



6425 SW 6th Avenue Topeka KS 66615 • 785-272-8681 kshs.org

©2014

## STUDENT JOURNAL

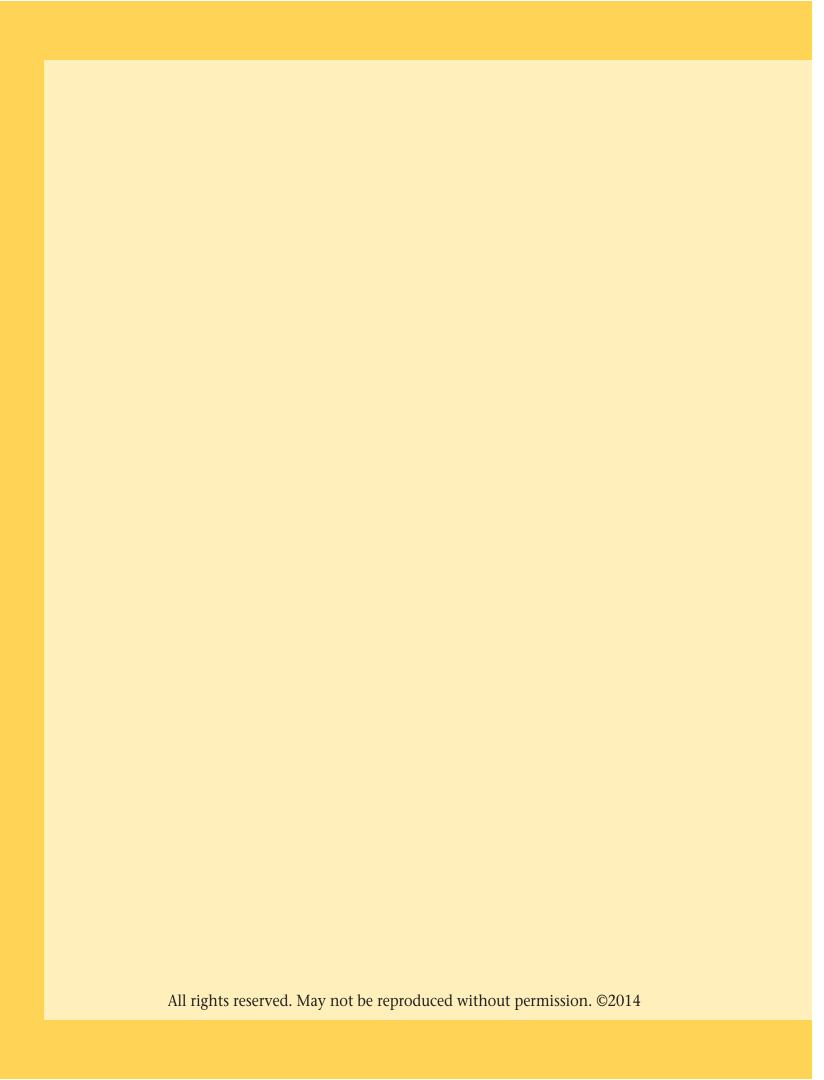


# The Archaeology of Wichita Indian Shelter in Kansas

Cali Letts
Virginia A. Wulfkuhle
Robert Hoard



ARCHAEOLOGY POPULAR REPORT NUMBER 4



## INTRODUCTION

## What Do I Know? What Do I Want to Know?

#### **Directions:**

- 1. Complete Columns A and B below to record what you know about archaeology.
- 2. Leave Column C "What I Learned" blank until you finish Section One. Be sure to leave room to add more information from Section Two and Section Three.

Column A: What I Know About Archaeology	Column B: What I Want to Know About Archaeology	Column C: What I Learned About Archaeology

# Your Turn to Investigate!

Column C

Column D

# Investigate the Natural Environment of the Wichita Indians

Column B

What did the Wichita eat?	Where did the Wichita get their drinking water?	What natural resources did the Wichita use to make tools?	What natural resources did the Wichita use to build their grass houses according to Chief Jim?
1. What factors were importa	ant to the Wichita in decidir	ng on the best place to build	d their houses and villages?

Column A

# **Investigate the Grass House Footprint**

_					
ı٦	ire	cti	$\sim$	n	
.,			.,	413	١.

Directions:	
Study the grass house footprint on Student Magazine page 13 and answer these two questions.	
1. How many cedar posts were used to build the main frame of the grass house?	-
2. Measure the house between the widest points. Use the metric and English scales to figure the width	

## Your Work as an Archaeologist: The Technical Report Part One

The work of archaeologists does not end with uncovering artifacts and solving mysteries. Their responsibilities are complete when they publish a technical report. This report includes an explanation of how their investigations were conducted, descriptions of the artifacts, and conclusions about how people once lived at a site.

You have studied the information and gathered the **evidence**. Evidence is the facts that show whether or not something is true. Now communicate the results of your investigation by completing the technical report to show how the Wichita people built a grass house.

