

# ARCHAEOLOGY!

Have you ever wished you could get into a time machine and visit an ancient civilization? Well in a sense, you can. With archaeology!

Archaeology is the study of past human life and culture.

An archaeologist is a scientist that digs up and studies objects from the past that give us clues to how the people who made and used those items lived.

We call these objects artifacts.



Water Canyon Site Locus 5 excavation – Office of Contract Archaeology, UNM

# Surveying

Like any good scientist, an archaeologist will ask questions and find answers through research. Artifacts provide the necessary evidence for their research.

So, where and how do archaeologists find artifacts? They look for them in likely places where that culture would have lived.

A survey is a method of searching a site that could be on the ground, below the ground and even under water!



Pedestrian survey, White Sands National Monument – Office of Contract Archaeology, UNM

Surveys can be as simple as walking in an area looking for artifacts and features on the surface of the ground.



Site mapping– Office of Contract Archaeology, UNM

Or they can utilize technology that can take pictures to see through the ground or even, when searching from the air, through the trees.

# Excavating

When a concentration of artifacts and features are found in a particular location, a team of archaeologists then gets permission to excavate the site. Excavations are scientific digs.



Excavating Iron Age feature, Kadebakele India  
—photo, Maxwell Museum

The archaeologists use string to make a grid of the site. Then they dig layer by layer into the soil to look for artifacts and features such as walls, floors or fire hearths.

When they find something, they note where on the grid they found it and what other artifacts or features were near it.



MAPL 2006 Sheep Chute Site – Office of Contract  
Archaeology, UNM

This method gives the artifact context on what it is or how it's used. Also because of the principle of stratigraphy, or the study of the layers of the earth, we learn roughly how old the artifact is.

# Artifacts and Ecofacts

One special type of artifact is a cut wood log. These artifacts can be used to date a site through tree-ring dating, a method called dendrochronology.



Lithics are artifacts made of stone, like projectile points (arrowheads) or polished stone beads.

Late prehistoric points – Office of Contract Archaeology, UNM

Ceramics are artifacts made of baked clay, like pottery or sherds, pieces of broken pottery.



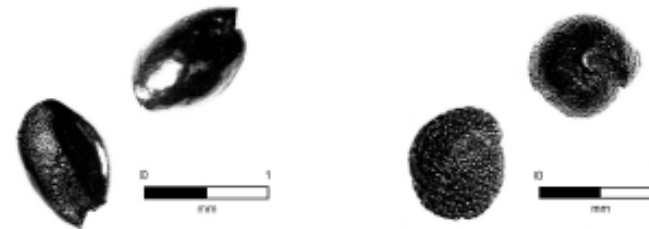
Ceramic pots – Office of Contract Archaeology, UNM



*Bison* sp. bones – Office of Contract Archaeology, UNM

Sometimes archaeologists find natural materials that are not modified by humans but still associated with the life of the people.

These are called ecofacts and are often animal (food) remains, plant seeds or charcoal.



Carbonized Amaranth & Goosefoot seeds – Office of Contract Archaeology, UNM

Archaeologist also collect soils from the site to look for tiny clues like pollen grains to learn about past environments.

# Laboratory Analysis

These materials contain so much information that they require further study in a laboratory.



Zooarchaeologist Radhika Bauer at work  
– photo, Maxwell Museum



Laboratory analysis – Office of Contract Archaeology, UNM

Microscopic or chemical analysis may be done to understand how things are made or how old they are.

Finally, all this information is summarized in reports or articles and shared with other scientists, the media or even visitors to museums!

