a large boulder with a crack filled with cobbles (Feature 3), and a diffuse scatter of basalt flakes (Feature 4).

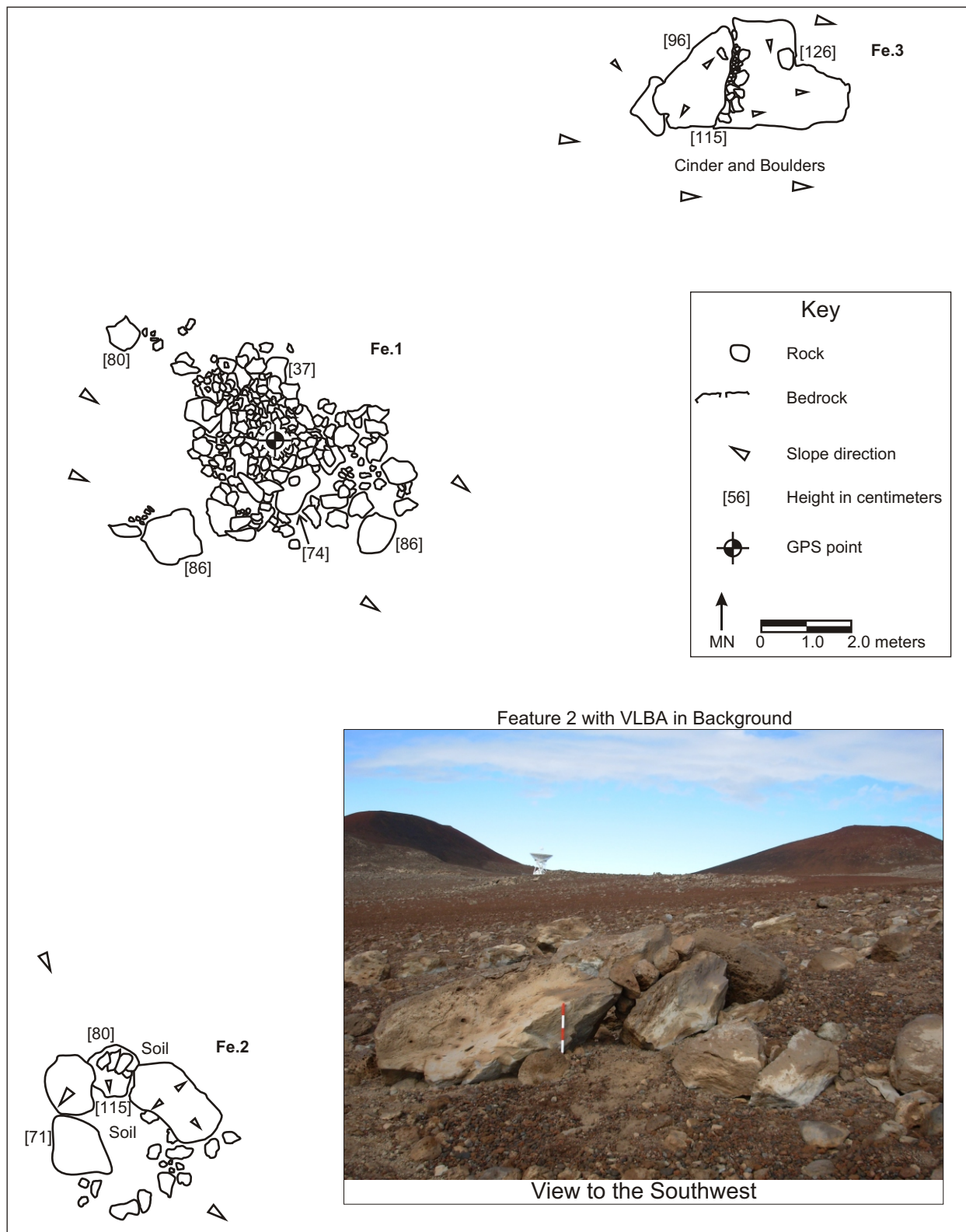
Feature 1 is a roughly rectangular mound of cobbles and boulders on a gelifluction lobe (Figure 3.70). The mound, which is oriented parallel to the slope, is 8.0 m long and a maximum of 9.0 m wide and 65.0-70.0 cm in height at the center. The lower end, which is partially collapsed, abuts a boulder. The feature is otherwise in good condition, but what it represents is unclear. The size and morphology suggest that it might be a burial feature.

Feature 2 is a small U-shaped enclosure formed by three naturally occurring boulders. It is located 14.0 m south of Feature 1. There are five placed cobbles on top and in the space between two of the boulders. The enclosure has a maximum depth of 2.1 m and breadth of 1.8 m at the opening. The maximum height, at the rear, is 1.1 m. The enclosure, which is of unknown age, could have been used as a temporary shelter from the prevailing winds.

Feature 3 is 4.0 m (east/west) by 2.25 m (north/south) and 1.15 m high boulder with a 0.5 m wide crack in the center that is filled with cobbles just below the top. It is located 12.0 m northeast of Feature 1. No cultural materials or skeletal remains were observed in the fill, not all of which can be seen, however. It is possible that the fill may conceal human remains.

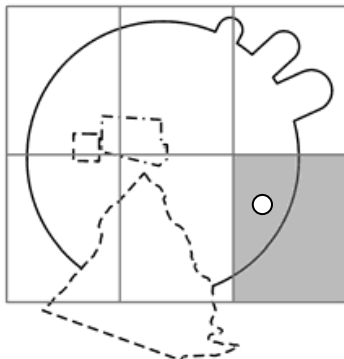
Feature 4 is a diffuse scatter of basalt flakes that was found upslope of Feature 1. The areal extent of the scatter is unknown. Also unknown is the meaning of a few scattered flakes, which might indicate either the working of adze blanks or preforms at this locale, or the purposeful discard of adze manufacturing waste flakes brought from the quarry.

If Features 1 and 3 are indeed burials, the presence of a diffuse lithic scatter in close proximity to the features may be coincidental. But if human skeletal remains do exist at this site, the presence of adze manufacturing waste flakes might indicate a direct relationship, assuming the remains are those of an adze maker.



**Figure 3.70. Site 25770, Features 1 Through 3, Plan View and Photograph.**

**STATE SITE 50-10-23-25774**

<b>Additional Site Numbers:</b> Temporary PM2006-09	
<b>Site Function:</b> Possible burials and adze manufacturing	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 35.0 m by 10.0 m	
<b>Number of Features:</b> 5	
<b>Topographic Location:</b> Glacial outwash plain and gelifluction terraces/lobes	
<b>Approximate U.S.G.S. Elevation:</b> 11,971 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM062-065	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

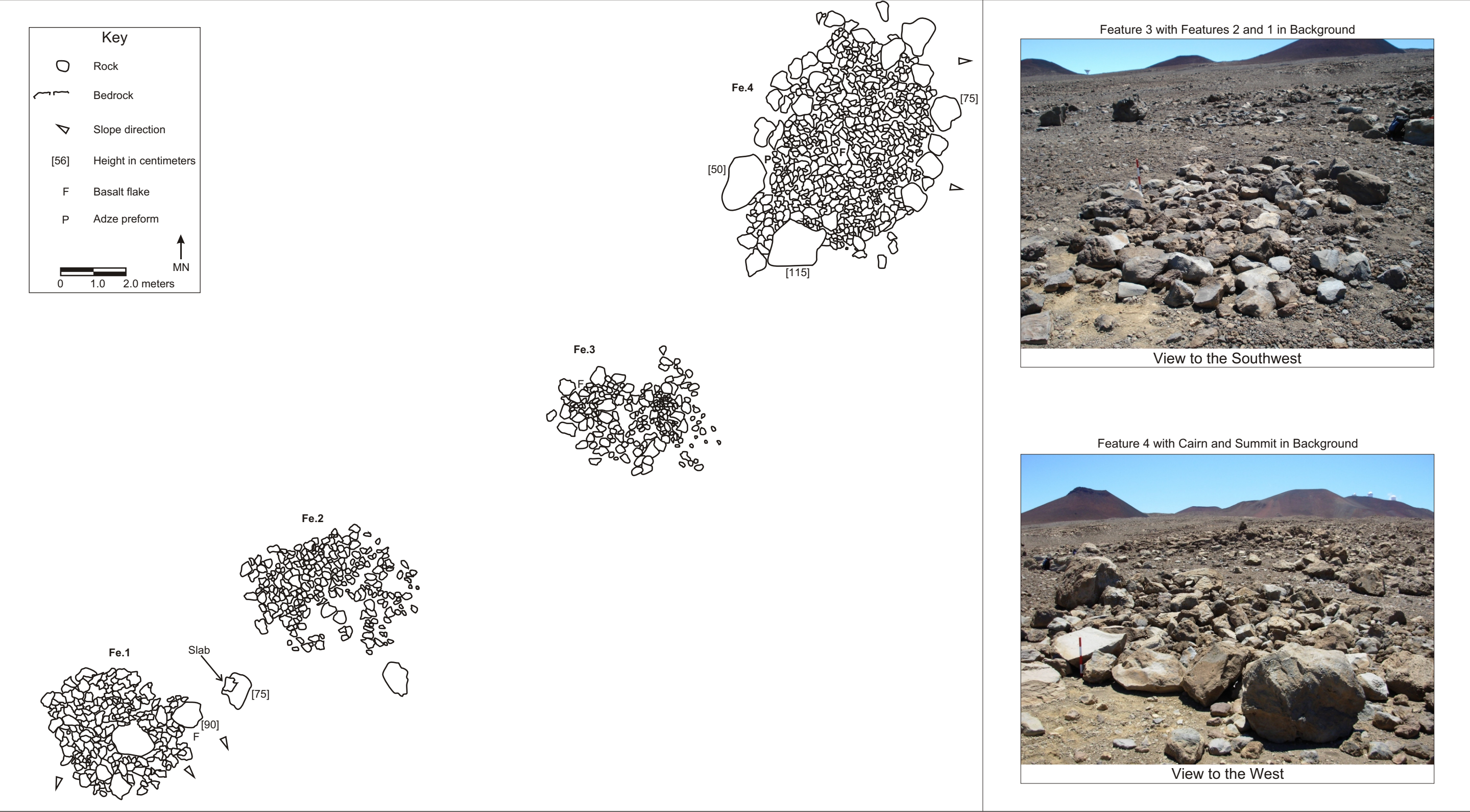
Site 25774 consists of a complex of five features, including four mounds (Features 1, 2, 3, and 4) and a lithic scatter (Feature 5). The site is positioned on a gently sloping glacial outwash plain located roughly 30.0 m southeast and below the ridge on which Site 25776 is located. The mounds are aligned parallel to the slope contour in a linear configuration that spans a distance of approximately 24.0 m between the two most distant features (Features 1 and 4). The mounds are constructed of cobble and small boulder size stones from the glacial till deposits in the outwash, which are widely scattered over the eastern side of the summit plateau. The central portions of the mounds appear to be somewhat recessed and roughly level with the adjacent ground surface, in contrast to some portions of the edges, which are built up. The mounds on this site, which are low and in some respects more like boulder pavements, are quite unlike the mounds found elsewhere in the 2005 and 2006 survey areas. They bear some resemblance, however, to features found at Lake Waiau, which have been interpreted as possible burials (Figure 3.71).

Feature 1 is a roughly 4.0 m by 4.0 m and 1.0 to 1.5 m high mound constructed between and to the sides of two boulders, 0.9 and 1.1 m high. Some of the stones are piled against the sides of the boulders. The sides of the mound, especially on the south, have collapsed. Adjacent to the mound on the east is a third relatively large boulder (1.0 m in diameter by 0.75 m high) with a 50.0 cm thick slab on top. The slab, which does not appear to be a fallen shrine upright, may have been placed on the boulder sometime in the recent past. One basalt flake was found on the eastern edge of the main mound.

Feature 2 is a mound 4.5 m by 3.0 m and 0.15 m high. It is aligned with Feature 3, which is approximately 6.0 m northeast. Most of the mound consists of a single course (level) of stones; thus, it appears more like a pavement. The southern and eastern edges are somewhat disaggregated.

Feature 3 is approximately 5.5 m northeast of Feature 2 and 3.8 m northwest of Feature 4. It is similar to Feature 2 in size (4.0 m by 2.5 m), shape (roughly rectangular), and construction (a single course) of stones except for a few piled stones along the edge). Like





Feature 2, the southern and eastern edges are somewhat disaggregated. One basalt flake was found in the northwest corner on the surface.

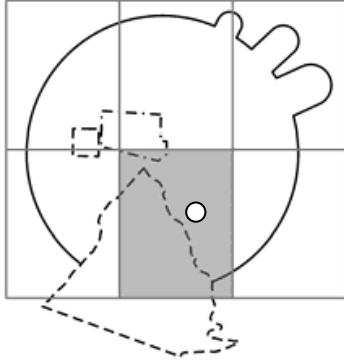
Feature 4 is the largest of the four mound features, measuring 9.0 m by 6.5 m with a maximum height of 1.15 m. It is located approximately 4.0 m north of Feature 3. It is similar to Feature 1 in that the edges of the mound are defined by boulders, some of which form the rampart of a gelifluction lobe. In places there are two to three courses of stones. A basalt flake and the butt end of adze preform fragment were found on the mound. The latter was collected for EXDRF analysis (see Volume 1, Section 6 and Appendix M). Although there is nothing to suggest a direct relationship between the lithic artifacts and the mound, the presence of two artifacts on this mound and one flake on the Feature 1 mound may be significant; at least, there is no conclusive evidence that the artifacts were deposited in the process of gelifluction lobe or terrace development.

Feature 5 is a sparse basalt flake scatter spread over a large area, above and below the site, with a few flakes also located on Features 1, 3, and 4. Some of this material could possibly have eroded downslope from Site 25776. A find spot (PM2006-42) was found between Features 1 and 2.

#### **4.0 BURIALS AND POSSIBLE BURIALS**

This section presents descriptions for the 29 burial and possible burial sites identified in the Mauna Kea Science Reserve. All components of these sites are possible and confirmed burials.

**STATE SITE 50-10-23-16195**

<b>Additional Site Numbers:</b> BPBM 50-Ha-G28-76	
<b>Site Function:</b> Possible burials	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 12.0 m by 9.5 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Rim of Pu`u Līlinoe	
<b>Approximate U.S.G.S. Elevation:</b> 12,964 ft a.m.s.l.	
<b>2006 GPS File No.:</b> P16195.20060901	
<b>Date First Recorded:</b> 1976	
<b>Current Status:</b> Feature "type" changed.	
<b>Subsequent Site Visits:</b> 1984, 2006	

**DESCRIPTION:**

Site 16195 consists of two features, a platform (Feature 1) and a mound (Feature 2) (Figure 4.1). This site, first recorded in 1976, consists of two adjacent features on the eastern rim of Pu`u Līlinoe, a traditional cultural property that was assigned site number 50-10-23-21439 in 1999 (SHPD 2000). The 1976 field records described one of Site 16195's features as a roughly C-shaped enclosure or wall, with a ca. 50.0 cm wide and 30.0 cm pit. The pit was assumed to have been the source of the stones in the wall. The second feature was described as an *ahu* or cairn, which had a wooden stick in the center. Some doubt existed at that time as to whether the features were historic or modern, partly because of the presence of milled wood, which may have been a survey stake. Both features were in poor condition and appeared to have been disturbed.

It appears that these features are the graves that W.D. Alexander's survey party saw on the top of Pu`u Līlinoe in 1892. Alexander wrote:

The same afternoon [July 25, 1892] the surveyors occupied the summit of Lilinoe, a high rocky crater, a mile southeast of the central hills [the 'summit'] and a little over 13,000 feet in elevation. Here, as at other places on the plateau, ancient graves are to be found. In olden times, it was a common practice of the natives in the surrounding region to carry up the bones of their deceased relatives to the summit plateau for burial (Alexander 1892).

During the 1976 survey it was noted that no human remains were visible and the features had the appearance of being dismantled. If these features were in fact the same graves, the remains may have been removed sometime prior.

In 2006, the two features were mapped and recorded in detail (Figure 4.2). No significant changes were observed when compared to the 1976 notes. No human remains were observed.

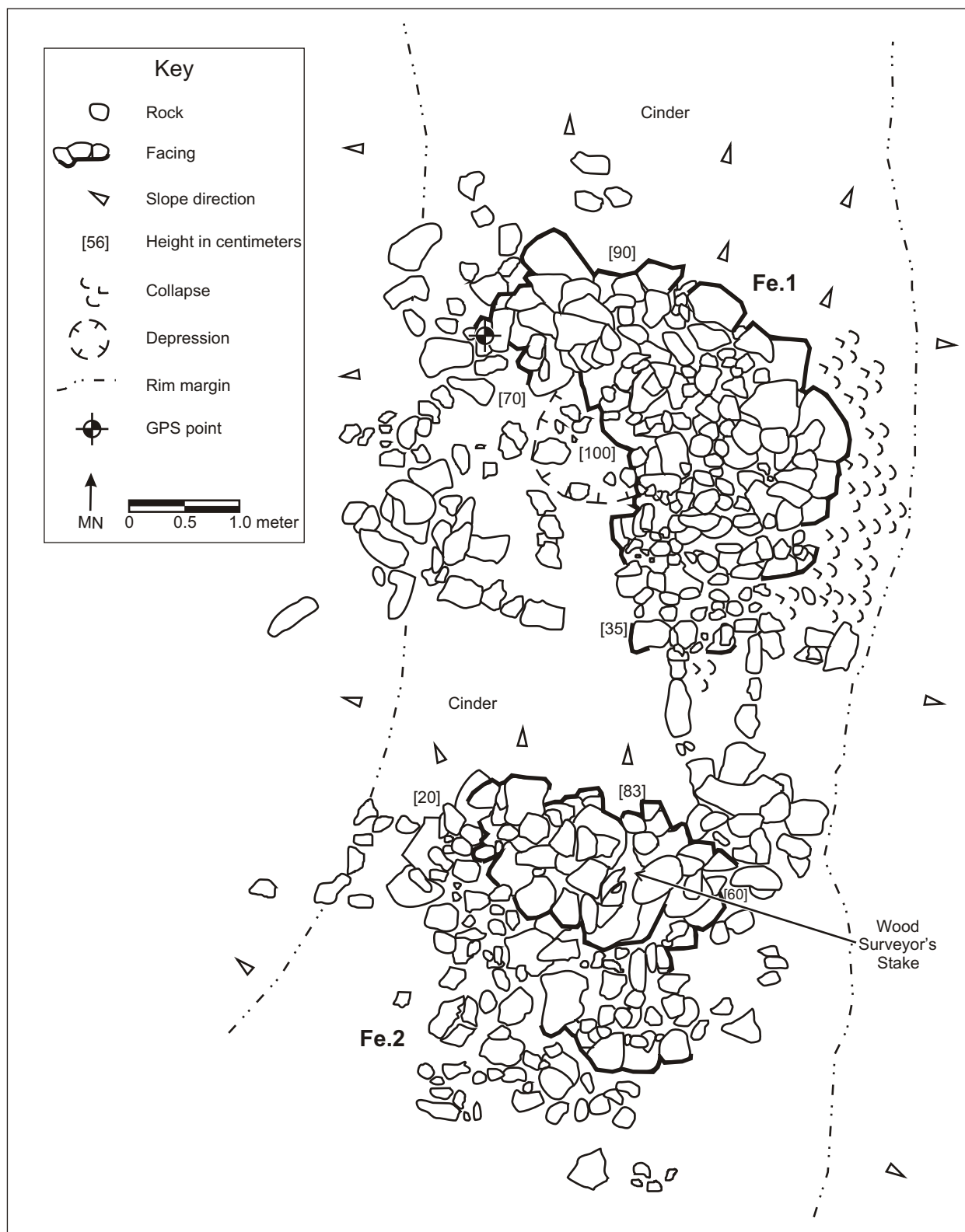


Feature 1 appears to be a dismantled platform (see Figure 4.2). The north, east, and a portion of the south sides appear intact with stacked cobbles. The west side appears to be dismantled with cobbles scattered to the west. A depressed area in the cinder is located adjacent (west) to the platform. The intact portion of the platform measures approximately 4.0 m long by 0.9 m high.

Feature 2 is a mound located approximately 1.6 m south of Feature 1. It is constructed of both piled and stacked cobbles and measures 4.0 m by 4.0 m and 0.8 m high. In the center of the mound is the milled-wood stake observed in the 1976 survey.

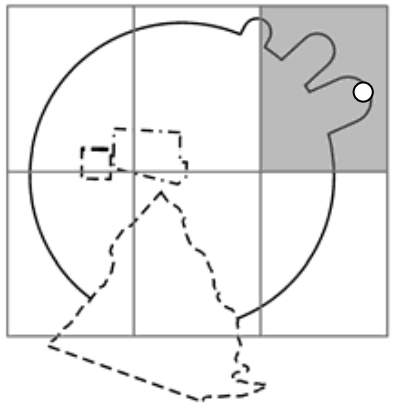


**Figure 4.1. Site 16195. View to the Northeast.**



**Figure 4.2. Site 16195, Plan View of Features 1 and 2.**

**STATE SITE 50-10-23-16248**

<b>Additional Site Numbers:</b> Temporary RN2006-030	
<b>Site Function:</b> Burials	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 20.0 m by 15.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Rim of Pu`u Mekanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,292 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN008	
<b>Date First Recorded:</b> 1991	
<b>Current Status:</b> Human skeletal remains observed in 1991 were not found.	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

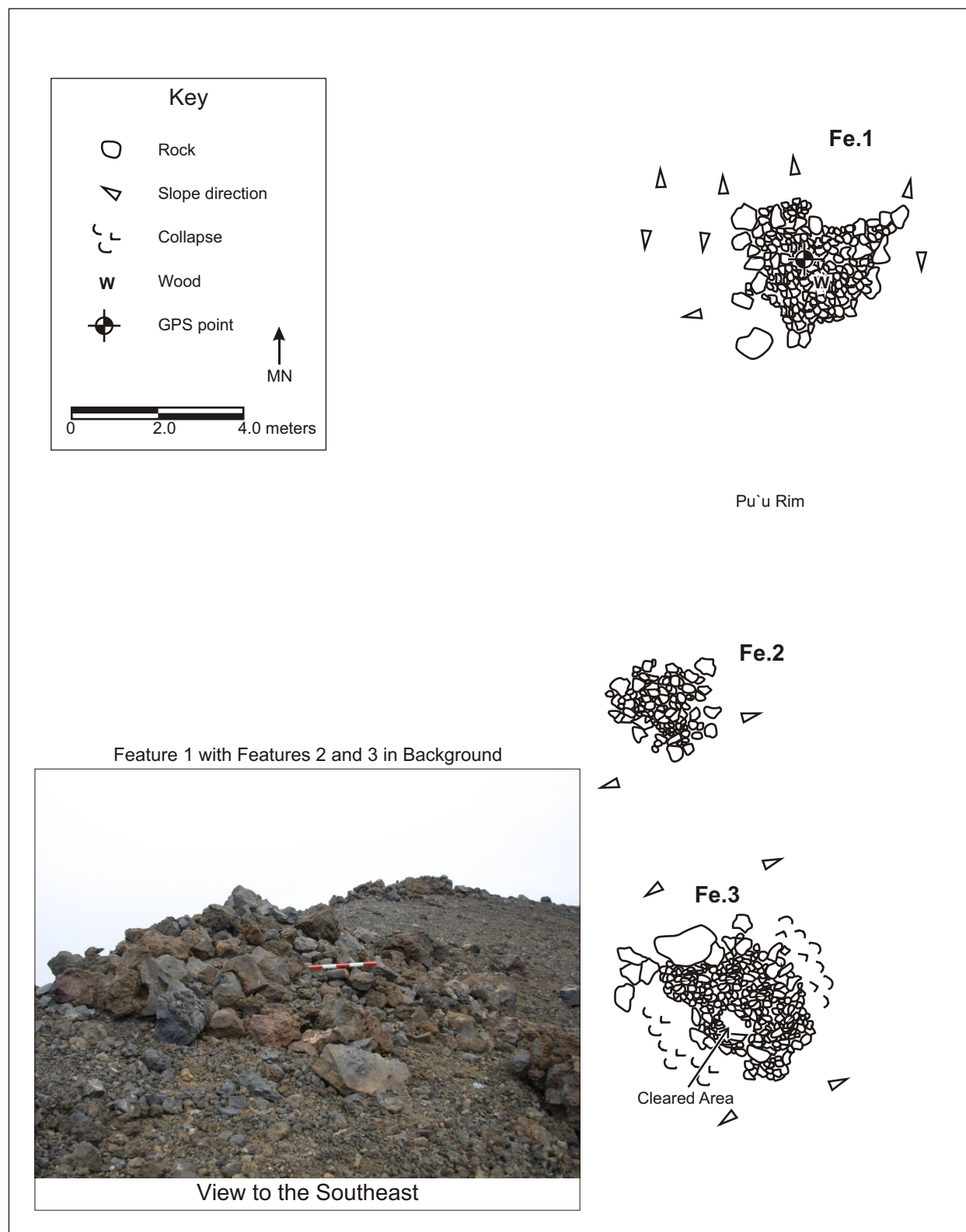
Site 16248 consists of three mounds (Features 1, 2, and 3) located on the east rim of Pu`u Mekanaka (Figure 4.3). The mounds, which were photographed during a brief visit by SHPD staff in 1991, were assigned State Site Number 50-10-23-16248, but were not mapped or described in detail because of the lack of time and onset of bad weather. Some weathered human skeletal remains were seen on the edge of one of the mounds in 1991. Whether these are the same remains that were seen by a United States Geological Survey team in 1925 (Kilmartin 1974) is impossible to say. No human remains were found on the site in 2006, which would seem to indicate that they were either deliberately buried or covered by eroding cinder since 1991.

Feature 1 is a mound that appears to be disturbed (see Figure 4.3). The cobbles are scattered over an area measuring approximately 4.1 m by 3.1 m with a maximum height of 0.58 m. Wood fragments were observed in the center of the mound.

Feature 2, a mound, is located approximately 8.0 m south-southeast of Feature 1. It is constructed of piled and stacked cobbles. It measures 2.8 m by 2.3 m with a maximum height of 0.64 m. No cultural material was observed at the feature.

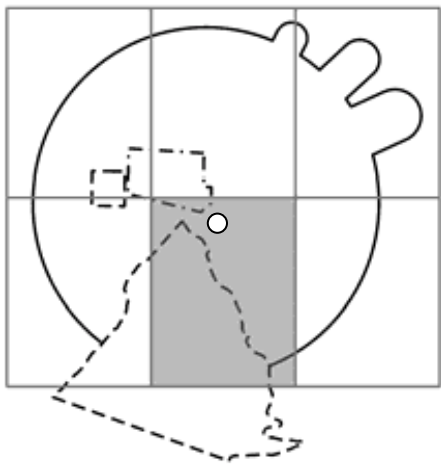
Feature 3, also a mound, is located approximately 4.0 m south-southeast of Feature 2. It is constructed of boulders (forming the base) with cobbles on top. It measures 3.8 m by 3.6 m and 0.65 m high. Rocks in the center of the mound have been removed, creating a hole measuring 0.7 m by 0.6 m and 0.7 m deep. No cultural material was observed.





**Figure 4.3. Site 16248, Features 1 through 3, Plan View and Photograph.**

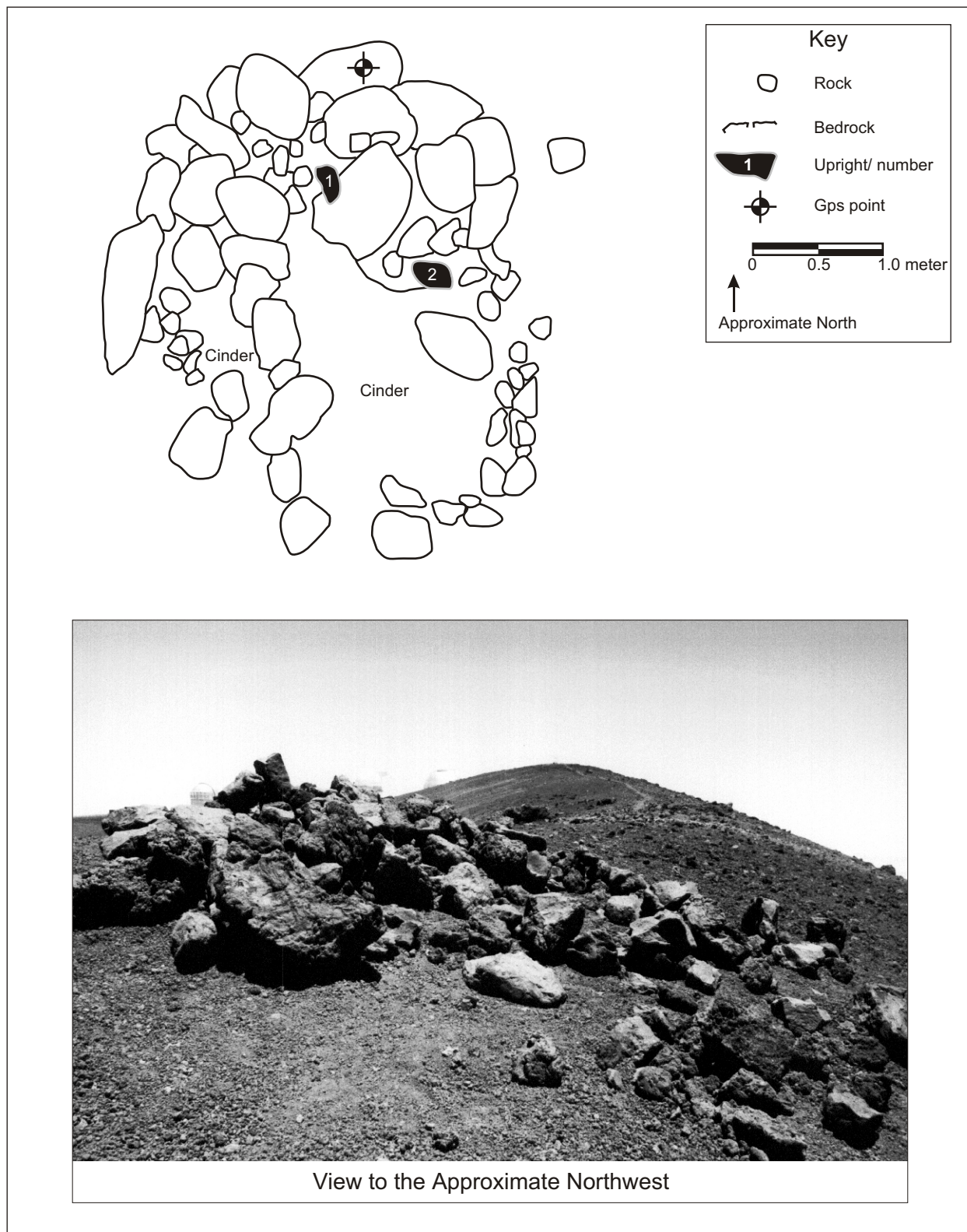
**STATE SITE 50-10-23-21209**

<b>Additional Site Numbers:</b> Temporary		T-13
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-5	
<b>Site Dimensions:</b> 10.0 m by 3.0 m		
<b>Number of Features:</b> 2		
<b>Topographic Location:</b> Rim of Pu`u Wekiu		
<b>Approximate U.S.G.S. Elevation:</b> 13,714 ft a.m.s.l.		
<b>2005 GPS File No.:</b> Garmin Points 01-04		
<b>Date First Recorded:</b> 1999		
<b>Current Status:</b> Altered. Feature 1 has been extensively disturbed. A portion of the structure was dismantled and the rocks used to build a C-shape shelter on the other side of a modern trail that encircles Pu`u Wekiu. Fragmented mammal bone was noted on the trail near Feature 1. One basalt flake was also found along the trail between Features 1 and 2. Feature 2 has been completely destroyed; the rocks were likely used in the enlargement of the modern <i>lele</i> (altar) located nearby.		
<b>Subsequent Site Visits:</b> 2005		

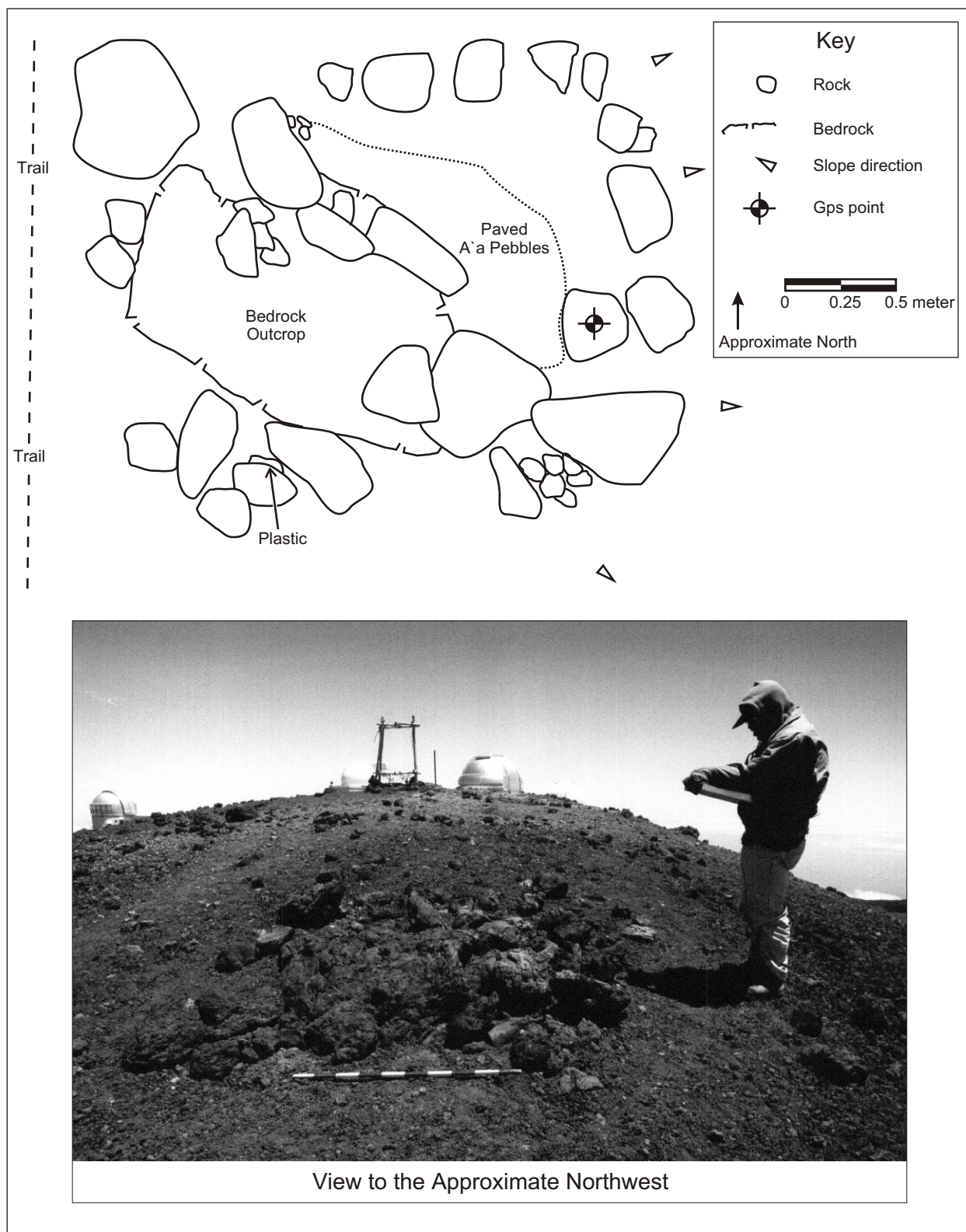
**DESCRIPTION:**

Site 21209 was not recorded until 1999 (McCoy 1999) because of the snow that covered the area during the 1982 reconnaissance survey. It is comprised of two features--a mound (Feature 1) and an oval shaped alignment (Feature 2) located on the southeastern rim of Pu`u Wekiu (Figures 4.4 and 4.5), one of several overlapping cinder cones that form the "summit" of Mauna Kea. The site, which is of unknown function and age, has been extensively altered in the last six years.

