HERITAGE RESOURCES INVENTORY OF THE BLUE FIRE WARNER MOUNTAIN RANGER DISTRICT, MODOC NATIONAL FOREST

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In August of 2001, a series of wildfires struck the Modoc National Forest, burning more than 50,000 acres. One of these, the "Blue Fire" in the south Warner Mountains, charred nearly 35,000 acres. Fire-line-qualified archaeologists worked with suppression forces to try and protect heritage resources from both the fire and the fire-fighting activities. As a result of this action and the on-going fire area rehabilitation/salvage efforts, several very interesting heritage discoveries were made. First, an unknown obsidian source area (Hughes's "Unknown A") was discovered, associated with a massive habitation and plant-food harvesting area, more than 850 acres in size. Second, a pit-house complex was identified at the 6,700 ft. elevation – making this the location of the highest pit-houses on the Forest. And, third, a new site type was discovered – "Culturally Modified Trees."

INTRODUCTION

The Modoc National Forest is located in the very northeastern corner of California, bordered by Oregon to the north and Nevada to the east. The Warner Mountain Ranger District is the Forests' easternmost district and consists of the southern portion of the Warner Mountain range. The "Blue Fire Complex" burned nearly 35,000 acres at the south end of the district, in the vicinity of Blue Lake on the border between Modoc and Lassen counties. This area lies within the ethnographic territory of the *Hammawi* band of the Pit River Tribe and the *Koslaktawi* (Surprise Valley) band of the Northern Paiute. The fire, sparked by a thunder and lightening storm on August 8th, 2001, burned for over two weeks. However, by the middle of the first week we were able to have several fire-line-qualified archaeologists working with the fire-suppression folks to try and prevent damage to archaeological and historic resources. Those same archaeologists helped with the post-fire assessment of previously recorded sites that had been burned over, and with the fire-line inventories. Portions of the fire burned very nicely and actually resulted in a good underburn, reducing fuel loading, while other areas burned incredibly hot, devastating the forest.

ARCHAEOLOGICAL INVENTORY

Before all the smokes had dies down the line-qualified archaeologists continued the emergency archaeological inventories to assist with the "Burned Area Emergency Rehabilitation" (BAER) efforts to design methods to stabilize the severely burned areas prior to the upcoming winter storms. Efforts focused on the monitoring of previously recorded sites and the inventory of areas directly disturbed as a result of fire-fighting efforts. Later, as a part of the proposed salvage timber sale and future area rehabilitation projects other archaeologists from several different Forests and Regions came on detail to conduct a broad scale inventory of the fire area. These inventories resulted in the identification and recording of more than 60 newly discovered sites and the relocation, monitoring and updating of site records for more than 100 previously recorded sites.

Among the newly discovered sites was an obsidian source that we have been seeking for nearly 20 years. This is the "Jess Valley" obsidian source area, now recorded as site FS-05-09-53-0662. The obsidian is a "jet black, waxy, shiny, totally opaque" obsidian and had been identified by Richard Hughes in the collections from recent gas pipeline and powerline projects as "Unknown A."

In the northwest corner of Long Valley, the fire and fire-line construction revealed that four previously recorded sites were actually one very large site – and the northern portion contained several "pit-house" depressions. At 6,700 ft. in elevation, these pit-houses are the highest recorded on the Forest. This massive site (larger than one square mile) contains many interesting artifacts, along with five distinct loci on National

