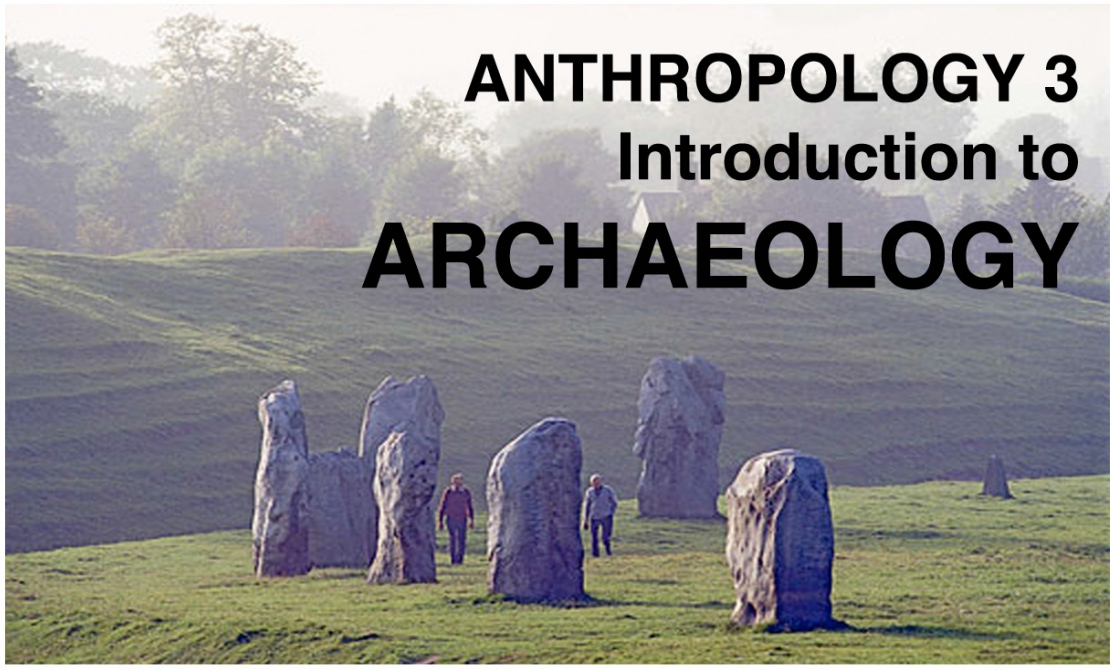
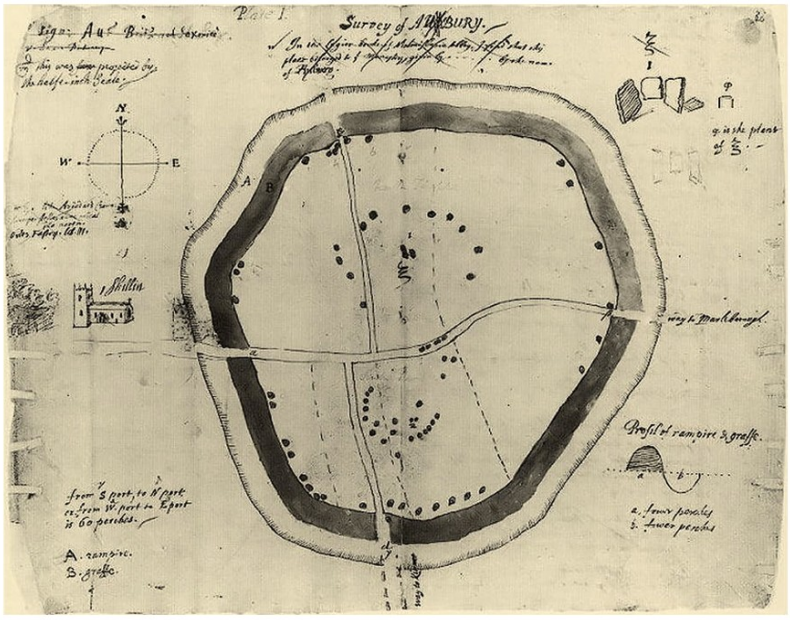


ANTHROPOLOGY 3
Introduction to
ARCHAEOLOGY

A WORKBOOK AND STUDY GUIDE

2022 edition



By Judith A. Habicht-Mauche, Diane Gifford-Gonzalez, J. Cameron Monroe, Jon D. Daehnke, and Tsim D. Schneider

University of California, Santa Cruz

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Unit 1 - Introduction and History

I. Overview

Archaeology is a particular way of seeing and learning about past human cultures through the analysis of material remains in their temporal and spatial contexts. Archaeology shares with the discipline of history an interest in the human past and with anthropology a comparative analysis of human culture. Unlike historians, who reconstruct the past through the analysis of written texts, or cultural anthropologists, who study culture by observing and recording the activities and speech of living people, archaeologists study the physical traces and residues of past human activities. These can range from a campsite used briefly by our earliest hominid ancestors a million-and-a-half years ago, to fragments of pottery made by African slaves in South Carolina during the eighteenth century, to the Great Temple of the Aztec capital of Tenochtitlán, destroyed by the Spanish during their conquest of the Valley of Mexico. A fundamental premise of archaeology is that these **material remains** are the by-product of learned, shared, and cognitively structured human behavior, that is, of **culture**. The patterning that archaeologists perceive in the material record is assumed to reflect the structure of the human actions that produced it. Thus, the task of archaeology is to discover and describe this patterning in the material record and to interpret it's meaning within specific historical and cultural contexts.

Archaeology's approach to seeing and learning about the human past developed relatively recently. It grew out of the Western intellectual tradition during the European **Renaissance** and **Enlightenment**. Several intellectual developments over the 15th through 18th centuries were crucial to the development of archaeology as an academic discipline. First, as the Renaissance progressed, **humans were perceived as part of the natural world** and subject to its laws and principles. To discover "natural law," Renaissance and Enlightenment scholars set out to study human societies, past and present, much as they did other natural phenomena, through **observation, comparison, and analogy**.

Second, the Renaissance stimulated an interest in **Classical and Biblical antiquities,** which in turn led to the recognition that the social and material conditions of human existence had changed significantly over time. During the 17th and 18th centuries, gentleman scholars, who called themselves **antiquaries**, began the systematic study of ancient ruins and the collection of ancient artifacts. These practices led in turn to the realization that antiquities were more than mere "curiosities and collectables." They could provide substantive information on human life and material conditions in the past, even in the absence of written documents.

Third, through **exploration and colonization,** Europeans came into contact with the people and customs of other continents. From the perspective of European observers, non-Western peoples were **"living fossils"** whose lifeways provided analogies for interpreting the function and meaning of European antiquities. Despite the fallacy inherent in viewing other cultures as "primitive" and "static," such comparative studies led to some important insights, including **recognition of stone tools as the products of humans.**

A fundamental limitation of early **antiquarianism** was that no methods, independent of **speculative notions of technological and moral progress**, existed for ordering things in time. The emergence of archaeology as a historical and scientific discipline was aided by developments in geology and biology during the 18th and 19th centuries. The principles of **stratigraphy** provided archaeologists with a systematic method for ordering cultural remains in time. The **recognition of fossils** of extinct plants and animals suggested that the world was much older than traditionally thought. This recognition created a tension between Biblical accounts of human origins and history and a growing body of archaeological and paleontological evidence. This tension was resolved for many scholars in 1859 with acknowledgment of the great antiquity of the human species, supported by Darwin's theory of **organic evolution by natural selection**. Finally, the development of **systematic excavation and record keeping techniques** in the late 19th and early 20th centuries by archaeological field workers, such as Pitt-Rivers in England, Flinders Petrie in Egypt, and Nelson and Kidder in North America, established the standards of professional archaeological practice still in use today.

II. Study Questions

1) From the late 1700s through the early 1800s, discoveries were made that ultimately led to the widespread acceptance of the great antiquity of humans. List three methods and/or concepts that worked together to both raise and settle the question of human antiquity. Using Brixham Cave as a "test case" example, discuss how these aspects of theory and method work together.

2) How is Archaeology related to its sister disciplines of Cultural Anthropology and History? In what ways is it different? Discuss a specific example showing how an archaeologist's approach to studying a specific human issue or problem would differ from that of an historian or cultural anthropologist.

3) How have the goals and perspectives of Americanist archaeology changed over time? Include examples of archaeologists from different time periods, discussed either in lecture or in assigned readings, and discuss how their work characterized the period in which they practiced archaeology.

4) What was the "Moundbuilder Controversy" and how does it reflect the social and historical context of the development of archaeology? How did certain Euro-American views of the American Indian structure this discussion? What role did archaeologists and archaeological evidence play in forcing revisions of pre-ordained scholarly positions on the mounds?

"...And right above the Stone Age strata you can clearly see artefacts from the 'Iron Age'!"

III. Supplemental: Ideas That Created Archaeology in Europe and America

1492

- Contact with indigenous peoples and colonialism in the Americas

1500

- Europe had a pre-Roman past
- Society had changed over time
- History can be reconstructed from monuments, relics, etc.
- Antiquarian societies formed in various western European nations
- Discoveries of other peoples by Europeans; realization that humans were diverse in languages, customs, technologies

1600

- Recognition of prehistoric stone tools as human handiwork
- Recognition of Earth's strata—that Earth had changed over time

1700

- Recognition of fossils as mineralized remains of plants, animals
- Recognition of extinct organisms in Earth's deposits
- Rise of catastrophist explanations of Earth's strata and extinction (Cuvier)
- Widespread application of stratigraphic analysis (Law of Superposition), inference of association in time through horizontal association in space
- Social philosophers propose progressive stages of social and technological development over human history

1830

- Lyell: earth's deposits formed by operation of processes observable in the present day world and are understandable by modern examples
- Earth, therefore, existed for a very long time, over 100,000 years

1860

- Association of human remains and artifacts with those of extinct animals alleged (e.g. Boucher de Perthes)—later vindicated by stratigraphic excavation of Brixham Cave
- Darwin publishes *Origins of Species*—Species, including humans, can change over long stretches of time
- Neanderthal remains recognized as an earlier form of human

1880

- Pitt-Rivers begins work at Cranborne Chase in England (survey and mapping, careful excavation)
- Cyrus Thomas, by systematic excavation and ethnographic analogy, demonstrates that North American "Mounds" were built by Native Americans

1900

- Nels Nelson and A.V. Kidder introduce stratigraphic excavation, artifact seriation, culture history to North American archaeology
- Miguel Gamio (student of anthropologist Franz Boas) does stratigraphic excavation and culture history in Mexico

Unit 2 - Recovering & Interpreting Evidence

I. Overview

Context, Association and Patterning
Archaeologists employ much the same means and reasoning as used by forensic detectives trying to reconstruct events at the scene of a crime, but on a larger spatial and temporal scale. In both archaeological and forensic situations, the relationship between material remains and past human behavior is **contextual**. That is, it is determined by the **association** of material remains with one another within a specific time-space setting.

Archaeologists are especially interested in discerning **patterning** in archaeological evidence, because we assume this reflects patterning in human activities. At the most basic level, human actions are constrained and enabled by the limits of the human body's range of motion, so that throwing a ball or skillfully making a certain kind of pot on a potter's wheel will involve redundant motor activities, producing a distinctive repetitiousness in the output of the action, be it a pitcher's trademark curve ball or a distinctive rim form on a pot.

In addition, human actions are **culturally patterned,** as people in particular cultures learn their culture's proper way to make a tool, build a house, or cook a particular kind of food. Cultural patterning can thus include often-unconscious habits of everyday life, the "normal way to do things" in one's culture, as well as the more self-conscious, deliberate practices, such as using a potter's wheel, within a culturally defined framework. These non-discursive ways of doing things that are particular to certain cultures are what French anthropologist Pierre Bourdieu called ***habitus***. These repeated patterns of action put a culturally distinctive stamp on the material outcomes of those actions.

Repetitive human action leaves **patterned physical traces** within abandoned living areas (sites) and across the landscapes people used that can be detected and interpreted archaeologically.

Survey and Sampling
Archaeologists are therefore interested in recording the **spatial relationships** of artifacts and features to each other and their distributions across a landscape. They have developed standardized methods for detecting and recording the spatial context and association of material remains.

These are put to work at two interrelated levels: **locating and documenting sites in a landscape (survey)** and **excavating individual sites and documenting the objects and contexts** found in such excavations.

Surveys record an essentially two-dimensional distribution of artifacts and features across a landscape. Today they rely on both on-foot inspection and an increasing array of noninvasive, **remote sensing** methods. The latter techniques have rendered locating and recording evidence of human activities more cost-effective and efficient, and in some cases more acceptable to descendant communities who wish to avoid exposing sensitive types of remains, such as burial grounds. Remote sensing at the regional level has made it possible to study how humans interacted with one another and with their physical environment on a much larger scale. Definition of human sites is mainly by surface features—scatters of artifacts, walls, hearths, other features, but subsurface remote sensing methods permit exploration of features not usually apparent on the surface without excavation.

Geographic Information Systems (GIS) allow a vast amount of regionally based information from various types of archaeological analyses to be integrated in electronic databases and used as a research tool. Archaeologists are beginning to take advantage of this computer-aided research tool to investigate spatial relations as well. These integrated data sets allow us to examine human activities from a broader **"landscape" perspective** rather than the more limited perspective of individual sites.

Although total-coverage survey is optimal, archaeologists are usually faced with having less time and money than would be needed to cover an entire region or site. Methods of **sampling** regional environments for archaeological evidence are therefore a central consideration in archaeological survey. Obtaining a **representative sample** of the overall array of sites in a region presents a major problem. Some research teams used **transect sampling**. Archaeologists often use variations on **random sampling**—often complemented by selective small **test pit** excavation or **augering**—which are intended to enhance the "take" from a less-than- total sample.

In recent years, as the result of Federal and State mandated CRM practices, local and regional archaeological surveys have dramatically increased. The Alaskan Oil Pipeline survey of the 1970s was among the first of many very extensive archaeological surveys. Though originally motivated by late 20th century political and economic realities, the recent emphasis on survey and landscape-scale documentation has changed archaeologists' perceptions of their research areas, leading to the development of new questions for further research.

Excavation

Site survey reveals the place of human habitations and work sites in the landscape and also shows variations of different sectors within sites, as at the huge urban center of Teotihuacán in Mexico. As practiced before the advent of ground- penetrating remote sensing, survey explored and documented an essentially two- dimensional world.

Excavation, by contrast, reveals the three-dimensional association of artifacts and features within a site and exposes the vertical, stratigraphic order that permits Relative Dating. Excavation allows archaeologists to recover various types of artifacts and ecofacts, some of which require special recovery techniques.

Varied excavation and survey techniques are appropriate for different settings and for answering different types of research questions. While the distribution and association of artifacts and features in a site tell us something about the activities that went on at that site, the distribution of sites, features, and artifacts across a landscape can provide important information on social, political and economic relationships between communities on a local and regional scale.

Connecting the Present to the Past: Middle Range Research

Recovery of archaeological materials is, however, only the first step in writing human history from these materials. Archaeologists must be able to identify and analyze these materials intelligently, which requires that they know what they are looking at as they handle individual artifacts, bones, plant remains, and so forth, and as they see patterning in data drawn from those materials. Sometimes it is easy to **assign meaning** to an artifact or ecofact – a potsherd is a potsherd, and a goat bone is readily distinguishable from a gazelle bone, if one has the proper training. But many remains and patterns in archaeological materials are more enigmatic, because they are not used in the modern world and are thus outside our common-sense understandings.

Likewise, patterns such as statistical correlations in data may be strong, but they may not communicate much about what caused them. What does a drop from 75% to 5% in the frequency of plain, undecorated ceramics over a hundred-year period mean, in terms of the circumstances of daily life and human choices? How do we interpret the decline in proportions in wild gazelles and increase in wild goats over the millennia preceding the first evidence for early farming in the Near East?

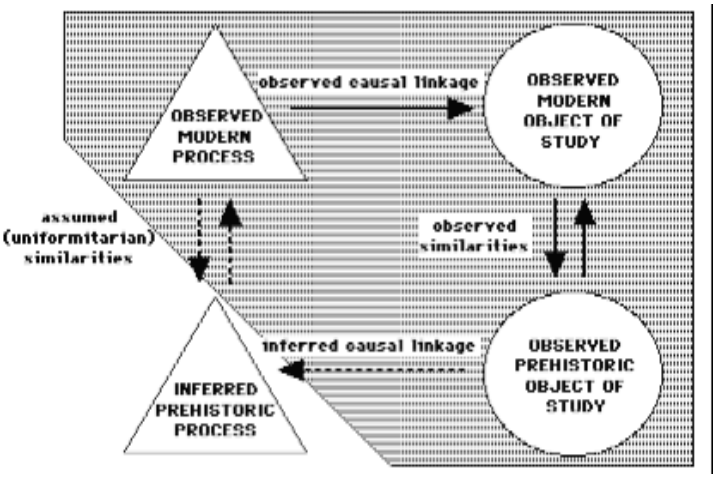
A fundamental problem for archaeologists is how to learn more about the meaning of archaeological materials and the patterns they display, when this evidence is initially ambiguous to us. How can archaeologists do this? **Middle range research** is the archaeological research that builds **middle-level archaeological theory,** to bridge the gap between what we know in the present and the meaning of materials from the past.

In 1983, Lewis Binford wrote, “The archaeological record is contemporary; it exists with me today, and any observation I make about it is a contemporary observation.” The “archaeological record” is thus a **static** collection of objects in their three- dimensional spatial context. It does not speak for itself. **Middle level theory** links this static collection of “objects in context” to past human behavior by examining the relationships between **dynamic processes** and their

static results in the present. This strategy of research has been called **actualism** because it studies the dynamics that produced the static remains **in the present** (Latin root *actuo-* = "present") or the only time frame where these cause-effect relations can be observed by us**.**

Middle range research depends on **reasoning by analogy** as the critical step in assigning meaning to patterning in archaeological evidence. We will never know exactly what happened in the past, but we believe that we can understand past situations by comparing them with **analogous cases** we can know and understand in the present. If a certain action has a particular material consequence in the present, then, when a similar pattern of material evidence is observed archaeologically, one assumes it was caused by a similar action in the past. This approach has allowed us to understand much more about the functions of stone tools and other artifacts through **experimental replication and use**. Building a casebook of functional meanings for evidence we encounter archaeologically allows us to use these to address higher-level issues, such as the origins of farming or the state.

Middle range research necessarily involves a **uniformitarian** perspective: one assumes that **the same cause-and-effect relationships observable in the present were at work in the past**. This is an approach pioneered by 19th century geologist Charles Lyell (Unit 1) and is the cornerstone of modern geology and paleontology.



There are few complications in using this approach with situations involving physical or chemical processes. However, we encounter more problems when we try to deal with human behavior, especially in the more remote past. We know that we are often dealing with evidence produced by social forms and institutions that have been wiped out by the spread of world capitalism, or with the remains of early hominids whose capacity for abstract reasoning and social behavior may have been fundamentally different from our own. However, there is no other source of new information on these past human actions than analogy with

present-day processes, which is what makes archaeology simultaneously challenging and frustrating.

Uniformitarian assumptions don't tell us <u>why</u> things happened, they simply permit us more detailed "access" to the past time in which we are interested. They are similar to **forensic researchers'** tools (fingerprints, blood types, hair analysis, piece-plotting of evidence, ballistic evidence, etc.). he analogy between forensics and archaeology is very apt, because each field tries to reconstruct and study events that took place away from direct observation, and each uses systematic documentation of context and traces and uniformitarian assumptions.

One major part of middle-level research since the 1970s has focused on the processes, natural and cultural, that create archaeological sites, so-called **site formation processes**. There is rarely a one-to-one correlation between past human behavior and the existing material record. Archaeological sites do not come down to us unchanged since the time of their use. Many natural and human processes **transform** an abandoned settlement into the three-dimensional pattern of scattered artifacts and features recovered and recorded by the archaeologist in the present.

Archaeologist Michael Schiffer made the useful distinction between an object's **"archaeological context"** (the static, three-dimensional context in the present) and its **"systemic context"** (the dynamic, active context of use in the past). Actualistic research can help us understand how things move from "systemic" to "archaeological" contexts.

II. Study Questions:

1) Why is regional site survey more than just looking for sites to dig? In what ways does “landscape archaeology” contribute to archaeological knowledge? How are regions defined and what are variant approaches to survey and sampling? Include a discussion of “sites” and “non-sites,” and why landscape survey includes both. Enrich your discussion by using examples from readings and lecture presentation.

2) What is the difference between vertical and open area techniques of excavation? Why would an archaeologist choose one technique over the other? Give specific examples from the readings or lecture.

3) Archaeology deals with “objects in context.” Discuss why context is so important, and how archaeologists keep control of context as they excavate. What is a datum point and how is it used in measuring and mapping? How do archaeologists use the concepts of “context” and “association” to interpret the activities that took place at a site?

4) Why is there no simple correspondence between the distribution of artifacts in a site and human behavior? What factors other than human behavior must archaeologists consider when interpreting a site? Use specific examples from readings and/or lecture to support your answer.

5) Discuss the specific techniques used by Peter Schmidt to bridge the interpretive gap between the static archaeological record and the dynamics of human behavior in the past. How did these techniques change our understanding of the production of iron in Africa? Did you find these interpretations convincing? Why or Why not?

6) What is the role of Middle Level Theory in archaeology, and how do archaeologists build it? Discuss how experimental archaeology, ethnoarchaeology, and/or ethnographic approaches relate to Middle Range Research. How does reasoning by analogy and uniformitarian assumptions relate to Middle Range Theory? Draw on examples from readings, videos and class notes to support your answer.

III. Unit 2 Section Activities: Archaeological Interpretation

Exercise 1: Garbology and Archaeological Inference
Archaeologists make inferences about the past based on what they know about the present. For this assignment, you will be introduced to the thought process archaeologists go through in making such inference. First, you will conduct a brief archaeological study of a space you know well. In section you will use this information to help interpret the trash of two different spaces where you do not know anything more than the kind of trash that people discarded there.

Part I: Conducting the study
Before coming to discussion section during Week 2, select **ONE** space either within a home or place of business from someone you know reasonably well. Pick a day when the trashcan in this space is reasonably full. Do not personally identify the people who are using the trashcan; these people should remain anonymous. However, let them know what you are up to and ask if there is anything hazardous or disgusting in the trash. **If so, stop and pick another space**. First, pick a time when the space is active and spend 30 minutes describing all the activities you observe within the location. A simple list will suffice. Second, carefully sort through a trash container located at the study site, and write a list of what you find in the trashcan. If you are sorting wet trash (such as from a kitchen) you may wish to purchase some rubber gloves in advance to facilitate the sorting.

Next, write one or two short paragraphs describing the social context in which this trash was produced. Identify the kind of room from which the trash came. Think about the kinds of activities that you know are taking place near and around this room. Are those activities reflected in the trash that you found? Why or why not? How are they reflected in the trash? Which activities did not show up in the trash at all. Then think about the kind of people who are contributing trash to this can. Briefly describe those people in terms of their social personae and status, but **don't personally identify them**. How does their gender, age, occupation, class, marital status, or other elements of their social personae and status affect the kinds of trash that you found? **The list of observed activities and physical remains you studied plus your short paragraph MUST be handed in in section**. You should now have an idea of what types of activities, as well as material evidence for status, gender, etc., show up in the archaeological record.

Part 2: Using Your Study to Interpret Other Sites
In discussion section, you will use the ideas that you developed from your ethnoarchaeological study to compare and interpret the lists of trash included below. Break into groups of 3-4. Present the results of part 1 to your groupmates. Discuss the similarities and differences between each space.

Presented below is a list of the kind and number of things found in the trashcans from two different rooms. These rooms are associated with entirely different

buildings. The trash was deposited over the course of one or two days. Examine the two lists closely and compare them with your own lists.

Comparison 1

- Two large, white paper cups Two large, white plastic lids
- Two bands of brown corrugated paper One 20-ounce plastic Coke bottle Two banana peels
- One orange peel
- Three packages of Quaker instant oatmeal, all Apples and Cinnamon One pink paper flyer
- One tattered piece of plastic shrink wrap
- One empty envelope with scribbled note: “Meet J & M, Monday, July 21st, 8 PM” One plastic sandwich bag
- Seven fragments of white china, partial text on bottom of one fragment reads: “…dgewoo…”
- One crumpled piece of white paper towel, stained with small amount of blood

Comparison 2

- Fourteen empty bottles of Pacifico beer Four empty bottles of Corona beer
- Six empty bottles of Sam Adams beer One empty bottle of red wine
- One large 64-ounce bottle of Coca Cola, empty One large white plastic lid
- One 20-ounce plastic Coke bottle
- Five small cans of tomato juice, empty One empty box of fire crackers Thirteen metal bottle caps
- One plastic tub of sour cream, empty One desiccated wedge of lime
- Two crumpled napkins
- 10 chicken leg and thighbones

Exercise 2: The Basin of Mexico Survey

The Basin of Mexico has been the focus of much archaeological research because it was the center of the emergence of several important ancient states, including the city of Teotihuacán, Mesoamerica's first city-state, and the later Aztec empire, which was overthrown by the Spanish conquistador, Hernan Cortes in 1521. The remains of these extensive and highly complex societies are now buried under the urban sprawl of modern Mexico City. Outside the city limits, intensive agriculture, ranching, and drainage operations have transformed the ancient landscape. Nevertheless, archaeological sites remain remarkably abundant throughout the valley. This area was the subject of a long-term survey by William Sanders and research teams from Pennsylvania State University in the late 1960s and 1970s. (Their work is highlighted in the *Out of the Past* videos, which we will view in the second half of this course.) Sanders and his teams compiled a vast body of site data--including site dimensions, artifact contents, and so on. The following exercise will draw on their published data from this project.