Feature 1 is a mound that was photographed by the Hawaiian Academy of Sciences Expedition in 1935 (Bryan 1979:35). A comparison of photographs taken in 1935 and 1999 indicate that the site had been modified in the intervening 64 years. The mound appeared to be substantially larger than it was in 1935. In 1999 it measured 4.8 m (east/west) by 3.7 m (north/south) with an average height of 0.5 m. One of the lighter colored stones visible in the 1935 photographs has been set on top of the mound, presumably as an "upright" which it does resemble from a distance. This stone projects 20.0 cm above the top of the mound. The mound



**Figure 4.4. Site 21209, Feature 1, Plan View and Photograph.**



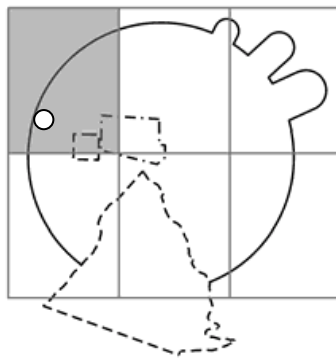
**Figure 4.5. Site 21209, Feature 2, Plan View and Photograph.**

is constructed of fine-grain grey basalt and red cinders, all of which are locally available. There are no tabular slabs and no indication that any of the construction material had been imported from elsewhere on the mountain. The base of the mound is comprised of larger stones. A piece of clear thick glass was found on the surface inside the mound in 1999.

Feature 2 was recorded in 1999 as an oval-shaped rock outline (alignment) found 15.5 m south of the USGS survey marker located on the summit. The outline measured 2.7 m (east/west) by 2.5 m (north/south) and was one rock high and was built on top of and around the edges of a low rock outcrop using locally available rocks. Unidentified organic matter was observed under a stone on the southeast side. It does resemble some rock alignments located on the east rim of Pu`u Waiau, which has been recently designated an historic property (Site 21440) based on ethnographic and archaeological evidence.

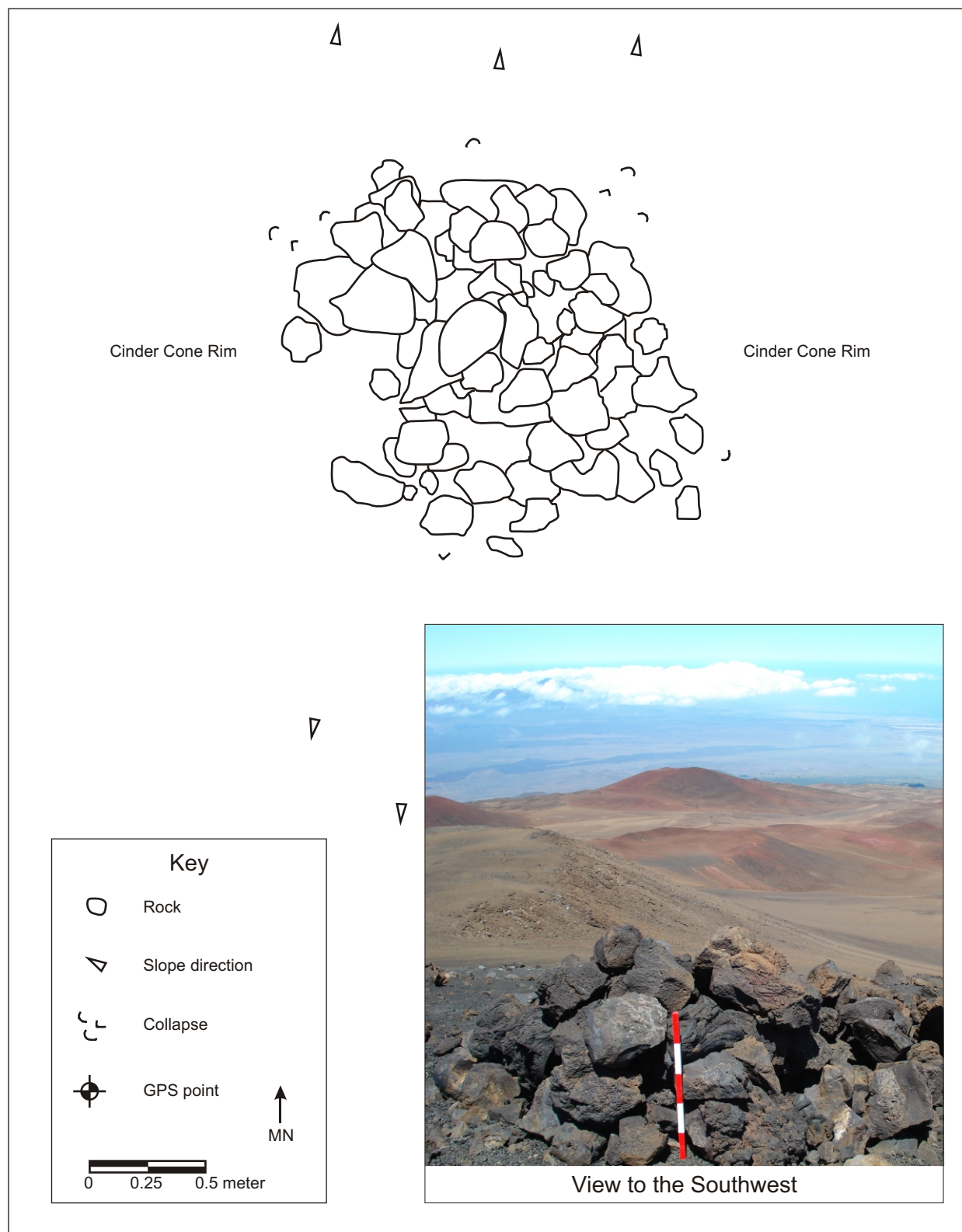


**STATE SITE 50-10-23-21413**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of an unnamed cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 12,626 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN015	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

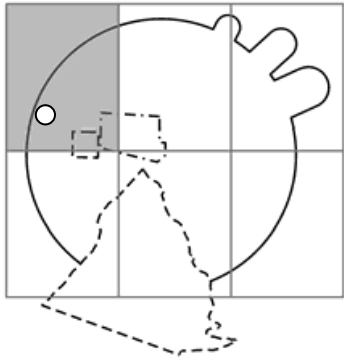
Site 21413 consists of a single platform, Feature 1. This site, earlier described as a cairn when it was first found in 1997 (McCoy 1999), is a free-standing, rectangular platform located on the south rim of a large unnamed cinder cone on the western slope of the mountain (Figure 4.6). The platform, which is constructed of large cobbles, is 1.7 m (north/south) by 1.7 m (east/west) and 0.8 m high. The upslope side is faced. The downslope side, which has collapsed, may have also been faced. No cultural material was found on or near the site, which is inferred to be a possible burial based on its location and morphological similarities to other mounds and platforms in the summit region with associated human skeletal remains.



**Figure 4.6. Site 21413, Plan View and Photograph.**

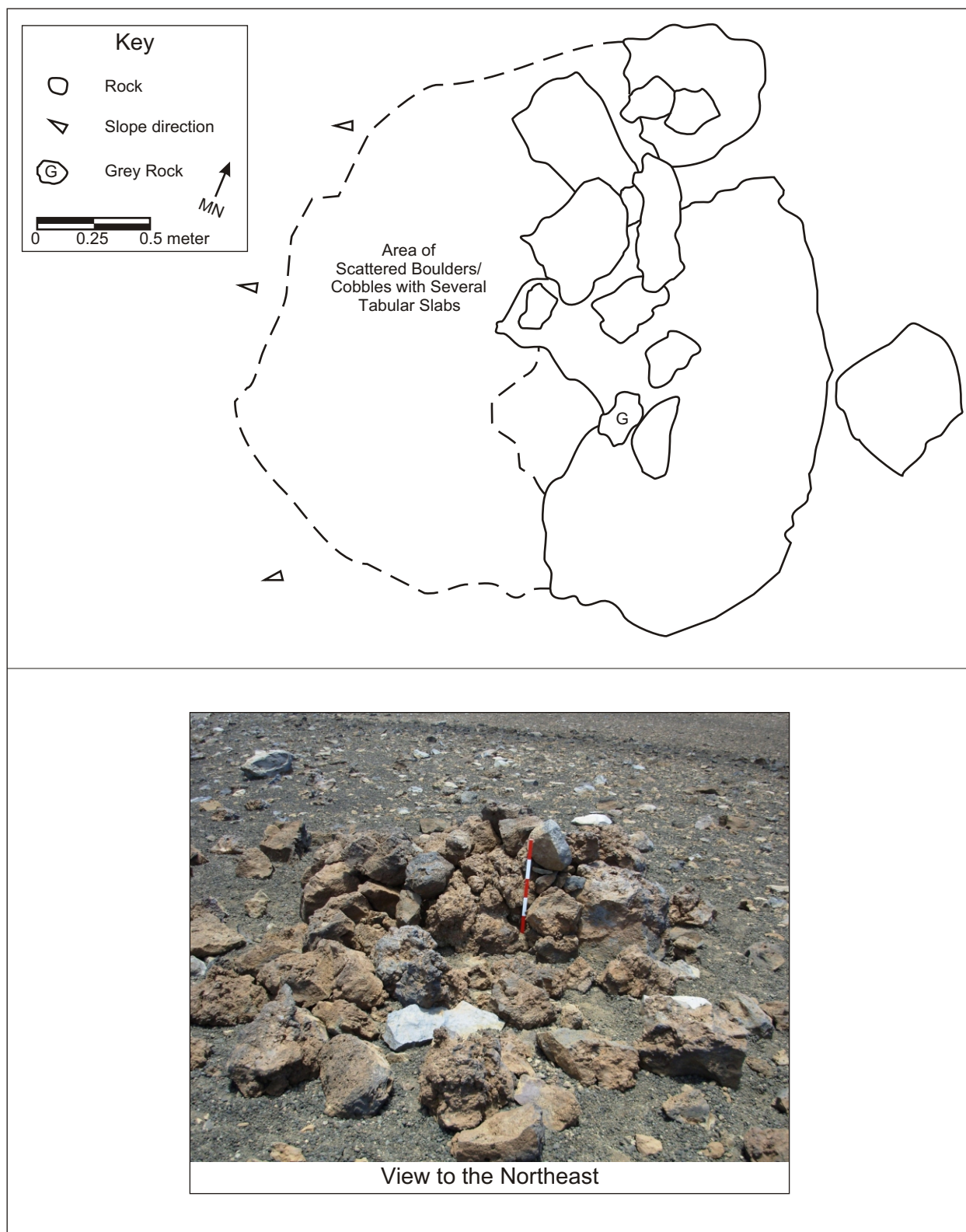


**STATE SITE 50-10-23-21414**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of an unnamed cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 12,804 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM017	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2006	

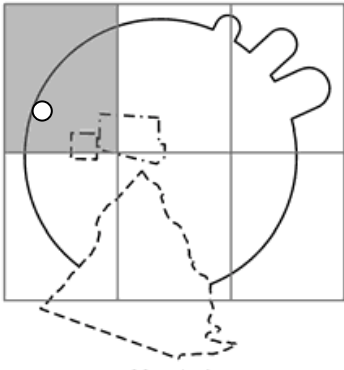
**DESCRIPTION:**

Site 21414 consists of a single mound designated Feature 1 (Figure 4.7). This site, earlier described as a cairn when it was first found in 1997 (McCoy 1999), is more accurately described as an oval-shaped mound. It is located on the east rim of a large unnamed cinder cone. Several large boulders were used as a foundation in the construction of the mound, which consists of piled and stacked cobbles and boulders. The mound is 1.7 m (north/south) by 2.1 m (east/west) by and 0.8 m high. Scattered cobbles and boulders on the west side suggest that it has partially collapsed and may originally have been somewhat wider and higher. No cultural materials were noted on or near the site, which is of similar size and construction as Sites 21413 and 21416, both interpreted as possible burials.



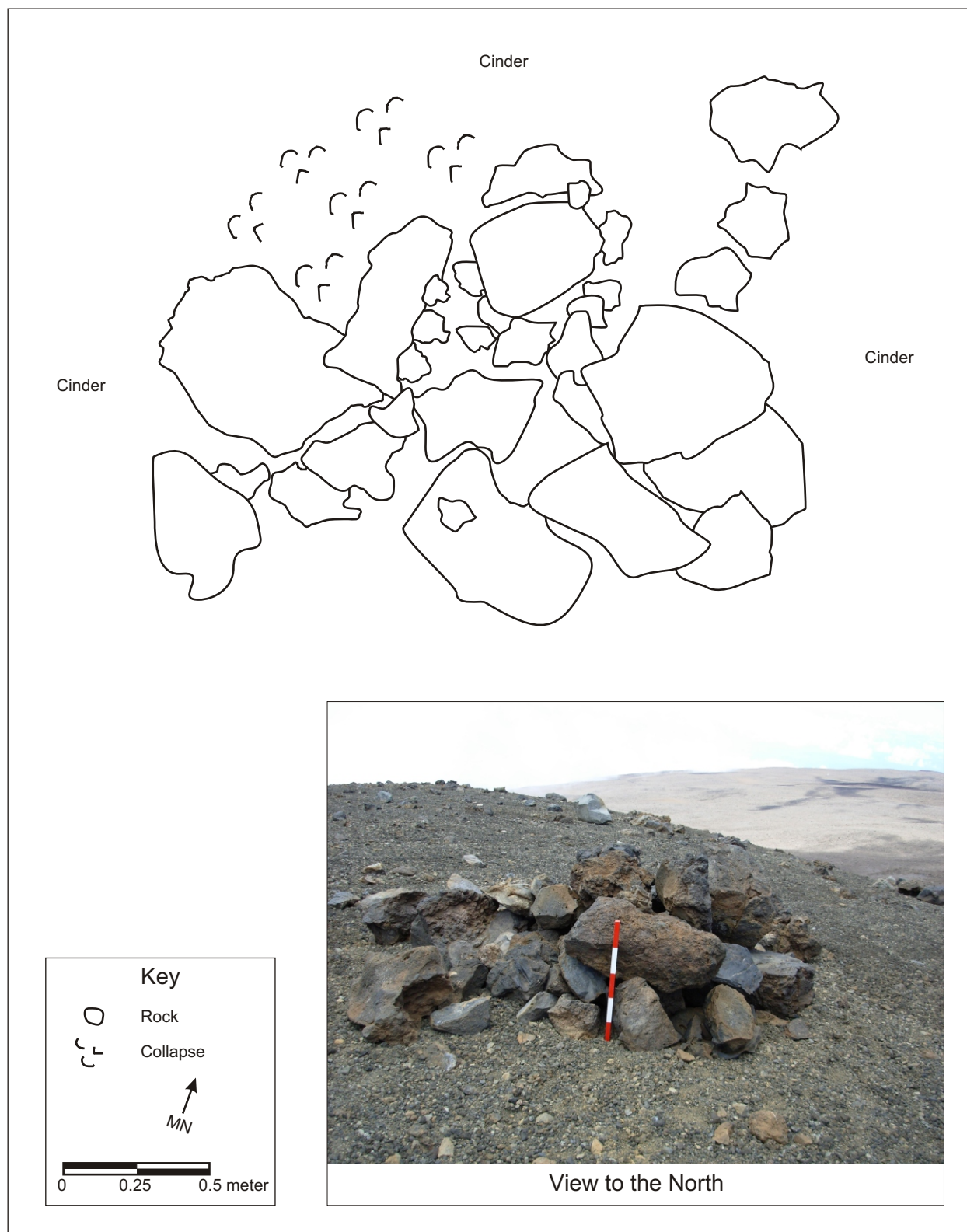
**Figure 4.7. Site 21414, Plan View and Photograph.**

**STATE SITE 50-10-23-21416**

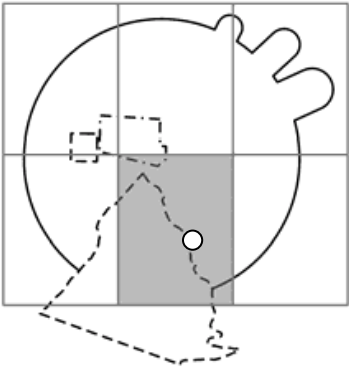
<b>Additional Site Numbers:</b> Temporary E-26	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of an unnamed cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 12,688 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM019	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged.	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

Site 21416 consists of a single mound designated Feature 1 (Figure 4.8). This site, described as a cairn when it was first found in 1997, is more accurately described as a roughly oval-shaped mound located on the eastern rim of an unnamed cinder cone. The mound is 1.8 m by 1.8 m with a maximum height of 0.85 m. There are three to four courses of stones, the largest of which are on the top. Collapse is evident in several places. The mound is interpreted as a possible burial based on its location, form, and size.



**STATE SITE 50-10-23-21452**

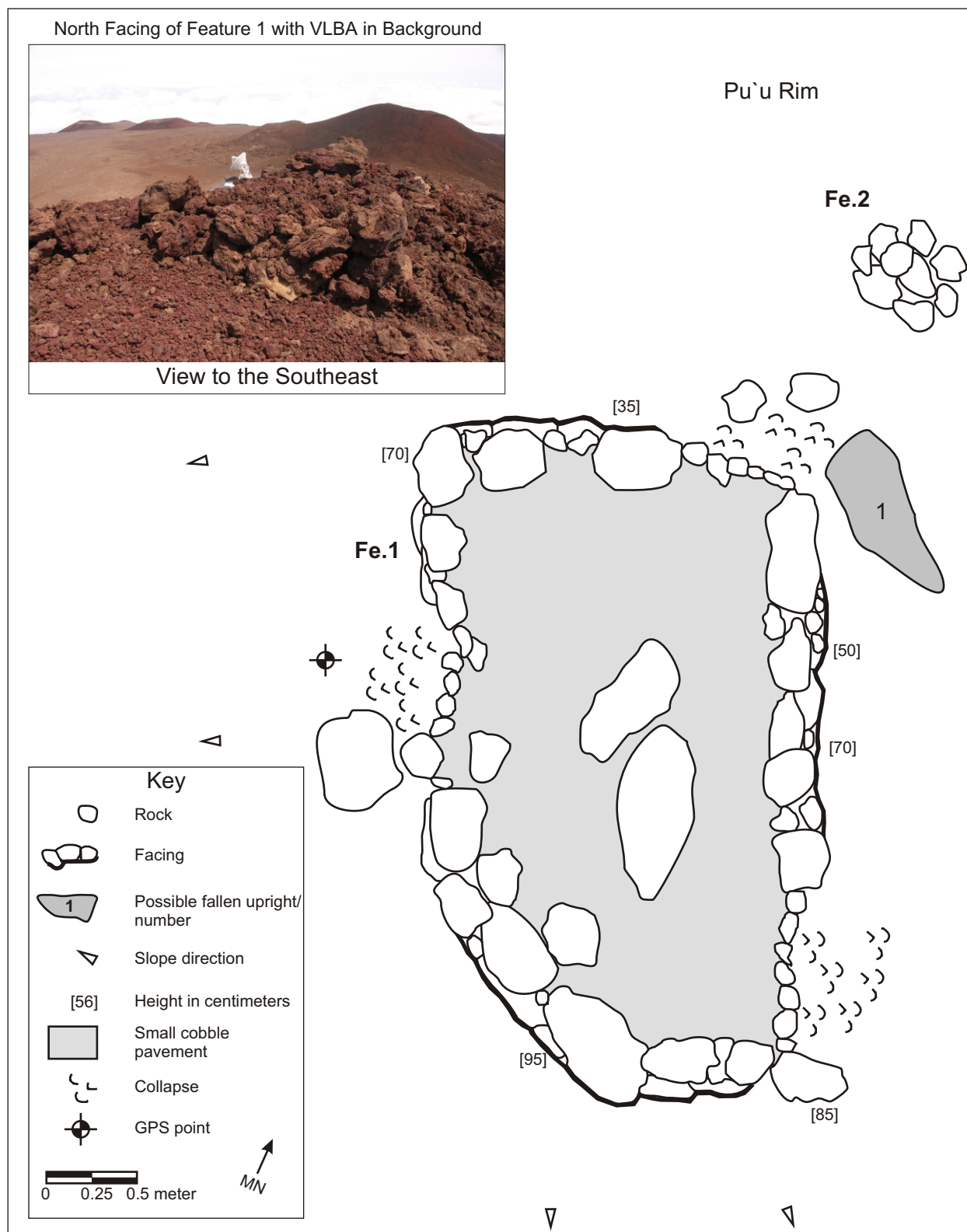
<b>Additional Site Numbers:</b> Temporary 2005-13	
<b>Site Function:</b> Possible burials	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 5.0 m by 4.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 12,541 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Trimble Point R090823a	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 21452 consists of two features, a platform (Feature 1) and a mound (Feature 2), located on a ridge crest at the southern end of an unnamed cinder cone south of Pu`u Līlinoe (Figure 4.9).

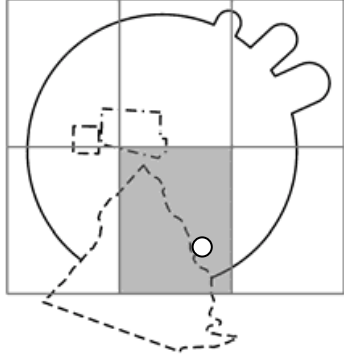
Feature 1 is constructed of stacked cobbles and small boulders with some tumbling present along the northeast and southeast corners and the west side. The surface of the platform is paved with small cobbles and two large slabs near the center. The platform measures 3.5 m by 2.25 m, with a maximum height of 0.95 m.

Feature 2, a mound, is located approximately 0.75 m north of the northeast corner of Feature 1. It is constructed of piled cobbles and measures 1.0 m in diameter.



**Figure 4.9. Site 21452, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-25765**

<b>Additional Site Numbers:</b> Temporary PM2006-16	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 3.5 m by 3.4 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of unnamed cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 12,416 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM107	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25765 is a crude stone platform (Feature 1). It is 3.5 m by 3.4 m with a maximum height of 0.6 m. The site is located on the north-northeast rim of a large, unnamed cinder cone south of the road leading to the Very Long Base Array (VLBA) facility. The mound, faced on the west and south sides, is constructed of locally occurring cinder blocks (Figure 4.10). The site is inferred to be a possible burial based on the form, size, and location on the top of a large, prominent cinder cone.

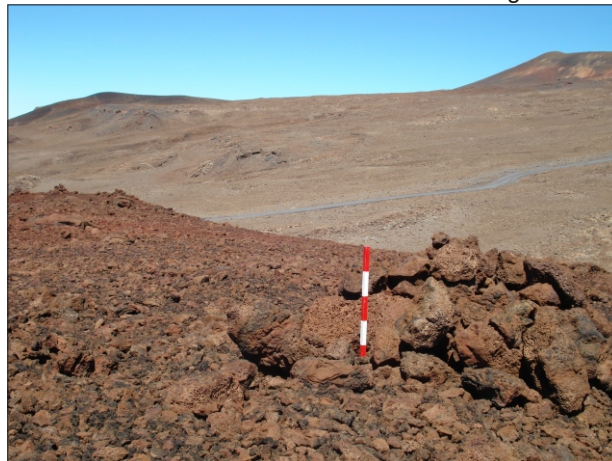


Mound with Pu`u Lilinoe and Summit in Background



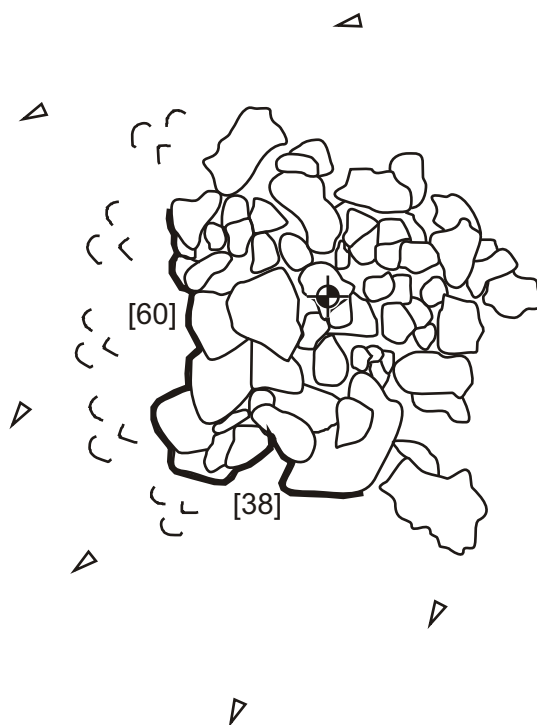
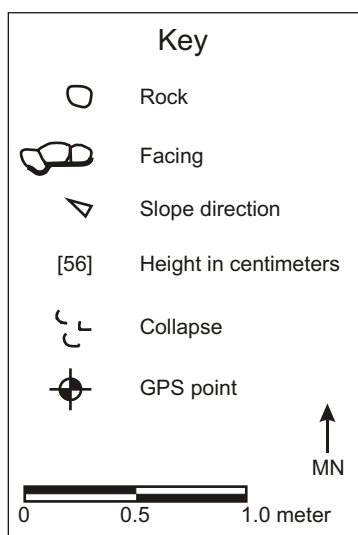
View to the Northwest

Mound with Pu`u Wai`au and Road in Background



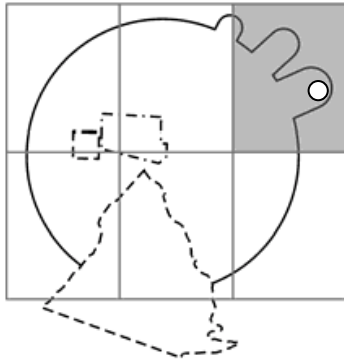
View to the West

Pu`u Rim



**Figure 4.10. Site 25765, Plan View and Photographs.**

**STATE SITE 50-10-23-25802**

<b>Additional Site Numbers:</b> Temporary RN2006-033	
<b>Site Function:</b> Burials	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Rim of Pu`u Makanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,266 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN011	
<b>Current Status:</b> New site.	

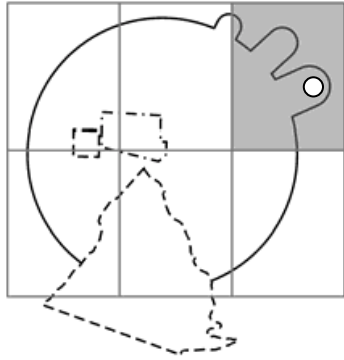
**DESCRIPTION:**

Site 25802 consists of a terrace (Feature 1) and a mound (Feature 2) located on the south rim of Pu`u Makanaka.

Feature 1 is a terrace with a facing constructed of piled cobbles and boulders on the southeast side (downslope side). It is 3.0 m by 2.1 m with a maximum height of 0.67 m. While no human skeletal remains were observed, it is highly probable that this feature is a burial based on its proximity to Feature 2.

Feature 2 is a mound of stacked piled cobbles located 1.15 m from Feature 1. The stacking is visible along the south side. Wood fragments were observed along the northeast side. Human bone (long bones) was observed inside the mound.

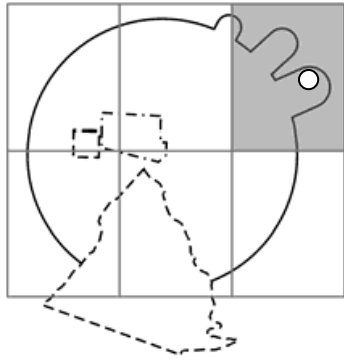
**STATE SITE 50-10-23-25803**

<b>Additional Site Numbers:</b> Temporary RN2006-032	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 2.5 m by 2.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Makanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,253 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN010	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25803 consists of a single mound (Feature 1) located on the south rim of Pu`u Makanaka. The mound is rectangular and constructed of piled boulders and cobbles. It is 3.4 m by 2.4 m with a maximum height of 0.61 m. The mound appears to be disturbed, with cobbles removed from the center. The mound is inferred to be a possible burial feature based on its morphological similarities to other sites with human skeletal remains on Pu`u Makanaka.

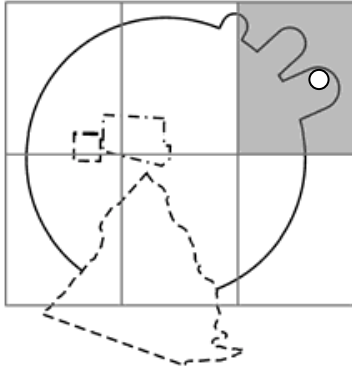
**STATE SITE 50-10-23-25804**

<b>Additional Site Numbers:</b> Temporary RN2006-031	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 2.5 m by 2.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Mekanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,251 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN009	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25804 consists of a single mound (Feature 1) located on the south rim of Pu`u Mekanaka. The mound is constructed of piled cobbles and at least two boulders on the east side. The mound is 2.2 m by 1.92 m with a maximum height of 0.91 m. The north side of the mound is only 0.15 m high and the southeast side (down slope side) 0.91 m high. The lower height along the north side may be the result of collapse. The mound is inferred to be a possible burial feature based on its morphological similarities to other sites with human skeletal remains on Pu`u Mekanaka.

**STATE SITE 50-10-23-25805**

<b>Additional Site Numbers:</b> Temporary    RN2006-029	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 4.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Makanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,320 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN007	
<b>Current Status:</b> New site.	

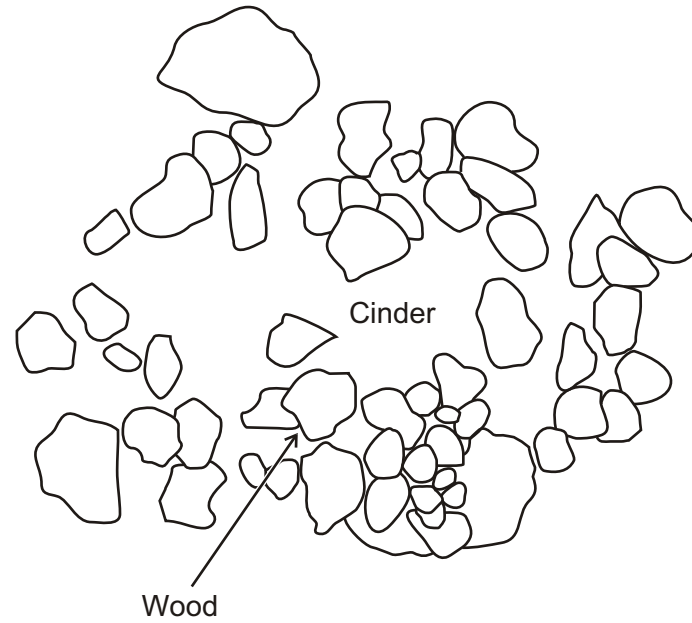
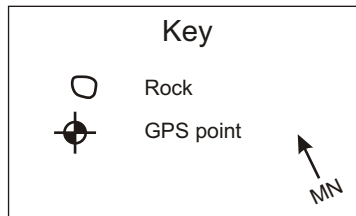
**DESCRIPTION:**

Site 25805 consists of a single mound (Feature 1) located on the north rim of Pu`u Makanaka. The mound is constructed of dispersed cobbles with cinder located in the center of the mound (Figure 4.11). It measures approximately 3.5 m by 2.9 m with a maximum height of 0.52 m. Some stacking was observed along the southwest side. Wood fragments are visible along the west side. The mound is inferred to be a possible burial feature based on its morphological similarities to other sites with human skeletal remains on Pu`u Makanaka.



View to the East

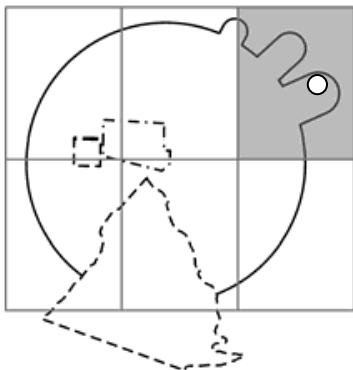
Pu'u Rim



Sketch Not To Scale

Figure 4.11. Site 25805, Plan View and Photograph.

**STATE SITE 50-10-23-25806**

<b>Additional Site Numbers:</b> Temporary      RN2006-028	
<b>Site Function:</b> Possible burials	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 10.0 m by 10.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Rim of Pu`u Makaanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,324 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN006	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

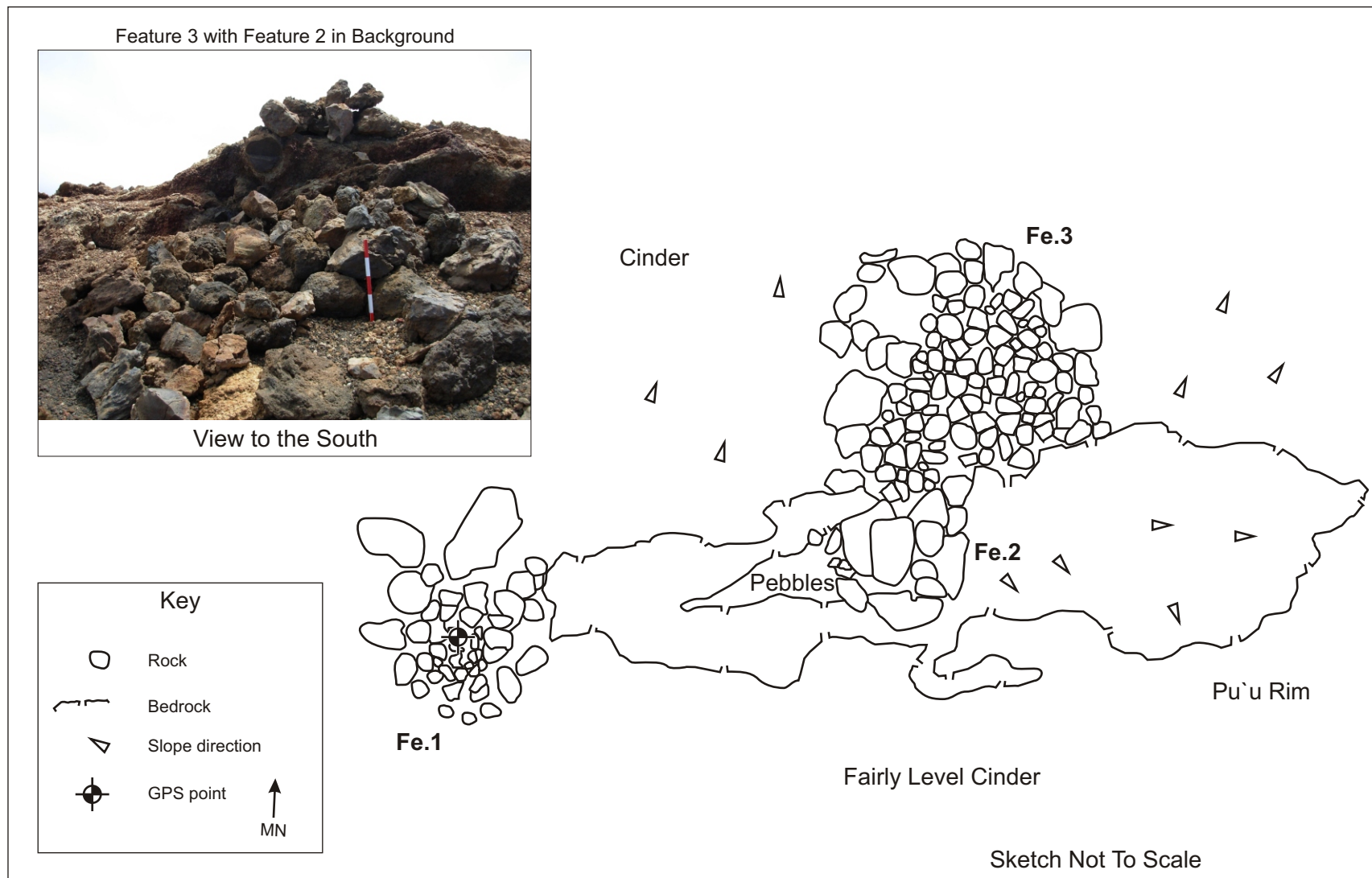
Site 25806 consists of three mounds (Features 1, 2, and 3) located on the north rim of Pu`u Makaanaka (Figure 4.12). The mounds are inferred to be possible burial features based on their location and morphological similarities to other sites with human skeletal remains on Pu`u Makaanaka.

Feature 1 is a mound constructed of piled cobbles. It measures approximately 2.15 m by 2.0 m with a maximum height of 0.38 m. No cultural material was observed.