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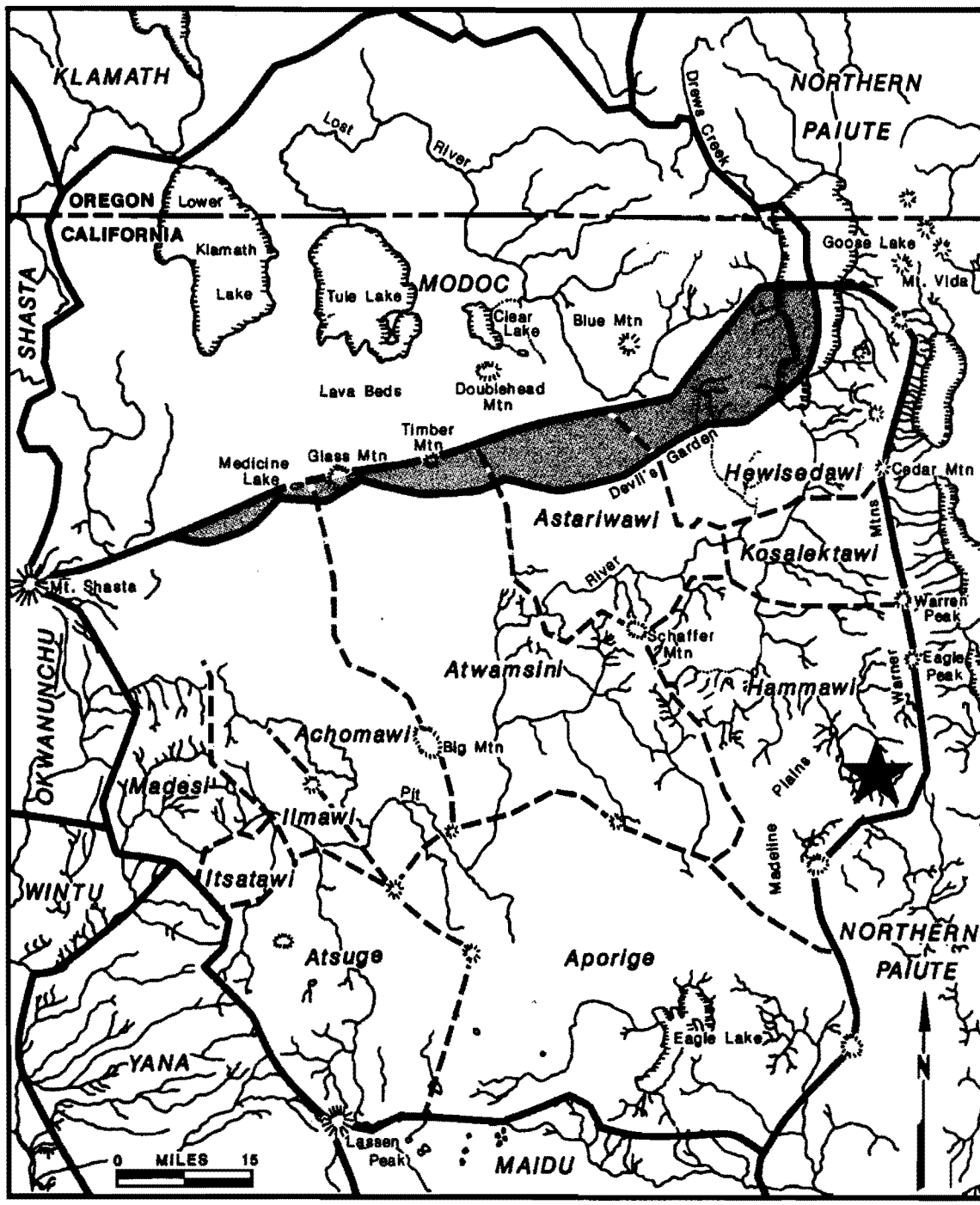
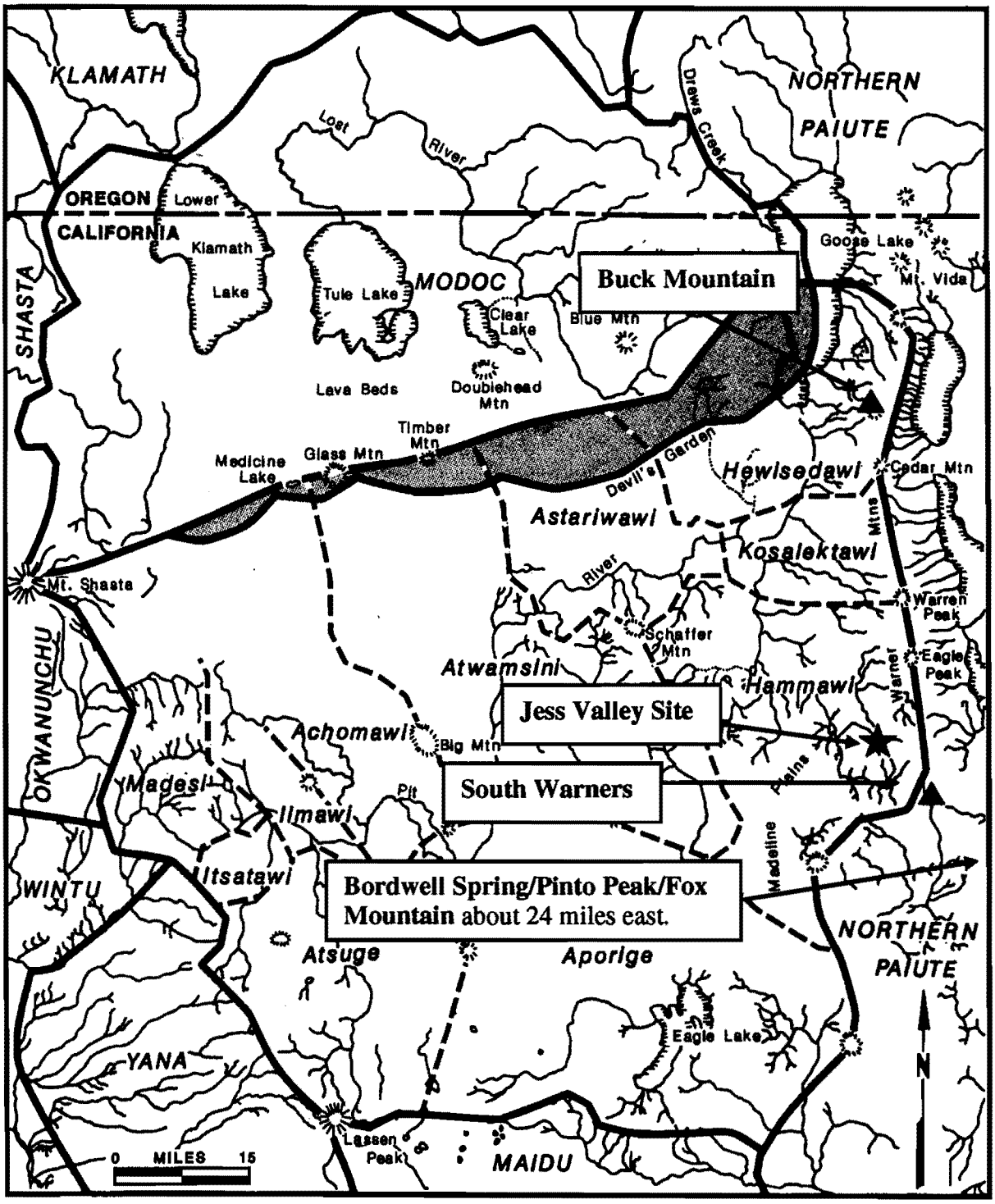