For this exercise, work in groups of three to analyze survey data and make social interpretations based on them. You are provided with seven maps of the Basin of Mexico; one depicts its environment and resources, and six depict the regional settlement patterns from different archaeological phases. You are also provided with a key denoting population, associated materials, and other salient facts to pay attention to. The large empty space in the center of the maps is a system of lakes and the topographic lines depict high mountain ranges (with contour intervals of 50 m). As a group, answer the questions based on the information contained in these maps and in the accompanying key.

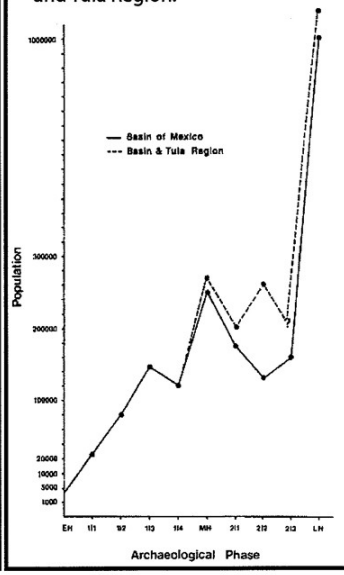
The Basin of Mexico Survey Project

SETTLEMENT TYPE:	POPULATION:	ATTRIBUTES:
Hamlets	<100	no architecture visible from surface
Small Villages	100 - 500	no architecture visible from surface
Large Villages	500 - 1000	1 - 3 sm./med. mounds visible from surface
Reg./Prov. Centers	avg. 2000 - 5000 (up to 40k)	formal ceremonial architecture with large mounds and plazas notable differences in house sizes, intense craft specialization
Supra-Reg. Centers	30,000 - 250,000	urban political capitals with massive architecture, palaces, and large marketplaces

PHASE:	MAP:	ASSOCIATED MATERIALS (*):
Early Horizon (EH)	1	pottery, figurines, grinding tools baked clay with stick impressions
First Intermediate Phase 3 (1I3)	2	standardized incense burners depicting gods, tortilla griddles, textile production tools
First Intermediate Phase 4 (1I4)	3	abundant obsidian dart points
Middle Horizon (MH)	4	standardized art, large stone sculpture, abundant materials of non-local origin
Second Intermediate Phase 2 (2I2)	5	new art style with multiple influences, obsidian arrowheads
Late Horizon (LH)	6	standardized art, large stone sculpture, abundant materials of non-local origin

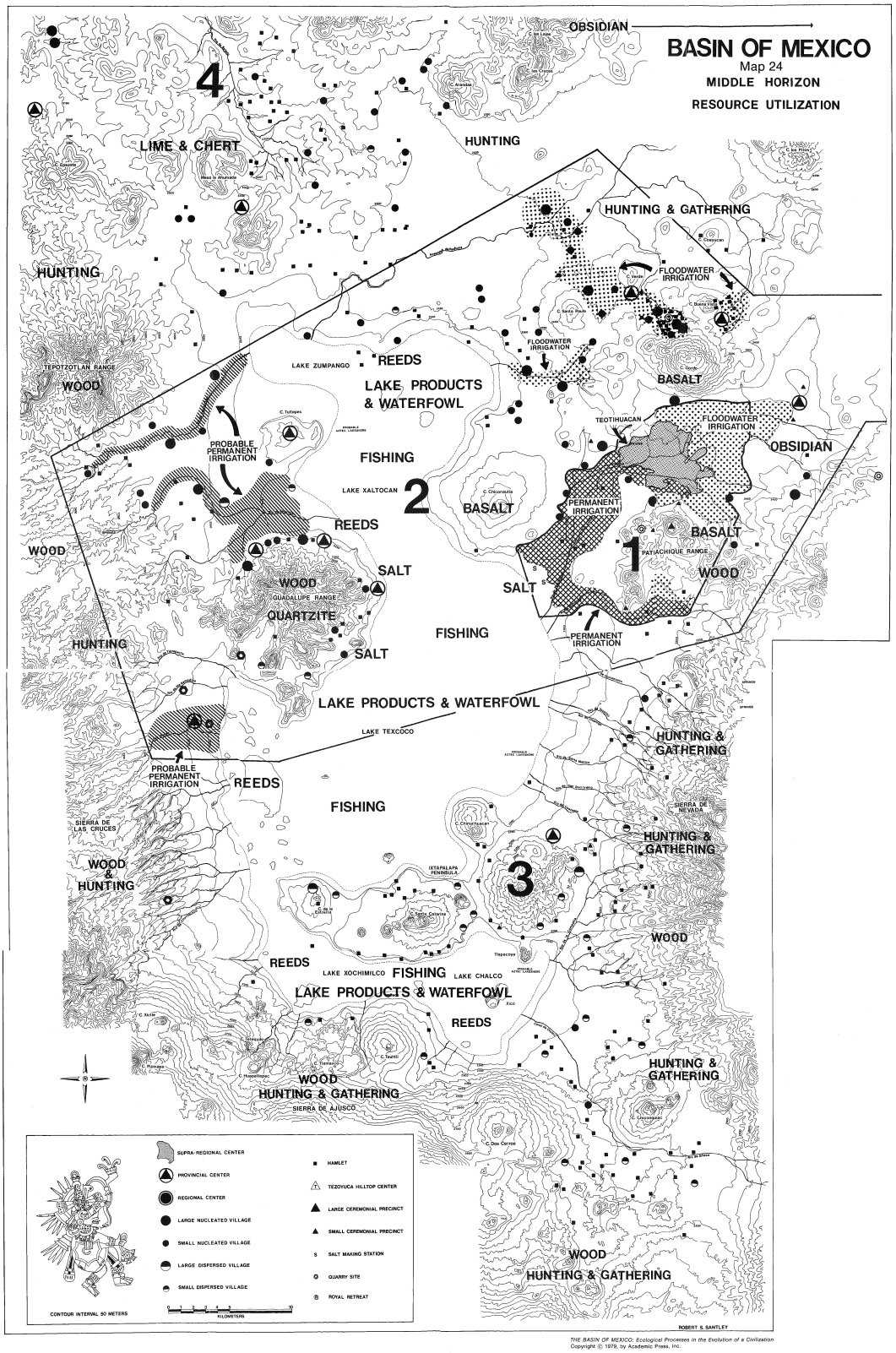
* associated materials from earlier phases may be assumed to continue in later phases

Estimated population for Basin of Mexico and Tula Region.

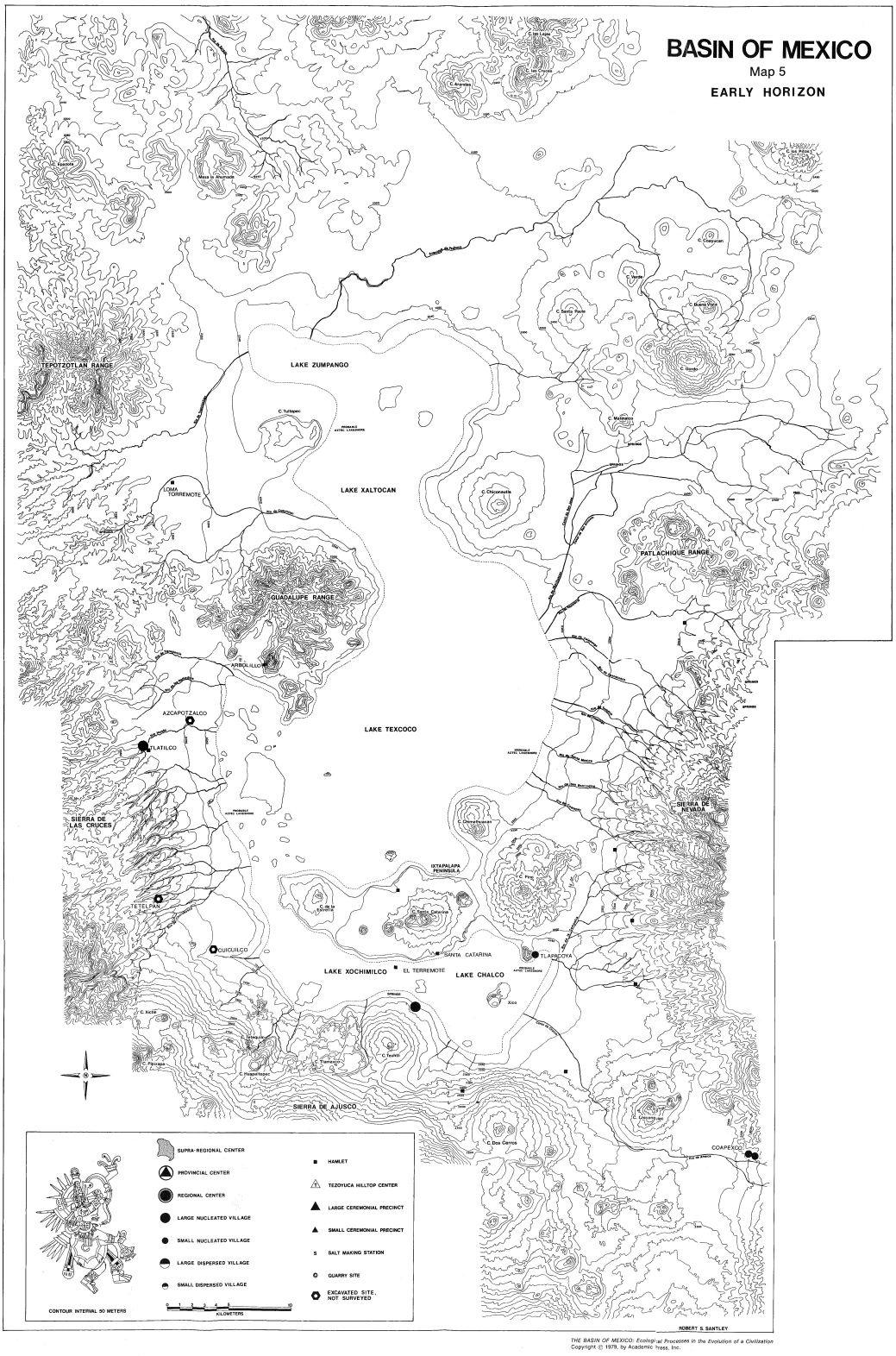


OTHER NOTES:
- The Tula Region is located out of the survey area, to the north
- The southern portion of the Basin of Mexico receives more annual rain than the northern portion
- Villages designated as dispersed are estimated to have had 5 - 20 persons per hectare; villages designated as nucleated are estimated to have had 20 - 100 persons per hectare.

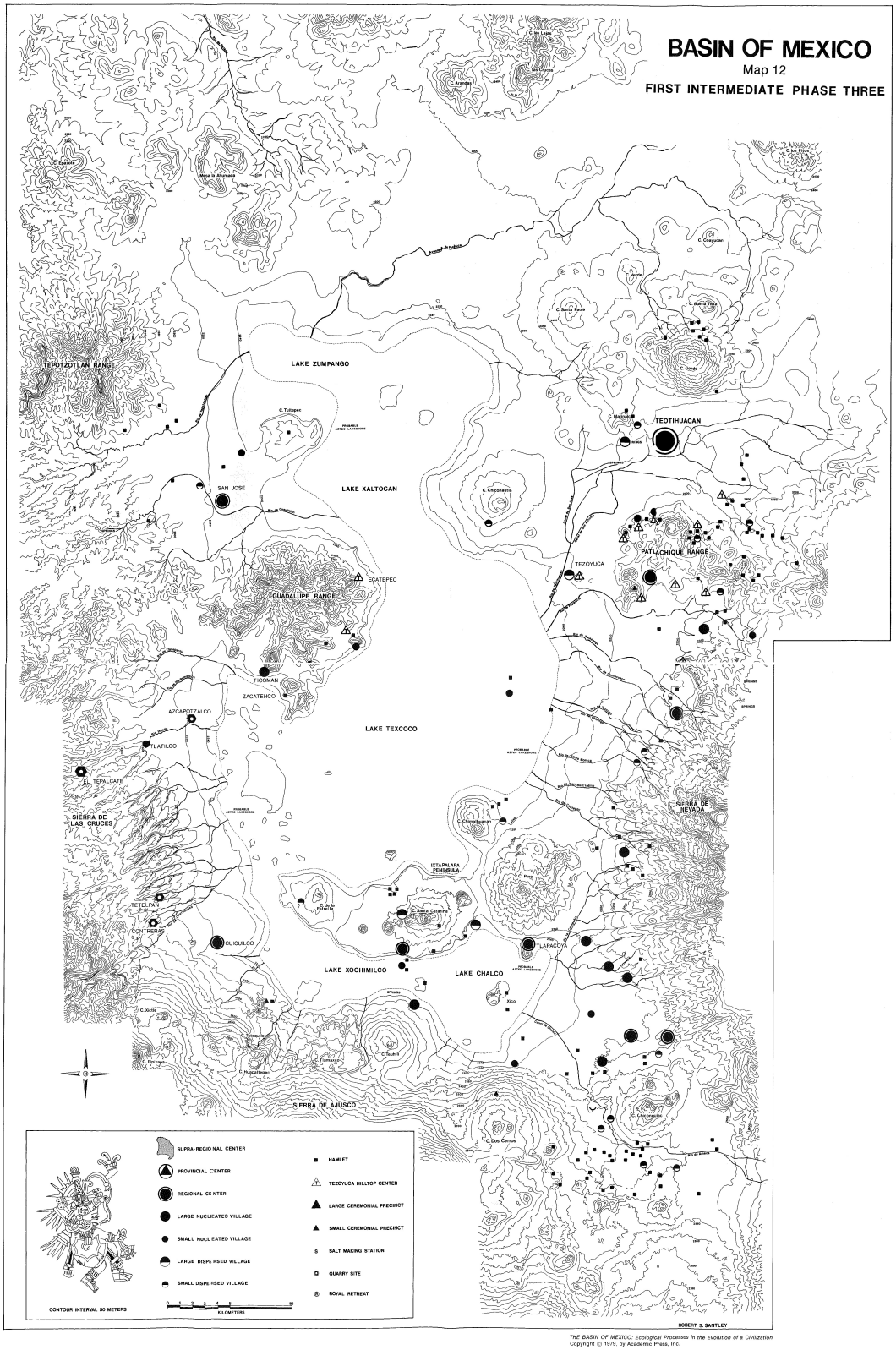
Data is based on William T. Sanders (1981) "Ecological Adaptation in the Basin of Mexico: 23,000 B.C. to the Present." In *Handbook of Middle American Indians*. University of Texas Press, Austin.



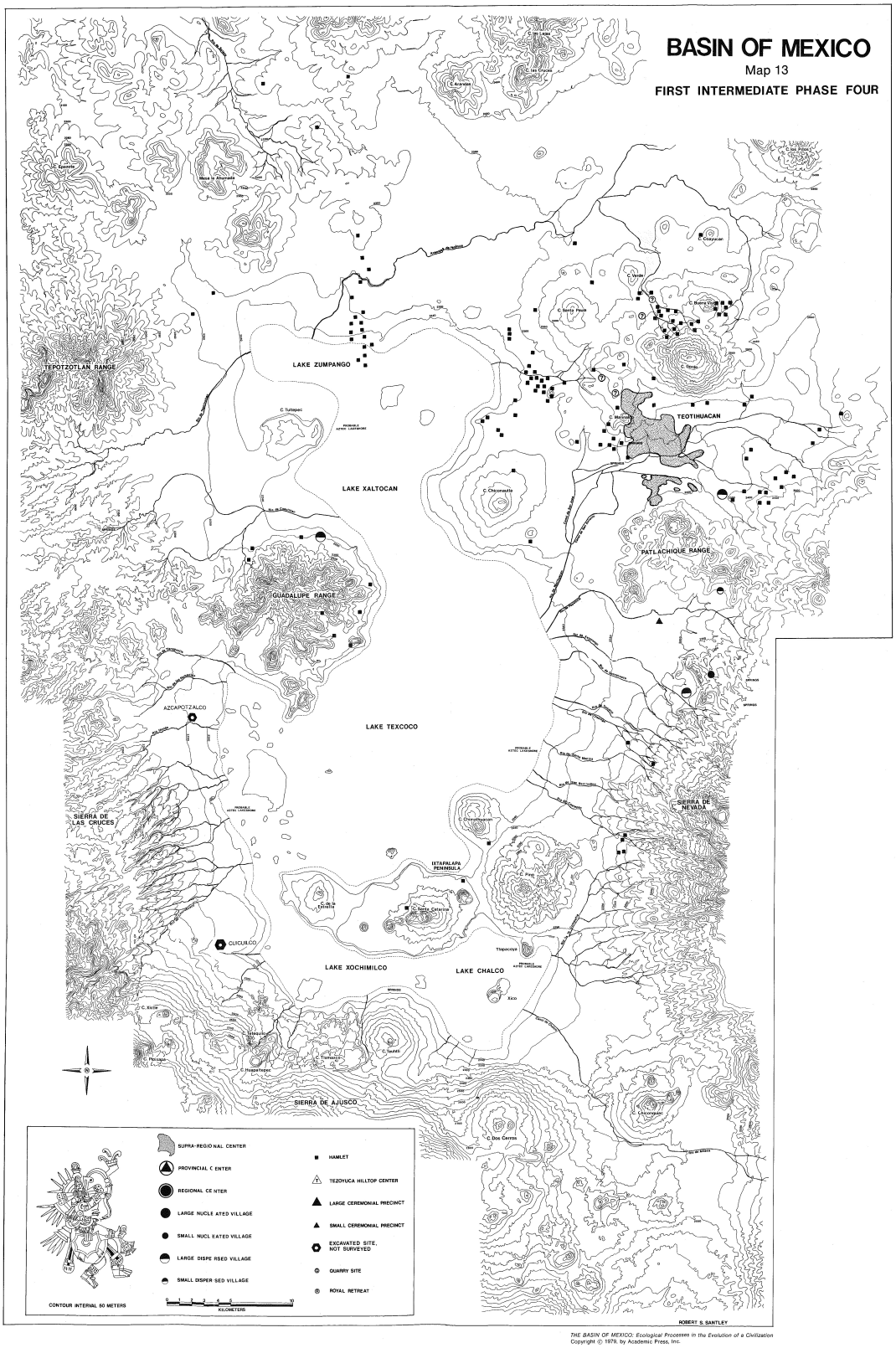
Available Natural Resources in the Basin of Mexico



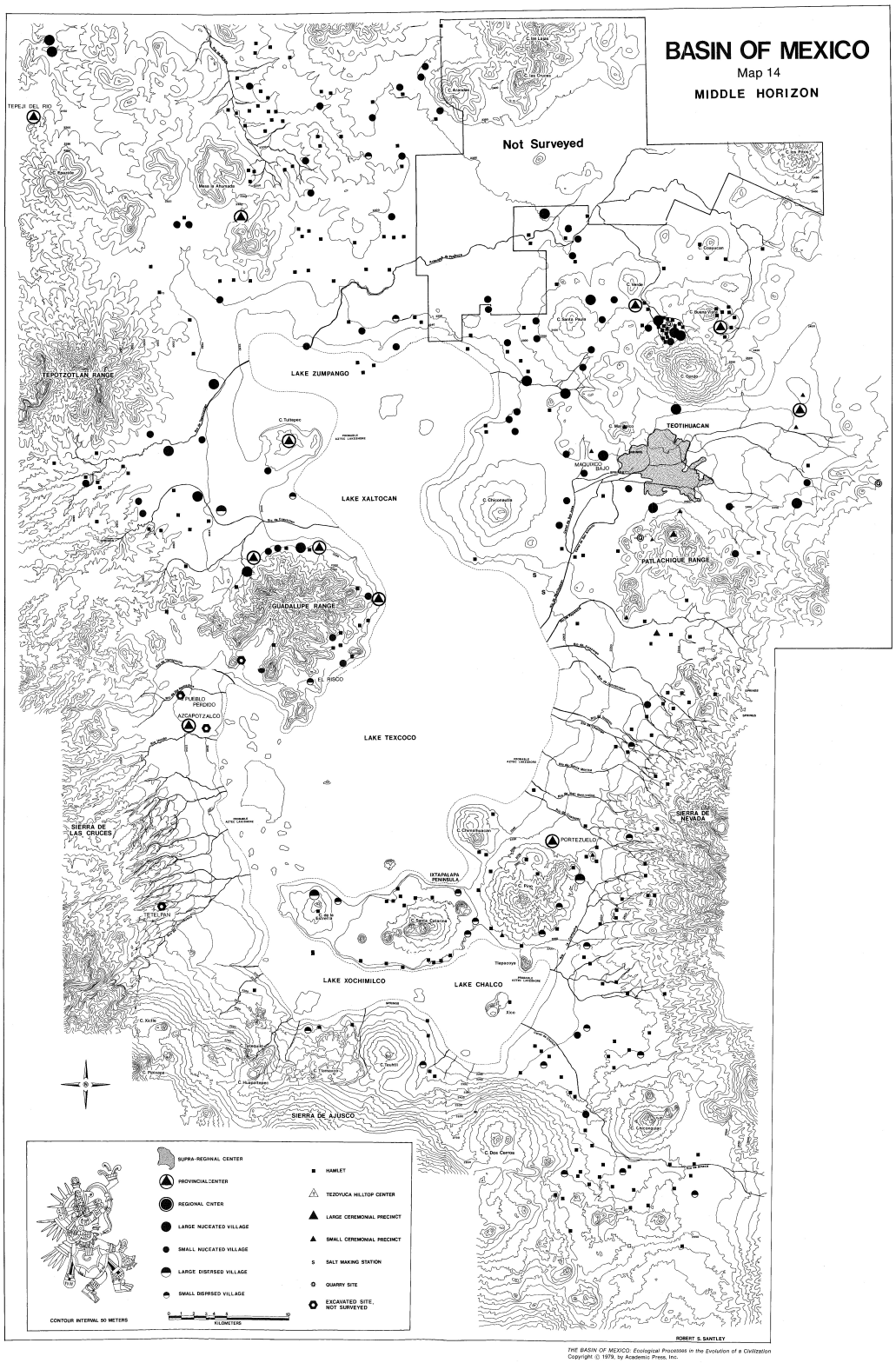
Map I: Early Horizon Period



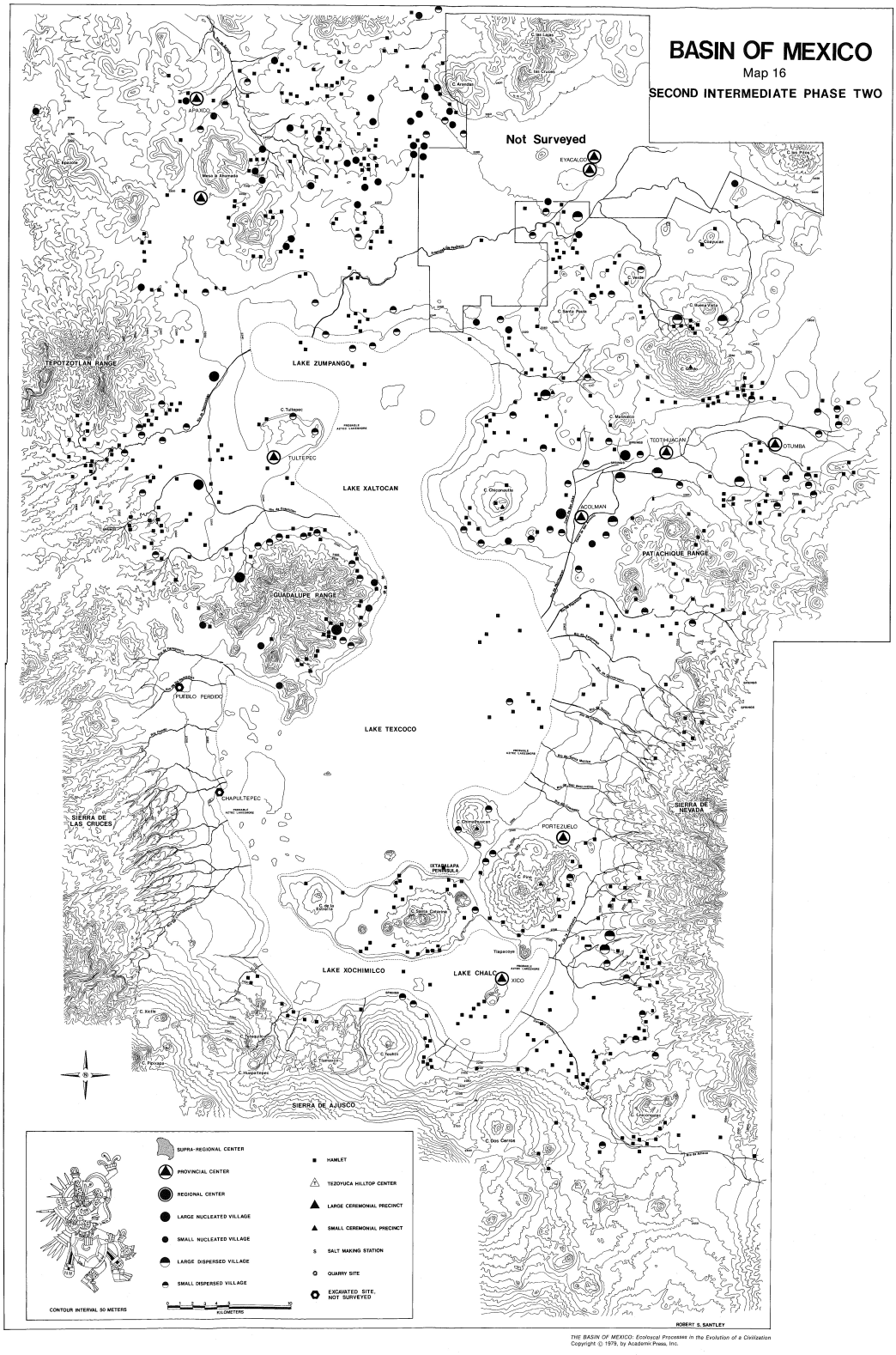
Map II: First Intermediate Period (Phase 3)



