SYCAMORE SHELTER (CA-BUT-473):  
A PREHISTORIC MAIDU SITE NEAR CHICO, CALIFORNIA
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Sycamore Shelter is a small prehistoric habitation site in the Sierra Nevada foothills near Chico, California. It was excavated by Chico State College archaeologists in Spring 1965. This paper briefly describes the cultural materials recovered from the rockshelter, addresses the site chronology and function, and discusses the ethnicity of the people who lived there.

Sycamore Shelter, CA-BUT-473 (formerly CA-BUT-S274), is a Late Horizon Maidu rockshelter in the foothills of the Sierra Nevada Mountains 5½ miles northeast of downtown Chico (Figure 1). The site, excavated in 1965, is located in Sycamore Canyon above and immediately north of Sycamore Creek at an elevation of 700 ft (Figure 2). The creek flows only during the winter months (Dreyer 1984:9), but a permanent spring or seep is situated directly across the canyon from the archaeological site. Sycamore Shelter is just a short distance from 7 other similar rockshelters all clustered together in Sycamore Canyon.

Cultural materials from BUT-473 place the site in the regionally defined Oroville/Chico Complex (Chartkoff and Chartkoff 1983, Olsen and Riddell 1963) which dates from A.D. 1500 to A.D. 1850. A few historic artifacts were also recovered that post-date the Maidu occupation.

Analysis of the excavated objects allows us to address two pertinent questions. First, was the site a permanent residence or a temporary task site, and second, were the Sycamore Shelter occupants Konkow or Mechoopda people?

ETHNOLINGUISTIC BACKGROUND

Ethnographically, the Maidu are divided into three linguistically distinct regions: Northeastern (Mountain Maidu), Northwestern (Konkow) and Southern (Nisenan) (Dixon 1905, Kroeber 1925, Riddell 1978). Sycamore Shelter is in the Northwestern Maidu region. Dreyer (1984) and Dugas (1995) among others further divide the Northwestern Maidu, culturally and linguistically, into the Mechoopda of the Northern Sacramento Valley and the Konkow of the Sierra Nevada foothills. One goal of this article is to identify which of these two subgroups occupied Sycamore Shelter during late prehistoric times.

Golla (2011) and Kowta (1988) summarize the origin and spread of the Maidu-speaking people in California. Apparently, the homeland of the ancestors of the Maidu ancestors was in northeastern Nevada. From there the Maiduans moved west into the Sierra Nevada Mountains and settled in the Feather River drainage area (now Nisenan territory). Around A.D. 800-1000 they expanded into the foothills of Butte County where they are known as Konkow. By A.D. 1400 they had reached Sycamore Shelter and were moving onto the Sacramento Valley floor to become the ethnographic Mechoopda.

ARCHAEOLOGY IN BUTTE COUNTY

In a classic publication, Kowta (1988) reviews much of what is known about Butte County prehistory. Dugas (1995) uses projectile points to distinguish archaeologically between the Yahi, Southern Yana, Wintu, Mechoopda and Konkow. Johnson (2005) employs ethnographic culture traits to identify Mechoopda prehistoric sites and define the geographic boundary between the Wintun and the Maidu. Recently, Snyder (2014) has provided a suite of radiocarbon dates for the three major Mechoopda
villages near Chico—CA-BUT-1, 7, and 12 (Figure 1). The occupation dates for nine of the semi-subterranean dwellings at these three sites range between A.D. 1556 and A.D. 1841. Delacorte and Basgall (2006, 2012) also report on current Konkow archaeology in the Oroville Dam area (BUT-162).

Although uncounted numbers of rockshelters exist in the Sierra foothills of Butte County, only three, including Sycamore Shelter, have been excavated. Kathy’s Rockshelter (BUT-301) has a dry midden deposit providing good preservation of perishable materials. It contains Late Horizon Oroville Complex artifacts as well as a much earlier Mesilla Complex assemblage (Bethard 1988). The Porter Rock shelter (BUT-420) also has dry midden, but, like Sycamore Shelter, is a single component, Late Horizon Phase II site (Pritchard et al. 1966).
Seven small, unexcavated rockshelters in Sycamore Canyon are within a short walking distance of Sycamore Shelter. All have midden deposits and four of these sites contain a total of 129 bedrock mortars. If all seven rockshelters are about the same age as BUT-473, and that is likely, then this cluster of 8 rockshelters may represent a small prehistoric Maidu community of 8 to 10 families living together in the canyon.

