

Introduction to Archaeology

Fall 2024
Lecture 9 (10/1 & 10/3)



Week 5

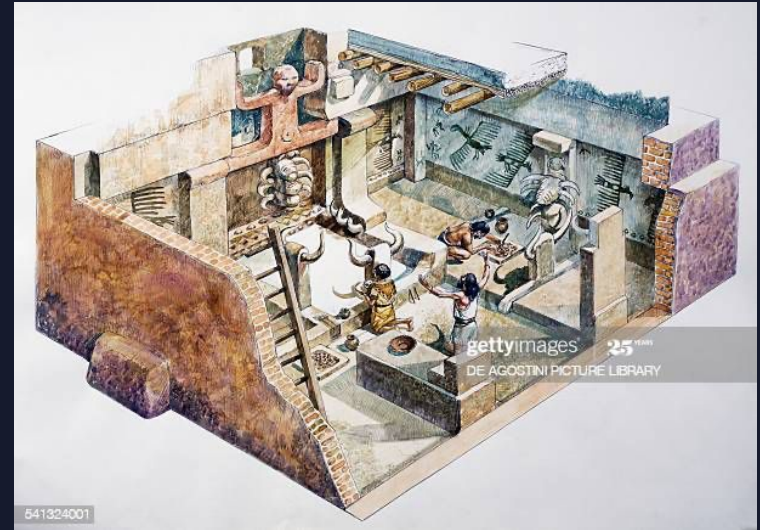
Archaeological Evidence

- Locating Sites
 - Google Earth Articles
 - Aerial Archaeology @ Home
 - Excavating Sites
 - Into the Field: Archaeology Field School Abroad
 - A Day in the Life @ Jamestown
 - Harris Matrix
-

Survey

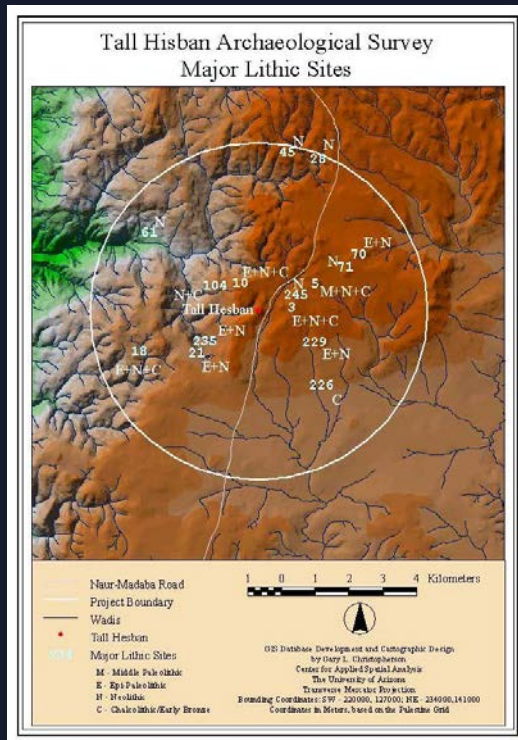
Sites

Any location with physical evidence of human activity

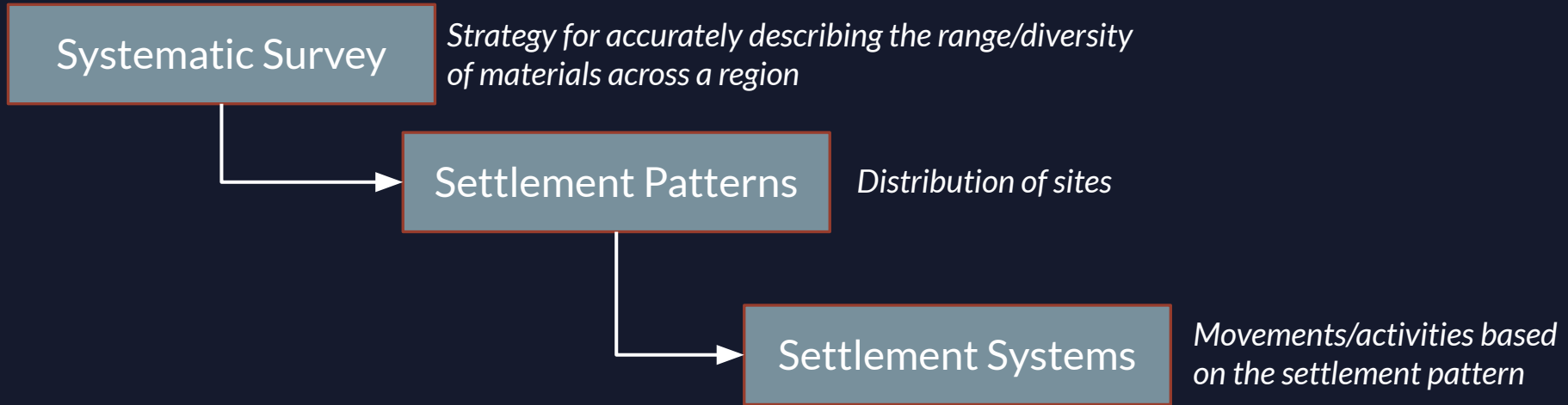


Catal Huyuk, Turkey
(30 second video)