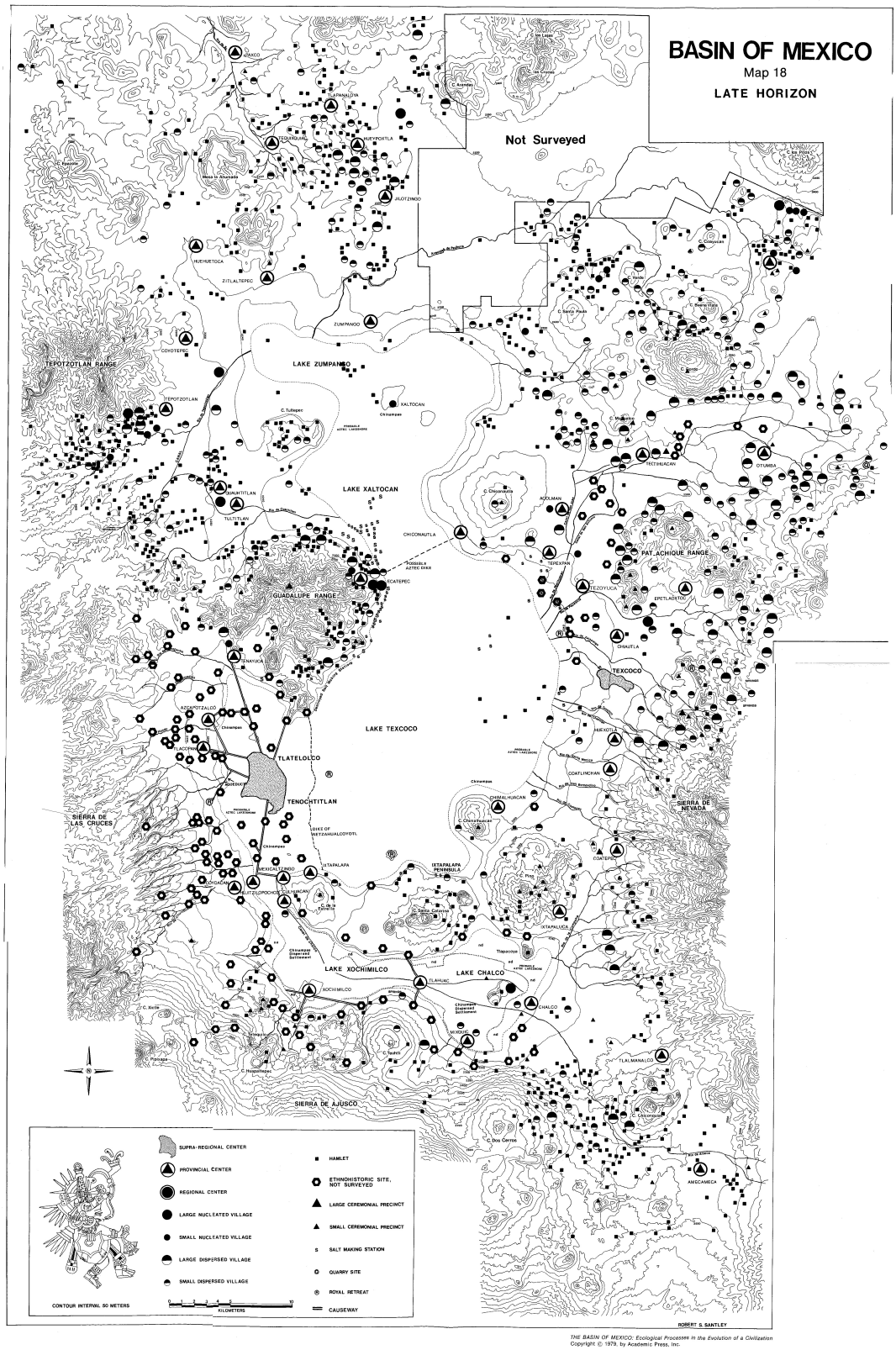
Map III: First Intermediate Period (Phase 4)



Map IV: Middle Horizon Period



Map V: Second Intermediate Period (Phase 2)



Map VI: Late Horizon Period (Aztec)

Name:_____

IV. Unit 2 Section Exercise Assignment

Exercise 1 Worksheet: Garbology & Archaeological Inference

1) What activities left clear material patterns in your study (Part 1)?

2) Do you see patterns in the lists provided (Part 2) that are similar to the patterns you identified in your own study? If so, describe them. If not, what differs?

3) If so, what sorts of activities can you infer took place? If not, what sorts of activities can you infer DID NOT take place?

4) Assess the social personae and status of the person or people who produced the trash to the extent that it is possible to do so (Part 2). For example, were the people men or women, students or office workers, young or old? What is invisible?

Exercise 2: Basin of Mexico Survey

5) Look at the distribution of sites in Map 1. Where do they cluster? What do you think the lifeways of people during this phase was like?

6) What important social changes are associated with Map 2 (look at the keys on the maps for site hierarchies)? What may the sociopolitical organization of communities have been like?

7) How does the settlement pattern as a whole shift in Maps 3 and 4? What political forces may have been at work? What environmental factors may have contributed (note: the southern basin was volcanically active during this phase)?

8) What dramatic changes are visible in the basin in Maps 5 and 6? What happens with population as a whole? Describe how society may have been organized.

Unit 3 - Placing Objects in Time

I. Overview

In archaeology, no matter where or what time span, two types of information are essential to making sense out of the mute evidence of the material record. The first is chronological information: the place of sites or objects found within them in an overall temporal order. The second is the spatial location of sites and the context and association of objects found in them.

The importance of both of these types of information can be appreciated if we examine the parallel case of forensic investigations of a crime scene. Investigators seeking to reconstruct what happened at such a scene need to determine the order in which events occurred. They also painstakingly search for all physical evidence in an area that might shed light on the nature of the events and the persons involved, and they document the spatial relations of the evidence found. Archaeologists usually work on a larger scale than do forensic investigators, both in time and space, but their reasons for wanting to obtain good temporal and spatial control over objects and features from the past exactly parallel those of crime investigators: the desire to obtain the clearest picture possible of what went on, the order in which events happened, and who was involved. In this unit we take up the dimension of time, discussing the how's and why's of dating methods in archaeology.

It is essential to place objects and their contexts in correct temporal order. No historical narratives can be developed until one knows what came first, what came next, and so forth. Biological anthropologists from Howard University studying individuals from the African Burial Ground might want to ask if the health and dietary status of African slaves in old New York improved or degenerated over time. To answer that question, they would have to know the time order of the individual burials, to assess how the people as a whole fared over time.

Moreover, if you want to ask *how or why* something took place; in other words, discuss causation, you have to get the evidence in the right time order. Anthropologist Marvin Harris once noted that, unless you closely monitored the sequence of events, you might conclude that fire trucks caused fires, because they are nearly always at the scene of major fires. Careful description of what came first and what next would dispel this impression. This may seem a trivial example, but several major hypotheses about the origins of cities and centralized states have been disproved by demonstrating archaeologically that a proposed cause – for example, large-scale irrigation – actually appeared *after* the development of urban centers and state authority.

Without control of temporal relationships, the archaeological record is just a jumble of ruins and artifacts, as it was for 18th century antiquarians. The first

attempts to create a temporal framework for prehistoric relics rested on speculative schemes of progressive human development, such as Danish archaeologist Christian Thomsen's Three-Age system (Stone, Bronze, Iron) for ordering European antiquities, first published in the 1820s. However, Thomsen went the extra step of evaluating his speculative scheme with a set of carefully controlled stratigraphic excavations, using the by-then well-established Law of Superposition to verify the time order of the "ages" he proposed. Thomsen's work in Denmark, and that of others inspired by him, produced regional cultural chronologies (regular time sequences for artifacts and other cultural materials) that were always based on stratigraphic excavation. Thus, stratigraphic sequences are the foundation of all archaeological chronologies. They are the only way to read time directly from a site's spatial context.

Absolute Dating

Over the last seventy years, a variety of absolute, or chronometric, dating techniques have been developed. Some depend on particle physics while others depend on other biological and geological processes. Two of the most important and widely used techniques are radiocarbon dating and tree-ring dating (dendrochronology). Radiocarbon dating, in particular, has radically altered our perceptions of world prehistory, because it allows widely separated cultural phenomena to be integrated into a global time scale. Other methods based on the radioactive isotopes of other elements, such as potassium-40 and its conversion over time to argon-40 have permitted dating of the very earliest tool-bearing sites on the planet, such as those at Olduvai Gorge.

Better control of time has allowed archaeologists to ask broader, more comparative questions about human development and cultural change on a global scale, while at the same time providing a sharper picture of the uniqueness and complexity of local historical processes.

Relative Dating

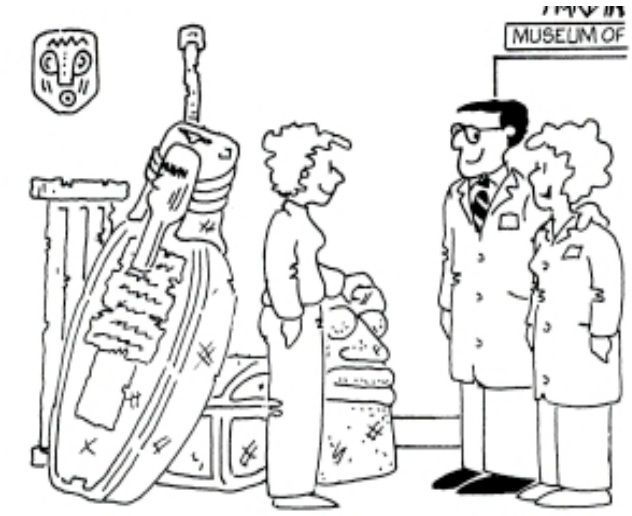
However, even before such methods were invented, archaeologists had supplemented stratigraphy with their own unique methods for placing objects and sites in a relative order (A always comes before B, etc.). Relative dating, based on stratigraphy and artifact analysis has been a mainstay of archaeology since the early 19th century and is still used today. Archaeologists as early as Christian Thomsen in the 1820s recognized that the form or decoration of archaeological artifacts appeared to change over time.

Variations of artifact form are the products of human choices. This variability is known as style. In a given culture, artifacts and architecture change in minor or major points of style over time. The fad for tail-fins on automobiles in the late 1950s is one such trend in artifact form, where for some years Chevrolets, Fords, Buicks, and Cadillacs all had fins designed into their different body styles. However, many instances of such fads in style are known from non-industrialized, non-consumer- based economies as well.

This change in artifact style over time is the basis for a method of relative dating known as **seriation**. American archaeologist James A. Ford noted that the popularity of any cultural trait tends to grow from nothing, peak at some point in time and then fade away or be replaced by other forms. A graph demonstrating the waxing and waning frequencies of any such stylistic trait through time has a distinctive lens- shaped, or lenticular, form. In American archaeology, such popularity curves have often been called “battleship curves,” because they look a bit like the shape of a traditional warship when viewed from above.

Stratigraphic sequencing and artifact seriation remain essential strategies for imposing chronological order on archaeological finds, but now they are often tied by **cross-dating** to a set of absolute dates. Successful site survey depends in part on having a fine-tuned chronological sequence into which finds can be placed.

The UCSB Computer Exercise module on “Dating Methods” gives good graphic examples of relative and absolute dating methods, cross-dating, etc. The Minnesota State University e-Museum Web Site also includes a good discussion of various dating techniques and has an interesting interactive seriation exercise that you can try. Both of these sites can be accessed through the Anth 3 Canvas site.



II. Study Questions

1) What is the difference between "relative" and "absolute" dating methods? What are some of the limitations of "relative" dating methods? Discuss specific archaeological case studies or examples in your answer.

2) Why do radiocarbon dates need to be calibrated? How is such calibration achieved? Discuss specific examples from the readings or lectures showing how calibrating the radiocarbon sequence from a particular region of the world has significantly changed our understanding of that region's past.

3) How has the advent of reliable chronometric dating worldwide changed the kinds of questions archaeologists ask and the kinds of stories they tell about the past? Use specific examples to support your answer.

4) What is meant by "space-time systematics" in archaeology? Why is defining and documenting space-time systematics a crucial first step in reconstructing and understanding culture change in the past?

III. Section Exercises: Stratigraphy and Seriation

Exercise 1: Diospolis Parva

At the close of the 19th Century, Sir Flinders Petrie conducted excavations at Diospolis Parva in Egypt. Over 500 tombs were fully excavated. The tombs were not constructed stratigraphically, and contained no artifacts with historical dates (they were constructed prior to the invention of writing in Egypt). Petrie was able to sort the tombs in time by following the principles of Stylistic Seriation. Your task is to replicate his seriation. Break into groups of 4 and seriate the 7 tomb groups provided based on what you know about *stylistic seriation*.

Exercise 2: Slugovia Regional Chronology

You are all graduate students in Anthropology at UC Santa Cruz. Your distinguished professor Dr. Gordon Binford is launching an archaeological project in Slugovia. Little is known archaeologically of this region despite a brief research project by Dr. Hans Bitterman in 1902. Little is recorded of Slugovia in historical sources, though it is known to have had sporadic contact with the famous civilization of Cimerria, which existed between 2,000 and 323 B.C.

Dr. Binford has asked you all to assist him in developing a regional chronology based upon Dr. Bitterman's excavations in preparation for this new project. Dr. Bitterman's research expedition of 1902 recovered archaeological materials from 4 sites in Slugovia (Sites I, II, III, and IV). Dr. Bitterman excavated these sites stratigraphically, and collected materials from each strata (layer) separately. Dr. Bitterman identified 6 ceramic traditions: Plain Red Ware, White Glaze Red Ware, Polychrome Glaze Ware, Brown Glaze Ware, Grey-Mottled Glaze Ware, and Refined White Ware. Unfortunately, however, insects have destroyed all tags associated with each collection, and only two pages of his field notes have stood the test of time.

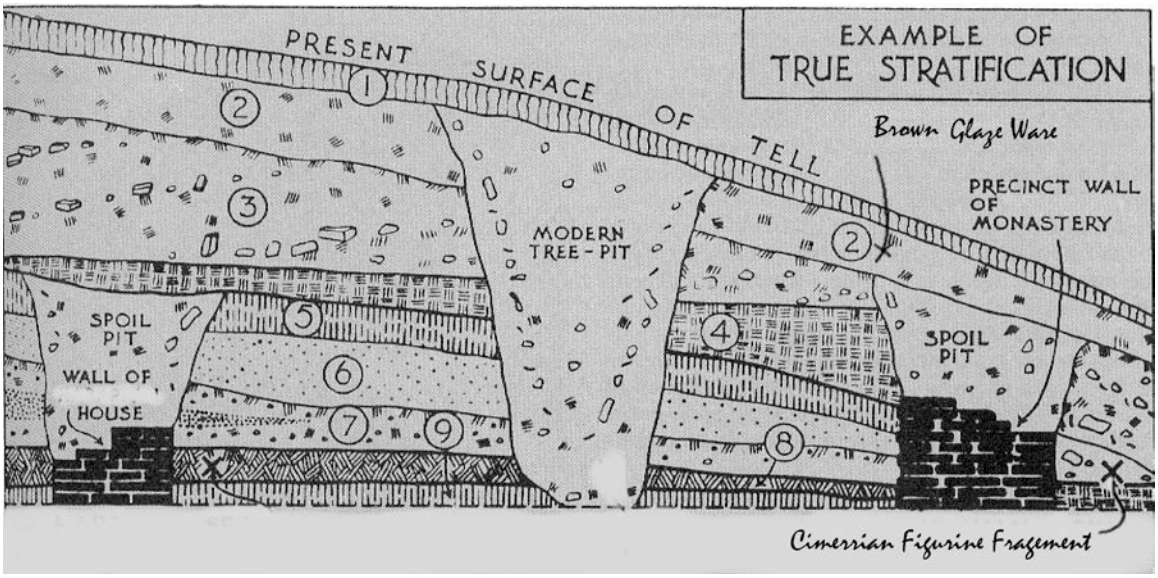
Part 1: Site Seriation

You know that each bag comes from a distinct layer, and working with Dr. Binford, you have been able to identify to which site each bag belongs. Remain in your groups of 4. Each group will be responsible for seriating a single site. Using the paper strips provided, tabulate the number of sherds of each type of pottery for each level. Using your knowledge of *frequency seriation*, to sort the levels of each site. the When you have correctly seriated your site levels, check your seriation with your TA. Add your seriation to the board, and record the results of the other groups for part 2.

Part 2: Building the Regional Chronology

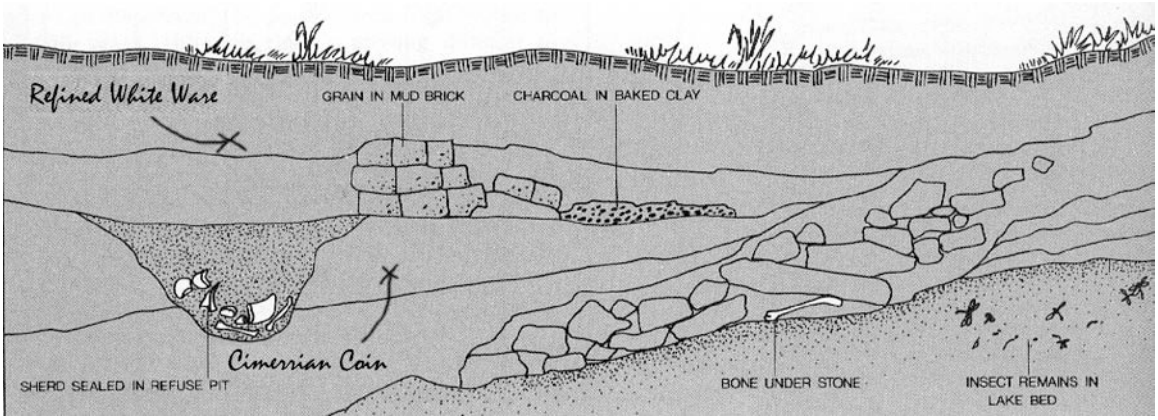
Now that you have successfully seriated each site, you will now connect the 4 sites together into a regional chronology. Using frequency seriation and the remaining notes from Dr. Bitterman's excavations, determine the order of the chronology you have identified, and the overall length of time represented.

Dr. Bitterman's Field Notes



Slugovia continues to produce new and unexpected surprises. Near the bottom of the excavations a curious figurine fragment was discovered. This fragment looks similar in style to examples of figurines devoted to the Cult of Chi'A (sketched from memory below), which thrived in Cimerria during the 12th Century B.C. I can only assume this was an import to Slugovia, reflecting clear cultural influence from that region.

- Dr. H. Bitterman, July 9th, 1902



The coin sketched below was discovered in one of the lower layers of the site. The catfish symbol depicted, was the royal insignia of one of the last kings of Cimmeria, King Hamodius who reigned from 320-347 B.C. I continue to be amazed at the clear evidence of contact between these two regions; though it remains to be demonstrated how extensively the more civilized Cimerrians influenced the simple Slugovians in the past. - Dr. H. Bitterman, October 18th, 1902

Name:_____

IV. Unit 3 Section Exercise Assignment

Exercise 1: Diospolis Parva

1) What is the correct relative sequence for **Diospolis Parva?**

_____ _____ _____ _____ _____ _____ _____

2) Which assemblage is the most recent and which is the oldest and why?

Exercise 2: Slugovia Part 1

3) Seriate the bags from your site in **Slugovia**?

Site #: ___

Bag/Lvl	*Plain Red Ware*	*White Glazed Red Ware*	*Poly-chrome Glazed Ware*	*Brown Glazed Ware*	*Grey Mottled Glazed Ware*	*Refined White Ware*	*Unique Finds*

What is the correct relative sequence for your site?

_____ _____ _____ _____ _____ _____ _____

Exercise 2: Slugovia Part 2

4) What is the correct relative sequence of all four sites?

_____ _____ _____ _____

5) Which ceramics are “traditions?” Traditions are enduring over time. Why?

6) Which ceramics are "horizons?" Horizons are brief in time but spread quickly over large areas. Why?

7) Which **ceramics** would make the best “temporal types” for future dating purposes and why?

8) Which site is **oldest**, and what is the **minimum** time span of your sequence?

Unit 4 – Environment, Subsistence & Populations

I. Overview

From the 1960s, Americanist archaeology has been strongly influenced by high-level theory in the fields of **cultural ecology** (developed in the 1930s and 1940s by anthropologist Julian Steward), **cultural evolution** (developed in the 1930s through 1950s by anthropologist Leslie White), and more recently, by **evolutionary ecology** (a field of biological theory). All of these take as a central focus an interest in how humans interact with their **environment,** especially in terms of subsistence. In most non-state societies, the main function of technology and production is obtaining food and other useful resources.

Food is the energy that fuels human societies, enabling social and biological reproduction. People interact with each other and with their environment in getting food and other useful resources in systemic ways that influence other aspects of society and culture. Older schools of anthropological theory, including **cultural materialism**, saw subsistence as strongly determining political and economic structure and as the dominant influence in social, political, and economic change over time. Archaeologists influenced by **behavioral ecology** theory argue that humans, as other animals, make decisions about how to make or get food that influence their social and reproductive lives, and that our evolutionary history testifies to major changes in the patterns and choices people make about food gathering or production.

Not all archaeologists follow these theoretical programs, but many have an interest, to one degree of another, in the role of human - environment interactions. An increasing number of archaeological cases testify to the fact that humans have been transforming landscapes, sometimes to their own ruin, for thousands of years. The emerging field of **historical ecology** often uses archaeological data to compare different levels of human impact on ecosystems and to explore the causes of those processes.

Because of these theoretical concerns, reconstructing past environments and human subsistence strategies has been a major area in archaeology. Various techniques of **paleoenvironmental reconstruction,** such as **tree-ring analysis** for environmental data (rather than for dating) and **pollen analysis** (**palynology)** are increasingly common in routine recovery and analysis of food remains found at sites. **Zooarchaeology**, dealing with animal remains, and **paleoethnobotany** (or archaeobotany), dealing with plant remains, have emerged as specialized subfields within the discipline. Biological remains provide unequalled insights into past environments and how people used them, and also how, through their extraction of resources, people sometimes altered and re-defined their

environments. Animal and plant remains provide important information about ancient habitats, human diet, and often how people organized themselves to gather, hunt, herd, and process plants and animals (e. g. hides and bones for tools) as well.

Human diets also can be re-constructed directly through the **chemical and isotopic analysis** of human skeletons. This technique is based on the principle that "you are what you eat." Since bone chemistry studies allow us to reconstruct the diet of specific individuals, we can assess differences in diet due to gender, age, and class. This type of information provides us with additional insights into issues such as division of labor, organization of production, and social inequality, as these relate to the collection, production, and distribution of food in society.

But archaeologists seeking to use biological remains have a concern with how **post- discard natural processes** may **differentially destroy** faunal and floral evidence. These processes can skew recovered samples away from the original proportions of various species or parts of organisms in their ancient systemic context. Animal bones are commonly preserved while plant remains are not, due to such differential destructive processes, leading to a bias in the evidence toward the animal products. Assessing such biasing factors is the work of **taphonomy**, a term first coined in paleontology. Taphonomic analysis asks: what effect does differential preservation have on species and elements present; to what extent is the condition of faunal or floral material the result of cultural vs. natural processes; does the context of this material, the archaeological site, result from human behavior or from other depositional and post-depositional processes, and what evidence of the action of modifying agents do we see on the materials themselves (e. g. burning, cut marks, carnivore tooth marks).

II. Study Questions

1) How do archaeologists use plant remains to reconstruct past environments and diets? Include examples from readings or lecture in your answer.

2) How can we tell the difference between human action and non-human action in the formation of archaeological faunal assemblages? Why are such distinctions important? Discuss specific examples from readings or lectures to support your answer.

3) Discuss several different kinds of evidence or methodological techniques that archaeologists use to reconstruct human diet (what people ate) from archaeological remains. Refer to specific examples from lectures and readings to support your answer.

4) What are some common misconceptions that are held about hunter-gatherers and the transition between hunter-gathering and farming?

5) How can bioarchaeologists reconstruct the diet of ancient populations? In particular, discuss how bone chemistry analysis works and why it is a useful technique for reconstructing the past diets of individuals and populations? Refer to specific examples from readings and lectures in your answer.

"It says, 'No animals were actually killed in the production of this cave painting.'"

III. Section Exercise: Reconstructing Human Diet

Exercise 1: Faunal Analysis and Taphonomy
In section you will see animal bones that have been modified under a variety of different circumstances by a combination of natural and cultural processes.

1) Examine each of the bones. You may wish to use one of the binocular loupes or stereoscopic microscopes to look for telltale markings or other surface alterations. These are the kinds of evidence zooarchaeologists use to understand human uses and taphonomy of bones.

2) Note the condition of each bone. Are there any distinct markings? How would you characterize them – that is, can you come up with a few descriptive terms that could define them as variables/values?