**EXCAVATION**

Sycamore Shelter is a small exogene cave that measures 23 ft wide, 17 ft deep and 7 ft floor to ceiling. Directly in front of the rockshelter’s entrance is a toss zone (Binford 1983:153-156) manifested by a low mound of midden debris (Figure 3) between 24 and 36 inches deep. The midden, resting on bedrock, is composed of dark gray sandy soil and has been badly disturbed by rodents, primarily pocket gophers, whose remains were recovered in the site.

Archaeology students from Chico State College under my direction excavated Sycamore Shelter on Saturdays during the 1965 Spring semester (Figures 4 and 5). Because the midden deposit in the interior of the rockshelter had been extensively disturbed by looters and relic collectors, it was decided to excavate the debris mound in front of the shelter’s entrance. A grid system of 5 ft square pits was established and 10 units were excavated to bedrock (Figures 6 and 7). The midden from nine of these units was passed through ¼ inch screens. A ⅛ inch screen was used in one pit (Unit H9). Even though the soil of the site had been badly disturbed negating stratigraphic differences, all pits were excavated by arbitrary 6-inch levels. The cultural materials recovered in 1965 were given accession #10 and are curated in the Archaeology Laboratory at California State University, Chico.
Figure 3. Sycamore Shelter in 1965 Prior to Excavation. Note the Debris Mound (Toss Zone) in Front of the Rockshelter’s Entrance.

Figure 4. The Field Crew Excavating the Debris Mound in Front of the Rockshelter.
Figure 5. View from Inside the Rockshelter at the Crew Backfilling the Excavation at the Close of the Field Project.

Figure 6. Plan Map of BUT-473 Showing Locations of Excavated Units.
MATERIAL CULTURE

The excavation of the debris mound in front of the rockshelter yielded 148 artifacts of which 128 are lithic and the remainder are animal bone (n=6), clamshell disc beads (n=3) and historic objects (n=11).

Flaked Stone

A total of 104 lithic tools manufactured by percussion and/or pressure flaking were recovered including projectile points (n=61), scrapers (n=25), cores (n=11), choppers (n=2), hammerstones (n=3), a biface or knife (Figure 8m), and a drill (Figure 8l). Because of their importance in dating and determining ethnicity, projectile points are further described.

Projectile Points

Arrowheads are the most common stone tools at the site and underscore the importance of hunting to the Native Americans who occupied Sycamore Shelter. Of the 61 projectile points recovered from BUT-473, 18 are fragmentary or unfinished and could not be identified as to type. The remaining 43 points have been morphologically and metrically sorted into 6 categories and are briefly described here. Wherever possible, standard length, width, thickness, and weight measurements were recorded. Additional metric data was not collected unless it had the potential to help resolve issues of chronology or site ethnicity.

The Desert Side-notched Series (DSN) of projectile points, first defined by Baumhoff and Byrne (1959), is composed of several subtypes, 4 of which are represented by 8 arrow points at BUT-473. The General subtype (Figure 9a, b) includes 3 very small triangular side-notched points with concave bases. Their average weight is 0.2 g; size range, 1.5-1.6 cm long, 0.9-1.1 cm wide, and each is 0.2 cm thick. All 3 points are cryptocrystalline silicate (CCS). One fragment of a Sierra subtype point (Figure 9c) is identified. Made of CCS, its base is notched, the blade serrated, and it measures 1.9 cm long, 1.0 cm wide.
Figure 8. Cottonwood Projectile Points, Drill, and Biface from BUT-473: (A-D) Cottonwood Triangular Points, Concave Base; (E-H) Cottonwood Triangular Points, Straight Base; (I-K) Cottonwood Leaf-Shaped Points; (L) Drill; (M) Biface.
Figure 9. Projectile Points From BUT-473: (A-F) Desert Side-Notch Points; (G-L) Rattlespring Corner-Notched Points; (M-R) Gunther Barbed Points; (S-Z) Contracting Stem Points.
and 0.2 cm thick. Two incomplete points comprise the Delta subtype (Figure 9d). Fashioned from CCS, all share the characteristic V-shaped base and are 0.2 and 0.3 cm thick. The Redding subtype (Figure 9e, f) is represented by two broken points, one of CCS and the other of petrified wood. Both have the diagnostic comma-shaped side notches and are 0.2 cm thick.

