Slide 1. Introduction to Archaeology

Slide 2. Why should you care about archaeology?

• Career Opportunities
• Your Tax Dollars Fund Most Archaeological Research
• The Popular Media Often Reports and Misrepresents Archaeology
• Archaeological Discoveries Often Affect Peoples Notion of their Racial, Religious, Ethnic, National, and Cultural Heritage

Slides 5-10. Examples of archaeological discoveries in the news

Swiss Ice Man, HMS Mary Rose, African Burial Ground Project, Kennewick Man and the Native American Graves Protection and Repatriation Act (NAGPRA)

Slide 11. Why Should You Care About Archaeology?

• Archaeology Provides Information Pertinent to Current Issues
  • Human Evolution
  • Climatic Change
  • Overpopulation
  • Pollution/ Resource Depletion
  • War

Slide 12. Archaeology provides info on Climate change, Warfare and Human Impact on the Environment- example collapse of Maya Civilization

Slide 13. Definition of Archaeology

A body of techniques and theory for the retrieval and investigation of the material remains of past human behavior.

Slide 14. This means that Archaeology is really a set of methods and techniques used within a larger theoretical framework

There are many different applications of archaeology!

Slide 15. Approaches to Archaeology-

Classical, Biblical, Egyptology
Prehistoric

* Anthropological
  - Prehistoric
  - Paleoanthropology
  - Historic
  - Ethnoarchaeology

Cultural Resource Management

Slide 16. This Class Emphasizes Archaeology as a Branch of Anthropology
  - Americanist Archaeology

Slide 17. Anthropology

The study of humanity in the widest possible sense from scientific, humanistic, and historical perspectives.

Concerned with the physical, behavioral, cultural, and social characteristics of humanity.

Emphasizes Concept of Culture: learned behavior (knowledge, belief, art, morals, law, customs) shared by members of a society.

Slide 18. The Four Branches Differ, but Integrate into a Common Discipline!

Four Branches of Anthropology

  - Cultural
  - Physical
  - Linguistics
  - Archaeology

Slide 19. Cultural Anthropology

Study of Existing or Recent Human Cultures (often non-Western) in a synchronic sense.

  - Ethnography: describes the ideology, social structure, technology, and economic life of living human societies.

Slide 20. Physical Anthropology
Study of the Anatomical and Genetic Variation in Modern and Past Human and Primate Populations

- Paleoanthropology- Study of the Fossil Evidence of Human Evolution
- Osteology- Study of the Human Skeleton
- Human Population Genetics- Study of genetic variation in modern and fossil humans

Slide 21. Linguistics

The Study of Variation in Existing and Extinct Languages

- Historical Linguistics- Study of the origin, development, and spread of languages and language families

Slide 22. Anthropological Archaeology

- Is the past tense of Cultural Anthropology
- Is behavioral component of Paleoanthropology
- Deals with biological and cultural evolution
- Is Predominately concerned with Prehistory

Slide 23. Prehistory

- Refers to the period of human history extending back before the time of written records and encompasses the bulk of human cultural evolution over the last 2.5 m.y. (million years)

Slide 24. Prehistoric Time Scale

1 mile = 100 ky

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Hominids</td>
<td>5 mya</td>
<td>50 miles</td>
</tr>
<tr>
<td>First Stone Tools</td>
<td>2.5 mya</td>
<td>25 miles</td>
</tr>
<tr>
<td>First Anatomically Modern Human</td>
<td>.1 mya</td>
<td>1 mile</td>
</tr>
<tr>
<td>First Art</td>
<td>0.04 mya</td>
<td>0.4 miles</td>
</tr>
<tr>
<td>First Farming</td>
<td>0.01 mya</td>
<td>&lt; 200 yards</td>
</tr>
<tr>
<td>First Cities</td>
<td>0.005 mya</td>
<td>&lt; 100 yards</td>
</tr>
<tr>
<td>Columbus Voyage</td>
<td>0.0005 mya</td>
<td>&lt; 10 yards</td>
</tr>
</tbody>
</table>

Slide 25. Prehistoric Archaeologists study the origins and spread of

- Slide 26. pre-modern hominids (2.5-.25 mya),
How were the lifestyles and behavior of our nearest relatives and ancestors similar or different from our own species?

