ADOBE BRICK STATION

General

Most of the buildings at Fort Tejon were built of adobe bricks, including the hay and mule corrals. Good construction lumber was hard to come by and very expensive. Civilian contractors made most of the bricks at the fort in the marsh area, southeast of the park office. The Mexican and Indian contractors were paid either per brick (usually .01-.02 cents) or a flat rate per 1000. The bricks were stored behind the kitchen mess hall.

Adobe bricks are very susceptible to weather damage. One building built at the fort, the Band Quarters, washed away before it was completed when an unexpected rainstorm hit before the roof of the building was constructed.

Adobe Brick Making

The goal of this living history demonstration is to show the students how adobe bricks were made for the buildings at Fort Tejon (on a much smaller scale). The best practice is to have the students do the work. Each student will make at least one brick.

The first squad will retrieve the Adobe Brick making supplies from the Blacksmith's Shop and carry them to the Adobe Pit. They are located near the back door on the floor and hanging on the wall. The last squad will clean the mud from all tools and equipment at the spigot and return them to the Blacksmith's Shop. Please keep these items in good condition for use by the next school program and report any damage to the Staff.

To start making adobe bricks, you will need 2-4 buckets, 3 brick molds, shovel and trowel. The Adobe Brick Pit is located at the northwest corner of the Parade Ground. To make bricks, you need water, dirt, and straw. Don't use too much straw, or the bricks will not hold up. The water must be carried from the water spigot in buckets to the adobe pit.

Procedures

a. Before rotations begin, parents will need to prep the hardened mud and loosen up some soil in the bottom of the pit, especially on drier days. Begin adding water - a little at a time. This will speed up the process and set the students up for success.

b. When the squad arrives, talk about the station by explaining what the students will be doing, provide the historical information listed below, and review the safety concerns.

c. Send some of the students to the nearby spigot to fetch water in 2-4 buckets.

d. Have some of the squad mix the mud with their bare feet. As the mixing progresses, add a little straw and water as needed…straw is already on site.

e. Using the shovel in the mud pit: The mud will need to be mixed with a shovel. Most students do not have the strength and skills to mix the mud effectively and safely with the shovel. That is why we ask that only one student with a shovel be allowed in the mud pit

at a time to avoid any feet injuries. Students using the shovel will need to wear shoes. Parents may need to assist.

f. When the mud is about the consistency of cake icing with a good amount of straw in it, you are ready to form the bricks. Put some of the adobe into a bucket and have the students take it to a flat spot near the edge of the pit where the brick mold is located.

g. Clear the ground of grass and twigs. Lay the mold on the ground and begin packing mud in the mold using the trowel. Pack it firmly! When full, remove the form and let the brick dry.

h. Towels are provided for drying wet feet. Please ration and share the towels so there is enough for all 5 squads. Each squad will take wet/dirty towels to their next station, which is the Laundry Station. They will be used for the washing demonstration.

i. Make time during the last rotation so that the students can take all equipment to the water spigot to be cleaned and then taken back to the Blacksmith's Shop to be put away.

Safety

a. Don't let the students climb and play on/or around the big downed oak tree.
*b***.** Watch out for rattlesnakes.
c. There's not much shade at the Adobe Pit and it can get quite warm there. Don't forget to wear a brimmed hat, apply sun screen, and stay hydrated.
d. Stay attentive at your station and supervise the students using the shovel.

Adobe Brick making equipment supplied by Fort Tejon

3 shovels	3 wooden brick molds
wooden box of hand trowels	basket of drying towels
4-5 buckets	Adobe Brick Pit sign with stanchion hook

Adobe Brick Questions

a. How many bricks did it take to build a building?
(40,000 to 80,000; the Barracks Building took approximately 60,000.)

b. Why do you use straw?
(It provides strength to the mud.)

c. Who made the bricks?
(Civilian contractors, and some soldiers working for extra pay (.35 cents a day.)

d. How were the bricks dried?
(Either by sunshine or by kiln; if by sun, it took between 1-3 months.)

e. Why was adobe used?
(It was cheap, easy to come by, and easy to work with.)

f. How does it fare in earthquakes?
(Surprisingly well, not many of the buildings at Fort Tejon sustained severe damage during the earthquake of January 1857.)

g Where are all the buildings now?
(Many were torn down, many fell down, and many "melted" when the tops of the walls became exposed and the rain began to melt the bricks. The second (upper) barracks is a good example.)

This is a good time to point out the Officer's Quarters Building and talk about how that building is a replica (rebuilt on its original rock foundation) and how the bricks look different than the ones used on the Barracks Building, which is an original restored building. The adobe brick material for the Officer's Quarters was actually acquired from other buildings at the fort and re-processed with asphalt added for extra strength.

Extra Interesting Information:

The students are always curious about the large downed oak tree near the Adobe Brick Pit. You can add interesting conversation by telling them the oak trees seen at the fort are Valley Oak Trees. This one fell in 2013 during a big storm. It is approximately 400 years old…one of the oldest and largest in the area. All the dotted holes seen on the trunk were made by Wood Pecker birds. They drill out the hole with their beak and store acorns in the holes to be used for winter food supply.