Feature 2, a mound, is located approximately 5.0 m east of Feature 1. It is constructed of piled cobbles. It measures 1.2 m by 0.92 m with a maximum height of 0.48 m. No cultural material was observed.

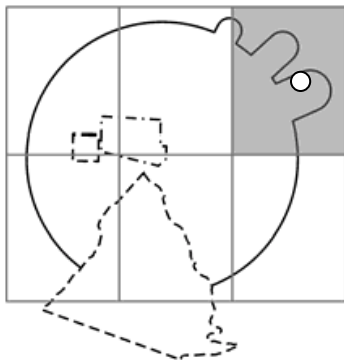
Feature 3, also a mound, is located north and downslope of Feature 2. It is constructed of piled cobbles and measures 2.8 m by 2.15 m with a maximum height of 0.5 m. No cultural material was observed.





**Figure 4.12. Site 25806, Features 1 through 3, Plan View and Photograph.**

**STATE SITE 50-10-23-25807**

<b>Additional Site Numbers:</b> Temporary RN2006-027	
<b>Site Function:</b> Burial/possible burials	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 20.0 m by 10.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Rim of Pu`u Makanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,349 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN005	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25807 consists of three mounds (Features 1, 2, and 3) located on the north rim of Pu`u Makanaka. The mounds are inferred to be possible burial features based on their location and morphological similarities to other sites with human skeletal remains on Pu`u Makanaka.

Feature 1 is a mound constructed of piled cobbles and small boulders with the north and west sides abutting raised outcrops (Figure 4.13). It measures approximately 4.5 m by 3.3 m with a maximum height of 2.3 m. Pieces of wood and human skeletal remains were observed on the mound.

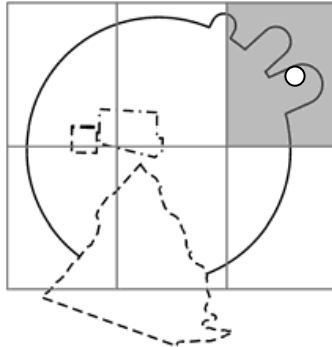
Feature 2, a mound, is located approximately 5.0 m northwest of Feature 1. It is constructed of piled cobbles with the north end abutting a raised outcrop. It measures 1.7 m by 1.6 m with a maximum height of 1.2 m. No cultural material was observed at this feature. A "Find Spot" is located near Feature 2.

Feature 3, also a mound, is located approximately 5.0 m northwest of Feature 2. It is constructed of piled cobbles, with a shallow overhang abutting the northwest side of the mound. It measures 2.45 m by 2.4 m with a maximum height of 1.6 m. The overhang is unmodified and no cultural material was observed.



**Figure 4.13. Site 25807, Feature 1; View to the Northwest**

**STATE SITE 50-10-23-25808**

<b>Additional Site Numbers:</b> Temporary      RN2006-026	
<b>Site Function:</b> Burial and possible burials	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 20.0 m by 15.0 m	
<b>Number of Features:</b> 7	
<b>Topographic Location:</b> Rim of Pu`u Makaanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,372 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN004	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25808 is a complex of seven features, including eroding human remains (Feature 1), a platform (Feature 2), a mound (Feature 3), a terrace (Feature 4), and three cinder area features that may contain buried human skeletal remains (Features 5, 6, and 7). This site is located on the north rim of Pu`u Makaanaka.

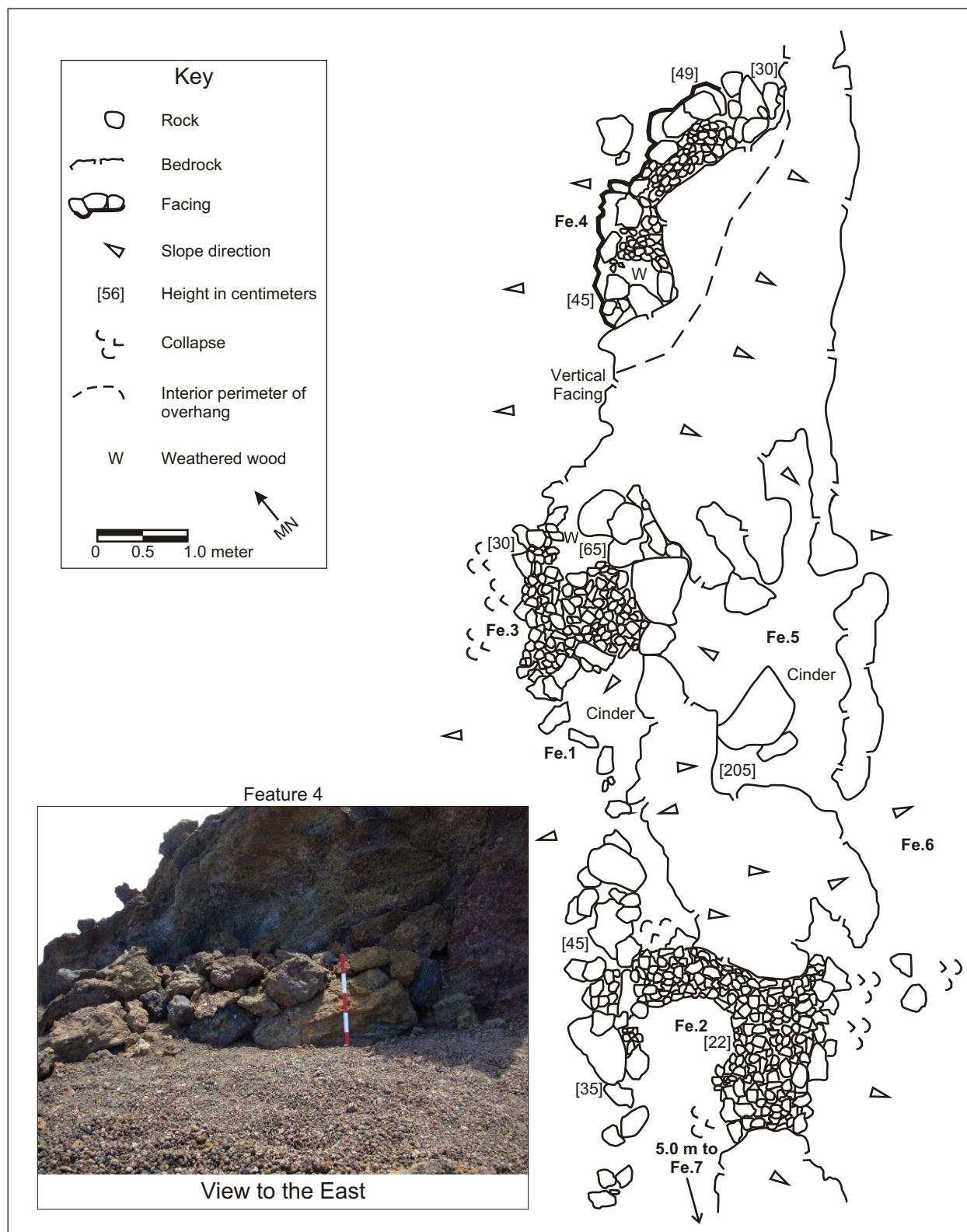
Feature 1 consists of visible human skeletal remains eroding out of the cinder. The skeletal remains are located on the north side of an uplifted pahoe-hoe outcrop (Figure 4.14). The only visible bone is the top of the cranium. This feature was previously identified in a photograph taken in 1926 (in the Gregory Collection-BPBM Photo No. CP 14970) (published in Maly 1999:Appendix A).

Feature 2 is a platform constructed between two outcrops at the west end of a larger outcrop and is 3.0 m west of Feature 1. The platform is approximately 2.0 m long by 1.0 m wide and has a maximum height of 0.65 m. The north and south sides of the platform abut raised outcrops, and the east and west side are constructed of piled and stacked cobbles and small boulders. The stacking is evident along the west side. The northwest corner has collapsed. The surface of the platform is cinder.

Feature 3 is a mound located on the east side of the same outcrop as Feature 2 and is 3.0 m north of Feature 2. The mound is constructed of piled cobbles and is approximately 1.2 m by 1.0 m and 0.3 m high. Along the north side is a piece of weathered wood.

Feature 4 is a terrace located approximately 2.5 m northwest of Feature 3. The terrace facing, slightly curving to the east, is approximately 3.0 m long by 0.5 m wide. The facing is constructed of stacked cobbles and small boulders 0.5 m high. The terrace is constructed of cobbles and measures 2.5 m long by 1.0 m wide. The east half of the feature has been constructed under a shallow overhang. A piece of weathered wood is located on the south side.

Feature 5 is a level cinder area located on the east side of the same outcrop as Features 1, 2, 3, and 4. It consists of cinder surrounded by outcropping and measures approximately 2.0 m by 2.0 m.



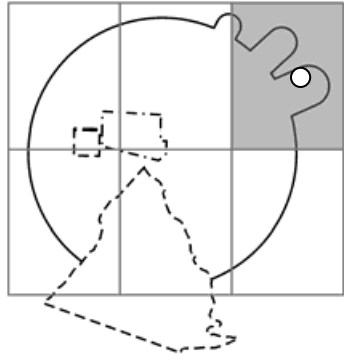
**Figure 4.14. Site 25808, Features 1 through 6, Plan View and Photograph.**

scattered cobbles along the east side. The cobbles appear to be placed, possibly for retaining the cinder.

Feature 6 is another cinder area, similar to Feature 5, which slopes gently to the east. It is located adjacent to and south of Feature 5. The area measures 2.0 m by 2.0 m.

Feature 7 is a cinder-filled area approximately 5.0 m south of Feature 2. The feature is constructed between two raised outcrops.

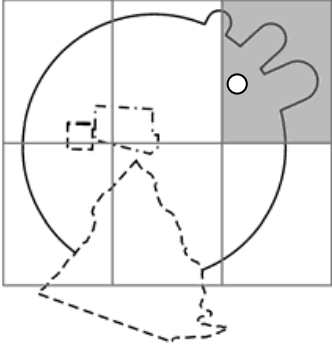
**STATE SITE 50-10-23-25809**

<b>Additional Site Numbers:</b> Temporary      RN2006-025	
<b>Site Function:</b> Burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 15.0 m by 5.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Slope of Pu`u Makaanaka	
<b>Approximate U.S.G.S. Elevation:</b> 12,359 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN003	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25809 consists of exposed human skeletal remains (Feature 1) located on the north slope of Pu`u Makaanaka. The visible skeletal remains, eroding out of cinder deposits, include left and right humerus, right radius, unidentified long bone fragments, tibia fragments, another left humerus, and various rib fragments.

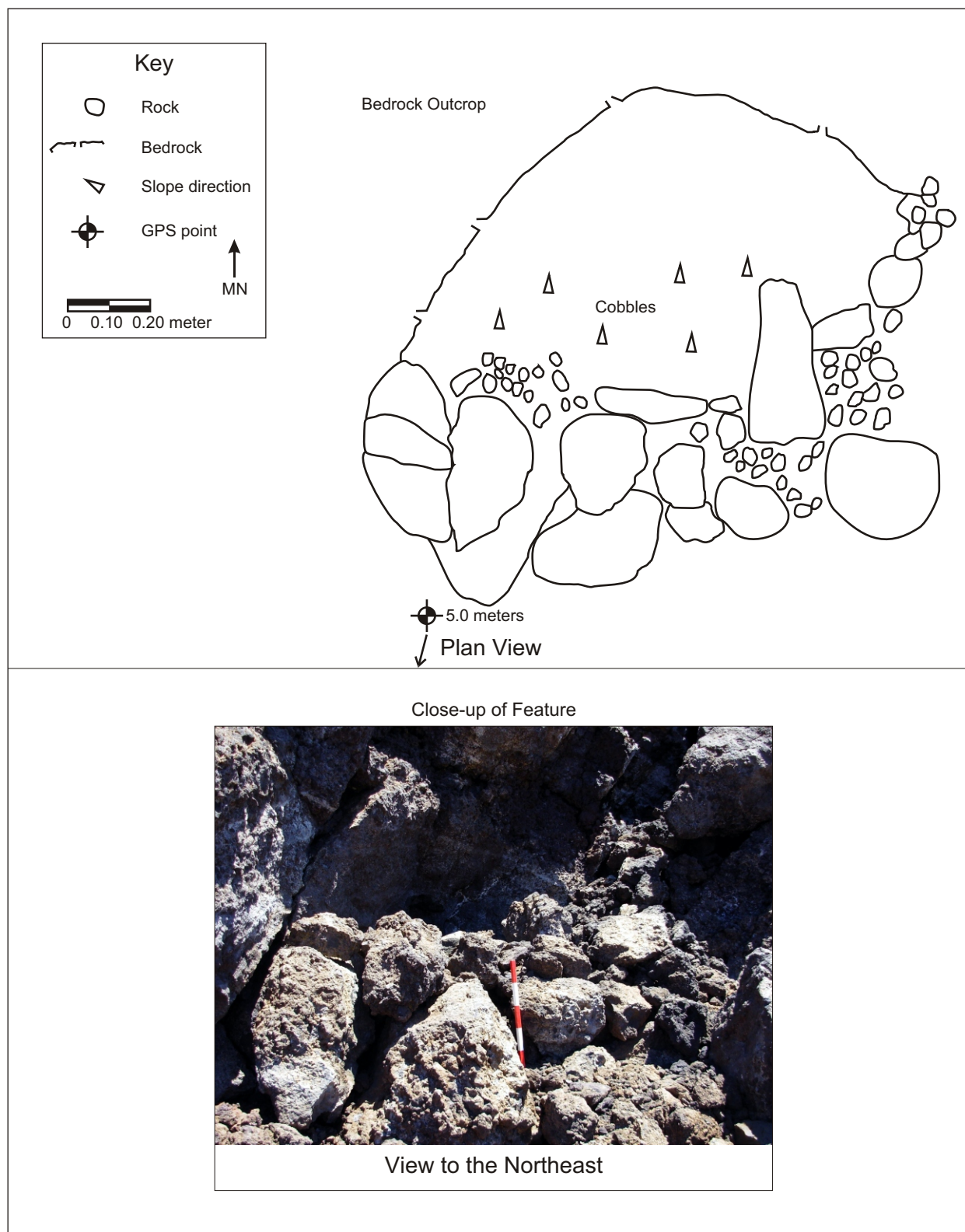
**STATE SITE 50-10-23-25812**

<b>Additional Site Numbers:</b> Temporary PM2006-24	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 3.5 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Slope of Pu`u Ala	
<b>Approximate U.S.G.S. Elevation:</b> 12,402 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM024	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

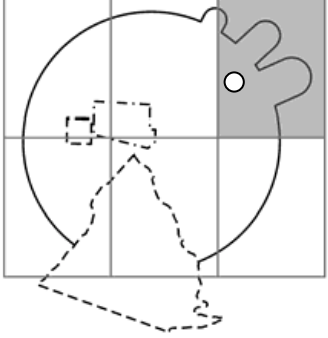
Site 25812 consists of one overhang with an enclosing wall (Feature 1) located approximately half way up the south slope of Pu`u Ala. The feature is an overhang with a crude, semi-circular shaped wall at the entrance (Figure 4.15). The overhang opens to the south and is over 20.0 m wide at the entrance and 1.4 m deep. The wall, which is constructed of piled cobbles and small boulders, is 2.5 m long and 0.8 m wide. The interior floor is a mixture of soil and cobbles.





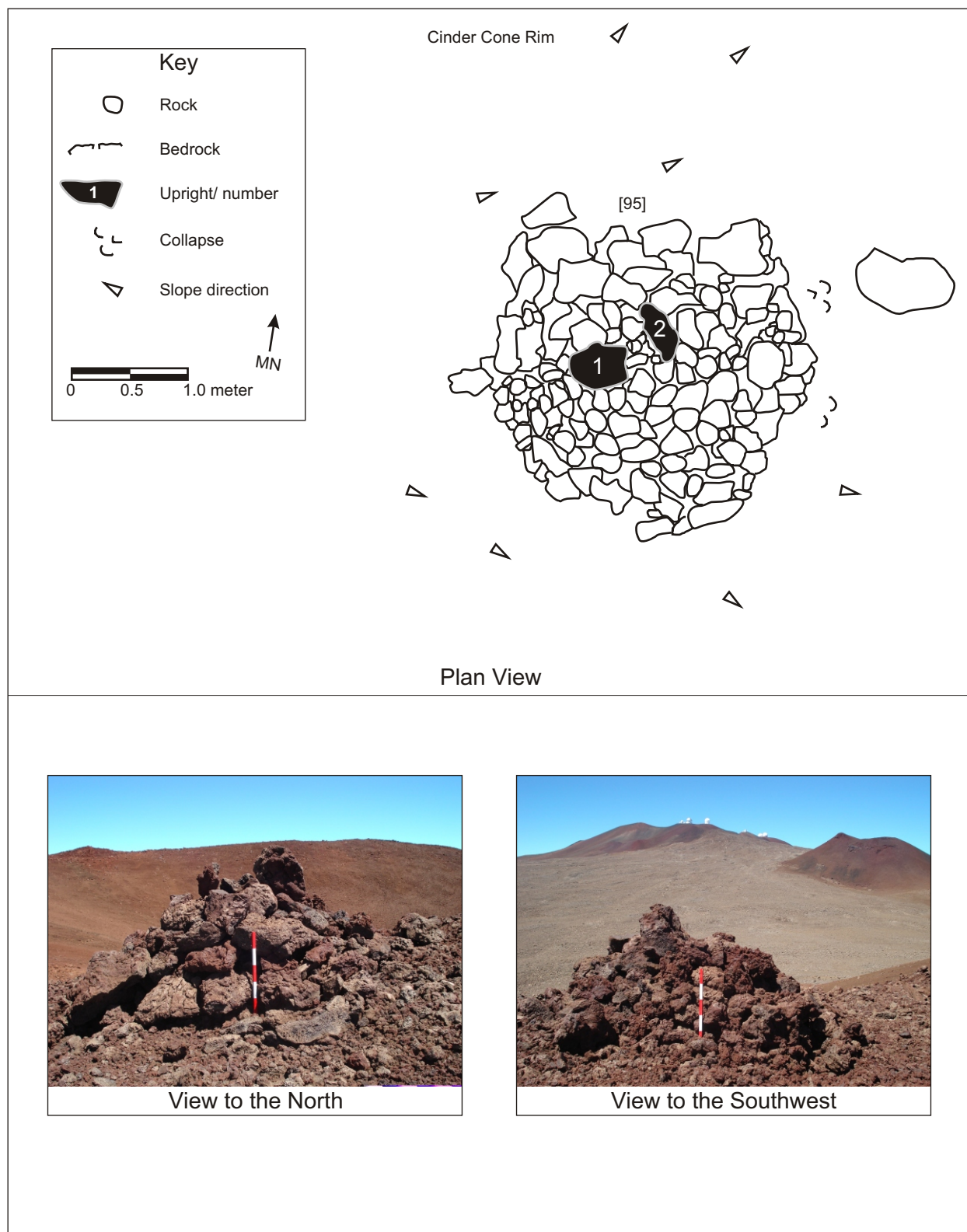
**Figure 4.15. Site 25812, Plan View and Photograph.**

**STATE SITE 50-10-23-25813**

<b>Additional Site Numbers:</b> Temporary    RN2006-034	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 3.0 m by 2.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Ala	
<b>Approximate U.S.G.S. Elevation:</b> 12,560 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN022	
<b>Current Status:</b> New site.	

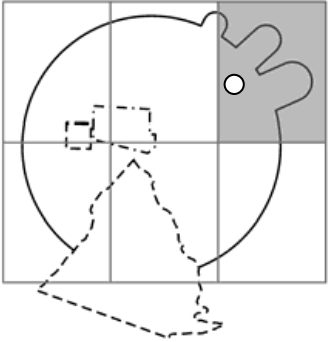
**DESCRIPTION:**

Site 25813 is a single feature, a mound, found on the rim of Pu`u Ala. The mound is 2.7 m by 2.2 m and 1.2 m high and is constructed of piled cobbles and a few stacked cobbles (Figure 4.16). The stacking is visible along the south side, where it is four courses high.



**Figure 4.16. Site 25813, Plan View and Photographs.**

**STATE SITE 50-10-23-25814**

<b>Additional Site Numbers:</b> Temporary      RN2006-035	
<b>Site Function:</b> Possible burials	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 20.0 m by 20.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Rim of Pu`u Ala	
<b>Approximate U.S.G.S. Elevation:</b> 12,544 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN023	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25814 consists of three mounds (Features 1, 2, and 3) located on the south rim of Pu`u Ala (Figure 4.17). The mounds are inferred to be possible burial feature based on their location and morphological similarities to other mounds and platforms with human skeletal remains in the summit region.

Feature 1 is a large mound constructed of piled red cinder cobbles and small boulders with a large boulder along the south side. It is 3.3 m by 2.0 m with a maximum height of 1.25 m.

Feature 2 is a smaller mound located approximately 5.0 m away from Feature 1 and is constructed of piled cobbles. It is 2.3 m by 1.8 m with a maximum height of 0.68 m. It appears to be disturbed.

Feature 3 is a small mound located approximately 5.0 m north of Feature 1. It is constructed of piled cobbles and measures 2.0 m by 1.33 m with a maximum height of 0.57 m.

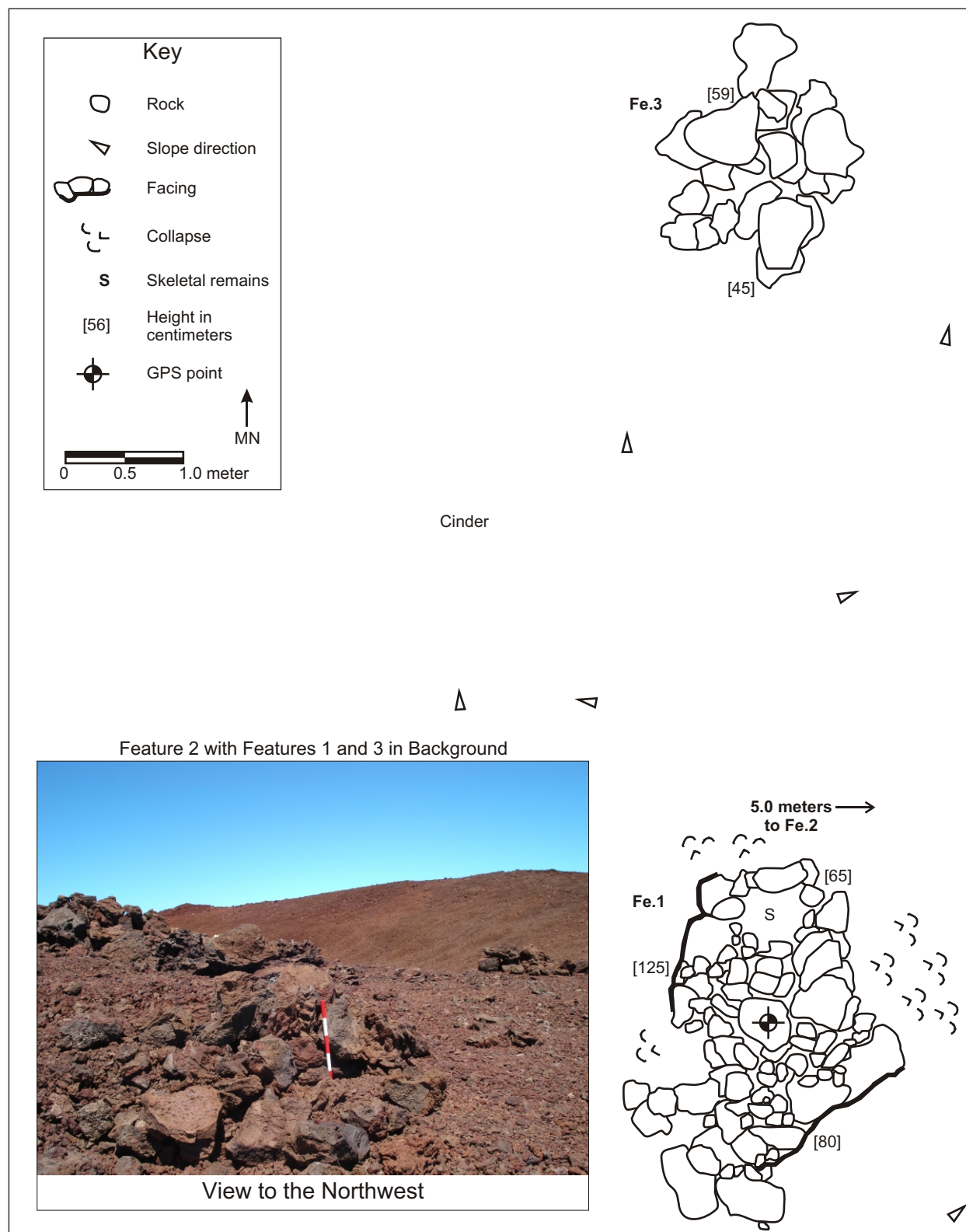
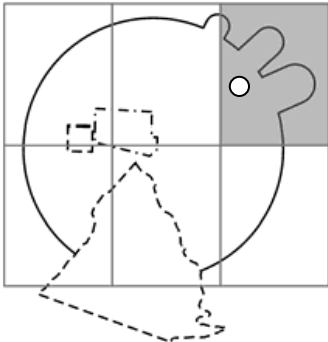


Figure 4.17. Site 25814, Features 1 and 3, Plan View and Photograph.

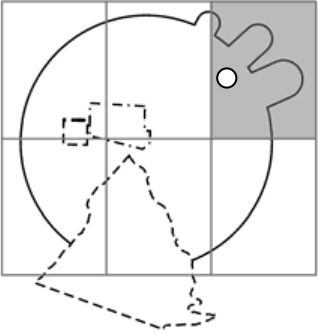
**STATE SITE 50-10-23-25815**

<b>Additional Site Numbers:</b> Temporary      RN2006-036	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Ala	
<b>Approximate U.S.G.S. Elevation:</b> 12,603 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN024	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25815 consists of a single mound (Feature 1) located on the north rim of Pu`u Ala. The mound is constructed of piled cobbles and small boulders and measures 1.05 m by 0.93 m with a maximum height of 0.54 m. A wood pole or stick was observed on the ground next to the mound. Due to adverse weather conditions, a map was not made nor photographs taken. The mound is inferred to be a possible burial feature based on its location and morphological similarities to other mounds and platforms with human skeletal remains in the summit region.

**STATE SITE 50-10-23-25816**

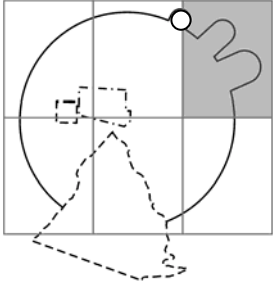
<b>Additional Site Numbers:</b> Temporary    RN2006-037	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Ala	
<b>Approximate U.S.G.S. Elevation:</b> 12,561 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN024	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25816 consists of a single mound (Feature 1) located on the north rim of Pu`u Ala. Due to adverse weather conditions, a map was not made nor photographs taken. The mound is constructed of piled cobbles and measures approximately 1.15 m by 1.12 m with a maximum height of 0.62 m.

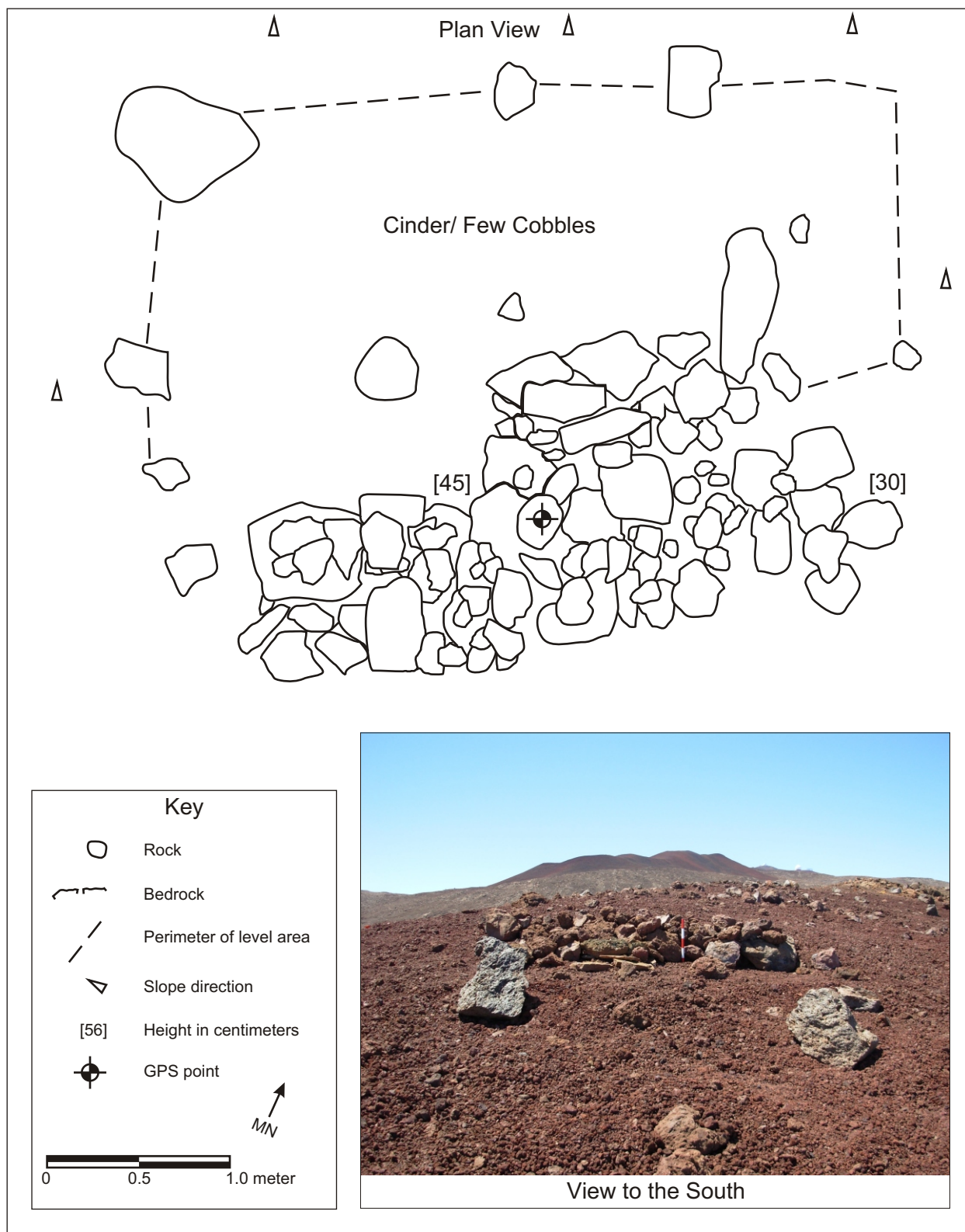


**STATE SITE 50-10-23-25822**

<b>Additional Site Numbers:</b> Temporary PM2006-23	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 4.1 m by 3.2 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Ala	
<b>Approximate U.S.G.S. Elevation:</b> 11,917 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM023	
<b>Current Status:</b> New site.	

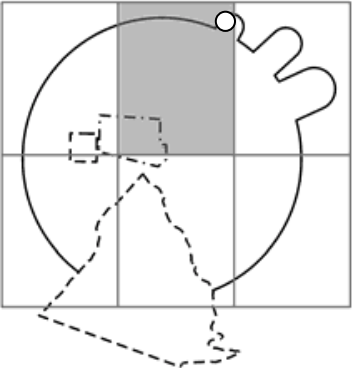
**DESCRIPTION:**

Site 25822 is a terrace (Feature 1) located on the northeast rim of an unnamed pu`u west/northwest of Pu`u Hoaka. The terrace facing is constructed of stacked cobbles/small boulders 2-3 courses high and is 3.5 m long by 1.0 m wide (Figure 4.18). The terrace surface, located on the east side of the facing, consists of cinder pebbles that form a level surface. Along the east side of the facing, near the center, are a number of flat laying slabs that appear to have been collected from an outcrop located 35.0 m upslope.



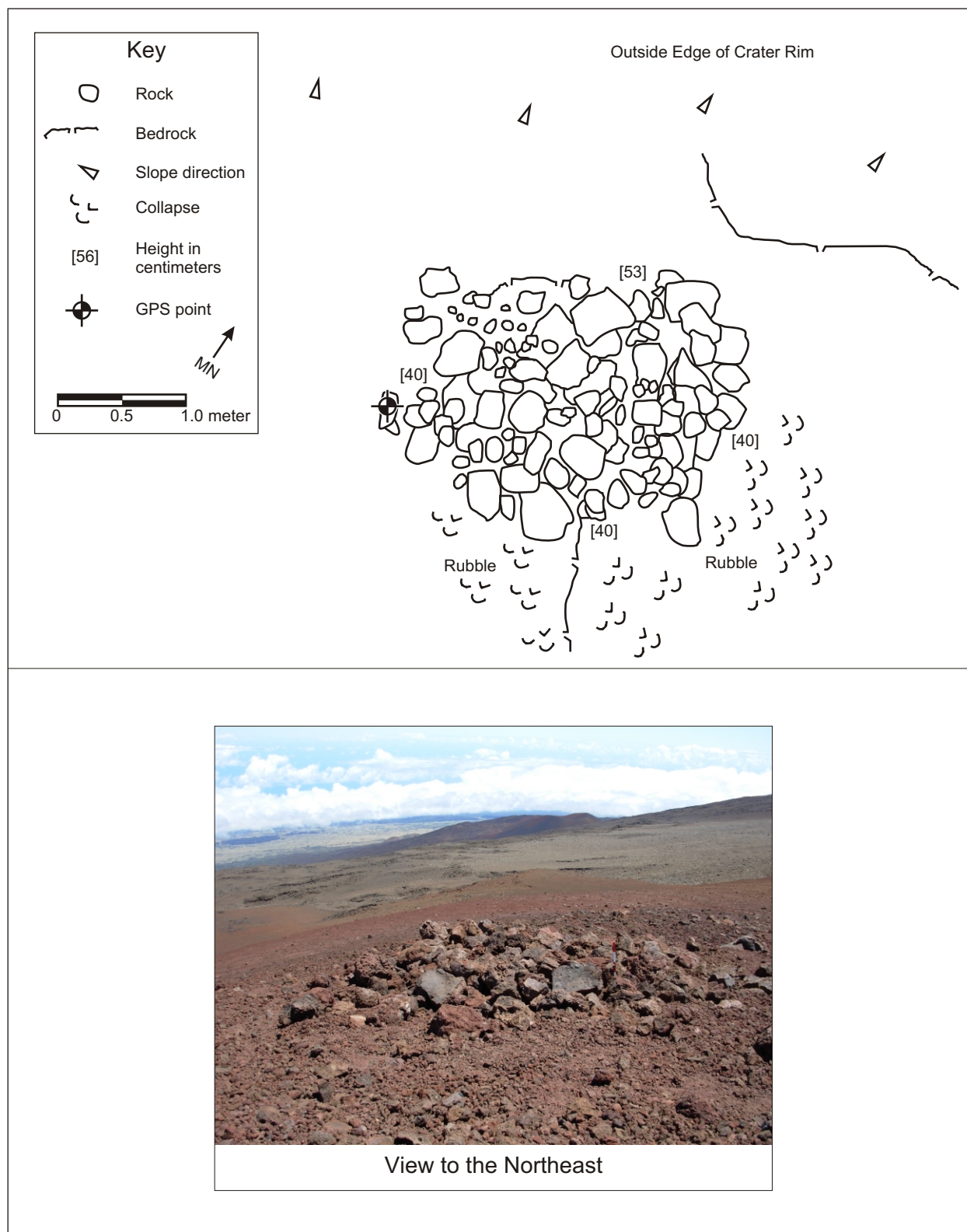
**Figure 4.18. Site 25822, Plan View and Photograph.**

**STATE SITE 50-10-23-25823**

<b>Additional Site Numbers:</b> Temporary PM2006-22	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.5 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of unnamed cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 11,882 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM022	
<b>Current Status:</b> New site.	

