



Scout Merit Badge Class

ARCHAEOLOGY

DATE: _____

SCOUTS NAME: _____

TROOP NUMBER: _____

REQUIREMENT #1: Tell what Archaeology is and explain how it differs from Anthropology, Geology, Paleontology and History.

DEFINITION:

ARCHAEOLOGY: _____

Match up the Word with its meaning:

1. Archaeology: _____
2. Anthropology: _____
3. Geology: _____
4. Paleontology: _____
5. History: _____

- A. The study of rocks, minerals, soils and the earth.
- B. The study of fossils of ancient animals and plants.
- C. The study of humans in the widest sense.
- D. The study of the past revealed through written records.
- E. The study of human activities and cultures of the past.

REQUIREMENT #2: Describe each of the following steps of the Archaeological process: site location, site excavation, artifact identification and examination, interpretation, preservation and information sharing.

DESCRIPTIONS:

1. Site Location:

2. Site Excavation:

3. Artifact Identification and Examination:

4. Interpretation:

5. Preservation:

6. Information Sharing:

REQUIREMENT #3: Describe at least two ways in which Archaeologists determine the age of sites, structures or artifacts. Explain relative dating.

1. _____

2. _____

DEFINITION:

Relative Dating:

REQUIREMENT #4: Do **TWO** of the following:

- a. Learn about three Archaeological sites located outside of the United States.
- b. Learn about three Archaeological sites located within the United States.*
- c. Visit an Archaeological site and learn about it.*

For **EACH** site you research for options a, **b**, or **c**:

- 1.) Point it out on a map and explain how it was discovered.
- 2.) Describe some of the information about the past that has been found at each site.
- 3.) Explain how the information gained from the study of these sites answers questions that Archaeologists are asking and how the information may be important for modern people.
- 4.) Compare the relative ages of the sites you research.

NAME OF SITE 1: _____

1. Point out the site on the map.
2. Explain how the site was discovered.

3. Describe some of the information from the past that has been found at this site.

4. Explain how the information gained from the study of this site answers questions that Archaeologists are asking.

5. Explain how the information may be important for modern people.

6. Compare the relative age of this site with the other sites.

NAME OF SITE 2: _____

1 Point out the site on the map.

2 Explain how the site was discovered.

3 Describe some of the information from the past that has been found at this site.

4 Explain how the information gained from the study of this site answers questions that Archaeologists are asking.

5 Explain how the information may be important for modern people.

6 Compare the relative age of this site with the other sites.

NAME OF SITE 3: _____

1 Point out the site on the map.

2 Explain how the site was discovered.

3 Describe some of the information from the past that has been found at this site.

4 Explain how the information gained from the study of this site answers questions that Archaeologists are asking.

5 Explain how the information may be important for modern people.

6 Compare the relative age of this site with the other sites.

THE BELLE: LA SALLE'S LAST SHIP

- The ship was lost in January 1686. It ran aground on a sandbar during a squall (storm).
- The Belle was the last in the small fleet of their leader, the French explorer Sieur de La Salle.
- The survivors were stranded on a marshy, snake infested stretch of the Texas Gulf Coast.
- The French survivors worked hard to establish a settlement, but disease, food shortages, deadly snakes and hard labor brought death to many.
- When the Karankawas, the Indians of the area attacked them, only a few of the settlers survived.
- The wreck of The Belle was pinpointed to the area in Matagorda Bay.
- In 1978, Archaeologists with the Texas Historical Commission launched their first magnetometer search but found nothing.
- In 1995, they finally found the Belle; she was lying under about 12 feet of water, covered by sand and silt.
- The wreck was unusually well preserved thanks to its long burial in sand and mud beneath the quiet, well-protected waters of the Bay.
- The Belle is one of the most historically important shipwrecks in North America.
- Finds included a large bronze cannon, pewter plates, pottery vessels, a sword hilt, brass buckles, bells, straight pins and glass beads.
- Also found were orderly rows of wooden barrels and part of the ships hull.
- “Every nail, fastening, board, and piece of the rigging will tell us a story that’s not known”, said Barto Arnold, the Marine Archaeologist who led the excavation.