- Slide 27. Anatomically modern humans (.25 mya - 10 kya (thousand years ago)),

- Why is our species (*Homo sapiens sapiens*) the only hominid to survive? Was it because of unique abilities, culture, and behavior?

- Slide 28. Agriculture

Places where agriculture independently developed over the last 15 ky

- What caused humans to abandon hunting and gathering and become farmers in many parts of the world relatively recently (invention, overpopulation, environmental or social change)?

- What were the consequences for society, health, behavior, culture?

- Slide 29. States/Civilizations (5-0.5 kya)

- Slide 30. Places where cities and civilizations independently developed over the last 5 ky

What caused humans to live in cities and develop complex societies in many parts of the world relatively recently (invention, overpopulation, environmental or social change)?

- What were the consequences for society, health, behavior, culture?

Slide 30. European expansion (.5 kya - .05 kya).

What impacts did the expansion of European Civilization have on Indigenous "prehistoric" cultures and societies?

Slide 31. The Ethical Problem of Americanist Archaeology

- In the New World Archaeology developed as a part of Anthropology because of a common interest of Europeans in Native Americans.

- Prehistory was the major field of American Archaeology because Pre-Columbian Native American societies lacked readable written languages.

- This meant that American archaeologists were largely concerned with learning about the past of non-European people.

- Do they have the right?

Slide 32. Anthropological Archaeology Integrates With Many Other Sciences

- Paleontology

- Mineralogy

- Palynology

- Paleoecology
• Geomorphology
• Geology
• Genetics
• Botany
• Zoology

Slide 33. Goals of Americanist (Anthropological) Archaeological Research

• Define Culture History (When?)
  – Archaeological Dating Techniques
• Reconstruct Past Lifeways (What and How?)
  – Reconstruct Past Environments
  – Reconstruct Subsistence Economy
  – Reconstruct Social Organization and Ideology
• Explain Culture Process (Why?)

Lecture 2. History of Archaeology

Slide 34. Themes in the History of Archaeology

Rediscovery of Classical Civilizations
Discovery of the Antiquity of Humanity (Prehistory)
Discovery of American Prehistory
Development of Scientific Methods
Integration into Anthropology

Slide 35. Rediscovery of Classical Civilizations

Began in Renaissance Italy with a concern to retrieve lost art and literature of ancient Greece and Rome
Spread to Middle East with a concern for investigating Biblical history
Primarily developed by Classical Scholars, Art Historians

Slide 36.
1783- First serious investigations of Pompeii

Slide 37

1870-1873
- Discovery of Bronze Age Troy by Heinrich Schliemann

Slide 38

1822- Decipherment of the Rosetta Stone by Jean-Francois Champollion

Slide 39

1922 - Howard Carter Discovers Tutankhamen's Tomb

Slide 40.

Now when he was a young man he never thought he’d see (King Tut)
People stand in line to see the boy king (King Tut)
How’d you get so funky (funky Tut)
Then you’d do the monkey
(Born in Arizona moved to Babylonia King Tut)
Now if I’d known the line would form to see him (King Tut)
I’d take up all my money and buy me a museum (King Tut)
Buried with a donkey (funky Tut)
He’s my favorite honky
(Born in Arizona moved to Babylonia King Tut)

Slide 41.