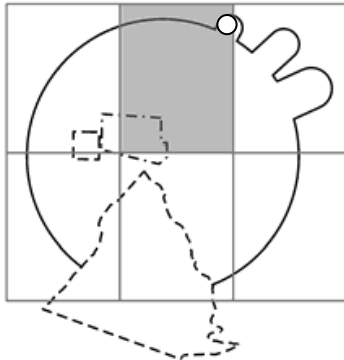
**DESCRIPTION:**

Site 25823 is a mound (Feature 1) located on the rim of an unnamed cinder cone northwest of Pu'u Hoaka. The mound is constructed of piled cobbles and measures 2.0 m by 1.4 m and 0.4 m high (Figure 4.19). It is inferred to be a possible burial feature based on its location and morphological similarities to other mounds and platforms with human skeletal remains in the summit region.



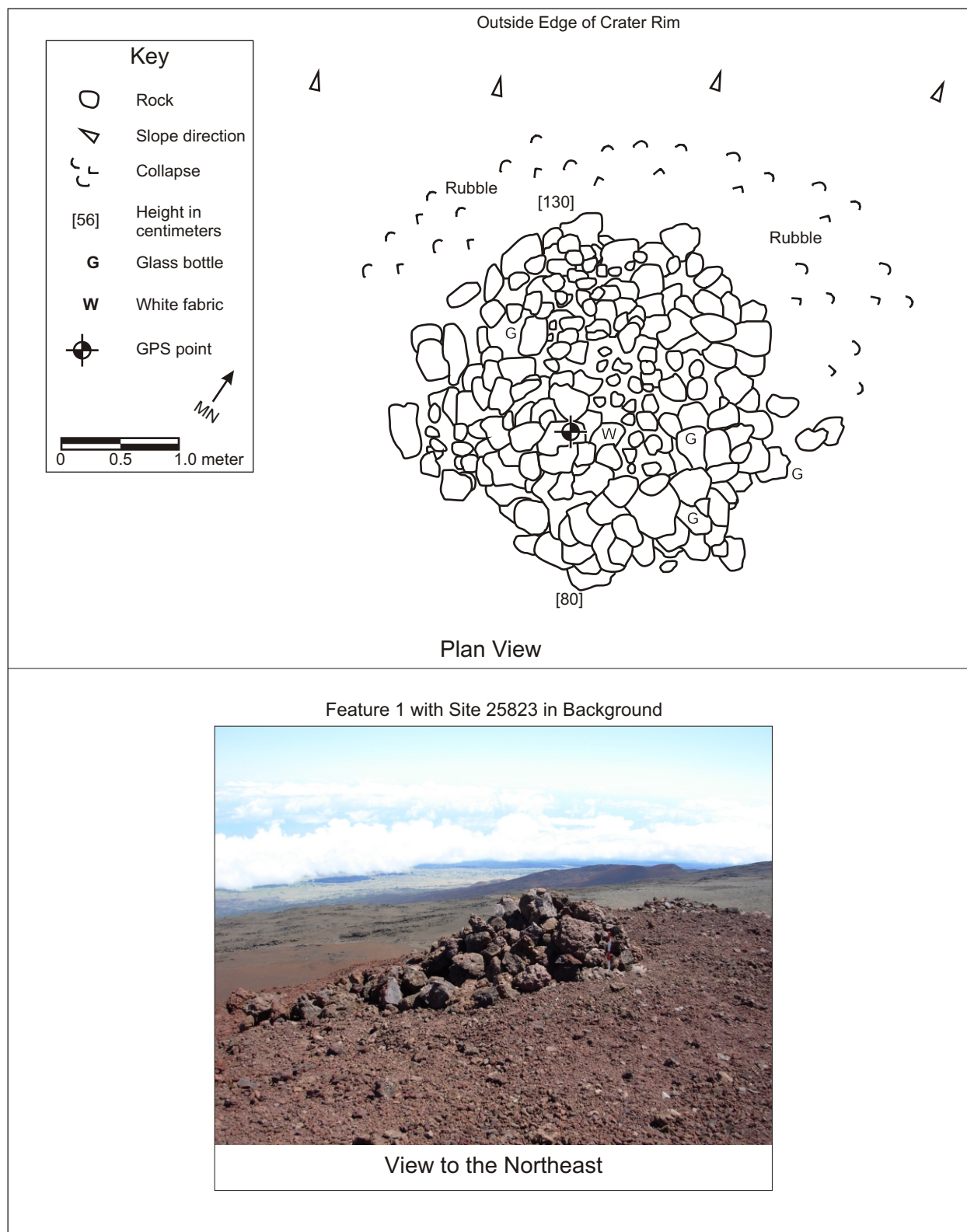
**Figure 4.19. Site 25823, Plan View and Photograph.**

**STATE SITE 50-10-23-25824**

<b>Additional Site Numbers:</b> Temporary PM2006-21	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 5.0 m by 4.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Rim of unnamed cinder cone	
<b>Approximate U.S.G.S. Elevation:</b> 11,893 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM021	
<b>Current Status:</b> New site.	

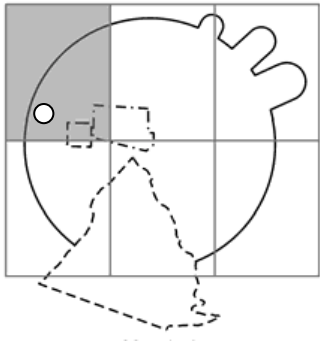
**DESCRIPTION:**

Site 25824 is a mound (Feature 1) located on the northwest rim of an unnamed cinder cone. It is constructed of small boulders and cinder with stacking (seven courses high) present on the north side (Figure 4.20). The mound is 4.5 m by 3.8 m with a maximum height of 1.3 m. A bottle, bottle glass fragments, and a fabric-like object were visible on the mound and along the southeast side of the mound. The mound is inferred to be a possible burial feature based on its location and morphological similarities to other mounds and platforms with human skeletal remains in the summit region.



**Figure 4.20. Site 25824, Plan View and Photograph.**

**STATE SITE 50-10-23-25829**

<b>Additional Site Numbers:</b> Temporary PM2006-01	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.3 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Cinder cone rim	
<b>Approximate U.S.G.S. Elevation:</b> 12,780 ft a.m.s.l.	
<b>2006 GPS File No.:</b> PM016	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25829 is a cobble mound (Feature 1) located 14.0 m west of Site 21414, on the eastern rim of a large, unnamed cinder cone, which is mantled with dispersed boulders and cobbles. The mound is 2.3 m by 1.9 m and 0.55 m high, and is of piled construction and consists of locally occurring cobbles and boulders (Figure 4.21). The construction includes a large volcanic bomb placed between and on top of several low boulders, which in places form the base of the structure. In the middle of the structure is a vertically oriented stone of non-tabular basalt, which does not appear to be a shrine upright, however. The northwestern edge of the structure appears to be partially collapsed. The site is inferred to be a possible burial based on its form and topographic location.



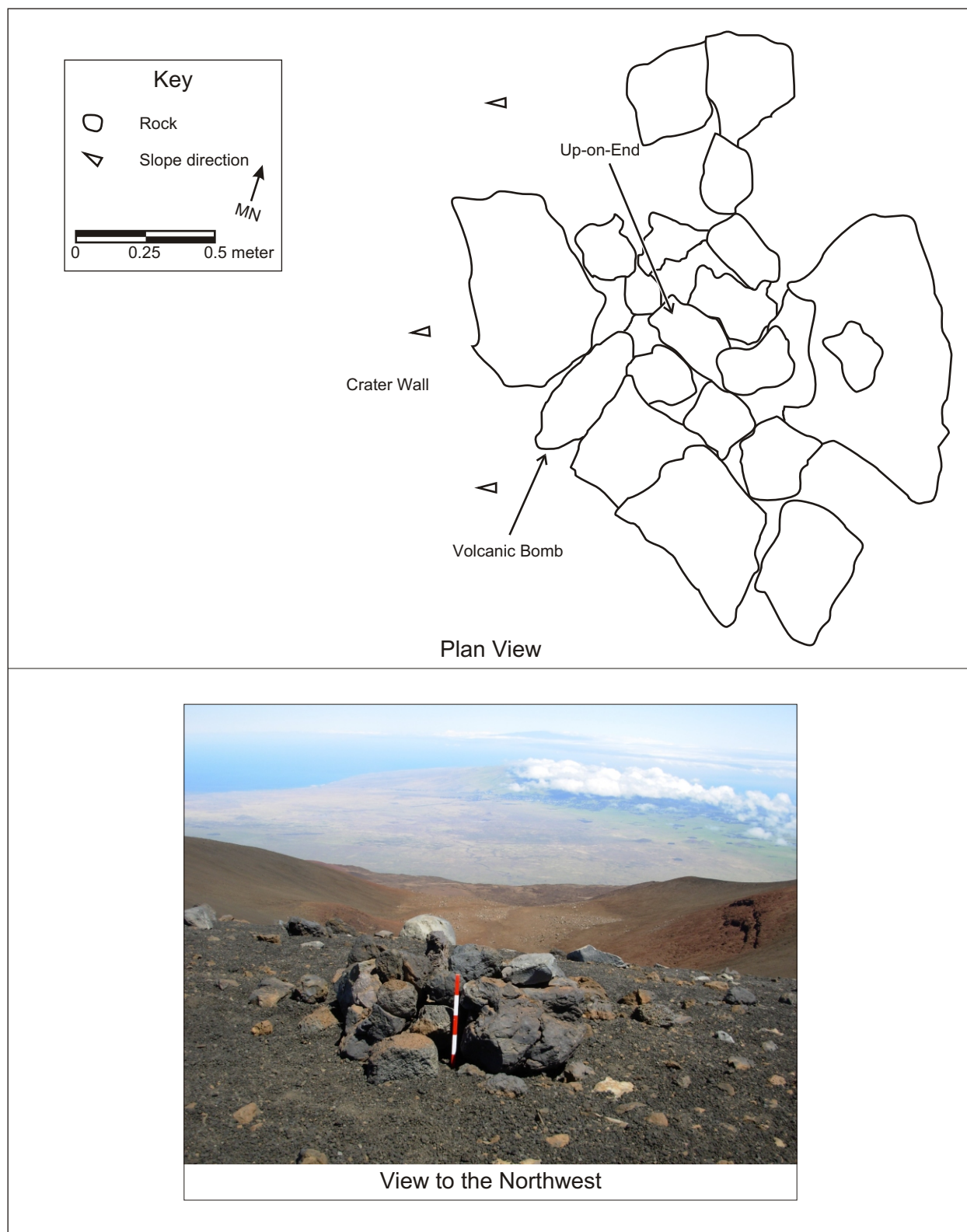
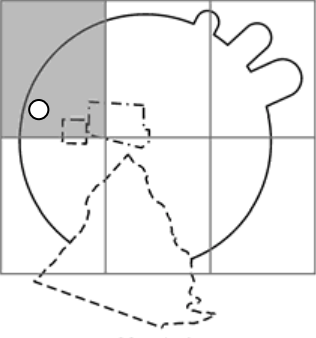


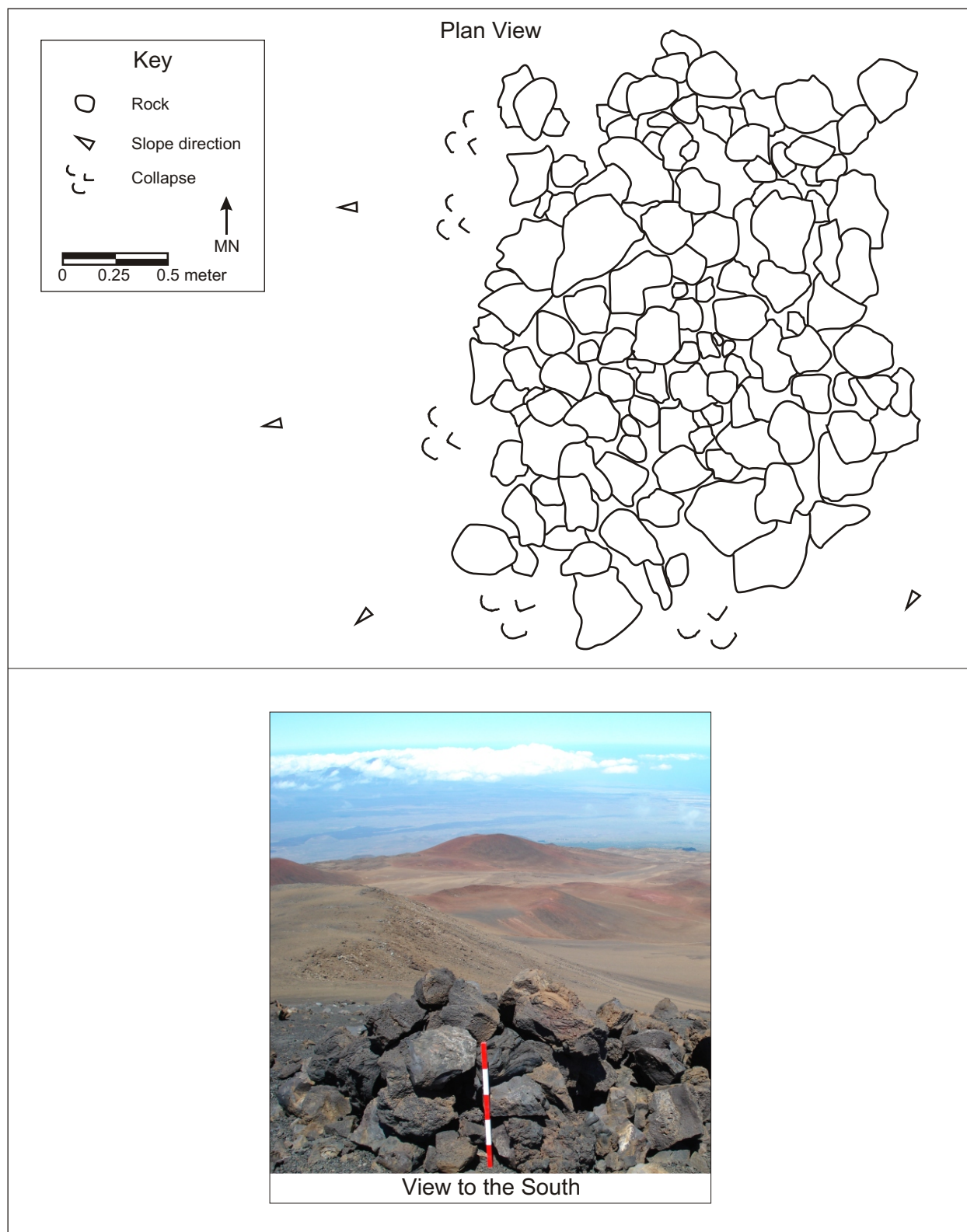
Figure 4.21. Site 25829, Plan View and Photograph.

**STATE SITE 50-10-23-25830**

<b>Additional Site Numbers:</b> Temporary      RN2006-018	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 3.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Cinder cone rim	
<b>Approximate U.S.G.S. Elevation:</b> 12,729 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN013	
<b>Current Status:</b> New site.	

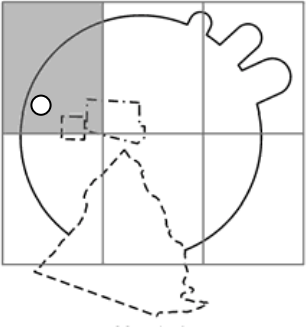
**DESCRIPTION:**

Site 25830 consists of a small platform (Feature 1) located on the south rim of an unnamed cinder cone (see Figure 4.22). It is constructed of cobbles and small boulders. The platform, stacked 2-3 courses (0.58 m high), has partially collapsed on the south side. No cultural material was observed at this site.



**Figure 4.22. Site 25830, Plan View and Photograph.**

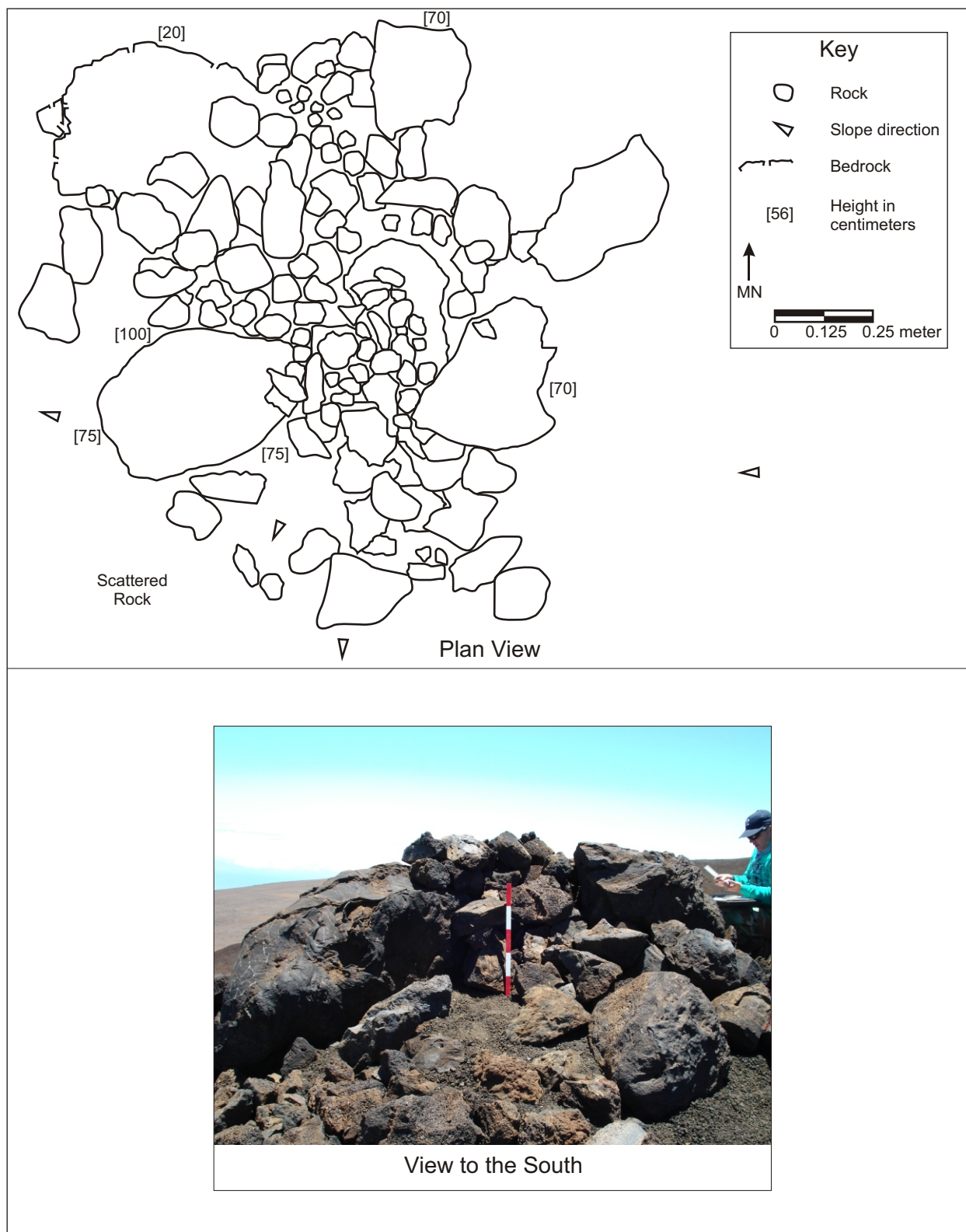
**STATE SITE 50-10-23-25831**

<b>Additional Site Numbers:</b> Temporary      RN2006-01	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.5 m by 2.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Cinder cone rim	
<b>Approximate U.S.G.S. Elevation:</b> 12,638 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN016	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

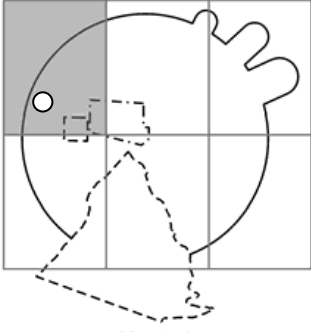
Site 25831 consists of a cobble mound (Feature 1) located approximately 25.0 m upslope of Site 21413. This feature is a mound of cobbles placed between two large boulders, with additional cobbles placed on the north side of the boulders (Figure 4.23). The site is roughly 2.6 m long (north/south) by 2.3 m wide (east/west), with a maximum height of 0.93 m. The area between the boulders is approximately 0.25 m wide, and filled with piled cobbles.

Along the north side of the boulders is a concentration of cobbles that appear deliberately placed. This pile of cobbles measures approximately 1.2 m (east/west) by 1.0 m (north/south). No cultural material was observed at the site. This site is most likely a burial based on the similarities in form and size to other sites located on the rim of a cinder cone that appears to have been a major burial area.



**Figure 4.23. Site 25831, Plan View and Photograph.**

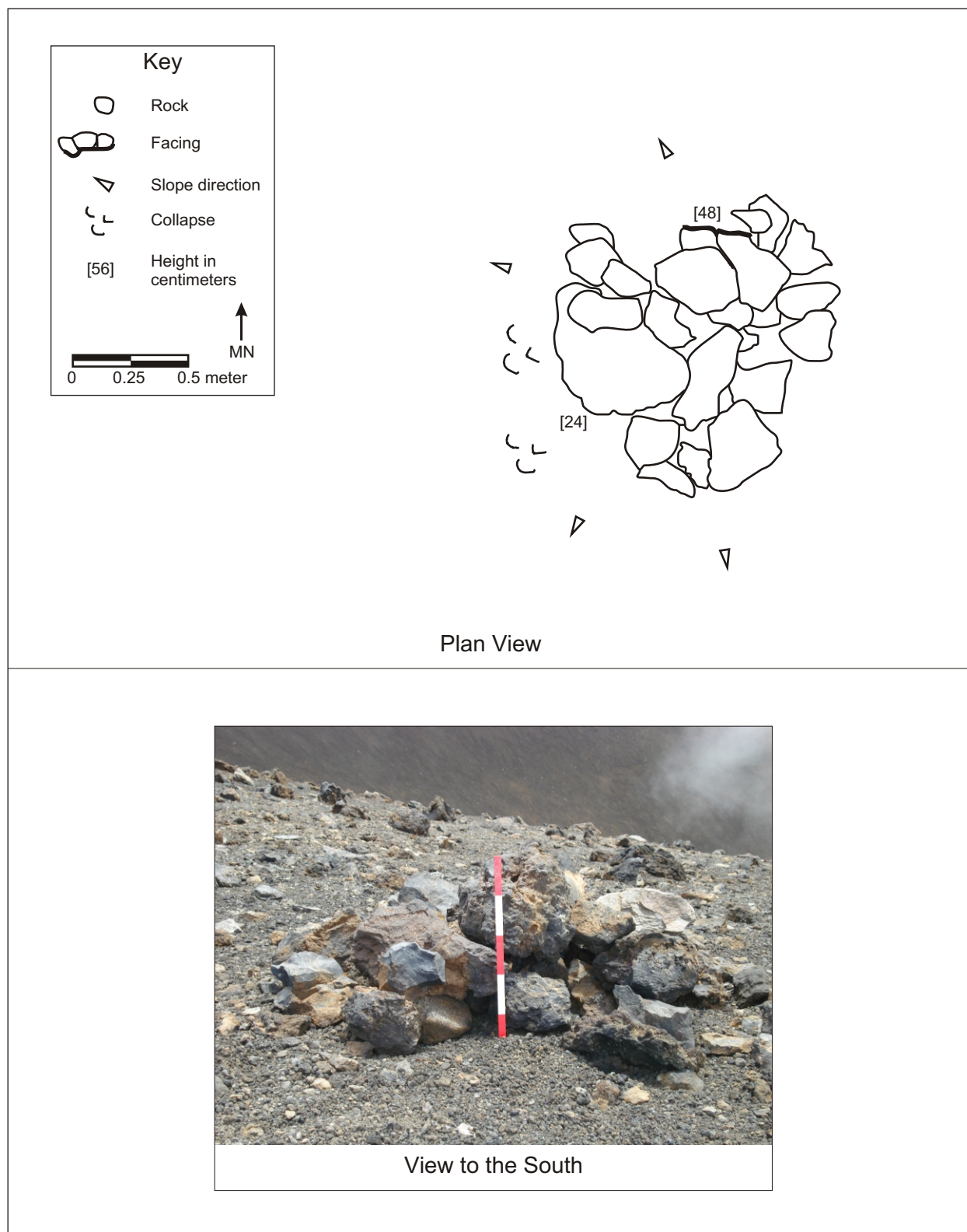
**STATE SITE 50-10-23-25832**

<b>Additional Site Numbers:</b> Temporary    RN2006-02	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 1.5 m by 1.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Cinder cone rim	
<b>Approximate U.S.G.S. Elevation:</b> 12,510 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN017	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25832 is a mound (Feature 1) located on the rim of an unnamed cinder cone. It measures approximately 1.5 m by 1.5 m with a maximum height of 0.48 m (Figure 4.24), and is constructed of piled cobbles and small boulders. No cultural material was observed in the area. The mound is similar to the other mounds found in this general area, all of which have been interpreted as possible shrines.

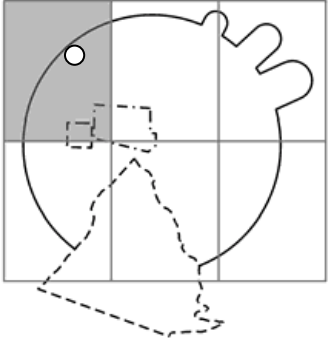




**Figure 4.24. Site 25832, Plan View and Photograph.**



**STATE SITE 50-10-23-26237**

<b>Additional Site Numbers:</b> Temporary PM2007-011	
<b>Site Function:</b> Possible burial	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 4.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,062 ft a.m.s.l.	
<b>2006 GPS File No.:</b> KN48	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26237, located on a gelifluction terrace, consists of a mound constructed of piled cobbles and small boulders (Figure 4.25). It is 3.3 m long (southeast/northwest) by 2.25 m wide and has a maximum height of 0.9. No cultural material was observed at the site.

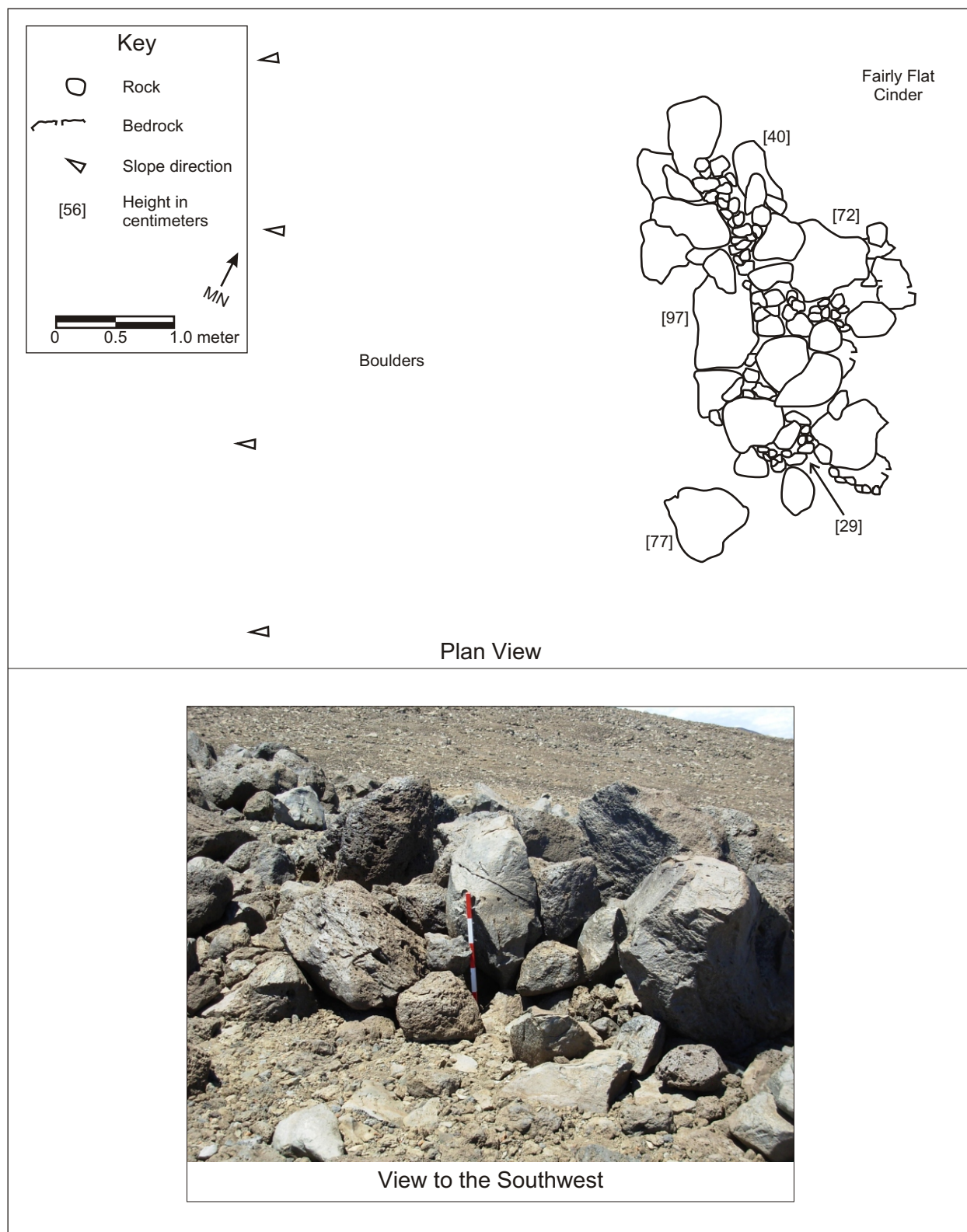
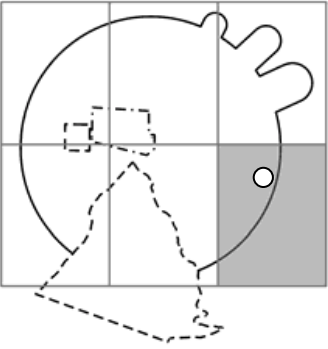


Figure 4.25. Site 26237, Plan View and Photograph.

## **5.0 STONE MARKERS/MEMORIALS**

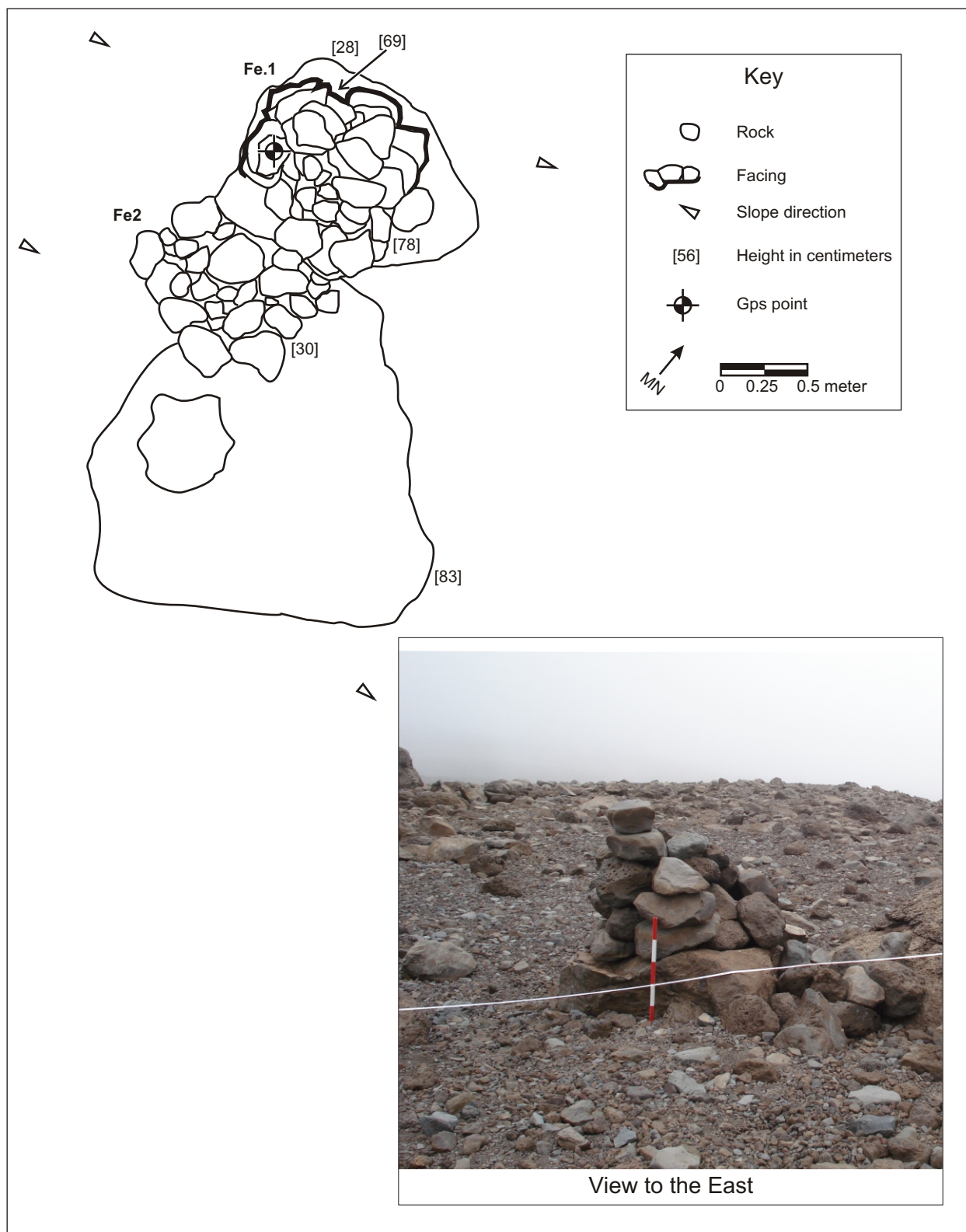
This section presents descriptions for the 15 stone marker/memorial sites identified in the Mauna Kea Science Reserve. All components of these sites are stone markers or memorials.

**STATE SITE 50-10-23-21411**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,682 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM028	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b> 2007	

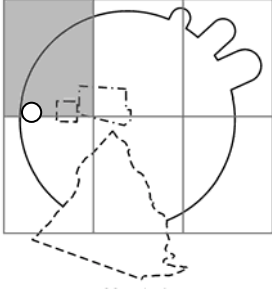
**DESCRIPTION:**

The original site documented in 1997 was determined not to be a cultural feature. Therefore the site number was assigned to a new structure. The new structure, Site 21411, consists of a single feature, a rock pile located on a gelifluction terrace on the east side of the mountain (Figure 5.1). The feature is a pyramid-shaped pile of cobbles and boulders placed on a low boulder and measures roughly 1.0 m at the base to 0.7 m at the top and has a maximum height of 0.9 m. The south side of the feature appears to have tumbled.



**Figure 5.1. Site 21411, Features 1 and 2, Plan View and Photograph.**

**STATE SITE 50-10-23-21412**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,511 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN121	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged	
<b>Subsequent Site Visits:</b>	

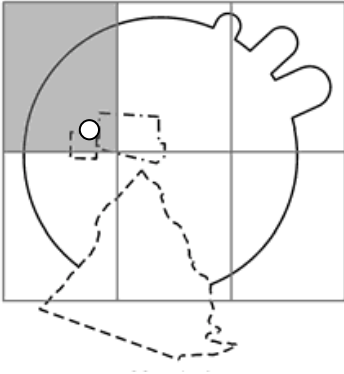
**DESCRIPTION:**

Site 21412 is a rock pile located on the west slope of the mountain on the glacial moraine (Figure 5.2). The rock pile is 1.6 m by 1.3 m with a maximum height of 1.2 m. It is constructed of piled cobbles and small boulders and has a pyramidal shape.