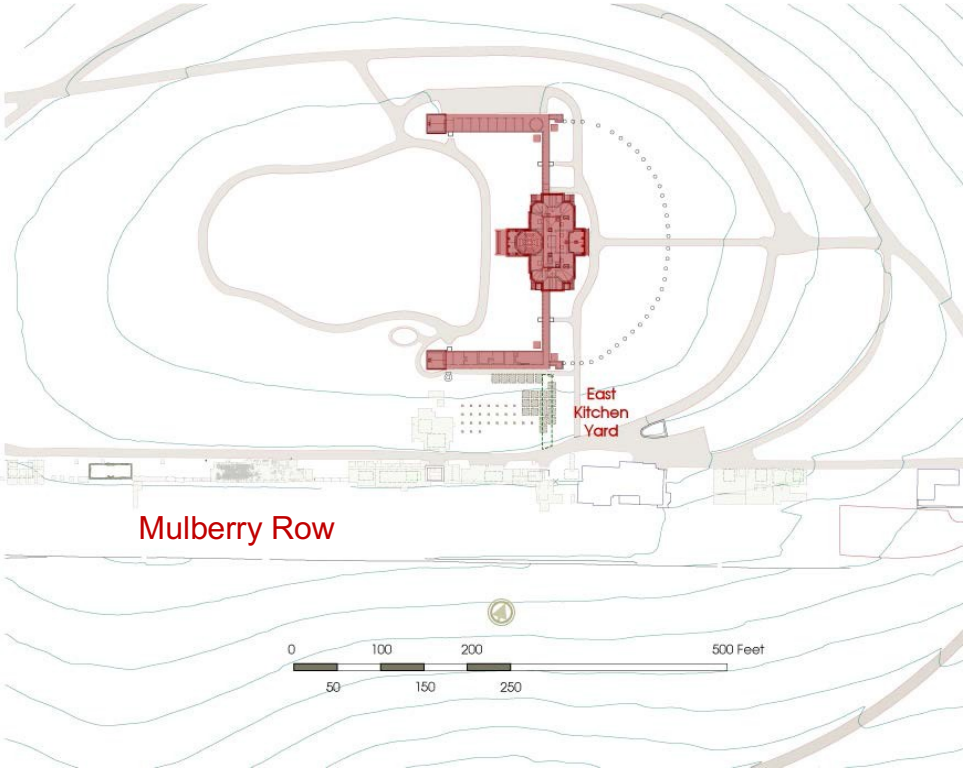
3) On a separate sheet of paper, draw each bone, using pencil, noting the presence of distinctive marks or other alterations on the bone.

4) Discussion: compare your observations with those of your classmates. Did they observe any things that you missed or vice-versa? The labels at each of the stations cue you in to what to look for and what caused the particular alterations visible on each bone. Would you have noticed the marks if you were not cued to look for them? Can you think of other natural processes or human and/or animal behaviors that might have left the similar marks or caused similar alterations in the bones? How can we as archaeologists distinguish between these different processes or behaviors? **Write out your answers and observations on a separate sheet of paper, to be included in your Workbook**.

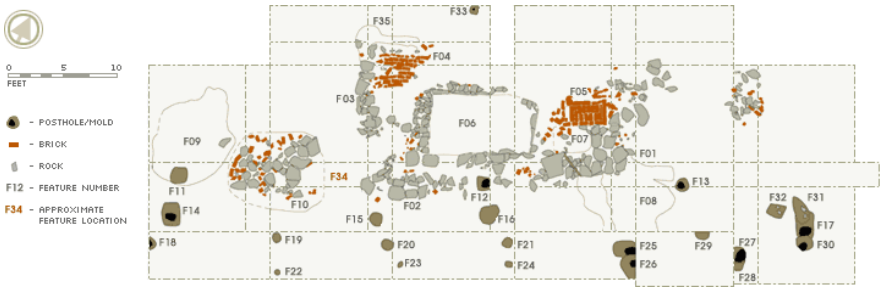
Nº	CONTEXT	ELEMENT	MODIFICATION
1.	Archaeological (CA)	Deer metatarsal	Shaping as a tool [awl]
2.	Experimental	U.S. cow femur	Heavy gnawing by dogs: furrows, grooves, chips, etc.
3.	Ethnoarchaeological (Kenya)	African cow innominate	Human-inflicted fracture, cuts w/ metal tools carnivore gnaw [hyena] at top
4.	Archaeological (China)	Wild horse maxilla	Fossilization Stone tool cuts [arrow]
5.	Archaeological (CA)	Pig femur	Cut and chop marks.

Exercise 2: Enslaved Foodways at Thomas Jefferson's Monticello

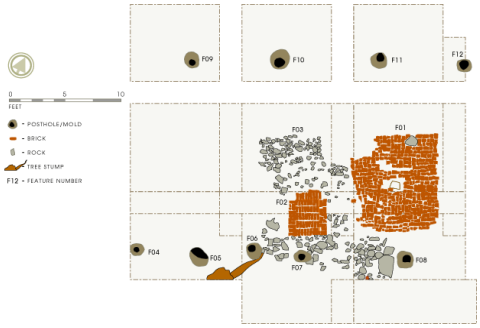
Monticello was the Virginia home of Thomas Jefferson, his family, and scores of enslaved African Americans and their families from about 1770 until Jefferson's death in 1826. Archaeological research at Monticello has concentrated on the areas immediately adjacent to Monticello mansion (the house Jefferson began building in 1770) and on Mulberry Row. Jefferson's enslaved, free, and indentured house servants and craftsmen lived and worked in the small stone, frame, and log buildings on this narrow strip between the southeast side of the Row and Jefferson's vegetable garden. During the ensuing fifty years, structures came and went on Mulberry Row to accommodate the changing needs of Jefferson's architectural projects, his household, and his manufacturing initiatives.



One need not look farther than the than the architectural scale and wealth of Jefferson's Mansion (top) to see social status writ across this historical landscape. However, scholars have recently looked to Mulberry Row to identify subtle status differences within the enslaved African-American community at Monticello. In this exercise, you will use ceramic and faunal data recovered from excavations at these two houses to explore status differences within the community of enslaved laborers at Jefferson's Monticello.



BUILDING O - In 1981-82, archaeologists under the direction of William Kelso, excavated the Building O site on Monticello's Mulberry Row. The extensive, 1392 square foot excavation exposed the remains of housing for enslaved workers dating to c. 1770-1800, which coincides with the first Monticello mansion.



BUILDING L - In 1957, Oriel Pi-Sunyer ran two test trenches there, locating several structures, including Building L, "a storehouse for nail rod & other iron." In 1981, William Kelso cleared an area of 828 square feet, exposing a 16′ X 10′ 6″ brick (F01) and cobble floor (F03) containing the base of a small forge (F02) and a posthole for an anvil support. The features and objects he recovered hint at diverse activities spanning the 1790s to Jefferson's death in 1826, including tinsmithing, nailrod storage, nail manufacture, and use as a domestic structure.

In this exercise, you will use species distribution and element quality to infer the overall quality of the meals eaten by residents of Buildings O and L. Table 1 presents the distribution of taxa from Building's O and L. Using this table, calculate the relative percentages of the MNI for each taxa and answer Questions 1-3 on your handout.

Element frequency can provide insights about the quality of meals. This is because while certain "high-quality" elements contain a lot of animal flesh (long bones…), other "low-quality" elements have very little meat but could be cooked in stews to add fat and flavor. Table 2 contains bone element data for the three most common identifiable taxa at Mulberry Row. Carefully examine Table 2 and answer Question 4 on your handout. Then, using the data in Table 2, calculate the frequency of "High Quality" vs "Low Quality" elements for each taxa at both Buildings O and L. For each taxa, calculate the ratio of High to Low Quality elements and answer Questions 5-7 on your handout.

	BUILDING O		BUILDING L	
Taxa	**NISP**	**MNI**	**NISP**	**MNI**
Pig, *Sus scrofa*	301	9	165	7
Cow, *Bos taurus*	91	3	94	3
Sheep, *Ovis aries*	58	5	8	1
Artiodactyl, size 2	182	0	128	0
Ungulate, size 3	55	0	51	0
Opossum, *Didelphis virginiana*	0	0	6	1
Squirrel, *Sciurus carolinensis*	11	3	3	1
Cat, *Felis domestica*	228	1	0	1
Small Carnivore	0	0	3	1
Small mammal	80	0	52	0
Mammal indet.	84	0	116	0
Bird	77	5	35	5
Turtle	1	1	0	0
Fish	5	1	0	0
Total	***117***	***28***	***661***	***20***

TABLE 1 – Faunal taxa from Mulberry Row

	BUILDING O			BUILDING L		
Element	**Pig**	**Cow**	**Sheep**	**Pig**	**Cow**	**Sheep**
Cranial Frags	22	11	4	40	20	0
Maxillae	8	0	0	3	0	0
Mandibles	14	9	5	22	3	0
Teeth	84	24	5	49	13	0
Vertebrae	16	11	6	2	20	0
Ribs/Sternum	0	0	0	0	0	0
Scapula/coracoid	0	3	2	1	1	1
Pelvis/sacrum	3	3	0	3	17	0
Humerus	11	2	0	2	0	0
Radius	2	0	4	0	3	2
Ulna	4	2	1	0	0	1
Femur	6	3	5	0	0	0
Tibia	6	1	15	0	6	2
Fibula	5	0	0	0	0	0
Long bone shaft frags	0	0	0	0	0	0
Podials (foot bones)	19	7	10	16	2	0
Metapodials (foot bones)	51	3	0	16	2	0
Phalanges (foot bones)	50	12	0	17	1	0
Total	***301***	***91***	***57***	***171***	***88***	***6***

TABLE 2 – Faunal elements by species

Name:_____

IV. Unit 4 Section Exercise Assignment

Exercise 1: Faunal Analysis and Taphonomy

Use these sheets to draw each of the bones, using pencil. Indicate any surface markings or alterations that you observe and to record your observations and discussion of each specimen. You may use additional pages as necessary

Exercise 2: Enslaved Foodways at Thomas Jefferson's Monticello

1) Using Table 1 as source data, calculate the percentage of each species present in each archaeological contexts represented.

	BUILDING O		BUILDING L	
Taxa	**MNI**	**%**	**MNI**	**%**
Pig, *Sus scrofa*	9	32	7	35
Cow, *Bos taurus*	3	11	3	15
Sheep, *Ovis aries*	5	18	1	5
Artiodactyl, size 2	0	0	0	0
Ungulate, size 3	0	0	0	0
Opossum, *Didelphis virginiana*	0	0	1	5
Squirrel, *Sciurus carolinensis*	3	11	1	5
Cat, *Felis domestica*	1	4	1	5
Small Carnivore	0	0	1	5
Small mammal	0	0	0	0
Mammal indet.	0	0	0	0
Bird	5	18	5	25
Turtle	1	4	0	0
Fish	1	4	0	0
Total	***28***	***100%***	***20***	***100%***

2) Which are the most common species at both sites? Are there any species that are more common at one or the other?

Pig, Sus scrofa seems to be common at both sites as it holds the highest count and percentage for both. There are two others that seem to be more common than Bird and Cow, Bos taurus with both of them holding a higher percentage and count.

3) Historical sources indicate Jefferson provisioned his slaves with beef, pork, and other domestic animals. What does the presence of wild species say about slave provisioning at Monticello?

The presence of wild species says that he didn't have a complete disregard for his slave provisions. Whether or not the cuts of meat were good or not are debatable but I imagine he could have provided a lot worse provisions such as making it something like entirely opossums.

4) Which of the elements listed on Table 2 would be considered “High Quality”? “Low Quality”? **Double check your answer with your TA before continuing**.

The meats that we considered high quality were Humerus, Radius, Ulna, Femur, Tibia, Fibula, andLong Bone Shaft Fragments. While the meats that we considered low quality were Cranial Fragments, Maxilae, Mandibles, Teeth, Vertebrae, and the Ribs/Sternum.

5) Using Table 2 as source data, calculate the NISP and % of High and Low quality elements in each archaeological context represented. Then, calculate the ration of High to Low elements in each context.

	Building O		***Building L***	
	NISP	**%**	**NISP**	**%**
High Quality	67	15	16	6
Low Quality	382	85	249	94
Total	449	100	265	100
Ratio High:Low	1:6		1:16	

6) Which household was consuming a diet consisting of higher quality elements? What might the meals of each household have looked like?

From the data we can see that Building O was getting a much higher ratio and overall total of high quality meat percentage wise. Building L had less than half of the percentage of high quality meats compared to Building L. I think Building L would likely have stews, ground meat, and soups with their meat whereas Building O would have steaks and pork chops.

7) Does this evidence confirm, reject, or complicate the story of slave provisioning gleaned from historical records? How?

I wouldn't say that it complicates or rejects the story of slave provisioning as they amount of high quality meat they were getting was still very high and the amount of what we would consider inhumane food was also high. Referencing the table I don' think many people would go out of their way to eat meals consisting of things such as squirrels or cats for their normal diet. But since there was meat in general I'm sure it definitely can change the perspective for some people as they thought they were scavengers (I'm sure were) but nonetheless was still very poor overall.

Unit 5 - Production & Exchange

I. Overview

A society's **economy** encompasses the ways in which people produce, distribute, and consume things that are biologically necessary or culturally valuable. Given the material nature of archaeological research, it is hardly surprising that archaeologists have devoted considerable energy to reconstructing the economic base of most societies. Archaeologists study economic **production**, either directly, by looking at the actual resources, tools and features used in manufacturing, or indirectly, by examining the form, quality, standardization, distribution, or frequency of finished artifacts.

However, economic analysis involves more than simply assessing the availability and distribution of resources and the technology necessary to process those resources into useful products. **How people organize themselves** to obtain and produce the things they need and value can significantly influence social interactions within a society or social group. No human is completely self-sufficient. People need to enter into various social relationships in order to get the things they need for survival and value in their lives. This process is known as **exchange**. Exchange is a social act that creates mutual ties of obligation and interdependency between individuals and groups. These ties, because they are social, are open to manipulation and exploitation. Therefore, by looking at what is being exchanged, by whom, with whom and in what context, archaeologists can gain valuable insights into the nature of social identities, statuses, and relationships in the past.

A fundamental economic issue that archaeologists can study is how certain human societies organize themselves to get the things they want or need, and why. In particular, archaeologists have asked a question that only they have enough time- depth to address: why is it that archaeological evidence testifies to a trend, both within and among societies, away from general self-sufficiency and toward increasing **economic specialization** and interdependency?

In recent years, archaeologists have adopted various **material science techniques** for tracing the movement of items that have distinctive, traceable qualities (e.g., obsidian, turquoise, lead) across the physical and social landscape, thus making studies of prehistoric production and exchange increasingly sophisticated and informative. The following section offers a sketch of contrasts between foraging (hunting-gathering) peoples and food producers (farmers, herders) that affects their economic relationships.

Although often considered by political theorists and citizens of modern states as uncomplicated "natural persons" close to the natural world, mobile **foragers** ("hunter-gatherers") in fact have **systems of production and economics are** as complex in their own ways as those of farmers or other food-producers. Adult

foragers gather and hunt in **surplus** of their own biological energy needs. This surplus is allocated to members of their social group who do not forage for their own food, especially young children and older people. The surplus is differentially allocated according to dependents' age, gender and relatedness to the producer, as well as other social factors. Hunter-gatherers may also produce manufactured items (ornaments, clothing, tools) in excess of their own needs, with the specific aim of **circulating them through social networks** in exchange for goods, services or a generalized sense of obligation to mutual aid. Thus, production, allocation and surpluses do characterize highly mobile foragers, as well as sedentary foragers and food producers.

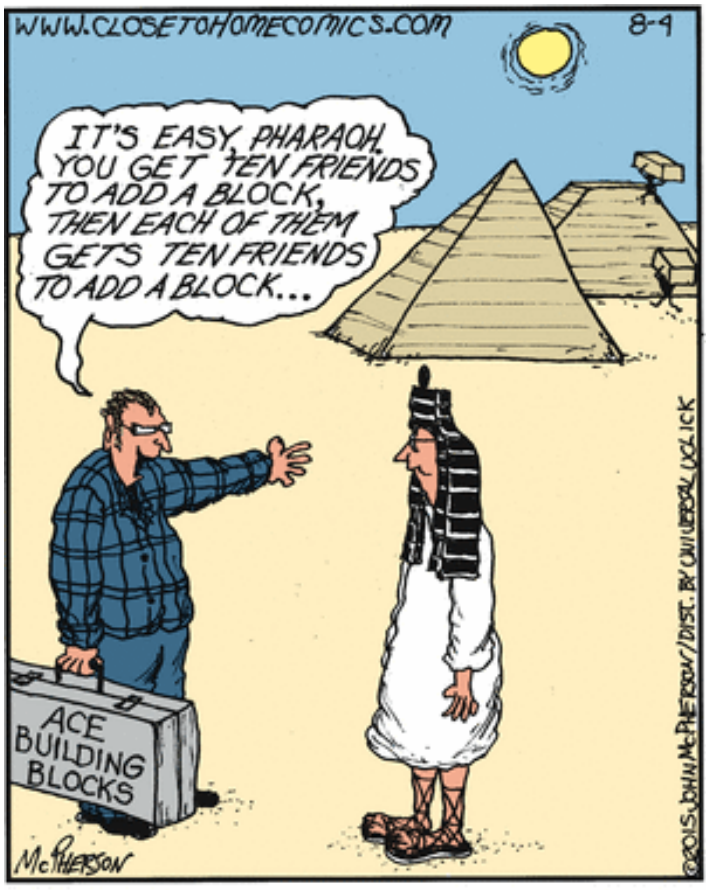
One contrast, however, between foragers and settled agricultural folk, is that mobile foragers move around the landscape, encountering most of the raw materials needed for subsistence, tools, etc. as part of their seasonal rounds of migration. These raw materials are commonly accessible to all, although some gear is individually owned, and certain persons or groups may be seen as more entitled to control certain resources than others.

By contrast, food-producing people tied to a single locale by their need to cultivate domestic crops or to protect their domestic animals, or by their dependence on huge volumes of stored food, seldom have all the raw materials or nutrients necessary to their way of life immediately at hand. Stone or metal ores for cutting tools, clay for pots, building materials, salt, and other needed items may lie at considerable distances from home settlements. In some cases, a day's journey by local people may suffice to fulfill such needs. Archaeologically and ethnographically, so-called "**special purpose sites**," mainly non-residential but linked to residential settlements in the same region, reflect a place to which people journeyed to obtain special resources. You will see examples of such sites in *Artisans and Traders*.

However, some materials or products are beyond easy reach, and in such cases, we see new occupations emerge to meet the need to bring product and consumer together. Soon after the development of farming, we also see evidence of **specialized residential sites for mining or harvesting raw materials**, often located in zones with poor agricultural potential, indicating that some households began to form communities specializing in production of materials or artifacts above the local consumption needs—and hence for longer-distance exchange. The massive urban site of Teotihuacán in the Valley of Mexico may well have begun partly as a regional producer/distributor of sharp obsidian blades from a nearby deposit of this volcanic glass. **Characterization (materials-identification) studies** of obsidian in the eastern Mediterranean region show exchange relations spanning from the Red Sea to the mountains of Turkey and Iran as early as 9000 BC. **Specialized traders and merchants** may emerge from some communities, either part-time or full-time, to meet the need to move items from point to point. Moreover, in sedentary communities, **social processes of rank differentiation** are more likely to occur, leading to greater and greater demands for exotic materials to distinguish powerful

members of the society. Thus, trade “heats up” in sedentary communities both to satisfy simple material needs and to meet, new, socially driven demands in such societies.

Archaeologists trace these exchange relations by **regional-level** integration of data from individual sites, plotting the regional level occurrences of **items traceable to source** (such as seashells, pots, lead, obsidian, and certain other rocks) across the landscape from their sources, and through **intra-site analyses of production centers**. Archaeologists studying production ask whether specialization is occurring, and whether it seems to be **household level** or **community specialization**. The video *Artisans and Traders* provides some very compelling examples for defining both from contemporary and archaeological cases.



The first pyramid scheme.

II. Study Questions

1) Why are archaeologists interested in reconstructing prehistoric trade/exchange networks? How do archaeologists determine the extent of prehistoric trade/exchange? Use specific examples from lectures, readings and videos to support your answer.

2) Discuss some general differences between small-scale and large-scale societies in terms of how people organize themselves to get and make the things they need and value. Use specific examples from lectures, readings and videos to support your answer.

3) According the video *Artisans and Traders*, how were some rural households were integrated with the larger economy of the Copan Valley. How did this differ from other examples presented in lecture and readings?

4) The cultural anthropologist, Evans-Pritchard (1940), once referred to exchange as "chains along which social relationships run." What did he mean by this observation? Refer to two concrete archaeological examples discussed in lectures, readings, or videos to support your argument.

5) What evidence exists for contact and trade between the American Southwest and Mesoamerica? What sorts of analytic techniques have been used to recover this evidence? Discuss different interpretations of the nature, intensity, and meaning of this interaction. (You can refer back to earlier readings to enrich your answer.)

6) What kinds of material evidence do archaeologists use to study production and trade relations in ancient societies? Outline the analytic approaches they use. How is long-distance trade in rare items studied archaeologically? Using information from lectures, readings, and *Artisans and Traders*, discuss specific examples of archaeological studies of production and exchange.

7) Choose one of the chemical characterization techniques listed below. Search the Web for information on that technique and how it used in archaeology to study production and exchange.
    a. Ceramic Petrography (a.k.a. optical mineralogy)
    b. X-Ray Florescence Analysis (XRF)
    c. X-Ray or Electron Microprobe Analysis
    d. Inductively-Coupled Mass Spectroscopy
    e. Instrumental Neutron Activation Analysis (INAA)

III. Section Activity: Production and Exchange

Exercise 1: Eastern Mediterranean Pottery Production

The Ancient Mediterranean world was characterized by a high degree of economic specialization and long-distance trade. During the Classical (5th - 4th centuries BC), Hellenistic (4th - 1st centuries BC) and Roman (1st century BC – 4th Century AD) periods, expansive trading networks opened across the Mediterranean Sea and its hinterlands (Europe, the Middle East, and North Africa), creating new opportunities for specialization and trade. Towns and communities in the eastern Mediterranean, in particular, were engulfed by this rapidly expanding economic system during all three periods, and archaeological sites in Israel contain a variety of objects and artifacts which speak to these economic inter-connections. Of these, pottery recovered in a range of domestic contexts is useful for studying the nature of production, trade, and long-distance economic interaction.

In this exercise you will examine examples of ancient pottery from the site of Tel Dor in Israel, much of which was acquired through trade. Tel Dor was an important coastal city from the Bronze Age through the Crusader Period, and has been the site of long-term excavation since the 1980s. The samples of pottery provided were recovered in contexts dating to between the 4th century BC and 2nd century AD (Hellenistic – Roman Periods) and include 3 main types: domestic cooking vessels, utilitarian amphorae, and luxury serving vessels, each with a number of important variations. You will examine examples of each type to make inferences about the nature of production and their overall utilitarian and symbolic values.

Tel Dor, Israel. *Left*: Aerial image of the site. *Right*: Plan of excavated areas.

1. Domestic Cooking Vessels – The domestic assemblages from Tel Dor are often dominated by examples of a variety of cooking vessels. These vessels are often produced in simple globular forms with thick ring handles. Cooking pots are generally thin-walled vessels, made with coarse pastes with large inclusions, are universally undecorated, and often show signs of cooking such as carbonization. These were designed with functionality, rather than beauty, in mind, resulting in forms that changed little over the millennia.

Roman cooking pots from the Eastern Mediterranean.

2. Utilitarian Amphorae - Storage vessels in the Hellenistic and Roman periods come in a range of forms. Generally speaking, they are characterized by two-handles on either side of the pot with a neck that is considerably narrower than the body. They were used for the storage of liquids and solids such as grain. Some amphorae were highly decorated and were used in elite feasting contexts. More generally, however, amphorae were undecorated coarse wares. Sherds from two types amphorae are provided in your study samples: domestic storage vessels and transport containers.

- The **domestic storage vessels** are characterized by a globular form with a flattened base and two heavy ring handles on the shoulder. The bodies are un-slipped and largely undecorated, save numerous horizontal ridges which are thought to serve functional purposes.

- The **transport containers** are characterized by an elongated form with a pointed, tapered, and often knobbed base, and long elongated handles. These are also undecorated and generally had smooth surfaces. This type served as the standard transport container for long-distance trade across the Mediterranean.

Roman amphorae: Left: Storage Container. Right: Shipping Container

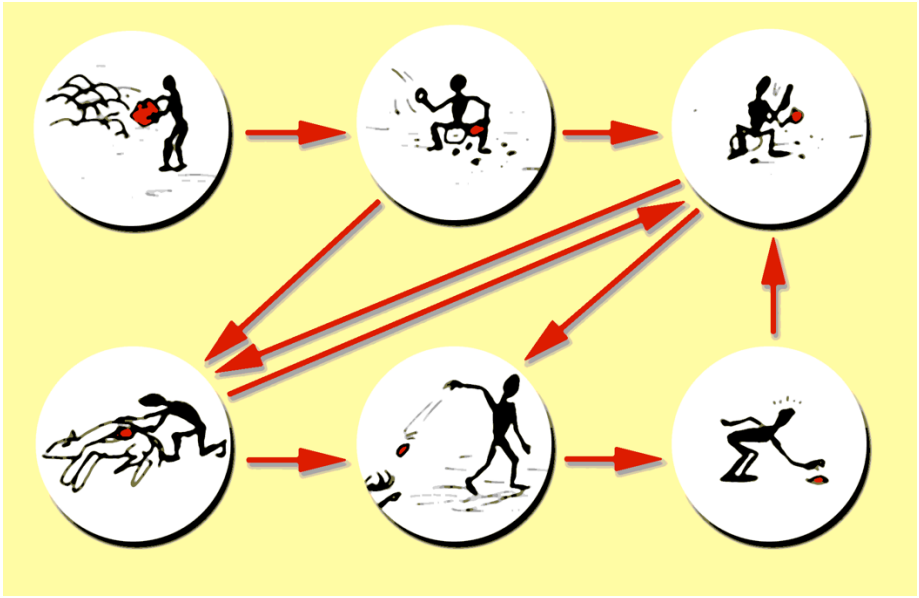
3. Luxury Serving Vessels - Luxury serving vessels in the Ancient Mediterranean world also come in a wide range of forms and decorations. Generally fine wares that were painted with clay slip and heavily polished. They often bear depictions of people, animals, and scenes, as well a variety of surface modifications (moldings, etchings, or stamps of various kinds). Such vessels took great skill to produce, and were considered a luxury ware and an indication of the owner's wealth. Two examples of luxury serving wares are included in your samples: Attic black ware, and Terra sigillata (Samian ware).