1951-1955 Kathleen Kenyon Excavates Jericho

Slide 42. Summary of Rediscovery of Classical Civilizations

Development of archaeological excavation techniques as means to learn about the past (Pompeii)

Discovery of lost civilizations and time periods (Bronze Age Mycenaean’s, Pre-Biblical Jericho)

Deciphering of ancient writing systems (Egyptian Hieroglyphics)

Slide 43. Theme 2 Discovery of the Antiquity of Humanity (Prehistory)

Began with interest in local antiquity in Northern Europe
Developed with awareness of humanities existence in pre-Biblical times

Slide 44. 1856- Charles Darwin predicts that humans will be found to have evolved from ape-like ancestors in Africa

Slide 45. 1856 - Discovery of first pre-modern human remains in Neander Valley Caves- Neanderthal
1859- Boucher De Perthes discovers stone tools associated with extinct fauna in France

Slide 46. 1875 - Accidental Discovery of European Cave Painting in Altamira Spain

Slide 47. 1893- Eugene Dubois discovers Java Man in Indonesia

1924- Raymond Dart identifies Australopithecine bones in South Africa

1959- Louis and Mary Leakey Announce Discovery of 2 mya Australopithecines in Olduvai Gorge, East Africa

Slide 48. Themes Summary of the Discovery of the Antiquity of Humanity (Prehistory)
Recognition of evidence of human existence in prehistoric times.
Evidence of human (modern and pre-modern) presence in ice-age deposits (Neanderthals, Lascaux Cave paintings Achulean handaxes).
Tracking the fossil evidence of hominid evolution to origins in Africa 2-4 mya.

Slide 49. Theme 3. Discovery of American Prehistory
Concerned with the origins and antiquity of Native Americans
Myth of Moundbuilders- Who built the Mounds of the Eastern US?
Glacial Man- Were humans present in the New World during the Ice Age?
Slide 49. 1784- Thomas Jefferson conducts excavations of mound in Virginia
Slide 50. 1840s, Stephens and Catherwood tour Yucatan
Slide 51. 1890s, Cyrus Thomas resolves Moundbuilder controversy

Slide 52. 1929- Discovery of Folsom Site in New Mexico- Proved Human presence at the end of the Ice Age
Slide 53. 1929 Kidder established framework of Anasazi Culture History- first culture history constructed

Pecos Classification
Basketmaker I - Postulated pre-agricultural stage.
BM II - First agriculture.
BM III - First grayware pottery, pithouse dwellings, bow and arrow.
Pueblo I - First corrugated pottery, above-ground masonry, bow and arrow.
P II - Fully corrugated pottery, first villages.
P III - Large pueblos appear, elaborate painted pottery.
P IV - Abandonment, Redware pottery.
PV - Historic Period.

Slide 54. Summary of Discovery of American Prehistory
Acceptance that Native Americans had developed advanced societies in pre-Columbian times (Moundbuilders, Maya)
Discovery of evidence of human presence at least since end of the ice age (Folsom)
Use of archaeology to track the CULTURE HISTORY of Native American cultures (Pecos Classification)

Slide 55. Theme 4 Development of Scientific Excavation, Classification, and Relative Dating, Techniques
Influenced by development of geology and paleontology
Slide 56. Nicholas Steno (1680's)
- first description of Stratigraphy (the study of layers in the earth)
Principle of Superposition - in an undisturbed series of rock layers, the youngest layers are on the top and the oldest layers are on the bottom

Slide 57. 1784 - James Hutton publishes Theory of the Earth
Principle of Uniformitarianism
the idea that the processes that shape the world today also operated in the past over very long periods of time

Slide 58. 1820s - Will Smith developed index fossil and cross-dating techniques
Notes that different rock layers not only contain different fossils, but that the same sequence occurs repeatedly. Thus the relative age of layers (strata) can be estimated from the fossils they contain

Slide 59. 1806 - Thomson develops three-age system, tested by Worsaae in 1836
Stone Age
Bronze Age
Iron Age
Slide 60. 1880's Sir Flinders Petrie develops stylistic seriation

Slide 61. 1880's General Pitt Rivers develops stratigraphic excavation techniques

Slide 62. 1900 - 1919
- Max Uhle and Nels Nelson conduct first stratigraphic excavation in North America (San Francisco shell mounds)

Slide 63. 1929- A.E. Douglas develops Dendrochronology in the American Southwest

Slide 64. 1949- J. Arnold, and W. Libbey develop Radiocarbon Dating

Slide 65. Summary of Development of Scientific Methods

Geological techniques for determining the relative age of earth layers (stratigraphy, index fossils)

Archaeological techniques for classifying man-made tools into categories that reflect their relative age (three-age system, seriation)

Techniques for excavating archaeological sites by strata and layer.