OZZETTE: A LEGEND COMES TRUE

- The site is found on the Ozzette Indian Reservation, home of the Makah tribe of Northwestern Washington.
- The burial of the site happened during the 14th Century.
- The story is told of a great disaster that destroyed the tribe’s ancestral home. The legend tells that a mountain of mud fell upon their village, which was located at the edge of the Pacific Ocean.
- It wasn’t until 1970, during a raging winter storm that sent high waves crashing to the beach in a place called Ozzette, that proof of the legend was found.
- The mudslide that happened over 500 years before buried the sturdy cedar wood house without destroying them.
- The wet clay sealed the houses so tightly that everything was preserved except flesh, feathers, and skins.
- Archaeologists and members of the Makah tribe worked together to excavate the site.
- Special techniques were needed to uncover and preserve the waterlogged remains. They built a complicated pumping system that sprayed jets of water of different strengths.
- Finds included a canoe paddle, fishhooks of wood and bone, the shaft of a harpoon, bits of inlaid boxes, woven hats as well as looms, woodcarvings, wooden bowls, cone shaped rain hats made of spruce roots, baskets and even cloth. Materials that are rarely recovered from an Archaeological site were held safe through the centuries.
- Like the city of Pompeii, Ozzette is like a time capsule in which we can learn about the people of the past.
- By agreement, all excavated objects have remained on the reservation in a museum built and operated by the Makah tribe.

U. S. ARCHAEOLOGICAL SITES

MESA VERDE

- Located in Southwestern Colorado where a series of mesas (flat topped mountains) are dissected by deep canyons.
- Dated from 400 AD to the 13th Century.
- The best-preserved set of Archaeological sites in the United States.
- First recognized by Euro-Americans in the late 19th Century.
- Finds include well preserved organic and inorganic artifacts such as pot full of corn, sandals made of Yucca plants, baskets, pottery and jewelry.
- Mesa Verde is Spanish for “green table.”
- Home to the Anasazi (ancestral Pueblo).
- There are hundreds of well-preserved Archaeological sites on the tops of the mesas and in the canyon walls.
- The site includes houses, storage rooms, as well as circular structures known as kivas, which were used for ceremonial activities.
- The Anasazi relied on farming, hunting and gathering for their survival.
- Mesa Verde was abandoned by the Anasazi towards the end of the 13th Century, possibly because of drought, although raids by other Indian groups may also be the reason.
- The Anasazi traveled to the south and west after leaving Mesa Verde and became the ancestors of today’s Pueblo Indians.
- They are famous for their beautifully decorated pottery.
- Spanish explorers seeking a route from Santa Fe to California in the 1760’s and 1770’s were the first Europeans to reach the Mesa Verde region which they named after its high tree covered plateaus.

CAHOKIA MOUNDS

- Located just east of St. Louis, Missouri near where the Missouri and Mississippi Rivers meet.
- The Cahokia site is made up of over 100 earthen mounds, used as platforms for buildings, burials, and as boundary markers.
- Dated from 700 AD to the 15th Century.
- It is the largest and most complex earthen mound site in North America.
- First Euro-American interest in the site began in the early 19th Century.
- Finds include pottery, stone projectile points, bone tools and grave goods.
- The largest mound known as Monks Mound covers 14 acres and has 4 terraces rising 100 feet above the surrounding land.
- The mounds are named after a local Indian tribe the Cahokia. These mounds were as close to a city as anything found in Pre-Columbian North America.
- The Cahokia relied on farming, hunting, fishing and gathering for their survival.
- The inhabitants of this place were organized into a class society, and had a trading network that covered thousands of square miles.
- The houses of the Cahokia were arranged in rows and around open plazas.
- French monks found Cahokia’s mounds in the mid 1700’s and later named the biggest one after themselves.