# Archaeology Word Puzzle

*Match the term on the left with its definition on the right*

1. Archaeology      \_\_\_      the study of the strata, or layers, of the Earth; allows us to put deposition of soils or sediments in order from “youngest” to “oldest”
2. Artifact      \_\_\_      non-portable objects used, modified, or made by humans, such as ruins, walls, or floors
3. Ceramics      \_\_\_      the things that surround artifacts and features that remain in their original location
4. Context      \_\_\_      tree ring dating; measures time using the annual creation of tree rings; can match cross-sections of trees with established, dated tree rings to give an absolute date
5. Dendrochronology      \_\_\_      artifacts made of ground or flaked stone
6. Ecofacts      \_\_\_      a location and concentration of artifacts in situ, or in their original location
7. Excavation      \_\_\_      portable objects used, modified, or made by humans
8. Feature      \_\_\_      the process of methodically and scientifically digging a site layer by layer (or level by level) to uncover artifacts and features; this usually requires the use of permits issued by state and federal governments to ensure that the excavation is done properly and ethically by qualified people
9. Lithics      \_\_\_      artifacts made of clay, pottery
10. Site      \_\_\_      the study of remains from people of the past, their activities and material goods, as well as the patterns these remains reveal to us about their daily lives and society
11. Stratigraphy      \_\_\_      the act of trained archaeologists searching for archaeological sites
12. Survey      \_\_\_      artifacts made of plant (flora) or animal (fauna) remains

# Archaeology Word Search

*Find the terms below in this puzzle*

U P Q F Y I N T B L I S I A N H D  
A N Y N O S C P I U T P E X O U E  
O E I F O A L T P R P M A T I Y N  
G P R F F I H K A N T K T A T E D  
Y D Y I O I T T X E T N O C A T R  
R V T D C R I A E Y E M B U I I O  
L R K S F G M R V C E Y U Z R S C  
A C V R R O Q I O A O V V N E Z H  
C E R A M I C S T Y C F R K S P R  
G X P Q Z E F E Z A T X A U W N O  
B H N R X S E N I F R B E C S R N  
Y I A I C Q A Q I W K I M P T V O  
I Q S Y W S T S Q Z W W A P B S L  
E U K N E O U Y D U K O F N H I O  
Z R D D H W R D U D Z E X J I U G  
U L C R W T E L N Z V E H V Z S Y  
R P S I Y G O L O E A H C R A I M

Archaeology

Dendrochronology

Lithic

Artifact

Ecofact

Site

Ceramics

Excavation

Stratigraphy

Context

Feature

Survey

## Resources:

Nat Geo Kids introduction to Archaeology

<https://www.youtube.com/watch?v=qMzpA5oCGNY>

Piecing together a teapot

<https://www.poplarforest.org/piecing-together-a-teapot/>

The Art of Cross Mending and Interactive puzzle

<https://ahs-inc.biz/legacy/Sprague/artcrossmending.html>

Piecing it all Together- Making your own pot sherd puzzle with clay planters

<https://www.amnh.org/explore/ology/archaeology/piecing-it-all-together2>

Archaeology games and interactives; Learn from scientists and read about artifacts

<https://www.amnh.org/explore/ology/archaeology>

What is Archaeology - YouTube Scishow Kids

<https://youtu.be/zOJICdMvWAI>

NPS Archaeology program- learn about why we study older civilizations

<https://www.nps.gov/archeology/Public/kids/index.htm>

Introduction to archaeology with National Geographic

<https://www.nationalgeographic.org/encyclopedia/archaeology/12th-grade/>

KNME TV feature *The Mysterious Folsom* featuring UNM archaeologist, Dr. Bruce Huckell

<https://www.youtube.com/watch?v=5VV4fFAUUVQ>

Archaeology activity for kids from Archaeology in the Community

<http://www.archaeologyincommunity.com/new-design-kids/>



## Archaeology Pottery Puzzle

Often, when archaeologists find pottery on digs, they don't find the whole thing. Because of this, they have to infer and reconstruct the artifact. The process the archaeologists use to place the pieces together again is called cross-mending.