- *Attic Black Ware (Black "Glazed" Wares)* – Produced during the Classical and Hellenistic Periods. Fine, black-slipped pottery, often decorated with white, red, or gold paint. The black slip color is produced by firing the pot in an oxygen poor environment (reduction). ABW was produced in a range of forms, including jars, drinking vessels, bowls and plates. In the Classical period, it was produced in central Greece as a luxury ware for export, yet secondary centers eventually emerged across the Mediterranean in the Hellenistic period.

- *Terra* sigillata *(Samian Ware)* – Produced from around 40 AD to 223 AD in the Roman Empire. Fine, red-slipped pottery, often decorated. The slip color is produced by firing the pot in an oxygen rich environment (oxidation). TS was derived from earlier Greek black and red wares, and was produced in a range of similar forms (often using molds). Initially produced in Italy, later production centers sprang up across Gaul (France) and Northern Africa.

Classical luxury wares - *Left*: Attic black ware *Right*: Terra sigillata

Archaeologists use specific approaches to distinguish commodities with high use value (utilitarian objects), from those with high symbolic value (luxury goods) These approaches can include assessments of the overall rarity of a commodity, often using statistical associations between artifacts and features and other artifacts. A particularly useful method for assessing the relative utilitarian vs symbolic value of a class of artifacts, however, is the determination of the number and complexity of production steps involved in their manufacture. This approach, often called *chaîne opératoire* (production sequence), serves as methodological tool used by archaeologists to analyze the technical processes and social acts involved in the step-by-step production, use, and eventual disposal of artifacts. Higher numbers and greater overall complexity of the step involved in the production process suggests higher overall labor investment and artisanal skill, and thus a higher social/symbolic value for the commodity produced.



Chaîne opératoire for stone tool (lithics) production, use, and discard.

The *chaîne opératoire* for pottery production is characterized by a number of technical choices made by potters, requiring varying degrees of specialized knowledge and social coordination, to create a final product. Evidence of these various production steps are often visible on finished vessels.

1) *Clay selection and extraction* – involves knowledge of local clay resources and their suitability for specific vessel types, as well as their physical extraction.

2) *Paste preparation* – involves drying, pounding, sorting, hydrating, and adding temper to produce a paste suitable for modelling, drying, and firing.

3) *Vessel Modelling* – involves the use of different techniques to shape the paste into a vessel form suitable for the intended purpose. These techniques can include primary forming procedures (pinching, molding, coiling, slab construction, or wheel throwing), and secondary finishing techniques (scraping, paddle thinning, burnishing or polishing).

4) *Vessel Drying* – involves slowly air drying the pot to remove excess moisture.

5) *Surface Treatment* – involves adding decoration to the vessel. This includes pigment, applying clay slip, glazing, other plastic modifications, or even the removal clay for a desired aesthetic effect.

6) *Vessel Firing* – involves heating the vessel to transform the soft clay paste into a hardened ceramic. Firing can happen in open (bonfire) or closed (kiln) features. The building and maintenance of kilns adds to the “cost” of pottery production.

In this activity, you will assess various stages in the *chaîne opératoire* for the production of the three types of pottery present in your samples: domestic cooking vessels, utilitarian amphorae, and luxury serving vessels. First, sort your sample into the 3 types, and 5 subtypes described above. For each vessel type, closely examine evidence for Steps 2, 3, 5, and 6 from at least 3 examples, and describe what you observe in the table for Question 1. When you are finished, answer Questions 2-6.

Name:_____

IV. Unit 5 Section Exercise Assignment

Exercise 1: Eastern Mediterranean Pottery Production

1) Examine at least 3 examples of each type of pottery provided, and describe what you see for each production step listed.

Production Step	Cooking Pots	Utilitarian Amphorae	Luxury Wares
Step 2: *Paste Preparation*			
Step 3: *Modeling*			
Step 4: *Surface Treatment*			
Step 6: *Firing*			

2) Compare the differences between the pastes of each vessel type. Do you see any differences between the cooking pots and the other vessels? What function might these differences serve?

3) Examine the overall thickness and regularity of each vessel wall? Do you imagine that some vessel types might require greater technical skill to produce? Which ones?

4) Based on your observations, can you list, in chronological order, the visible surface treatment steps for:

- Cooking Vessels: _____
- Utilitarian Amphorae: _____
- Luxury wares: _____

5) Do you see evidence for different firing practices for:

- Cooking Vessels: _____
- Utilitarian Amphorae: _____
- Luxury wares: _____

What does this evidence say about the knowledge or skill of the potters who manufactured each type?

6) Based on your observations, which vessels required an overall greater set of specialized skills/knowledge, and/or more production steps to produce? What does that say about their overall economic/symbolic value?

Unit 6 - Social Relations & Identities

I. Overview

Households and Communities
Archaeologists, as anthropologists and historians, have an interest in studying humans as members of social groups. These social groups can be either residential or non-residential in character. Residential groups function within clear spatial contexts that are often recognizable in the archaeological record. The most common residential groups studied by archaeologists are households and communities.

Until quite recently, most people in the world spent their lives near the communities of their birth. Among most societies, the strongest and most enduring social bonds are those of kinship and family. There is no such thing, however, as a "natural" or "ideal" human family. Families are biological and social units that in fact come in a variety of forms and sizes. Our culture envisions the family as the nuclear, one-male, one-female unit with their biological children, but other cultures have "natural families" of multiple fathers and/or mothers, children who may be no one's biological kin, and others related in ways that people of European descent find puzzling and alien. Even within our own society, other combinations of ages and genders that call themselves "families" challenge the concept of the ideal nuclear family. A less semantically loaded word for people who live together, share resources, and often bring up children together is "domestic group."

Domestic groups are the fundamental corporate unit of production and reproduction in any society. In non-state level societies, domestic groups are often the core units of food production and of manufacture of items for trade. Whole families work together or allocate tasks among different members to make their livings. The spatial dimension of the domestic group is the household. Households are the spatial loci of collective domestic activities. Households can be as simple as a cleared space around an open-air hearth or as elaborate as the Hearst Mansion in San Simeon. For archaeologists, the key advantage of households is that they can often be detected and studied archaeologically. This is equally true for short-term hunter-gatherer camps as for large-scale, permanent dwellings.

Households are thus the basic social and economic building blocks of communities. Communities are the spatial manifestation of corporate residential groups who stay in regular, sustained, face-to-face contact with one another. Communities may be permanent or temporary; compact or dispersed; highly planned and structured in their use of space and architecture or rather simple and ad hoc in their arrangements. Communities can even be mobile, as they are among nomadic pastoralist people or some Roma groups in Central and Eastern Europe,

who carry their houses from place to place but often spatially re-enact their corporate social relations by how they set up their camps.

The form and structure of households and communities is influenced by a variety of different social and economic factors, such as the availability and distribution of subsistence resources; the size and structure of family units; the division of labor and organization of production at the household and supra-household levels; and even the spatial requirements of supra-household institutions and groups (for example, the need for public space for ritual or civic events).

The video ***The Hearth*** from the *Out of the Past* series shows the great variety of household configurations and communities in both the present-day world and in archaeological cases, from the small farming village of **Cerén** to the huge cities of **Teotihuacán** and **Roman Pompeii**. It also demonstrates how archaeologists use **spatial context, features, burials, food remains**, and various **products of household labor** to explore household and community relations.

Gender and the politics of representation
Despite its much earlier appearance in other social sciences and humanities, only in the last decade has a serious consideration of gender become common in archaeology. This ranges from general issues in gender theory to the question of how to study gender with the types of evidence archaeologists encounter to the contemporary sociopolitics of gender within archaeology as a discipline. One lecture in this Unit will provide an overview of gender in archaeology, and present a brief case study on how gender ideology and other cultural perspectives have structured our understanding of human societies in the past. One point should be stressed: although feminist archaeologists have stressed women's roles, once one admits that such a dimension of human life can be explored, any and all gender configurations can be studied. Another point to note is how archaeologists use archaeological and physical anthropological evidence to learn more about past gender relations – in other words, how to build and use middle-level theory.

In addition, feminist archaeologists (along with other critical theorists, including post- processual and Marxist archaeologists) have argued that we must be more conscious of how our own identity and social position in the here-and-now effects how we perceive the archaeological record of the then-and-there. They emphasize that there is no one neutral, objective and true past. Rather, the past-as-constituted is highly politicized; a forum for legitimizing and contesting social and political realities in the present. Joan Gero's article, written on the occasion of the fiftieth anniversary of the Society for American Archaeology, demonstrates how stereotypes about the role and status of women, both within American society as well as within our own profession, have impacted the kinds of questions asked by archaeologists about the human past as well as the kinds of research that has and has not been supported by major funding agencies, such as the

National Science Foundation. By exposing these biases and their implications for the interpretation of the past, she hoped to radically change how archaeology was done and by whom— creating a greater space for the study of women in the past and for women's voices in the present.

Feminist, post-processual and Marxist critics of archaeology as it has been practiced over the last 100 years, stress the possibility that multiple voices, both within and outside the profession, can tell multiple stories from the same evidence. But most of these researchers would also argue that this approach is merely an expansion of normal scientific practice, which always involves evaluating alternative scenarios for why and how the world is the way it is. They emphasize that we must self- consciously and critically analyze how our own life experiences influence the construction of these various scenarios. However, not even the most radical post- modern archaeologists allege that "anything goes," interpretively. This puts archaeologists in the difficult position of asking on what intellectual basis -- if one discards "academic authority" as an *a priori* reason for accepting someone's argument -- does one accept one or another archaeological inference about the past. They continue, as they have for over a century, to propose new methods for assessing the likelihood that any given narrative could or could not be true. This brings us right back to evaluating field and lab analytic methods and to the low-level and middle-level theory that archaeologists use in building their narratives, as well as to saying, "If your narrative were true, the following kinds of evidence would be present" (or, "if such and such evidence were found, your narrative would clearly be false"). In other words, even with the acceptance of multiple voices narrating the past and the increasing interpretive ambiguity this pluralistic perspective necessarily entails, it still looks like we are doing science.

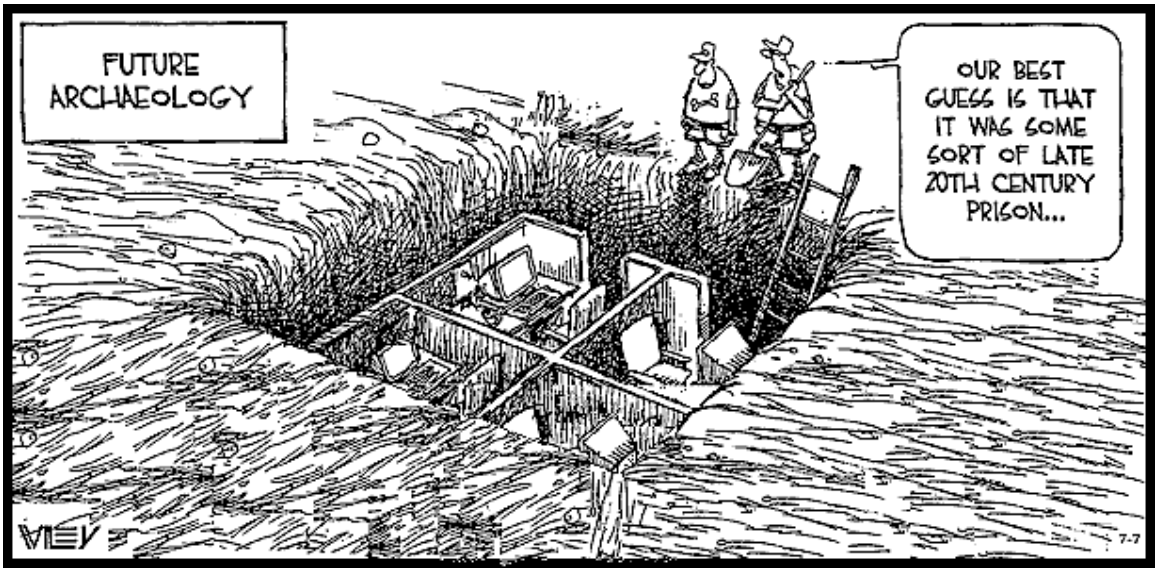
II. Study Questions

1) How do our popular notions of families and the anthropological definition of domestic groups differ? How does the term "household" add spatial and material correlates useful to archaeologists? Use specific examples from lectures, readings and the video to highlight your answer.

2) Referring to lectures, readings, and the video *The Hearth*, compare how the ancient Romans of Pompeii and the modern and/or ancient Maya defined the notion of "family" and households. Discuss the material and spatial implications of these differences.

3) What kinds of *material evidence* (e.g., microdebris, architectural analysis, etc.) and *methods* do archaeologists use to study social organization, at the household level and at the community level? Cite specific archaeological examples from lectures, readings and the video *The Hearth*.

4) Renfrew and Bahn, and lectures present different views on gender and archaeology. Define the term *gender*, discuss what is meant by *gender ideology* (an example may help). In what ways is gender of concern in archaeological practice? That is, what aspects of being an archaeologist, interpreting archaeological evidence, and applying methods are affected by the influence of gendered perspectives? Use examples from readings, lectures, and videos to illustrate your points.



III. Section Activity: Households and Communities

How people organize and manage space within households and communities is directly related to the number and kinds of social groups who inhabit that space, the relationship of those social groups to one another, and the type and variety of activities people engage in, both as individuals and as groups. In the following exercises you will experiment with a number of ways that archaeologists interpret past social relationships at the household and community level. For the following three exercises, split into smaller groups of 3-5 and work on each collaboratively**.**

Exercise 1: Household Auto-ethnoarchaeology
Draw two rough sketch maps: 1) a plan of your own household space (i.e., dorm room, apartment, house, etc.) and 2) a plan of the neighborhood around your household space. If you live in a dorm on campus, sketch a plan of your college; if you live off campus draw a plan of the houses, businesses, and open spaces in a one-block area around your house or apartment. The goal is to outline a rough working schema or plan of the different structural spaces in your household and community and their physical relationship to one another. Identify the different categories of space represented in each map, based on what individuals or social groups regularly utilize that space and what types of activities usually take place there. Add that information to your map using color-coding, symbols, shading, etc. Be sure to include a key. Compare and contrast your household and neighborhood sketch maps with members of your group. **Answer Question 1** on the handout provided.

Exercise 2: Community Growth at Arroyo Hondo
As you learned in lecture, Arroyo Hondo Pueblo is an important archaeological site located in New Mexico which dates to the 14th century AD. Archaeological work at the site has recovered a complex history of community growth over the course of the 14th century, one suggesting rapid nucleation around plazas containing ritual courts called Kivas, and possibly organized in reference to kinship. In this exercise you will chart the growth and development of Arroyo Hondo quantitatively using rooms as a measure of the rise in "households" at the site.

First examine the four maps provided from Arroyo Hondo, each representing a stage in the development of the site. For each stage, **NEW** household units are shaded, still occupied units from previous stages are presented in white. On the chart provided on the handout (**Question 6**), count 1) the number of **new** room blocks per stage, 2) the **total** number of room blocks per stage, and 3) the **total** number of plazas per stages. Next calculate the number of room blocks for each plaza per stage. **Answer Questions 7 & 8** on the handout provided.

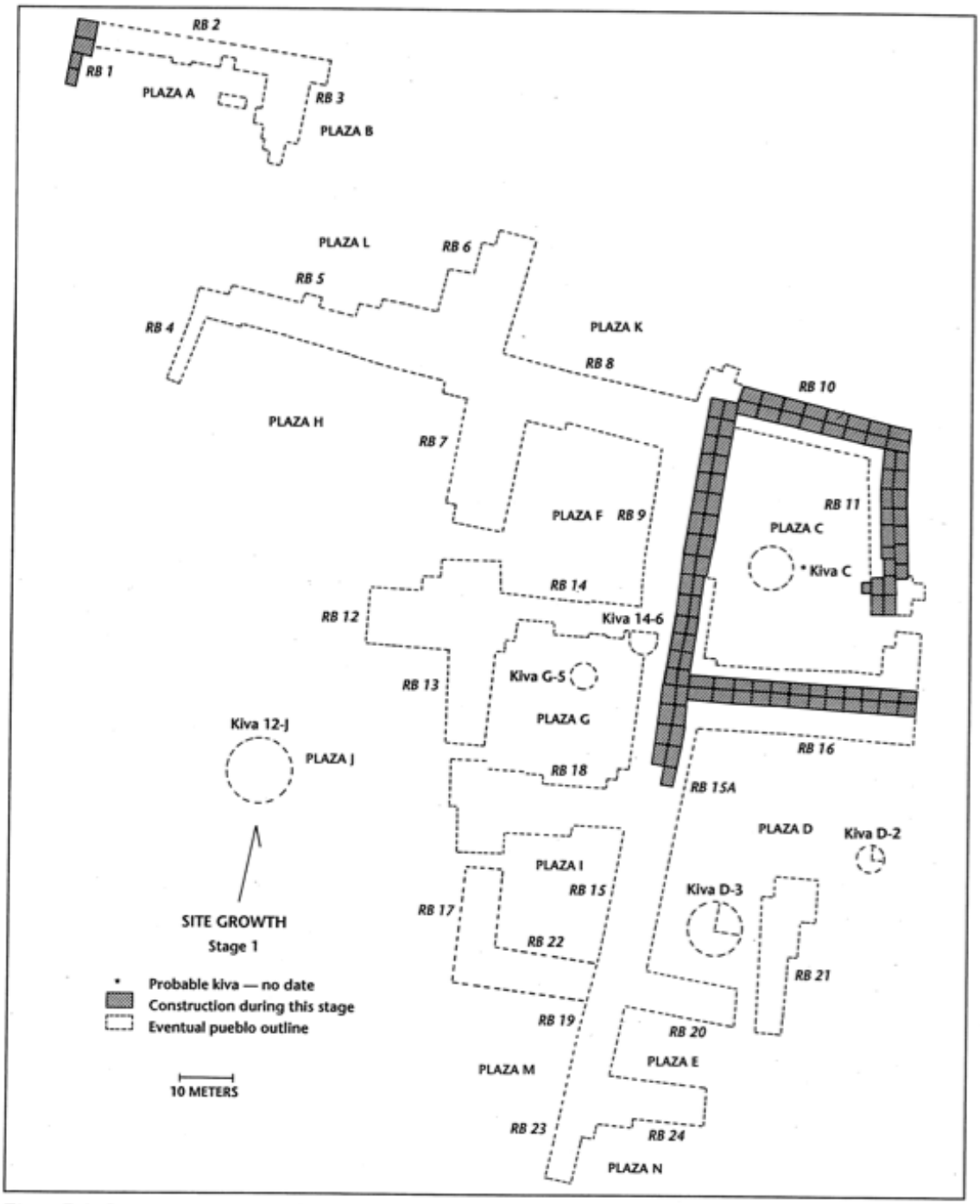


Figure 7.4. Component I site growth, stage 1.

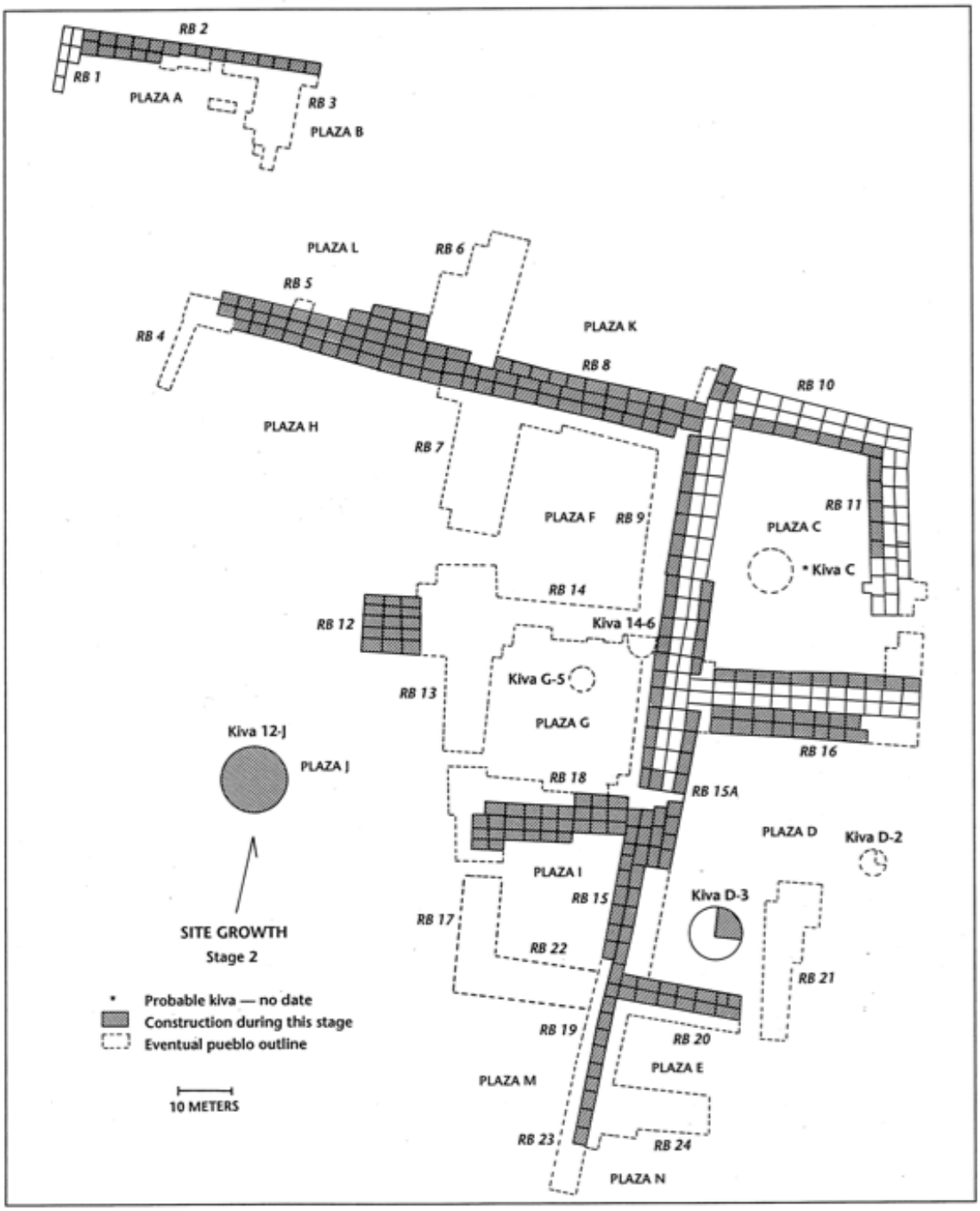


Figure 7.5. Component I site growth, stage 2.