Techniques for determining the absolute age of materials (dendrochronology, radiocarbon dating)

Slide 66. Theme 5. Integration into Anthropology

How archaeology became a way anthropologist learn about the past.

Slide 67. 1865- John Lubbock publishes Prehistoric Times
1877, Lewis Henry Morgan publishes Ancient Society

Comparative Method - Compares ethnographic cultures to prehistoric archaeological remains

Unilineal Evolution - the idea that all cultures evolve/progress through a single sequence of stages from simple to complex.

Savagery

Barbarism

Civilization

Slide 68. Early 20th century, F. Boas rejects Unilineal evolution, but incorporates archaeology as means for developing culture history

Slide 69. Culture History- using archaeology, folklore, linguistics to track the development of a culture over time (Pecos Sequence)

Direct Historical Approach- learning about the past by studying sites and cultures of a known time and working backwards, applying it to older sites; working from the present into the past.

Slide 70- Example of DHA- development of Kivas from pithouses in American SW.

Slide 71. 1940s - V. Gordon Childe establishes notion of economic and technological revolutions in prehistory.
Applied Marxist Economic Concepts to Archaeology

Neolithic Revolution

Urban Revolution

Slide 72. Vere Gordon Childe
(1892-1957)

Man Makes Himself (1936)

Tried to answer why civilization on the Middle East

Traced mixture of indigenous development and diffusion into Europe

Slide 73. Neolithic Revolution

Term coined by V. Gordon Childe to describe the origin and consequences of farming (stock raising and agriculture), allowing the widespread development of settled village life.

Slide 74. Urban Revolution

Term coined by V. Gordon Childe to describe the origin and consequences of towns and cities, and consequences for development of state societies, market economies, and writing systems.

Slide 75. 1930s- J. Steward develops Ecological Approach to Anthropology

Culture Ecology - term that accounts for the dynamic relationship between human society and its environment, in which culture is viewed as the primary adaptive mechanism.

Multilineal Evolution - an approach that focuses on the development of individual cultures or populations without insisting that all follow the same evolutionary pattern.

Ethnographic Analogy - inferring the use or meaning of an ancient site or artifact based on observations and accounts of its use by living people.

Slide 76. Jesse Jennings Excavates Danger Cave Application of DHA and CE to archaeology

Slide 77. Summary of Integration into Anthropology

Realization that extinct prehistoric cultures can be compared to living ethnographic cultures.

Comparative Method

Ethnographic Analogy

Use of archaeology to discover the Culture History of ethnographic cultures.

Direct Historical Approach

Pithouse to Kiva transition

Use of evolutionary and ecological perspective to study patterns in how culture evolve or develop and how they adapt to environment

Culture Ecology
Shoshonean and Desert Culture

Danger Cave

Culture Evolution

Unilineal Evolution - Neolithic/Urban Revolutions - Multilineal Evolution

Lecture 3. BASIC ARCHAEOLOGICAL CONCEPTS

Slide 78. Site - any location where humans left archaeological evidence of past activities

Slides 79-81 Famous Sites

- Laetoli
- Gatecliff Shelter, Nevada
- Teotihuacan, Mexico
- Stonehenge

Slide 82. Artifacts Portable Objects Made or Modified by Humans. Common Prehistoric Artifact Classes Include

Kinds of artifacts found on prehistoric sites in the western US.