THE BLUE FIRE COMPLEX
Modoc National Forest
Warner Mountain Ranger District

Map No. 1: Ethnographic Boundaries

★ - Blue Fire Complex Area



MAP No 2: Location of Obsidian Sources

★ - FS-05-09-53-0662: The Jess Valley Site and Obsidian Source

Forest land and probably other loci outside on adjoining private land. In the northeast part of site 53-0662, at Locus D, we found three features, of which the largest was a rock ring. This is situated on a promontory overlooking the valley to the west, with an outside basalt boulder wall ranging from 30 centimeters to one meter in height. This elliptical wall has two smaller rock structures inside at the southwest and northeast corners, with another elliptical rock structure between them. To the west and down-slope of the large ring is another 5-x-5-meter ring with a rock "stairway" leading down to the northeast. There are also the remnants of at least two basalt walls to the south of this lower ring, ranging in length between 1.75 and 3.0 meters long.

At Locus C we found pit-house depressions with many complete or broken artifacts. The fire burned the low ridge so well at Locus C that we had 100% visibility, compared with a similar area across the creek with other pit-houses and similar projectile points but only 20% visibility and about a 1:20 artifact ratio. Artifacts collected or observed at Locus C included a pestle/mano fragment, choppers, metate fragments, manos, and projectile points. All of the loci had hundreds to thousands of obsidian, dacite, and chalcedony waste flakes associated with them. Surface visibility varied with the intensity of the burn, or the lack of burning.

Some of the artifacts from Locus A included projectile point/biface tips and mid-sections, blanks, and hammerstones. The diagnostic projectile points, which were collected, were all burned to some degree. They were manufactured primarily of obsidian and included Terminal-period Desert Side-notched (DSN) and Alkali Stemmed; Late Archaic Rose Spring-series points (one of white chalcedony), through Middle Archaic Martis Stemmed, Elko-series and Surprise Valley Split Stemmed. The oldest point in Locus A was a probable Paleo-Indian Great Basin Stemmed specimen. A biface/knife of black, translucent "snowflake" obsidian was also recovered; in addition there were numerous utilized and waste flakes. Locus B produced one diagnostic point, a Northern Side-notched form.

Besides the many uncollected preforms, point fragments, and hammerstones found in Locus C, this locus contained diagnostic points that ranged in date from Late Archaic and Middle Archaic (Rose Spring, Alkali Stemmed, Surprise Valley Split Stem and Elko-series points) to Early Archaic (Humboldt, Northern Side-notched, and Bare Creek/Pinto). Other materials collected were obsidian biface/preforms and multi-purpose ground stone tools.

Artifacts collected from Locus D (inside the rock ring) exhibited an age range from Terminal-period DSN and Gunther Barbed to Late Archaic Rose Spring-series and Eastgate points, with Middle and Early Archaic Elko-series and Northern Side-notched points present as well. Non-diagnostic artifacts included many bifaces and projectile point tips, stems, and mid-sections.

Points from Locus E included Rose Spring and Elko-series, Surprise Valley Split Stemmed, and Bare Creek/Pinto-series points. Various scrapers, dacite and obsidian projectile point fragments, and many waste flakes were present. An interesting note about Locus E points – all were surface-collected, but were about 100 – 200 meters west of the rock ring and distributed in a semi-circle from its center. Perhaps a bow-shot out from the feature?

Within the site limits, but not associated with a primary locus, were several isolated projectile points including Humboldt, Elko-series, a non-diagnostic split-stem, Gunther Barbed, Surprise Valley Split Stem, and Rose Spring Corner-notched, either whole or incomplete.

Obsidian hydration readings (Skinner 2002) along with XRF sourcing information from the projectile points presented interesting results (Table 1). At Locus A, the hydration rim readings range from 7.3 microns (from the Martis-like point of Buck Mountain obsidian) to 1.3 microns, with a mean of about 3.5 microns. Obsidian sources geochemically identified include South Warners, Buck Mountain, and others. Locus B had a 5.0-micron reading on the one Northern Side-notched point of Jess Valley obsidian. Locus C yielded hydration readings ranging from 2.5 to 5.5 microns, with source material from the South Warners, Jess Valley, and Buck Mountain. Locus D readings range from 1.7 to 3.2 microns, mostly on South Warners and Jess Valley obsidian, plus a still-unknown source. Finally, Locus E hydration ranges from 2.1 to 3.3 microns, with the South Warners, Buck Mountain, and Jess Valley sources represented.

