

Land of Extremes

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EDITOR'S NOTE A series of stories on the history of man in our desert and the efforts of the Imperial Valley Desert museum to tell that story will run through October, replacing the Teen page until a new crop of interns return in the fall connected to the IVHigh journalism program.

NATIVE PEOPLES INHABIT ARID LANDS

Food technology reveals much about ancient peoples



LEFT: Typical small arrow points found in Imperial County.

ABOVE: Archaic period atlatl points can be 6,000 years old. These points were found during surveys for early geo-thermal projects near the Salton Sea. PHOTOS COURTESY OF IMPERIAL VALLEY DESERT MUSEUM

BY NEAL V. HITCH
Special to this Newspaper

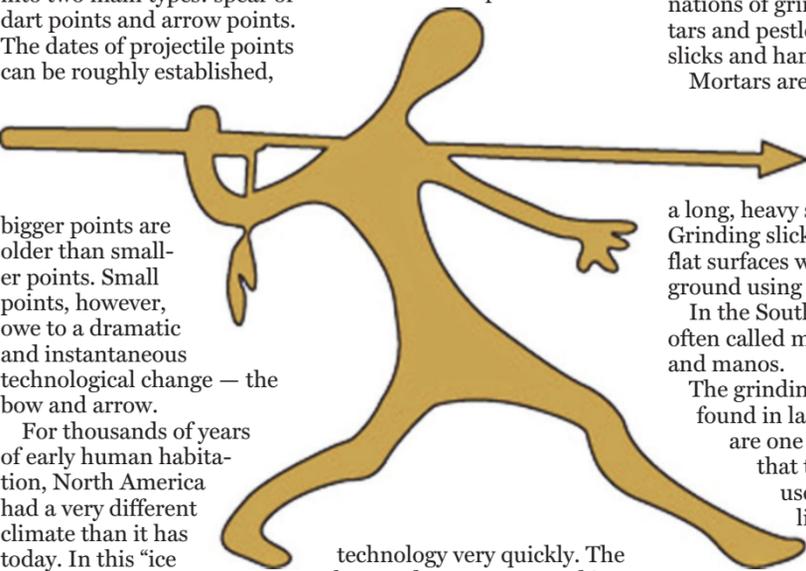
When we think of technology in relation to food today we are most likely to envision blenders, espresso machines and thermal immersion circulators. But food propagation and preparation technology have been the core adaptations that allowed native peoples to inhabit arid lands.

Hunting

One of the most commonly known Native American tools is the projectile point. Unlike the generally used term “arrow heads,” projectile points fall into two main types: spear or dart points and arrow points. The dates of projectile points can be roughly established,

In 1986, the skeleton of a large mammoth was discovered in a remote section of the Anza-Borrego Desert State Park. One of the rib bones showed evidence of v-shaped cut marks made by a primitive stone tool.

Humans adapted to new



bigger points are older than smaller points. Small points, however, owe to a dramatic and instantaneous technological change — the bow and arrow.

For thousands of years of early human habitation, North America had a very different climate than it has today. In this “ice age” glaciers covered much of the country, even into California. Other areas were temperate and tropical. In the environments not covered by glaciers there was an abundance of water and plant life, and this climate supported “megafauna”: large animals like mastodons, giant camels and saber-toothed cats.

Spears and the atlatl (a weighted throwing stick) provided hefty weapons for thousands of years. In an archaeological context, large spear points have been associated with the earliest paleo-indian sites, including points found in the rib cages of mastodons.

Recent archaeological research, however, suggests that large sharp points were also used as knives for butchering large animals that were trapped in bogs and marshes, or that had been driven off cliffs.

technology very quickly. The bow and arrow appeared in America in the east around 200 A.D., and by 500 A.D. it was in widespread use throughout the continent. The spear and atlatl combination continued to be used as well. Bow and arrow technology was lighter and smaller than the spear. But its higher velocity made the effect of the weapon superior for hunting animals of all sizes.

While exact dates are still much debated, the smaller points were probably used in Southern California for around 1,000 years. The points varied in size, but very small points have been found in archaeological sites around ancient Lake Cahuilla, used to hunt both small jackrabbits and large Borrego sheep.