THE ELDERBERRY SITE

- The Elderberry Site is located at the Jurupa Mountains Cultural Site.
- The site is registered as 4-Riv-674 “The Elderberry Site”. The Center is 4.5 miles west of Riverside and the Santa Ana River, at the south base of the Jurupa Mountains.
- Geographically, Riverside is in the heart of the region of the Southern California Shoshonean peoples. It is here the four groups (Gabrielino, Serrano, Luiseno and Cahuilla) met.
- Although there may have been extensive mixing of Serrano and Luiseno with the Gabrielino in the Riverside area, the Gabrielino was believed to be more dominant.
- The nearest reported village to this site would be Hurungna or Huruvnga, and may have been the village of 100 people that Juan de Anza reported seeing living near the Santa Ana River (near Pedley).
- It cannot be determined in which Shoshonean territory this site belongs, but that is of relatively minor importance. Indeed, it may not have been claimed by any one of these groups, but commonly occupied by a mixture of Serrano, Gabrielino and Luiseno.
- Ruth and Sam Kirkby first discovered the Elderberry site in 1974. Ruth was the Executive Director and Sam was Project Director at the time.
- Mrs. Steve Orson from Pepperdine University, and five of his students were called upon to come and excavate the site on July 13, 1974.
- The crew was briefed on why they were digging at the site, as well what field techniques were going to be used. The ethnology of the area, and what to look for.
- **Ethnology** is the science that focuses on different races of people, their characteristics and their relationship to each other.
- A surface survey was done with the help of the Kirkbys, who pointed out a “quarry”, a nearby spring and five milling stones (metates).
- A group of granite boulders with slicks were also found above the spring, but these were in a designated “nature area” and not to be excavated.
- Care was taken to recover all materials including the smallest bone, seed and shell fragments, etc.
- The Elderberry Site was noted early on to be characterized by slicks, mano-metates, and lacking in artifacts associated with village life or other uses.
- It appeared to be a seed processing station, an integral part of a village catchment, which was probably common in late prehistoric times.
- Placing this site in time and cultural “horizon” is not definitive because no absolute dating could be accomplished. Even relative time is conjectural due to insufficient evidence.
- The dominate if not singular characteristic of this site is that 90% of the artifacts found here are associated exclusively with seed processing of other than favored staple food.
- The excavation showed that this site served no other purpose or function and it was only used for short periods of time, mostly seasonal use.
- The Elderberry Site appears to be dated from late prehistoric to ethnographic between AD 1000 to 1800.
- The Elderberry Site is now known as a Second Seed Processing Station used mostly by late Prehistoric Eastern Gabrielino people when favored food resources were poor.
- These kinds of sites are believed to be common in Southern California, but few are identified as such.

REQUIREMENT #4C: Visit an Archaeological site and do research on it.

1. How was the Archaeological site discovered?

2. Describe some of the information from the past that has been found at this site.

3. How does the information gained from the study of this site answer questions that Archaeologist are asking?

4. Compare the age of this site with the other sites you have researched.

REQUIREMENT #5: Choose one of the research projects you completed for Requirement #4. Present your findings to the group.

REQUIREMENT #6: Do the following:

A. Explain why it is important to protect Archaeological Sites.

B. Explain what people should do if they think they have found an artifact.

C. Describe the way in which you can be protector of the past.

REQUIREMENT #8: Do one of the following:

- A. Under the supervision of a qualified Archaeologist, spend at least eight hours helping to excavate an Archaeological Site.
- B. Under the supervision of a qualified Archaeologist, spend at least eight hours in an Archaeological laboratory helping to prepare artifacts for analysis, storage or display.
- C. If you are unable to work in the field or under the supervision of a qualified Archaeologist, you may substitute a mock dig. Plan what you will bury in your artificial site to show use of your “site” during two time periods.**