A total of seven Corner-notched points was recovered at BUT-473 and include five small arrow points (Figure 9g-j) and 2 dart points or knives (Figure 9k, l). This point style is not well defined and, as a result, has received a variety of names (i.e., Rose Spring, Eastgate, Rattlesnake, etc.) in northern California depending on the geographic location of the points. For convenience, all the varieties of corner-notched points are herein combined under a new name: Rattlespring Corner-notched. The small points of the Rattlespring Corner-notched Series at Sycamore Shelter share the characteristic notches and have straight bases. Their weight range is 0.3-0.7 g; size range, 1.5-2.7 cm long, 0.9-1.3 cm wide and 0.2-0.3 cm thick. Two are of obsidian, 2 are CCS, and one serrated example is basalt. The 2 large points (knives?) in the Rattlespring Series weigh more than 3 grams each. The fragmentary basalt example is 4.6 g and the complete red CCS point is 3.1 g. The red CCS point measures 3.1 cm long, 2.1 cm wide and 0.6 cm thick in size. The dart-arrow index (Hildebrandt and King 2012) for each is 16 mm and 20 mm indicating they are dart and not arrow points.

Gunther Barbed points have a variable morphology but characteristically display basal notches, contracting stems and barbed shoulders that sometimes extend beyond the base of the stem. Eight Gunther Series points (Figure 9m-r) were collected from the Sycamore Shelter. Seven are arrowheads and one is a dart point. The arrowheads weigh between 0.4 and 1.8 g; size range, 1.6-2.8 cm long, 1.0-2.0 cm wide, and 0.3-0.5 cm thick. Two are made of obsidian, one quartzite, and 4 of basalt. The fragmentary CCS dart point weighs 3.1 g and is 0.6 thick (Figure 9r). Its dart-arrow index (DAI) is 13 mm.

Eight Contracting Stem points were recovered at Sycamore Shelter with typically round or pointed shoulders and contracting stems (Figure 9s-z). They weigh between 0.6 and 2.7 g; size range, 1.7-3.3 cm long, 0.9-1.7 cm wide, and 0.3-0.7 thick. Four are obsidian and 4 are basalt. One of the basalt points has shallow serrated edges. According to Banks (2016) contracting stem points were used primarily as weapons of war.

Cottonwood Triangular points are stemless and have straight or concave bases. This point style at Sycamore Shelter is represented by 9 arrowheads of which 5 have straight bases (Figure 8e-h) and 4 are concave based (Figure 8a-d). Five of the points are complete enough to be measured. Their weight range is 0.2-1.5 g; size range, 1.0-3.0 cm long, 0.9-1.4 cm wide, and 0.3-0.5 cm thick. Six were fashioned from CCS, 2 from obsidian and one from quartzite.

The three Cottonwood Leaf-shaped points at the rockshelter (Figure 8i-k) appear to be unfinished. They are stemless, convex based and leaf-shaped in outline. The two complete specimens weigh 0.5 and 1.1 g and measure 2.0 and 2.4 cm long, 1.0 and 1.5 cm wide, and 0.2 and 0.5 cm thick. All 3 points were made from CCS.

Ground Stone

Food processing tools found at Sycamore Shelter include one millingstone and 6 bifacial manos along with 5 portable block or slab mortars and 9 pestles (Figure 10a, b)). These latter implements were made from unshaped cobbles and show use at one or both ends that have been ground flat or are slightly convex.

A small unshaped volcanic cobble has a V-shaped groove across one surface (Figure 10c). One end of this tool has broken off; the other end is battered. Similar grooved stones are commonly identified as arrow-shaft straighteners but they also may have served other functions (Chartkoff and Chartkoff 1983:35, 36).

Two small slate objects exhibit biconically drilled holes. One is a pendant (Figure 11b) and the other is an unidentified broken object (Figure 11a).
Figure 10. Ground Stone Tools From BUT-473: (A, B) Pestles; (C) Arrow- Shaft Straightener. Length of (B) Is 11.0 Cm; Rest to Scale.

Bone Artifacts

Few cultural items made from animal bone are in the collection. These include two bone awl fragments (indicative of basket making or repairing at the site), one polished end of a mammal bone tube (possibly a bead), and three small fragments of scraped or polished bone.

