

**ARMCHAIR PREHISTORY OF THE  
BERRYESSA SNOW MOUNTAIN NATIONAL MONUMENT**

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July 2017



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## **SUMMARY**

The Berryessa Snow Mountain National Monument is home to some of the most important prehistoric cultural resources in the New World. Some of the oldest prehistoric sites in the Americas exist in the region and archaeological and ethnographic research has provided an outline of 20,000 years of cultural change and development.

Native people have been living in and utilizing the resources of the Berryessa Snow Mountain area for at least 20,000 years. During this long time period, they experienced part of the last Ice Age (30,000 to 15,000 years ago), the last Global Warming Period (8,000 to 4,000 years ago), and the variations of today's climate. These environmental changes and population growth required them to develop new technologies as well as new economic, social, and political systems.

As part of this development, they instituted the first form of passive agriculture and targeted resource use about 8,000 years ago when they took on grain processing as a new food source. Their growing population prompted a second targeted crop (~6,000 years ago) when acorn processing was added to their economy. From this time on, they lived in "orchards" of oak trees that were carefully tended and usually privately owned by families in each tribe.

With the development of permanent territorial boundaries (~6,000 years ago) it became necessary to establish an exchange system to ensure the movement of resources between areas and groups. This is when the various tribes in the area<sup>1</sup> developed political and economic systems based on a money economy<sup>2</sup>, professions, political centers, and trade networks.

The Wappo, Pomo, and Yuki people who inhabited the Snow Mountain National Monument spoke languages belonging to the two oldest language families in the New World<sup>3</sup>. The Patwin and Miwok languages belong to the Penutian language family. People representing the Penutian language family appear to have entered California's Central Valley sometime during the past 2,000 to 3,000 years (Moratto 1984:557). It is likely that they either displaced or intermarried into the

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<sup>1</sup> The Yuki, Nomlaki, Patwin, Pomo, Wappo and Lake Miwok tribes

<sup>2</sup> Using shell beads as the medium of exchange

<sup>3</sup> Hokan and Yukian

existing Hokan and Yukian speaking groups that originally controlled the area.

Although a few archaeological studies have taken place within the National Monument, most work on area prehistory has occurred around the shores of Clear Lake, just west of the monument. This work has provided a framework of regional cultural history.

## **REGIONAL PREHISTORY**

### ***Ethno-geography and Linguistics***

At the time of European arrival, the National Monument was home to people speaking 5 different languages.

The northern-most portion of the monument was controlled by the Northeastern Pomo, Nomlaki, and the Onkolukomno'm Yuki Tribe. Most of the monument south of French Ridge was controlled by the Hill Patwin. It is likely that the Eastern and Southeastern Pomo (based in the Clear Lake Basin) also used much of the western portion of the monument north of Cache Creek. South of Cache Creek, the Lake Miwok and Wappo tribes would have utilized the western portion of the monument. The Cedar Roughs Wilderness Area of the monument was completely within the Southern Wappo tribal territory.

A friendly arrangement existed between the Hill Patwin and Clear Lake Pomo. Each allowed the other to fish, hunt, and gather certain resources within their territories. Both groups intermarried frequently (Gifford 1923:78).

Linguistic evidence has determined that Pomo speakers were part of the Hokan language family that occupied most of North America during the last Ice Age (Moratto 1984:551). Researchers have long suspected that Hokan was one of the two oldest language families in the New World (Shipley 1978:81) and have recently established that the Hokan language family “is the oldest linguistic relationship among Western North American languages that can be established by normal comparative linguistic methods” (Golla 2004).

The Wappo and Yuki languages belong to the Yukian language family. This language family is considered as old as the Hokan family and its speakers are known to have inhabited most of California's North Coast during the last Ice Age.

The oldest archaeological discovery in the region to date is a Napa obsidian tool manufactured ~21,000 years ago. It is likely that this tool was left in the area by Yukian speaking people.

