

FIRST CALIFORNIANS

HOW ENVIRONMENT IMPACTS CULTURE

A Resource for Students and Educators

BOWERS
MUSEUM

Bierstadt

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FIRST CALIFORNIANS

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ACKNOWLEDGEMENTS

It is with great pleasure that the Bowers Museum presents this Resource Guide for Students and Educators with our goal to provide worldwide virtual access to the themes and artifacts that are found in the museum's eight permanent exhibitions.

There are a number of people deserving of special thanks who contributed to this extraordinary project. First, and most importantly, I would like to thank Victoria Gerard, Bowers' Vice President of Programs and Collections, for her amazing leadership; and, the entire education and collections team, particularly Laura Belani, Mark Bustamante, Sasha Deming, Carmen Hernandez and Diane Navarro, for their important collaboration. Thank you to Pamela M. Pease, Ph.D., the Content Editor and Designer, for her vision in creating this guide. I am also grateful to the Bowers Museum Board of Governors and Staff for their continued hard work and support of our mission to enrich lives through the world's finest arts and cultures.

Please enjoy this interesting and enriching compendium with our compliments.

Peter C. Keller, Ph.D.
President
Bowers Museum

COVER ART

Mariposa Indian Encampment, Yosemite Valley, California, c. 1872
Albert Bierstadt (1830-1902)
Oil on paper; 16 x 55.75 in.
Private Collection

FIRST CALIFORNIANS

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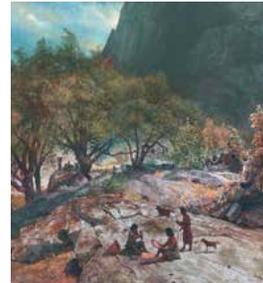
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Who were the First Californians?

It is a widely-believed **theory** that the first inhabitants of the land we call California were descendants of people who crossed the narrow Bering Strait during the last Ice Age. Scientists have proposed the **hypothesis** that these people walked over a now-vanished land bridge connecting Asia with Alaska as they hunted for mammoths. Over thousands of years, they settled throughout the North and South American continents. **Archaeologists** have discovered **petroglyphs** and stone tools that provide evidence of **Indigenous** cultural groups living in California at least 10,000 years ago, perhaps much earlier. These discoveries provide clues to how the First Californians lived.

When Christopher Columbus sailed from Spain in 1492, he was seeking a passage to India. Instead his ships made landfall on an island in the Caribbean Sea. Thinking he had reached his destination, he referred to the people he encountered as *Indians*. Because this term is geographically inaccurate, in the 20th century the terms *Native Americans* and *American Indians* began to be used as alternatives. This guide uses the term First Californians to refer to Indigenous peoples who inhabited the land known today as California. We use the term *Native Americans* to refer to individuals in contexts that are not limited to previous inhabitants of present-day California. Where possible, we also use tribal names that reflect how individual cultural groups describe themselves.

In this guide, we will look at the **environments** in which the First Californians lived, and how those environments impacted their daily lives and their **cultures**.

Focus Questions:

- How would you describe the physical environment of the local region?
- How did the regional environment impact the daily lives of the First Californians?
- How does our environment affect the choices we make and the way we live?
- How do people adapt to changes in their environment?
- What other questions do you have about the First Californians?

MODULE ONE TIMELINE: MIGRATION AND SETTLEMENT

More than 300,000 Indigenous people were living in present-day California prior to the arrival of European explorers. By the early 20th century, California's Indigenous population had decreased to about 20,000 people. A **timeline** of First Californians can be divided into three phases: 1) **migration** to present-day North America, 2) establishment of homelands in present-day California, and 3) interactions of First Californians with European settlers and the United States government from the 18th century to today.



1 BCE | 1 CE

- **BCE** stands for "Before Common Era."
- **CE** stands for "Common Era."

The years to which this modern, universal calendar notation system applies correspond directly with the years covered by the previous notations **BC** and **AD**.

MODULE ONE ACTIVITY: CREATE A FIELD JOURNAL

What are you curious about?

Native Americans shared knowledge within their cultural groups and passed it along from one generation to the next through the spoken word. They did not keep formal written histories.

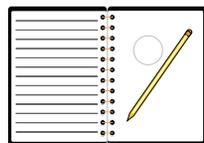
As a result, we may have many questions about the lives of the First Californians who lived thousands of years ago. For example, what kind of games did Indigenous children like to play? Or, how did First Californians create the mysterious petroglyphs that appear on rocks, and what do they mean? These carvings contain intricate symbols that resemble ancient Mayan, Egyptian, Hebrew and Hindu writings for which we can only guess the origins.

Create a field journal. You will need a pencil and eraser, notebook paper, scissors, tape, and colored markers. Decorate the cover. On the inside pages, take notes, record **observations**, paste photographs, sketch out your ideas, and pose questions you would like to **investigate**. Clues can be found by exploring the collection of a museum that exhibits Native American **artifacts**. Begin by asking questions. Let your imagination flow, then share your curiosity and your journal with others!

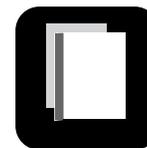
What I am curious to know about the First Californians:

① _____

② _____



Look for this symbol. It marks opportunities to sketch or jot down ideas and questions in your journal.



MODULE TWO:

THE

NATURAL ENVIRONMENT



MODULE TWO: WHERE WE LIVE IS HOW WE LIVE



Mountain Environment
Half Dome, Sierra Nevada Range
Photograph by Jon Sullivan



Coastal Environment
Coastal Sunset
Photograph by NK



Forest / Grasslands Environment
Shasta-Trinity National Forest
Photograph by Sundry Photography



Desert Environment
Anzo-Borrego Desert, California
Photograph by Marina Ivanova

California's Environmental Diversity

California's natural environment is one of majestic mountain ranges, river-fed valleys, sandy deserts and beautiful coastlines. All of these environments supported the daily life of native peoples for thousands of years. Natural resources in the local environment met their basic needs for food, clothing and shelter. First Californians built their villages along rivers and streams to have access to fresh water. Much of their food came from the ocean.

Long before the arrival of the first Europeans, California was home to a diverse variety of Indigenous cultures. Groups that made their home in California include the Shasta, Modoc and Pomo in Northern California; the Panamint, Yokuts and Miwok in Central California; and the Chumash, Tongva and Kumayaay in Southern California. They spoke a variety of native languages and lived in diverse **ecological** settings.

For Native Americans, nature is part of the total web of life. Every part of an environmental **ecosystem** is connected to all other parts.

How humans interact with nature is of great importance to Indigenous peoples. Native Americans are not content just to observe nature, or to use nature only to supply their needs without giving back. They believe everyone is responsible for taking care of and preserving the natural environment.

MODULE TWO: WHERE WE LIVE IS HOW WE LIVE

The natural environment encountered by the First Californians was rich with natural resources. Rivers, streams and coastal areas were filled with an **abundance** of fish and other sea creatures. Forests contained a variety of acorns, nuts and berries. In many areas, plant and animal life was so plentiful that even densely populated villages did not need to grow their own food. Instead, they lived as hunters and gatherers.

Habitats of Southern California include freshwater marshes, coastal shoreline, grasslands, woodlands, deserts and mountains. In most of the region, the climate consists of warm, dry summers and mild, wet winters. There are many sunny days and rainfall is rare.

In Central California, a large valley runs parallel to the Sierra Nevada mountain range. Two rivers flow on opposite ends of the valley, with wetlands occurring near the riverbanks. Desert grasslands lie at the valley's southern end where the climate is dry.

Northern California habitats include redwood forests with some of the oldest and largest trees on the planet. Near the Pacific Ocean, the climate is moist and foggy, averaging 100 inches of rain throughout the year.

Native Americans tended to settle in territories that included a variety of environmental conditions, or "**life zones**." These were defined by atmospheric conditions, soil moisture, density, altitude and local species of plants and animals. The land and its natural resources determined the types of homes people built, the food they ate, the clothing they wore, the tools they used, and how they traveled from

place to place. This can be seen clearly when comparing the daily lives of First Californians to those of cultural groups in other regions of North America.

Many people think of Native Americans as a large group of people with one common culture and one set of beliefs. Although they share a profound connection with nature and the spiritual world, Indigenous cultural groups in North America are as diverse as the landscapes of North America itself. As many as six hundred cultures inhabited present-day North America before the Europeans first made contact about five hundred years ago.

An incredible diversity of native languages, social structures and spiritual practices exist among Native American cultural groups. In this guide, you will be introduced to several of them. You will see how the diversity of the environment created challenges that led to a wide range of lifestyles and resulted in a rich diversity of traditions and human perspectives.



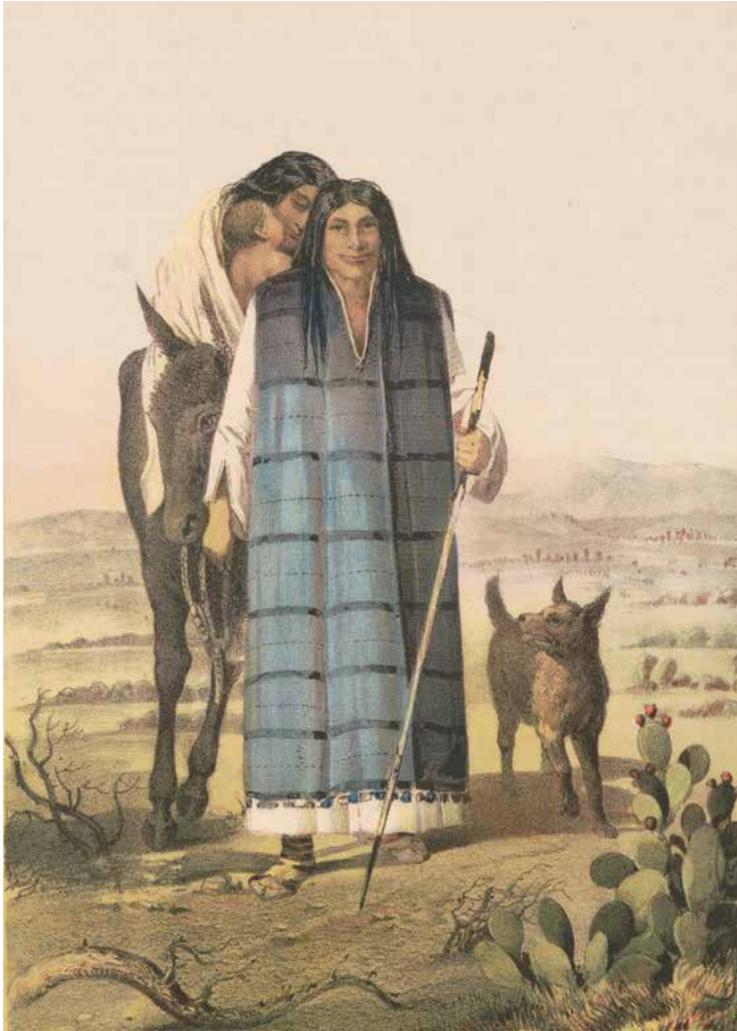
MODULE TWO: WHERE WE LIVE IS HOW WE LIVE

	MOUNTAINS	COASTAL	FOREST/GRASSLANDS	DESERT
FOOD				
SHELTER				
CLOTHING				
SPIRITUAL LIFE				

WHERE WE LIVE IS HOW WE LIVE. The natural environment influenced every aspect of human life for First Californians:

- What they ate (What type of plants grew in a particular ecosystem? What species of animals, fish and birds lived in the immediate environment?)
- What sort of shelter they lived in (Did climate affect the need for protection from the environment? What resources were available for building?)
- What they wore (Was the weather hot or cold, rainy or dry? What materials existed in the local environment that could be used to make clothing?)
- What they believed (How was spiritual life evident in artifacts they created? What materials were used to create these artifacts?)

Fill in the above table identifying what sort of food, shelter, clothing and spiritual artifacts you would expect to find in various environments inhabited by First Californians. Brainstorm with fellow students to see how many ideas you can think of when you collaborate as a team.