Processing

Some of the most ubiquitous

Living in the Landscape 8400 BCE

A recent archaeological discovery in Jacumba shows the food patterns around 10,000 years ago. The indigenous population utilized edible foods found and cultivated in the natural environment:

- yucca
- hedgehog cactus fruit
- juniper berries
- mallow seeds
- opuntia cactus
- grass seeds



Seed Storage circa 1849

In 1943, an archaeologist working in Jacumba documented an olla cache that contained nine domesticated seeds stored for future planting. This is a clue to what was being eaten in Jacumba about the time of the Gold Rush in California. The grains on this list, wheat and barley, would have been brought into the region by the Spanish:

- corn
- tepary bean
- squash
- large muskmelon
- watermelon
- sorghum
- wheat
- barley



SHUTTERSTOCK PHOTOS

artifacts of Southern California are grinding stones.

There are two main combinations of grinding tools: mortars and pestles, and grinding slicks and hand stones.

Mortars are round holes worn directly into a boulder by repeated pounding with a long, heavy stone pestle.

Grinding slicks are smooth flat surfaces where items are ground using hand stones.

In the Southwest, these are often called morteros, metates and manos.

The grinding slicks or holes are one way of knowing that the people who used these tools lived in the area, or returned seasonally to the same area, for long periods of time. The longer a grinding hole was used, the deeper it became.

Grinding stones were essential to processing foods by grinding seeds, nuts, berries and acorns.

Women traditionally used these tools to grind the foods into a fine flour, creating meal for cooking.

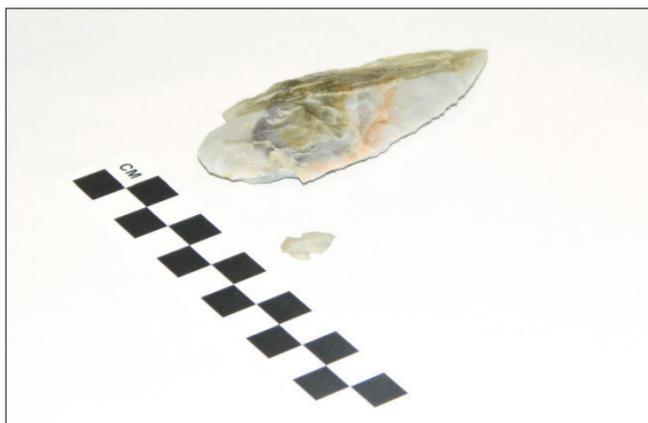
Shawii, acorn mush or oatmeal is an example of food made from acorns ground on the grinding stones and are still very popular today.

Environmental management

The Kumeyaay long practiced sophisticated forms of environmental management and have centuries of oral traditions about tending the land.



ABOVE: Granite grinding stone used to process food along the shore of ancient Lake Cahuilla. **LEFT:** The atlatl man has been the logo of the Desert Museum since the 1970s. PHOTOS COURTESY OF IMPERIAL VALLEY DESERT MUSEUM



This stemmed spear point is much larger than the arrow point, which would fit on the tip of your finger. PHOTO COURTESY OF IMPERIAL VALLEY DESERT MUSEUM

Controlled burning was practiced to open the land and allow new plants to grow. Resources were cultivated based on experience in how to properly harvest plants during specific seasons.

Areas like Jacumba’s volcanic soil were found to be excellent for growing crops in fields irrigated by local springs.

Earthen pits for roasting

plants like agave have been dated to nearly 9,000 years. Recent archaeological discoveries have supported Kumeyaay oral traditions of the importance of agave as a source of food, medicine and fiber for as long as people have lived in the area.

Neal V. Hitch is director of the Imperial Valley Desert Museum.

From Aug. 16 through Oct. 12, the Imperial Valley Desert Museum will be exploring native California foods and the tools used in preparing it with a new traveling exhibit: “Seaweed, Salmon, and Manzanita Cider: A California Indian Feast.” The exhibit features foods important in the lives of Native Californians including fish, shellfish, seaweed,

meat, vegetables, berries, fruits, flowers, nuts, seeds and salt. In California food was as varied as the landscape, as were the methods of preparing them. Roasted, boiled, baked, leached, steeped, and dried, the exhibit contains harvesting instructions and recipes for many foods.

This will be the largest and most significant traveling exhibit hosted by the Desert Museum to date. Admission will be \$5 for this exhibit, but thanks to Imperial Valley Aggregates and Gibson & Schaefer Inc. the opening on Aug. 16 from 2 to 5 p.m. will be free to the public.