Chipped Stone - points, bifaces, flake tools
Battered Stone - hammerstones, choppers
Wood, fiber - digging sticks, baskets, sandals
Ground Stone - axes, handstones, milling stones, mortars and pestles
Bone - beads, awls, fish hooks
Ceramic - figurines, vessels

Slide 83. Attribute

Any Particular Quantitative or Qualitative Trait of An Artifact

Form, Shape
Material
Size, Weight
Decoration

Slide 84. Types

Groups of artifacts that share a set of attributes in common. Abstract forms, determined by the archaeologist, that seem typical of many specimens. Types may be
Groups - real entities defined by necessary and sufficient attribute

Classes - temporary entities determined by the archaeologist to characterize a continuum of variability

Slide 85. Typologies

Developed by archaeologist to answer specific kinds of questions. Nature of the question determines typology. Typologies may be based on

Form

Function

Manufacture

Age

Slide 86. Ecofacts

Non-artifactual Natural Materials Associated with Artifacts or Features. Prehistoric Ecofacts include

Inorganic - stone raw material (toolstone), soils

Faunal Remains - bones, antler, hair, scats

Floral Remains -

Macrofossils - charcoal, seeds, plant material

Microfossils - pollen, phytoliths

Slide 87. Features

Non-portable human-made remains. Examples of Prehistoric Features Include

Hearths

Storage pits

Burials

Houses

Quarry Pits

Middens

Slide 88. Assemblage

A set of temporally and spatially associated artifacts, features, and ecofacts.

Slide 89. Activity Area

A Recognizable area on a site where a certain type of activity occurred. Theoretically recognized by concentrations of characteristic assemblages.
Slide 90. Midden
Deposit of artifacts and ecofacts resulting from the disposal of refuse by prehistoric people. An archaeologically preserved trash dump.

Slide 91. Archaeological Record

The sum total of archaeological artifacts, ecofacts, features, sites, and assemblages and the information they convey about prehistoric human behavior.

Begins in the last 2.5 my, when humans began to make tools and leave subsistence remains that are preserved.

Slide 92. Archaeological Context

Basic assumption: archaeologists assume that there is a direct and systematic relationship between prehistoric human behavior and the archaeological record produced by that behavior.

The spatial, temporal, and functional associations of phenomena within the archaeological record

Slide 93. Three Kinds of Relationships Assumed to Represent Archaeological Context

Attributes of Artifacts- form, manufacture, wear,

Distributions of Artifacts, Ecofacts, Features, within an archaeological site (Intra-site spatial organization)

Distribution of Sites and Assemblages on the Landscape (Inter-site spatial organization)

Slide 94. Problem With Archaeological Context

Human Behavior Rarely Directly Preserved in the Archaeological Record. Associations between artifacts and sites distorted by numerous behavioral, cultural, and natural processes.

Exceptions: Laetoli, Pompeii, Ozette Village, Burned pithouses

Slide 95. Site Formation Processes

• Behavioral, Cultural, and Natural Agencies that Transform the Archaeological Record and Distort Linkage Between Archaeological Data and Human Behavior.

  – Cultural- scavenging, recycling, reuse, refuse disposal, play

  – Noncultural (taphonomic)- biological decay, geological erosion and redeposition, bioturbation, scavenging

Lecture 4. Importance of Context

Slide 96. Archaeology of the Early Pleistocene

• 2-3 million years ago

• Example of how context affects archaeological interpretations

Slide 97. Raymond Dart Excavates Swartkans

• Cave sites containing the bones of early hominids @2.5 mya
• co-occurrence of hominid and animal bones
• Too old for stone tools
• Many bones fractured in ways that appear to represent tools.
• Dart infers that A. *africanus* were central place hunters.

**Slide 97. Kinds of Context Assumed to Represented at Swartkrans**

• Attributes of Artifacts- breakage of bone fragments suggest use as tools
• Distributions of Artifacts - animal and hominid bones occur together in sites like Swartkrans

**Slide 98. C.K. Brains Taphonomic Reanalysis of Swartkrans Cave**

• high frequencies of hominid remains.
• Both hominids and other animals age biased.
• carnivore teeth marks on both hominid and animal bones
• Observed modern leopard behavior.
• Inferred that Swartkrans was a natural accumulation of bone, resulting from carnivore activity.