Diegeños [i.e., *Diegueños*], 1857
Arthur Schoff / Sarony & Co., Lithographer
Color lithograph; 11.45 x 8.45 in.
Library of Congress

Family

A diverse variety of cultural groups developed in California. A typical village was home to about 20 to 100 people. Several related families combined to form a **clan**. Members of a clan believed that all living things are connected and that each has a spirit, none lesser or greater than any other. Clan members shared a common animal “**ancestor**” such as a coyote or a bear that served as a spiritual guide. Images of these animals appear in Native American art and artifacts.

Men and women had different daily tasks. Men hunted, fished and trapped animals for fur. They organized groups which traveled inland to hunt for deer and quail or to catch fish in nearby lakes. Sometimes a group paddled off the coast to outlying islands where sea mammals and birds were plentiful. Women used digging sticks to unearth edible roots. They swung spoon-shaped seed beater baskets to knock nuts, acorns or seeds out of trees and into a cone-shaped burden basket they carried home on their backs. In addition to weaving baskets, women raised the children and prepared meals for their family.

Children were treated with kindness and respect. Babies were carried in cradleboards made of plant fibers that kept the child safe while parents worked. Elders cared for young children who learned by observing and helping adults with daily tasks. Girls made baskets and wove rabbit skin blankets. Boys made bows and arrows, and learned to hunt, fish and set traps for birds. Older children ran, swam and practiced archery. Bravery was a valued characteristic that First Californians tried to **cultivate** in their children.

MODULE TWO: FIRST CALIFORNIANS' DAILY LIFE

Food

First Californians obtained food by hunting, fishing and gathering. Some lived near rivers or lakes. Others lived in the mountains, valleys or the desert. The natural resources of these different ecological zones determined their food supply. First Californians ate many plants such as acorns and mushrooms. They hunted for birds and small game and fished for seafood. First Californians drank water and juice made from pressed fruits and nuts. The abundance of natural resources allowed families to stay in one place all year-round. They traded with neighboring cultural groups for what they needed.

Hunting and Fishing: First Californians used bows and arrows to spear birds, rabbits, and deer. They also hunted for snakes, coyotes, antelopes and mountain lions. Even insects such as wasps, grasshoppers and caterpillars were part of their diet. Animals' bodies provided many kinds of raw materials, including fur, skin and bone. Few resources went unused. Men paddled canoes made from tule grasses, bark or hollowed-out logs, using harpoons to catch dolphins and sea lions, and abalone fish hooks to catch seafood.

Gathering: Live oak trees grew in Northern, Central and Southern California. Acorns were an important part of First Californians' diet. They were gathered, washed to remove bitter acids, then ground with a **mortar and pestle** into meal used to make soup, bread and porridge. The abundance of acorns was one reason First Californians had no need to develop **agriculture**. Californians also gathered cactus fruit, wild oats, pine nuts and berries, along with root crops such as wild onions and agave. The wild foods gathered, and the tools they used to do so, varied depending on where they lived.



Tar from the ocean was used to seal baskets and canoes so they could store or carry water.

Basketry Water Bottle, late 19th to early 20th century
Paiute culture; California
Willow and cotton string; 11 x 7.375 in.
Bowers Museum 19606
Gift of Harrie H. and Mae Teaboldt



Blade, 1000-1700
Lower Klamath River, California
Obsidian; 2 x 6.5 in.
Bowers Museum Collection 90.37.2
Gift of David Baughman



Fishhook; date unknown
Southern California
Abalone shell; 1 x 1.125 in.
Bowers Museum Collection 20794
Loan courtesy of the Southwest Museum



Mortar, date unknown
Hidden Ranch area, Black Star Canyon
Orange County, California
Sandstone; 5 x 8.5 in.
Bowers Museum 13322, 13324
Gift of the Irvine Foundation

MODULE TWO: FIRST CALIFORNIANS' DAILY LIFE



Dance Skirt, worn during ceremonies and on special occasions, late 19th century
Lower Klamath River, California
Bear grass, cotton cloth, glass beads
25.5 x 19.5 in.
Bowers Museum 86.30.5a
Gift of Junius and Angeline Holte



Necklace, late 19th century
Lower Klamath River, California
Snail and abalone shells
9 x 13 in.
Bowers Museum 36852a
Gift of Irene Baker



Elk Antler Purse and Shell Money, late 19th century
Lower Klamath River, California
Elk antler, dentalia, iris fiber and glass beads
1.375 x 6 x 1.5 in.
Bowers Museum 10896a
Gift of the Irvine Foundation



Kilt, late 19th century
Pelican pelt and leather kilt
Worn by both men and women
wrapped and tied around the waist
51.25 x 40 in.
Bowers Museum 33197
Gift of Mr. Lawrence Gale

Clothing

Nearly every Native American cultural group has a traditional style of dress by which they can be identified. In **pre-contact** California, men wore breechcloths (a long piece of bark or buckskin tucked over a belt). They also wore kilts for ceremonial purposes, warmth and protection. Women wore a skirt or a two-piece apron made of woven plant fibers. The length, design and material varied from one cultural group to another.

In the temperate California climate, Indigenous people did not need to wear much clothing. What they did wear was made with plant fibers, bird skins and small animal hides. They often went barefoot; but if the terrain was rough, they wore sandals made with fibers from the yucca plant.

During cold weather, both men and women made capes made from rabbit fur, deerskin or otter which also doubled as blankets. Woven basketry caps were worn, mainly to carry loads. Both men and women decorated their faces and bodies with tattoos. They adorned themselves with flowers, feathers and strings of beads made from stones or shells. During important **rituals** and ceremonies, warriors, leaders and healers wore clothing that combined feathers, bones, fur and seashells.

After **colonization** by the Spanish, First Californians' clothing styles changed as they **adapted** certain articles of European clothing such as vests and jackets which they decorated with shells or glass beads.

MODULE TWO: FIRST CALIFORNIANS' DAILY LIFE

Natural resources—fresh and sea water, fertile land, rich minerals, sunlight and clean air—add to the quality of life in an environment. Indigenous trees and plant life, as well as local birds, fish and animals, provide materials and settings that are essential to sustain life on earth. Some environments have a greater abundance of natural resources than others. California's was one of those environments. Nature impacted every aspect of Native Americans' daily lives.

Shelter

First Californians built their homes with materials that came from nature. In Northern California, cone-shaped **tipis** were made with bark from trees that grew in the forests. In Southern California **tule**, strong grass reeds that grew in the marshlands, were combined with bent willow branches to construct dome-shaped huts.

Tule huts measured 10 to 50 feet across and held three to four families. Dwellings consisted of a framework of plant material to provide a sturdy base for a covering of reeds and grass mats.

Building a home required the following steps:

- Digging a circular or oblong pit 2 feet deep and 12 to 15 feet wide. This formed the floor and part of the walls of the dwelling.
- Poles crafted from young willow saplings were planted around the edge of the hole and tied together on top. The poles were then covered with bark, brush, cattails or tule mats. Cross poles were added for strength.
- A small opening served as a doorway big enough to crawl through.
- An opening was created at the top, allowing light to enter and smoke to escape. Under the small hole, a fire was built for warmth.



(Above) Miwok bark tipi, typical of Indigenous dwellings in Northern California
Photograph by stepheneng3

(Below) Tule hut, typical of Indigenous dwellings in Southern California
Photograph by RS Smith Photography

MODULE TWO: FIRST CALIFORNIANS' DAILY LIFE



Hundreds of years ago, a net like this may have been used by hunters to capture small animals such as rabbits.

Rabbit Net, 1000-1700
Channel Islands, California
Sea grass cordage
Bowers Museum 38505



Basketry quivers were used to hold arrows. They were woven from tulle fiber for flexibility.

Woven Quiver, 19th century
Klamath culture; Southern Oregon
or Northeastern California
Dry Tule; 17 x 6 x 1.75 in.
Bowers Museum 19629
Gift of Harrie H. and Mae Teaboldt



Arrowpoints were made by chipping **obsidian** rock so that small fragments fell away, leaving a sharp pointed edge. They were inserted into a slot in a wooden shaft, then lashed with wet sinew.

Projectile Point, date unknown
Courreges Ranch, California
Obsidian; 1.625 x 3.25 in.
Bowers Museum 2922
Gift of Mr. John E. Courreges



Tools

The design and use of tools is an indicator of human resourcefulness. Archaeologists have found evidence of the use of stone tools by people living in California thousands of years ago.

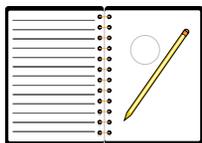
First Californians used resources from the environment to create tools to help them accomplish tasks that improved their daily lives.

- Stones were used as pounding tools and for making weapons such as axes, arrows, spears, and knives.
- Large pieces of soapstone were made into cooking pots which would not break when placed over an open fire.
- Shoulder blades of animals were used to scrape hides to make clothing and leather straps.
- Bows and arrows were fashioned from wood and twisted grass strings, with tips made of obsidian, a volcanic glass.
- Animal bones were used for harpoons.

Humans are not the only beings that make tools. A vulture, for instance, can pick up a rock with its beak and use it to crush an ostrich egg, its favorite food. Chimpanzees can strip leaves off twigs to use as sticks when they fish for insects. However, humans are unique in their ability to adapt a tool for different purposes if the situation calls for it. This requires creative thinking.

Bow; 1860-1875
Modoc or Hupa Culture, Northern California
Wood and paint; 2.5 x 40.5 in.
Bowers Museum 13847
Gift of the Irvine Foundation

MODULE TWO ACTIVITY: MIND MAP



How does your environment impact the choices you make and opportunities you have in your daily life?

Our lives have many parts like the branches of a tree. As an interconnected ecosystem, a change in one part affects all others.

CHALLENGE:

- Describe your environment. Consider the factors listed below. Then, create a mind map, sketch or collage representing your world in words and/or pictures.

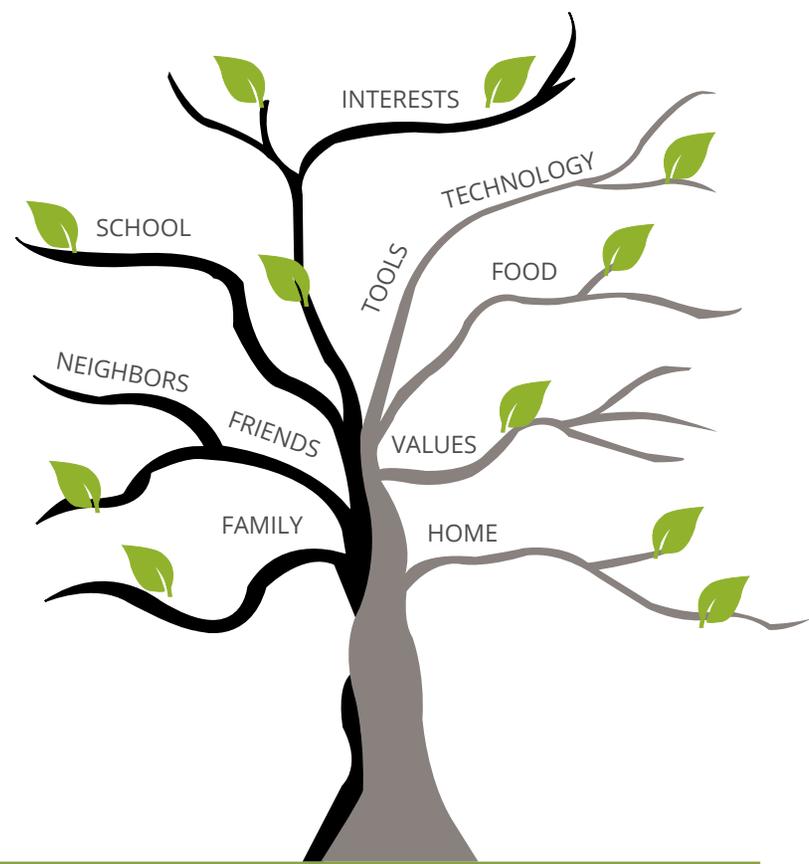
Have you ever had to adapt to a new environment? (For example, have you moved or changed schools?)

- If one aspect of your environment changes, what impact might that have on your daily life?

MY ENVIRONMENT:

Region _____
 Climate _____
 Land features _____
 Water _____
 Natural resources _____

- ❶ FAMILY: Parents, grandparents, siblings, pets
- ❷ HOME: Your surroundings: where you live
- ❸ FRIENDS/NEIGHBORS: People who care about you
- ❹ SCHOOL: How and where do you learn?
- ❺ FOOD: What is the source of the food you eat?
- ❻ TOOLS/TECHNOLOGY: What tools and technology help you create?
- ❼ INTERESTS: What do you like to do in your free time?
- ❽ VALUES: What ideas are important to you?



