MISSION SAN LUIS

VIRTUAL Summer Camp

Time Travel Quest 11

Building the Blockhouse

Blacksmiths Hold the Fort Together

August Theme: Architecture and Construction

Historical Background

What did it mean to be a blacksmith in the 17th century? The answer lies within the name. A "smith" was a person who was trained to shape metal. There were many different types of smiths over the centuries and their labels depended on the metal they worked with. Silversmiths worked with silver, tinsmiths worked with tin and other light metals, goldsmiths worked with gold and so on. Blacksmiths got their name from working with the “black” metals: iron and steel. When worked (or forged) in a forge (a furnace to heat metal) and not polished, these metals have a dull black coloring. Therefore, a smith who worked with iron and steel would be called a "blacksmith." Blacksmiths were probably the most common type of smiths, as iron and steel were used to make many everyday items.

▲ *Building the Fort at Mission San Luis (illustration by John LoCastro)*

Most of the Spanish-style buildings at San Luis were made with the help of blacksmiths. Large iron spikes held beams and frames together, while smaller iron nails attached planks, roofing materials, and doorframes. Blacksmiths also made iron hinges for the doors, allowing the doors to open and close easily. These hinged doorways differed greatly from Apalachee-style buildings like the Council House, as Apalachee-style buildings were constructed with open doorways without a physical door. Blacksmiths were especially needed for constructing the blockhouse and palisade wall that created the Fort complex. The blockhouse was a multistory building with thick walls that was used as a safe house if San Luis was

▲ *Our blacksmiths have forged much of the iron hardware in the reconstructed buildings at Mission San Luis.*

ever attacked. It also served as home for the many soldiers who were not married. The palisade was a large wooden fence that surrounded the blockhouse and provided another level of defense. Blacksmiths forged large spikes that held the posts of the palisade together.

While spikes, nails, and hinges are important for keeping a building standing, blacksmiths were also responsible for helping make the tools necessary to construct the building in the first place. Blacksmiths made the tools – the axe heads, saws, hammer heads, and other items - that the loggers, hewers, and carpenters used to cut down trees, shape the wood, and construct buildings. The carpenters would make the wooden handles. Blacksmiths even needed to make their own tools like hammers, chisels, and punches. Each new set of tools would have first needed a set of tools to make them, creating an interesting "which came first, chicken or egg" problem.

Even though archaeologists at Mission San Luis have found evidence of numerous iron tools and items, there are very few documented records of blacksmiths at San Luis. There is one comment about two blacksmiths helping to construct the Fort, but there was no other information about them: not even their names. However, there were several written accounts of blacksmiths at other locations in Florida. One documented blacksmith was named Juan Merino, a free black citizen living in Havana, Cuba, who was sent to St. Augustine as a laborer in 1675 as punishment for a crime. He could have received a different punishment, but the local authorities most likely realized that his skill as a blacksmith could be very helpful to St. Augustine.

Time Portal: Villagers through Video

We are going to use virtual time travel to talk with one of the villagers of Mission San Luis!
Today, we learn how the blacksmith at Mission San Luis made all the iron items that hold the Fort together!

Quest 11 Video Link: https://youtu.be/Lsmw37rCI8Q

Quest Quest ons

Questions can help you focus your journey into the past!
Here are some questions to think about that will help guide you in your exploration:

- When 17th-century Spanish settlers needed to construct a building, what iron items (hardware) did they need to put the building together?
- Where did iron hardware (nails, door hinges, iron brackets, etc.) come from in 17th-century Florida? The hardware store? Who made iron tools in the past?
- What other craftsmen needed tools made by a blacksmith to do their jobs and construct a building?

Quest Craft: Fantastic Fort!

▲ *The blockhouse is surrounded by a protective palisade at Mission San Luis*

The blacksmith was responsible for making the metal tools and parts that hold buildings together. More specifically, the blacksmith made all the iron pieces that held the Mission San Luis Fort together: metal nails, hinges, and brackets. It also took woodworkers to make this building, and the blacksmith made the saws and axes they used to cut and shape the wood.

