Lectures 1-4

Lecture 1a
Slide 1
An archaeologist is most likely to search for lost ...
A. Gold
B. Dinosaur Bones
C. Lost items and trash left by past people.
D. Ancient tombs, temples, mummies and cities.
E. Insects
Correct Answer: C, partially correct D

Slide 2
Introduction to Archaeology
Anthropology- 003-1

Slide 3
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
Archaeologist discover important things about the development of human behavior relevant to current events (climate change, war, pollution and overexploitation, etc.)

Slides 4-8
Swiss Ice Man
HMS Mary Rose
African Burial Ground Project
Kennewick Man and the Native American Graves Protection and Repatriation Act (NAGPRA)
Climate change, Warfare and Human Impact on the Environment

Slide 9
Archaeology
A body of techniques and theory used to study the past through the systematic recovery and analysis of material remains

Slide 10
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 11
Approaches to Archaeology
Classical, Biblical, Egyptology
History
Art
Religion
* Anthropological
Prehistoric,
Paleoanthropology,
Historic
Ethnoarchaeology
Cultural Resource Management

Slide 12
Cultural Resource Management (CRM)
Professional specialty of archaeology concerned with the discovery and salvage of archaeological remains in compliance with federal and state legislation aimed at conserving archaeological resources.

Slide 13
This Class Emphasizes Archaeology as a Branch of Anthropology
- Americanist Archaeology

Slide 14
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 15
The Four Branches Differ, but Integrate into a Common Discipline!
Archaeology emphasizes studying cultural change over time
Four Branches of Anthropology
Cultural
Physical
Linguistics
Archaeology

Slide 16
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?)

Slide 17
Anthropological Archaeology Integrates With Many Other Sciences
Paleontology
Mineralogy
Palynology
Paleoclimatology
Geomorphology
Geology
Genetics
Botany
Zoology

Slide 18
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.

Slide 19
Prehistoric Time Scale
1 mile = 100 ky
Event Time Distance From Rm 4008 Mendocino Hall up HWY 50
First Hominids 5 mya 50 miles Pollock Pines
First Stone Tools 2.5 mya 25 miles Cameron Park
First Anatomically Modern Human .1 mya 1 mile Near Howe Exit
First Art 0.04 mya 0.4 miles South Entrance to campus
First Farming 0.01 mya < 200 yards Parking Lot
First Cities 0.005 mya < 100 yards River Front Center
Columbus Voyage 0.0005 mya < 10 yards Elevator 4th floor Mendocino Hall

Slides 20-29

Prehistoric Archaeologists study the origins and spread of
- 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?
- anatomically modern humans (.25 mya- 10 kya),
Why is our species (*Homo sapiens sapiens*) the only hominid to survive. Was it because of unique abilities, culture, behavior?

- AGRICULTURE (15- 1 kya),
  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?

The rise of archaic states (civilizations) (5-5 kya),
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?

European expansion (.5 kya-.05 kya).
What impacts did the expansion of European Civilization have on indigenous “prehistoric” cultures and societies?

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 most Precolumbian 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?

LECTURE 1B
Slide 1
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 2
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
Slides 3-7
1783- First serious investigations of Pompeii
1870-1873- Discovery of Bronze Age Troy by Heinrich Schliemann
1822- Decipherment of the Rosetta Stone by Jean-Francois Champollion
1922 - Howard Carter Discovers Tutankhamun’s Tomb

Slide 8
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 9
1951-1955 Kathleen Kenyon Excavates Jericho

Slide 10
Themes in the History of Archaeology
Rediscovery of Classical Civilizations
Development of archaeological excavation techniques as means to learn about the past (Pompei)
Discovery of lost civilizations and time periods (Bronze Age Myceneans, Pre-Biblical Jericho)
Deciphering of ancient writing systems (Egyptian Hieroglyphics)

Slide 11
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 12-20
1856- Charles Darwin predicts that humans will be found to have evolved from ape-like ancestors in Africa
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
1865-1880-William Pengelly excavates Brixham Cave
Pengelly Uses Archaeological Methods to Prove Antiquity of Prehistoric Man
Used Grid System to Record Location of Artifacts
Excavated by Natural Layers of Caves
1875 - Accidental Discovery of European Cave Painting in Altamira, Spain
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 21
Themes in the History of Archaeology
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).
Recognition that archaeological evidence could prove associations
Tracking the fossil evidence of hominid evolution to origins in Africa 2-4 mya.