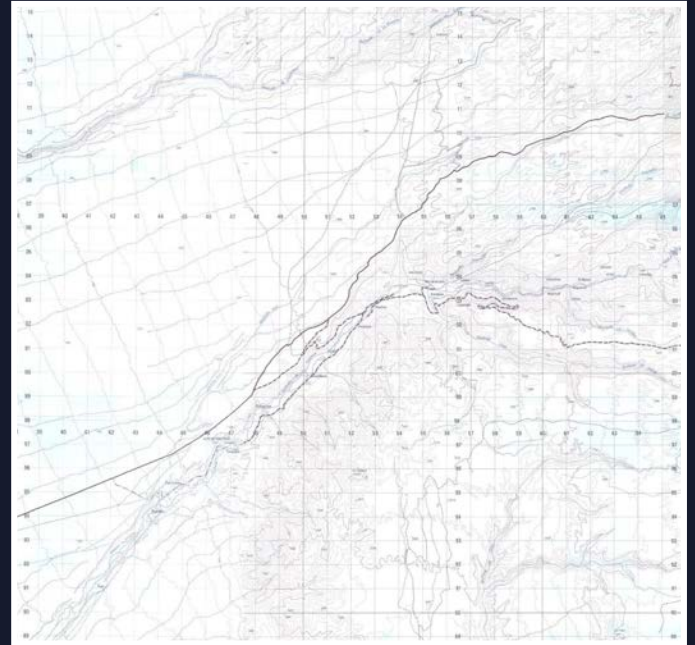
Regions & Cultural Landscapes (Qhapaq Ñan)



What do surveys find?



Low Tech: Pedestrian Survey



Are all site surfaces equal?



Site 1020 at Tarapaca, northern Chile



Tel Hazor, Israel



Maya region

High Tech: Remote Sensing (Aerial) [*Frieman, Table 1*]



- Aerial photography
- Satellite imagery
- Multispectral imaging ([link](#))
- Thermal imaging ([link](#))
- Active remote imaging systems

High Tech: Remote Sensing (Ground)



- Magnetometry
- Ground Penetrating Radar
- & others...



Low Tech: Remote Sensing (Ground)



Putting in pegs for shovel testing at plow zone in Wessex, UK

Excavations

Goals of Excavation

1. Reveal the 3-D patterning in the deposition of artifacts, ecofacts, and features [**provenience**]
2. Assess the **functional** and **temporal** significance of this pattern

*“By knowing which elements were found together (**provenience** & **association**) & by inferring how they got there (from **association** & **context**), the archaeologist can reconstruct ancient behavior”*

Excavations: Getting started... (Fagan 2005)

- What? Defining archaeological phenomena
- Where? Control/documentation of provenience
- How? Layout of an excavation, tools, etc.
- Where? Test excavations vs. area excavations
- What? Materials removed from screened deposits
- How? When? Figuring out a site's depositional history
- What else? Conservation, record keeping, lab, etc.

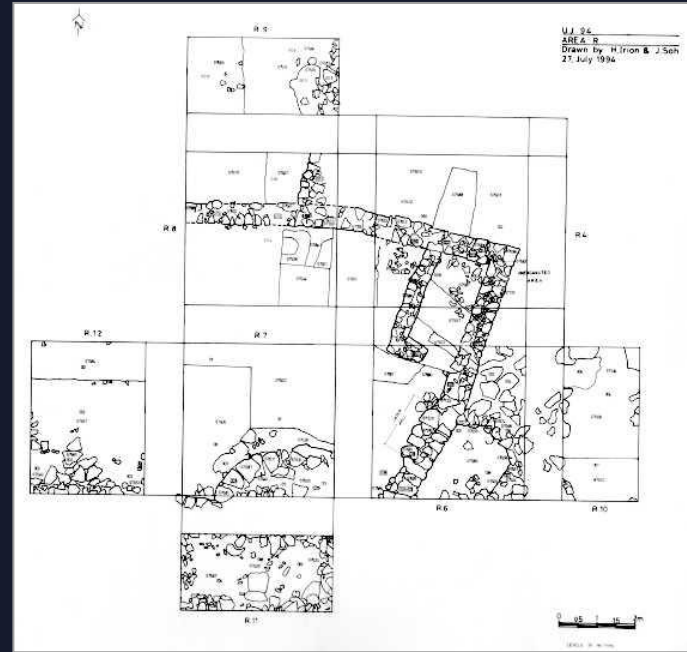
Getting Started: Creating the Site Grid & Datum