**Figure 5.2. Photograph of Site 21412; View to the Southwest**

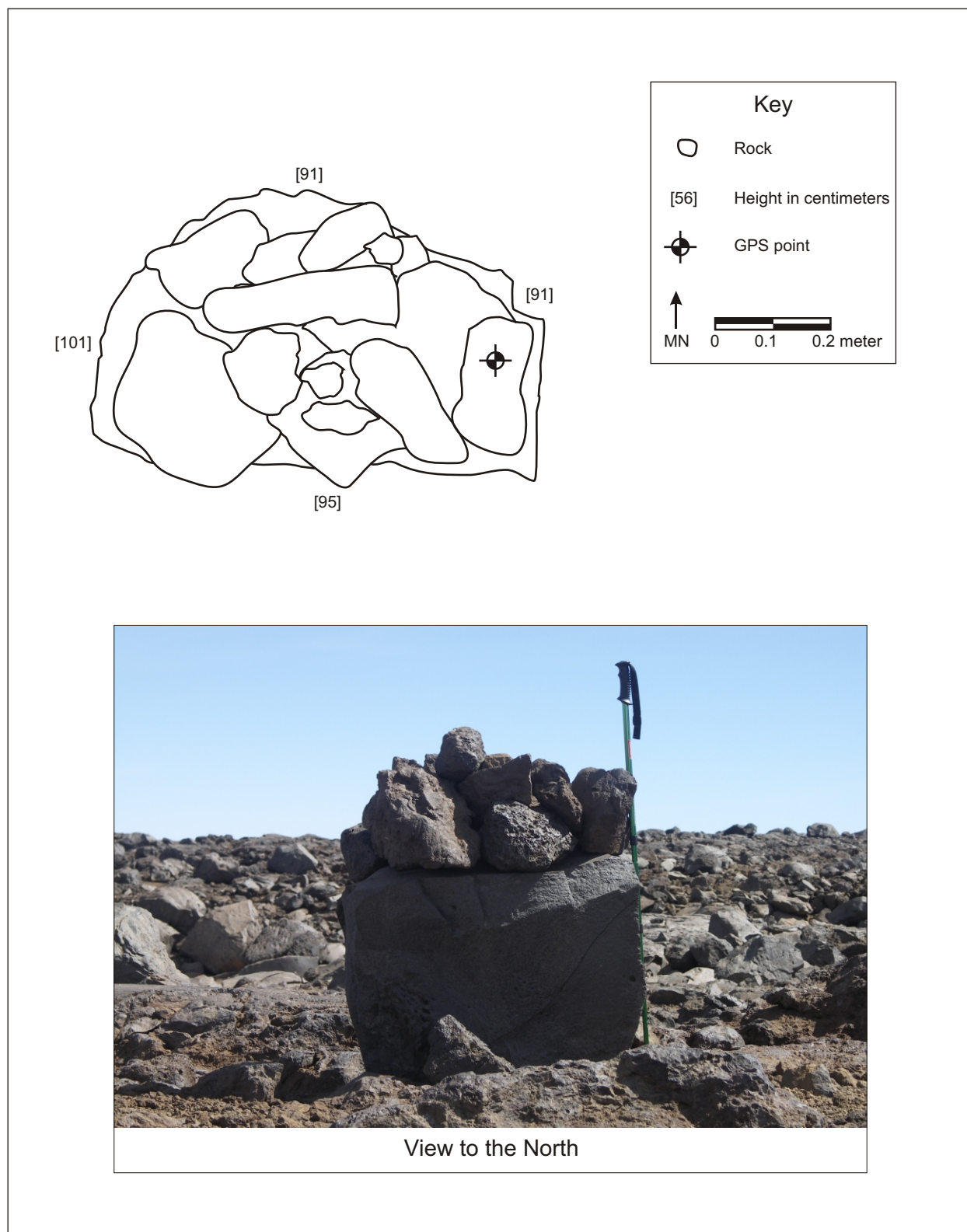
**SITE 50-10-23-21415**

<b>Additional Site Numbers:</b> Temporary E21	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-1
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest (mid-elevation)	
<b>Approximate U.S.G.S. Elevation:</b> 13,050 ft a.m.s.l.	
<b>2005 GPS File No.:</b> R083020a	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged	
<b>Subsequent Site Visits:</b> 2005	

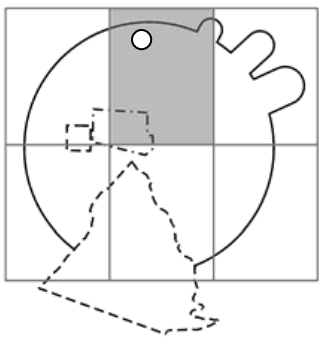
**DESCRIPTION:**

Site 21415, first recorded in 1997 (McCoy 1999), is a cairn (Feature 1) located on top of a whaleback ridge. The cairn consists of approximately 15 cobbles stacked three courses high on top a boulder (Figure 5.3). The boulder measures 0.75 m by 0.65 m and 0.6 m high and the cairn 0.65 m by 0.6 m and 0.4 m high. No stones that could possibly have been uprights were noted at this site; therefore, this site is believed to be something other than a shrine. It may have been a survey marker or cairn erected to memorialize a visit to this locality.





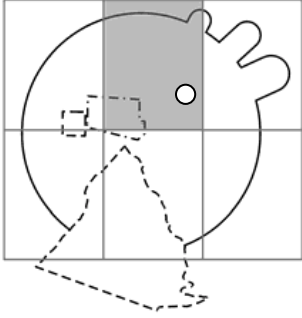
**STATE SITE 50-10-23-21423**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,046 ft a.m.s.l.	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unable to relocate	
<b>Subsequent Site Visits:</b> unable to relocate in 2006	

**DESCRIPTION:**

Site 21423 was recorded in 1997 as a boulder with cobbles on top located on the north slope of the mountain. The description states that the boulder was 1.7 m by 1.3 m and roughly 1.0 m high with nine (9) cobbles placed on top. The cobbles ranged in size from 10.0 cm to 40.0 cm in diameter. During the 2006 survey, this site could not be relocated.

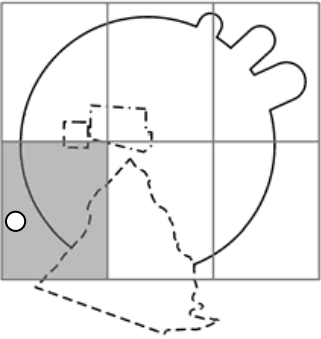
**STATE SITE 50-10-23-21434**

<b>Additional Site Numbers:</b> Temporary E48	
<b>Site Function:</b> Marker	<b>Map Number:</b> 2
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 12,466 ft a.m.s.l.	
<b>2005 GPS File No.:</b>	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged	
<b>Subsequent Site Visits:</b> 2006	

**DESCRIPTION:**

This site, located on the northeast flank of the mountain, and consists of a boulder with eight cobbles piled on top (Feature 1). The boulder measures roughly 2.0 m by 1.5 m with a maximum height of 0.9 m. No upright was observed.

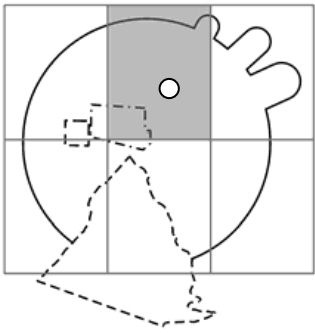
**STATE SITE 50-10-23-21436**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge crest	
<b>Approximate U.S.G.S. Elevation:</b> 11,520 ft a.m.s.l.	
<b>2006 GPS File No.:</b> N/A	
<b>Date First Recorded:</b> 1997	
<b>Current Status:</b> Unchanged	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

This site is a cairn located on the southwest flank of the mountain. It is roughly 1.3 m in height and 1.0 m diameter at the base. There are seven to eight courses of stones.

**SITE 50-10-23-21450**

<b>Additional Site Numbers:</b> Temporary 2005-11	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 30.0 m by 5.0 m	
<b>Number of Features:</b> 3	
<b>Topographic Location:</b> Cinder Cone	
<b>Approximate U.S.G.S. Elevation:</b> 13,091 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Pts. 043-045	
<b>Date First Recorded:</b> 2005	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 21450 consists of three features, two cairns (Features 1 and 3) and one possible cairn (Feature 2). The site is located on the south rim of Pu`u Mahoe. Feature 1 is located west of the other two and consists of piled, and some stacked, cobbles and small boulders (Figure 5.4). This feature measures 1.4 m by 1.1 m and 0.9 m high. Present on and near the feature are numerous historic items including metal and wooden poles, wire, metal anchor pipe, numerous sheep horns, and one light grey basalt cobble.

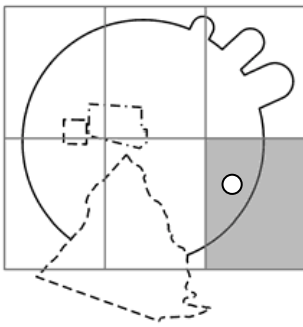
Feature 2, a possible cairn, is located approximately east of Feature 1. The feature is partially destroyed and appears to have been constructed of red-colored cobbles and boulders. The concentrated red-rock covers an area measuring 3.0 m by 1.2 m and 0.6 m high. No cultural material was observed.

Feature 3, the easternmost cairn, is constructed of piled, with some stacking, cobbles and small boulders and measures 1.5 m by 0.75 m and 0.52 m high. No cultural material was observed.



**Figure 5.4. Photograph of Site 21450, Feature 1; View to South/ Southeast**

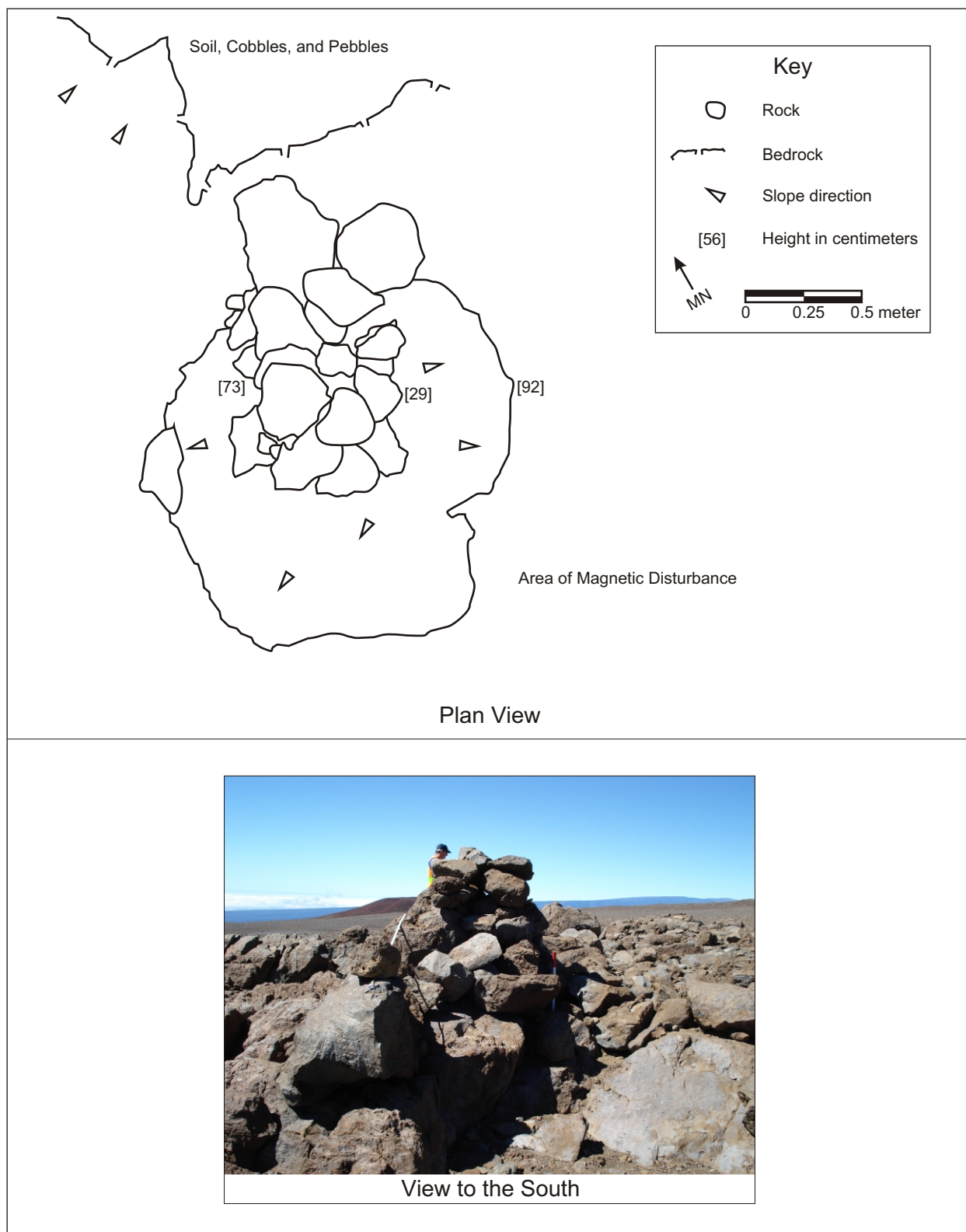
**SITE 50-10-23-25777**

<b>Additional Site Numbers:</b> Temporary RN2006-05	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,029 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN057	
<b>Date First Recorded:</b> 2006	
<b>Current Status:</b> New Site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 25777 is a cairn (Feature 1) consisting of stacked cobbles and small boulders placed on and next to a large boulder (Figure 5.5). This cairn is approximately 0.8 m by 0.8 m with a maximum height of 1.1 m. The north side is approximately six courses high and the south side three courses high. On the north side of the boulder the cobbles extend down (lower) than the boulder.

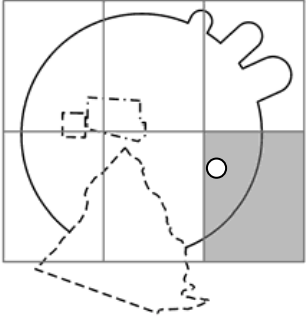
An unusual gelifluction terrace is located approximately 13.0 m south of the cairn. The formation of the terrace is unlike others observed throughout the project area. It consists of large and small cobbles on the downslope side with a level area to the east. The rocks forming the terrace facing are well-sorted with medium boulders at the base and cobbles placed on top. No soil was observed in the rock facing; however, soil (with no rocks) was observed beneath the large boulders.



**Figure 5.5. Site 25777, Plan View and Photograph.**

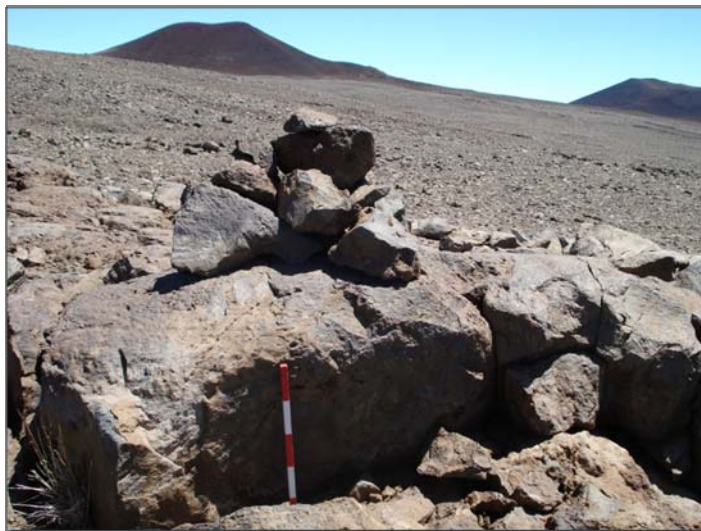


**SITE 50-10-23-25785**

<b>Additional Site Numbers:</b> Temporary      RN2006-022	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-6
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Ridge toe	
<b>Approximate U.S.G.S. Elevation:</b> 12,281 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN145	
<b>Date First Recorded:</b> 2006	
<b>Current Status:</b> New Site	
<b>Subsequent Site Visits:</b>	

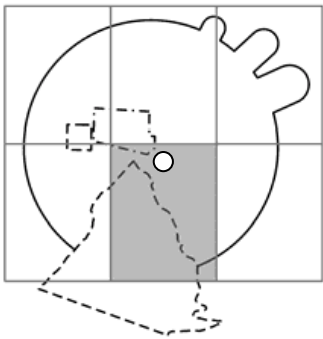
**DESCRIPTION:**

Site 25785 consists of a rock cairn (Feature 1) located at the toe of a ridge. It is constructed of piled cobbles and measures 0.73 m by 0.7 m and 0.5 m high (Figure 5.6).



**Figure 5.6. Photograph of Site 25785. View to the North.**

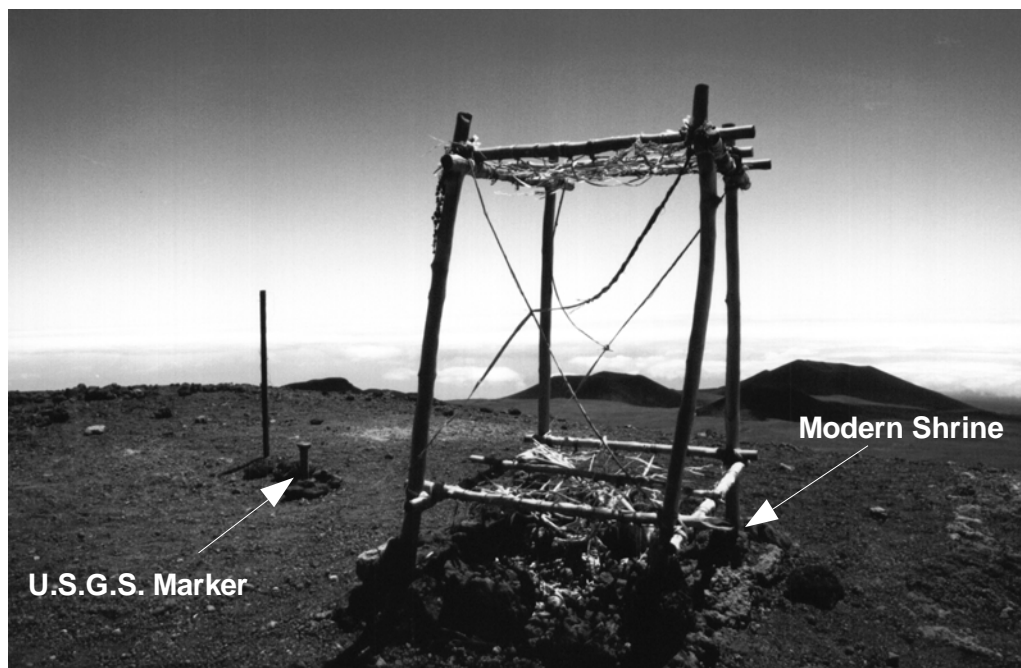
**STATE SITE 50-10-23-26224**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Survey Marker	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Wekiu	
<b>Approximate U.S.G.S. Elevation:</b> 13,796 ft a.m.s.l.	
<b>2009 GPS File No.:</b> RN New099	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

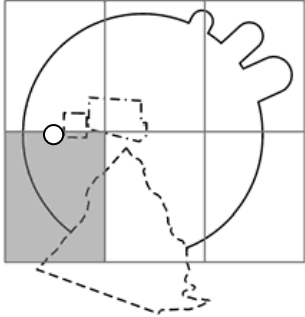
Site 26224 is a USGS marker located on the rim of Pu`u Wekiu (Figure 5.7). The marker is a brass disc cemented to a metal pole, roughly 10.0 cm in diameter that is now exposed due to wind erosion. The marker is approximately 2.0 m northwest of a modern shrine, commonly referred to as the “Lele” (Figure 5.7).

View to Northwest



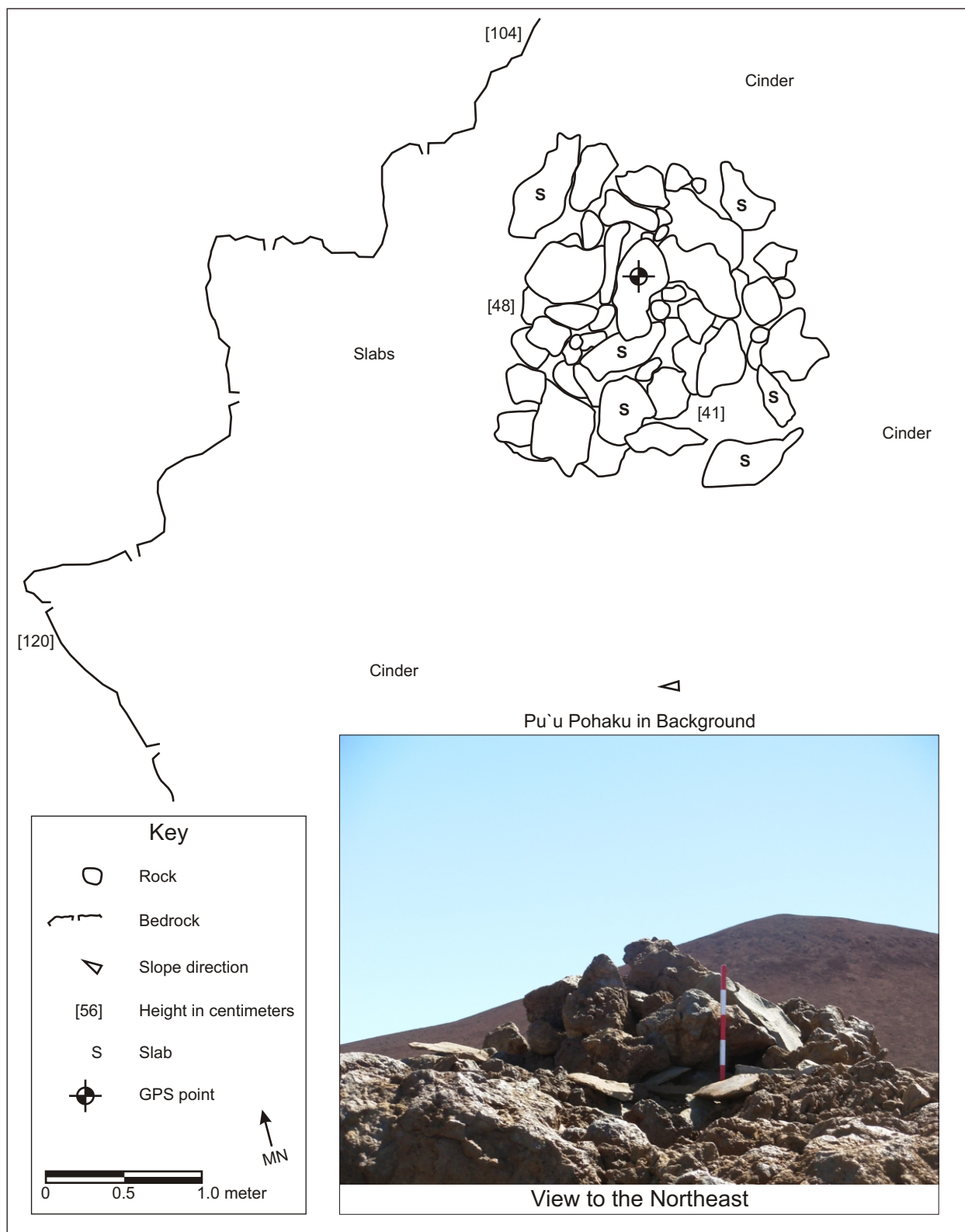
**Figure 5.7. 1999 Photo of Site 26224, U.S.G.S. Survey Marker, Next to Modern Shrine.**

**STATE SITE 50-10-23-26245**

<b>Additional Site Numbers:</b> Temporary Site PM16	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 3.0 m by 2.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,801 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM120	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 26245 is a single rock mound located on the edge of a ridge flank on the west side of the mountain (Figure 5.8). It is constructed of piled cobbles, small boulders, and slabs and measures approximately 2.25 m by 1.45 m with a maximum height of 0.75 m.

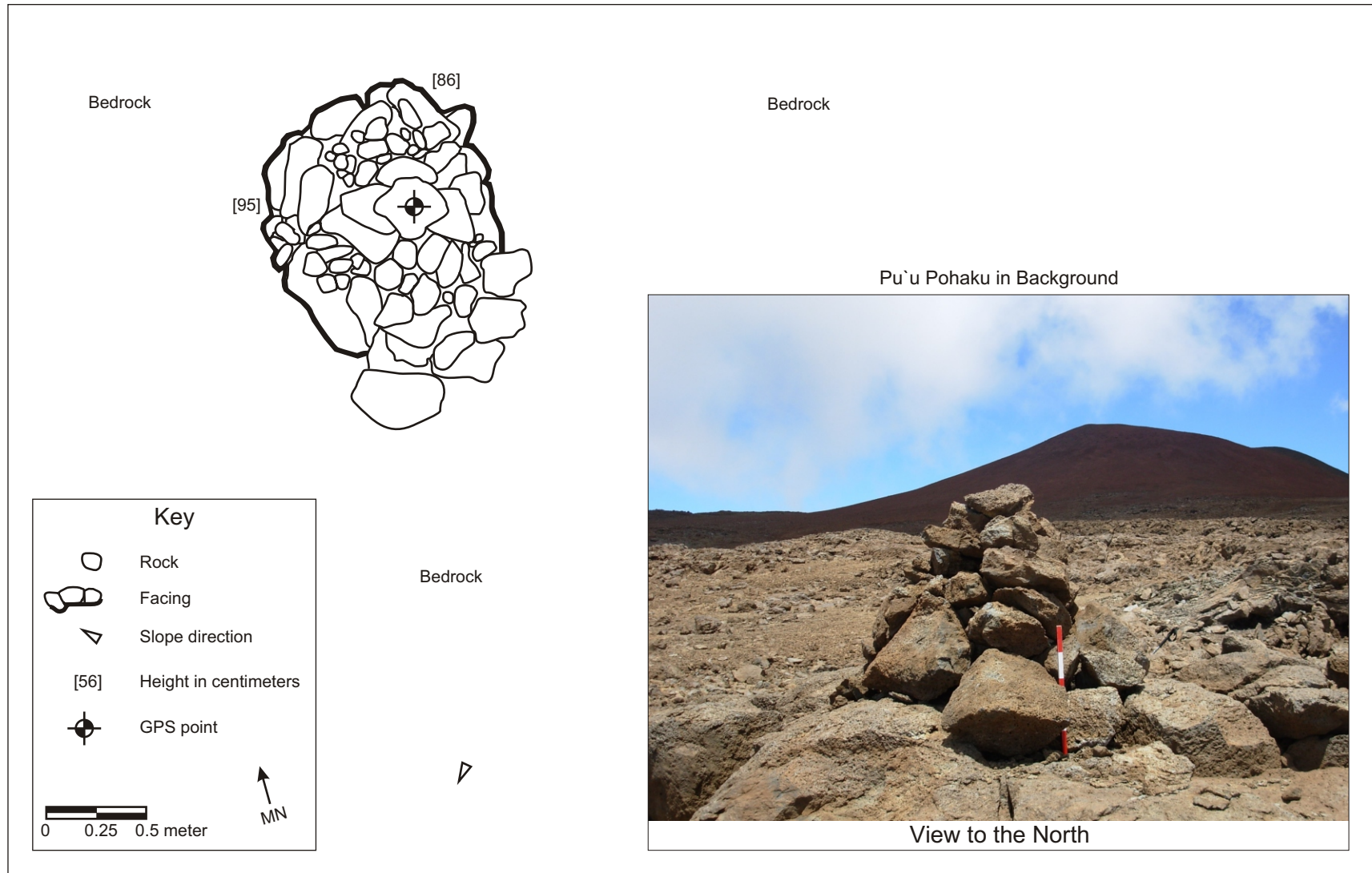


**Figure 5.8. Site 26245, Plan View and Photograph.**

**STATE SITE 50-10-23-26246**

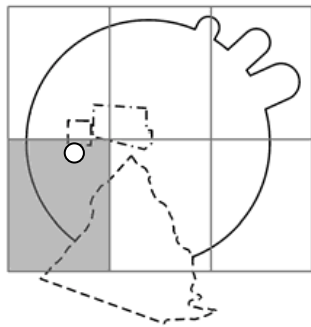
[illegible]**DESCRIPTION:**

Site 26246 is a single rock mound located on the edge of a ridge flank on the west side of the mountain (Figure 5.9). It is constructed of piled and stacked cobbles and small boulders and measures approximately 1.7 m by 1.5 m with a maximum height of 0.83 m.



**Figure 5.9. Site 26246, Plan View and Photograph.**

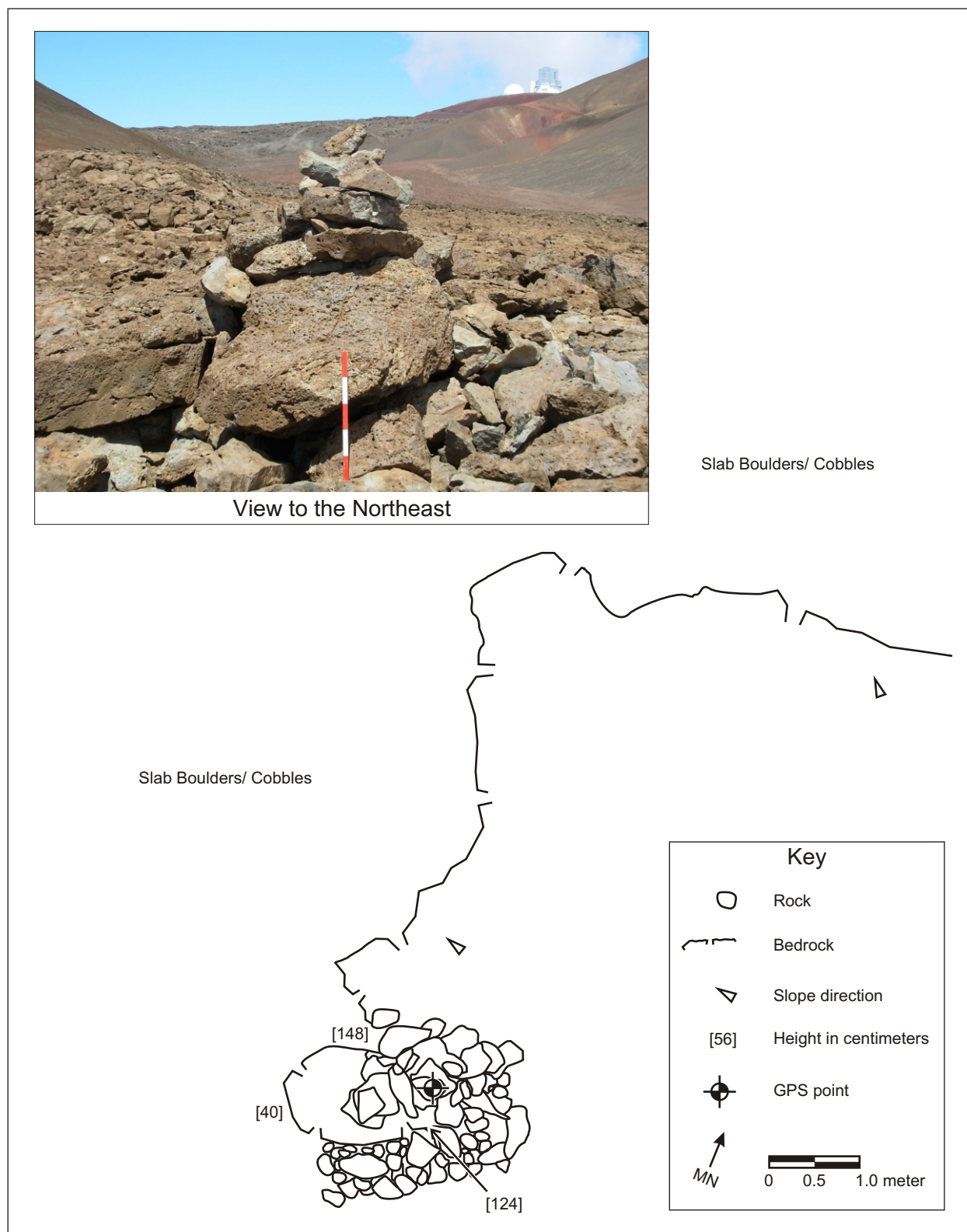
**STATE SITE 50-10-23-26247**

<b>Additional Site Numbers:</b> Temporary Site PM18	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Ridge flank	
<b>Approximate U.S.G.S. Elevation:</b> 12,970 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM128	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

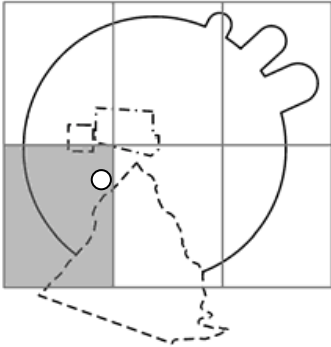
Site 26247 is a single rock mound located on a ridge flank on the west side of the mountain, south of Pu`u Pohaku. It is constructed of piled and stacked cobbles and small boulders and measures approximately 2.27 m by 1.95 m with a maximum height of 1.25 m (Figure 5.10). Two find spots are located to the north/northeast at approximately 30.0 m.





**Figure 5.10. Site 26247, Plan View and Photograph.**

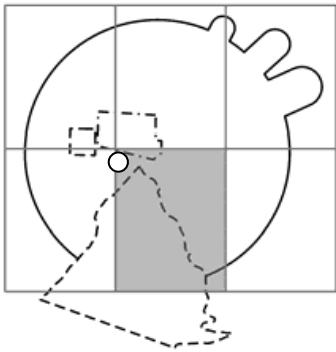
**STATE SITE 50-10-23-26256**

<b>Additional Site Numbers:</b> Temporary Site PM19	
<b>Site Function:</b> Marker	<b>Map Number:</b> A-4
<b>Site Dimensions:</b> 2.0 m by 2.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,949 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM156	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

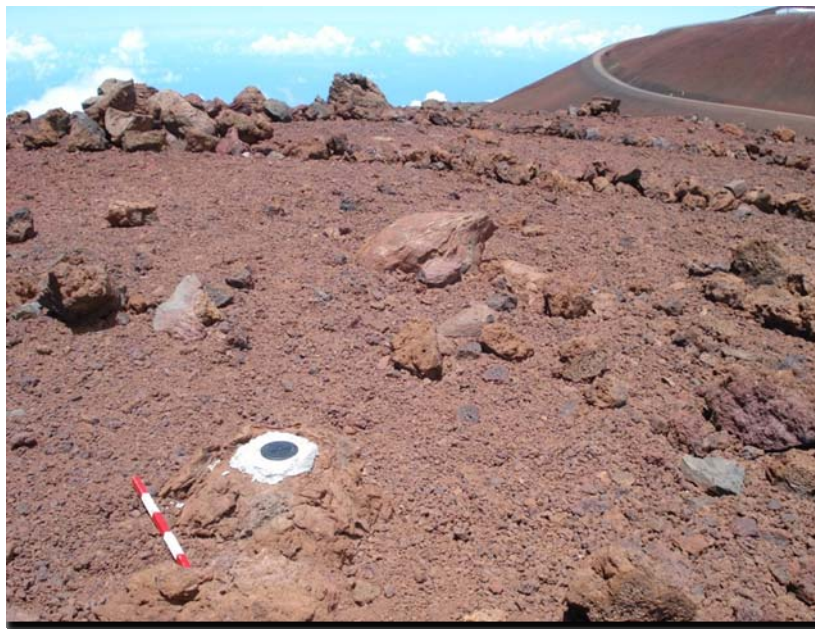
Site 26256 is a single rock pile located on a gelifluction terrace on the southwest side of the mountain. It is constructed of piled, with some stacking along the south side, cobbles and small boulders and measures approximately 1.2 m by 1.1 m with a maximum height of 1.1 m.

**STATE SITE 50-10-23-27579**

<b>Additional Site Numbers:</b> Temporary 1000	
<b>Site Function:</b> Survey Marker	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Rim of Pu`u Poliahu	
<b>Approximate U.S.G.S. Elevation:</b> 13,610 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN226	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 27579 is a USGS marker located on the north rim of Pu`u Poliahu. The marker is a brass disc cemented into bedrock approximately 6.0 m south of a recently constructed rectangular enclosure (Figure 5.11). The marker measures 10.0 cm in diameter (Figure 5.12).