MODULE THREE:

VILLAGE LIFE



The Community

Social Organization

First Californians lived in small, self-governing villages with a Chief or Leader. The Leader was responsible for making decisions, planning ceremonies, collecting taxes (gifts of food), and dividing resources among members of the community.

First Californians lived in **harmony**, rarely engaging in conflict with their neighbors. However from time to time they were faced with settling a dispute or defending themselves against outsiders. On those occasions, their Leaders led young men into battle or arranged for a peaceful settlement. When a Leader died, the eldest son—or daughter—became the next Leader.

Chiefs had messengers to relay spoken messages to other villages, as well as announcers to report to the people of their own village.

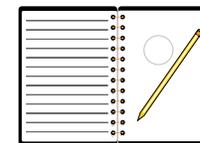
A Spiritual Elder or **Shaman** had power over the entire community except for the Chief. As an esteemed member of the community, Spiritual Elders passed on stories, healed the sick and brought luck to the hunt. They led religious ceremonies in order to maintain balance among the earth, people and the spiritual world.

Other important figures in the village were storytellers and dancers who provided entertainment to the community and maintained the historical and cultural aspects of village life.

Community Structures

In addition to family dwellings, a typical village had several other structures shared by members of the community:

- Outside shelters were used as storage for tools, cooking and other family activities.
- An earth-covered sweathouse was built over a pit in the ground. In the evening and sometimes in the morning, men of the village gathered in this airtight structure to relax, bathe, or participate in healing rituals.
- An oval-shaped open-air structure was used for ceremonial purposes.
- Meeting houses were where the Leader lived and sacred objects were stored. They were large enough for the entire community to gather inside.



Activity: Imagine you are one of the founders of a new community. What would you name it? What would be its values? Think about the roles of various members of the community. Who do you imagine would be the Leader? Who would be the Spiritual Elder? Storytellers? Entertainers? What are three ideas you think should be included in the Constitution for your new community?

Community Name _____

Idea #1 _____

Idea #2 _____

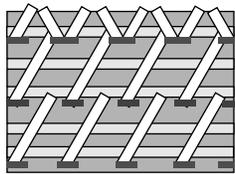
Idea #3 _____

Economy and Culture

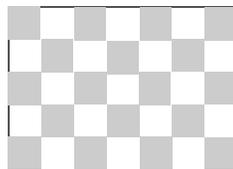
Basketry

Basketry represents a vital aspect of Native American culture from the standpoint of both the economy and artistic expression.

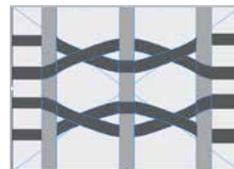
The **prototype** of a basket is that of a bird's nest. Three basic weaving techniques: twining, coiling, and plaiting were used by First Californians. Northwest artisans used **twining** techniques, Eastern artisans used **plaiting** techniques, and Southwestern artisans used **coiling** techniques. Variations in style and design are found within each region. The Pomo tribe of California, for example, combined two or more techniques in baskets decorated with feathers and beads.



1. COILING



2. PLAITING



3. TWINING

Finished baskets provide evidence of skill and dedication to an art form that requires time and effort to master. Before weaving begins, artisans gather materials and prepare them by cleaning, stripping, splitting and treating the plant fibers with heat or liquids. If a pattern is desired, color dyes need to be prepared.

Each basket presents the artisan with a new challenge. Basket weavers must have a strong sense of design, and understand **symmetry** and balance.



Rattlesnake Basket, late 19th to early 20th century possibly Cahuilla culture; Southern California Willow, juncus, sumac shoot and deer grass; 4.75 x 15 in. Bowers Museum 2002.14.3 Gift of William Moran

MODULE THREE: VILLAGE LIFE

How are baskets used? As a student, you probably carry books, supplies and snacks in a backpack. First Californians needed to carry things, too. They used many types of baskets to help them in daily activities such as gathering food,, making clothing and constructing shelter.



Basket Tray, date unknown
Paiute Culture; California
Willow; 17 x 13.5 in.
Bowers Museum 4374
William N. Hamaker Collection

Uses for Baskets:

FOOD

- Seed beaters: used to gather seeds, nuts and acorns from the branches of trees or bushes
- Burden baskets: wide-mouthed, cone-shaped baskets with a leather carrying strap used to transport edible plants
- Leaching baskets: shallow sieves used to prepare acorn meal
- Fish or bird traps: elongated baskets with narrow opening used to trap fish or woodpeckers who found it impossible to turn around once they entered the narrow opening
- Water bottles: made of twined basketry; sealed with tar-like paste to make them watertight
- Boiling baskets: strong, watertight baskets used for cooking
- Flat trays: used to serve food
- Storage baskets: used to preserve food

CLOTHING

- Long capes: worn by both men and women that were fashioned from mats made of plant fibers
- Dance skirts: made from milkweed or other plant fibers and decorated with feathers and glass beads.
- Caps: worn by women to protect them chafing when carrying a heavy load on their head
- Sandals: worn to protect feet on rough terrain

SHELTER

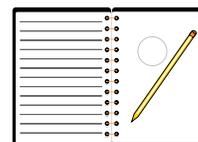
- Plaited mats: placed on the floor of dwellings as sleeping pads or used as curtains for partitions and doorways
- Cages: containers small enough to hold insects and grasshoppers or large enough to house eagles raised for religious ceremonies

SAFEKEEPING

- Cradles: carrying basket for babies from birth until they could walk or were old enough to be placed in a cradleboard
- Treasure baskets: held items of value, such as jewelry, shells or money

What uses do we have for baskets today?

Activity:



Look carefully at the twelve baskets that appear on the next screen. Can you match them up with their purpose based on the clues provided?

MODULE THREE ACTIVITY: BASKETRY PROJECTS



Challenge: Comparing Artifacts

What can you infer from the shape, materials and designs of these baskets? Try matching each basket with its description. Then, [learn more](#).

- _____ a. I am a bulb-shaped willow basket created by Shoshone of California's Death Valley.
- _____ b. My stripe design contains an abstract diamond pattern that suggests snakeskin.
- _____ c. My design features trapezoids (four-sided geometric shapes with two parallel sides.)
- _____ d. I am from the Pomo tribe, fashionably decorated with feathers and beads.
- _____ e. I am woven from tule reeds and used to hold arrows. My name begins with Q.
- _____ f. My design celebrates beautiful flying insects that were once caterpillars before experiencing metamorphosis.
- _____ g. My design shows a venomous reptile. If you see or hear me, freeze then slowly back away!
- _____ h. I am from Northern California. I keep babies safe while their parents work.
- _____ i. My strong diagonal design is woven using dyed tule and white glass beads.
- _____ j. I am a tray used to hold food. My zig-zag designs were woven by Cahuilla women from plants native to the desert.
- _____ k. With my narrow opening and jug-like shape, I can be a lifesaver on a long hike.
- _____ l. Made in the central California grasslands, my design celebrates friendship.

MODULE THREE ACTIVITY: COIL BASKETRY PROJECT

Coil Basketry

Materials:



COTTON ROPE
1/4" x 10 ft



YARN (10 ft.)



LARGE-EYE
PLASTIC NEEDLE



MASKING TAPE



SCISSORS



Procedures

- 1 Cut a 10 ft. piece of rope to make a small basket.
- 2 Wrap tape at one end of the rope and then cut the end at an angle.
- 3 Cut a piece of yarn the same length as your rope.
- 4 Line up the end of the yarn with the end of the rope, so the two are side by side.
- 5 Begin wrapping the rope with your yarn, making sure to wrap it tightly to hold it in place. Leave the end of rope exposed.
- 6 Begin bending the rope, wrapping yarn around the end and working your way down the rope for at least an inch so that when you bend the rope again, it will be covered by yarn.
- 7 Now thread your needle and make your first stitch by putting the needle through the piece of rope above. These stitches will begin to hold your coiled rope in place.
- 8 Wrap your rope 2-3 times after you have pulled your first stitch through. Then add another stitch and wrap 2-3 times more.
- 9 Continue coiling your rope around, making stitches as you did in the previous steps.
- 10 To start coiling upward, simply lay one piece of rope on top of the other and continue making your stitches as usual.
- 11 To add a piece of yarn or change color, pull your yarn through a few stitches on the rope leaving a bit of the tail behind and keep making stitches.
- 12 Place one end of your new piece of yarn on the rope; wrap it and continue stitching.
Repeat these steps until you reach the end of the rope.
- 13 To finish your basket, wrap the end of the rope with tape, then cut the rope and hide it by wrapping it with your yarn and anchoring it in place. You now have a coil basket!

MODULE THREE ACTIVITY: PLAITING BASKETRY PROJECT

Nature Weaving

First Californians created baskets out of grasses and plants in their environment. Various tribes used different materials, styles of construction and designs. Basket weavers introduced contrasting colored fibers woven into the basket to produce complex patterns and symbols.

Techniques

Southern California artisans use the circular coil method, in which a thick cord forms a spiral around which thinner cords are wrapped. Northern California artisans use a twining technique, in which flat strips of fiber are placed to radiate out from a fixed center point. Central California artisans use both twining and coiling. Eastern artisans use plaiting techniques to construct their baskets, in which flat strips are woven horizontally over and under vertical foundations to produce a checkerboard effect. With any of these methods, **realia** (e.g. small beads, feathers, sticks, flowers, leaves) can be added for decoration.

Try your own nature weaving project using a plaiting technique inspired by your local environment. You will need:

- Four sticks to make a loom. The sticks should measure 1/4" to 3/4" in diameter and 6" to 10" in length.
- A ball of yarn or twine
- 8-12 pieces of realia gathered from your environment. This can include flowers, leaves, grasses, bark, feathers, or shells that you find lying on the ground. Be sure to ask before picking up anything from another person's yard!



Step 1: Lay out the 4 sticks to form a square as shown. To lash them together at the corners, tightly crisscross an 18" length of twine around two sticks where they meet, then tie a knot at the back to secure the connection. Repeat for each of the other three corners.



Step 2: Tie a piece of yarn or twine around one of the corners and begin to wrap it around the top and bottom sticks of your loom to make the **warp**. Loop it twice to keep the yarn taut and prevent it from sliding on the sticks.



Step 3: Talk a walk to find 8-12 pieces of realia to use for the **weft**. Collect interesting textures of flowers, leaves, bark, grasses, pinecones, feathers or seed pods. Be sure to ask permission before taking anything from another person's yard or the park. Then, weave your treasures through the strings of the loom for your own unique nature weaving!

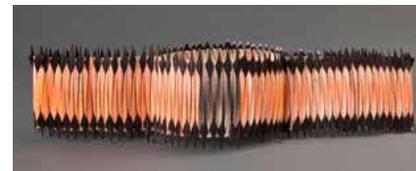


Frankie Flores performing Chumash dance
Early 1990s
Malibu Times Image
Malibu Historical Photograph Collection,
Pepperdine University Special Collections and University Archives

Arts, Music and Dance

Native Americans used art as a form of communication. They created mysterious petroglyphs. They wove beautiful baskets made from plant fibers. They created ground paintings using colored sand that consisted of powdered pigments of varying colors and textures to depict spirit or sacred symbols. In addition to the visual arts, Indigenous people engaged in storytelling, music, dance, and other forms of art and entertainment.

Spiritual Leaders told stories to explain natural events. Musicians fashioned wooden clappers made from elderberries, as well as rattles made from turtle shells attached to gourds and sticks to make rhythmic sounds.



Headdress, c. 1900
Shasta, Northern California
Flicker feathers and string; 4 x 25"
Bowers Museum F85.16.5
Foundation Purchase with funds
from Mrs. Augusta J. Hoiles

Dance has figured prominently in the ceremonies of Indigenous peoples—as a way to give thanks, celebrate victory or pray for a bountiful harvest. Themes of nature such as the four cardinal directions (north, south, east and west) appear frequently in dances, as well as movements that represent animals held in deep regard by the community. Dancers wore these headdresses at special ceremonies.