Where? RQ & Sampling Strategy



Baulks



How? Vertical vs. Horizontal



Diachronic



Synchronic

How? Open vs. Box



Terms: Context

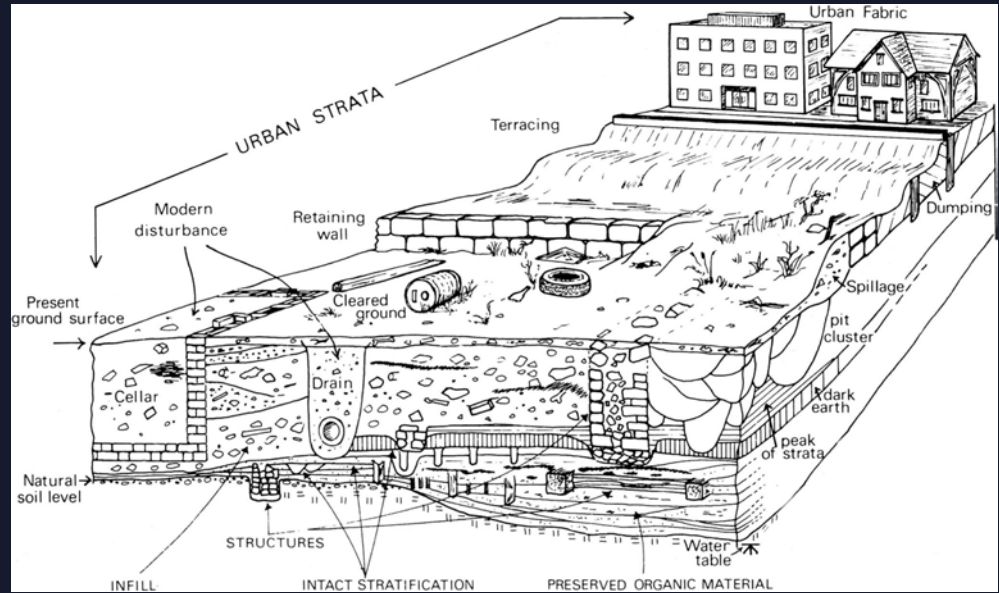


Matrix



Association

Terms: Provenience (X-Y-Z) & in situ



Tool Kit



Excavations



Excavating Features: Surfaces/Floors

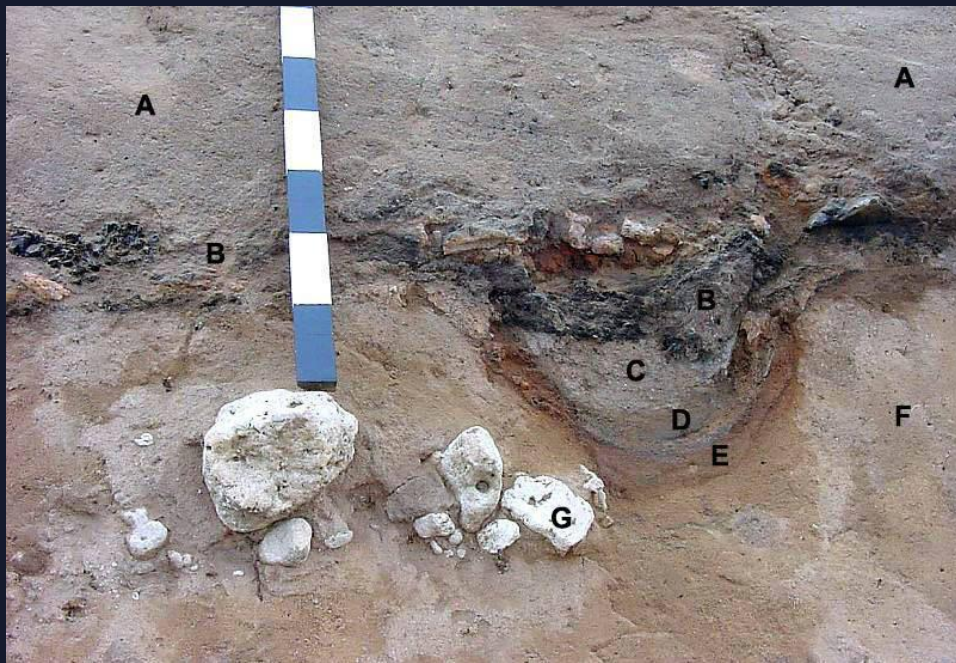


http://archaeology.about.com/od/archaeologic7/ss/Excavating-at-Blue-Creek_13.htm



<http://www.archaeology.org/interactive/sagalassos/fieldnotes/?p=30>

Excavating Features: Hearth (before & after)