**Figure 5.11. Photograph of Site 27579, U.S.G.S. Marker with Find-Spot (Recent Enclosure) in Background.**

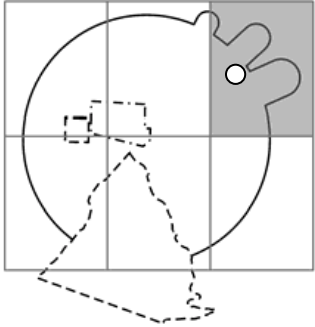


**Figure 5.12. Close-up Photograph of Site 27579, U.S.G.S. Marker.**

## **6.0 TEMPORARY SHELTERS**

This section presents descriptions for the three sites identified as temporary shelters.

**SITE 50-10-23-25817**

<b>Additional Site Numbers:</b> Temporary PM2006-18	
<b>Site Function:</b> Temporary shelter	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 18.0 m by 11.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 12,328 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN052	
<b>Date First Recorded:</b> 2006	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 25817 consists of two enclosed areas (Features 1-2) and three red stained outcrop surfaces (Figure 6.1).

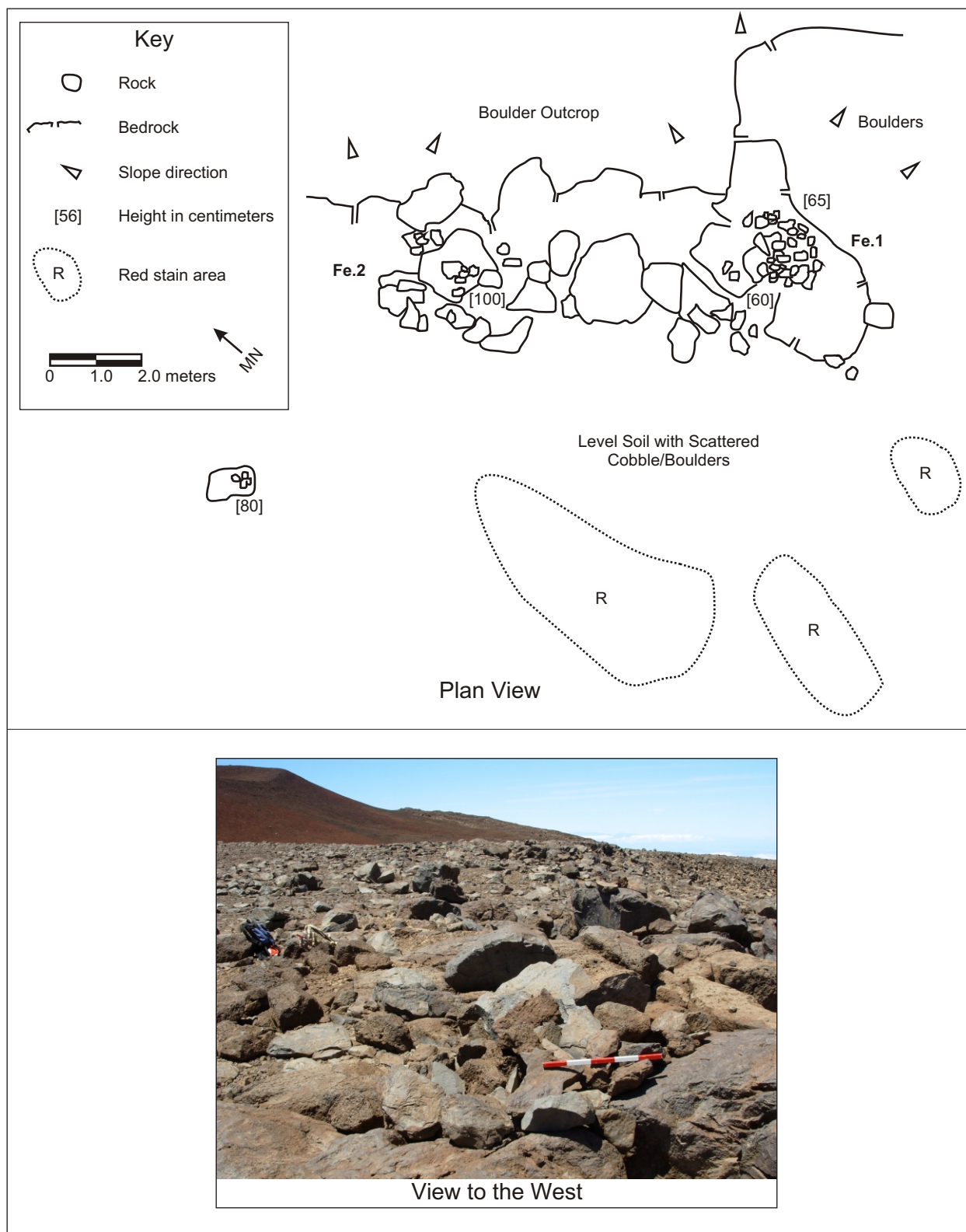
Feature 1 is located along the west edge of an outcrop at the north end of the site. It is 5.0 m southeast of Feature 2 and consists of a pile of cobbles placed in a semi-circular shape. The south and north ends of the pile are placed against an outcrop forming the enclosed area. The enclosed area is 1.5 m by 1.2 m and consists of soil and cobbles.

Feature 2 is an enclosed area formed by outcropping and placed basalt boulders (small). The northern end of the enclosed area is bounded by a large boulder with cobbles placed on top. The enclosed area is 1.4 m by 1.0 m and consists of soil and cobbles.

West and southwest of the site are three concentrations of red staining. The staining is evident on the exposed outcropping and some cobbles and small boulders. The largest of these areas is approximately 6.0 m long (north/south) by 3.0 m wide (east/west). The function and meaning of these stained areas is unknown.

A "Find Spot" (no number assigned) is located 6.5 m west of Feature 2. It consists of six cobbles placed on top of a small boulder.

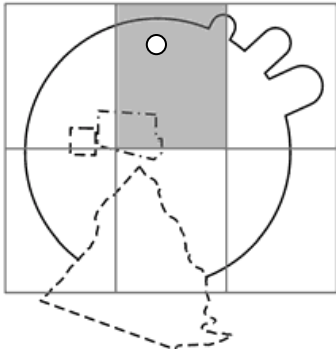




**Figure 6.1. Site 25817, Features 1 and 2, Plan View and Photograph.**



**SITE 50-10-23-26220**

<b>Additional Site Numbers:</b> Temporary PM2007-005	
<b>Site Function:</b> Shelter	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 50.0 m by 25.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,107 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM005	
<b>Date First Recorded:</b> 2007	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 26220 consists of four rock walls (Features 1-4) constructed on a gelifluction terrace (Figure 6.2). Feature 1, located at the east end of the site, is a C-shaped structure constructed of pile cobbles with an interior crudely paved with small cobbles. A possible platform is constructed at its' north end. The platform is roughly 1.5 m by 1.5 m and 0.8 m high and is faced on the northwest/southeast sides. No cultural material was observed.

Feature 2 is an L-shaped structure located approximately 3.0 m northwest of Feature 1 and 1.5 m east of Feature 3 (see Figure 6.2). The structure is constructed of cobbles and small boulders with stacking along the length of the short-axis and on the northeast side of the long-axis of the L-shape. The short-axis is 2.5 m long (northeast/southwest) by 1.3 m wide and has a maximum height of 1.0 m. The long axis is 4.0 m long (northwest/southeast) by 1.3 m wide and has a maximum height of 0.95 m. The interior portion (north side) consists of a natural level pebble/gravel surface. No cultural material was observed.

Feature 3, 1.5 m west of Feature 2, consists of an arched wall forming a partial C-shape structure (see Figure 6.2). The wall is constructed of piled cobbles and small boulders with some stacking evident along the southeast end. The wall is 5.5 m long (northwest/southeast) and 1.0 m wide with a maximum height of 0.8 m. No cultural material was observed.

Feature 4, located approximately 22.5 m west of Feature 3, consists of a short wall segment with the east end built against a large boulder (see Figure 6.2). The wall is constructed of piled and stacked cobbles and small boulders. It is 1.5 m long (east/west), 1.0 m wide, and has a maximum height of 0.75 m. The ground surface to the north of the wall is fairly level gelifluction terrace consisting of soil, cobbles and pebbles. No cultural material was observed.

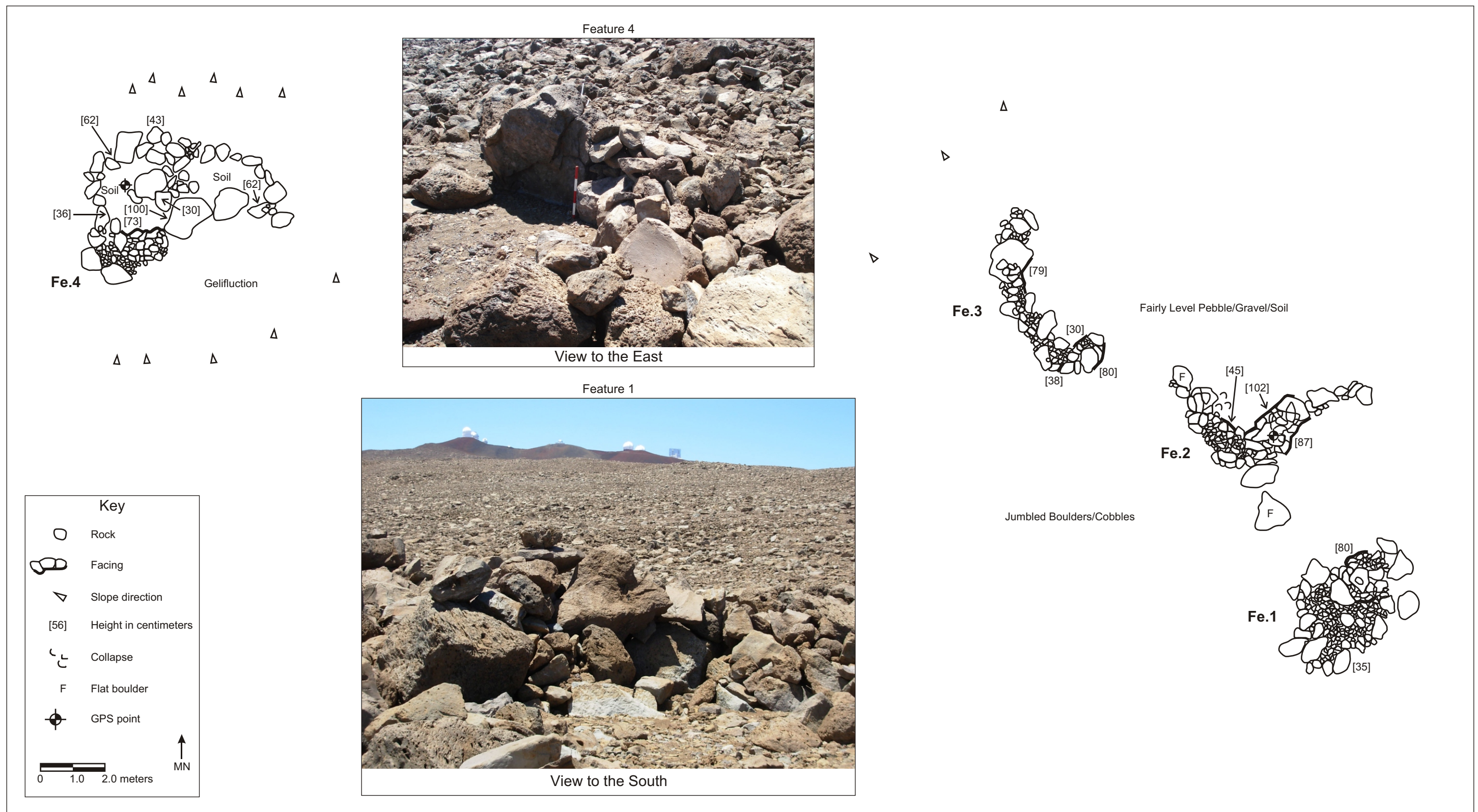
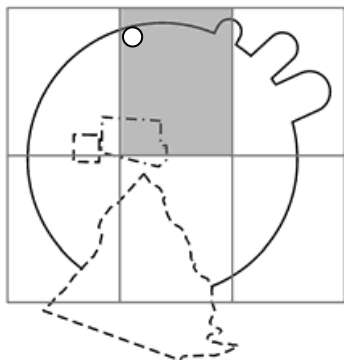


Figure 6.2. Site 26220, Features 1 through 4, Plan View and Photographs.

**SITE 50-10-23-26232**

<b>Additional Site Numbers:</b> Temporary PM2007-008	
<b>Site Function:</b> Shelter	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 10.0 m by 9.0 m	
<b>Number of Features:</b> 2	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 11,966 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN133	
<b>Date First Recorded:</b> 2007	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 26232, located on a gelifluction terrace, consists of two walls (Features 1 and 2) and a find spot (Figure 6.3). Feature 1 is a crude wall constructed of piled cobbles and small boulders and is 6.0 m long (east/west) by 3.0 m wide and has a maximum height of 1.2 m along the north side.

Feature 2 is a shorter wall located approximately 1.5 m south of the west end of Feature 1. It is constructed of piled and stacked cobbles and small boulders with large boulders defining the west end. The wall, oriented northwest/southeast with a slight bend to the south at the southeast end, is approximately 3.0 m long before bending south for an additional 1.5 m and has a maximum height of 0.7 m along the south side.

No cultural material was observed at the site.



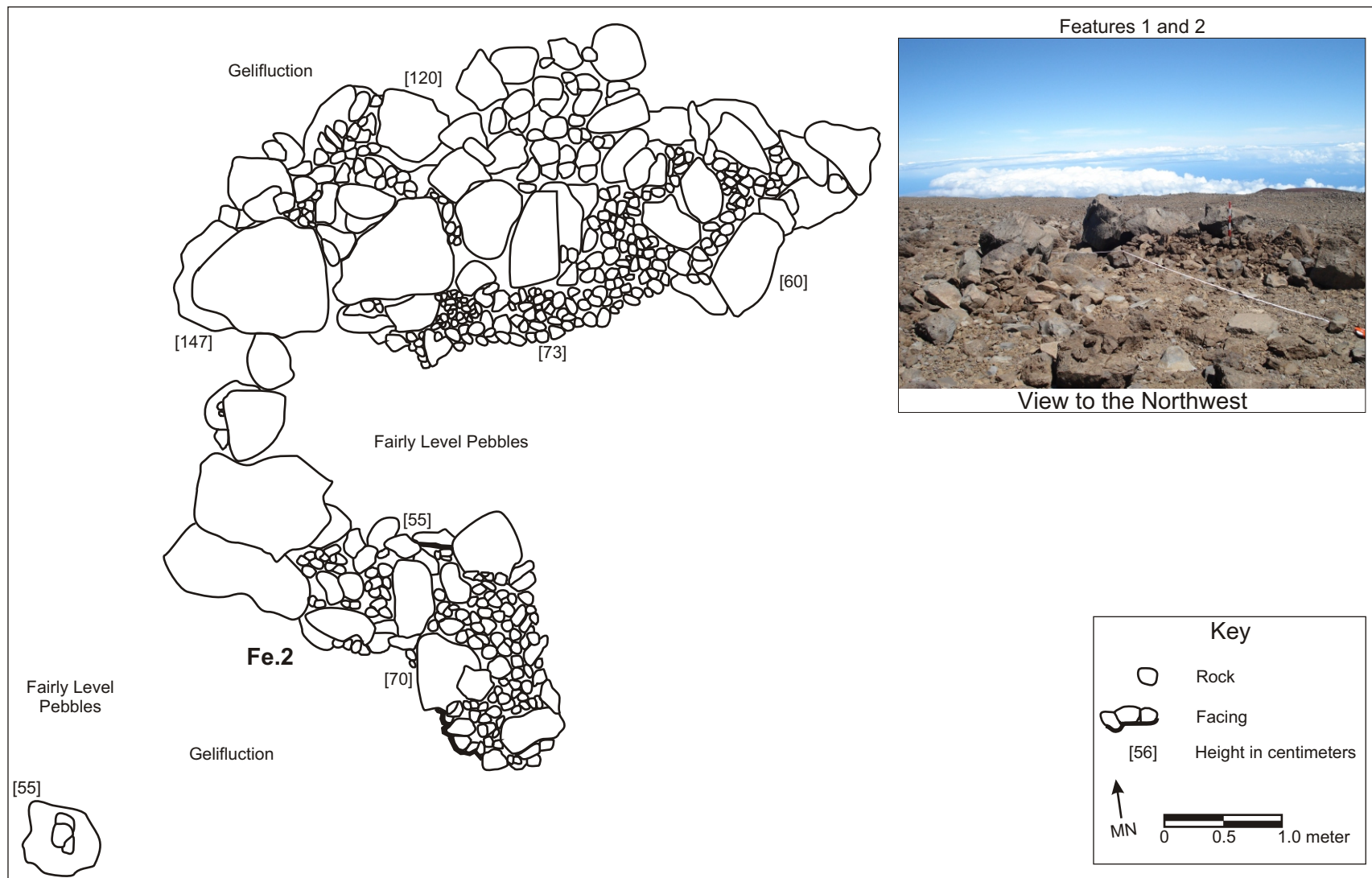


Figure 6.3. Site 26232, Features 1 and 2, Plan View and Photograph.

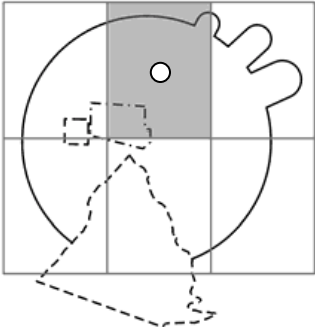
## 7.0 HISTORIC CAMP SITES

This section presents descriptions for the two historic camp sites identified in the Mauna Kea Science Reserve. Table 7.1 summarizes the site components for these sites.

**Table 7.1. Summary of Site Components for Historic Camp Sites.**

<b>Site Number 50-10-23-</b>	<b>Marker/ memorial</b>	<b>Temporary habitation</b>	<b>Isolated artifacts</b>	<b>Total number of Components</b>
26218	1	3	1	5
27580		1		1
<b>TOTAL</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>6</b>

**SITE 50-10-23-26218**

<b>Additional Site Numbers:</b> Temporary PM2007-003	
<b>Site Function:</b> Historic Campsite	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 100.0 m by 50.0 m	
<b>Number of Features:</b> 5	
<b>Topographic Location:</b> Cinder plain	
<b>Approximate U.S.G.S. Elevation:</b> 12,462 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM2007-049	
<b>Date First Recorded:</b> 2007	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 26218, located on a relatively flat cinder plain on the east side of escarpment that is below the east flank of Pu`u Mahoe, consists of five features, including a boulder concentration with a small constructed cairn (Feature 1), an historic trash dump (Feature 2), and three alignments (Features 3, 4, and 5). All five features appear to be related to a historic camp site (Figure 7.1). The features are situated in three clusters: Features 1 and 2 are located at the north end of the site, Features 3 and 4 located at the south end of the site, and Feature 5 is located on the east side between Features 1 and 2 and Features 3 and 4 (see Figure 7.1). The site area covers roughly 50.0 m<sup>2</sup>.

Feature 1 is a boulder concentration with a small constructed cairn located on the northeast side marking an inscription scratched into a flat lying slab. The inscription reads (from top to bottom): "Dec, 61925, HIM, USGS. An "arrow" is also present (Figure 7.2). A second inscription is located approximately 4.0 m south of the first, also on a flat lying slab. This inscription is scratched twice in cursive handwriting, and is very difficult to read; it appears to read "Ah Chiung" (see Figure 7.2). Upon further investigation it appears that Ah Chiung was the cook for the survey party (Kilmartin 1974:15).

Feature 2 is an historic trash dump located approximately 2.0 m west of Feature 1. The dump consists of rusty metal cans, glass bottles, glass bottle fragments, and animal bone fragments. It covers an area approximately 5.5 m by 2.0 m.

Features 3 and 4 are roughly square to rectangular-shaped alignments of cobbles located south of Feature 1. Feature 3 is the larger of the two features and is located approximately 16.0 m south of Feature 1. It measures approximately 6.0 m northwest-southeast by 4.0 m northeast-southwest. Along the outside of the north and south alignments are several rock piles. At the east end of Feature 3 is a flat lying slab with wood, glass fragments, and nails.

Feature 4 is located 6.0 m southwest of Feature 3 and consists of a square-shaped alignment of cobbles measuring approximately 4.0 m<sup>2</sup>. Similar to Feature 3, rock concentrations occur along the outside of the alignments on the north and south sides. Approximately 2.0 m along the west side is a rock concentration measuring 1.5 m by 1.0 m. Artifacts associated with

Feature 4 include a medicine bottle, an aluminum medicine tube, and an aluminum lid with the date of “1921” on it.



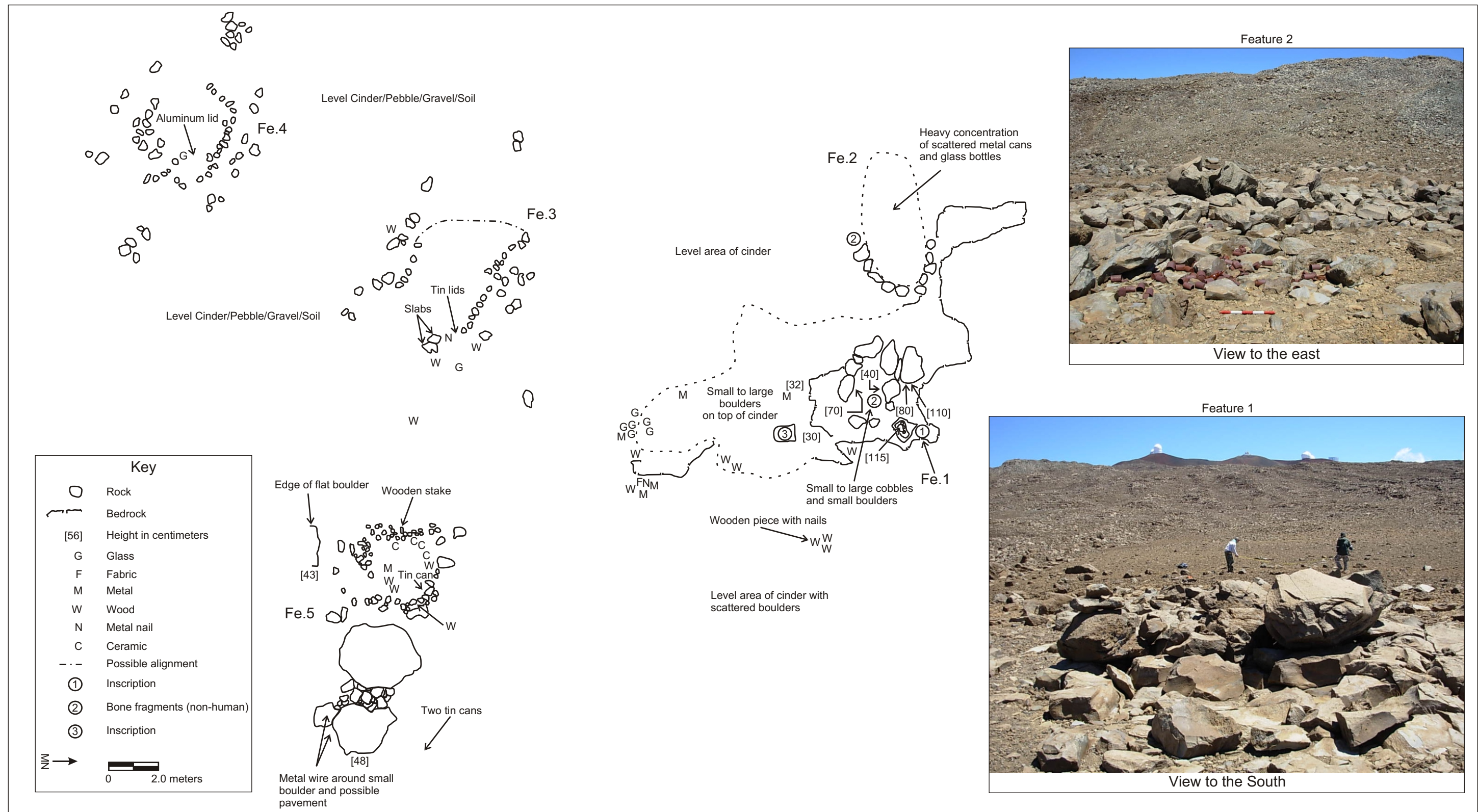
Photograph of U.S.G.S. Inscription on Slab.



Second Inscription at Feature 1.

**Figure 7.2. Photographs of Site 26218, Feature 1, Historic Inscriptions on Slabs.**

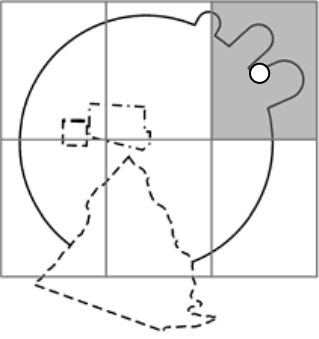




Feature 5 is another square-shaped rock alignment located approximately 9.0 m east of Feature 3 (see Figure 7.1). The alignment consists of cobbles and is approximately 6.0 m north-south by 3.3 m east-west. Inside the alignment are numerous artifacts, including metal cans, wood fragments, and wire. Outside the alignment, artifacts include wire, a wooden stake, glass bottle fragments, and a piece of Japanese ceramic.

Along the east side of the alignment is a cobble concentration located between two large boulders. The concentration measures approximately 1.5 m north-south by 0.66 m. A metal wire wrapped around a small boulder was observed to the southeast of the concentration.

**STATE SITE 50-10-23-27580**

<b>Additional Site Numbers:</b> Temporary Site 2000	
<b>Site Function:</b> Temporary habitation	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 20.0 m by 20.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Glacial moraine	
<b>Approximate U.S.G.S. Elevation:</b> 11,963 ft a.m.s.l.	
<b>2006 GPS File No.:</b> RN040	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

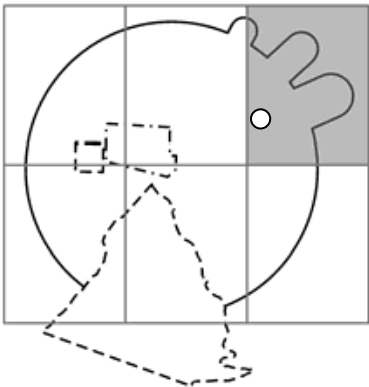
Site 27580 consists of an enclosure located on a small knoll between three puu (Pu`u Makanaka, Pu`u Hoaka, and Pu`u Ala) located on the northeast slope of Mauna Kea. Originally the enclosure was believed to be outside the Science Reserve boundary and was only noted as a find spot related to possibly hunters, however, new data indicates that the enclosure is actually on the boundary and likely related to the USGS Survey of Mauna Kea in 1925. The location of the enclosure is marked on the Kilmartin Map as Camp 4 (Dec. 6).

The enclosure is relatively square in shape with the walls constructed of piled cobbles and small boulders and large boulders. It has a relatively level soil interior and no cultural material was observed.

## **8.0 HISTORIC TRANSPORTATION ROUTE**

This section presents the description for the single site in this category.

**STATE SITE 50-10-23-25800**

<b>Additional Site Numbers:</b>	
<b>Site Function:</b> Horseshoe	<b>Map Number:</b> A-3
<b>Site Dimensions:</b> 1.0 m by 1.0 m	
<b>Number of Components:</b> 1	
<b>Topographic Location:</b> Gelifluction drift	
<b>Approximate U.S.G.S. Elevation:</b> 12,408 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN013	
<b>Current Status:</b> New site.	

**DESCRIPTION:**

Site 25800 is an isolated horseshoe located on the southwest flank of an unnamed puu and approximately 200 m southwest of Site 25801, a lithic scatter (Figure \*\*). The horseshoe measures approximately  $5\frac{1}{4}$  inches long (13.3 cm), has a maximum width of about  $4\frac{1}{2}$  inches (11.4 cm), and is  $\frac{1}{4}$  to  $\frac{5}{16}$  inches thick (0.7-0.9 cm). It has a thin patina of iron oxide but otherwise is in good shape (Figure 8.1).

Four horseshoe nails are attached to one side of the shoe; one appears to be broken. The four nails have rectangular heads measuring approximately  $\frac{5}{16}$  by  $\frac{3}{16}$  inches (0.8 by 0.4 cm). The nail shafts are rectangular in cross-section, and are slightly rusted and bent. The length of the nail that is least bent is approximately  $1\frac{1}{4}$  inches (3.1 cm) and the width tapers from approximately  $\frac{3}{16}$  to  $\frac{2}{16}$  inches (0.4 to 0.3 cm).



**Top View**



**Profile View**



**Bottom View**



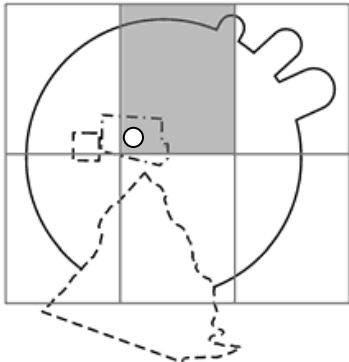
**Figure 8.1. Photographs Showing Horseshoe, Site 25800.**

## **9.0 SITES OF UNKNOWN FUNCTION**

This section presents descriptions for the three sites of unknown function.



**SITE 50-10-23-21449**

<b>Additional Site Numbers:</b> Temporary 2005-09	
<b>Site Function:</b> Unknown	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 3.0 m by 1.5 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 13,228 ft a.m.s.l.	
<b>2005 GPS File No.:</b> Garmin Pt. 025	
<b>Date First Recorded:</b> 2005	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 21449 consists of a single terrace (Feature 1), and is located approximately 200 m northwest of Site 16167 and 50.0 m east of "13 North Road." The site is located on a small gelifluction terrace on the side of a ridge. The edge of the ridge forms the east and west sides of the terrace.

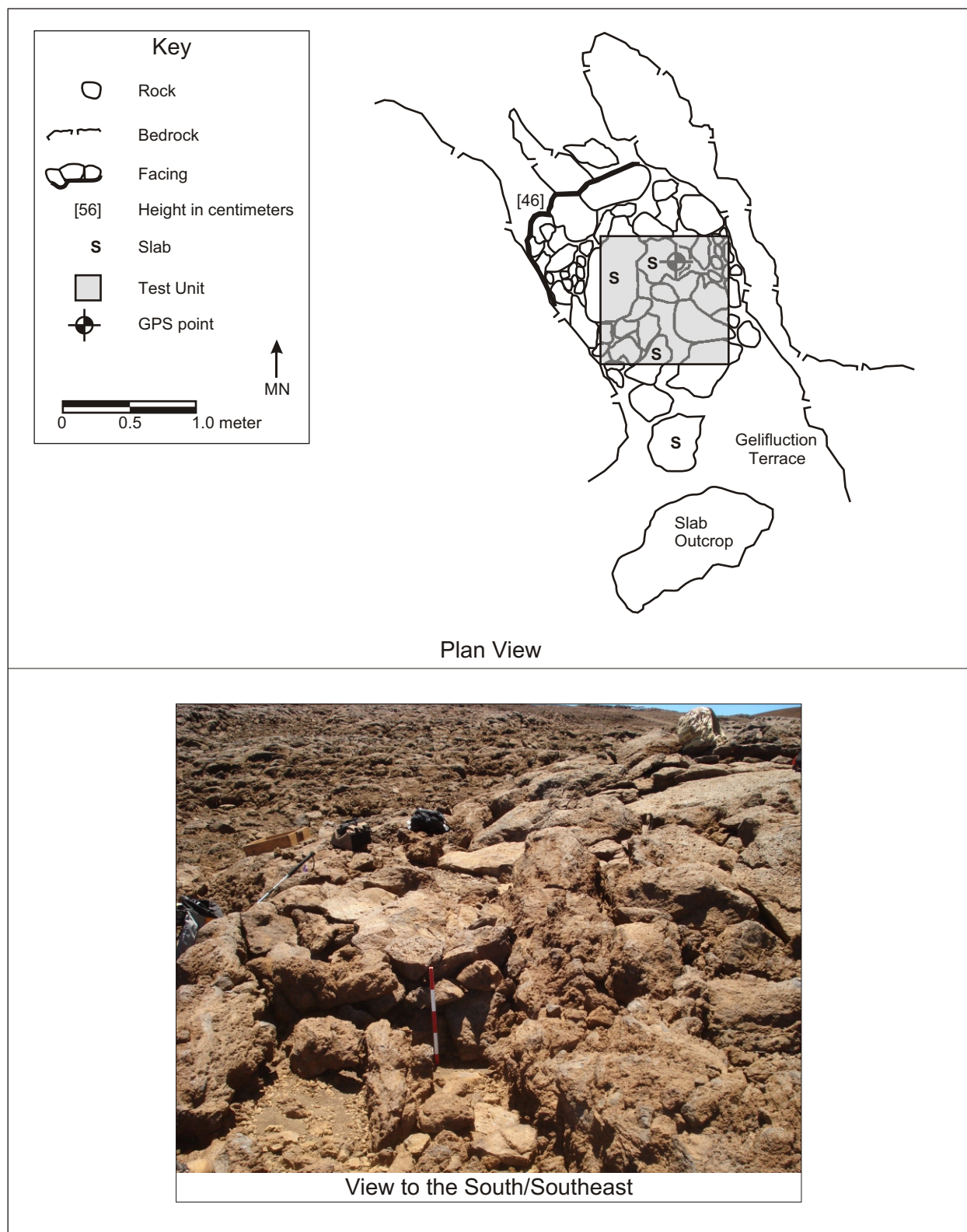
The terrace is constructed of stacked cobbles and small boulders (2-3 courses) and measures approximately 1.8 m by 1.3 m wide and 0.5 m high (Figure 9.1). The lower end on the north is faced. The terrace surface consists of cobbles, small boulders, and thin flat slabs, which do not occur in the immediate area and must, therefore, have been introduced. Soil is present along the southeast edge of the terrace. The terrace and soil area together measure 2.5 m by 1.3 m in size. No cultural material is present on the terrace or surrounding area. The function of this site is unknown.

**9.1 SITE 21449, EXCAVATION RESULTS**

This site was tested to determine the presence/absence of cultural materials and to hopefully obtain information that would aid in determining the site's function. Standard excavation and recording procedures were used during testing and included screening all excavated material in a 1/8 inch-mesh screen. Excavations were conducted by natural stratigraphic layers and arbitrary 10 cm levels within each layer. All soils and sediments were documented and described based on standard USDA soil descriptions; including soil color (Munsell 2000), texture, consistency, and plasticity (Schoenenberger et al. 1998). Color photographs were taken before, during, and after excavation.

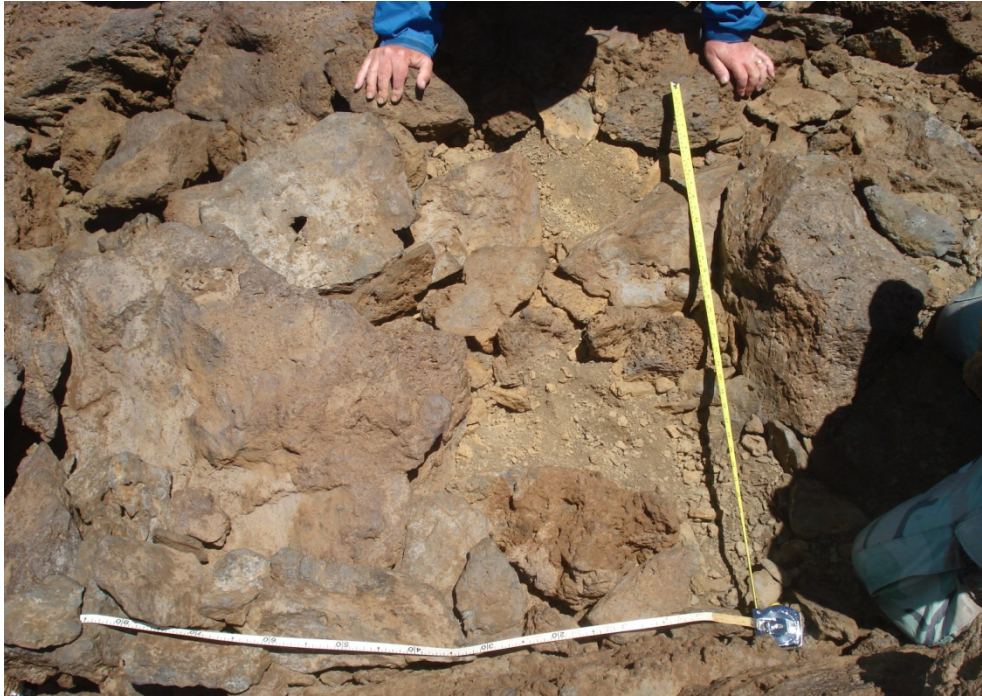
Test Unit 1 measured 1.0 m by 1.0 m and was positioned to remove a portion of the possible facing and the level area behind (south of) the facing in order to determine the presence / absence of subsurface cultural materials and features (see Figure 9.1). Surface slabs and cobbles of this feature, as well as underlying stratigraphic components, were documented.