Directions:
1. Start with your first investigation question: "How did the Wichita use the natural environment to build houses?"
2. Describe how you conducted this investigation.
3. Answer this investigation question. Use the <b>data</b> that you gathered from your investigation. Data is facts and figures, especially for use in making decisions.



## **Investigate Wichita Artifacts**

#### **Directions:**

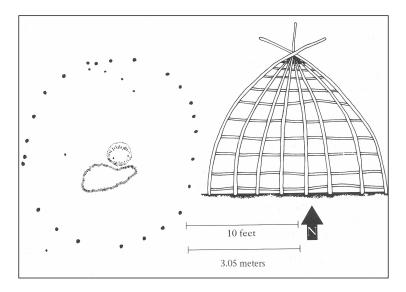
- 1. Study the artifacts in the Student Magazine pages 14-15.
- 2. Use the table below to collect your data.
- 3. Column A lists the materials that were used to build a grass house. The <u>underlined</u> word tells how the tool was used. Decide which tool was used for each job, and write the tool's name in Column B. You may use the same tool more than once and more than one tool for the same task.
- 4. In Column C tell why the tool would be good for this task. Check the glossary for additional information.

Column A: Material	Column B: Tool Used	Column C: Explanation
Gathering Materials		
chopping small cedar trees		
cutting thin willow		
stripping strings of inner tree bark		
cutting tall grass		
Building the House		
digging postholes		
tying grass bundles to the frame		

# Your Work as an Archaeologist: The Technical Report Part Two

Directions:	
. Start with your second investigation question: "What tools did the Wichita use to build the gr	ass house?
. Describe how you conducted part two of your investigation.	
. Answer the investigation question, based on your evidence. Use data that you gathered from y investigation.	'our

# **Missing Evidence**



- 1. As a review, draw a line to match these artifacts to their use in building the grass house.
- 2. Look for pictures of these artifacts on Student Magazine pages 14-15 and draw them in the boxes on the left.

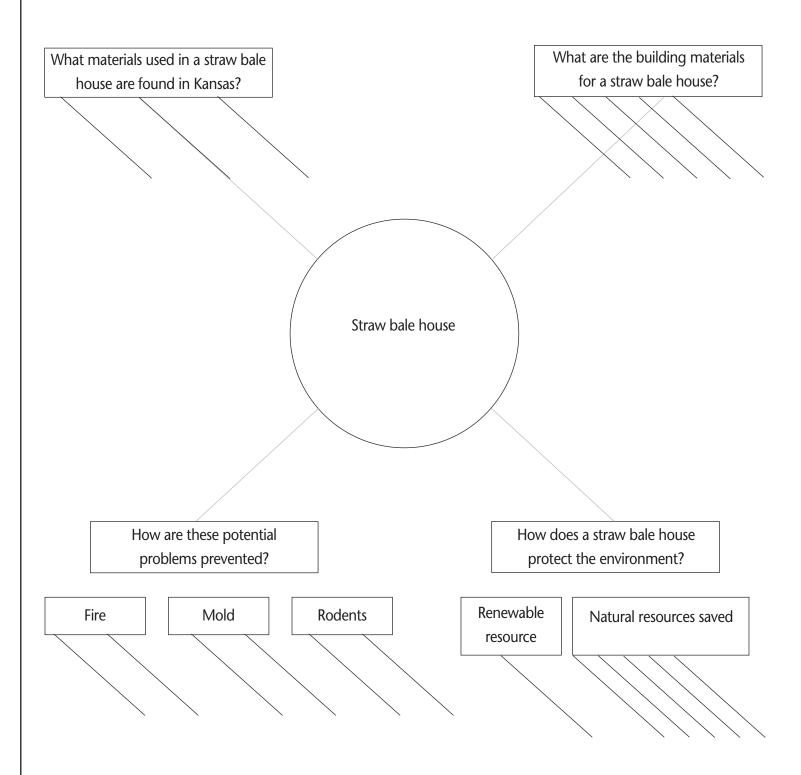
	cordage	cut tall grass
	grassing needle	chop trees
	ax	tie wood frame together
	knife	sew bundles to the frame

_		lied by archaeologis the Wichita lived in	

## **Straw Bale House Graphic Organizer**

#### **Directions:**

Record what you learn below each rectangular box.



## **Planning My Business**

You are an entrepreneur taking the risk to start your own business of selling straw bale houses. You are part of the **market economy** of your community. You will define the meaning of a market economy as you plan your new business.

Supply and Demand: To test the market you will build five houses. Your **supply** is the number of houses you have to sell. The **demand** is the number of people who want to buy your houses.