Slide 22
Discovery of American Prehistory
Concerned with the origins and antiquity of Native Americans
Myth of Moundbuilders - Who built the prehistoric remains found in North America?
Glacial Man - How long have the ancestors of Native American been in North America?
Monks Mound

Slides 23-28
1784 - Thomas Jefferson conducts excavations of mound in Virginia
Archaeology of African-American Life at Monticello
1840s, Stephens and Catherwood tour Yucatan
1890s, Cyrus Thomas resolves Moundbuilder controversy
1929 - Discovery of Folsom Site in New Mexico
1929 Kidder established framework of Anasazi Culture History
Pecos Sequence
Basketmaker I
Basketmaker II
Basketmaker III
Pueblo I
Pueblo II
Pueblo III
Pueblo IV

Slide 29
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 30
Themes in the History of Archaeology
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 31
Development of Scientific Excavation, Classification, and Relative Dating.
Techniques
Influenced by development of geology and paleontology

Slide 32
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 33
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 34
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 35
1865-1880-William Pengelly excavates Brixham Cave

Slide 36
1806- Thomson develops three-age system, tested by Worsaae in 1836
Stone Age
Bronze Age
Iron Age
1880’s Sir Flinders Petrie develops stylistic seriation
1880’s General Pitt Rivers develops stratigraphic excavation techniques
1900 - 1919
- Max Uhle and Nels Nelson conduct first stratigraphic excavation in North America (San Francisco shell mounds)

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

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

Themes in the History of Archaeology
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)

Integration into Anthropology
How archaeology became a way anthropologist learn about the past.

1865- John Lubbock publishes Prehistoric Times
1877, Lewis Henry Morgan publishes Ancient Society
Unilineal Cultural Evolution - the idea that all human cultures evolve/progress through a single sequence of stages from simple to complex.
Savagery
Barbarism
Civilization
Typically, Western civilization is depicted at being the most advanced evolutionary stage.
1865- John Lubbock publishes Prehistoric Times
1877, Lewis Henry Morgan publishes Ancient Society
Comparative Method - Compares ethnographic cultures to prehistoric archaeological remains based on the idea that the world’s existing cultures reflect different stages of cultural evolution.
Slide 46
Late 19th century- Progressive Social Evolutionists (Morgan, Lubbock)
Unilineal Cultural Evolution
Comparative Method
Archaeology Idea- to understand the prehistoric past, you have to compare with societies with similar technologies and economies

Slide 47
Early 20th century, F. Boas rejects Unilineal evolution, but incorporates archaeology as means for developing culture history

Ethnocentrism- the attitude or belief that one’s own cultural ways are superior to any other.
Historical Particularism- the view that each culture is the product of a unique sequence of development resulting from history, environment, and chance.

Slide 48
Early 20th century, F. Boas rejects Unilineal evolution, but incorporates archaeology as means for developing culture history

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 49
Integration into Anthropology
Early 20th century – Historical Particularists (Boas, Kidder, Nelson)
Anti-Ethnocentrism- Cultural Relativism
Culture History- Direct Historical Approach
Archaeology Idea- to understand an ethnographic culture, you have to study its culture history

Slide 50
1940s - V. Gordon Childe establishes notion of economic and technological revolutions in prehistory.
Applied Marxist Economic Concepts to Archaeology
Neolithic Revolution
Urban Revolution

Slide 51
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 52
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 53
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 54
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 55
Jesse Jennings Excavates Danger Cave

Slide 56
Integration into Anthropology
Mid 20th century – Culture Ecology and Evolution (Childe, Steward)
Culture Ecology (Desert Culture)
Multilinear Evolution
Economic Transitions (Neolithic/ Urban)
Archaeology Idea- to understand why cultures evolved along certain patterns, you have to study their ecological and economic circumstances

Slide 57
Themes in the History of Archaeology
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
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 2a
BASIC ARCHAEOLOGICAL CONCEPTS

Slide 1
Site- any location where humans left archaeological evidence of past activities

Slides 2-5
Famous Site- Laetoli
Famous Site - Gatecliff Shelter, Nevada
Famous Site- Teotihuacan, Mexico
Famous Site - Stonehenge

Slide 6 Artifacts
Portable Objects Made or Modified by Humans. Common Prehistoric Artifact Classes
Include

Slides 7-12
Chipped Stone (Lithic) Artifacts
Ground Stone Artifacts
Ceramic Artifacts
Perishable Artifacts
  Bone Artifacts
  Shell Artifacts

Slide 13
Attribute
Any Particular Quantitative or Qualitative Trait of An Artifact
Form, Shape
Material
Size, Weight
Decoration

Slide 14
Types
Groups of artifacts defined by a consistent clustering of attributes. 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 15
Typologies
The systematic arrangement of material culture into types.
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 16
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 17
Features
Non-portable human-made remains. Examples of Prehistoric Features Include
Hearth
Storage pits
Burials
Houses
Quarry Pits
Middens

Slide 18
Assemblage
A collections of temporally and spatially associated artifacts, features, and ecofacts that comes from a defined context, such as a site, feature, or stratum.

Slide 19
Activity Area
A Recognizable area on a site where a certain type of activity occurred. Theoretically recognized by concentrations of characteristic assemblages.

Slide 20
Midden
Archaeological feature, built up over time, that generally contains, organically rich sediments, food remains, and discarded artifacts. Accumulated refuse resulting from trash disposal by humans. An archaeologically preserved trash dump.