Events, such as the Acorn Festival or the Flower Festival were central to the lives of Native Americans. Today, traditional ceremonies bring people together for to celebrate their shared cultural heritage.

MODULE THREE: VILLAGE LIFE



Discoidal Game Stone; date unknown
Southern California
Granite; 6.5 x 3.0625 in.
Bowers Museum 14649
Gift of the Irvine Foundation



Walnut Dice and Counter Sticks.
Model of game pieces and scorers
used by the Sierra Miwok to play
dice games.

Games

First Californians played a variety of sports and outdoor games. Football was played by teams from different villages often using a ball made of soft grass covered with buckskin. Other games of skill included throwing a stone disk to hit or dislodge a target, or throwing a long pole at a rolling hoop.

It's Your Turn!

Using resources from the natural environment, create your own game. Be creative as you think about these questions:

- What is the central idea of the game?
- What materials will you use?
- How many players can play your game?
- What are the rules?
- How will you keep score?
- How do you determine what it means to win the game?

Here are some simple Native American games to try:

Ring and Pin Game

Materials from the natural environment are used to make this game of skill. A ring is fastened to one end of a 24" piece of cord or twine. The other end of the cord is attached to a wooden pin or stick. Holding the end of the stick, use an upward motion to toss the ring into the air. The object of the game is to "catch" the ring on the pin as it lands.

Walnut Shell Dice Game

To play, you will need three walnuts to use as dice and ten 8-inch sticks to use for keeping score.

- Carefully crack open the walnut shells along the center seam so that you have two complete half shells.
- Remove the pieces of walnut inside, then fill the shells with clay (Native Americans used tar from the ocean).
- Level the top, then press a few chips of walnut into the clay for decoration.

Two players begin the game. Place all counter sticks in the middle. Throw the dice. If three walnut shell dice land with the clay side up, the player takes one counter stick. If all six dice land either clay-side-up or clay-side-down, the player takes two counter sticks. When a player scores, she gets another turn. If he or she does not score, the turn goes to the other player. Once all the counter sticks in the middle have been picked up, the players take the sticks from each other when they score. Whoever ends up with all ten counter sticks wins the game.

MODULE THREE: TRANSPORTATION AND TRADE



Tomol Crossing Sunrise. National Marine Sanctuary, 2015. Photograph by Robert Schwemmer, NOAA. *Tomol* canoes were made by the Chumash from driftwood planks. Each year, they cross from Channel Islands Harbor to Santa Cruz Island.

Transportation

Walking was the basic form of transportation for First Californians. Those living close to water also traveled using rafts and canoes. First Californians and their descendants made three kinds of boats. Dugouts were made of hollowed-out logs. Rafts were made from balsa wood tied together with grass rope, and steered with long poles from a standing position. Tule reed canoes were made by the Ohlone people from Northern California, and *Tomol* canoes were made by the Chumash people of Southern California. The *tomol* is a strong and sturdy canoe constructed from wooden planks that drifted from Northern California down the California coast. The planks were tied together with natural plant fibers, then waterproofed by coating the boat with tar before painting it with natural dyes from berries, leaves, or mud. A *tomol* canoe measures ten to twenty feet long, and can fit about ten crew.

The Chumash used boats for fishing, for transportation to the Channel Islands off the California coast and for trading with other Indigenous groups living nearby. When Spanish explorer Juan Rodriguez Cabrillo first approached the shoreline, they used *tomol* canoes to paddle out to greet him.

Trade

First Californians were known for their strong trading economy. Rafts and canoes enabled mainland villagers to trade with outlying islands. Groups from different ecological zones often traded. The abundance of food and natural resources in coastal regions helped them build a society that had significant economic power. Clam shells, obsidian and baskets were exchanged between coastal and interior villages. Tongva traded deer and rabbit skins, acorns, nuts and seeds with Channel Islanders for their **soapstone**, shell jewelry, dried fish and the skins of sea mammals. Mojave traders from the Colorado River area traveled to the region to trade pottery and blankets for shell beads, tar and soapstone. Later the Mojave would trade with the Spanish explorers. Cultural groups in the mountains traded black oak acorns and sugar-pine nuts for salt, game, fish, roots, grasses, beads, and shells with tribes living near the sea. Tribes living away from the ocean, such as the Cahuilla, traveled to the coast to fish and gather seafood and seaweed.



Traders used baskets as standard measures for items such as seeds. These small baskets were also worn as hats. During a trade, goods were poured into the hat to make sure the proper amount was being exchanged. Traders used strings of shells or beads as currency.

MODULE THREE ACTIVITY: MAKE A MODEL CANOE

Imagine you are a First Californian. The sun is just rising. You are sitting on the shore of a saltwater marsh. Today you and your friends from the village will build a canoe. It will take at least six materials and two tools to construct your boat. When it is finished, you will paddle down the river to trade with Native Americans from a nearby village.

You can build a simple raft, a *tomol* canoe or sailboat. Use materials you have. If there are things you need but do not have, improvise or trade something you have for something that someone else has. Here are items you will need to make a model *tomol* canoe inspired by the one pictured here.

1. Piece of cardboard to protect your work surface
2. Balsa wood (Note: Project can also be made from cardboard)
3. 2 craft sticks 1" x 8" (like popsicle sticks, but bigger)
4. 3 bamboo skewers (about 10-12" long)
5. Wood glue
6. Scotch tape
7. Craft knife (if using balsa wood). *Sharp! Requires adult help.*
or Scissors (if using cardboard to construct your canoe)
8. 12" Ruler
9. Template of *Tomol* canoe (see page 30)

Design

Use the above materials to prototype a boat. Students can **improvise** or trade with others for materials they need but do not have.

How did the First Californians trade with neighboring cultural groups?



Model *Tomol* Canoe

Trading Simulation

There were two main ways of trading. Challenge students to try both.

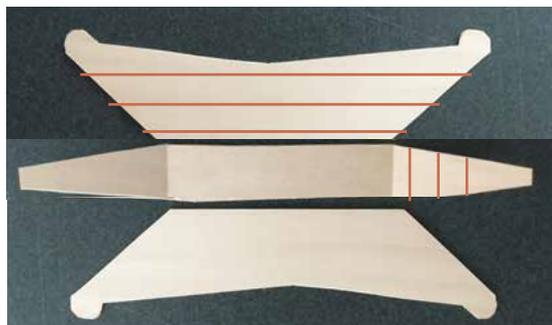
- A. One-for-one barter
Barter works well when the items being traded are perceived to be of equal value to both buyer and seller.
- B. A second form of trade involved using something of value as currency (for First Californians the medium of exchange would have been shells, stones or beads rather than the paper or electronic money we use as currency today).

Note: This project is best accomplished with groups of 2-3 students working as teams. If it is not possible to collaborate in person, students can design and construct a model boat using whatever materials they have available. This requires being resourceful, finding materials in their immediate environment just as Indigenous people needed to do. When complete, students can share their projects by explaining what materials and methods they used to design and build their boat.

MODULE THREE ACTIVITY: MAKE A MODEL CANOE



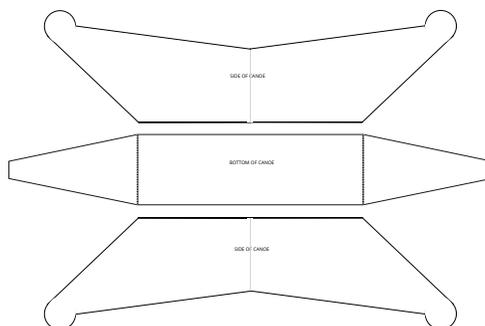
❶ You will need 2 pieces of balsa wood 4" x 24". One long piece is for the bottom of your canoe. Cut the other piece in half (4" x 12" each). These two pieces will be used for the sides of the canoe.



❷ With help from an adult, cut all three pieces out of balsa wood using a craft knife. Score and gently bend the long thin bottom of the canoe following the dotted lines on the template. If you like, make stripes on the sides to simulate "planks."



❸ To make the paddles for your canoe, cut two 1 inch pieces off the ends of a craft stick, and glue them to each end of a 6" piece of bamboo for oars.



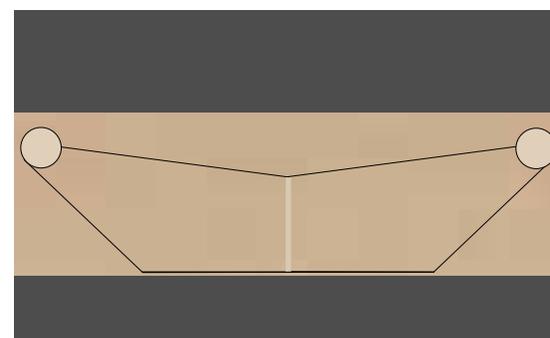
❹ Print and cut out the pattern shapes from the canoe template on the following page.



❺ Glue the bent bottom shape to one side of the canoe. Then, place a line of glue on the bottom edge of the other side. Place it on top of the first side to form the canoe. Secure with tape while it dries.



❻ Remove all the scotch tape that has been holding the pieces of the canoe together while it dried.



❹ Trace each pattern piece on balsa wood. Remember to trace the long thin shape for the bottom of the canoe on the longer piece of wood, and the 2 side shapes on the shorter pieces of wood.

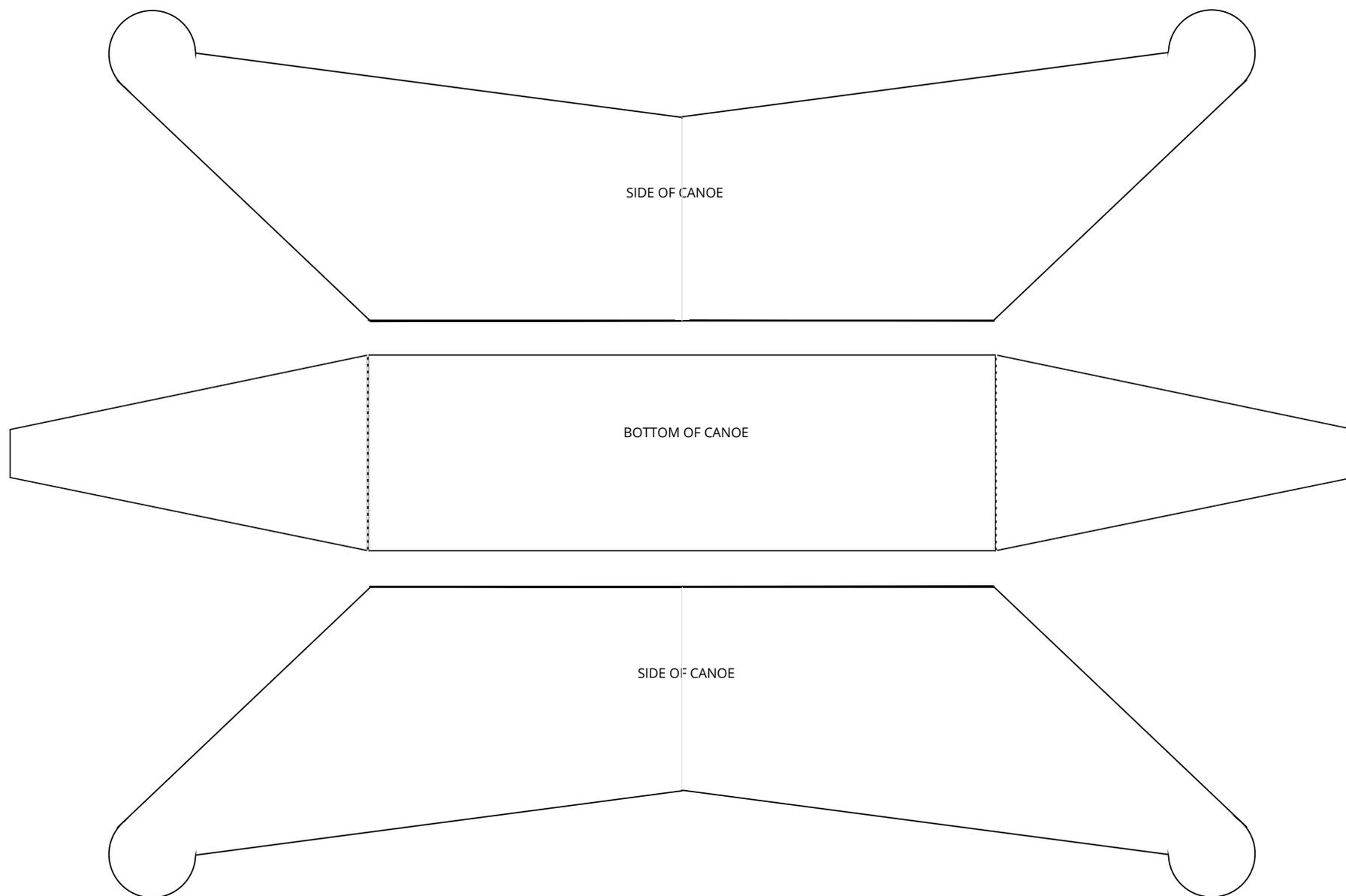


❻ Once the canoe is dry, cut 3 pieces of bamboo skewer: Glue a 1.5" piece in the center of the canoe, and two 1" pieces between the center and each edge to strengthen the canoe.