The oldest sites in the eastern portion of the Clear Lake Basin have been dated between 12,000 and 14,000 years. These sites indicate that a wave of people (most likely Hokan speakers) entered the Lake Basin through the National Monument by way of the Cache Creek drainage from California's Central Valley (Parker 1994, 2008). These were likely the first permanent residents in the region.

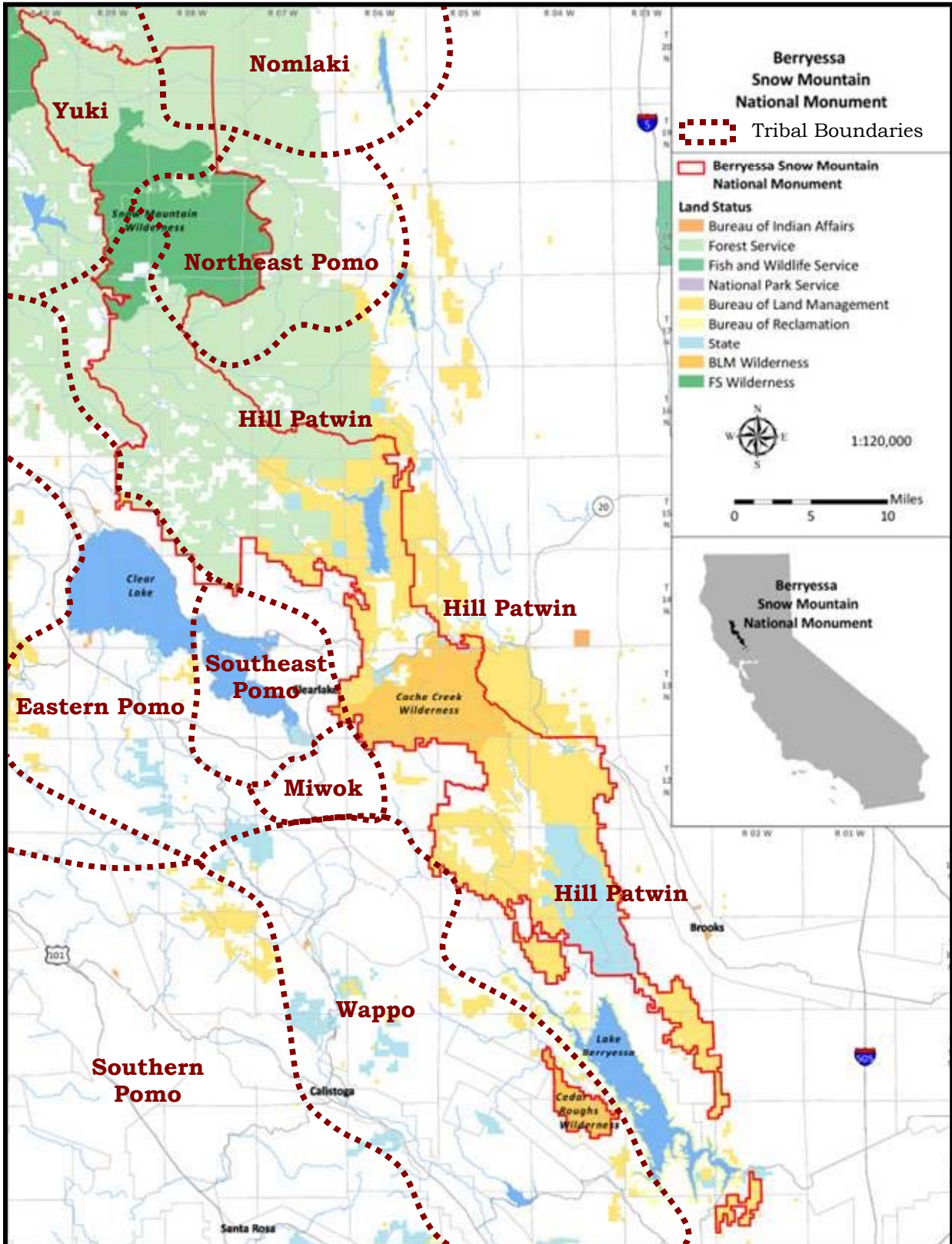
The Hokan speakers settled the National Monument area and the eastern and southern arms of Clear Lake. They utilized stone resources from the Borax Lake obsidian flow. Archaeological evidence suggests there was little or no change in the size or location of their communities until ~6,000 years ago. At that time, population growth prompted community settlements throughout the Clear Lake shoreline (Parker 1994:208).