Excavating Features: Kiln



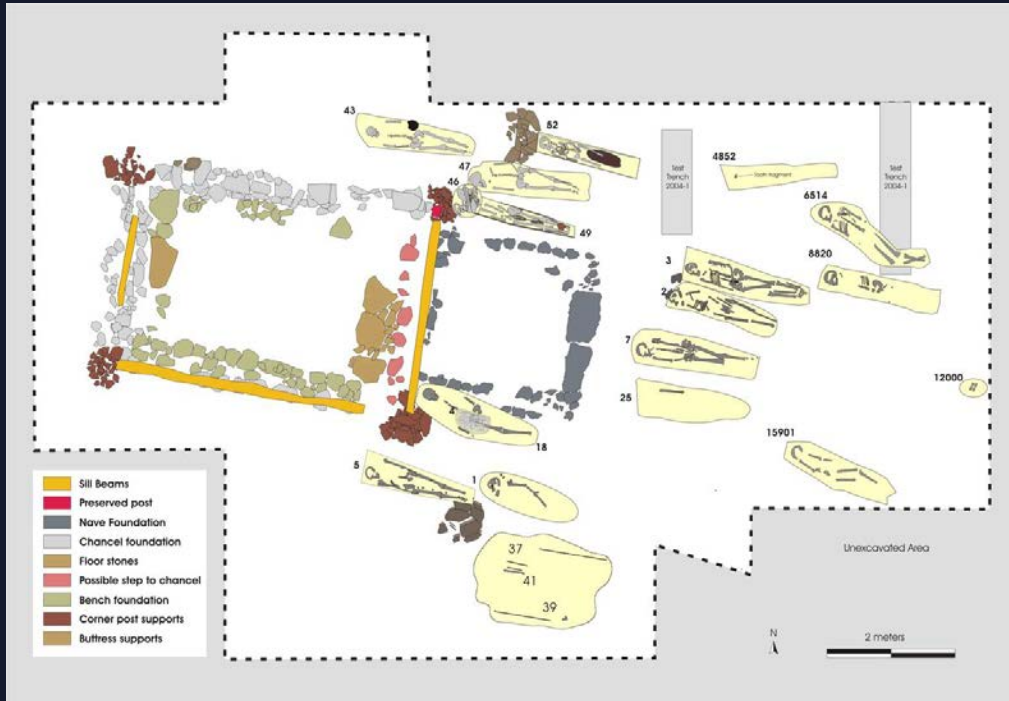
'Before and after' views of the post-medieval corn-drying kiln, set into one of the rocky ridges on Llanelwedd Rocks. © CPAT

More kilns



<http://www.pasthorizonspr.com/index.php/archives/11/2011/archaeologists-examine-craft-quarters-of-a-greek-colonial-city>

Excavating: Burials & Repatriation



Mosfell Archaeological Project (Vikings)

http://www.viking.ucla.edu/mosfell_project/images/2004_church_burials_large.gif

Recording

- Unit info
- Describe soil & inclusions
- Materials/bags
- Observations (text)
- Above, same & below (Harris Matrix)

EXCAVACIONES ARQUEOLÓGICAS PUKARA 2009

Relación de Locus

Arqueólogo(s) RS, AB, JA Unidad: N 2 E _____
 Fecha: 12/08/09 a 13/08/09 Rasgo: _____ ASD: _____
 Gráficos: 1 de planta, CC Campo
 Muestras: Flot bulk _____ Flot scatter _____ Suelo _____
 Datum: 2 Cernir 20 1/16 Num. de Baldes 46 1/2

Sitio - PUKARA
 Bloque- zona 2
 Locus- 110
 Evento- _____
 Nivel- _____
 CC FINAL- _____

Describe el suelo y inclusiones:
 Textura: sandy clay silty loam silty clay loam clay
 (marca uno) silty clay silt loam sand
 Color Munsell: _____
 (código y nombre).
 Inclusiones:
 piedras? <1cm 1-5cm 10-20cm >20cm
 Cantidad? muchas pedras %
 orgánicos? (carbón, ceniza, huesos, otro?):
 comentarios:
Some carbon, some bone (5 small pieces) and several interesting stones (some lithics, some "other")
See "lithic" job sheet

Porque se define como locus?
estratigráfico?
50 cm
 Como se distingue de locuses adyacentes?