❼ Your completed balsa wood or cardboard model of a First Californian driftwood *tomol* canoe!

MODULE THREE ACTIVITY: MAKE A MODEL CANOE



PATTERN PIECES FOR TOMOL CANOE MODEL LIKE THOSE BUILT BY CHUMASH TRADERS

MODULE FOUR:

CLUES FROM THE PAST



MODULE FOUR: CLUES FROM THE PAST

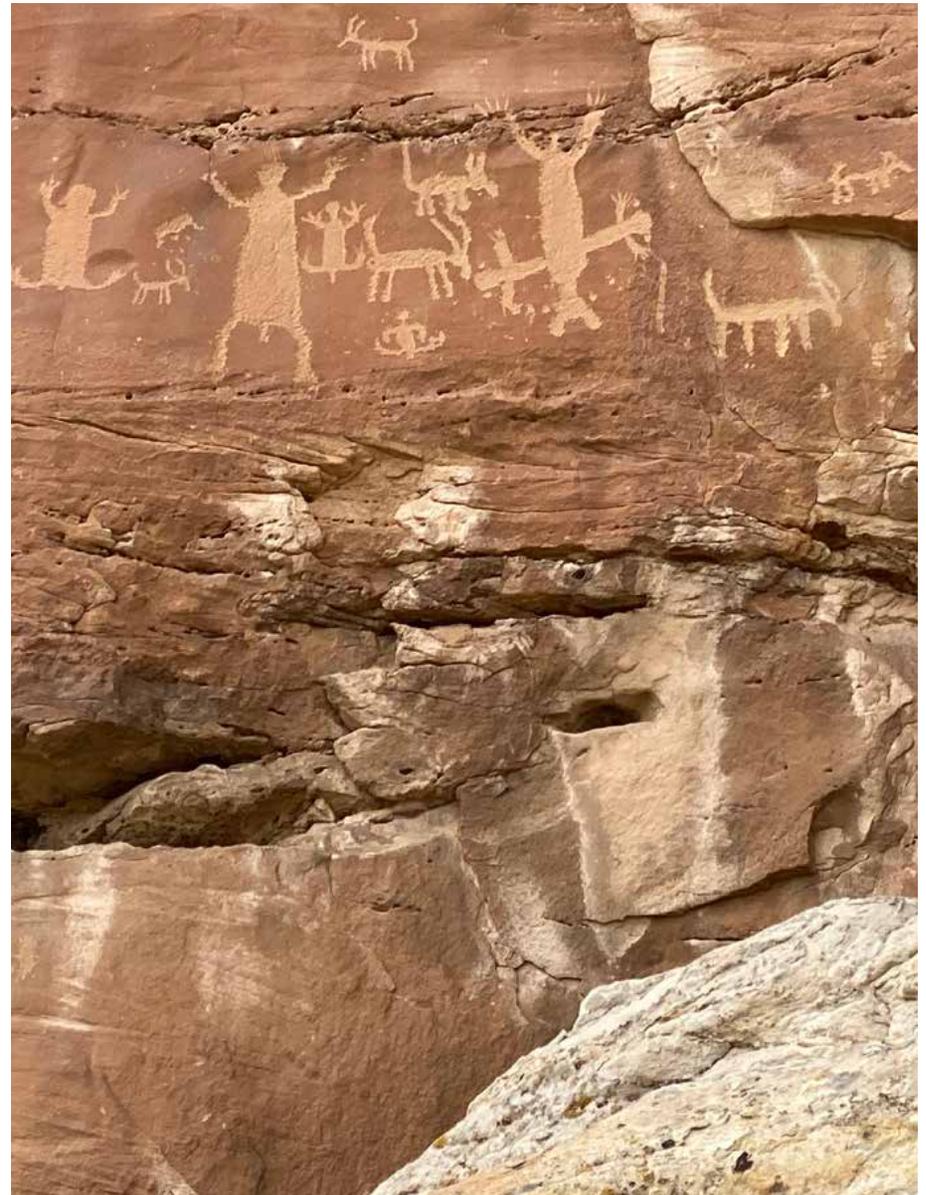
Archaeology

In California's western Mojave Desert and at several other ancient sites, Indigenous people marked the surface of rocks with mysterious symbols and images. The result is known as rock art. Sometimes designs were painted on the surface of the rock. These are called **pictographs**. At other times, symbols carved into or scratched away the basalt rock's outer surface. These are called **petroglyphs**.

Twenty thousand images are located at the site, which is now a National Historic Landmark. They date from about 10,000 B.C. to the beginning of the historic era. Archaeologists, scientists who study things ancient peoples left behind, have been intrigued by these symbols for decades.

Drawings show two types of designs: realistic and **abstract**. Realistic forms depict people, hunting scenes and animals. Human images are stick figures or views of people wearing costumes, perhaps commemorating ancient rituals. Abstract images include circles, dots, and linear shapes. Why this art was created is not known, but it undoubtedly had meaning for its creators. Interpretive theories suggest the images may be a) symbols left by Spiritual Leaders following a vision quest; b) a tool for telling stories, or c) a way to reinforce social roles. Which do you think is most likely? Why?

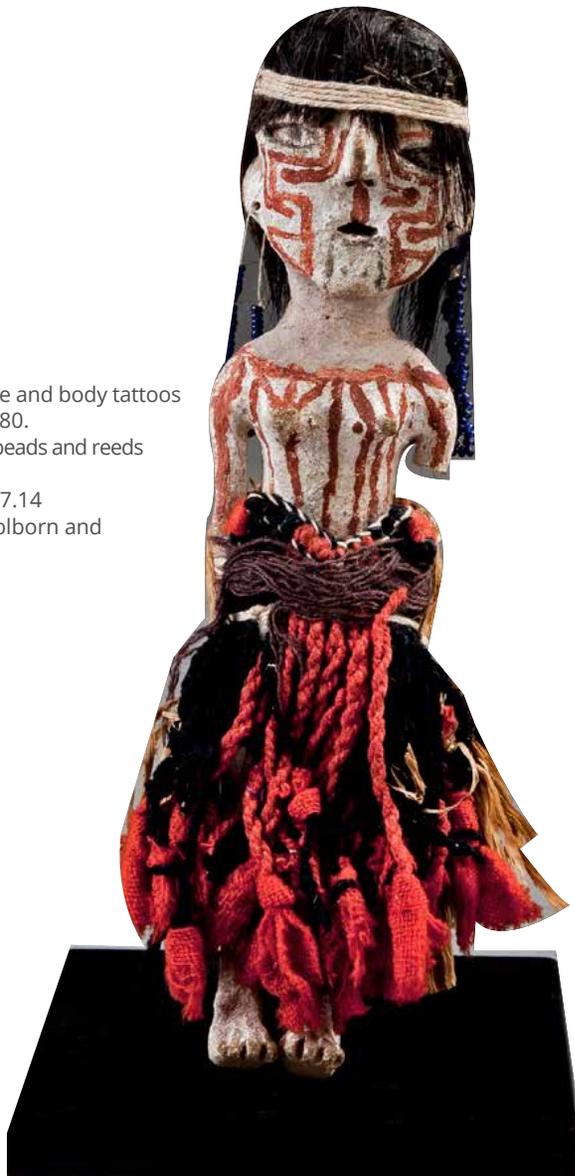
Research at the site illuminates the long history of people who lived in the area. It emphasizes the value of preserving America's endangered cultural resources for present and future generations.



An example of early petroglyphs created by America's Indigenous peoples.
Photograph by Dr. Peter Keller.

MODULE FOUR: CASE STUDY / HOW DO WE KNOW?

Female figure with face and body tattoos
Yuma, California; c.1880.
Clay, paint, cloth, glass beads and reeds
7.25 x 2.625 x 1.75 in.
Bowers Museum 86.17.14
Gift of Julia Rounds Colborn and
Chase Childs Colborn



Yuma people traditionally lived in California near the Mojave Desert and along the Colorado River. They made pottery from sedimentary clay and crushed sandstone. Yuma dolls of painted pottery may suggest a link between modern and prehistoric peoples of the desert.

The figurine at left has traditional face and body **tattoos**. For Indigenous women in certain cultural groups in California and the American Southwest, to tattoo their face with lines and dots was an important rite of passage and was believed to be a source of spiritual energy.

It is not clear when or how the arm of this pottery figurine was damaged. The clay figure was exhibited at the 1893 Chicago World's Fair with all limbs intact. The purpose of these artifacts is also not known. Some believe they may have been used in fertility rituals, as charms to protect or heal, as children's toys, or at ceremonies to honor ancestors. Archaeologists are often working amid uncertainty: because they are discovering something new, no "right" answers exist. They must use the skill of **inference** to make a hunch or educated guess that may later be proven correct or incorrect.

Researchers understand the importance of documenting ways of life that are disappearing. When possible, they interview and record people who are still using traditional technologies in order to preserve historical records of objects and processes that can help make connections between past, present and future. Often the work of archaeologists and researchers becomes part of the collections of museums who know how to care for documents and artifacts and can make sure the knowledge gained through scholars' efforts remain accessible to all. This enables future generations to learn about their heritage and to build upon others' research as they create new knowledge.

MODULE FOUR ACTIVITY: LEARNING FROM ARTIFACTS

Archaeologists investigate artifacts. What is the process they use to discover hidden treasures?

First, archaeologists define an **excavation** site and prepare a detailed map of the area. Sometimes, they have clues from **primary sources**, such as a map or a conversation with someone who lived in the area for a long time. At other times, discoveries are made by chance, such as when construction begins on a piece of land and artifacts are unearthed in the process.

Archaeologists use the **scientific method** to ask questions and form a hypothesis before they start to dig. Potential sites are chosen based on surveys, direct observation, satellite imagery or remote sensors. Using tools such as shovels, trowels and pickaxes, careful digging begins. Identified by changes in color and texture, each layer of soil represents a certain time period. If an artifact is found, archaeologists take measurements to document its exact location and record details from their observations. After excavation, the job of cleaning, analyzing and interpreting begins, either on site or in the lab. The scientists are aided by brushes, magnifying glasses and their own detailed notes from the site of the “dig.”

Imagine you discovered artifacts like those pictured here. Choose one and study it closely, making a drawing of it to focus on key details. Then complete the artifact analysis sheet on the next screen to describe what you see. Record what you can infer regarding its origin, what it is made of and for what purpose it may have been used. Then, share your hunches with your fellow archaeologists.

ARTIFACT 1
Three Clues:
Made of igneous volcanic rock
Orange County, California
1.5 x 2.25 in.



ARTIFACT 2
Three Clues:
Chumash
Southern California
Shell, string and bead



ARTIFACT 3
Three Clues:
“Cloud Blower”
Sandstone
1.75 x 1.25 in.