Today, you can act as builder of your own fort! You will be collecting items from around your house to make the fort components!

Supplies: ***NOTE: There will be no supplies provided by the Mission this week.***

- **Toys (Legos, Lincoln Logs, etc.)** – make sure NOT to put glue or tape on these items!
- **Recyclable Household Items** (paper towel and toilet paper tubes, milk cartons, tissue boxes, cardboard, construction paper, popsicle sticks, toothpicks, rubber bands, plastic utensils, straws, pipe cleaners, etc. *Be sure to ask your parents before using anything you find around the house!*
- **Scissors**
- **Glue and/or Tape**

Instructions:

Step 1) With your parent/guardian's permission, **gather toys and/or recyclable household materials that you can find around the house to make a fort with**.

Step 2) **Think about how you want your fort to look, and make a plan for which materials you will use for each part of the fort.** You can use the image of the Mission San Luis Fort below to help you identify typical parts of a 17th-century fort.

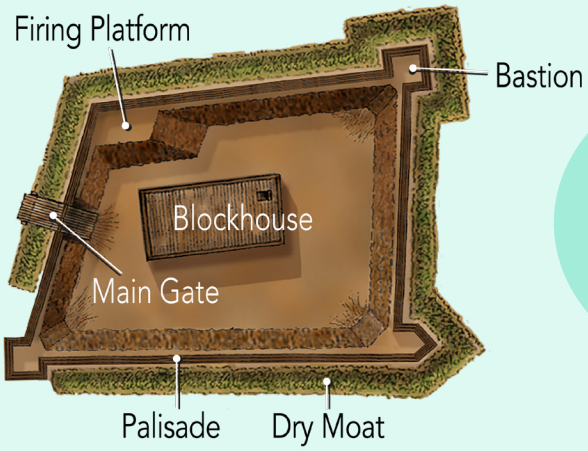
Questions to think about:

- What shape do you want your fort to be?
- Do some shapes work better for defending the area than others?
- What do you need to make your fort strong? Thick walls? Places for soldiers to stand and keep guard?

Step 3) **Start creating your fort!** Bring the toys and household items that you have collected together to make your fort unique. If needed, have an adult help you with cutting and/or gluing any of the items. You can make your fort as big, small, simple, or elaborate as you want!

Step 4) **Enjoy your finished fort and take a picture!** We want to see your creation! Please send us pictures of this or any other craft from our Virtual Summer Camp! Email: Rebecca.Woofter@dos.myflorida.com

▶ *Diagram of the Castillo de San Luis (looking from above)*



Bonus:
If you have made the toothpick Council House or the popsicle stick wattle wall crafts in the previous lessons, you can add your fort structure to your expanding village!

Blacksmith Matching Game!

Making a nail is quite a unique skill! There are many steps that a blacksmith (someone who makes iron items) must carefully follow to make a nail. There are some carpenters here at Mission San Luis who need nails for making a building, and our blacksmith needs your help to make a nail. Let's become his apprentice (student)!

Instructions: After reading the steps to making a nail below, find the picture for each step and write the correct step number on the line next to each picture (on this page and the next page)**.** All of the steps are in the correct order, but the pictures are not. Do you think you can solve the puzzle? Give it a try!

Step 1) Light your fire! **Make a spark by hitting flint rock and steel metal together**. Catch the spark on a piece of charcloth to get the fire started. You will not be able to shape any iron into tools without a hot fire!

Step 2) Now it's time to **add charcoal**, which provides fuel for the fire.

Step 3) Once the charcoal has been added, **pump the bellows** to make the fire nice and hot.

Step 4) Pick up your piece of iron with tongs and put it in the fire. Pump the bellows while the iron is in the fire to make sure that the iron gets hot.