Table 1: Obsidian Sourcing And Hydration Specimens

Number	*Type*	*XRF Source*	*Hydration (microns)*
Locus #1 – Datum A			
09-3343-03	Rose Spring-series	South Warners	3.7
09-3343-04	Point blank or Martis-series	Buck Mtn	7.3
09-3343-06	Biface/Knife	BS/PP/FM	2.6
09-3343-07	Small Split-Stem	Jess Valley	3.8
09-3343-09	Elko Corner-notched	South Warners	4.1
09-3343-10	Rose Spring-series	BS/PP/FM	3.4
09-3343-14	Great Basin Stemmed	South Warners	4.6
09-3343-17	Alkali Stemmed	South Warners	2.7
09-3343-20	Elko-series	Buck Mtn.	1.3, 3.6
09-3343-22	Elko/Surprise Valley Split Stem	South Warners	3.7
Locus #2 – Datum B			
09-3343-118	Northern Side-notched	Jess Valley	5.0
Locus #3 – Datum C			
09-3343-25	Rose Spring Corner-notched	Buck Mtn.	2.5
09-3343-28	Surprise Valley Split Stem	South Warners	4.4
09-3343-29	Small Humboldt Concave Base	South Warners	2.6
09-3343-32	Surprise Valley Split Stem?	BS/PP/FM	5.0
09-3343-34	Elko Corner-notched (serrated)	South Warners	4.2
09-3343-42	Elko Corner-notched (thick)	Buck Mtn.	5.5
09-3343-45	Bare Creek/Elko-series?	South Warners	3.9
09-3343-46	Biface/Blank	Jess Valley	n/a
09-3343-47	Bi-polar Flake/Biface	Jess Valley	n/a
09-3343-48	Rose Spring Corner-notched	South Warners	2.1
09-3343-49	Elko Corner-notched (serrated)	South Warners	4.2
09-3343-57	Elko Corner-notched	South Warners	4.1
09-3343-58	Bare Creek-series	South Warners	3.4
09-3343-115	Bare Creek Barbed	South Warners	3.7
Locus #4 – Datum D			
09-3343-66	Triangular PP or Blank (thick)	Jess Valley	3.2
09-3343-68	Desert Side Notched	BS/PP/FM	1.8
09-3343-69	Rose Spring Corner-notched	South Warners	1.7
09-3343-73	Rose Spring Corner-notched	Unknown 1	n/a
09-3343-75	Surp. Valley/Eastgate Split Stem	South Warners	1.7
09-3343-76	Small Rose Spring?	South Warners	1.9
09-3343-81	Biface Base (Square)	South Warners	2.7
09-3343-82	Biface Base?	South Warners	3.3
09-3343-83	Rose Spring-series?	Jess Valley	n/a
Locus #5 – Datum E			
09-3343-85	Elko Eared?	South Warners	3.3
09-3343-94	Bare Creek Square Shoulder?	South Warners	3.0
09-3343-95	Bare Creek/Elko-series?	BS/PP/FM	3.2
09-3343-102	Rose Spring Corner-notched	Jess Valley	2.1
09-3343-103	Surprise Valley Split Stem	South Warners	3.3
09-3343-109	Biface Tip	Jess Valley	2.8

As a result of the fire, we also discovered a "new" type of historic site for the Forest – "Culturally Modified Trees" (CMT). One example is a conifer (possibly a pine) from which the outer layer of bark is removed to get to the sweet inner *cambium* layer as a food source. This first example was identified by an archaeologist from a northwest-coast forest where such CMTs are more common. Interestingly, searching the Internet led me to a British Columbia website that yielded a whole CMT recording guide. Since then we have built a library on CMTs for future reference. There have been a total of six of these trees found and recorded in the Long Valley area.

Groves of aspen containing hundreds of "Basque Aspen Art" carvings are also present within the Blue Fire area. Some of the previously recorded trees appear to have been destroyed by the wildfire, and yet, some of the stands of carved aspen received a nice underburning, essentially protecting the stands from future catastrophic fire by reducing the fuel load. Inventories have yielded over a dozen new stands with Basque carvings, with hundreds of carvings dating from the 1890s to the 1970s.

In late spring or early summer of 2002, we will continue the inventory of the remaining 2,500 acres for the proposed salvage and rehabilitation projects. We expect to have a total of some 160-180 archaeological and historic sites within the project area, so we still have a lot of work to do and a very interesting report to complete. The report will document 10,000 years of human use of this upland mountainous setting in the interface between the Great Basin and the California/Modoc Plateau. This project shows that there is a benefit to fire in the woods and that archaeologists and fire-suppression folks can, and do, work together to help minimize damage to irreplaceable archaeological and historic resources on National Forest lands.

REFERENCES

Skinner, C. E.
2002 Northwest Research Obsidian Studies Laboratory. www.obsidianlab.com