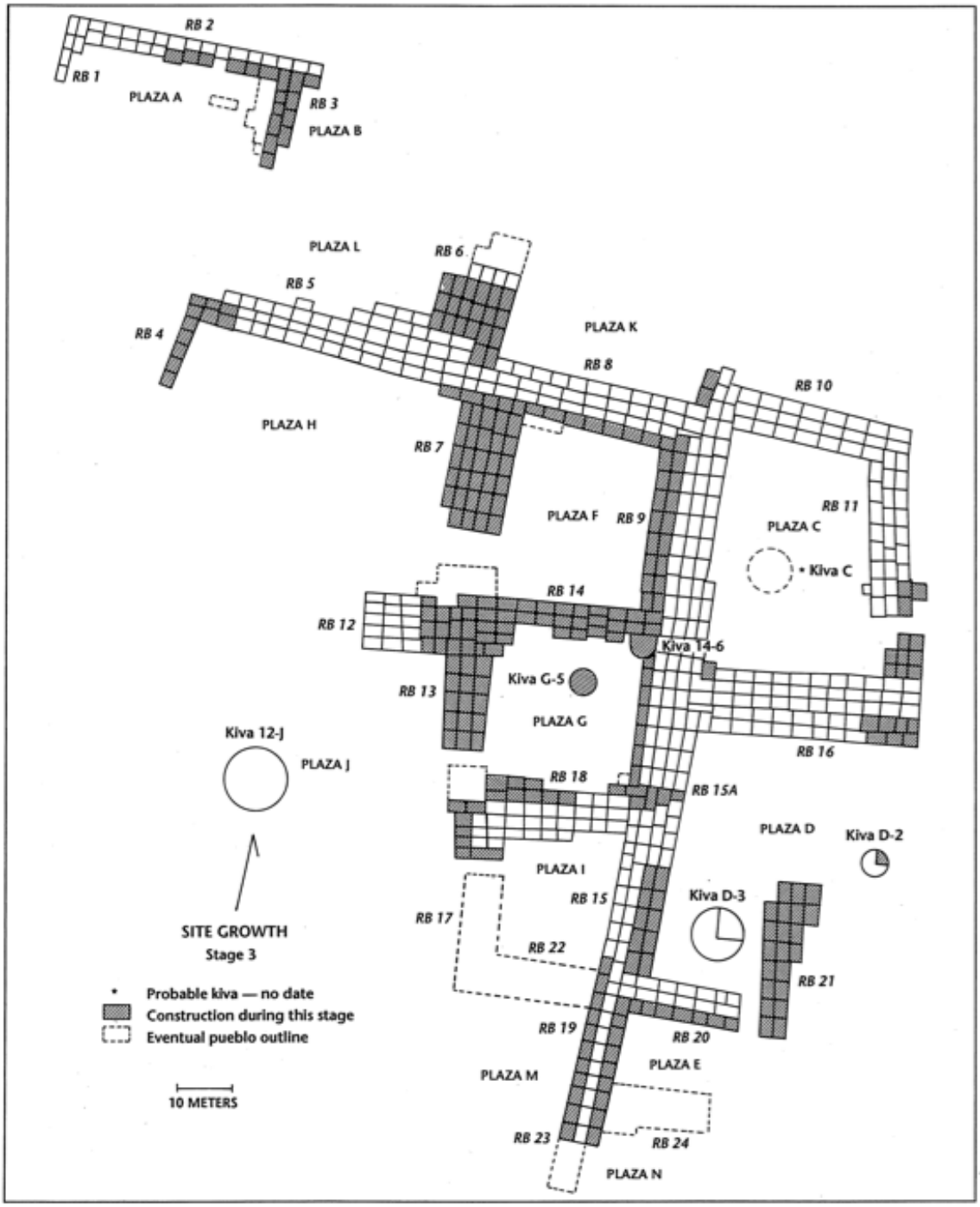


Figure 7.6. Component I site growth, stage 3.

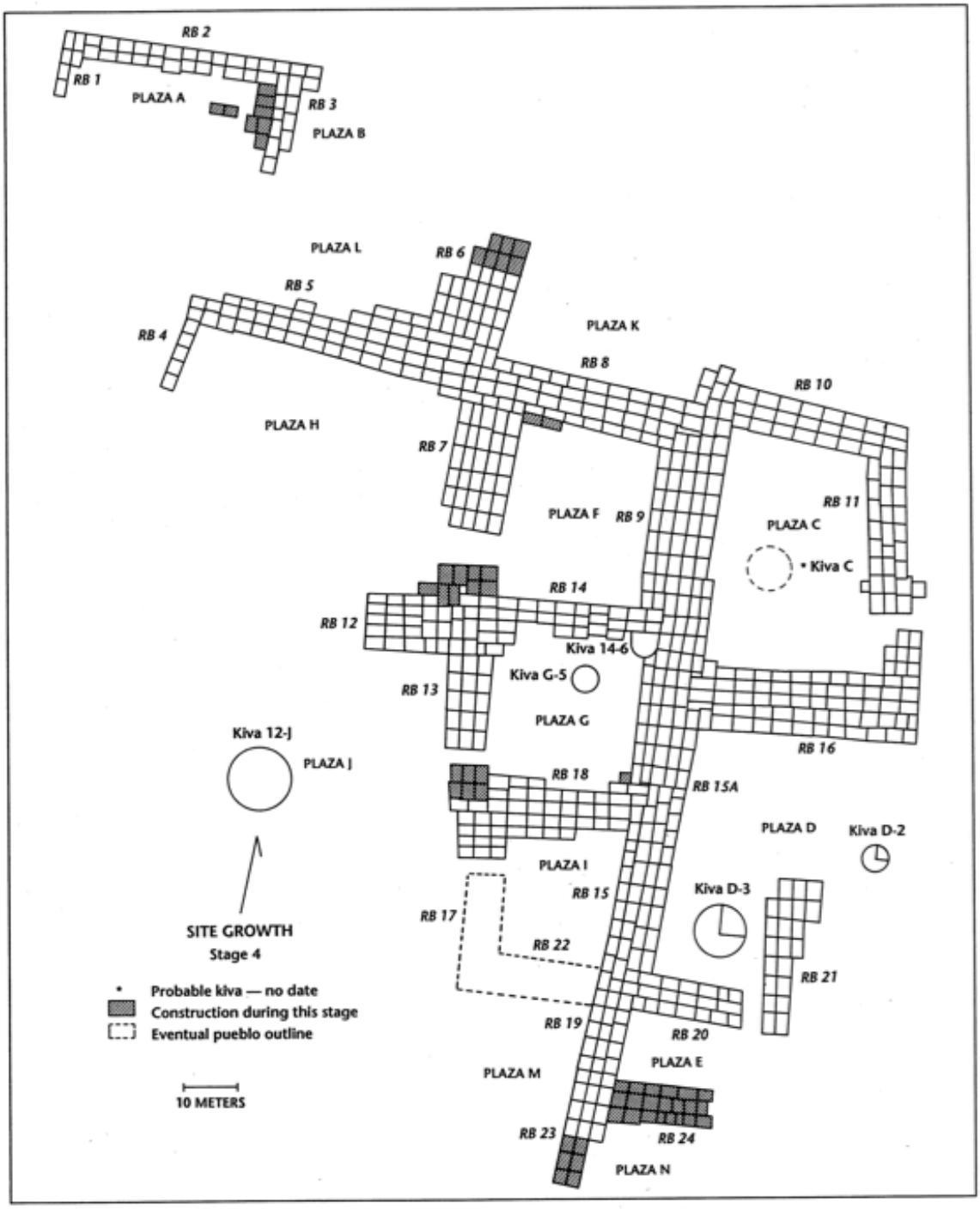


Figure 7.7. Component I site growth, stage 4.

Name:_____

IV. Unit 6 Section Exercise Assignment

Exercise 1: Household Auto-ethnoarchaeology

1) Use the space provided to draw a plan of the household in which you live.

2) Use the space provided to draw a map of your broader community.

3) What activities take place in the household spaces you mapped? In what ways do these social groupings and activities map on to these spaces?

4) How are your household maps similar or different from others in your group? What inferences can you make about the organization of social space in these households?

5) Where is your household located in reference to features across the community? Do certain features reflect the nature of social life for members of your household? How do any observable patterns differ from others in your group?

Exercise 2: Community Growth at Arroyo Hondo

6) Using the plans provided above, count the number of reach architectural features for each stage represented at Arroyo Hondo.

Arroyo Hondo Component 1

	Stage 1	**Stage 2**	**Stage 3**	**Stage 4**
Plazas				
New Rooms				
Total Rooms				
Total Rooms / Plazas (Ratio)				

7) What pattern do you observe in the construction of new room blocks at Arroyo Hondo? What does this pattern say about the rate of community growth or decline over time?

8) What pattern do you observe in the total number of room blocks per plaza over time? What might this pattern suggest about the nature of social organization at Arroyo Hondo over time?

Unit 7 – Power & Social Inequality

I. Overview

Individuals and social groups who make up any society do not always share the same interests. These differences are the source of potential tension and conflict in society as each group or individual attempts to exert its will. The ability to exert such authority is a measure of an individual's or group's social **power**. How a society organizes itself in order to make and enforce decisions, to resolve potential conflicts, and to control access to social power are all functions of what is generally referred to as **politics**. All societies have some form of **political structure**, but in many **small- scale societies** this structure may be very **informal and situational,** while in **large- scale societies** political power is more often invested within the highly specialized, **formal institutions of government**.

Anthropologists and archaeologists in the mid-twentieth century developed a number of different **classificatory schemes** to compare political systems across time and space, such as **band-tribe-chiefdom-state** or **egalitarian-ranked-stratified.** In lecture, you learned about a well-known classic case study by Chris Peebles and Susan Kus from the 1970s that used middle range research to define archaeological correlates for a "ranked society" or chiefdom (using these typological models of social organization) at the Mississipian site of Moundville in Alabama. In recent years, however, many have rejected such typological models because of their implicitly evolutionary bias and their lack of historic grounding in local situations. Moreover, such models tend to mask the actual diversity of political behavior that has constituted human societies in the past and present. They also tend to suggest a very static view of social organization and do not discuss the dynamics of how power and authority is actually negotiated or contested within communities on a day- to-day basis. Instead of simply asking, *What kind of society is it?*, current archaeologists have been focusing more on questions such as *How is power distributed within a society?*; *How and by whom are collective decisions made?*; *How are these decisions actuated and enforced? How do these power relations come to be contested and change over time?* Archaeological approaches to studying power and social inequality have dramatically changed over the last thirty years. Rather than seeing burial treatment as statically reflecting the status of dead persons (i.e., **terminal fossilized status**), archaeologists emphasize burial ritual as an arena of active and on-going social negotiation and for the making and re-enacting of social memory.

Two informative sources of data for addressing these questions come from the analysis of burial contexts and regional settlement pattern studies. These facets of **"power over," "power to,"** and **"power not to"** are covered in the video ***Power, Prestige, and Wealth*** from the *Out of the Past* series.

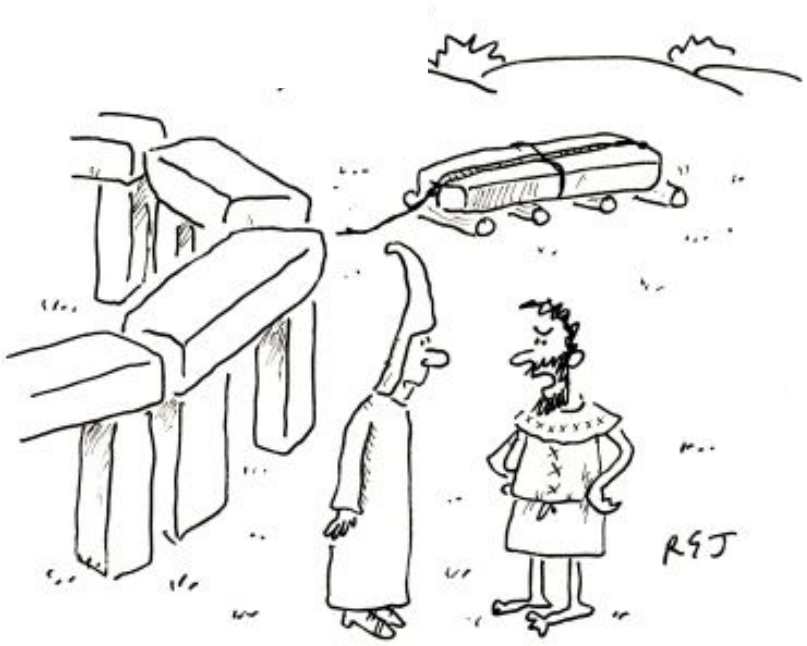
Before 6000 years ago, everyone on the planet lived in relatively small to medium- scale societies. Since then, world societies have come under increasing pressure from the expansion of local, regional, and global states. These states have conquered, altered, assimilated, or destroyed the smaller-scale societies to such an extent that today virtually every human on the planet now lives under the control of a state. **States** are relatively large and internally complex political structures, in which decision-making authority is vested within a permanent, **centralized leadership** characterized by differential access to **wealth, status, and power**. In states, **formal laws and institutions** crosscut and to some extent replace kinship and identity as the primary mechanisms for social integration. Archaeological research can contribute to modern political theory by addressing the questions of *When, Where, and Why did these types of societies first develop in the past?* and *How and why has this political form come to dominate human societies on a global scale?* Early models of state development focused on external causes and singular **"prime mover" explanations.** Today archaeological social theorists place more emphasis on the highly integrated, multi-causal nature of this political process. Some have begun to examine more closely the motivations of **human actors** as social groups competed for power over and control of the material and cultural resources necessary for biological and social reproduction within specific historical contexts.

II. Study Questions

1) What is status? What is the difference between ascribed and achieved status? How can status be determined archaeologically? Refer to specific examples from lectures, reading or video to support your answer.

2) Compare and contrast approaches to the study of social identity, status, and power, as reflected in site layout and burial data. How do these approaches reflect changing models within Anthropology and Archaeology regarding the static vs. dynamic nature of human social relations, status, and power? Discuss specific examples of how each researcher or group of researchers used archaeological data to support their perspective.

3) What archaeological evidence did the excavators of Copan find for the centralization of power and the emergence of social classes? Why, according to the excavators, didn't Copan develop into a true state?



"Have you considered the carbon footprint you're casing by importing these menhirs from Wales rather than sourcing them locally?"

III. Section Activity*:* State Formation in Mesopotamia

The origin of the state is a key theme in archaeology, and scholars use a number of material indices to gauge social transformations leading to the state in the past. In the following exercises you will examine two different kinds of archaeological data (settlement patterns and mortuary data) from two urban contexts in Southern Iraq (Mesopotamia), one of the first areas to make the transition to urban life and centralized statehood. Historical research on cuneiform texts, and excavations within large urban *tell* sites suggested that cities and states emerged during what archaeologists call the "Early Dynastic Period". You will use these data to make conclusions about the nature of early states in Mesopotamia in the 3rd millennium BC.

Exercise 1: Mesopotamian Mortuary Practices

Archaeologists often look to burials to understand ancient social organization. In particular, mortuary contexts are extremely useful for teasing out the nature of power and social status in the past. This is because burials reflect, to some degree, the social status of those interred. However, mortuary rituals are arenas for the negotiation of power and memory for those doing the interring. Patterns in the distribution of wealth and social differentiation can often point to the emergence of societies marked by stark differences in social status and power.

The Ancient Mesopotamian city of Ur was a major urban center that grew dramatically during the Early Dynastic period (2900-2300 BC). In the late 1920s, renowned British archaeologist C. Leonard Woolley led an expedition to Ur. Woolley's excavations of the royal tombs at Ur opened the world's eyes to the full glory of Sumerian culture at its zenith during the Early Dynastic III period (2600–2500 BC). Extravagant jewelry of gold, lapis lazuli, and carnelian, cups of gold and silver, bowls of alabaster, and extraordinary objects of art were among the Mesopotamian treasures uncovered.

The site contained about 1800 burials, most of which yielded very simple assemblages. Yet Woolley classified 16 of these as "royal" based on their distinctive form, their wealth, and contents (Figure 1). During the latter part of the Early Dynastic period, the inhabitants of Ur expended considerable energy to construct tombs for their deceased elites. Though we do not know their identities with certainty, written evidence suggests that these elites were the city-state's kings and queens. Select one of the following three tombs to examine in greater detail and answer the questions in Exercise 1. Use the following descriptions, as a guide to the archaeological remains contained in each.

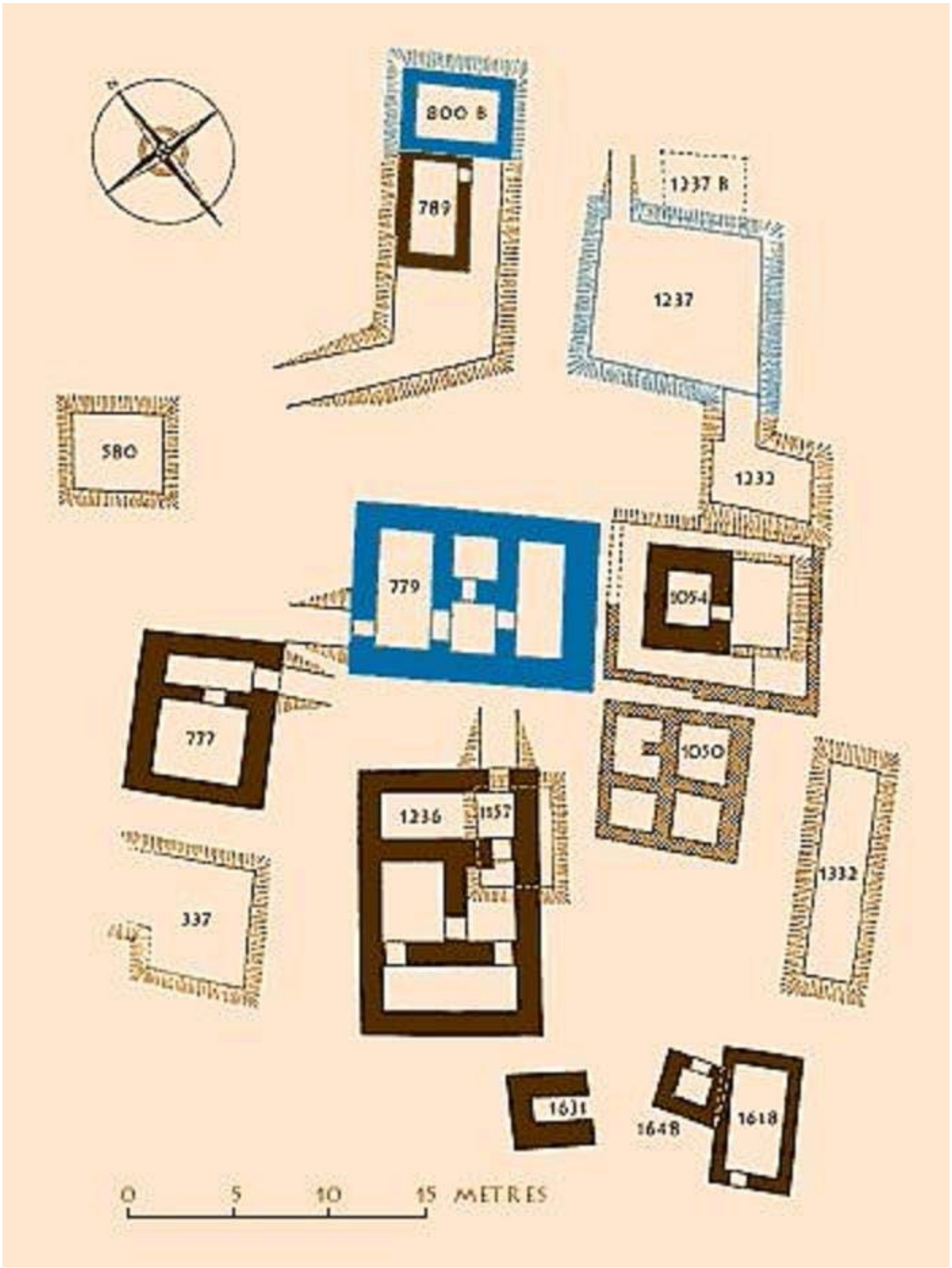


Fig 1 - The Royal Tombs of Ur.

PG1237, with its 74 attendants, was the most spectacular of Ur's royal tombs. Woolley dubbed it "The Great Death Pit" since it lacked a tomb chamber. PG1237 included 6 men and 68 women. The men, near the tomb's entrance, had weapons. Most of the women were in four rows across the northwest corner of the death pit; six under a canopy in its south corner; and, six near three lyres near the southeast wall. Almost all wore simple headdresses of gold, silver, and lapis; most had shells with cosmetic pigments. Body 61 in the west corner was more elaborately attired than the others. Half the women (but none of the men) had cups or jars, suggestive of banqueting. Body 61 held a silver tumbler close to her mouth. What's notable about this burial is that it lacks the body of its principal occupant, such as the body of a king or a queen. It has recently been suggested that Body 61 is actually a queen, like Queen Pu-abi (described below) because she is more elaborately attired than the others.

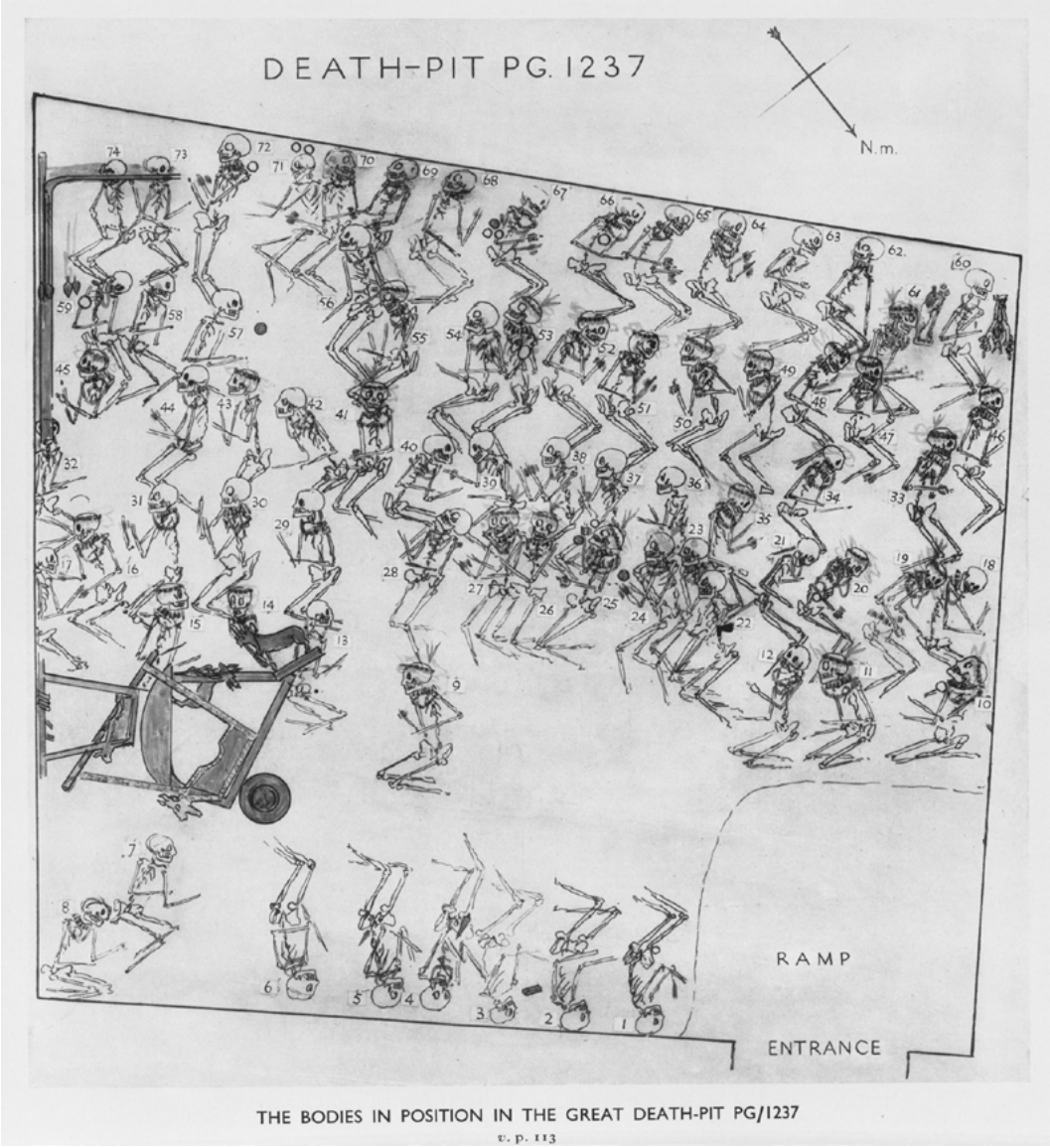


Figure 2 - The Floor Plan of PG1237, The Great Death-Pit of Ur.

PG789 - As can be seen in the drawing, the burial chamber had been plundered in antiquity, but the death pit was completely undisturbed. A silver boat model found beside the door of the burial chamber is one of the few items that weren't taken. The attendants were arranged as shown, and then they were given poison to drink. The oxen were also killed. The structure in the background is the domed burial chamber. The female attendants, with their elaborate headdresses, are lined up before it. The men on the left are the soldiers who will guard the tomb for all eternity.

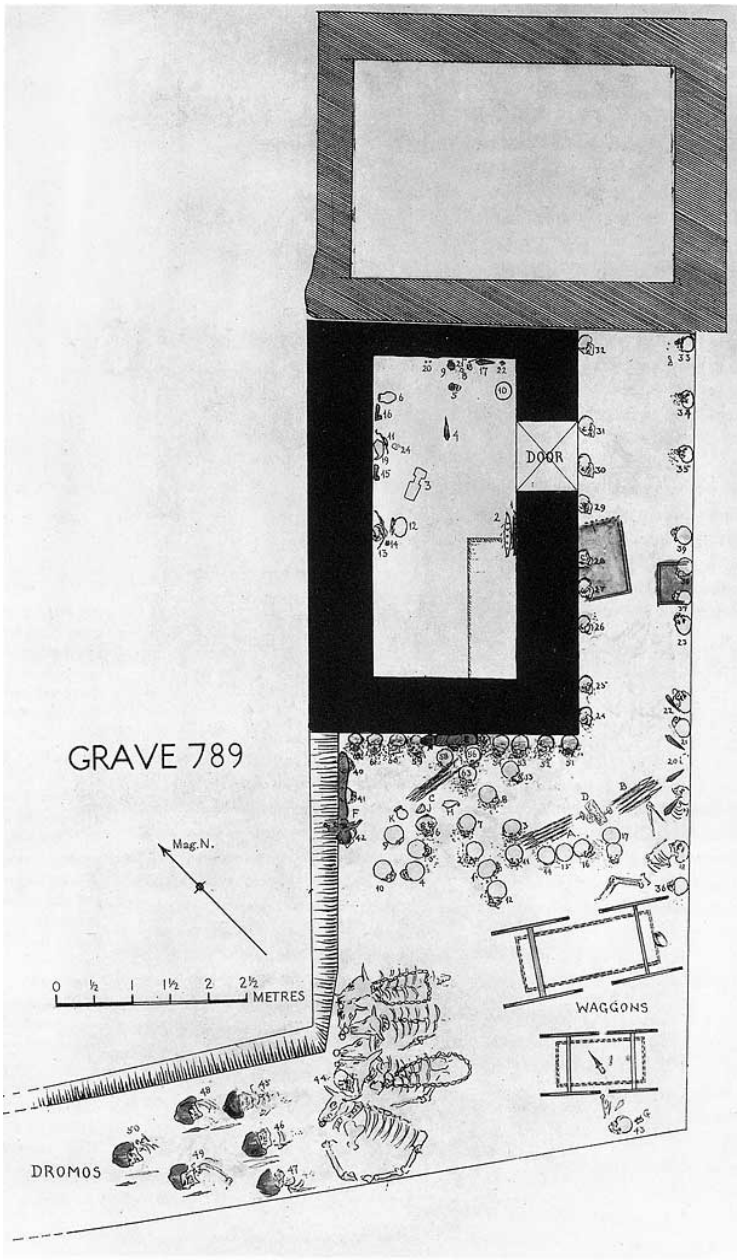


Figure 3 - The floor plan of The King's Grave (PG 789) at Ur.

