

Archaeology and the Other Sciences

Archaeology is truly an interdisciplinary science:

- History
- Psychology
- Sociology
- Botany
- Zoology
- Geology
- Physics
- Chemistry

The Basic Goals of Archaeology

- **Discovery and Description**
 - ♦ Baseline data
 - ♦ Cultural history
 - ♦ Culture chronology
- **Explanation**
 - ♦ How cultures operate
 - ♦ How they differ
 - ♦ How and why they change
- **Understanding Human Behavior**
 - ♦ Understanding ourselves



The Branches of Archaeology

- **Prehistoric Archaeology**
 - ♦ Before written records
 - ♦ Paleolithic
 - ♦ Mesolithic
 - ♦ Neolithic
- **Historical Archaeology**
 - ♦ Archaeology of the recent past
- **Biblical archaeology**
- **Egyptology**
- **Medieval Archaeology**



The Branches of Archaeology

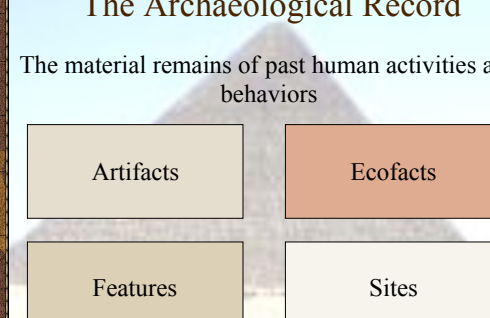
- **Classical Archaeology**
 - ◊ 'Classical' states
 - ◊ Greece
 - ◊ Rome
- **Maritime Archaeology**
 - ◊ Underwater Archaeology
 - ◊ Nautical Archaeology
- **Public Archaeology**
 - ◊ Cultural resource management



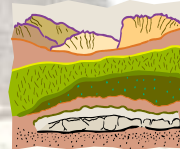
The Archaeological Record

The material remains of past human activities and behaviors

Artifacts	Ecofacts
Features	Sites



Cultural Deposition, Stratigraphy, and Dating

<ul style="list-style-type: none"> • Relative Dating <ul style="list-style-type: none"> ◊ Cultural Deposits ◊ Stratigraphy ◊ Law of Superposition • Absolute Dating <ul style="list-style-type: none"> ◊ Radiocarbon Dating 	<ul style="list-style-type: none"> • Reference Points <ul style="list-style-type: none"> ◊ AD/ BC ◊ BCE ◊ BP 
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Archaeological Cultures

Model Cultures

Based on a Normative View

Archaeology as Science

- **Assumptions**
 - ♦ The universe is real
 - ♦ Reality is objective
 - ♦ Constant, discoverable laws
- **Categories**
 - ♦ Physical sciences
 - ♦ Natural sciences
 - ♦ Social sciences

The Structure of Scientific Knowledge


Archaeology operates within the Western scientific paradigm

Laws	Theory
Hypothesis	Models

The Scientific Method


Scientists generate new knowledge by adhering to a particular method:

<ul style="list-style-type: none">• Data• Hypothesis• Test	<ul style="list-style-type: none">• Retest• Model Building• Theory
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Research Design

- **Statement of the Question**
- **Discussion of What is Already Known**
- **Description of How the Question is to be Tested**
- **Expected Data**



Pseudoscience and Frauds

- **Pseudoscience:** use of scientific terminology in an attempt to appear scientific
 - ♦ data does not meet standards
 - ♦ untestable hypotheses
- **Frauds:** instances in which people fake data or otherwise attempt to fool archaeologists.