****SEE ATTACHED ARCHAEOLOGICAL FIELD NOTES TAKEN AT
MOCK DIG****

ARCHAEOLOGICAL FIELD NOTES
Unit Level Record

Page ____ of ____

Date: _____

Site: _____

Unit: _____ Level: _____ Recorder: _____

Excavation Method: _____ Screen Size: _____ Photo: Nos.: _____

Description of Soil:

Disturbances:

Features:

Tool Making Debris: (quantities materials):

Bone (quantities, general identification):

Formed Artifacts (List, draw to scale):

ARCHAEOLOGICAL FIELD NOTES
Unit Level Record

Page ____ of ____

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Site: _____

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Excavation Method: _____ Screen Size: _____ Photo: Nos.: _____

Description of Soil:

Disturbances:

Features:

Tool Making Debris: (quantities materials):

Bone (quantities, general identification):

Formed Artifacts (List, draw to scale):

GABRIELINO TRIBE

The Gabrielino (Gob ree el een' oh) tribe is considered by most historians to have been the richest, largest, and most powerful tribe in Southern California. Spanish explorers found them to be very smart when dealing with other tribes, and physically strong, with light skin coloring. They were of medium height, and stocky build.

The tribe had no name for themselves, the name Gabrielino comes from historians which means Indians of the San Gabriel Mission, which was founded in 1771. Today their living relatives are searching for a name that best describes them. Some of them think the name Tongva, which means, "earth" in their ancient tongue, would be a good name.

Gabrielino territory went from the southern tip of the San Fernando Valley in the north to Newport Bay in the south. The land stretched east to where the city of San Bernardino is today. Their territory also included some islands off the coast.

Santa Catalina Island had a very valuable mineral on it which could easily be mined: Steatite: also known as soapstone. It is a soft rock, and all tribes in Southern California to make cooking utensils used it. A great deal of the Gabrielino's wealth came from trading this rock for other valuable items from the other tribes. Like all Native Americans, they knew their land well and could make good use of all of the resources on it.

VILLAGE LIFE

Most villages were separate from one another, and each took care of its own needs. Since most villages were made up of groups of people related to each other, many homes were built large enough to hold big families, some were so large they could hold up to 50 people. The homes were made of woven tule, fern, or grass. They were round with rounded or domed roofs.

There was also an open-air oval shaped fenced in place that was by the chief's house used for all ceremonies (religious as well as for dancing). There was often a second oval shaped building really close to the first, but it was not religious or sacred. It was used to practice the ceremonies and dancing to be presented in the sacred ceremonial enclosure.

Although the tribe moved to different places while hunting and gathering their food during summer and fall, they always came back to their permanent village.

There were 3 different kinds of people found in a village. Most important were the very rich tribal members, and the chief and his or her family. Just below this group of people were the rather well to do and long time families of the village. Everyone else, mostly workers, was included in the lower group of villages.

THE CHIEF

If there were several villages close together they would share one chief. But if they were far apart each village had its own chief. When the chief became too feeble or he died his eldest son took over. If the village didn't think he could do a good job like his father, or he had no son the village council decided from his relatives who would take his place.

The chief's main job was to keep peace among the villagers, and to take care of the sacred bundle, which held holy symbols of the tribe's religious beliefs. He was also in charge of collecting taxes, which were not payments of money, but mostly food gifts given to feed visitors. A chief had several assistants to help him.

THE CHILDREN

The Gabrielino loved and spoiled their children, but they expected the children to behave and treat their elders and everyone around them with respect. All tribal members believed that those people who always followed the tribal laws would live long happy lives.

When a baby was born, both the mother and her baby were purified by sweat bathing for three days after the baby's birth. If it was the child of a chief a special ceremony or ritual was held.

It was the job of the elders of the tribe to train and teach the older children in the chores and crafts of the tribe. Everyone had a job to do to help the village and its people survive.

Once the children were teenagers, they were given large and grand ceremonies to teach them proper adult behavior and to show them their place in the whole universe. At the end of the ceremonies, the new teenager was presented as a young man or woman to their tribe and to visiting tribes.