MODULE FOUR: ARTIFACT ANALYSIS WORKSHEET

① Identify the artifact. What is it? _____

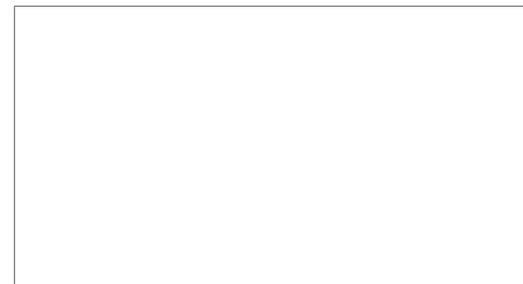
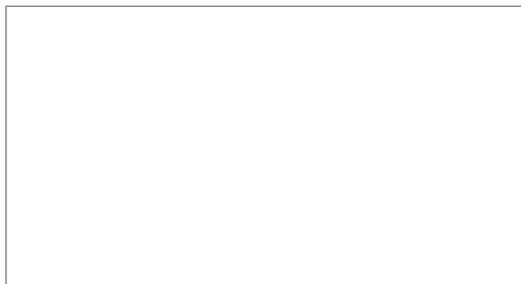
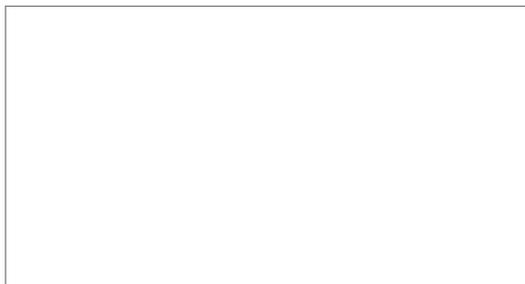
② What is the date of the artifact? How do you know? _____

③ What specific historic time period does it reflect? _____

④ What is the significance of the artifact? _____

⑤ Observation of the artifact. Study the artifact for a few minutes. Form an overall impression of the artifact. Next, divide the artifact into quadrants and study each section to see what new details become visible. Describe the artifact.

⑥ Illustration of the artifact (three views):



⑦ How do you think the artifact was used? How does it work? What does it do? _____

⑧ Is this artifact still in use today? _____ Yes _____ No

⑨ If YES, how? How is it the same or different? _____

⑩ If NO, describe something you use that is similar. What has taken its place? _____

MODULE FIVE:

SPIRITS AND SYMBOLS



MODULE FIVE: SPIRITS AND SYMBOLS

Symbols in Native American Art

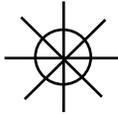
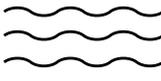
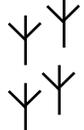
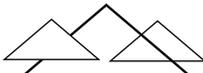
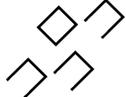
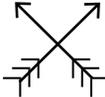
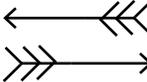
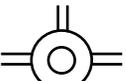
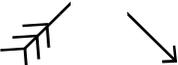
Once there were hundreds of distinct languages and dialects spoken by the Indigenous peoples of North America. This was a result of the diversity of individual tribes who were often separated by great physical distances.

Native Americans developed unique ways to communicate. They created a strong oral tradition so that stories, values and history could be passed down to future generations. Sign language used shared gestures that were universally understood. These hand signals evolved in the same way as spoken language, gradually progressing from the representational to the symbolic. Sign language was indispensable in situations where success depended on silence, such as when stalking prey. Connecting to other hunters without using words or sounds allowed hunters to coordinate their actions without alerting nearby animals.

Pictographs, a system of symbols that represent ideas and objects, are a quick way to communicate ideas visually. Like the icons we use today, they transcend spoken language using just a few simple lines. Symbols usually have a clear yet abstract connection to the things they stand for, such as the form or movement of an object, person, idea or emotion.

America's Indigenous peoples developed innovative and effective ways to share ideas. In World Wars I and II, teams of Cherokee, Choctaw and Navajo "code-talkers" utilized their little-known spoken languages as a means of secret communication.

NATIVE AMERICAN SYMBOLS

 SUN	 WATER	 BIRD TRACKS	 WOMAN
 SUNRISE	 MOUNTAINS	 HOOFPRINTS	 MAN
 NOON	 DESERT	 BEAR	 FRIENDSHIP
 SUNSET	 LIGHTNING	 GOOD LUCK	 WISDOM
 MOON	 RAIN	 CAMP	 WAR
 HAPPY	 RAINBOW	 CAMPFIRE	 PEACE

Native Americans used pictographs or symbols to communicate ideas within and between tribes. What symbols would you use to communicate with a friend using only images, not words?

MODULE FIVE: SPIRITS AND SYMBOLS



Cogged Stones, 6000-3500 BCE
Milling Stone Horizon culture; Southern California
Average dimension: 3.75 x 1.5 "
Bowers Museum 478, 536, 11669, 3649, 477, 1825
Gifts of Chas M. Decker, Mary J. Newland and Hirim Whisler

Spiritual Beliefs and Ceremonies

Spirituality influenced every aspect of Native American life. First Californians believed in a spiritual world with one supreme being who created both animals and humans. Animals such as bears, owls, porpoises, eagles or crows were never harmed as it was believed that wizards' spirits could enter these animals' bodies.

Cogged Stones

Cogged stones are an artifact unique to Southern California's coastal area and along the Santa Ana River. They date back thousands of years, but their discovery only began in the late 19th century. Cogged stones were made from red ochre, soapstone, pumice, lava and granite. Their purpose is unknown; although they may have been used in spiritual ceremonies.

Many varieties of cogged stones have been found. They are similar to stone discoidals with "ribs" or "cogs" on their sides.



Dolphin Effigy, c. 1600 CE
Probably Canalino culture; Channel Islands
Southern California Coast
Steatite and beads; 3 x 7.25 x 1.25 in.
Bowers Museum 87.27.3
Gift of James and Barbara Byrnes

Effigies

The Tongva of Santa Catalina Island mined and traded a rock known as steatite or soapstone. This stone was valuable because its soft, smooth texture was easy to carve into a variety of artifacts such as cups, bowls, pipes, fancy beads and animal effigies.

Effigies are likenesses created in the forms of whales, fish, birds, mammals and abstract shapes. They were used by Spiritual Elders for ceremonies and dream rituals. Effigies were also used in boys' initiation ceremonies. A Spiritual Elder, with effigy in hand, would touch the back of a boy's neck with the charm, symbolically giving the child the strength of the animal it represented.



Headdress, c. 1950
Yokut culture; Central California
Feather and leather; 13 x 13.25 in.
Bowers Museum 85.36.4
Gift of Mr. Arthur Barr

Spiritual Leaders

Spiritual Elders or Shamans were thought to be the keepers of religious beliefs who possessed an ability to speak directly to spirit gods. These spiritual leaders collected sacred objects thought to have supernatural powers.

Spiritual Elders used these special objects to perform their rituals. Rattles, made from gourds and filled with pebbles, were believed to connect with spiritual forces and bring a person into harmony with the world around them.

Shamans were knowledgeable about how to use plants and roots to cure disease. They used songs and chants along with stone and shell artifacts to heal the sick and bring good luck to the hunt. Spiritual Leaders were widely respected, and often feared by their enemies.

Beautiful bird feathers, called plumage, decorated headdresses worn by shamans at special ceremonies. The types of feathers used include hummingbird feathers, quail topknot feathers, duck, oriole, flicker, raven and pheasant feathers. Eagle feathers are valued as the most sacred of religious objects.

Vision quests are a Native American tradition. They are intended to bring participants into contact with a spiritual guardian who may appear as an animal or as one of the elements—earth, wind, air or fire. In this encounter, the guardian spirit is said to pass along wisdom to the individual who will use it throughout life as both protection and inspiration.

MODULE FIVE ACTIVITY: FACT VS. FICTION

Every day, we read or hear statements made in conversation, in school, online, and in the media. Sometimes it's hard to separate fact from fiction. Here's a handy guide:

FACT: An objective truth, based on data and observations about the world around us. For example the statement “Junipero Serra established the first Spanish mission in California in 1769” is a fact. It can be proven through evidence gained from research.

HYPOTHESIS: A proposed explanation regarding what is happening and why, made on the basis of limited evidence as a starting point for further investigation. For example: “Based on the overcast sky, I think it’s going to rain” is a hypothesis. Hypotheses can be tested and proven or disproven.

THEORY: A framework of ideas intended to explain an event or how something works and why. For example, “Scientists believe that First Californians descended from ancestors who crossed a land bridge from Asia to Alaska more than 12,000 years ago” is a theory. If a theory is repeatedly tested and confirmed through research, it can be used to make predictions about what will happen in the future. “If this, then that . . .” However, even theories that have been tested and proven can be revisited if new evidence is found that disproves the original theory.

OPINION: A belief a person has formed about a topic or issue, what they think based on personal judgment. Although opinions may be based on facts, they are subjective, they are not facts. Opinions can change.

EMOTION: A feeling such as anger, love, joy, or fear that is experienced as an involuntary response to someone or something.

LEGEND: A story based on an historical time, place or person that is passed from one person to another over time. The details of a legend are often exaggerated by the storyteller, and many versions of the same story exist. For example, the Native American warrior Crazy Horse is a legend. He actually existed in real time and in a real place, but the details of the stories about him cannot be verified.

VISION: A view of the future. In the context of this guide, a supernatural experience in which an individual seeks to interact with a guiding spirit to obtain wisdom or protection. The spirit is usually represented by an animal with human qualities.

MYTH: A story passed down that takes place in a time or place that does not exist, involving spiritual beings or a supernatural element. Many of these stories have to do with nature and how the earth came to be. These are called creation myths.

•

The following story is a Native American Creation Myth.

There are many versions of this story, depending on the individual storyteller, but the overall idea remains the same.

A GABRIELINO / TONGVA CREATION MYTH: How California Came to Be

Long, long ago, before there were people, there was hardly anything in the world but water. One day, the Great Spirit looked down from heaven. He decided to make a beautiful land. But where could he begin? All he saw was water. Then he spotted a giant turtle. The turtle was as big as an island. Great Spirit decided to make the beautiful land on the turtle's back.

One turtle was not big enough. The land Great Spirit wanted to make was very large. So he called out, "Turtle, hurry and find your six brothers." Turtle swam to find them. It took him a whole day to find the first. It took another day to find the next. After six days, turtle had found his six brothers. "Come," he said. "Great Spirit wants us."

Great Spirit called down. "Turtles! Form a line, head to tail, and north to south. Umm, you three to the south, please move a little to the east. Hmmm. There, that's just right. What a beautiful land you will make!" Then Great Spirit reminded them, "It is a great honor to carry this land on your backs. So YOU MUST NOT MOVE!"

The turtles stayed very still. Great Spirit took some straw from his supply in the sky. He put it on the turtle's backs. Then he took some soil and patted it down on top of the straw.

Great Spirit cleaned his hands on a fluffy white cloud. "I'll use these clouds to make mountains," he said. Then Great Spirit made trees, lakes, rivers, animals, and even PEOPLE. When he was finished, he looked at the beautiful land he had made. Great Spirit was very pleased.

But soon trouble came. The giant turtles grew restless. They wanted to leave. "I want to swim east," said one. "West is best. I'll swim toward the setting sun," said another.

The turtles began to argue. They could not agree. One day, four of the turtles began to swim east. Three turtles began to swim west. THE EARTH SHOOK! It CRACKED with a loud noise! But after a minute, the shaking stopped. The turtles had to stop because the land on their backs was so heavy. They had only been able to swim a little way from each other. When they saw that they could not swim away, they stopped arguing and made up. But, every once in a while, the turtles that hold up California argue again. Each time they do, the earth shakes.