Shell Beads

Three clamshell disc beads with centrally drilled holes were recovered from BUT-473 (Figure 11c, d). Their diameters measure 1.1 cm, 1.0 cm and 0.9 cm. They had been traded from the coast of California inland to the Maidu who ethnographically used them for personal adornment and money. Archaeologically, they date to the Late Horizon Phase II (A.D. 1450–1800) and are diagnostic of the Oroville/Chico Complex in Butte County (Chartkoff and Chartkoff 1983).

Historic Objects

Several historic artifacts, manufactured after A.D. 1800, were encountered during the excavation of Sycamore Shelter. All post-date the Native American occupation of the rockshelter. Eight metal gun cartridges (Figure 11h-m) are in the collection including two .22 caliber rifle or pistol cartridges, one .25-
Figure 11. Miscellaneous Historic and Prehistoric Objects from BUT-473: (A) Perforated Slate Object; (B) Slate Pendant; (C, D) Clam Shell Disc Beads; (E) Glass Button; (F, G) Square Cut Nails; (H-M) Brass Gun Cartridges.

20 caliber Winchester Center Fire rifle cartridge, two .32 caliber Winchester Center Fire rifle or pistol cartridges, one .32-20 caliber Winchester Center Fire rifle cartridge, one .45 caliber Colt pistol cartridge, and one .45 caliber Schofield pistol cartridge. Two square cut nails (Figure 11f, g) and a white glass button (Figure 11e) complete the short list of catalogued items. A few uncatalogued fragments of clear glass were also noted in the midden deposit.
HUMAN REMAINS

The skeletal remains of two humans, a juvenile (between 10 and 16 years) and an adult, were encountered near the base of the midden deposit and scattered across 8 excavation units, D9, D10, E9, E10, F9, F10, F11, and G9. The burials are represented by 29 disarticulated fragments of craniums, mandibles and long bones. As one might expect, no funerary objects were in direct association with any of the skeletal remains. The human remains have not been repatriated.

FAUNA

An arbitrary sample of 57 unmodified animal bones and shell was saved during excavation of the rockshelter. Identified specimens include Anserinae (goose/swan), Artiodactyla (deer), Carnivora (dog/coyote), Cervidae (deer/elk), Gastropoda (freshwater snail), Lepus californicus (jackrabbit), Lynx rufus (bobcat), Odocoileus hemionus (mule deer), Rodentia (rodent), Thomomys botta (pocket gopher), Neotoma (wood rat), Sciuridae (squirrel), and Margaritifera falcata (freshwater western pearlshell). Eight of the bones in the sample, including the bobcat and jackrabbit specimens, are charred and represent food sources for the Maidu.

SITE CHRONOLOGY

The placement of Sycamore Shelter in time is accomplished, in part, by cross dating BUT-473 artifacts with similar objects that have been securely dated at other archaeological sites. The BUT-473 artifacts match those characteristic of the Oroville/Chico Complex (A.D. 1500 - A.D. 1850) as defined for prehistoric sites in the ethnographic Konkow and Mechoopda territories in Butte County (Chartkoff and Chartkoff 1983, Olsen and Riddell 1963, Ritter 1968). The BUT-473 artifact traits that identify the rockshelter with the Oroville/Chico Complex include DSN and Cottonwood projectile points, small clamshell disc beads, grooved arrow-shaft straightener, and mortars and pestles more prevalent than manos and millingstones. The time span of the Oroville/Chico Complex largely coincides with the Late Horizon Phase II (A.D. 1450 - A.D. 1800) of the Sacramento Valley region.

An artiodactyl radius fragment from Sycamore Shelter provided a bone collagen AMS 14 C date of 380 ± 30 B.P. (Beta 440304). Using the high probability density (HPD) method, the date is converted to cal A.D. 1445-1524 (2 sigma). It would appear that BUT-473 was occupied just before the prehistoric Mechoopda began to construct pit houses on the valley floor near Chico (Snyder 2014). The earliest 14C date for Mechoopda house pit villages is cal A.D. 1556 at CA-BUT-1, the Patrick Site (Snyder 2014:93). Perhaps the Maidu who occupied Sycamore Shelter were among those who eventually left the foothills to settle on the valley floor and initiate the large villages near Chico. Of course, the single radiocarbon date for the Sycamore Shelter is not enough to determine when the rockshelter was initially occupied or even when it was finally abandoned.