Slide 21
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 22
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 23
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 24
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
Context (i.e., how those objects came together) must be correctly interpreted,

Lecture 2B
Archaeology of the Early Pleistocene
2 million years ago

Slide 1
Oldowan Tools
Manufactured by Direct, Hard Percussion.
Include three tool types
Hammerstones
Chopping Tools
Flakes

Slide 2
How do we know Oldawan tools are really artifacts?

Distinguished from naturally broken rocks by
Purposive flaking – attributes of artifacts
Unnatural concentrations – distributions of artifacts on sites
Non-local raw materials – distribution of sites

Slide 3
Glynn Isaac Investigates Koobi Fora
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
Fxj50

Slide 4
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

Slide 5
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 in streams and waterholes

Slide 6
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 7
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

Slide 8
Taphonomy
study of the processes by which animal bones and shells and plant and other fossil remains are transformed after deposition.

Slide 9
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 19
Site Formation Processes at Koobi Fora
Hydraulic Jumble- Bones and stone tools washed together by stream and flood.
Common Amenity – Hominids used stone tools and carnivores deposited bone independently in the same locations near shade and water.
Scavenging- Hominids used stone tools to scavenge carnivore kills
Central Place foraging- Hominids deposited both stone tools and faunal remains at base camps.
Note: this is a critical problem for all archaeology
How do we interpret the behavioral meaning of archaeological context?

Slide 20
Isaac’s Response
Sought evidence of the associations of stone tools with bones

Slides 21- 23
Examination of tool wear patterns, bone breakage, tool cutmarks, and tooth marks
Refitting studies of bones and stones to counter hydraulic jumble
Examination of kinds of bones present (what parts of animal caracasses are represented by the bones on sites?)

Slide 24
Ethnoarchaeology
The study of contemporary people to determine how their behavior is translated into the archaeological record

Slide 25
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 3
Archaeological Field Techniques
How Archaeologists Do It In the Field

Slide 1
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
To Understand Context, all archaeological fieldwork techniques are designed to record Provenience

Slide 2
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 3-4
Constraints to Field Recovery of Archeological 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.

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 5
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 6
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 7
Locating Archaeological Sites
Accidental Discovery
Remote Sensing
Pedestrian Survey
Accidental Discovery
Mechanical/Electronic
Remote Sensing (Aerial/ Satellite)
Photography
Infrared
Radar
Electronic Subsurface
Ground Penetrating Radar
Proton Magnetometer
Mechanical
Backhoe
Auguring

Slide 7
Pedestrian Survey
Purposive (Gumshoe)
Systematic
100%
Sample

Slide 8
Systematic Regional Survey
A set of site discovery strategies for accurately describing the range of archaeological materials that occur is a region.

Slide 9
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 10
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 11
Excavation Methods
Mapping, Establishing Site (Coordinate) Grid, Datum
Excavation Notes (PI and Crew- forms, notebooks, systems)
Bagging Recovery, Label W. Provenience
Photographs
Mapping Vertical and Horizontal Relationships within Units (Plans and Profiles)

Slide 12
Where to Excavate
Surface Evidence- artifact concentrations, features, soil, vegetation, topography
Intuition, best guess, hunch
Sampling Design

Electronic Subsurface
Ground Penetrating Radar
Proton Magnetometer
Mechanical
Backhoe
Auguring

Slide 13
Excavation Recovery Techniques
Point Provenience (in situ)
Batch Retrieval
Dry (Shaker) Screen
Wet Screen
Bulk Sample
Flotation
Pollen
Soil

Slide 14
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 (point provenience).

Slide 15
Folsom Site in New Mexico
An example of an In Situ Discovery

Slide 16
Point Provenience-the three dimensional location of an the recordation of individual item relative to a site grid. Usually, such items are found in situ.

Batch Retrieval- the recordation of the three dimensional location of all items found together in a layer or stratum of excavation unit.

Slide 17
Excavating Archaeological Sites
Strategy
Sondage/Test Pit/ 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 18
an archaeological plan is a drawn map of features (and artifacts) in a horizontal plane intended to record horizontal relationships.

Slide 19
a Profile is a careful drawing and description of strata, features, and artifacts showing it in the vertical plane, as a cross section, and thereby illustrating its stratigraphy.

Slide 20
Excavating Archaeological Sites
Method
Stratigraphic- by Natural levels, expensive hard, frequencies non comparable
Arbitrary- by arbitrary levels, best if stratigraphy not present, frequencies comparable

Slide 21
Natural level (strata)- a vertical subdivision of an excavation unit based on natural breaks in the sediments (color, texture, compaction, etc.)
Arbitrary level- a vertical subdivision of an excavation unit based on a standard increment of depth (i.e., 10 cm, 12 inches)

Slide 22
Arbitrary Levels Can Effect Artifacts From Natural Strata
The natural strata—A, B, C, and D—each contain a particular kind of artifact.
Each strata represents a unit of time.
If excavated using arbitrary levels—1, 2, 3, and 4—those levels would crosscut the strata.