PG800 - The tomb chamber containing Pu-abi's bier, body, and three attendants, is seen at the top of the drawing. The death pit, with a wooden chest, chariot, oxen, and more attendants, is shown at the bottom. Pu-abi's tomb didn't have a door, which means her body was placed there before the roof was constructed and the tomb was sealed. The details of the tomb are best seen when the picture is enlarged. Queen Pu-abi lay on a wooden bier, a gold cup near her head. She wore an elaborate headdress, and the upper part of her body was entirely hidden by multi-colored beads. She was surrounded with her personal possessions, the richest found in any Sumerian tomb. Buried with her were the bodies of 26 attendants, men and women, and a team of oxen harnessed to a decorated processional chariot.

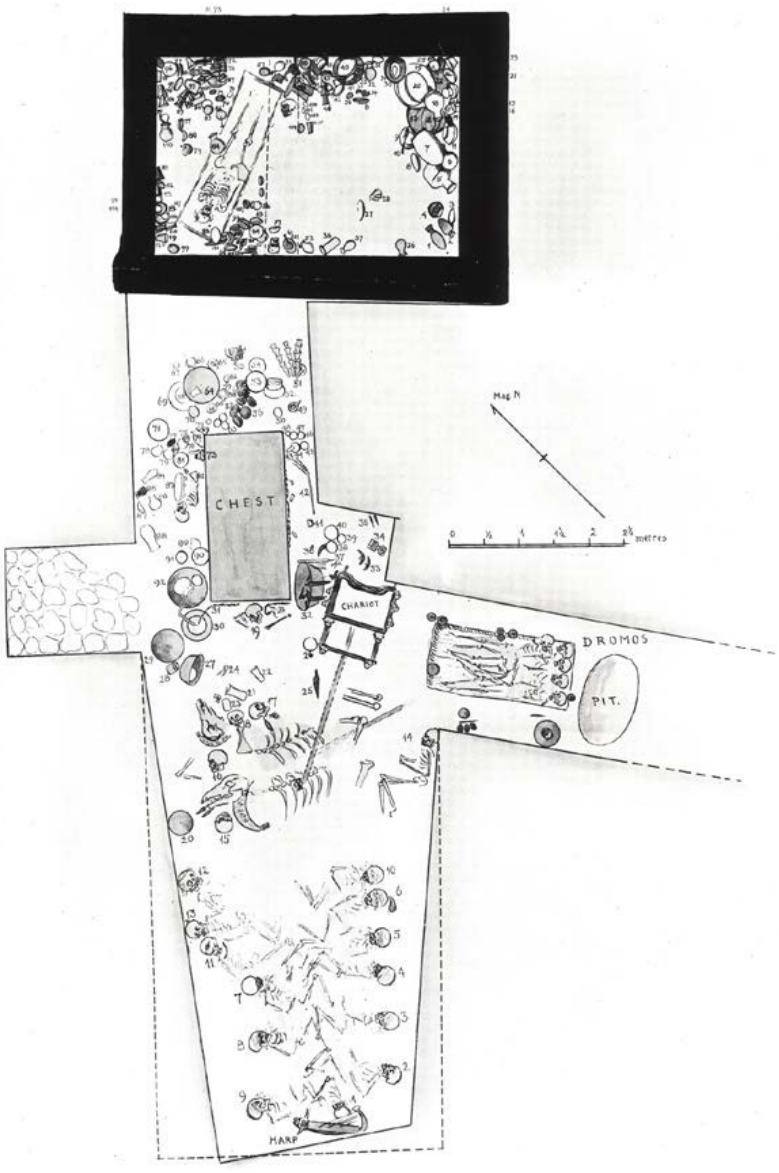


Figure 4 - The floor plan for Queen Pu-abi's tomb (designated as PG 800) at Ur.

Exercise 2: Mesopotamian Settlement Patterns

One of the most thorough studies of the early state comes from regional surveys conducted by Robert McCormick Adams in the 1950s through the 1970s in Southern Iraq. Adams had several questions in mind when he undertook his regional survey. One question was whether the ancient texts were accurate about the timing of state formation, and what settlement patterns could say about political centralization?

In myth and literature, the city of Uruk (Figures 5 & 6) was famous as the capital city of Gilgamesh, hero of the *Epic of Gilgamesh*. At its height ca 2900 BC, Uruk probably had 50,000-80,000 residents living in 6 km sq. of walled area. Archaeological research at Uruk identified multiple cultural phases with diagnostic pottery from each phase. For the purposes of this exercise, the important periods are:

1) Early-Middle Uruk Period (4000-3400 BC)
2) Late Uruk Period (3400–3100 BC)
3) Jemdet Nasr Period (3100–2900 BC)
4) Early Dynastic I Period (2900-2800 BC)

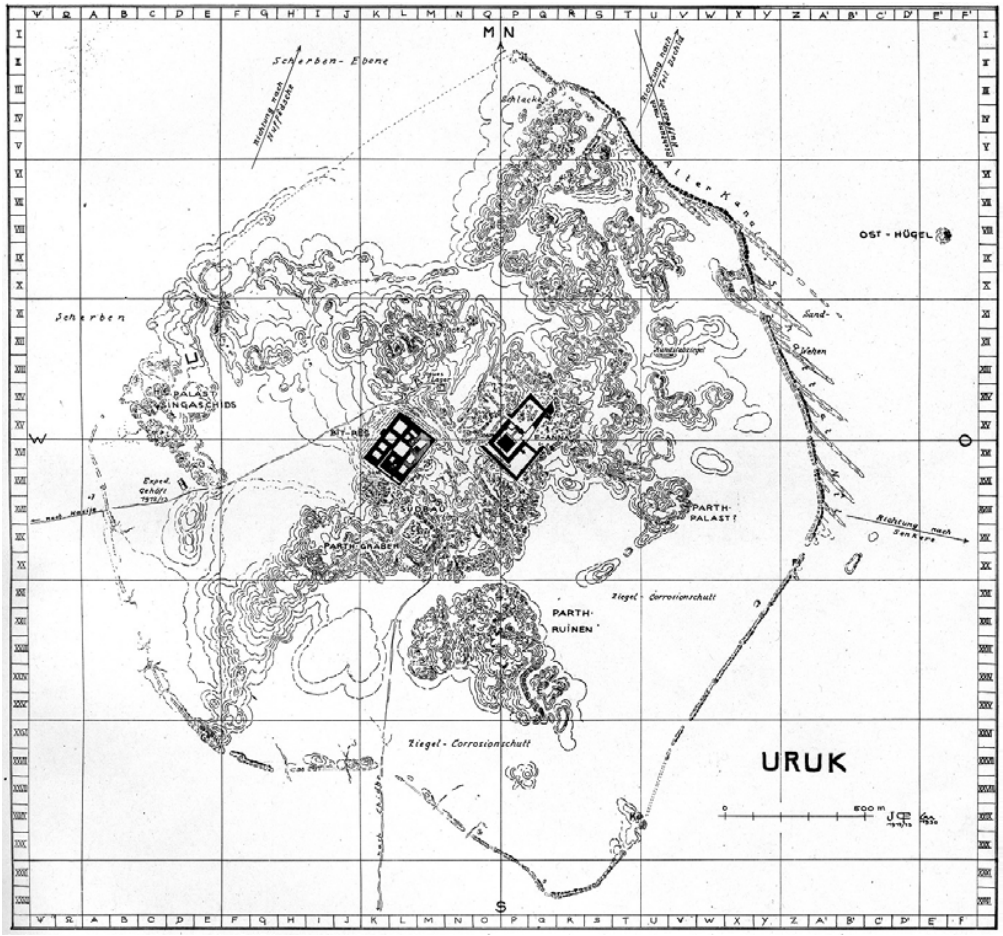


Figure 5 - Map of Uruk

Figure 6 – Aerial view of Uruk

Archaeologist Henry Wright once argued that during the Jemdet Nasr period, loosely organized communities began to coalesce into Chiefdoms. Similarly, during the Early Dynastic I period, the emergence of large-scale public works, temples, city walls, elite housing, the earliest writing, etc., have been interpreted as evidence for urbanism and centralized state formation in Mesopotamia.

Adams approached this issue from a regional perspective. The distribution of different sized sites across regions is used to understand the emergence of urban communities in the past. For example, a relatively *continuous distribution of smaller settlements* is normally interpreted as evidence for loose political centralization and essentially a self-sufficient village way of life. Conversely, *a settlement pattern in which one or two very large settlements are surrounded by either many much smaller settlements, or few settlements at all*, is often interpreted as evidence for true urbanism and political centralization where the rural countryside is converted into farming territories.

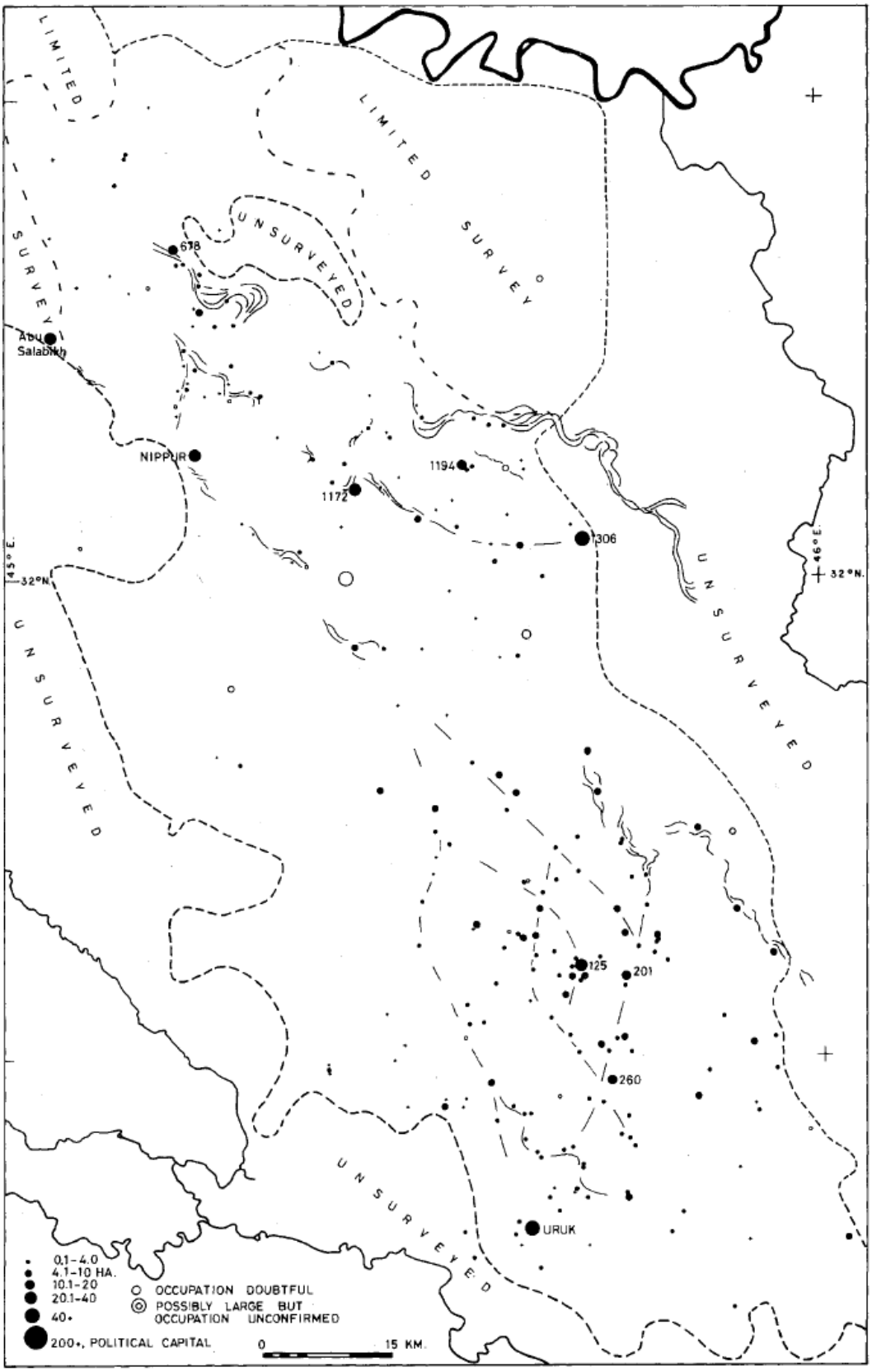


Figure 7 - Early-Middle Uruk period settlement

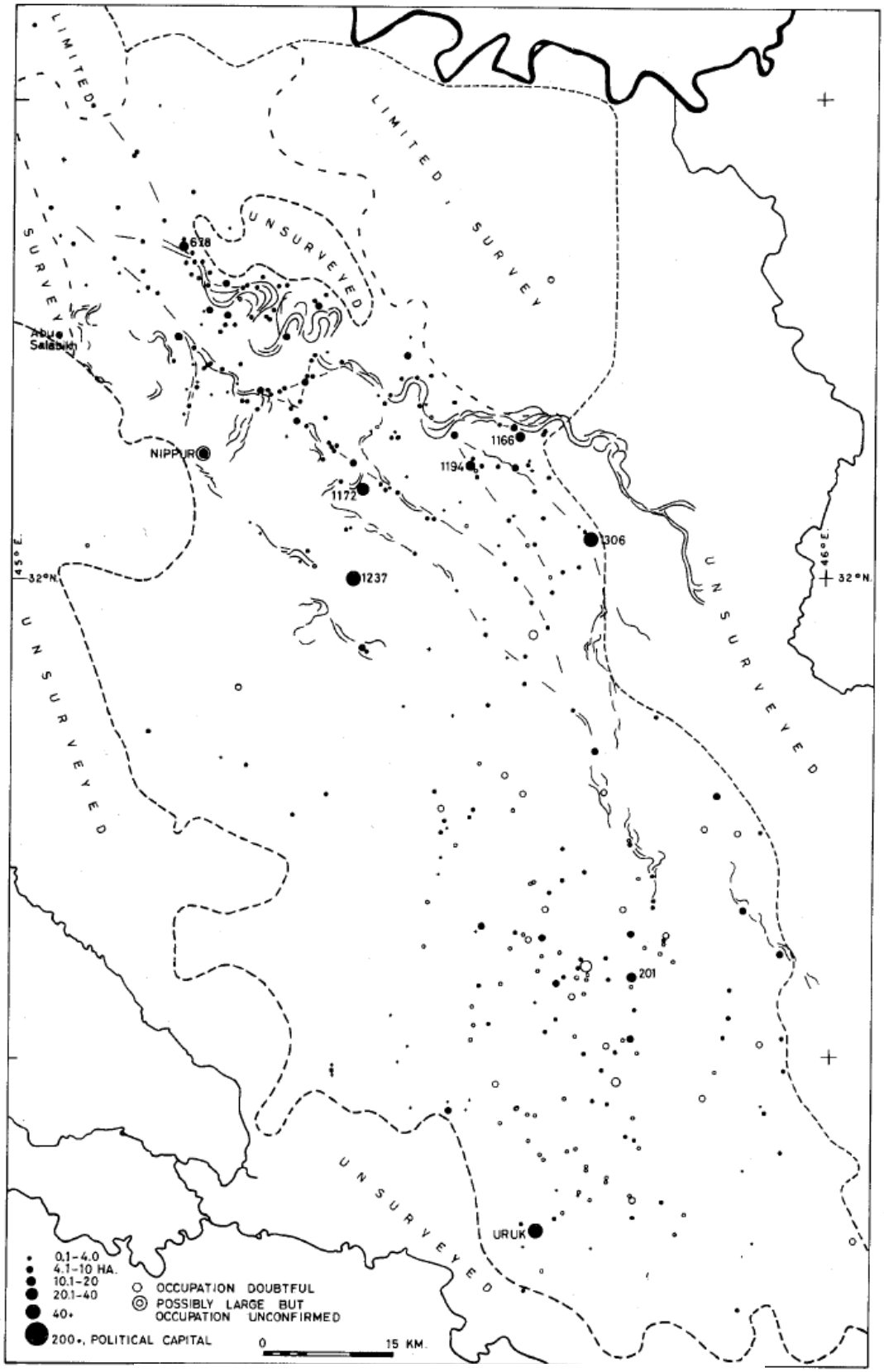


Figure 8 – Late Uruk period settlement

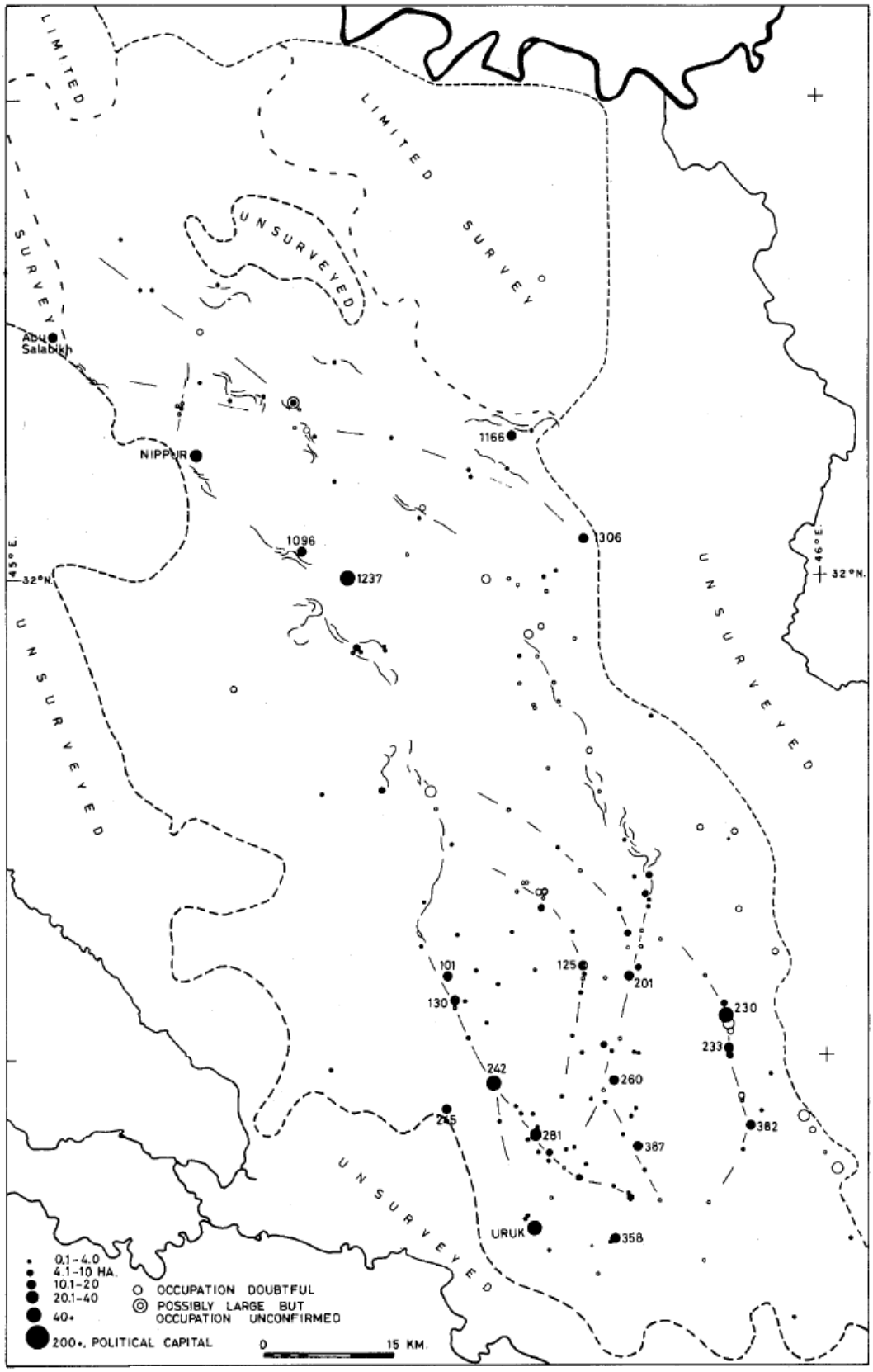


Figure 9 – Jemdet Nasr period settlement

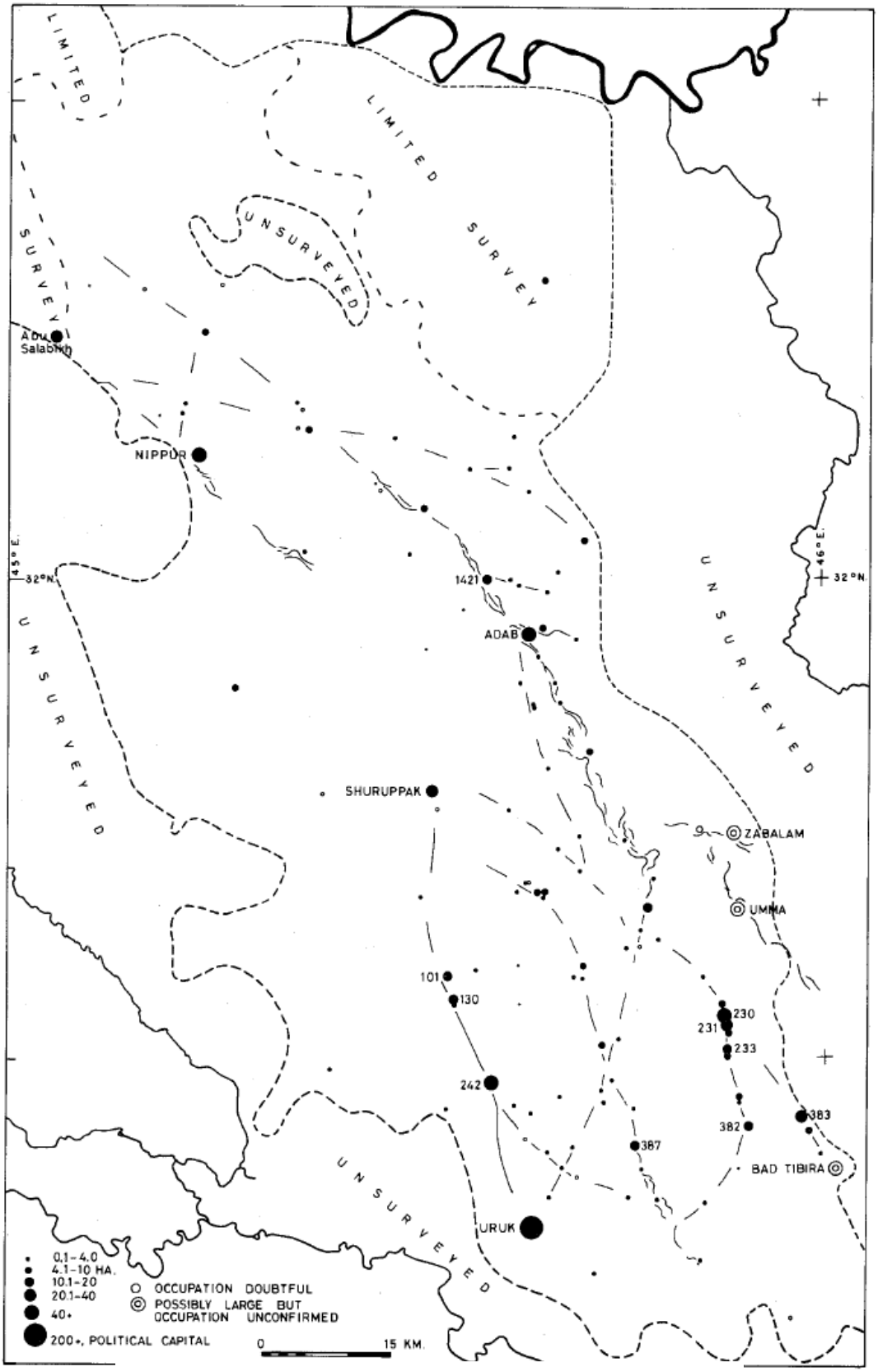


Figure 10 – Early Dynastic I period settlement

Adams began by locating ancient watercourses and tell sites using satellite images in two regions around the ancient cities of Nippur (North) and Uruk (South). Adams then traveled in a jeep all over these areas looking for smaller sites and features. At each site he collected pottery sherds for dating purposes and measured the dimensions of each site. All of this information was placed on a set of maps by time period, and these maps (see maps in handout) that were published in Adams' book *Heartland of Cities* (1981). In this exercise you will examine maps produced by Adams and draw conclusions about the timing of urbanism and nature of political organization in Southern Mesopotamia.