Most of the time the young people of the tribe got to pick who they wanted to marry from other villages. Sometimes the marriages were arranged. The bride was welcomed into her new husband's village but she was never allowed to visit her relatives again. They could come and visit her though.

MOURNING CEREMONIES

They believed that when important people died in the village their spirits would rise to the heavens and become stars. Everyone else's spirits would stay underground and dance and celebrate for all eternity.

For three days after someone died his or her relatives would mourn their passing and then burn the body along with most of the dead person's belongings. The rest of the belongings were saved for the annual mourning ceremony.

The mourning ceremony was certainly the biggest event of the year for the Gabrielinos. It was held in the autumn after the Acorn harvest. The ceremony took eight days. It was not only for the people of the village but also for anyone else that wanted to be a part of it from other villages.

For seven days they feasted, danced and sang. Costumes for the dancers were quite beautiful. Hawk and Eagle feathers were used. A shaman-priest who had taught the dancers and singers sat on the sidelines to make sure no mistakes were made.

On the fourth day of the event, all babies born during the past year were given names. The chief was the one in charge of naming each child and he chose names that came from the ancestors.

On the fifth day life-size images were made of those who had died during the year. They were stuffed with grasses to appear more life like. On the sixth day an eagle killing ceremony took place and special songs and dances were performed.

Early on the morning of the eighth day the images and the rest of their belongings were burnt on a huge fire to keep the dead person returning from the grave.

THE CALENDAR YEAR

Acorns to California Native Americans were so important they built the entire year around them. The Acorn harvest marked the beginning of the year. It was held in mid-October and included dancing, feasts, games of chance, and reunions with relatives. They lasted for many days up to two to three weeks between gathering the Acorns and celebrating the harvest. It was a great time of joy for everyone.

The second big event for the year was the mourning Festival that laid their dead to rest and celebrated new life.

Historians believe that one family would eat from 1500 to 2000 pounds of acorn flour a year. It was the main food at both of their 2 meals everyday.

The Gabrielino's divided their year into two parts, with ten moons or months. They had named many stars, usually giving them animal names. The tribe also had names for the north, south, east and west.

WAR

They were not afraid to state their opinions and as such it sometimes ended in war. These wars were usually fierce but short. Before war broke out the problem would try to be solved in a peaceful way. If war came up everyone was involved even children and women.

The women would prepare the food and take it to the warriors during the battle. The women and children were responsible for picking up all the arrows, war clubs or bows that were dropped and taking them back to the warriors.

HUNTING AND GATHERING

The men were responsible for most of the heavy work, like building strong warm homes and providing their families with plenty of food. They were responsible for fishing and hunting as well.

The women had the largest job of gathering seeds, roots and nuts as well as taking care of the children and the elders of the family.

Large animals like deer and mountain lions were hunted with bows and arrows. Small animals like rabbits, squirrels and rats were usually caught in traps, snares and deadfalls. Underground animals like gophers and moles were smoked out and killed as they escaped the smoke.

Another source of food was the ocean. The Gabrielino used plank canoes, harpoons, spears and clubs. But most of the fishing was one from the shore or in fresh water streams. To fish in the lakes and streams they relied on hooks, lines, nets, basket traps and sometime spears for the larger fish.

Sometimes the meat was eaten raw, but usually it was cooked over an open fire or smoked and preserved for later use.

Grass seeds, roots of many plants, berries and nutmeats were also prepared and eaten b parching them in a basket over hot coals. There were also drinks and chewing gum made out of plants.

The variety of food available to the Gabrielino and other California Native Americans was enormous. Almost anything that could be used in some form or another was. There were some exceptions to the rule like the bear was considered too spiritual and too much part of myths to be eaten.

ARTS, CRAFTS, TOOLS AND UTENSILS

The Gabrielino people were known for their clever utensils, tools and beautiful arts and crafts. They took great pride and time in whatever they created. They used shells inlaid with tar, and hard to find minerals in their everyday utensils and bowls.