Obsidian hydration is a dating method commonly employed by archaeologists today. However, it was not used during the analysis of the BUT-473 artifact assemblage for several reasons. It is destructive and alters the appearance of the obsidian specimens selected for dating. More importantly, it can provide unreliable and incorrect results (e.g., Delacorte and Basgall 2006:36, 85-93; Snyder 2014:136-142). For interpreting the archaeology at Sycamore Shelter, the usefulness of obsidian hydration did not appear to be worthwhile.

SITE FUNCTION

There can be little doubt that hunting large and small game was a major occupation of the Maidu people who lived at BUT-473. Forty-one per cent (n=61) of the 148 artifacts recovered were stone arrow points. The grinding stone assemblage underscores the importance of acorns and other seeds to the Maidu diet. In general, men probably did most of the hunting while women busied themselves with collecting and preparing the plant foods for consumption. The buried human remains of a juvenile support the
conclusion that children also were present at the site. The rockshelter’s living area (Figure 6) is only large enough to accommodate a nuclear family or a small extended family. It is apparent that a full range of family activities took place at Sycamore Shelter, and therefore it was more than just a temporary campsite. Indeed, the existence of several nearby rockshelters suggests that BUT-473 represents part of a small community of Maidu living together in Sycamore Canyon.

Whether Sycamore Shelter was inhabited more or less permanently year-round or occupied on a seasonal basis is a question that cannot be easily answered. Certainly, the nearby spring could have been a valuable permanent water source, but there is no direct archaeological evidence to suggest its use during any or all seasons of the year.

In his study of the settlement strategies of the ethnographic and prehistoric Mechoopda in Butte County, Dreyer (1984:87, 114-116) concluded that all rockshelters, including Sycamore Shelter, were temporary task sites used by the inhabitants of the large house pit villages in the Chico vicinity. He suggests that the task sites may have been occupied at different times of the year sometimes by men, sometimes by women, and sometimes by both.

Delacorte and Basgall (2006:38-41, 185-187; 2012:16, 69) discuss several ways to determine seasonality from archaeological remains in the Oroville area. Their criteria are useful but in application some seem too general, too intuitive, and offer no clear distinctions between permanent and temporary habitations. For example, raw materials at a site that came from distant locations should signify either mobile populations or indicate the site’s occupants took part in “some form of interaction sphere” (Delacorte and Basgall 2006:40, 41). Obsidian sourcing of projectile points at BUT-473 (Table 1) identifies volcanic glass from several very distant sources. Obsidian from these very same sources is common at the Mechoopda permanent villages near Chico (Snyder 2014:97-100). Do these similarities mean that BUT-473, like the large Mechoopda villages, was inhabited year-round?

In another example, Delacorte and Basgall indicate that unshaped pestles, like those at BUT-473, identify a “less mobile” site population (2006:186) or a “less mobile, residentially tethered group” (2012:16). The question is: how less is less?

At this point, with the given data, we must conclude that Sycamore Shelter was probably more a permanent settlement than a hunting/foraging short-term camp, but the length and details of its seasonal use elude us.

ETHNIC AFFILIATION

Who were the prehistoric people who worked and lived at Sycamore Shelter? Were they the ancestors of the ethnographic Mechoopda Maidu or the Konkow Maidu? To address these questions, the frequencies of selected Maidu cultural traits (see Dugas 1995, Johnson 2005) were compared with those from Sycamore Shelter (Table 2). The results indicate that the frequencies of seven archaeology traits show close affinity between Sycamore Shelter and Mechoopda while the frequencies of seven other archaeology traits reflect a closer relationship between Sycamore Shelter and the Konkow Maidu. The frequency of one BUT-473 trait (number 11) displays no proximity to either Mechoopda or Konkow.

The comparisons of the traits in Table 2 lead to an inconclusive final result. Using these data we are unable to determine the ethnic identity of those who inhabited Sycamore Shelter. Perhaps it is not possible to distinguish archaeologically between the subgroups of one culture, of one large society ethnographically and linguistically defined like the Maidu.