*Try spotting the pattern and fill in what you think fills in the blank spaces.*



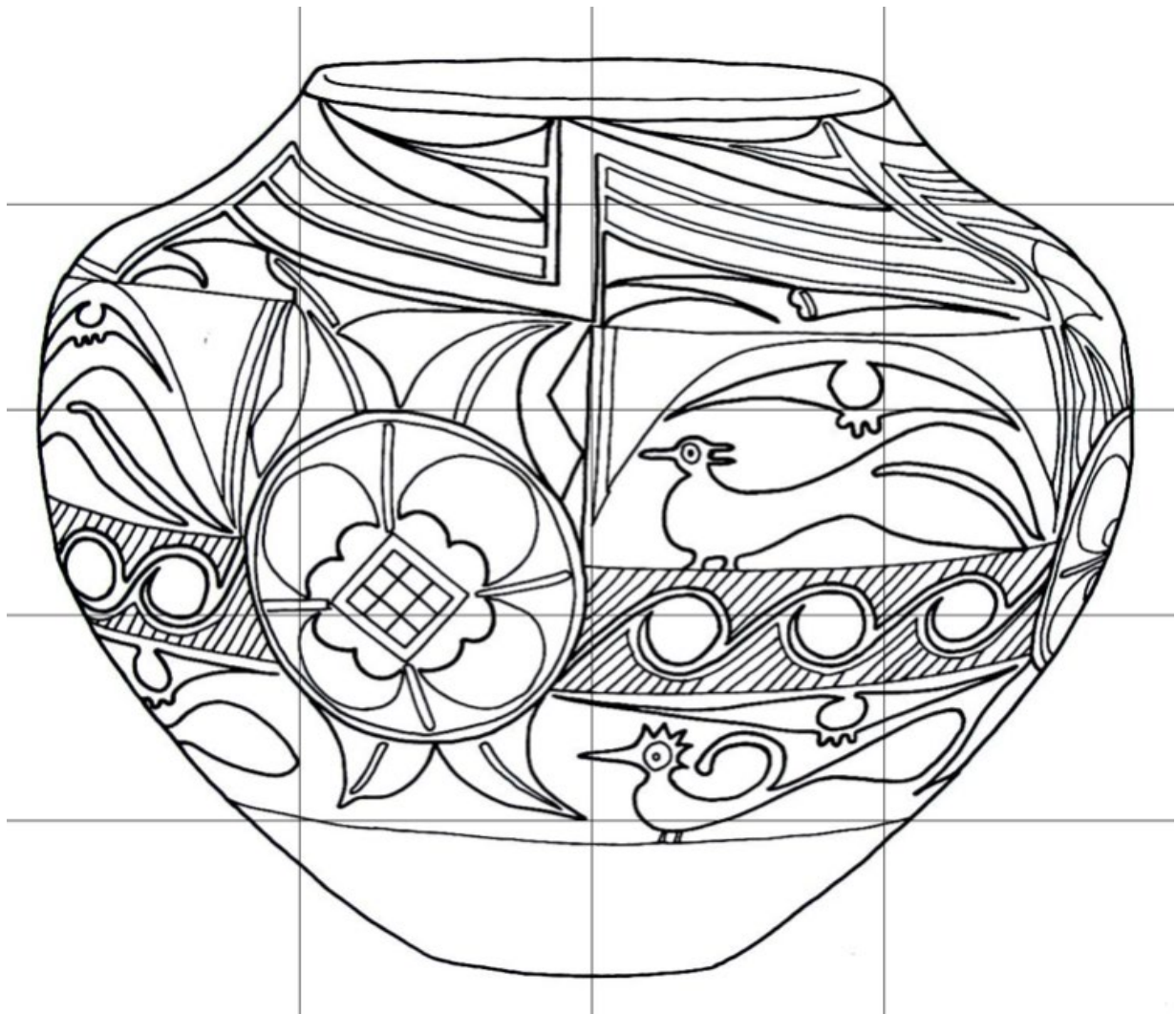
*Complete Version*



<https://www.doverpublications.com/zb/samples/999459/art3b.htm>