Further research has indicated that these people served as the origin of the Pomoan language and culture that ultimately spread westward to the coast, north to Fort Bragg, and south to Sebastopol (Whistler 1980:13, Golla 2004, Oswalt 1962).

Throughout the 14,000+ years of Pomoan habitation, there have been many political, technological, and cultural changes as these people sought to adjust to changes in climate, resource availability, and population growth.

The Patwin and Lake Miwok languages belong to the Penutian language family. People representing the Penutian language family appear to have entered the California Central Valley sometime during the past 2,000 to 3,000 years (Moratto 1984:557). It is likely that they either displaced or intermarried into the existing Hokan and Yukian speaking groups that originally controlled this area.

## TRIBAL BOUNDARIES AT THE TIME OF EUROPEAN ARRIVAL (GENERAL)





**Archaeology** (based on research by Parker 1994, 2008)

**The First People**

It is likely that the first people in the area were mobile bands of Yukian speaking people. We know very little about these people or their culture, and their presence in the region is represented by a single obsidian scraper made from Napa obsidian ~21,000 years ago.

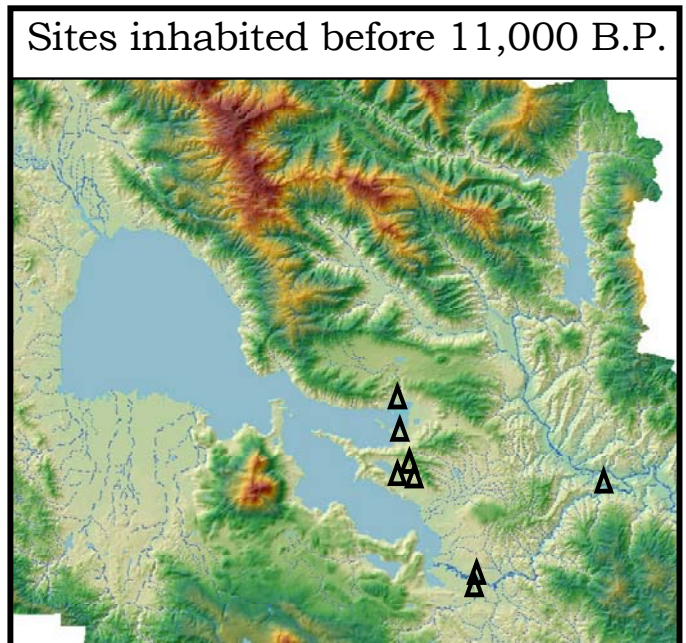


**The First Permanent Residents**

The first permanent settlers in the region most likely arrived about 14,000 B.P. (before present). Archaeological site distributions suggest that they entered the area from California's central valley in the east. It is likely that these were small communities that kept close ties with their parent communities in the valley. These early settlers probably had a culture that focused on resources that were easily gathered and processed. Spear points from this period are simply made, but functional.