Break into 4 groups and carefully examine the maps provided. Notice that Adams grouped settlements into a series of size categories. Familiarize yourselves with these maps and the map key. To keep things simple, you will distinguish between only 4 site sizes: .1-4, 4-40, 40+, and 200+. Unfortunately, the maps are not the highest resolution and some smaller sites may appear as larger blobs. *Do your best!!* Working in your group, tabulate the necessary data into the 4 blank bar charts on the handout provided (**Question 4**) and answer the subsequent questions.

Name:_____

IV. Unit 7 Section Exercise Assignment

EXCERCISE 1: Mesopotamian Mortuary Practices

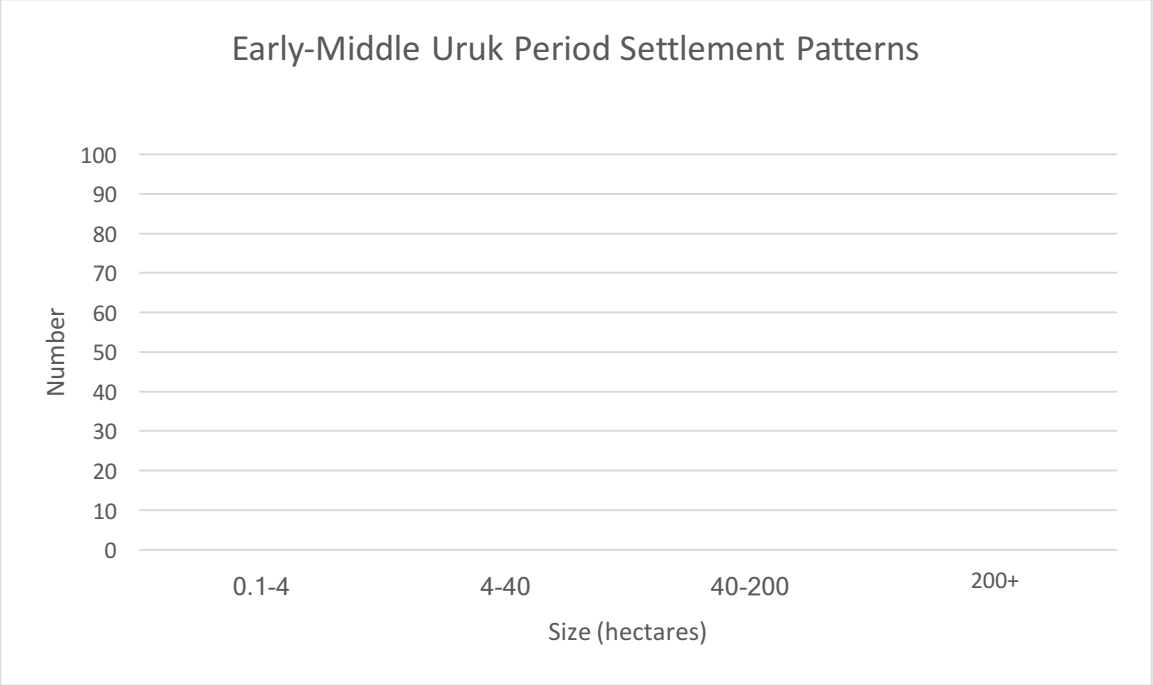
1) What evidence can you see for **social differentiation** in the Royal Tombs of Ur?

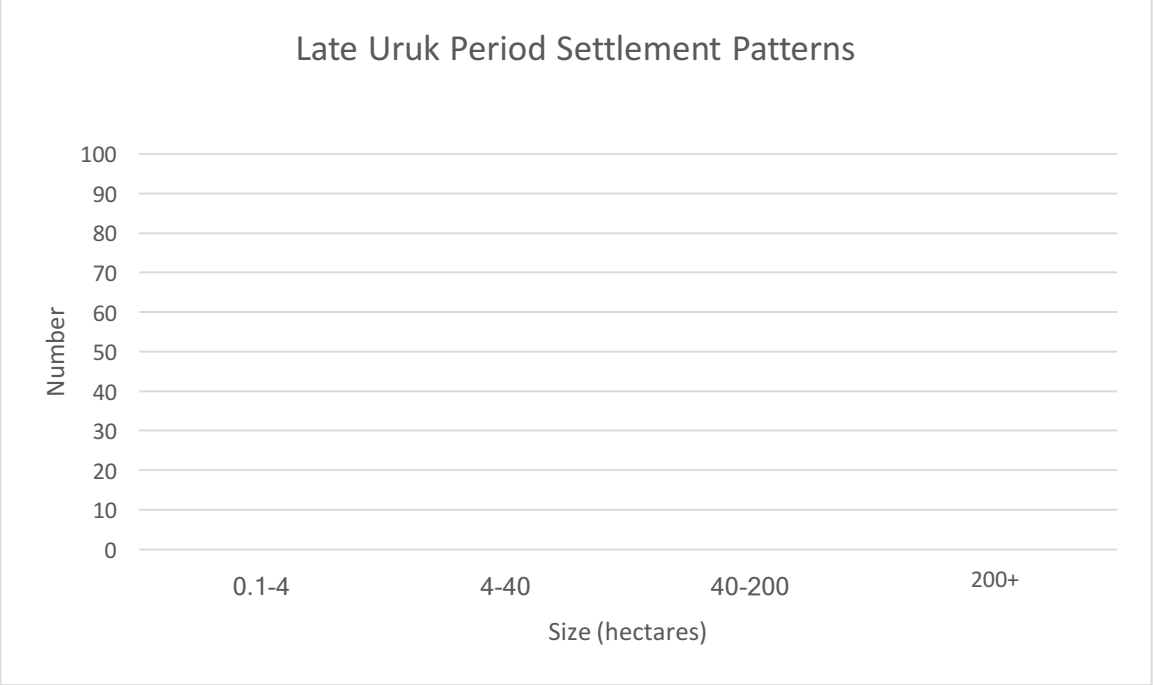
2) What evidence can you see for **wealth disparities** in the Royal Tombs of Ur?

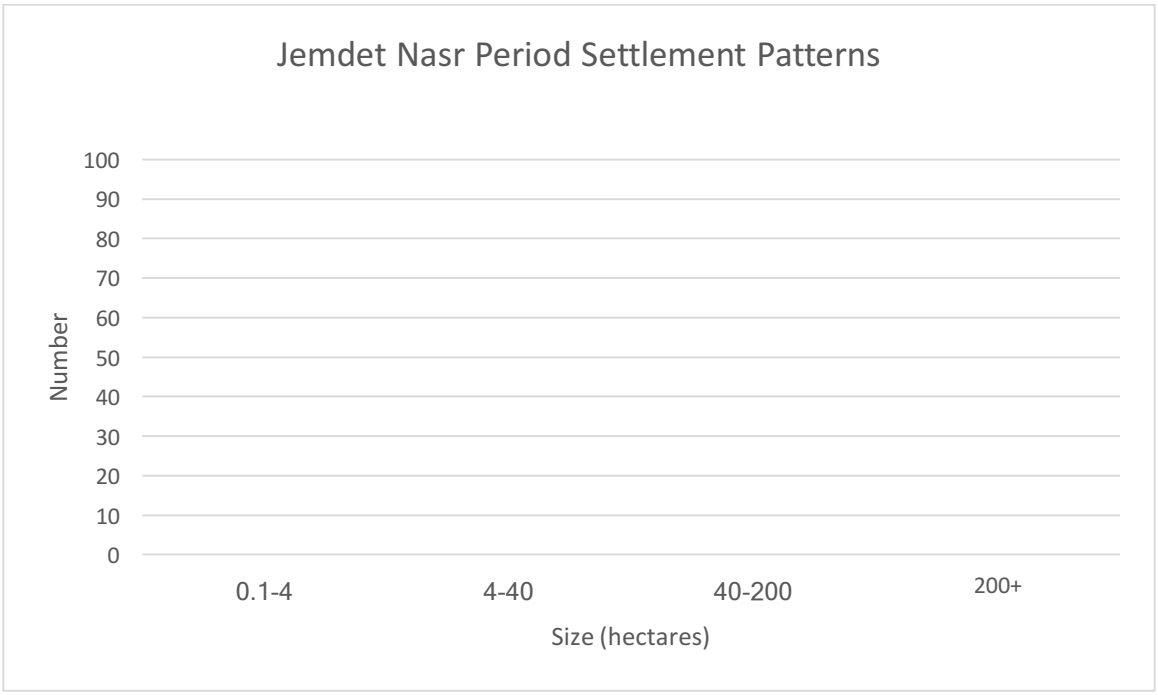
3) What evidence is there for **ceremonial activity** in the Royal Tombs of Ur? What purpose did it serve?

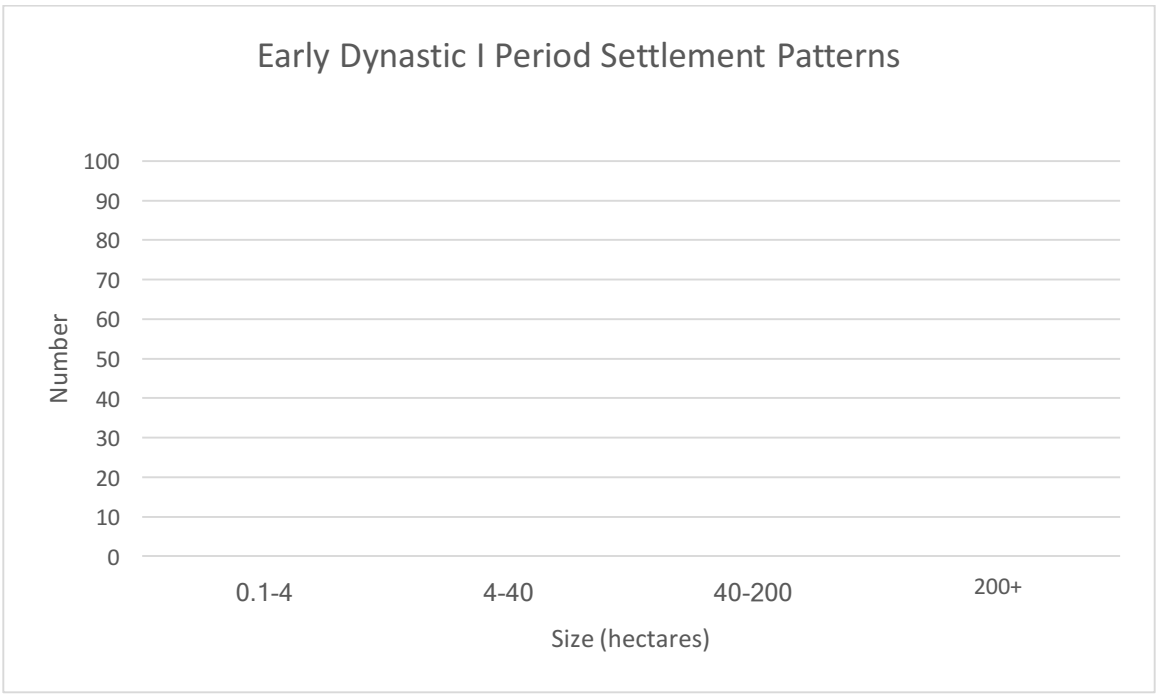
Exercise 2: Mesopotamian Settlement Patterns

4) Count up the number of settlements in the survey for each size category, and enter your data into the 4 blank bar charts provided.






Jemdet Nasr Period Settlement Patterns
100
90
80
70
60
50
40
30
20
10
0
Number
0.1-4
4-40
40-200
200+
Size (hectares)


Early Dynastic I Period Settlement Patterns
100
90
80
70
60
50
40
30
20
10
0
Number
0.1-4
4-40
40-200
200+
Size (hectares)

5) Between the Early-Middle Uruk and Late Uruk periods, what shift in regional settlement patterns do you notice across the survey region?

6) Based on this survey data, in which time period does the settlement date suggest the lowest level of political integration? The highest level of integration?

7) What is the nature of urban and rural settlement in the Jemdet Nasr Period? The Early Dynastic Periods? How might these patterns reflect political organization in Chiefdoms and States respectively?

Unit 8 – Symbolism, Ideology, and Worldview

I. Overview

Ideology is sometimes equated with "religion" but, as used by most archaeologists and anthropologists today, has a more encompassing definition. As seen in the prior discussion of gender ideology, an ideological system makes sense of and justifies the world as a particular society, or an interest group within a society, sees it. Religious beliefs can be part of an **ideological system**, but the broader set of attitudes, understandings, rationalizations people hold can include their outlook on gender, occupation, age, class, ethnicity, and race. Ideological systems make sense of the world and what happens in it for the people who hold them. At the same time, such systems can be contingent upon the position of persons in a social system and upon the historic and cultural context. Thus, aspects of ideological systems are open to change, in the face of new challenges.

The French anthropologist, **Pierre Bourdieu**, takes this discussion even farther, arguing that how we make sense of the world around us is largely the reflexive by- product of both our cultural upbringing and our daily experiences in the world. These experiences are structured by cultural practices that determine where we live, what we wear, how we eat, and who we interact with, but these practices are always subject to change and re-formulation in the face of new challenges and experiences. Bourdieu referred to this reflexive way of being in the world and making meaning of our experiences as **habitus.** In the first lecture of this unit we will explore how the concept of habitus can help us re-think Jim Deetz' classic structural analysis of the different ideologies or "worldviews" of Anglo-Americans and African Americans during the 17th and 18th centuries, as constituted in such daily domestic practices as the use of space and the preparation and eating of food.

For over a century, archaeologists were influenced by the 19th-Century social theorist **Emile Durkheim's** views on ideology, who noted that the functioning of social systems was governed by rules and norms often sanctioned by a higher moral authority. Thus, in this view, God-given commandments or common understandings of what constituted "civilized" behavior were not arbitrary but rather contributed directly to the functioning of society. Processual archaeologists felt comfortable with this **functional** view of the role of ideology and religion in human society. Most processual archaeologists viewed ideology as a kind of by-product of the functioning of socioeconomic systems.

Another view of ideology that has been used by post-processual archaeologists comes from the influence of another 19th-Century social theorist, **Karl Marx**, who argued that ideological systems are tied closely to social and economic relationships in any society, but in a different, less benign way. Marx contended

that the dominant ideology in a society usually justifies and renders "natural" existing roles and power relationships that might be contested by those exploited by these relations. For example, an ideology of white supremacy arose in the late 17th century American colonies, justifying enslavement of persons of African descent by persons of European descent on the basis of inherent intellectual and moral inferiority of African people. Numerous writers on racial politics, including W.E.B. Du Bois, have noted that the internalization of such ideology by the oppressed constitutes a real part of its power. From the 1980s, neomarxian and feminist archaeologists (post-modern or post-processual archaeologists, in their terminology) used this perspective on ideology to explore various prehistoric and historic cases, paralleling developments in history and other social sciences.

The categorical thinking involved in ideological systems depends upon humans' ability to think abstractly, assigning meaning to objects and events, and imbuing objects and persons with **symbolic meaning**. Thus, the bread and wine of the Christian communion rite symbolize Christ's body and blood, the shepherd's crook held by the Egyptian pharaoh evoked his role as shepherd of the people, the police uniform and badge mark the wearer as someone authorized to use force to protect the peace, etc.

Part of this ability to think symbolically is tied to humans' unique potential for **spoken language**, a sound-code that signifies concrete and abstract meanings to those who have learned the code. Anthropologists and psychologists believe that this peculiarly human kind of cognition and communication is a unique product of human evolution, involving changes in parts of the brain that associate inputs from different sensory modalities (hearing, sight, smell, touch), and those areas used to process incoming sound and to organize and stimulate verbal utterances.

A key question is when the ability to think symbolically and to use language -- in other words, human cultural capacity -- emerged, and whether they emerged gradually or through a swift mutation or set of mutations. The earliest evidence for some form of ritual behavior, in the form of burials with some included materials, dates back over 60,000 years to the Middle Paleolithic period and is associated with archaic forms of *Homo sapiens*, such as the Neanderthals of Europe and the Middle East.

Anatomically modern humans emerged in Africa around 100,000-120,000 years ago, along with evidence of new technological innovations. In Europe, northeastern Asia, and Australia modern humans apparently did not arrive until around 40,00-50,000 years ago. Shortly after they did, in several areas there is evidence for abstract symbolic behavior, as reflected in **cave paintings and other forms of art** in Europe, Asia, Africa, and Australia dating from around **30,000 years ago** onward. While some have argued that these cognitive changes were associated with the biological transition between archaic and anatomically modern humans, others have argued that these developments have

less to do with the biological evolution of the human mind and more to do with changing demographics and the emergence of more complex forms of social relations and interaction.

Archaeologists have attempted to explore ancient symbolic systems by examining artifacts, burials, and architecture for traces of "mind." Processual archaeologists for the most part believed that such "paleopsychology" was beyond the reach of archaeological inquiry, but some post-processual archaeologists have been more optimistic about their ability to access at least some fundamental aspects of symbolic behavior and ideological systems from archaeological remains.

The most success in this endeavor has come from the analysis of complex societies such as the ancient civilizations of the Near East, China, Mesoamerica (such as Teotihuacán and the Mayan sites), and South America. The denser the evidence in a site – the more artifacts, architecture, and associated materials – the more chance there may be of understanding the system of thinking that created it. It is also the case that early states often invested much effort in using symbols, in the form of statues, carved and painted friezes, monumental architecture, and even monumental written texts, that supported and validated the ruling groups' claim to leadership. Since most of the people in such societies were illiterate, architectural layout, art, and ritual all were used to create spectacles that sustained and justified the power of the rulers. In such societies the ideology of the ruling group, at least, is widely advertised.

II. Study Questions

1) According to Deetz (1996), how did the emergence of the Georgian Order change how people structured and were structured by their material surroundings and daily experiences in these surroundings? Do you find his argument convincing? Why or why not?

2) How do archaeologists define religion? How is religion different from "cosmology" or "ideology"? What aspect of religion is most clearly reflected in the archaeological record and why? Refer to specific examples from lectures and readings to support your answer.

3) What are some of the potentials and limitations involved with attempting an "archaeology of the mind"? Refer to specific examples discussed in lectures and readings to support your answer.

4) According to Conkey (1981), what is the significance of the main ceiling panel at Altimira? What evidence does she use to support her interpretations?

Unit 9 - Who Owns the Past?

I. Overview

Archaeology not only can tell us about people and events before written history ("prehistory") but also about more recent people whose lives are outside the scope of most historical narratives and texts. Until very recently, the writers of historic texts were a privileged, literate minority in all societies. It is not surprising that most histories based on their writings reflect elite views of the world and were written to serve the purposes of this small segment of society. Other less advantaged social groups, including women, children, the poor, and religious, ethnic and racial minorities, have been invisible in such histories or subject to incomplete or distorted representations.

James Deetz (1996), in his book on historic archaeology, *In Small Things Forgotten*, notes that archaeological evidence allows us to see the past not just through the eyes of those who were able to write or who were written about, but through the actual residues of human action left by a wider range of people. **Archaeology can offer insight into the day-to-day, material realities of people's lives as actually lived**. It can expand upon, and in some cases even contest, representations of the past in textual sources.

Archaeology as a source of alternative history appears to be a noble cause, but this approach has now brought archaeologists into new, ethically and politically challenging circumstances. Archaeologists, like historians, have been realizing that they are never completely neutral, objective observers and reporters, however much they may strive toward a high standard of objectivity. Rather, they are interpreters of evidence that **does not "speak for itself."** Archaeologists have been asked to account for their interpretive positions by indigenous and descendent communities and others whose views have been excluded from the creation of mainstream histories.

Important ethical questions have been raised about the practice of archaeology, especially in the United States and other nations, where a dominant immigrant population has displaced but not extinguished the original inhabitants:

- *Why, beyond scientific curiosity, is it important to know about the past?*
- *To whom does the material record of the human past in a nation belong?*
- *Who should control investigation, interpretation, and narration of that past?*
- *For whom should archaeologically-based histories be written?*

Until the 1980s, few archaeologists seriously considered these questions. Most archaeologists trained in Western and Eastern industrialized nations have come from middle and upper-class backgrounds. In the U.S., Canada, and Australia, most have been of European ancestry. Their social position and

professional credentials seemed to automatically impart the right to excavate sites, acquire artifacts and human remains from them, and to interpret their historic and social meaning. Federal, state, and local legislation passed to protect archaeological sites and to mandate archaeological "mitigation" of development-related impacts assumes a national-level ownership of antiquities and the right of archaeologists to work when and how they wish in deciding what to conserve and how to interpret sites and their associated material remains.

Much of the **post-modern or post-processual critique** has focused on political problems involving the **role of archaeologists as interpreters and writers of history**. According to this critique archaeologists are often guilty of using artifacts to write histories that support the *status quo* in contemporary societies, in terms of power relations of class, gender, ethnicity, and race.

However, in the U.S., a more pressing challenge to archaeologists' authority has emerged. All over the world, previously marginalized people have asserted their political rights, and as part of this process, they have also pushed for their right to have a say in the use of archaeological materials created by people they believe were their ancestors. In the U.S., women and people of color have been entering archaeology in increasing numbers. Many have developed lines of research unknown when the field was exclusively male and white. Moreover, conflicts over the proper use of archaeological remains are being mediated in the streets and courts, as communities become involved in having a say about what happens to local sites and in Congress and the courts, as bills protecting Native American burials and sacred objects have been signed into law.

American archaeology is currently in a difficult, but exciting time of renegotiating its intellectual mission and in developing new working relationships with indigenous and other descendent communities. This week's videos along with the assigned readings and web sites bring home the fact that archaeology does not operate in a social or political vacuum. They point up some of the issues that have emerged for Americanist archaeology, both of precontact indigenous peoples and of historic immigrant or previously enslaved communities who often have felt excluded or marginalized from many arenas of public life.

II. Study Questions

1) Should archaeologists and biological anthropologists excavate and analyze human burials? Under what circumstances? Who should have a say in whether human remains should be studied for information on work, diet, health, gender, etc.? Should scientists never study the bones of certain human populations, if descendants forbid it? If no direct descendants remain, should any group of persons of the same racial or ethnic group have oversight? Refer to specific aspects of the Ancient One/Kennewick Man and African Burial Ground case studies to support your position.

2) How is archaeology involved in the social and political life of the nation? Look to class notes, *"African Burial Ground"* videos, as well as the Ancient One/Kennewick Man examples and readings. Consider some of the following questions in constructing your response: When should sites be excavated? What obligations do archaeologists have to the public? To descendent communities? Who should control archaeological remains and their interpretation? How should disputes about conflicting interests in archaeological remains be resolved?

3) How can incorporating the feedback of culturally affiliated or descendant communities into archaeological research designs result in better and more meaningful research projects? Refer to specific case studies and examples from readings, lectures and videos in your answer.

4) Who are the "people without history" referred to in this unit? What special contributions can archaeology make to the writing of histories of these groups? What are some of the methodological, ethical and political challenges that face modern day archaeologists as they take on this task? Refer to specific case studies and examples presented in lectures, readings and videos in your answer.

Unit 10 - The Future of the Past

I. Overview

Starting in the early 1970s, many U.S. archaeologists and historians engaged in activism to protect the numerous archaeological sites threatened by unregulated development. In arguing for the conservation of sites, they used rhetoric that portrayed archaeological sites as precious resources and "documents" of the American past. The result of their efforts was a series of Federal, State, and local laws that define American archaeological sites as a special kind of environmental "resource," to be assessed and protected during development. With this legislation, **"Cultural Resource Management" (CRM)** was born, as was a boom in archaeological jobs outside universities and museums.

Today, more than half of the all the archaeologists in the U.S. work in government, public utilities, or private CRM agencies. They work to conserve and interpret archaeological sites in the National Park Service, National Forest Service, Bureau of Land Management, Army Corps of Engineers, California Department of Transportation, Pacific Gas & Electric Company, and in private consulting companies that bid on development projects impacting archaeological sites.

A central issue for Americanist archaeology today is: **what is the relation of archaeological research, mainly by Americans of non-indigenous origins, to the material remains of indigenous Americans**, many of whom believe they have spiritual obligations and rights to protect sites and artifacts? Under the **Native American Graves Protection and Repatriation Act (NAGPRA)**, passed by Congress in 1990 (see Unit 9), archaeologists find themselves on equal legal footing with Native Alaskan, Hawaiian, and Indian groups, who can control access to and request repatriation of a specific range of objects (funerary objects, sacred objects, cultural patrimony) as well as human remains. But just who gets to speak for local Native American communities is often a subject of contention even within these communities themselves, with some voices privileged over others. The history of Native Californians and their lack of federal recognition, for example, tends to silence their voices in debates about the preservation and interpretation of the archaeological record.

Of course, all these issues are irrelevant if there is no archaeological record left to interpret. Archaeological sites and material remains are under increasing threat of destruction as the result of expanding development, mechanized agriculture, and looting. What value do we, as a society, place on the material record of the human past? How much public money should be spent on its preservation and interpretation? Are there group rights to certain cultural materials and archaeological remains that transcend the rights of private owners or the government? How are such claims to be adjudicated and by whom? These are

all questions that are part of current public policy debates in this country. Hopefully, what you have learned in this course will help you to participate more fully in these discussions and to make more informed decisions about what the future of our past will be.

II. Study Questions

1) Since the late 1960s, Americanist archaeology has been increasingly drawn into public life by Federal legislation. Using materials from lectures and readings, briefly outline some relevant laws and their implications.

2) The United States has some of weakest antiquities laws in the world. Discuss some of the major laws that have been passed to protect archaeological remains in the U.S. and why they have not been more effective.

3) What relationship should professional archaeologists have with looters and/or private collectors? Cite specific examples to support your answer.