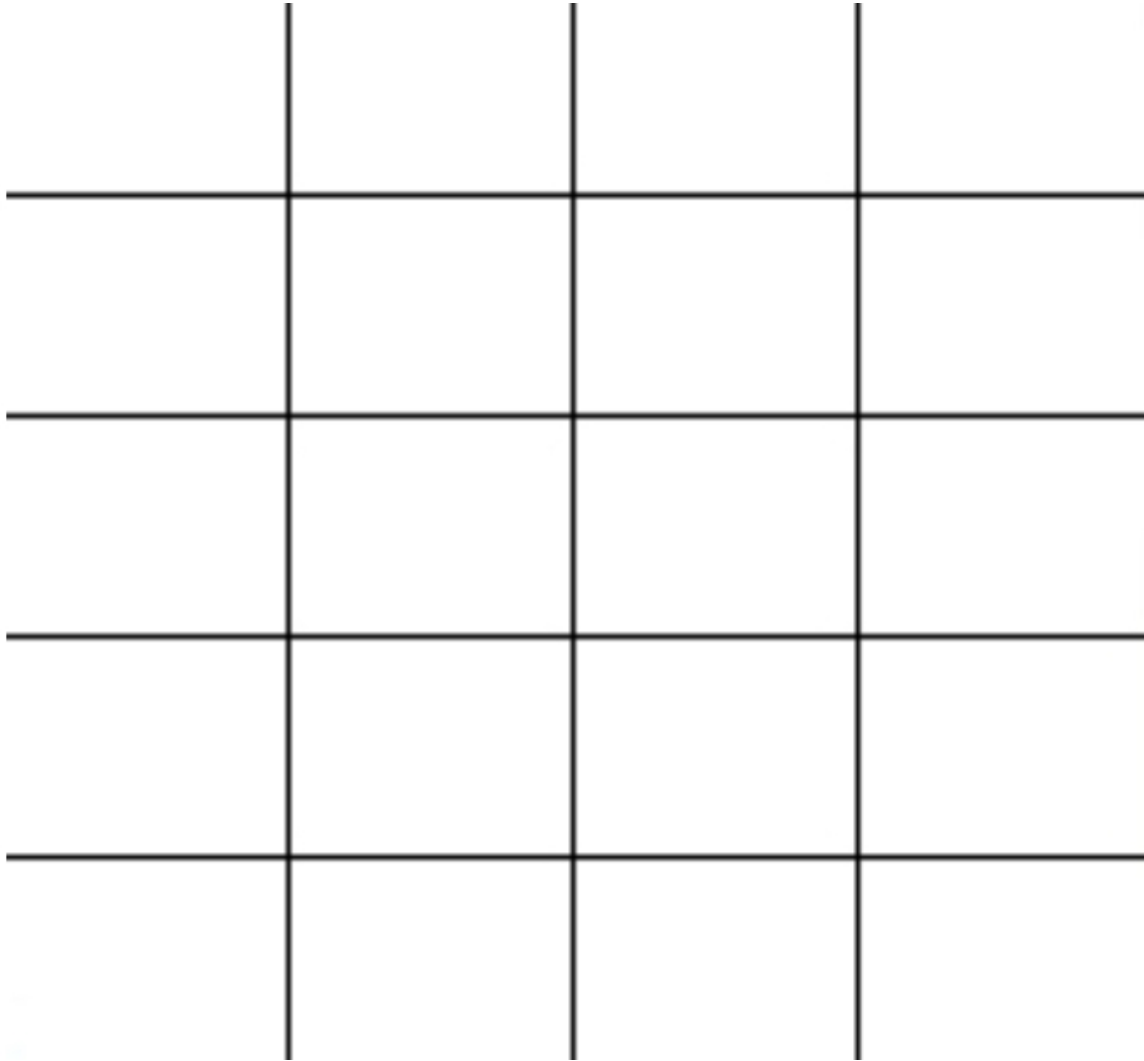
## Put Together the Pot

*Color the pottery and then cut along the gridlines. Scramble your pieces and reassemble them on the empty grid squares.*