**Slide 99. Brains Reinterpretation of Swartkrans Based on Site Formation Processes**

• Attributes of Artifacts- carnivore teeth marks occur on both hominid and animal bones
• Distribution of Sites and Assemblages on the Landscape - sites like Swartkrans occur in location where leopard kills would likely accumulate.

*Slide 100. A. *africanus* was the hunted, not the hunter!!*

**Slide 101. Glynn Isaac Investigates Koobi Fora by**

• Many Sites containing very primitive stone tools, @ 2 mya
• Associated with *H. habilis*
• Note: most sites found along stream channels and lake beds.

**Slide 102. Oldowan Tools**

• Manufactured by Direct, Hard Percussion.
• Include three tool types
  - Hammerstones
  - Chopping Tools
  - Flakes
• Distinguished from naturally broken rocks by
Slide 103. Isaac finds 3 kinds of sites

- Stone tool accumulations without bones (tool manufacturing sites)
- Stone tool accumulations with bones of one animal (kill sites)
  • HAS (Hippo Artifact Site)- 119 artifacts w/ hippo bones
- Stone tool accumulations with bones of many animals (base camps)
  • KBS site- tools 3 km from source with bones of hippos, giraffes, pigs, porcupines, gazelle, and waterbucks
  • FxJj50

Slide 104. Isaac interprets Koobi Fora data as evidence of Human Behavior

- Evidence for
  • Sexual Division of Labor
    - Note hunting visible archaeologically but gathering not.
  • Carrying stone tools and bone
  • Home Bases- places where men and women returned from foraging.
  • Food Sharing- meat shared between men, women, and children

- Isaac proposes that stone tools, hunting, sexual division of labor, and food sharing formed the foundations of human adaptation, out of which culture and language evolved.

Slide 105. Three Kinds of Context Isaac proposes at Koobi Fora

- Attributes of Artifacts- flaking and raw material of stone tools demonstrate use of as tools.
- Distributions within an archaeological sites - animal bones and stone tools co-occur in two kinds of sites
- Distribution of Sites on the Landscape -Sites tend to occur near streams and water holes

Slide 106. Binford's Attack
(Life and Death at the Waterhole)

- Improbability of H. habilis as large game hunter.
- Failure to consider other explanations for associations of stone tools and bones (site formation processes)

Slide 107. Binford's Observations of Site Formation Processes at African Waterholes
• Few animals sleep near waterholes; most animals visit in day, carnivores prowl at night.
• Natural deaths are common at waterholes.
• Predator Kills also common
• Scavengers may drag parts of many carcasses together
• Considerable quantities of animal bone occur naturally within 100 m of any water source

Slide 108. Note: this is a critical problem for all archaeology
• How do we interpret the behavioral meaning of archaeological context?

Slide 109 Isaac’s Response
• Sought evidence of the associations of stone tools with bones
  – Refitting studies of bones and stones to counter hydraulic jumble
  – Examination of tool wear patterns, bone breakage, tool cutmarks, and tooth marks
  – Examination of kinds of bones present (what parts of animal carcasses are represented by the bones on sites?)

Slide 110 Findings
• Hominids made stone tools and used them to process meat and bone.
• Animal bones on sites tend to be dominated by low utility parts (heads, lower limbs) that are left over from carnivore kills.
• Cutmarks over tooth marks, and bone breakage demonstrate scavenging by hominids.
• Hunting still controversial.
• African waterhole sites are unlikely to be base camps. Instead they are probably palimpsest scavenging sites.

Lecture 5.
Slide 111. Archaeological Field Techniques
How archaeologists do it in the field

Slide 112. Archaeological Context
The spatial, temporal, and functional associations of phenomena within the archaeological record
Attributes of Artifacts- form, manufacture, wear,
Distributions of Artifacts, Ecofacts, Features, within an archaeological site
Distribution of Sites and Assemblages on the Landscape
Slide 113. To Understand Context, all archaeological fieldwork techniques are designed to record Provenience.