MODULE SIX:

REFLECTION



MODULE SIX: REFLECTION

Foundations of Cultural Diversity

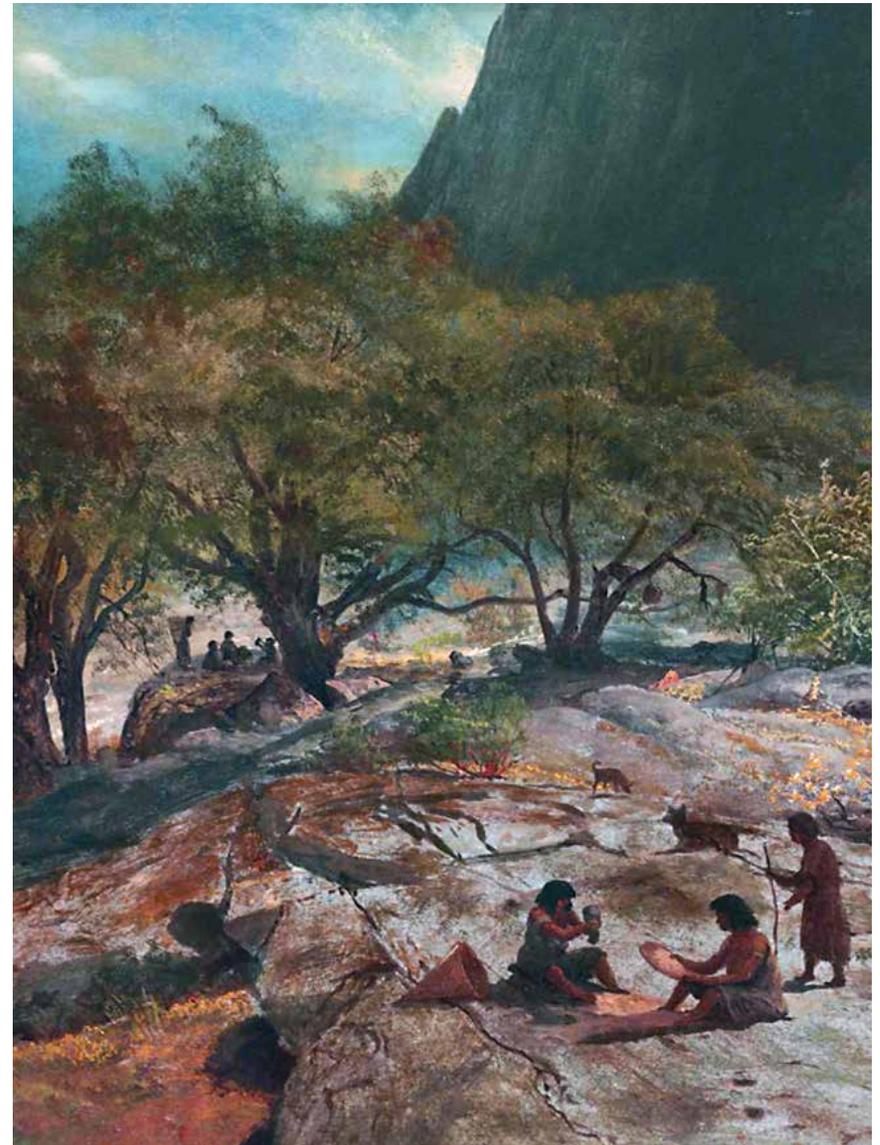
Indigenous peoples of California consisted of hundreds of small cultural groups living in geographically diverse environments—redwood forests, snow-capped mountains, fertile grasslands, sweltering deserts and sandy coastal beaches. The rich variety of natural resources, and the development of approximately one hundred distinct languages, ensured that the cultures and lifestyles of First Californians would be diverse as well. Diversity has been—and continues to be—one of California’s greatest strengths.

However, in studying the history of First Californians, there were many times when their ways of life and their values were not understood or respected by people from other cultures. Land was taken from them. Promises were broken.

There is a lot we can learn by studying the way Indigenous peoples lived and what they valued. First Californians had to adapt to changing ways of life after other cultures began to claim the land as their own. It is important to remember that this story has a past, a present and a future.

The following pages summarize the history of First Californians and some of the challenges they faced. It lists some of the many important contributions they made to American culture.

In conclusion, their philosophy regarding the web of life inspired our final activity which is based on their respect for preserving the environment which sustains all life on earth.



Detail, *Mariposa Indian Encampment, Yosemite Valley, California*, c. 1872
Albert Bierstadt (1830–1902)
Oil on paper; 16 x 55.75 in.
Private collection

MODULE SIX: REFLECTION

It is widely believed that the first inhabitants of the land we call California lived in the region for at least 10,000 years. Three to four thousand years ago, sometime between 2000 BCE and 700 CE, a new group of people, the Uto-Aztecan, arrived from lands east of the Sierra Nevada mountain range. Traveling from the Great Basin of Utah and Nevada—perhaps to escape drought or food shortage—the Uto-Aztecan entered and occupied Southern California from the desert to the coast, absorbing or displacing the earlier population.

Peace and War

First Californians were a relatively peaceful people. They fought only to settle disputes or to protect their people and lands. Chiefs reached out with gifts to neighboring tribes, hoping to become allies rather than enemies. Often, villages resolved conflicts without bloodshed. Instead of going to war, villagers would meet for a song fight. They sang songs filled with insults and stomped their feet. A song fight could last for more than a week.

When First Californians did find it necessary to fight, a Chief led the war party. Men went in first, followed by women and children who carried supplies and food, while gathering arrows so they could be used again.

First Contact

Without a written language, information about Indigenous peoples of the local region was gathered from a wide variety of sources. The earliest accounts were written by Spanish seafarers exploring the California coast with Juan Rodriguez Cabrillo whose ship arrived off Santa Catalina Island in 1542.

Changing ways of life

In the 18th century, the Spanish King began to worry that Russian **trappers** were gaining power on the west coast of the New World, posing a threat to Spain's prior claim on those lands. Colonization of Alta California by the Spanish began in 1769 with an expedition led by Gaspar de Portolá. Accompanied by the Franciscan Padre Junipero Serra, Portola established frontier outposts at San Diego and Monterey, crossing the Southern California region three times within twelve months. Three members of the expedition kept journals in which they recorded their observations. One of them was Portolá, who described his journey from San Diego to Monterey over a period of several months.

Traveling three to four hours a day, his group experienced a varied terrain, as well as both abundance and shortages of water and several earthquakes. They encountered Indigenous villages of 30 to 200 inhabitants who greeted the expedition with gifts of grain, nuts, and acorns, to which Portolá claims to have made a "suitable return". Midway through the journey, Portolá came across a large valley with much pasture and water, making a note in his journal saying "I consider this a good place for a mission."

After Spanish explorers arrived in California, twenty-one missions were built between 1769 and 1833. The herds of horses, sheep and cattle brought by missionaries and settlers grew in size. They grazed on the land, eating vegetation that was essential to the diets of Indigenous people.

MODULE SIX: REFLECTION

First Californians, who once relied on hunting, fishing and gathering, had no choice but to turn to farming their ancestral lands to feed their families. Some fled to the mountains and valleys. Others moved into the missions, working for the Spanish.

The autonomy of First Californians working in the missions was gradually restricted. They were no longer allowed to practice their religion or speak their own languages. Many died from diseases brought by the Europeans. As conditions worsened, those who had moved to California's central valley occasionally returned to raid the Spanish settlements. The number and strength of the attacks against the missions grew.

The Gold Rush

When gold was discovered in Northern California in 1848, many Americans from the East traveled west to seek their fortunes. Prospectors and miners established camps in places where they hoped to find gold. Settlers' farms and mines destroyed First Californians' gathering lands and polluted the rivers. Conflicts erupted.

The year 1848 also marked the end of the Mexican American War, in which Mexico gave California rights to the territory that eventually became the United States. The missions were abandoned, and their communities were absorbed by the surrounding ranches. Many First Californians began working for the wealthy rancheros.

In 1850, California became the 31st state in the Union. Over the next decade, cultural groups in California signed 18 treaties with the United States government that promised them land. Groups were

split as they were forced to move to **reservations** far from their ancestral lands and sacred spaces. These reservations offered a fraction of the land and resources that were taken from them. During the end of the 19th century and the beginning of the 20th century, the government attempted to force Native Americans to break the ties with their roots. Children were placed in boarding schools in order to assimilate into mainstream American culture. As a result, they were raised with little awareness of their **heritage** and became disconnected from cultural ways of knowing.

Approximately one-third (or 300,000) of all Native Americans in the United States were living in the area of present-day California prior to the arrival of European explorers in the late 18th century. By the early 20th century, the Indigenous population living in California had decreased to about 20,000 people.

Past, Present, Future

Today, many Native Americans are reviving their traditions and cultures. Central to this cultural renaissance is the importance of language and ceremony. A new generation is becoming more aware of their heritage as they continue the struggle for justice.

Indigenous people are active in environmental issues. California, has all of the world's major ecosystems in one place: forests, deserts, marine and wetlands. A more holistic way of looking at the environment is beginning to include Indigenous perspectives. With over forty groups seeking to be federally recognized, California is home to the second largest Native American population in the United States.

MODULE SIX: REFLECTION

Contributions of Native Americans

- **Art** Native American art is an inspiration for both abstract painting and modern design.
- **Ecology** Native Americans live in harmony with nature. They have deep respect for the earth and do not waste natural resources. They view the physical and spiritual worlds as one interconnected whole and actively participate in efforts to preserve the natural environment.
- **Entertainment** Actor Angelina Jolie, ballerina Maria Tallchief, musician Jimi Hendrix, and author Sherman Alexie are all of Native American descent.
- **Food** 60% of the foods we eat were first cultivated by Native Americans, including corn, beans, squash, potatoes, peanuts, avocados, popcorn and chocolate.
- **Government** Historians claim that the Iroquois Confederacy of Six Nations served as a model for the U.S. concept of national government as a federation of states.
- **Language** Navajo “code-talkers” served the U.S. in World War II by communicating messages in their native language which was not understood by our adversaries.
- **Sports** Native athletes have won Olympic medals in running, swimming and track. They originated the sports of hockey and lacrosse.



WW II Navajo Code Talker Sculpture located at Northern Arizona University, Flagstaff, AZ. Photograph by Thomas Trompeter.

Stationed for training in San Diego, California in 1942, a group of 29 Navajo Marines from Arizona and New Mexico developed a secret code based on the unwritten Navajo language. According to the San Diego History Center who mounted an exhibit on the Code-Talkers in 2017, the code was never broken by the Japanese, providing cover for American troops through the summer of 1945. “These Native Americans faithfully served the United States despite the fact that they were not considered American citizens at the time.”

“WHEN THE **BLOOD** IN YOUR VEINS
RETURNS TO THE SEA,

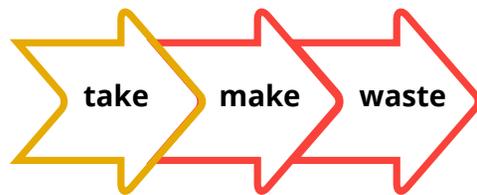
AND THE **EARTH** IN YOUR BONES
RETURNS TO THE GROUND,

PERHAPS THEN YOU WILL REMEMBER THAT
THIS **LAND** DOES NOT BELONG TO YOU,

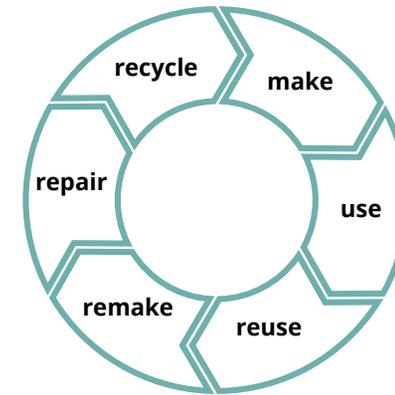
IT IS **YOU** WHO BELONG TO THIS LAND.”

— NATIVE AMERICAN QUOTE (SOURCE UNKNOWN)

MODULE SIX CAPSTONE PROJECT: PRESERVING THE NATURAL ENVIRONMENT



LINEAR THINKING



CIRCULAR THINKING

Linear Thinking

First Californians created baskets out of grasses and plants in their environment. Various tribes used different materials, styles of construction and designs. Basket weavers introduced contrasting colored fibers woven into the basket to produce complex patterns and symbols.

During the Industrial Revolution in the 1800s, many people began to think in a linear way. Instead of being circular, the life cycle became like an arrow pointing in one direction. People took resources from the earth. We made things using those resources, then when we finished using them—we outgrew them, they wore out, or something new came along—we disposed of them.

The goal of our Capstone Project is to learn to think in a circular way rather than a linear one to help preserve natural resources, and ultimately, the Earth. How might we extend the life cycle of “stuff”?

Circular Thinking

How might we change our way of thinking?

To begin, we can try to learn more about the natural resources we use. Let’s look at one item most everyone has—a T-shirt.

Think about your favorite T-shirt. Here are questions you might ask:

What materials were taken from the earth to make this T-shirt?

What was the process that converted those materials into the T-shirt? Check out the life cycle of a T-shirt on the next page.

Steps in the process include:

- growing and harvesting cotton fiber
- transporting the fiber to be spun into yarn
- dyeing the yarn into colors
- knitting the colored yarn into fabric
- cutting the fabric into pieces (front, back, sleeves)
- sewing the T-shirt
- optional: printing or sewing a logo on the T-shirt

CAPSTONE PROJECT: PRESERVING THE NATURAL ENVIRONMENT



What goes into making a T-shirt?