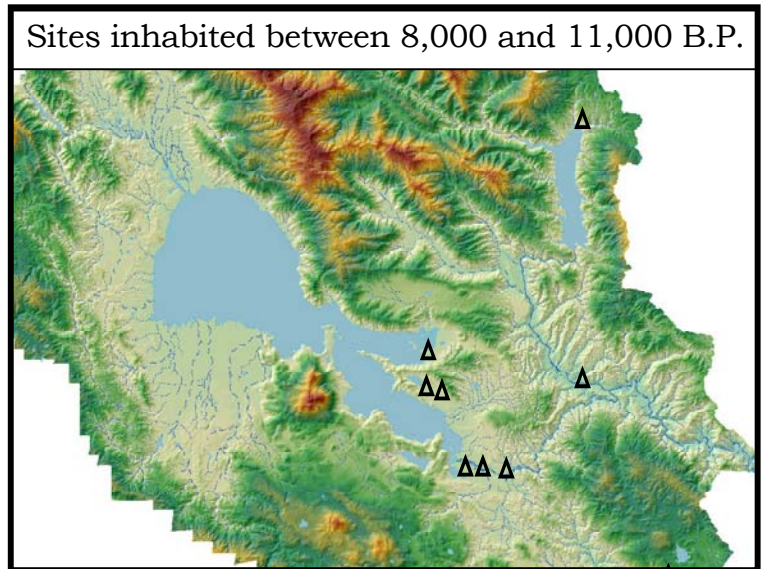
During the Ice Age, there was rain year-round. This supported a pine and cypress forest throughout the area.



## The End of the Ice Age

Between 11,000 and 8,000 B.P., the Ice Age came to an end. This had a major effect on weather patterns throughout Northern California. Regional environments changed from pine and cypress forest area to oak and chaparral grassland.

Archaeological sites suggest that there was little change in culture and technology during this transition period.

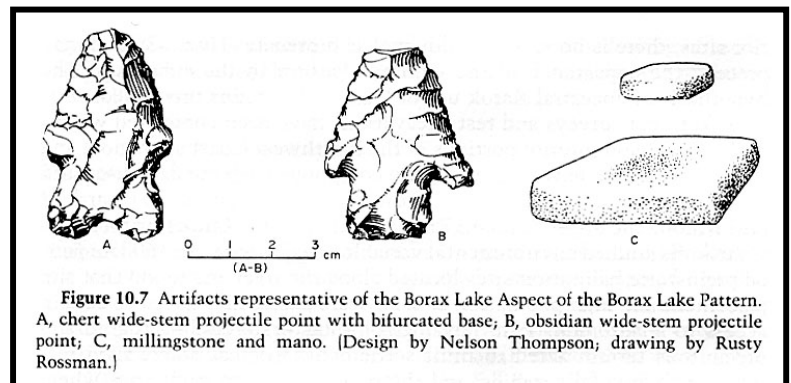
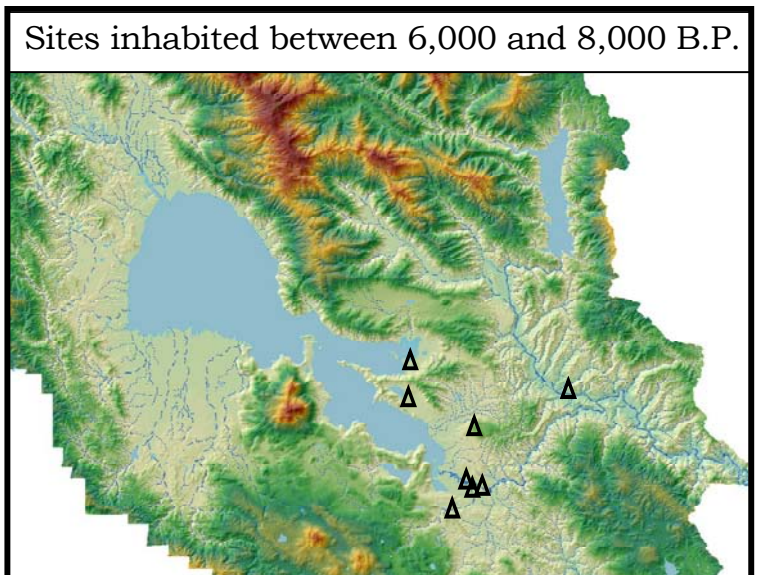


## The Last Global Warming

Beginning about 8,000 B.P. and lasting for 4,000 years, a period of global warming set in. The dry weather patterns did away with much of the easily gathered resources and people all over the World were forced to look for new sources of food.