## How Much Will it Cost to Buy Straw Bales?

Now you will figure out how many straw bales you need to build five houses. Solve these math problems to figure out how many bales you need and how much it will cost to buy straw bales. 1. You need 500 straw bales to build one house. How many bales will you need for five houses? \_\_\_\_\_ 2. If a farmer sells one bale for \$2.00, how much will you pay for all the bales that you need to build five houses? 3. If a farmer sells one bale for \$3.00, how much will you pay for all the bales that you need to build five You also must find a farmer who will sell you the number of bales that you need. You would like to buy all the bales from one farmer. This would save you time and maybe even save you money. You need to find a farmer who plants enough grain to produce the number of bales you need. Grain crops grow better some years than others. A good crop depends on just the right weather conditions. It is estimated that grain farmers can bale about 50 rectangular bales on one acre in a good crop year. About how much land does a farmer need to produce the bales you need in a good crop year? Solve these math problems to answer the question. 4. How many bales can Farmer A bale if he has 20 acres of grain? 5. How many bales can Farmer B bale if she has 40 acres of grain?\_\_\_\_\_ 6. How many bales can Farmer C bale if he has 80 acres of grain? \_\_\_\_\_ 7. Which farmer would be able to supply you with enough bales to build five houses in a good year? Imagine that you sell all five houses and that they buyers are happy with their houses. They like how much energy they saved in transporting the building materials and in heating and cooling the house. 8. Do you think this will increase the demand for straw bale houses? Yes No Explain. 9. How would your supply have to change if you had more demand for straw bale houses?

## Write to a County Extension Agent

Write a letter to a **county extension agent**, asking for help in finding farmers who might sell you enough straw bales to build five houses. The county extension agent is a person who works for the government and gives help to farmers.

Your letter should include:
who you are
the name of your business
what you are going to produce
how many houses you will build
how many straw bales you need
the price you hope to pay for each bale
why a straw house is good for the environment
how the Wichita Indians inspired your business

## Glossary

ancestor: a family member who lived in the past

archaeological resources: artifacts, sites, and features that archaeologists use to investigate past cultures

archaeologist: a scientist who studies past cultures

archaeology: a science that investigates how people lived in the past

artifacts: objects made and used by people in the past

ax: a tool made of stone with a sharpened edge that was used to cut trees and wood. The edge could be resharpened many times.

circular: shaped like a circle

civic participant: a citizen who is connected to her or his community and takes responsibility for meeting the needs of the community

civic responsibility: caring and being involved in your community

**cordage:** string made by twisting strips from the inner bark of trees or other plants. It was used for tying grass bundles onto the frame of a grass house and many other tasks.

culture: the set of learned beliefs, values, and behaviors generally shared by a group of people

data: facts and figures, especially for use in making decisions

decay: decompose; rot

demand: the number of consumers willing and able to purchase a good or service at a given price

descendant: a person related to one that lived in the past

digging stick tip: a tool made from a bison tibia (leg bone) and tied to a wooden handle. The digging stick was used for digging, even in dry hard soil, and for gardening.

distribution: the arrangement of items over a specified area

drill: a tool made of stone that was used to make holes in softer materials, such as a bone and animal hides. A drill could have been used to make the hole in the grassing needle.

entrepreneur: a person who takes a risk to set up a business to make money

evidence: facts that show whether or not something is true

excavation: the removal of layers of soil from the earth for the purpose of studying past cultures

experimental archaeology: making tools and shelters in the same way as people in the past

footprint: a mark made by a person's shoe, an animal's foot, or the remains of a house

grassing needle: a tool made from a bison rib bone. It was used with cordage to fasten bundles of grass onto the Wichita house frame. It was very smooth and could pass easily between the grass bundles.

**hoe:** a bone tool made from the scapula (shoulder blade) of a bison. It was tied to a wooden handle and used for digging and gardening.

**insulation:** a product inside the walls of a house that helps a house stay warm in the winter and cool in the summer

investigate: to carry out a detailed examination of something in order to find out about it

investigation: a detailed way to look at something in order to find out about it

**knife:** a thin stone tool with sharp edges used for cutting all kinds of materials. The Wichita Indians made a special style of beveled knife that was very good for butchering animals. A beveled knife is sharpened on all sides to make steep cutting edges.

market economy: a system in which buyers and sellers make major decisions about production and distribution, based on supply and demand.

natural environment: the climate, plants, animals, water, and rocks of a certain area

oral history: passing information to the next generation by word of mouth

plaster: lime or clay, sand, and water that is made into a paste and spread on walls to finish them

preserve: to keep something protected from anything that would cause it harm

**primary source:** a first-hand account of an event, person, or place, such as an official document, diary, letter, historical photograph, or oral testimony

sacred: relating to religion

**scraper:** a tool made of stone used to scrape the inner bark of a tree. It was also used to scrape and cut other plants, hides, and many other materials.

scientific inquiry: an investigation that asks a question, collects information to answer the question, and communicates the results to others

**secondary source:** an account of an event, person, or place that is not first-hand, such as textbook information, historically based movies, or biographies

straw: the hollow stem of grain crops such as wheat, barley, rye, or oats

straw bale house: a shelter whose walls are built of straw bales