When we throw a T-shirt over our head in the morning, very few of us think about where that T-shirt came from and how much work went into making it.

Cotton has been grown in the Southwest by the Hopi and Pima Indians for the last 1,500 years. *Gossypium hirsutum* is a short-fiber cotton that has been dry-farmed by the Hopi people for around a thousand years. It is used not only as a fiber crop but the seeds are also roasted and eaten. *Gossypium barbadense* is a long-fiber cotton grown until the early 1900's by the Pima Indians. Pima cotton is known for its superior quality—the long fibers make it the most comfortable cotton there is.

The cycle of making a T-shirt begins well before seeds of the cotton plant go in the ground. Compost is added to enrich the soil. Cover crops such as peas are planted to prevent weeds. In early spring, soil temperature and moisture levels are measured to choose an ideal time for planting. Today, pima cotton is grown mainly in California. It represents 5% of the U.S. cotton crop.

If conditions are right, plants germinate and little seedlings sprout up within five to six days. Growing pima cotton is a very hands-on process. A seed that begins as a tiny plant grows into something that becomes a product that is essential to people's daily lives.

Once cotton fiber is harvested in early September, there are many more steps from field to fabric—beginning with transporting the harvested cotton for ginning, spinning, knitting, cutting, sewing and finishing. It takes four cotton plants to make one T-shirt.

Many of the products made in the modern world have a short lifespan. As new technologies and products become available, we throw away old ones which end up in landfills or incinerators. The circular approach, by contrast, takes insights from living systems. It begins with looking further into the future to design things that can be reused, remade, repaired and repurposed.



Your challenge is to select one item you use in your daily life:

it can be a T-shirt, a soccer ball, a favorite piece of technology, or anything else you choose. Keeping in mind First Californians' respect for the earth and the six steps of circular thinking, list the stages in its life cycle. How could it be more **sustainable**? How could it be designed to use fewer resources or to last longer? How could it be shared after you outgrow it? What other uses could you find for it when you no longer need or want it?

Design a poster that celebrates circular thinking. Show how you would redesign your item to have a longer life, or how you might repurpose something that would otherwise be thrown away.

GLOSSARY

Abundance: Having a large quantity of something; more than what is needed.

Abstract: Existing as an idea rather than as a concrete object.

Adapt: The ability and willingness to change in response to new conditions or information. To make something fit for a new purpose.

Agriculture: Cultivating the soil, growing crops and raising livestock.

Ancestor: A person from whom one is descended.

Archaeology: The study and discovery of things people made and used in the past. A person who studies archaeology is called an **archaeologist**.

Artifacts: Crafted objects of cultural or historic interest.

Artisan: A highly skilled worker or craftsman.

Autonomy: The right to control one's own thoughts, decisions and actions.

Clan: A group of families with shared ancestors, smaller than a tribe.

Coiling: A basket weaving technique that involves winding a rope with yarn to create a spiral-shaped object.

Colonization: Settling and taking control of a place and its native people.

Cultivate: To encourage something to grow.

Culture: Customs and beliefs that shape peoples' ways of life.

Discoidal: A circular stone artifact used for games or ceremonial purposes.

Diversity: Differences between people, often identified with reference to age, ability, appearance, ethnicity, beliefs, ideas and language.

Economy: A system of producing things to be bought, sold or traded.

Ecological: Concerned with the relationship of living organisms to one another and to their physical surroundings.

Ecosystem: All living and nonliving things in a defined area.

Effigy: The likeness of a person shaped from stone or other materials.

Environments: Physical surroundings or conditions.

Excavation: Digging, processing and recording of archaeological objects.

Habitat: The natural home of a plant or animal.

Harmony: Living peacefully with nature, other people, or oneself.

Heritage: Something handed down from the past, such as a tradition.

Hypothesis: A proposed explanation of how something works.

Indigenous: Originating or naturally occurring in a particular place; native.

Inference: Adding clues to what you already know to reach a logical explanation based on reasoning, but without all the facts.

Investigate: To look into carefully to learn the truth.

Legend: A story that has been told for a long time that is widely believed but cannot be proven to be true.

Life zones: A region characterized by specific plants and animals.

Migration: Movement of people from one place to another.

Mind map: A diagram used to visually organize information.

Mortar and pestle: Ceramic bowl and tool used to crush or grind substances into a fine powder or paste.

GLOSSARY

Myth: A story describing an event or hero's adventure, often involving superhuman powers.

Natural resources: Naturally-occurring sources of wealth or benefit, including climate, fertile land, forests, plants, minerals and water.

Observation: Looking closely with the goal of understanding.

Petroglyphs: Symbols and images carved on rock.

Pictographs: A form of writing that uses symbols instead of words.

Plaiting: Basket weaving skill that braids two or more strands of plant fiber.

Pre-contact: Indigenous society prior to arrival of an outside culture.

Primary sources: Direct evidence; a document or first-person account.

Prototype: A preliminary model from which other objects are developed.

Reservation: In this context, land set aside for the use of a Native American cultural group.

Ritual: A sequence of actions that is always performed in the same way.

Scientific method: Systematic observation, measuring and experimentation; the formulation, testing, and modification of hypotheses.

Shaman: A Spiritual Leader believed to have special wisdom and the powers to heal and communicate with the spiritual world.

Soapstone: A soft, strong rock used for carving.

Sustainable: Something that can be used without becoming depleted.

Symbol: A visible sign that stands for an idea.

Symmetry: Balance of equal elements on both sides of a central axis.

Tattoos: Marks or designs created by inserting pigment under the skin.

Theory: An idea or hypothesis that explains how things work based on observations that can be tested.

Tipis: Cone-shaped dwellings.

Tongva: A tribe that settled in coastal Southern California. *Tongva* means "People of the Earth" in their native language. Spaniards called Tongva people "Gabrielino" after Mission San Gabriel Arcángel.

Topography: A map of surface features of the land, both natural and man-made. These features include mountains, valleys, deserts, bodies of water, forests and plant life.

Traditions: Beliefs or customs handed down from one generation to another.

Trapper: A person who captures and trades the fur of wild animals.

Treaty: A written contract between two or more nations.

Tribe: A group of people with a common language and customs, who live together under one or more leaders.

Tule: A large grass-like plant found in marshes.

Twining: A basket weaving technique that involves two or more flexible materials crossing each other as they weave through radial spokes.

Vision Quest: A supernatural experience in which an individual seeks to interact with a guardian spirit, usually an animal assigned human characteristics, to obtain advice or protection.

Warp and Weft: In weaving, the vertical (warp) and horizontal (weft) threads or yarns.

REFERENCES AND RESOURCES

LINK TO CONTENT STANDARDS ON BOWERS MUSEUM WEBSITE

CONTENT STANDARDS

The projects and activities in this teacher and student resource guide address California Content Standards for the Arts, English Language Arts, History/Social Studies, Science and Technology.

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Page 23. See detailed captions in the image credits for Page 55
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- Page 31 *Tomol* Canoe Template_Bowers Museum, 2020
- Page 33 Petroglyphs_Photograph by Dr. Peter Keller_Bowers Museum
- Page 34 Female Figure with Face and Body Tattoos_Bowers Museum 86.17.14
- Page 35_Article A_Paint Pot, date unknown
Orange County, California
Possibly Rhyolite; 1.5 x 2.25 in.
Bowers Museum 9090
Gift of the Irvine Foundation
- Article B: Necklace, date unknown
Chumash, Southern California California
Shell, string and bead
Bowers Museum 40587.3
Estate of Ruth Eaton
- Article C: Cloud Blower Pipe Stern, date unknown
California
Sandstone; 1.75 x 1.25 in.
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Circular Thinking Graphic_Pamela Pease
- Page 50 Cotton plant *Gossypium*. Photograph by (Malayam) Crow. Wikimedia
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REFERENCES AND RESOURCES

Challenge: Comparing Artifacts (p.23)

- 1** Woven Quiver, c. 1895
Klamath culture; California
Tule; 17 × 6 × 1.75"
Bowers Museum 19629
Gift of Harrie H. and Mae Teaboldt
Basketry quivers used to hold arrows are not uncommon among California Native American cultural groups. This Klamath quiver is woven from tule fiber which makes it flexible.
- 4** Funnel Basket with People Figures, c. 1910
Yokut culture; California
Grass, sedge, bracken fern root, redbud and quail feathers; 6.25 × 10.25"
Bowers Museum 31133b
Gift of Mrs. Henry E. North
The banded patterns on this basket show an interesting use of human figures, with alternating men and women holding hands. The band on top depicts females only.
- 7** Basketry Water Bottle, c. 1890
Paiute culture; California
Willow and cotton string; 11 × 7.375"
Bowers Museum 19606
Gift of Harrie H. and Mae Teaboldt
Basketry water bottles were a necessity in the arid environment traditionally inhabited by the Paiute. The constricted neck helped to prevent the water from evaporating, the pointed end allowed the bottle to be set in the sand without tipping over, and the handles made it easy to put it on a string and carry.
- 10** Banded Diamond Basket, c.1890
Yokut culture; California
Grass, sedge, bracken fern root and redbud; 10 × 6.5 in.
Bowers Museum 2344
Gift of Helen Billingsley Flintham
This is a large coiled basket that shows a stylized diamond motif.

Key: 1e, 2d, 3c, 4l, 5h, 6a, 7k, 8i, 9j, 10g, 11b, 12f

- 2** Feather and Bead Trimmed Basket, c. 1920
Pomo culture; California
Willow, feathers and clam shell beads; 3.5 × 1.5"
Bowers Museum 1807
Presented to Museum by Myrtle Blakeslee in memory of Felix Modjeska, grandson of Madame Helena Modjeska
The Pomo made highly decorated feather baskets that were used as gifts for honored people as well as to commemorate births, puberty, marriages, and death.
- 5** Cradle, c. 1900
Lower Klamath River, California
Hazel and rawhide; 12 × 24"
Bowers Museum 39635.1
Gift of Mrs. George Tsuda
Babies sat with their legs hanging freely in cradles such as this. The cradles were often kept by families as heirlooms to be used by successive generations.
- 8** Navy/White Diagonal Basket, c. 1920
Atsugewi culture, Mount Shasta area, California
Tule, glass beads and cloth; 3.75 × 5.5 in.
Bowers Museum 4726
Gift of Helen Billingsley Flintham
Beaded baskets were traditionally made to be given as gifts or for purchase by non-Native collectors.
- 11** Rattlesnake Basket, c. 1900
Cahuilla culture; California
Sumac, juncus and grass; 4.75 × 15 in.
Bowers Museum 2002.14.3
Gift of William Moran
Rattlesnakes are commonly found in the California desert, so the Cahuilla often incorporated rattlesnake designs into baskets.
- 3** Trapezoid Basket, c. 1925
Lower Klamath River, California
Conifer root, beargrass and fern root; 13 x 15.5 in.
Bowers Museum 20263
Gift of Mary J. Newland
This large basket, woven by Hupa, Yurok, Karuk or other peoples of northwestern California would have been used to store raw food items.
- 6** Willow Basket, c. 1910
Panamint Shoshone culture; California
Willow; 5.25 x 3.5 in.
Bowers Museum 8525
Gift of Mrs. J. I. Clark
The Panamint Shoshone are especially well-known for finely woven coiled baskets decorated with figurative designs.
- 9** Basket Tray, c. 1900
Cahuilla culture; California
Sumac, juncus and grass; 5 x 14.5 x 20.75 in.
Bowers Museum F83.1.1
Bowers Museum Foundation Memorial Fund Acquisition with support from Donna Karlen, In Memory of Dr. John E. Karlen, M.D.
The Cahuilla homeland is in the Southern California desert. Known for finely-coiled baskets with intricate designs, most Cahuilla baskets use juncus grasses which range from yellow to warm orange and provide a pleasing variation of color.
- 12** Butterfly Basket, c. 1900
Cahuilla culture; California
Sumac, juncus and grass; 3.75 x 18 in.
Bowers Museum 20480
Gift of Mary J. Newland
By the early 20th century, Cahuilla baskets were made specifically to appeal to collectors, often using figurative designs such as these butterflies.