In California, the new food source of choice was grain. But grain was not easy to gather, nor was it easy to prepare. It required new tools to crack the hard husk and grind the seeds. The mano (hand stone) and metate (milling slab) were added to the tool kit.

The once small communities that lived near the "food rich" marshy areas most likely joined together to form larger settlements to take advantage of reliable water





sources. The larger settlements allowed for organized work parties to gather and process grains and other resources.

### Permanent Villages with Territorial Boundaries

By 6,000 B.P., major settlements can be found throughout the region. In addition, upland settlements suggest that resources in these areas were also important. It is possible that these changes in settlement pattern were the result of both population growth and the addition of another new food source; acorns.

The mortar and pestle show up in archaeological sites for the first time and suggest the gathering and processing of acorns and other soft nuts.

In addition, the dart and throwing stick (atlatl) were added to the traditional hunting tool kit, which consisted of the thrusting spear, snares, traps, and nets.

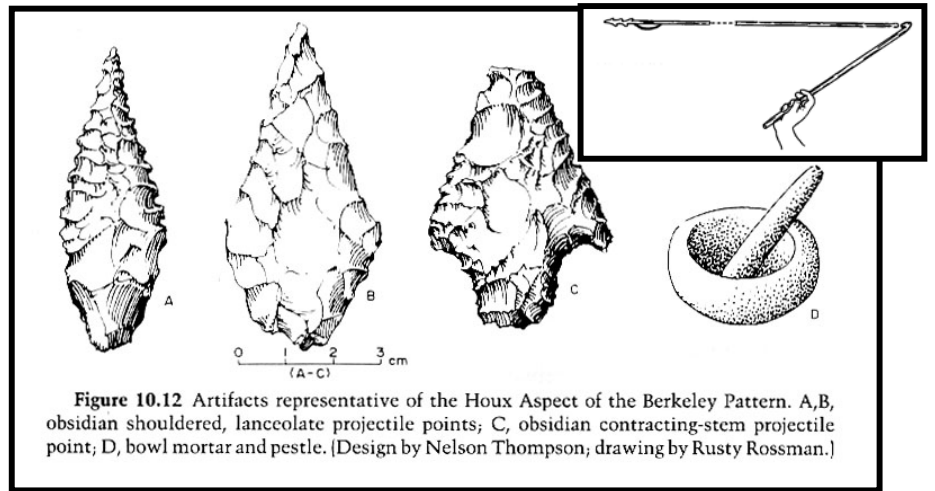
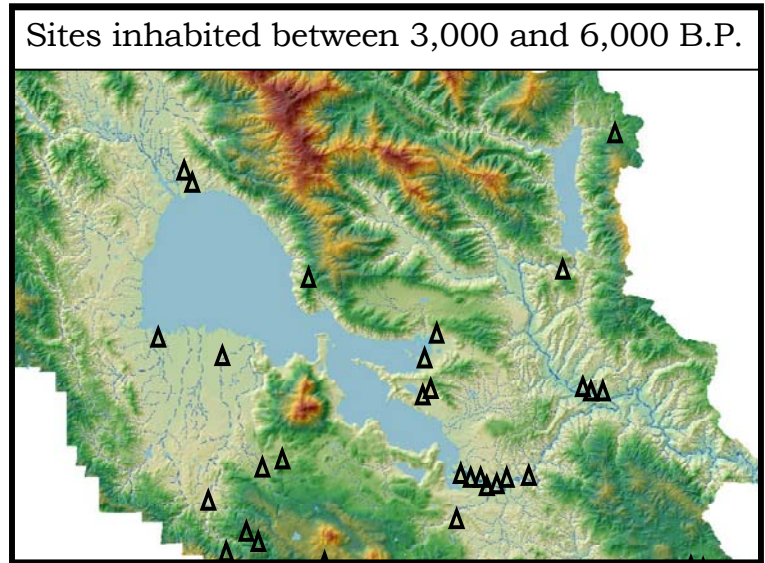


Figure 10.12 Artifacts representative of the Houx Aspect of the Berkeley Pattern. A,B, obsidian shouldered, lanceolate projectile points; C, obsidian contracting-stem projectile point; D, bowl mortar and pestle. (Design by Nelson Thompson, drawing by Rusty Rossman.)