Initially, the one to two courses of locally occurring angular basalt slabs and cobbles were removed. Two naturally occurring stratigraphic components were documented under the slabs and cobbles (see Site 21449 Stratigraphic Description from Test Unit 1 table below).



**Figure 9.1. Site 21449, Plan View and Photograph Showing Location of Test Unit (TU) 1.**





Removing surface slabs and cobbles; view to North.



Base of TU1 Excavation at Bedrock; view to North.

**Figure 9.2. Site 21449 Excavation Photographs.**

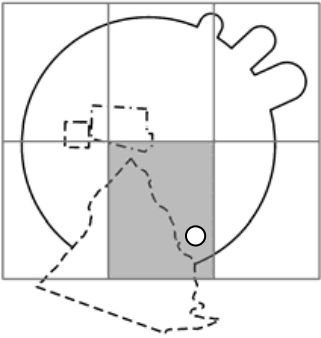
Layer I, yellowish brown silty sand, was found primarily in the southern portion of TU1. Layer II, brown to dark brown sandy silt, was encountered in the northern portion of TU1. Excavations were halted when basalt bedrock was encountered at approximately 25 centimeters below surface. A profile was not drawn due to the nature of the matrix. Figure 9.2 presents photographs of TU1 after excavation.

**Site 21449 Stratigraphic Description from Test Unit 1.**

<b>Stratigraphic Layer</b>	<b>Munsell Color (moist)</b>	<b>Description</b>	<b>Interpretation</b>
I	10YR 5/4	Yellowish brown, silty sand, slightly sticky	Natural: Buried A Horizon
II	10YR 4/3 – 3/2	Brown to dark brown, sandy silt, loose, friable	Natural: Buried B Horizon

No cultural materials or features were encountered during excavation, and no human burials or isolated human skeletal remains were present. The results of this excavation are discussed in the next section (Summary and Discussion).

**STATE SITE 50-10-23-25766**

<b>Additional Site Numbers:</b> Temporary PM2006-15	
<b>Site Function:</b> Unknown	<b>Map Number:</b> A-5
<b>Site Dimensions:</b> 25.0 m by 4.0 m	
<b>Number of Features:</b> 4	
<b>Topographic Location:</b> Cinder cone rim	
<b>Approximate U.S.G.S. Elevation:</b> 12,416 ft a.m.s.l.	
<b>2007 GPS File No.:</b> PM105	
<b>Date First Recorded:</b> 2006	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

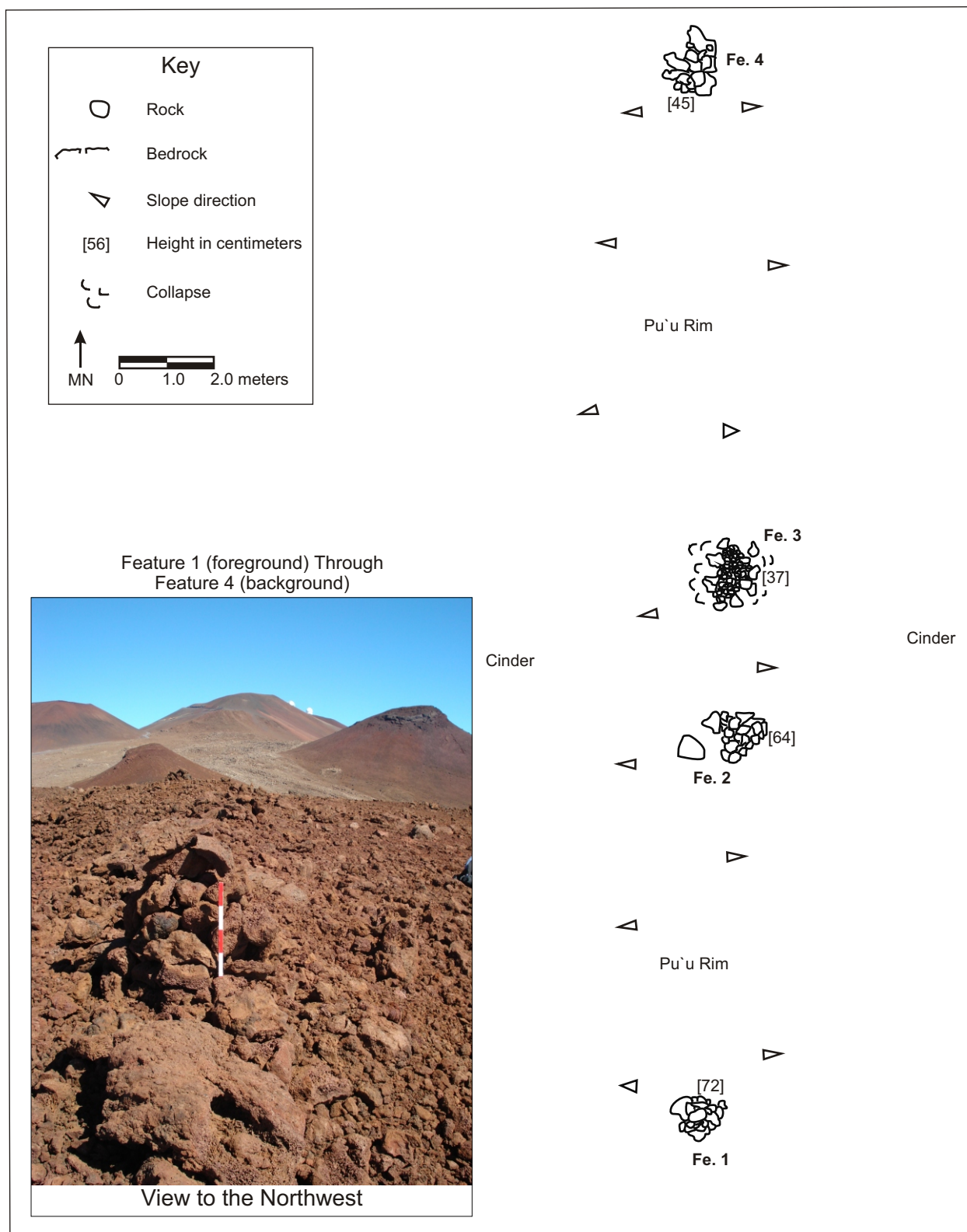
Site 25766 is a complex of four rock mounds (Features 1-4) located on the north rim of a large unnamed cinder cone located below the road to the VLBA. The mounds, which are aligned in a row on what appears to be a low pressure ridge, are 2.0 to 9.0 m apart and span a total linear distance of 24.5 m (Figure 9.3). The function and age of the mounds is unknown, but in terms of construction and overall appearance they are quite different from the three mounds that constitute Find Spot 2006.64, on the same cinder cone.

Feature 1 is the southernmost mound measuring approximately 1.0 m by 1.0 m with a height of 0.72 m. It is constructed of piled cinder blocks and appears to be intact.

Feature 2, a mound, is located approximately 7.0 m northwest of Feature 1 and is 1.0 m by 1.0 m with a height of 0.64 m. It is constructed of piled cinder blocks and appears to be intact.

Feature 3, mound, is located 2.0 m northwest of Feature 2 and is 1.5 m by 1.0 m with a height of 0.37 m. It is constructed of piled cinder and cinder blocks and appears to be disturbed with collapse along the north side.

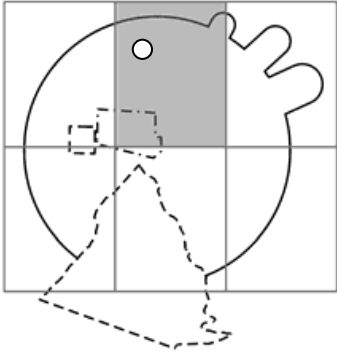
Feature 4, the northernmost mound, is located 21.0 m northwest of Feature 1 and 9.5 m northwest of Feature 3. It is 1.4 m by 1.0 m with a height of 0.45 m. It is constructed of piled cinder blocks and appears to be intact.



**Figure 9.3. Site 25766, Features 1 through 4, Plan View and Photograph.**



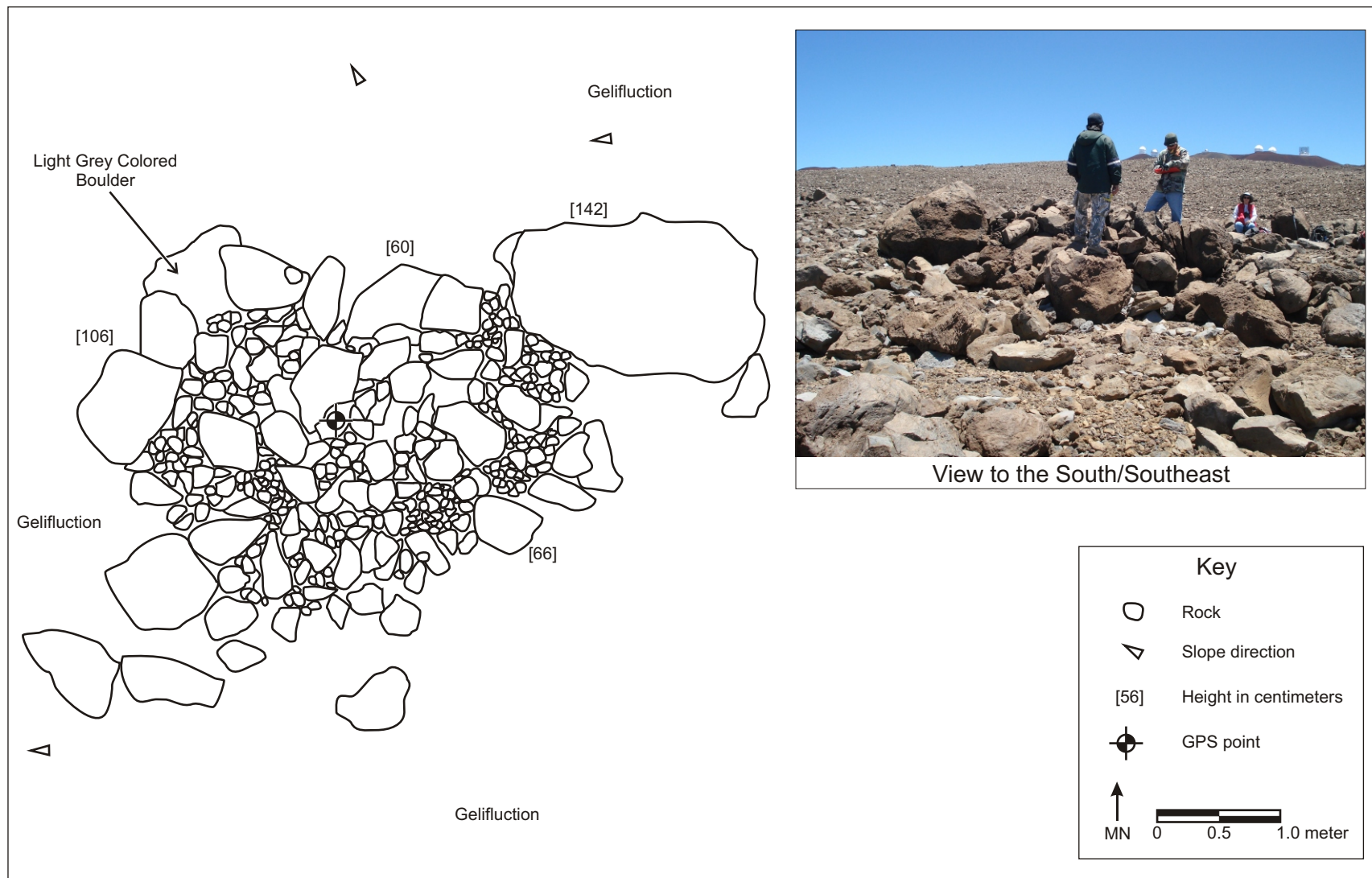
**STATE SITE 50-10-23-26230**

<b>Additional Site Numbers:</b> Temporary    RN2007-005	
<b>Site Function:</b> Unknown	<b>Map Number:</b> A-2
<b>Site Dimensions:</b> 4.0 m by 3.0 m	
<b>Number of Features:</b> 1	
<b>Topographic Location:</b> Gelifluction terrace	
<b>Approximate U.S.G.S. Elevation:</b> 12,199 ft a.m.s.l.	
<b>2007 GPS File No.:</b> RN052	
<b>Date First Recorded:</b> 2007	
<b>Current Status:</b> New site	
<b>Subsequent Site Visits:</b>	

**DESCRIPTION:**

Site 26230 is a cobble and small boulder mound constructed between two large boulders (Feature 1), and is situated on a gelifluction terrace (Figure 9.4). The mound is approximately 3.75 m by 2.0 m with a maximum height of 0.7 m.





**Figure 9.4. Site 26230, Plan View and Photograph.**

## 10.0 FIND SPOTS

In addition to the new archaeological sites found in the Mauna Kea Science Reserve (MKSR), PCSI archaeologists also recorded the locations of approximately 339 “find spots” (Table 10.1). “Find spot” is a term used by some archaeologists, generally for isolated artifacts; the term is being employed in the current project for man-made remains that are either obviously modern features (e.g., camp sites with tin cans, pieces of glass and other modern material culture items), or features that cannot be classified with any level of confidence as historic sites because of their uncertain age and function (e.g., a pile of stones on a boulder).

The number of such finds, which the State Historic Preservation Division (SHPD) first started to record in 1997 as a way of tracking changes in the cultural landscape and distinguishing old from new cultural remains (“sites”), appears to be increasing, especially in areas close to existing roads. Figures B-1 through B-6 in Appendix B presents the locations of find spots found in the MKSR. Find spot locations are also presented in Figures 5.16 and 7.1 in Volume 1 of this report.

**Table 10.1. Summary of Find Spots Found in the MKSR Since 1997**

<b>Year of Recordation</b>	<b>Number of Find Spots</b>	<b>Approximate Area of Survey (Acres)</b>
<i>1997*</i>	<i>12</i>	
2005	35	1,200
2006	189	5,744
2007	102	4,344
2008	1	N/A
<b>TOTAL</b>	<b>339</b>	<b>11,288</b>

*1997\** Survey area overlapped by more recent surveys

As seen in Table 10.1, in 2005 a total of 35 find spots were recorded in the vicinity of the Astronomy Precinct and another small survey area near the summit of Mauna Kea. In 2006 and 2007 the survey extended into the far reaches of the MKSR where a total of 291 find spots were recorded: 189 find spots in 2006 and 102 in 2007. In 2008, one additional find spot was recorded near Site 27615.

Based on the original survey work in 1997 find spots, which appeared close to roads, were believed to be related to recent activities left behind by visitors. However, the field work conducted in 2006 yielded an unexpected increase of find spots extending from the VLBA area to Pu`u Mekanaka. The increase, in isolated areas away from roads, has required additional thought as to what “Find Spots” represent. It is clear that a majority of find spots near the road are recent additions. For example, Find Spot PM2006.46 had a bouquet of red roses, crystals, and branch coral (Figure 10.1) to the traditional cultural landscape but the find spots extending to the boundaries of the Science Reserve may actually have pre-Contact and Historic Period origins.

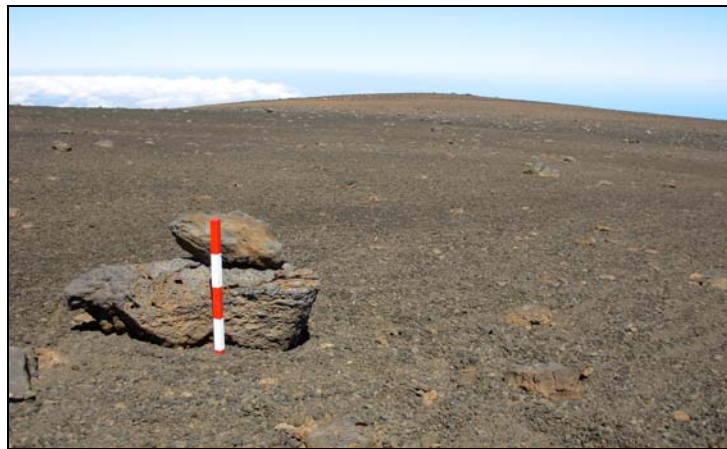
The appearance of more and more “find spots,” which have been plotted on maps based on GPS readings, briefly described, and numbered sequentially in the year they are discovered (e.g., 1997.05; 2005.01), appears to be directly related to the increased use of the summit region by visitors and native Hawaiian practitioners, some



Roses, Crystal, and Coral at Site 11079 (FS PM2006.46)



Rocks Stacked on Small Boulder (FS RN2006.08)



Single Cobble Placed on Small Boulder (FS PM2006.03)

**Figure 10.1 Examples of Find Spots in the Mauna Kea Science Reserve.**

of whom are either modifying existing sites or constructing new features to memorialize their visit to the top of the mountain or to perform ritual activities. The newly constructed features could in time become part of the archaeological record of the Science Reserve. One such area is the terminus of the “13 North Road,” where two single uprights were found in close proximity to the road and the recently installed test telescope and other equipment. No archaeological sites have ever been found at this location in past surveys and during recent field inspections by SHPD staff archaeologists as part of the compliance process for the installation of the new equipment.

The area that has changed most dramatically since the last field survey by SHPD, in 1997, is along the east side of the summit access road, between the road to the Very Long Base Array (VLBA) and the parking lot below the summit and Pu’u Hau Kea. Several sites in this area have been altered, such as Site 16199, a shrine where one of the fallen uprights has been raised and placed in a highly visible location. At Site 16203, an isolated adze manufacturing workshop with an associated shrine, several of the artifacts observed on the shrine in 1984 (McCoy 1984), have been removed. In addition, a pile of cobbles (marker) placed above a nearby overhang appear to be marking the location of several adze preforms. Portions of Site 16204, located adjacent to the summit road, has experienced the most changes, probably due to its easy accessibility and the highly visible uprights on one “restored” shrine, which undoubtedly attracts more attention. Though outside the current project area, changes to features at Lake Waiau were observed by PCSI crew during a weekend hike.

Table 10.2 summarizes the 339 find spots currently documented in the Mauna Kea Science Reserve.

#### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
1997.04	B-1	12,883	Two (2) rocks	Marker/PM2006.05
1996.06	B-1	12,977	Single upright leaning on boulder	Modern Shrine/PM2006.02
1997.07	B-1	13,212	Stacked (2) rocks on a boulder	Marker
1997.11	B-2	12,795	Stacked (2) rocks on an outcrop	Unknown
1997.12	B-2	12,917	Leaning stone	Unknown
1997.13	B-2	13,027	Stone slabs on outcrop	Unknown
1997.15	B-2	12,894	Stacked (2) rocks on outcrop	Marker
1997.17	B-2	12,416	Stacked (4) rock on boulder	Marker/RN2006.06
1997.18	B-5	12,375	Single rock on boulder	Marker/RN2006.068
1997.19	B-5	12,282	Stacked (9) rocks on a boulder	Marker
1997.20	B-5	12,969	Filled areas (2) on outcrop	Unknown
1997.21	B-5	12,991	Overhang with stacked rock wall	Temporary shelter
2005.01	B-2	13,264	C-shape at Site 21209	Temporary shelter

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
2005.02	B-1	12,965	Stacked rocks	Marker
2005.03	B-2	13,247	Stacked (3) rocks	Marker
2005.04	B-2	13,213	<i>Same as 1997.07, Stacked rocks</i>	Marker
2005.05	B-1	13,205	Stacked rocks	Marker
2005.06	B-1	13,132	Possible upright	Unknown
2005.07	B-1	13,010	Possible uprights	Unknown
2005.08	B-1	13,144	Two uprights near weather station	Unknown
2005.09	B-1	12,875	Stacked rocks	Marker
2005.10	B-2	13,264	Air Force drone	Surveillance plane?
2005.11	B-2	12,703	Stacked (3) rocks on ridge toe	Marker, same as PM2007.01?
2005.12	B-2	13,332	Stacked boulders on whaleback ridge	Marker
2005.13	B-2	12,930	Stacked (4) rocks on a boulder	Marker
2005.14	B-2	12,923	Stacked (4) rocks on a boulder	Marker
2005.15	B-2	12,947	Stacked (2) rocks	Marker
2005.16	B-2	13,094	Stacked (3) rocks	Marker
2005.17	B-2	12,974	Stacked (8) rocks on a boulder/piled rock against a boulder, over shallow overhang	Marker
2005.18	B-2	12,975	Piled rock	Marker
2005.19	B-5	12,529	Stacked (4) rocks on a boulder and 2 rocks on an outcrop	Marker
2005.20	B-5	12,286	Stacked (2) rocks on a boulder	Marker
2005.21	B-5	13,009	Stacked rocks	Marker
2005.22	B-5	12,938	Stacked rocks	Marker
2005.23	B-5	12,863	Stacked rocks	Marker
2005.24	B-5	12,826	Stacked rocks	Marker
2005.25	B-5	12,793	Stacked (4) rocks on a boulder	Marker
2005.26	-	12,000	Stacked (2) rocks on a boulder	Marker
2005.27	-	12,000	Stacked linear mound	Unknown
2005.28	-	12,000	Stacked rocks	Marker
2005.29	-	12,000	Stacked rocks	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
2005.30	-	12,000	Stacked rocks on a boulder	Marker
2005.31	B-5	12,769	Stacked (5) rocks with orange spray paint on one	Marker
2005.32	B-5	12,776	Single upright abutting a boulder	Unknown
2005.33	-	12,000	Single upright	Unknown
2005.34	B-5	12,839	Stacked (3) rocks	Marker
2005.35	B-5	12,505	Stacked (5) rocks on a boulder	Marker
2005.36	B-5	12,534	Rock placed upright on a boulder	Marker
PM2006.01	B-1	13,073	Two (2) stacked rock on boulder	Marker
<i>PM2006.02</i>	<i>B-1</i>	<i>12,977</i>	<i>Single upright leaning on boulder</i>	<i>Modern shrine?/1997.06. Located within the Natural Area Reserve (NAR) boundary</i>
PM2006.03	B-1	12,848	Single rock on boulder	Marker
PM2006.04	B-1	12,731	Support rocks and wood	Surveyor's marker
<i>PM2006.05</i>	<i>B-1</i>	<i>12,883</i>	<i>Two (2) rocks</i>	<i>1997.04</i>
PM2006.06	B-1	11,795	Six (6) rocks next to boulder	Unknown
PM2006.07	B-1	11,792	Three (3) rocks on boulder	Marker
PM2006.08	B-1	12,493	Four (4) rocks	Marker
PM2006.09	B-5	12,102	Upright on soil	Unknown
PM2006.10	B-6	11,895	Seven (7) piled rocks on boulder	Marker
PM2006.11	B-6	11,908	Two (2) rocks on boulder	Marker
PM2006.12	B-5	12,159	Single rock on boulder	Marker
PM2006.13	B-5	12,159	Three (3) rocks on boulder	Marker
PM2006.14	B-5	12,134	Single rock on boulder	Marker
PM2006.15	B-5	12,126	Single rock on boulder	Marker?
PM2006.16	B-6	11,931	Single rock on boulder	Marker?
PM2006.17	B-6	11,926	Single rock on boulder	Marker?
PM2006.18	B-6	11,902	Single rock on boulder	Marker?
PM2006.19	B-6	11,909	Single rock on boulder	Marker??
PM2006.20	B-6	11,863	Single rock on boulder	Marker?
PM2006.21	B-6	11,800	Seven (7) rocks on two boulders	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
PM2006.22	B-6	11,808	Two (2) rocks on boulder	Marker
PM2006.23	B-6	11,792	Six (6) rocks on boulder	Marker
PM2006.24	B-6	11,810	Two (2) rocks on boulder	Marker
PM2006.25	B-6	11,811	Single rock on each boulder(2)	Marker?
PM2006.26	B-6	11,880	Single rock on boulder	Marker?
PM2006.27	B-6	11,883	Single rock on boulder	Marker?
PM2006.28	B-6	11,940	Four (4) rocks on boulder	Marker
PM2006.29	B-6	12,036	Cluster of Find Spots	Marker?
PM2006.30	B-5	12,073	Cluster of Find Spots on a ridge below Pu'u Lilinoe	Marker?
PM2006.31	B-5	12,160	Single Rock on boulder adjacent to Site PM2006-02 (lithic scatter)	Modern site marker?
PM2006.32	B-2	12,421	Single rock on boulder	Marker?
PM2006.33		12,415	Single rock on boulder	Marker?
PM2006.34		12,453	Stacked rock on boulder	Marker/Cairn
PM2006.35		12,129	Three (3) rocks on boulder	Marker
PM2006.36		11,957	Four (4) rocks on boulder	Marker
PM2006.37	B-6	11,993	Single rock on boulder	Marker
PM2006.38	B-6	12,052	Three (3) rocks on boulder	Marker
PM2006.39	B-6	12,108	Two (2) rocks on boulder	Marker/same as RN2006.024
PM2006.40	B-6	12,049	Three (3) rocks on boulder	Marker
PM2006.41	B-2	12,788	Two (2) rocks on boulder	Marker
PM2006.42	B-6	11,970	Seven (7) rocks on boulder	Marker
PM2006.43	B-5	12,793	Four (4) rocks on boulder	Marker
PM2006.44	B-5	12,754	Nine (9) rocks on boulder	Marker
PM2006.45	B-5	12,754	Four (4) rocks on boulder	Marker
PM2006.46	B-5	12,256	Two (2) rocks on boulder with roses, ti leaf, a crystal, and a heart-shaped piece of coral	Modern shrine
PM2006.47	B-2	12,869	Three (3) rocks on boulder	Marker
PM2006.48	B-2	12,679	Six (6) rocks, two (2) stacked on boulder	Marker



### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
PM2006.49	B-2	12,870	Single upright, no support stones	Unknown
PM2006.50	B-5	12,744	Single rock on boulder with three (3) stacked rocks next to boulder	Unknown
PM2006.51	B-5	12,191	Vertically oriented stone on boulder	Modern shrine
PM2006.52	B-6	11,949	Cluster of four (4) find spots, including one (1) with a rounded stone boulder	Markers?
PM2006.53	B-6	11,891	Two (2) stacked rocks on boulder	Marker
PM2006.54	B-6	11,829	Single rock on boulder	Marker
PM2006.55	B-6	11,845	Single Rock on boulder	Marker
PM2006.56	B-6	11,818	Two (2) rocks on boulder	Marker
PM2006.57	B-6	11,814	Two (2) stacked rocks on boulder	Marker
PM2006.58	B-5	12,276	Two (2) stacked rocks and three to four (3-4) piled rocks on outcrop	Marker?
PM2006.59	B-6	11,829	Seven (7) stacked rocks on ridgetop	Marker
PM2006.60	B-5	12,179	Two (2) boulders, one with two (2) stones on top, the second with seven (7) stones	Marker
PM2006.61	B-5	12,035	Four (4) stacked rocks on ridgetop	Marker?
PM2006.62	B-5	11,825	Two (2) stacked rocks on boulder	Marker
PM2006.63	B-5	11,757	Two (2) rocks on boulder	Marker
PM2006.64	B-5	12,416	Ten (10) piled rocks on glacial outwash plain ca. 5 m north of Site PM2006-15	Modern site marker?
PM2006.65	B-5	12,390	Three (3) mounds of piled rocks, two to three (2-3) meters	Markers
PM2006.66	B-5	12,417	name "Adam" spelled out with rocks on summit of cinder cone	Memorial marker
PM2006.67	B-2	12,333	Two (2) adjacent boulders with two (2) piled rocks on one and four (4) on the other	Marker
PM2006.68	B-2	12,323	Two (2) adjacent boulders with two (2) rocks on one and four (4) on the other	Marker
PM2006.69	B-2	12,284	Six (6) piled rocks on boulder	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
PM2006.70	B-3	12,214	Five (5) piled stones on boulder	Marker
RN2006.01	B-1	12,975	Single rock on boulder	Marker? Located within the NAR
RN2006.02	B-1	12,821	Wood and metal	Surveyors marker
RN2006.03	B-1	12,009	Rock alignment	Hunters blind?
RN2006.04	B-1	12,002	Rock alignment	Hunter blind?
RN2006.05	B-5	12,867	Single rock on boulder	Marker
<i>RN2006.06</i>	<i>B-5</i>	<i>12,416</i>	<i>Four (4) stacked rock on small boulder</i>	<i>Marker/ 1997.017</i>
RN2006.07	B-3	12,268	Seven (7) piled rock on boulder	Marker
RN2006.08	B-3	12,092	Three (3) features: 1= single rock on boulder 2 = Three (3) rock on boulder one is upright with the other two on top 3= four (4) rock on boulder	Recent shrine or marker
RN2006.09	B-3	12,089	Three (3) rocks next to boulder (rock are light grey in color)	Unknown
RN2006.10	B-3	12,078	Fifteen plus (15+) slabs and rock on boulder; one aluminum can present	Disturbed shrine?
RN2006.11	B-3	11,943	Two (2) rock on boulder	Marker
RN2006.12	B-3	12,101	Two rock on boulder	Marker
RN2006.13	B-5	12,557	Single rock on boulder	Marker
RN2006.14	B-5	12,159	Three (3) rocks on boulder	Marker
RN2006.15	B-5	12,134	Two (2) rocks on boulder	Marker
RN2006.16	B-5	12,095	Eleven (11) rocks on boulder	Marker?
RN2006.17	B-6	11,903	Three (3) mounds with wood and metal	Surveyors markers
RN2006.18	B-6	11,818	Single rock on boulder	Marker
RN2006.19	B-6	11,805	Single rock on boulder	Marker?
RN2006.20	B-6	11,832	Two (2) rocks on boulder	Marker
RN2006.21	B-6	11,855	Three (3) rocks on boulder; two additional spots N and NE	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
RN2006.22	B-6	11,838	Four (4) features: 1= 13 rocks on boulder [6 are slabs] 2= single rock on boulder 3 = four rocks on boulder and 4 = 11 rocks on boulder [7 are light grey in color]	Unknown
RN2006.23	B-6	11,846	Single rock on boulder	Marker
RN2006.24	B-6	12,000	Two (2) stacked rocks on boulder	Marker
RN2006.25	B-6	12,044	Two (2) stacked rocks on boulder (another spot west ~25 m)	Marker
RN2006.26	B-6	12,028	Thirty plus (30+) rocks on boulder	Marker
RN2006.27	B-6	12,044	Six plus (6+) single cobble on boulder spots in this area	Unknown
RN2006.28	B-5	12,090	Single rock on boulder (another spot downslope [SE])	Marker
RN2006.29	B-5	12,124	One (1) cobble on boulder	Marker
RN2006.30	B-5	12,159	Three (3) rocks on boulder	Marker?
RN2006.31	B-6	12,098	Single rock on boulder	Marker?
RN2006.32	B-6	11,945	Single rock on boulder	Marker?
RN2006.33	B-6	11,936	Thirteen plus (13+) pebbles and cobbles and boulder	Unknown
RN2006.34	B-6	11,901	Two rocks on outcrop	Unknown
RN2006.35	B-6	11,852	Two (2) stacked rock on boulder	Marker
RN2006.36	B-6	11,814	Three (3) rocks on boulder; two (2) are stacked	Marker
RN2006.37	B-6	11,755	Single rock on boulder	Marker
RN2006.38	B-6	11,797	Single rock on boulder	Marker
RN2006.39	B-6	11,774	Four features: three are single rocks on boulder and one has 25 pebbles and cobbles on a boulder	Modern marker?
RN2006.40	B-6	11,776	Three (3) rocks and a slab on boulder: another spot is E/NE (15 m) and is a single rock on boulder	Marker, possibly a shrine
RN2006.41	B-6	11,861	Two (2) rocks on boulder; Adze blank found here. Another spot is 30 m downslope and looked like a single on boulder	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
RN2006.42	B-6	11,886	Single rock on boulder	Marker
RN2006.43	B-6	11,881	Two (2) stacked rocks on boulder	Marker
RN2006.44	B-6	11,883	Single rock on boulder	Marker
RN2006.45	B-6	11,891	Two (2) rocks on boulder; two additional spots S and N. Each has 2-3 rocks on a boulder	Marker
RN2006.46	B-6	11,975	Single light grey slab on boulder	Unknown
RN2006.47	B-6	11,199	Single rock on outcrop	Unknown
RN2006.48	B-6	11,995	Two (2) stacked cobbles on gelifluction terrace	Unknown
RN2006.49	B-6	12,002	Single rock on boulder and four (4) rocks on second boulder	Markers
RN2006.50	B-6	12,015	Single rock on boulder	Marker?
RN2006.51	B-5	12,160	Single rock on boulder	Marker?
RN2006.52	B-2	12,429	Several single rocks on whaleback ridge	Markers?
RN2006.53	B-3	12,382	Two (2) rocks on outcrop	Unknown
RN2006.54	B-3	12,350	Two (2) stacked rocks on boulder	Marker
RN2006.55	B-3	12,300	Two (2) stacked rocks on boulder	Marker
RN2006.56	B-3	12,070	Two single rocks on boulders with rusted cans (sardine and pork and beans – key openers for the bean cans. Stick wedged between boulder and rocks	Historic markers?
RN2006.57	B-6	12,067	Six (6) pebbles and cobbles on small boulder	Unknown
RN2006.58	B-6	12,114	Two (2) stacked small boulders	Unknown
RN2006.59	B-6	12,188	Two (2) stacked rocks on boulder	Marker
RN2006.60	B-6	12,145	Single rock on boulder	Marker?
RN2006.61	B-6	12,145	Single rock on boulder	Marker?
RN2006.62	-	12,250	Single rock on boulder and 2-3 rocks on second boulder	Unknown/No GPS data
RN2006.63	B-2	13,176	Two (2) stacked rocks on boulder	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
RN2006.64	B-2	12,856	Nine (9) rocks on boulder, second boulder has three (3) rocks	Markers?
RN2006.65	B-2	12,796	Two (2) stacked rocks on boulder	Marker
RN2006.66	B-2	12,684	Single (large) tabular slab broken into three pieces	Unknown
RN2006.67	B-2	12,686	Single rock on small boulder	Unknown
<i>RN2006.68</i>	<i>B-5</i>	<i>12,375</i>	<i>Single rock on boulder</i>	<i>Unknown/Same 1997.018</i>
RN2006.69	B-5	12,315	Multiple find spots – rocks on boulders	Markers
RN2006.70	B-5	12,303	Eleven (11) rocks on boulder, three additional find spots with 1-2 rocks on boulders nearby	Markers
RN2006.71	B-2	12,752	Eight (8) rocks on red-colored boulder	Marker
RN2006.72	B-2	12,645	Ten (10) piled rocks on outcrop	Marker
RN2006.73	B-2	12,673	Six (6) rocks (three cobbles and three pebbles) on boulder	Unknown
RN2006.74	B-2	12,808	Two (2) stacked rocks on outcrop	Unknown
RN2006.75	B-2	12,574	Two (2) stacked rocks on small boulder	Unknown
RN2006.76	B-6	11,842	Piled rock on boulder	Marker
RN2006.77	B-6	11,842	One (1) rock on boulder	Marker
RN2006.78	B-5	11,848	Piled rock on boulder	Marker
RN2006.79	B-5	11,524	Piled rock on boulder	Marker
RN2006.80	B-5	12,192	Two (2) rocks on boulder	Marker
RN2006.81	B-5	11,993	Stacked rock on boulder	Marker
RN2006.82	B-5	11,837	Two (2) rocks on boulder	Marker
RN2006.83	B-5	11,809	Piled rock on boulder	Recent marker?
RN2006.84	B-5	12,237	Seven (7) FS of recent construction	Reported to be a site used currently by cultural practitioners
RN2006.85	-	12,335	Changed to Site RN2006.44	Adze preform
RN2006.86	B-5	12,260	Piled rock on boulder	Marker
RN2006.87	B-5	12,974	Two (2) rocks on boulder	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
RN2006.88	B-5	12,918	1 (1) rock on boulder	Marker
RN2006.89	B-3	12,406	Cairn, stake, pins, stakes, and wire	Survey marker
RN2006.90	B-2	12,352	U-shaped enclosure w/ rusted cans	Historic temporary shelter
RN2006.91	B-3	12,339	Boulder with four (4) cobbles on top with a wooden pole placed against the boulder	Marker
RN2006.92	B-3	12,234	Boulder with four (4) cobbles on top	Marker
RN2006.93	B-2	12,364	Wall with cleared area east of wall	Temporary shelter
RN2006.94	B-3	12,649	Cairn with pole in center	Marker
RN2006.95	B-3	12,645	Cairn with pole in center	Marker
RN2006.96	B-2	12,335	Boulder with scattered cobbles	Marker
RN2006.97	B-3	12,590	Mound	Unknown
RN2006.98	B-2	12,524	Four (4) cobbles holding down a piece of aluminum	Marker
RN2006.99	B-3	12,131	Piled rock on boulder	Marker
RN2006.100	B-3	12,196	Boulder with two (2) cobbles stacked on top	Marker
RN2006.101	B-3	11,976	Boulder with five (5) cobbles on top and a possible fallen upright at the base of the boulder	Marker
RN2006.102	B-3	12,215	Boulder with two (2) cobbles stacked on top	Marker
RN2006.103	B-3	12,235	Boulder with 13 cobbles on top	Marker
RN2006.104	B-3	12,283	Enclosure	Temporary shelter
RN2006.105	B-2	12,441	Two (2) rocks on boulder	Marker
RN2006.106	B-3	12,043	Two (2) FS: 1) is a boulder with five (5) cobbles on top 2) a split boulder with seven (7) cobbles piled in crack	Markers
RN2006.107	B-3	11,963	Stacked rocks on boulder	Marker
RN2006.108	B-3	12,162	Boulder with five (5) cobbles on top	Marker
RN2006.109	B-2	12,802	Rock pile with two (2) sticks	Marker
RN2006.110	B-2	12,488	Small boulder with four (4) stacked cobbles on top	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
RN2006.111	B-2	12,406	Boulder with seven (7) cobbles on top	Marker
RN2006.112	B-2	12,346	Boulder with two (2) cobbles on top	Marker
RN2006.113	B-3	11,745	Boulder with two (2) cobbles on top	Marker
RN2006.114	B-3	12,005	Rock pile with lava bomb on top	Marker
RN2006.115	B-3	11,997	Mound	Unknown
RN2006.116	B-3	11,990	Mound with two (2) sticks	Unknown
RN2006.117	B-3	12,034	Rock pile	Unknown
RN2006.118	B-3	12,327	Boulder with two (2) cobbles on top	Marker
RN2006.119	B-2	11,766	Two rock mounds	Unknown
RN2006.120	B-2	11,968	Mound with cobbles on top	Marker
RN2006.121	B-2	11,761	Boulder with three (3) cobbles on top. Possible flake on north side of boulder	Marker
RN2006.122	B-2	12,014	Boulder with two (2) cobbles on top	Marker
RN2006.123	B-5	13,009	Cairn with slab on end on top	Recent marker
RN2006.124	B-2	12,465	Eight (8) cobbles stacked on boulder	Marker
RN2006.125	-	11,963	Enclosure	Temporary shelter. After review made into a site (Site 27580)
PM2007.01	B-2	12,416	Upright-like cobble supported by two cobbles	Marker
PM2007.02	B-2	12,099	Two cobbles on low angular boulder	Marker
PM2007.03	B-2	11,867	Two cobbles on small boulder	Unknown
PM2007.04	B-2	11,748	Two large cobbles and three medium cobbles on flat, low boulder	Unknown
PM2007.05	B-2	12,055	Two flat cobbles and one angular cobble on boulder	Unknown
PM2007.06	B-2	12,042	Two large cobbles on flat boulder	Unknown
PM2007.07	B-2	12,060	Five medium cobbles on medium boulder	Marker
PM2007.08	B-2	12,035	Four cobbles/small boulders on large boulders	Marker
PM2007.09	B-2	11,969	Four cobbles and a few pebbles on large boulder	Unknown



### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
PM2007.10	B-2	11,939	Two large cobbles on outcropping	Unknown
PM2007.11	B-1	12,628	Three cobbles on boulder	Marker
PM2007.12	B-1	12,970	Two sets of stacked cobbles on outcropping	Unknown
PM2007.13	B-1	12,972	Three cobbles on small boulders	Marker
PM2007.14	B-4	12,954	Eight to ten cobbles stacked on boulder	Marker
PM2007.15	B-4	12,816	Six cobbles stacked on outcropping	Marker
PM2007.16	B-4	12,727	Seventeen cobbles piled on outcropping	Marker
PM2007.17	B-4	12,434	Two find spots: cobbles on boulders	Markers
PM2007.18	B-4	12,946	Two large cobbles stacked on boulder	Marker
PM2007.19	B-2	13,525	Five cobbles on boulder	Marker
PM2007.20	B-2	13,472	Seven cobbles piled on outcropping	Unknown
PM2007.21	B-4	12,764	Five cobbles stacked on boulder	Marker
PM2007.22	B-4	12,720	Three cobbles stacked on outcropping	Marker
PM2007.23	B-4	12,655	Four cobbles stacked on outcropping	Marker
PM2007.24	B-4	12,561	Three cobbles stacked on boulder	Marker
PM2007.25	B-4	11,602	Three cobbles stacked on outcropping	Marker
PM2007.26	B-4	12,484	Three cobbles stacked on outcropping	Marker. Located within the NAR
PM2007.27	B-4	11,766	Three cobbles on boulder	Marker
PM2007.28	B-4	11,966	Two cobbles stacked on boulder	Marker
PM2007.29	B-4	11,959	Two find spots: cobbles stacked on two boulders	Marker
PM2007.30	B-4	11,975	Three cobbles stacked on boulder	Marker
PM2007.31	B-4	11,911	Three cobbles stacked on boulder	Marker
PM2007.32	B-4	12,045	Seven cobbles on boulder	Marker
PM2007.33	B-4	12,346	Two cobbles on boulder	Marker
PM2007.34	B-4	12,289	Fifteen cobbles piled on boulder	Marker
PM2007.35	B-4	12,621	Two cobbles piled on outcropping	Unknown

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
PM2007.36	B-4	12,533	Six cobbles piled on boulder	Marker
PM2007.37	B-2	12,793	Four cobbles stacked on boulder	Marker
RN2007.01	B-2	12,830	Cobbles scattered on boulder	Marker?
RN2007.02	B-2	11,997	Four cobbles, one small boulder, and one slab on boulder	Marker
RN2007.03	B-2	12,802	Two cobbles stacked on flat slab	Marker
RN2007.04	B-2	11,809	Wall-like structure	Shelter
RN2007.05	B-2	11,857	Four cobbles piled on boulder	Marker
RN2007.06	B-2	12,052	Six cobbles piled on boulder	Marker
RN2007.07	B-2	12,033	Two cobbles on boulder	Marker
RN2007.08	B-2	12,015	Two cobbles stacked on boulder	Marker
RN2007.09	B-2	11,923	Camping gear: tent, sleeping mat, sleeping bag, and one plastic bottle	Recent activity: Camp site
RN2007.10	B-2	12,160	Two cobbles piled on boulder	Unknown
RN2007.11	B-2	12,341	Two cobbles on boulder with a tabular slab on the ground	Unknown
RN2007.12	B-2	12,318	Seventeen cobbles piled on boulder	Marker
RN2007.13	B-2	12,588	Single cobble on boulder visible from a distance	Marker
RN2007.14	B-2	12,670	Eight cobbles piled on boulder	Marker
RN2007.15	B-1	11,815	90-100 cobbles piled	Marker
RN2007.16	B-1	11,877	Two cobbles piled on boulder	Unknown
RN2007.17	B-1	11,930	Three cobbles stacked on boulder	Marker
RN2007.18	B-1	12,043	Two cobbles piled small boulder	Marker
RN2007.19	B-1	11,858	Two cobbles on large boulder	Marker
RN2007.20	B-1	12,160	Five cobbles piled on large boulder	Marker
RN2007.21	B-1	12,093	Fifteen cobbles piled on medium boulder	Marker
RN2007.22	B-1	12,088	Seven cobbles stacked on large boulder. A 2 <sup>nd</sup> FS nearby	Markers
RN2007.23	B-1	12,052	Eight cobbles piled on small boulder	Marker
RN2007.24	B-1	12,121	Seven cobbles piled on outcropping	Marker
RN2007.25	B-1	12,266	Five cobbles stacked on outcropping	Marker
RN2007.26	B-1	12,331	Four cobbles piled on large boulder	Marker

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
RN2007.27	B-1	12,330	Eleven cobbles piled on large boulder	Marker
RN2007.28	B-1	12,605	Two cobbles on outcropping	Unknown
RN2007.29	B-1	12,598	Five slabs stacked on low flat boulder	Marker
RN2007.30	B-5	13,120	Eleven cobbles piled on outcropping	Marker
RN2007.31	B-4	12,883	Two cobbles stacked on outcropping	Marker
RN2007.32	B-1	13,610	Thirty+ cobbles and small boulders piled on cinder (recent offering present)	Recent activities
RN2007.33	B-1	13,551	Alignment of cobbles forming an enclosure	Activity area?
RN2007.34	B-4	12,877	Two cobbles stacked on small boulder	Marker
RN2007.35	B-4	12,797	Two cobbles stacked on small boulder	Marker
RN2007.36	B-4	12,697	Three flat slabs stacked on outcropping	Marker
RN2007.37	B-4	12,672	Six cobbles dispersed on outcropping	Unknown
RN2007.38	B-4	12,603	Three cobbles piled on medium boulder	Marker
RN2007.39	B-4	12,562	Two find spots: stacked cobbles on outcropping	Markers
RN2007.40	B-4	12,707	Five slabs stacked on outcropping	Marker
RN2007.41	B-4	12,610	Six cobbles piled on small boulder	Marker
RN2007.42	B-4	12,448	Two cobbles stacked on small boulder	Marker. Located within the NAR
RN2007.43	B-4	11,967	Three cobbles piled on large boulder. Two other FS nearby. One pair of Army issued boots observed	Recent use of area
RN2007.44	B-4	11,971	Eight cobbles stacked on small boulder	Marker
RN2007.45	B-4	11,887	Three cobbles piled on large boulder	Marker
RN2007.46	B-4	12,408	Seven cobbles stacked on large boulder. A stick is placed in the center	Recent activity
RN2007.47	B-4	12,288	Two find spots: cobbles stacked on boulders	Probably recent

### Find Spots Recorded in the Mauna Kea Science Reserve.

Find Spot No.	Map Number	Elevation (Ft. AMSL)	Description	Function
RN2007.48	B-4	12,270	Thirty six cobbles stacked on large boulder. A towel is placed on south side with 12 cobbles holding the towel in place	Recent activity
RN2007.49	B-4	12,278	Three cobbles piled on boulder	Marker
RN2007.50	B-4	12,372	Three cobbles stacked on boulder	Marker
RN2007.51	B-4	12,340	Three cobbles stacked on boulder	Marker
RN2007.52	B-4	12,407	Four cobbles piled on boulder	Marker
RN2007.53	B-4	12,390	Five cobbles stacked on boulder	Marker
RN2007.54	B-4	12,558	Two cobbles on boulder	Unknown
RN2007.55	B-4	12,617	Eight cobbles piled on outcropping. Rusty can nearby	Recent activity
RN2007.56	B-4	12,419	Four cobbles stacked on small boulder	Marker
RN2007.57	B-6	11,704	Five cobbles piled on large boulder	Marker
RN2007.58	B-6	11,686	Three cobbles piled on medium boulder	Marker
RN2007.59	B-6	11,595	Three cobbles piled on boulder	Marker
RN2007.60	B-6	11,602	Three cobbles piled on boulder	Marker
RN2007.61	B-6	11,598	Four cobbles on boulder	Marker
RN2007.62	B-6	11,603	Two cobbles stacked on large boulder	Marker
RN2007.63	B-6	11,660	Four cobbles piled on large boulder	Marker
RN2007.64	B-6	11,597	Seven cobbles piled on boulder	Marker
RN2007.65	B-6	11,631	Two find spots: cobbles piled on two large boulder	Marker
RN2008.01	B-4	11,849	Enclosure measuring 3.3 by 3.2 m	Temporary habitation

Due to a GPS malfunction data was lost for Find Spots 2005.26 through 2005.30 and 2005.33. Because of this their locations do not appear on the maps.

*Italicized find spots were recorded in 1997*

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## APPENDIX A

### **Sectional Maps Showing Locations of Archaeological Sites**

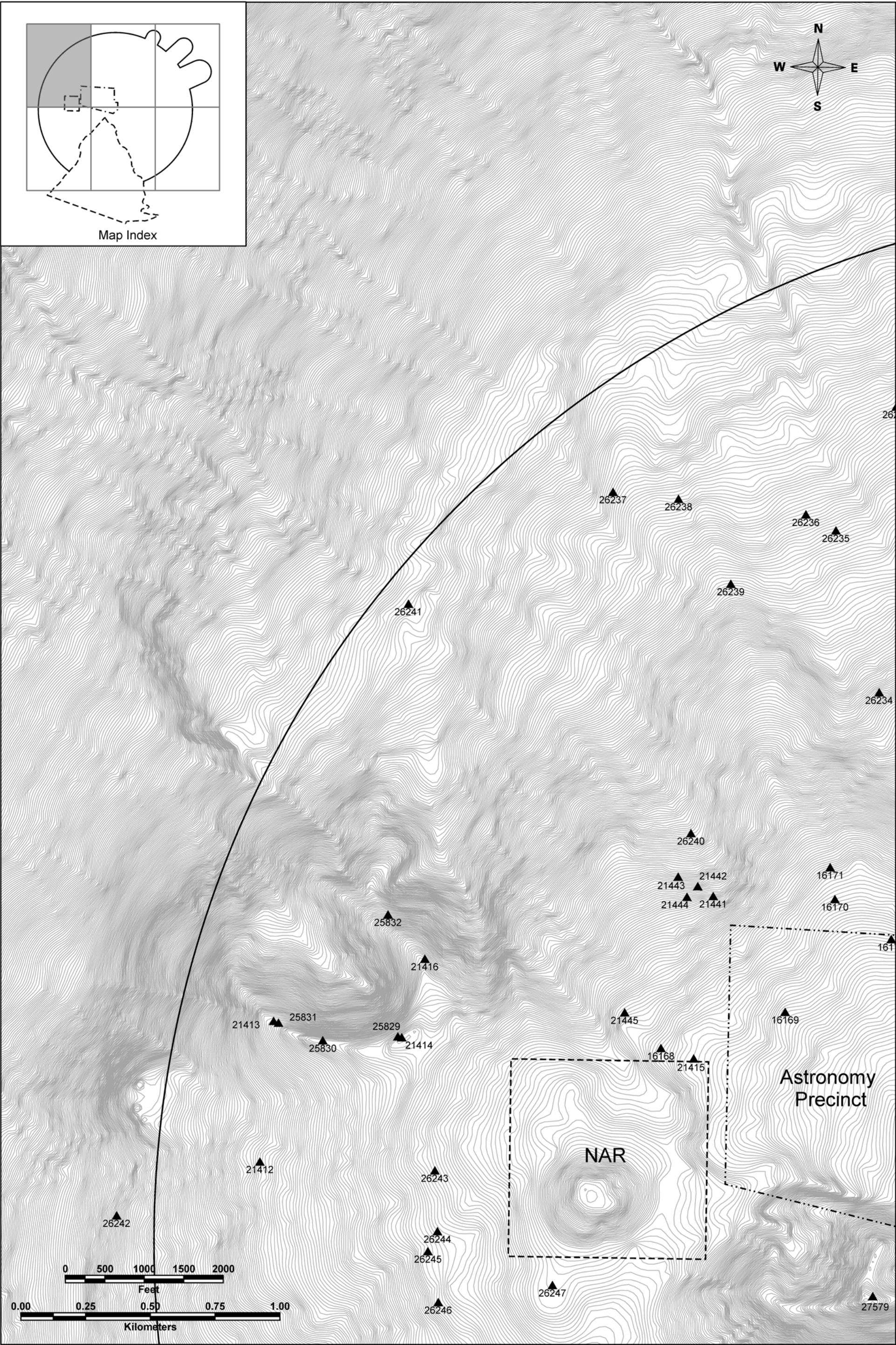


Figure A-1. Archaeological Sites in the Northwest Quadrant of the Mauna Kea Science Reserve.



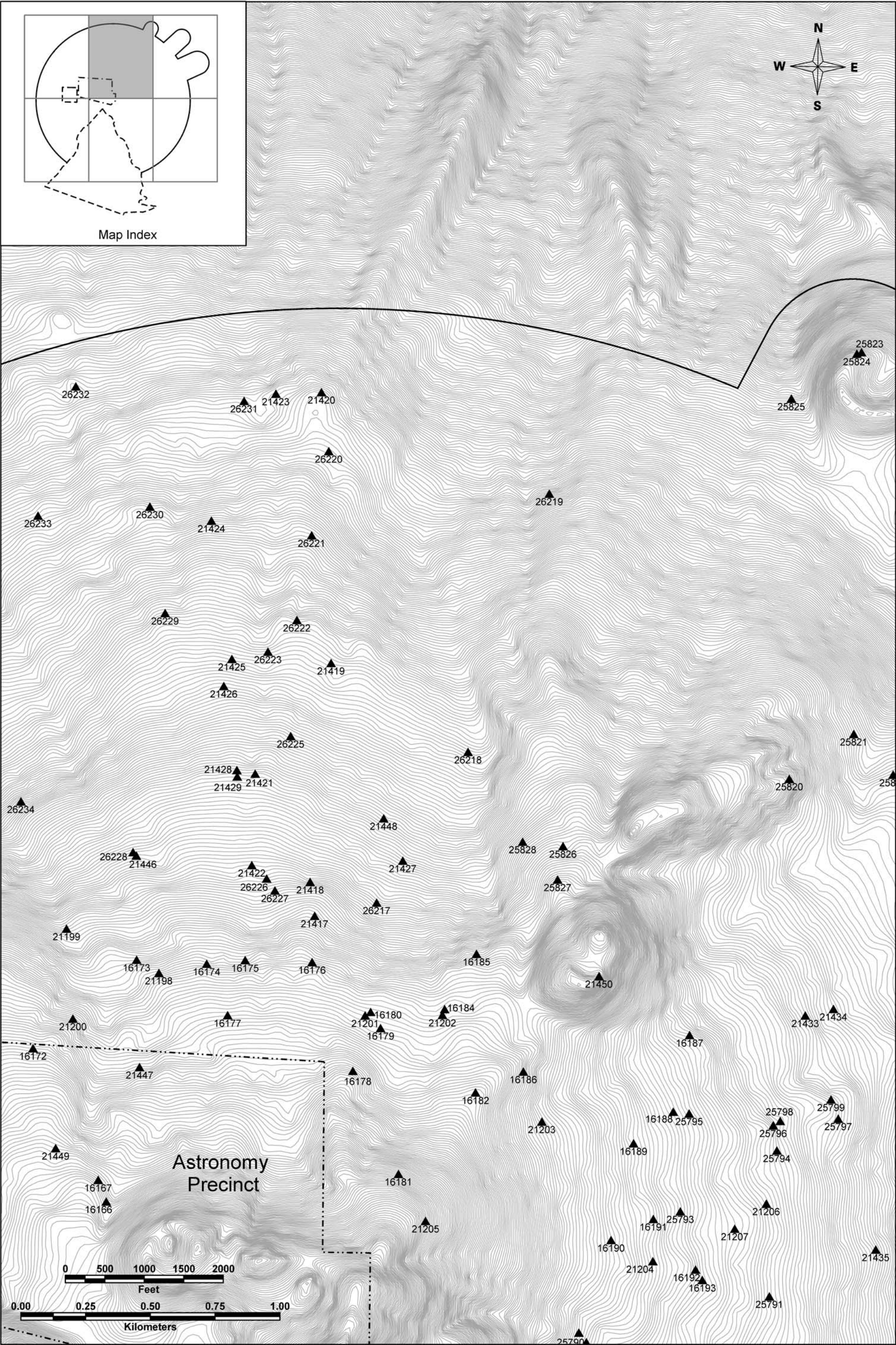


Figure A-2. Archaeological Sites in the Northcentral Quadrant of the Mauna Kea Science Reserve.



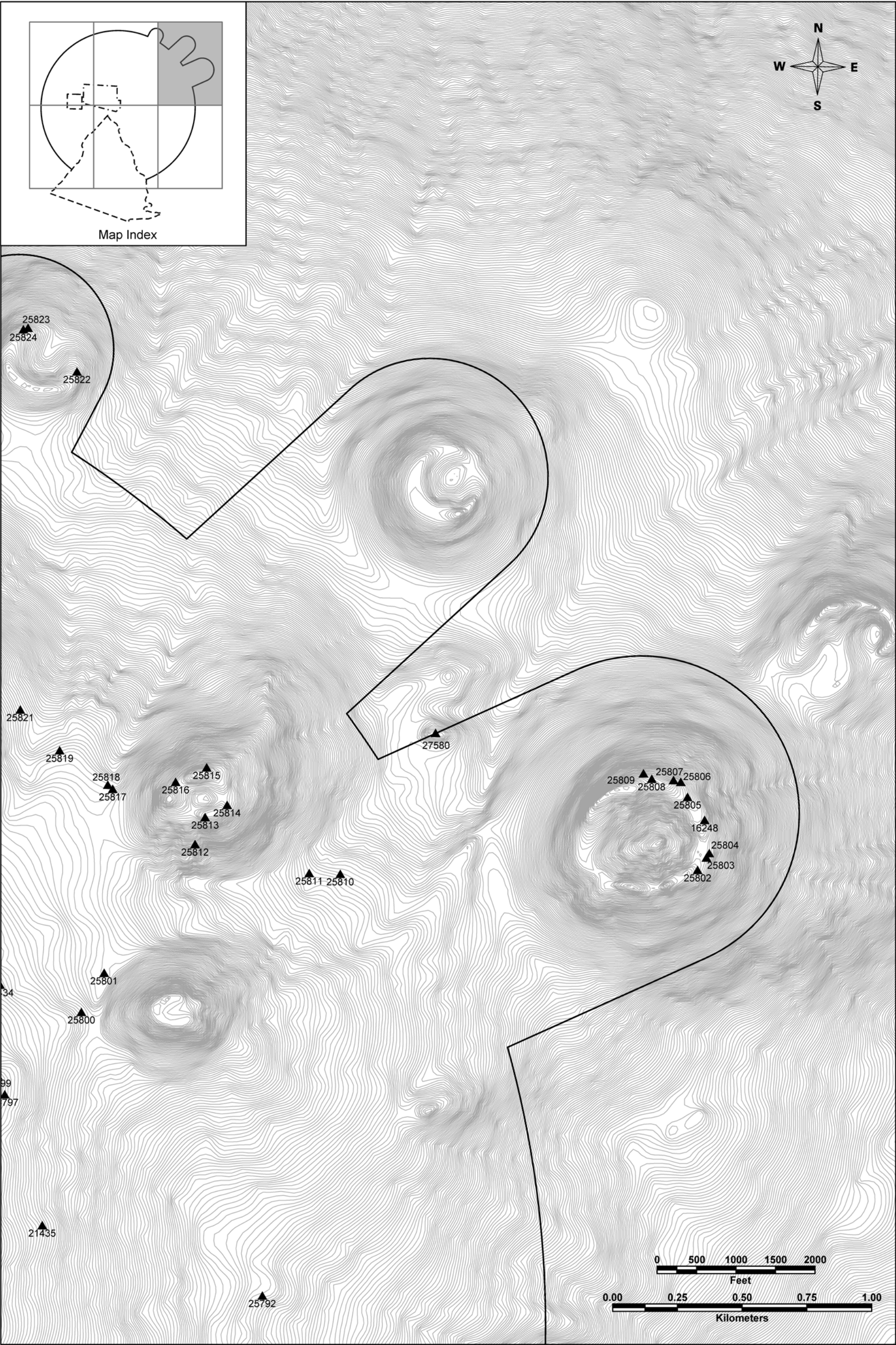


Figure A-3. Archaeological Sites in the Northeast Quadrant of the Mauna Kea Science Reserve.



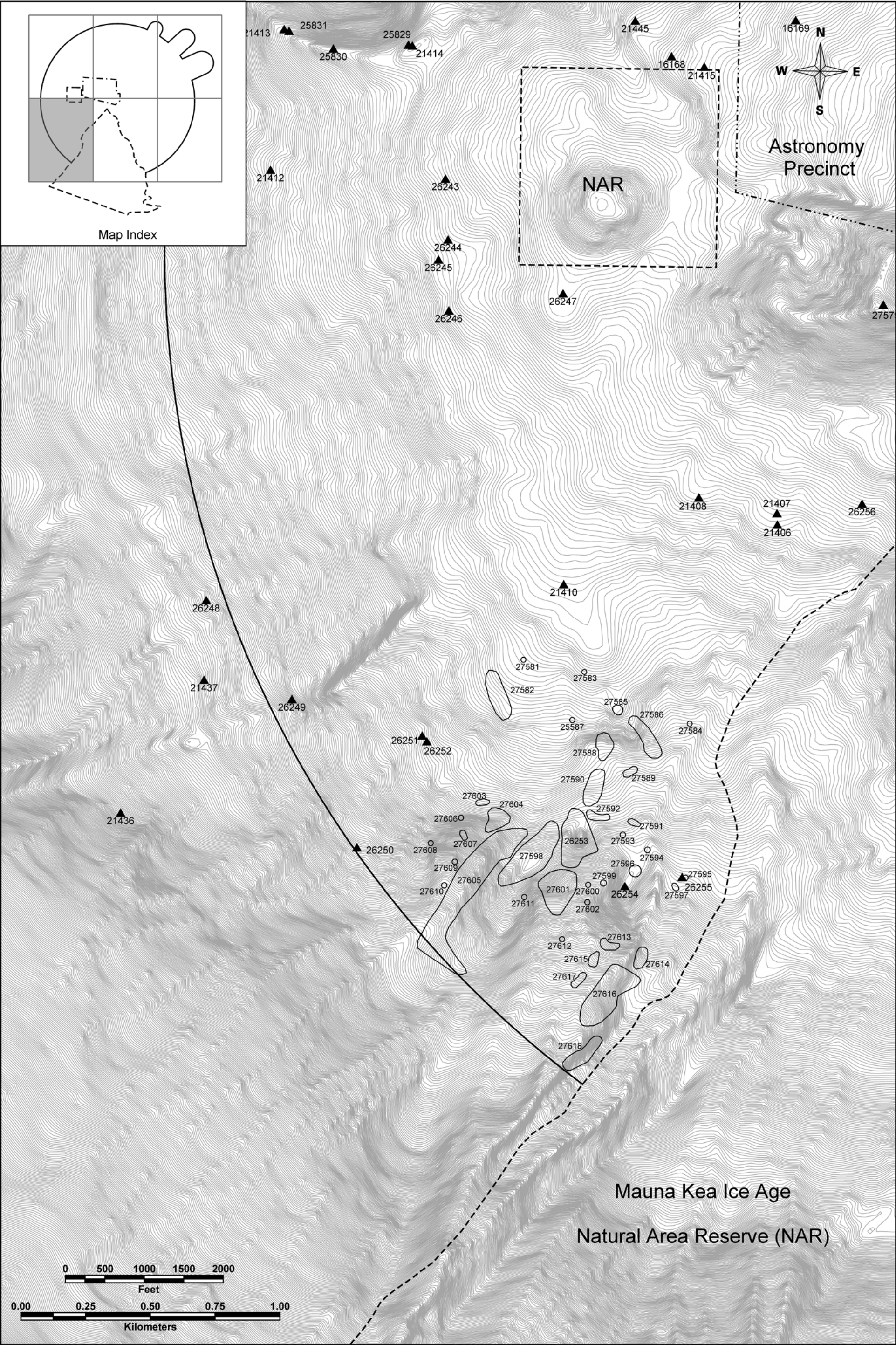


Figure A-4. Archaeological Sites in the Southwest Quadrant of the Mauna Kea Science Reserve.



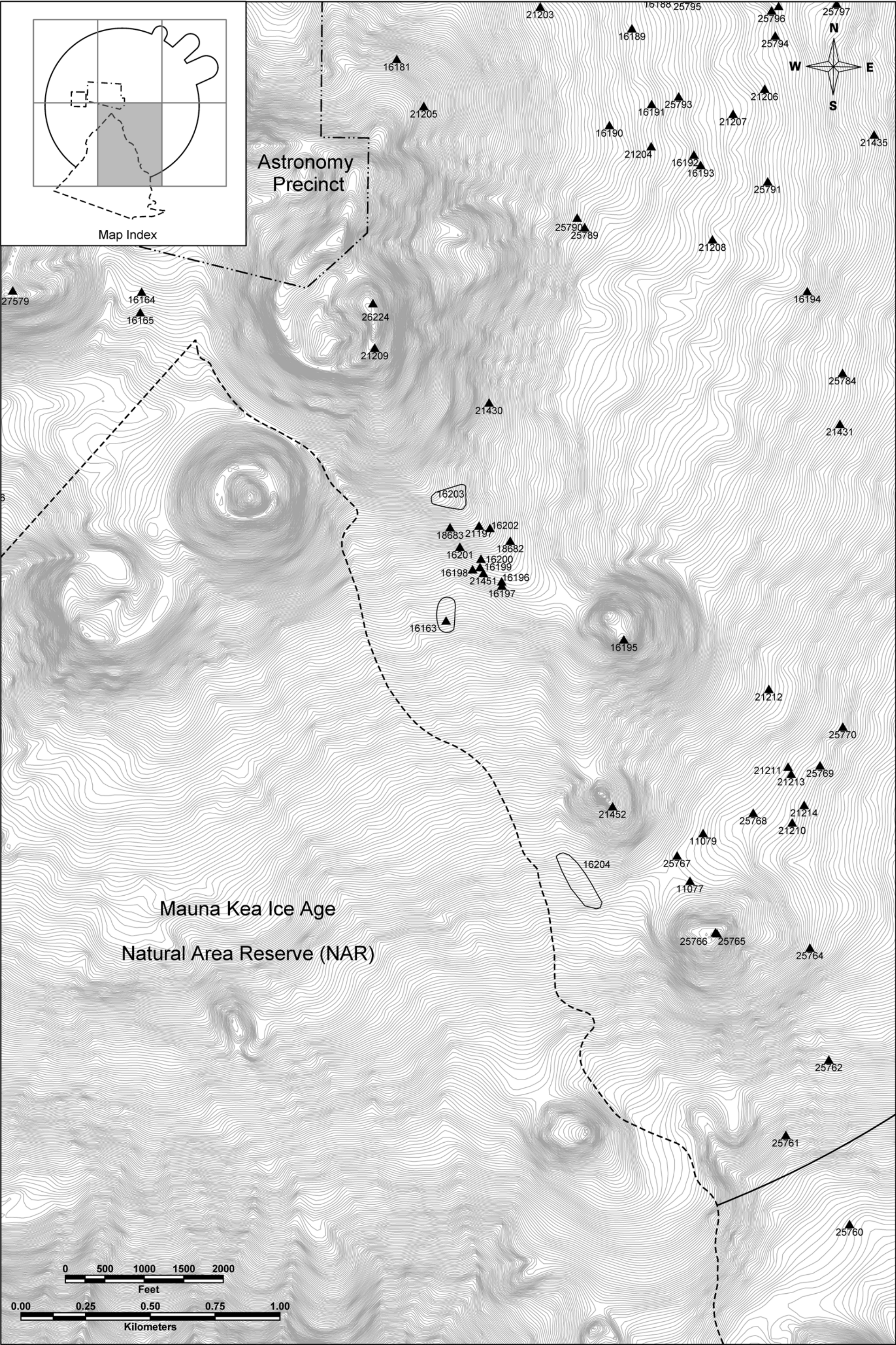


Figure A-5. Archaeological Sites in the Southcentral Quadrant of the Mauna Kea Science Reserve.



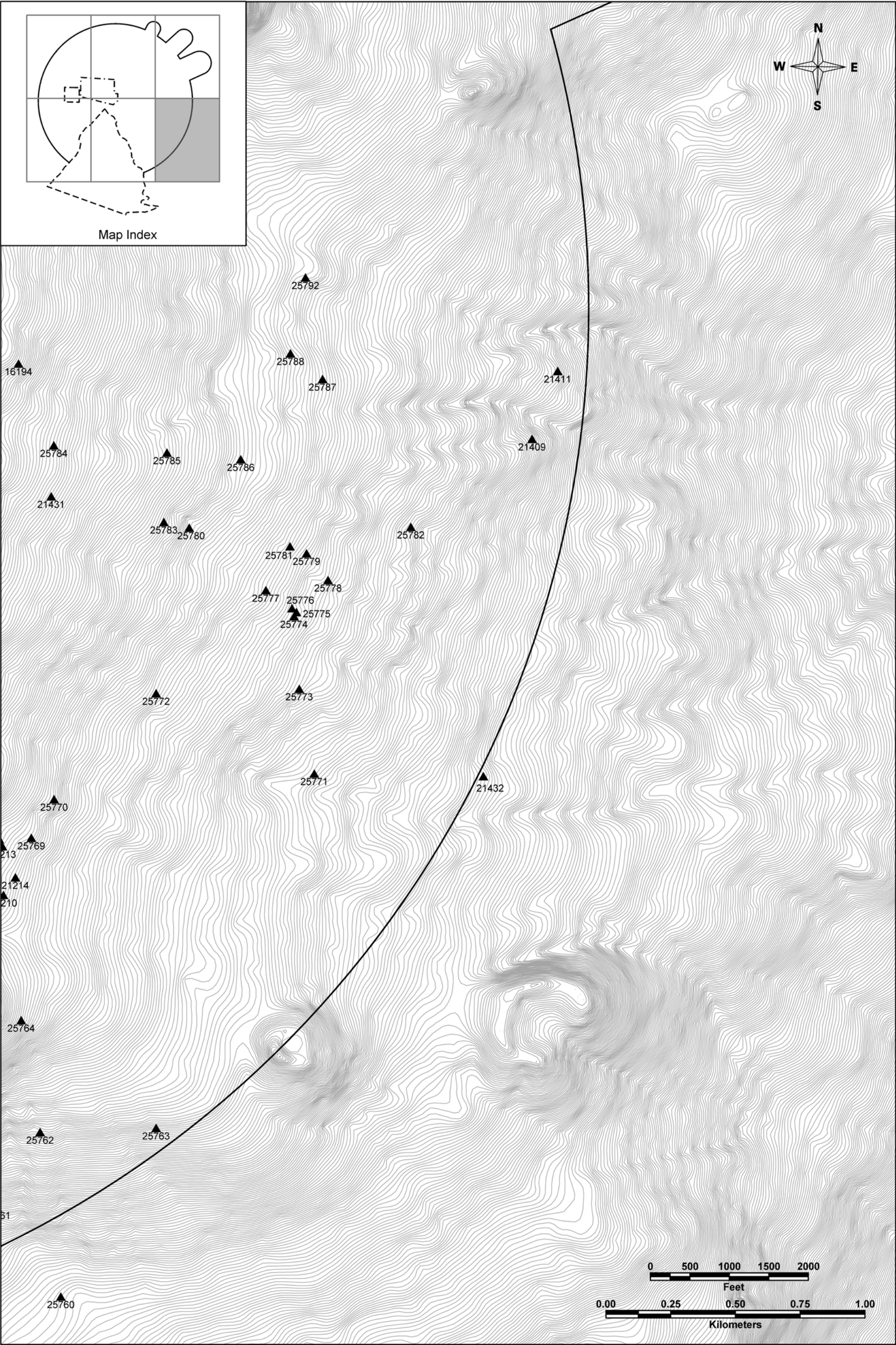


Figure A-6. Archaeological Sites in the Southeast Quadrant of the Mauna Kea Science Reserve.