A closer look at some of the traits in Table 2 reveals some concerns. For example, percentages for the different projectile points at BUT-473 are based on very small numbers of specimens. Also, the frequencies of some toolstone types may be due as much to geography as cultural choice. For instance, a Tuscan obsidian source is within a few miles of Sycamore Shelter and the Mechoopda villages (Hamusek-McGann 1995:13-32) and this type of volcanic glass is also available as float nodules close to these sites. Konkow sites further away from BUT-473 have significantly less Tuscan obsidian.
### Table 1. Obsidian Sources of Projectile Points from BUT-473.

<table>
<thead>
<tr>
<th>CAT #</th>
<th>EXCAVATION UNIT</th>
<th>DEPTH (INCHES)</th>
<th>POINT TYPE</th>
<th>OBSIDIAN SOURCE</th>
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<tr>
<td>10-64</td>
<td>F11</td>
<td>0-6</td>
<td>Contracting Stem</td>
<td>Tuscan</td>
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<tr>
<td>10-82</td>
<td>E9</td>
<td>18-24</td>
<td>Contracting Stem</td>
<td>Tuscan</td>
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<tr>
<td>10-129</td>
<td>F10</td>
<td>0-12</td>
<td>Contracting Stem</td>
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</tr>
<tr>
<td>10-157</td>
<td>E9</td>
<td>12-18</td>
<td>Gunther</td>
<td>Tuscan</td>
</tr>
<tr>
<td>10-16</td>
<td>F11</td>
<td>0-6</td>
<td>Rattlespring</td>
<td>Tuscan</td>
</tr>
<tr>
<td>10-17</td>
<td>F11</td>
<td>0-6</td>
<td>C. Triangular</td>
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</tr>
<tr>
<td>10-107</td>
<td>F10</td>
<td>12-18</td>
<td>C. Triangular</td>
<td>Tuscan</td>
</tr>
<tr>
<td>10-48</td>
<td>D9</td>
<td>12-18</td>
<td>Rattlespring</td>
<td>Borax Lake</td>
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<tr>
<td>10-94</td>
<td>D12</td>
<td>12-18</td>
<td>C. Triangular</td>
<td>Borax Lake</td>
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<tr>
<td>10-46</td>
<td>F9</td>
<td>18-24</td>
<td>C. Triangular</td>
<td>Borax Lake</td>
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<tr>
<td>10-67</td>
<td>F11</td>
<td>6-12</td>
<td>Gunther</td>
<td>South Warners</td>
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<td>10-85</td>
<td>F9</td>
<td>12-18</td>
<td>Contracting Stem</td>
<td>GF/LIW, Med. Lake Highlands</td>
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<td>10-86</td>
<td>F9</td>
<td>12-18</td>
<td>Contracting Stem</td>
<td>Kelly Mountain</td>
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<tr>
<td>10-163</td>
<td>E10</td>
<td>18-24</td>
<td>Contracting Stem</td>
<td>Napa Valley</td>
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### Table 2. Archaeology Trait Comparisons between Mechoopda, BUT-473, and Konkow.

<table>
<thead>
<tr>
<th>ARCHAEOLOGY TRAIT</th>
<th>MECHOOPDA</th>
<th>BUT-473</th>
<th>KONCOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. DSN Obsidian projectile pts.</td>
<td>40%</td>
<td>0</td>
<td>4%*</td>
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<tr>
<td>2. DSN CCS projectile pts.</td>
<td>56%</td>
<td>100%</td>
<td>92%*</td>
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<td>3. DSN serrated projectile pts.</td>
<td>39%</td>
<td>13%</td>
<td>8%*</td>
</tr>
<tr>
<td>4. DSN notched base projectile pts.</td>
<td>0</td>
<td>13%</td>
<td>17%*</td>
</tr>
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<td>5. DSN v-shaped base projectile pts.</td>
<td>4%*</td>
<td>25%</td>
<td>0</td>
</tr>
<tr>
<td>6. Tuscan obsidian common</td>
<td>Yes*</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>7. Rattlespring obsidian projectile pts.</td>
<td>41%*</td>
<td>40%</td>
<td>0</td>
</tr>
<tr>
<td>8. Rattlespring CCS projectile pts.</td>
<td>38%*</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>9. Gunther quartzite projectile pts.</td>
<td>2%*</td>
<td>14%</td>
<td>79%</td>
</tr>
<tr>
<td>10. Gunther obsidian projectile pts.</td>
<td>65%*</td>
<td>29%</td>
<td>4%</td>
</tr>
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<td>11. Gunther basalt projectile pts.</td>
<td>19%</td>
<td>57%</td>
<td>18%</td>
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<td>12. Gunther projectile pts. DSA</td>
<td>155**</td>
<td>133*</td>
<td>164*</td>
</tr>
<tr>
<td>13. Gunther projectile pts. NOI</td>
<td>79*</td>
<td>94*</td>
<td>88*</td>
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<td>14. Human burials on site</td>
<td>Rare</td>
<td>Yes</td>
<td>Yes*</td>
</tr>
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<td>15. Incised bird bone ear tubes</td>
<td>Yes</td>
<td>No</td>
<td>Rare*</td>
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Notes: * indicates Mechoopda or Konkow trait’s close affiliation with Sycamore Shelter. DSA = distal shoulder angle; NOI = notch opening index.
That Sycamore Shelter is indeed a Konkow site is supported by the one 14C date of cal A.D. 1445-1524 from the rockshelter. Konkow people were living at BUT-473 before the pit houses at the Mechoopda villages were initially occupied around A.D. 1556 (Snyder 2014).