The locations of major settlements do not change much from 6,000 B.P. to the time of European arrival. This suggests that a system of permanent territorial boundaries had been established.

Another line of evidence pointing to permanent territorial boundaries is the fact that shell beads show up in archaeological sites about 6,000 B.P.. Shell beads were still being used as money at the time of European arrival. In a culture where each major village controlled a defined territory, any resource that existed outside the village's territory would



need to be traded for or purchased. These circumstances would suggest the need for a “money” system.

Around 3,500 B.P., population growth and environmental factors force many Clear Lake Basin people to move west into the less populated Russian River drainage. Clear Lake people married into the existing tribes in this area and took with them their language, culture, and technology. Eventually the Clear Lake Pomo culture spread throughout Sonoma and Mendocino Counties.

**Arrival of the Patwin and Miwok Culture in the Region**

By 3,000 B.P., weather patterns had become what we see today. New developments in acorn processing (the hopper mortar), fishing and hunting techniques provided additional food resources for a growing population.

The bow and arrow show up in archaeological sites about 500 years before the arrival of European explorers.

As the Clear Lake Basin people became more and more focused on the lake's resources, their use of wider region may have only been sporadic at the beginning of this period. This is most likely the time that Patwin and Miwok people entered the National Monument area making it their home.

**Tribal Life**

Each Tribe had a well defined territory with one or more large villages, several smaller villages and seasonal camp sites. One of the large villages served

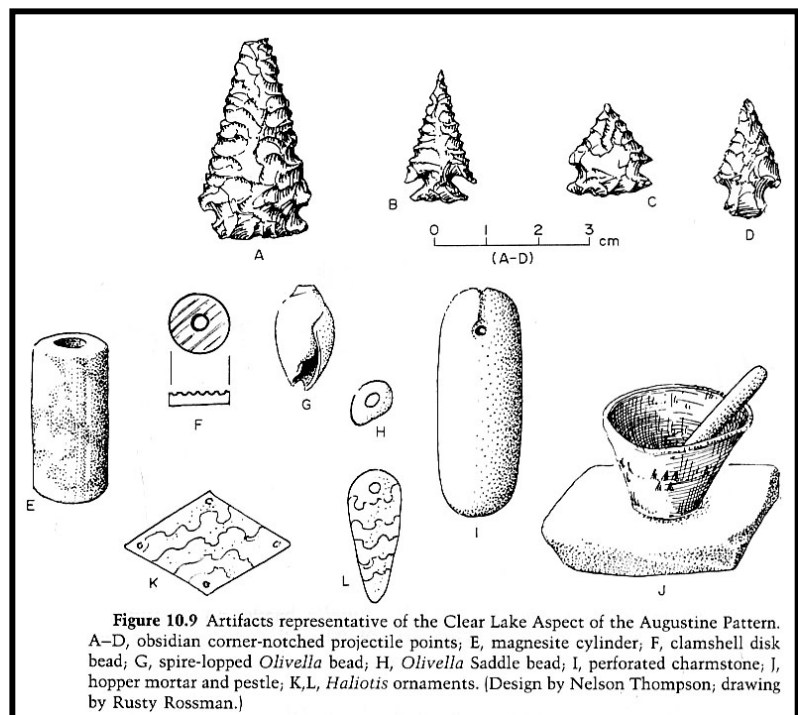
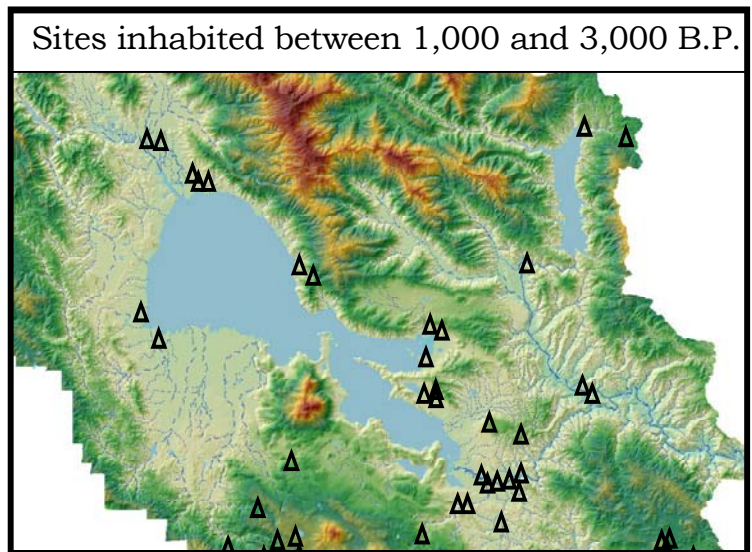