<http://clipart-library.com/clipart/19-LiKroXB9T.htm>

***Paste and complete your puzzle here!***



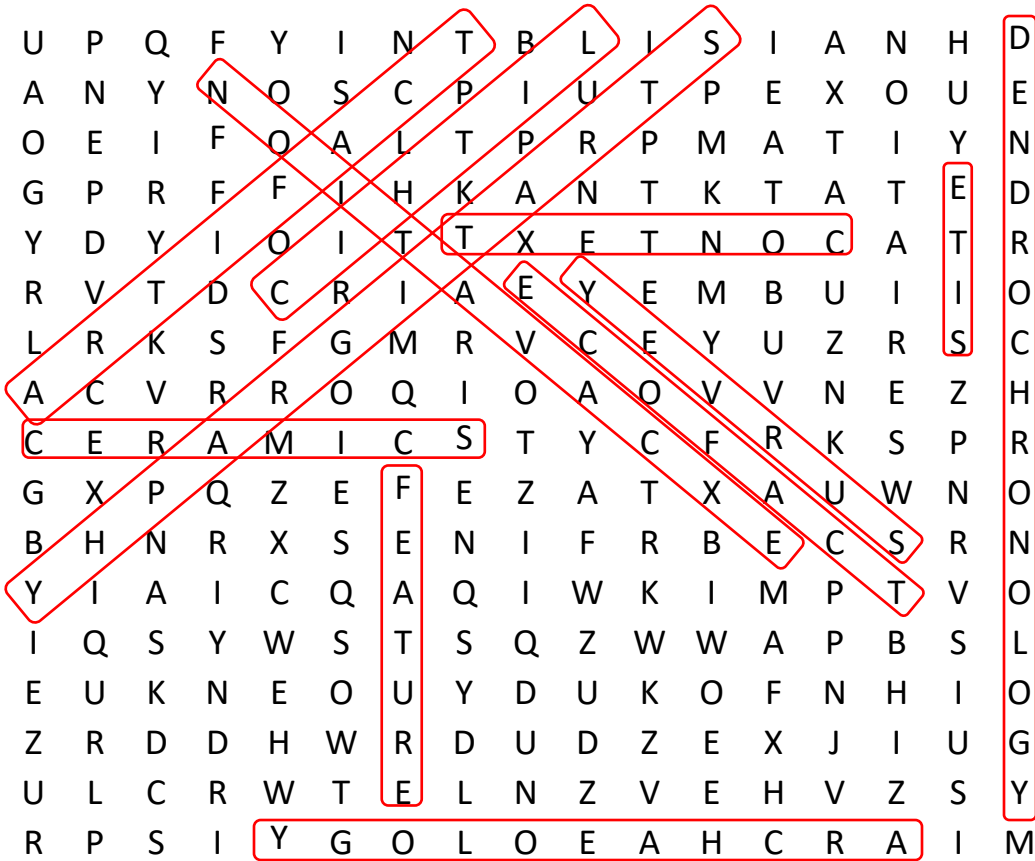
# Archaeology Word Puzzle

*Match the term on the left with its definition on the right*

- |                     |  |
|---------------------|--|
| 1. Archaeology      | <u>11</u> the study of the strata, or layers, of the Earth; allows us to put deposition of soils or sediments in order from “youngest” to “oldest”   |
| 2. Artifact         | <u>8</u> non-portable objects used, modified, or made by humans, such as ruins, walls, or floors   |
| 3. Ceramics         | <u>4</u> the things that surround artifacts and features that remain in their original location  |
| 4. Context          | <u>5</u> tree ring dating; measures time using the annual creation of tree rings; can match cross-sections of trees with established, dated tree rings to give an absolute date  |
| 5. Dendrochronology | <u>9</u> artifacts made of ground or flaked stone  |
| 6. Ecofacts         | <u>10</u> a location and concentration of artifacts in situ, or in their original location   |
| 7. Excavation       | <u>2</u> portable objects used, modified, or made by humans  |
| 8. Feature          | <u>7</u> the process of methodically and scientifically digging a site layer by layer (or level by level) to uncover artifacts and features; this usually requires the use of permits issued by state and federal governments to ensure that the excavation is done properly and ethically by qualified people |
| 9. Lithics          | <u>3</u> artifacts made of baked clay, pottery   |
| 10. Site            | <u>1</u> the study of remains from people of the past, their activities and material goods, as well as the patterns these remains reveal to us about their daily lives and society   |
| 11. Stratigraphy    | <u>12</u> the act of trained archaeologists searching for archaeological sites   |
| 12. Survey          | <u>6</u> plant (flora) and animal (fauna) remains associated with an archaeological site   |

# Archaeology Word Search

Find the terms below in this puzzle



Archaeology

Dendrochronology

Lithic

Artifact

Ecofact

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Survey





Lulu with a collection of artifacts from the Maxwell Museum education collection