Finally, the possibility must be considered that the results of the archaeology trait comparisons (Table 2) might be accurate. The mixture of Konkow and Mechoopda traits at Sycamore Shelter may indicate a Konkow family adapting to Mechoopda culture prior to abandoning their rockshelter and moving down onto the valley floor to join others in the formation of large Mechoopda pit house villages. If this line of thinking is correct, then it follows that many, if not all, Late Horizon rockshelters in the nearby low foothills (below 800 ft. elevation) were vacated just prior to, or during, the establishment of the Mechoopda villages near Chico.

**SUMMARY**

Sycamore Shelter (BUT-473) is a Late Horizon Phase II Maidu rockshelter located in the Sierra Nevada foothills near Chico, California. One radiocarbon date places the prehistoric occupation of the site at cal A.D. 1445-1524.

The site’s artifact assemblage belongs to the Oroville/Chico Complex and is characterized by a plethora of arrow points sorted into 6 distinctive types. One of the types has been given a new name, Rattlespring Corner-notched, to include all the many varieties archaeologists have described for this kind of point.

A small nuclear or extended family, including men, women and children, lived at the rockshelter. They hunted game and gathered acorns and other plant foods to sustain themselves. Whether they resided at BUT-473 on a permanent or seasonal basis could not be satisfactorily determined. There is a spring directly across the creek from the rockshelter that might have provided fresh water at all seasons of the year, but evidence of its use by the Maidu is not available. Nor are there any other attainable data from BUT-473 that can clearly resolve this issue. That Sycamore Shelter may be one of several geographically close rockshelters that comprise a small resident community in Sycamore Canyon suggests the site was more than a temporary habitation location. Still, archaeologists commonly assert that small sites tend to be task sites, seasonally occupied.

A comparison of Mechoopda and Konkow archaeology traits with those from Sycamore Shelter as well as one radiocarbon date indicate the rockshelter was occupied by the Konkow Maidu prior to the formation of the Mechoopda villages on the Sacramento Valley floor. From this it is proposed that most, if not all, Late Horizon rockshelters in the low foothills of Butte County were occupied by the Konkow who abandoned them around A.D. 1556 and moved down to the valley. There they established large, permanent pit house villages and became linguistically and culturally the Mechoopda Maidu.

**ACKNOWLEDGEMENTS**

My deepest appreciation goes to my field crew of students and volunteers whose interest, effort and care produced the data for this report. They include: Barry Barns, Stanley “Ed” Clewett, R. Cockrell, Vernon Coggins, Charlie Deagle, Rolf Eggenberger, Ruth Ann Gardner, Dorothy Hill, Frank Hostetler, Michael Hughes, Gary Kollenborn, Ray Murdoch, Ronald Reed, Richard Tener, Kathleen Trevitt, Allison Unruh, and Mike Waldron.

I am beholden to several experts who assisted with data analysis and the preparation of this article. Kasey Cole analyzed the faunal remains. Dan Waldroop identified the brass gun cartridges. Amy Huberland made critical archaeological site records available. Judy Stolen drew the maps and Chris K. Johnson prepared the tables and illustrations for this paper.

Finally, I thank the landowners, Fletcher Brown and Nile Pearce, for granting permission to excavate Sycamore Shelter.
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