Figure 10.9 Artifacts representative of the Clear Lake Aspect of the Augustine Pattern. A–D, obsidian corner-notched projectile points; E, magnesite cylinder; F, clamshell disk bead; G, spire-topped *Olivella* bead; H, *Olivella* Saddle bead; I, perforated charmstone; J, hopper mortar and pestle; K, L, *Haliotis* ornaments. (Design by Nelson Thompson, drawing by Rusty Rossman.)

as the political center for the tribe and housed the Tribal Captain, Tribal Council, and Religious Leader. Although everyone in the community had the ability to fish, hunt, harvest, and manufacture the full range of needed materials, the community also had professionals that were uniquely skilled in doctoring (shaman), hunting, fishing, basket making, and stone tool making. A money economy (based on shell bead currency) was used to purchase manufactured goods and professional services. Most gathered resources were exchanged for other gathered resources.

Permission had to be obtained to gather resources controlled by another Tribe. Such access was usually granted but required payment in the form of a percentage of the gathered resource.

## **SCIENTIFIC AND CULTURAL VALUE OF THE RESOURCES**

The Native American cultural sites within the Monument are extremely fragile and non-renewable resources. The surface and subsurface materials, patterns, and features they contain are easily disturbed by any earth moving activity<sup>4</sup> and are subject to damage by looting.

Though fragile, these sites contain materials and features that can be used to reconstruct patterns of human behavior. As Native Americans utilized locally available plant and animal resources, the existence of the remains of these resources, and the tools that were used to process them provide indirect evidence of the local environment and changes that took place in that environment over the past 20,000 years.

During that 20,000-year time span, the people of the National Monument experienced environmental change (such as global warming), over population, over exploitation of resources and unequal distribution of resources. They had to develop ways of dealing with these concerns and the evidence of their solutions exist within the patterns and materials contained in the cultural sites.

These are all concerns that our own World culture is facing today. If scientifically studied, the cultural sites within the National Monument represent a library of human activity and decision-making that can be used to help guide our own culture through these and other challenges.

To the Native American community, the cultural sites within the National Monument provide a connection with the land and a connection with the elders. Often sites are located near important plant resources, which are still used today by traditional tribal members for ceremony and medicine.

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<sup>4</sup> e.g. road construction, campground development, trail development, and looting.

The sense of place is very important to those who have lived on this land for 20,000 years. For traditional people, the land, plants, and animals make up this sense of place. Each one is expected to be found in its proper place. If one or more are no longer in the environment where they belong, it is considered a bad sign and indication that the people have broken a moral law.

For the scientist, these sites can teach us about human interaction and problem solving that can help guide the World culture in the future. To the Native American community, these sites are an integral part of daily life, and necessary for today's existence.

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