The Chumash and Gabrielino tribes were considered the most advanced of all the southern and central tribes of California, in artwork and tool making.

Very few California tribes made or used pottery. The Gabrielinos used and made a few pieces but they used more steatite containers and baskets.

The women of the tribes used and made wonderful creative baskets, not only to prepare food, but also for storing belongings and to help carry heavy loads. They made these baskets using two methods: coiling and twining. The twined baskets were often the most loosely woven. Some baskets were sealed with tar so they could carry and store water.

They used the fibers of the yucca roots for brushes not only for hair but also to clean pots and pans. Strings and cords were made from the stems of plants such as the nettles, Yucca and milkweed. Since all of these are poisonous they had to be extremely careful when braiding or rolling the cord.

CLOTHING

The warm dry climate of Southern California allowed the Gabrielinos to wear very little clothing most of the year. The men and children were usually naked. The women wore aprons of deerskin or the inner bark of some trees. The inner bark was shredded and then woven into fabric.

In rainy or cool weather they wore either a short cape of deerskin or longer rabbit fur robe. Those that spent more time close to the coast had capes of sea-otter fur. The capes were not only used as clothing but also as blankets at night.

The Gabrielino men were in charge of the dressing or curing of the animal skins to be used as blankets and clothing. Almost all other tribes had the women in charge of that task.

Both the men and women wore tattoos. The men wore them on their foreheads while the women liked to wear them on their chins. The designs were usually vertical or horizontal lines. Girls were tattooed before they became teenagers.

Most of the time the Gabrielinos went barefoot, unless they lived in rocky areas or traveled far distances. The sandals were made of woven yucca or milkweed fibers.

They bathed each morning before sun up and would warm and dry themselves by the fire while waiting for breakfast.

Men wore their hair long and parted in the middle. Sometimes they braided their hair or pulled it into a topknot and held it in place with a bone hairpin.

Women like bangs and usually wore it hanging long and free down their backs. To keep their hair shiny and black they would coat their hair with clay.

Both the men and the women of the Gabrielino tribe wore earrings. Men wore hollow stems of can, while women wore shell rings with feathers in their ears.

During special occasions everyone in the tribe wore ornate costumes. They were far more colorful than everyday clothing.

RELIGION

Gabrielinos are thought to have had such strong beliefs in their spirit gods and in the myths of how they came to be, that their religion, Chungichnish was adopted and spread to other Southern California tribes like the Luiseno and Juaneno tribes.

So important were their religious beliefs that the Gabrielinos began doing all rituals exactly the same way each time. Nothing could be changed or the spirit gods would become angry and punish them.

Each village had a special religious place or "temple". Only very old men or the most powerful people were allowed to go into the most sacred parts of the enclosure. In other parts of the enclosure everyone was welcome where long ceremonies were held and offerings were given.

Their beliefs in the power of nature were strong and must be respected by all. The Eagle was believed to be the most powerful symbol of the past. The bear as stated before was also very sacred, along with the crow raven and the owl.

The village chief had power over everyone except the shamans. The shamans were believed to have spiritual powers given to them by the gods and no-one not even the chief could disobey them. The shaman most of the time were men but in some villages they were women.

All kinds of objects were used by a shaman to bring proof of the power things like dried animals skins, odd looking rocks, plant roots and power wands. These items were used to cure sick people of the tribe, bring about rain or a successful hunt or war.

Sometimes the shaman became mean, or practiced evil on their own people. When this occurred, they would either be stripped of all their powers by the other shaman or be killed by the rest of the tribe members.

REQUIREMENT #11: Identify three career opportunities in Archaeology. Pick one and explain to prepare for such a career. Discuss with your counselor what education and training are required, and explain why this profession might interest you.

CAREER #1:

CAREER #2:

CAREER #3:

**ARCHAEOLOGICAL FIELD NOTES
UNIT LEVEL RECORD
LEVEL 2 MAP**

Things Found in Test Unit (Soil):

NOT TO SCALE