Step 5) Take the iron out of the fire; see how red the tip is! Now it is hot enough to shape. You **shape it by placing it on the anvil and hitting it with your hammer.** You will have to put it back in the fire several times before it is finished.

Step 6) After the iron has been shaped by hitting it with the hammer, it **starts to look more like a nail**! We can tell because it **fits nicely into the hole on the nail header tool.**

Step 7) Now it's time to **cut the iron using the hot-cut hardy tool** so that the nail will break free from the iron rod.

Step 8) When the nail has been separated from the iron rod, the **top must be hit flat to make the head of the nail**.

Step 9) The last thing we do is **dip the hot nail into water in a bucket:** the metal is still very, very hot! We don't want to get burned.

Step 10) Now we have our nail! The carpenters will be very happy to have nails to fasten their wood together with!

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Matching Game Answer Key

(Left to right by rows of pictures) 9, 1; 5, 3; 6, 10; 2, 4; 8, 7

Additional Exploration Resources

Your time travel adventure doesn't stop here! If you want to learn more about this subject, here are some suggested resources:

- *Mission San Luis 360 Degree Virtual Tour – Blacksmith Shop and Fort*
  https://www.missionsanluis.org/virtualtour/
  (Click splashscreen logo or wait for the Mission San Luis Map to appear. Click on #6 for Blacksmith Shop, #7 for the Fort Exterior, and #8 for the Fort Interior)
- *Mission San Luis de Apalachee: A Teacher's Guide (Illustrated)*
  https://www.missionsanluis.org/media/1099/01-teachers_guide.pdf
- *Mission San Luis Archaeology: Nails and Metal Artifacts (Mission San Luis)*
  http://www.missionsanluis.org/learn/archaeology/artifact-categories/hardware/
  http://www.missionsanluis.org/learn/archaeology/artifact-categories/metal-artifacts/
  http://www.missionsanluis.org/learn/archaeology/artifact-categories/more-hardware/
- *First Colony Exhibit: Blacksmithing – Video (Florida Museum of Natural History)*
  https://www.floridamuseum.ufl.edu/firstcolony/videos/blacksmithing/
- *Blacksmith Has Many Irons in the Fire (Tallahassee Democrat, Randi Atwood)*
  http://www.missionsanluis.org/media/1212/blacksmith_tallydem9_26_10_2pg.pdf
- *The Blacksmith (WFSU, Dimensions)*
  https://wfsu.org/dimensions/viewvideo.php?num=181
- *Southwestern Colonial Ironwork: The Spanish Blacksmithing Tradition (Marc Simmons, Frank Turley)*
  https://www.google.com/books/edition/Southwestern_Colonial_Ironwork/ASXXbZXRxbwC?hl=en&gbpv=0
- *Spanish St. Augustine: 1500s to 1700s. Houses of the colonial Spanish period, with a science based theme (Lesson plan, University of Florida Digital Archives)*
  https://ufdc.ufl.edu/UF00067286/00001/1j
- *Colonial History Bibliography for Young Readers (Museum of Florida History)*
  https://museumoffloridahistory.com/learn/colonial-history-bibliography-for-young-readers/

Virtual Time Traveler Checklist

Prizes await your journey's end! For all virtual time travelers who complete four of the weekly summer camp *Time Travel Quests*, your family will receive free admission passes to Mission San Luis Living History Museum for a future visit! Steps to getting your prize are:

- **Complete at least four of the twelve Time Travel Quests** provided between June 15 and August 31, 2020.
- Fill out the *Virtual Time Traveler Checklist* (blank checklists can be found at:
  http://www.missionsanluis.org/media/1742/virtual-time-traveler-checklist-2020_2ue.pdf
- Email the checklist to Rebecca.Woofter@dos.myflorida.com or print and mail it to:

Mission San Luis (c/o Rebecca Woofter)
2100 West Tennessee Street
Tallahassee, FL 32304

FOR YOUR PRIZE: the **deadline is September 14, 2020** for completing and sending in your 2020 *Virtual Time Traveler Checklist*