Provenience - The three dimensional location (including geographic location) of an archaeological find. Specifically were archaeological remains were found in a region, site, feature, or layer.

Slide 114. Constraints to Field Recovery of Archaeological Data

Archaeology is a destructive process. An archaeologist destroys his site by excavating it. Comparable to an Ethnographer shooting his informant.

An archaeologist must therefore try to record as much data as possible.

Slide 115. Constraint to Archaeological Recovery

Unfortunately it is impossible to record everything:

1) Not all possibly significant information is recognized.
2) New research questions are identified in future.
3) Not all kinds of information will be pertinent to the question of interest.
4) Financial constraints.

Slide 116. Archaeological Research Design

Thus all archaeological research involves some form of compromise, specified in a research design.

Specifies:

- research questions and objective
- sampling design
- data recovery and analysis techniques
- budget

Slide 116. Archaeological Research Design

A good design specifies:

- What is the problem, question, or objective
- Why is the question important
- Can the question be answered through the archaeological record

Research Archaeology Vs. Cultural Resource Management

Slide 117. Locating Archaeological Sites

Accidental Discovery

Remote Sensing
Pedestrian Survey

Slide 118. Examples of Accidental Discovery

Swiss Ice Man

Kennewick Man

Slide 119- Kinds of Remote Sensing

Mechanical/Electronic

Remote Sensing (Aerial/ Satellite)

Photography

Infrared

Radar

Electronic Subsurface

Ground Penetrating Radar

Proton Magnetometer

Mechanical

Backhoe

Auguring

Slide 120. Pedestrian Survey

Purposive (Gumshoe)

Systematic

100%

Sample

Slide 121. Survey Issues to Discuss

How sites are recognized (scattered artifacts, changes in soil color, soil profiles, vegetation changes, structural features)

Data recorded -

location (usually on standard series of maps note GIS and GPS),

local environment (water, topography, vegetation, soil)

site map- size, borders, features, surface artifacts/clusters, disturbances, nearby markers

constituents- surface artifacts, features, evidence of depth
collections- if permitted and necessary

often collections are made to temporally date the site and to give some idea of what activities may have occurred there

Slide 122. Discuss Settlement Pattern Studies

Issue is to Investigate the Distribution of Sites relative to Natural and Cultural Environment

Often Uses Systematic Sample Survey

As important to Know Where Sites do not Occur

Slide 123. Excavation Methods

Mapping, Establishing Site (Coordinate) Grid, Datum

Excavation Notes (PI and Crew- forms, notebooks, and systems)

Bagging Recovery, Label W. Provenience

Photographs

Mapping Vertical and Horizontal Relationships within Units (Plans and Profiles)

Slide 124. Where to Excavate

Surface Evidence- artifact concentrations, features, soil, vegetation, topography

Intuition, best guess, hunch

Sampling Design

Slide 125. Excavation Recovery Techniques

Point Provenience (in situ)

Retrieval

Dry (Shaker) Screen

Wet Screen

Bulk Sample

Flotation

Pollen

Soil

Slide 126. In Situ

An archaeological item found in the location where it was last deposited. The provenience of an in-situ item may be individually and precisely recorded.
Slide 127 An example of an In situ find

1929- Discovery of Folsom Site in New Mexico

Slide 128. Excavating Archaeological Sites

Strategy

Sondage/Test/ Telephone Booth- explore site depth, establish stratigraphy, recover sample of subsurface artifact- cheap

Areal - exposes large horizontal areas of a site- explores spatial relationships per stratigraphic level. very expensive.

Slide 129. Excavating Archaeological Sites

Method

Stratigraphic- by Natural levels, expensive hard, frequencies non comparable

Arbitrary- by arbitrary levels, best if stratigraphy not present, frequencies comparable