Materiales/ BOLSAS

#	1/4"	1/16"	número de bolsa (lab)
<u>294</u>	cerámica ✓		<u>119</u>
<u>68</u>	lítico ✓		<u>120</u>
	morteros/		
<u>5</u>	hueso- animal		<u>121</u>
	hueso- hum.		
	carbón		

FOTOS (marca en el registro)

Rot.º	Toma	Descripción
C-		
B/N-		
Dig-		

Observaciones, interpretaciones, e información adicional:
Some carbon, some petrified plants + wood, more lithics, less ceramics. The soil is becoming more dense - clay-like.
Locus 110 has several medium-sized rocks. We have found a few pieces of animal bones.
The locus was similar to 107 but with more rocks and more clay in the soil.
Aún se tienen de activo removidas (seguidos 10 cm.)

Locus está debajo de: 109
 Locus es lo mismo que: 107
 Locus está arriba de: 114

Sitio PUKARA Bloque zona 2 Locus 110

Dibuje el fondo de locus, indicando artefactos especiales, colecciones, arquitectura, etc.

Escala: 1 a 20

Elevaciones

	capa	base
1	<u>17 cm</u>	<u>28 cm</u>
2	<u>31 cm</u>	<u>43 cm</u>
3	<u>64 cm</u>	<u>74 cm</u>
4	<u>56 cm</u>	<u>71 cm</u>
5	<u>26 cm</u>	<u>40 cm</u>
6	<u>14 cm</u>	<u>27 cm</u>
7		
8		
9		
10		

Comentarios:

COLECCIONES

	norte	este	elev	descripción
1/1				
1/2				
1/3				
1/4				
1/5				
1/6				
1/7				
1/8				

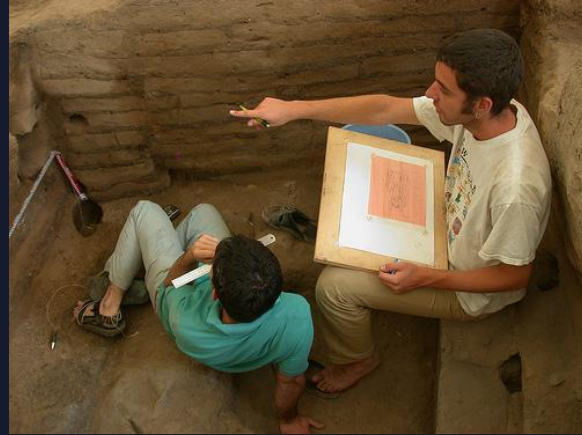
Photos

Samples (C14)

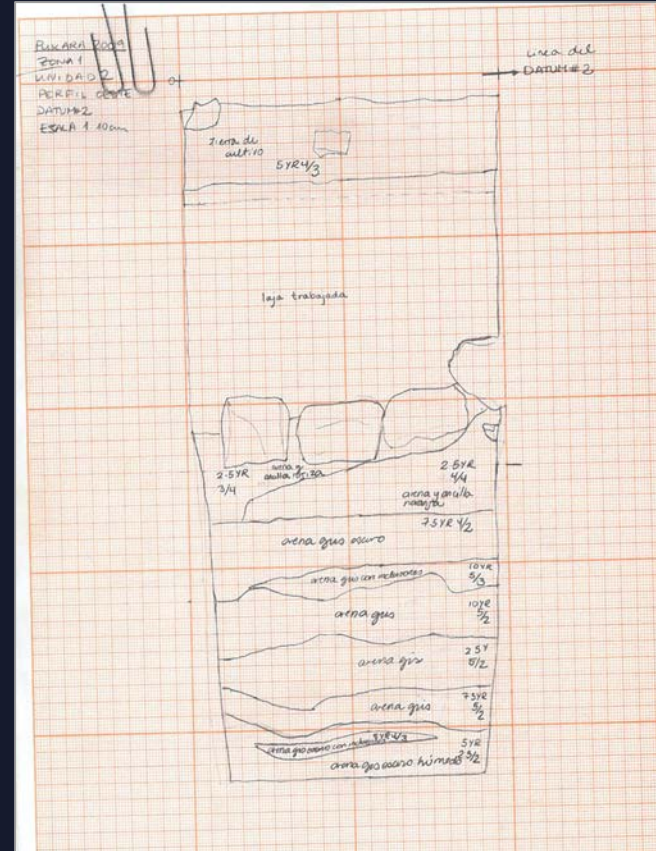
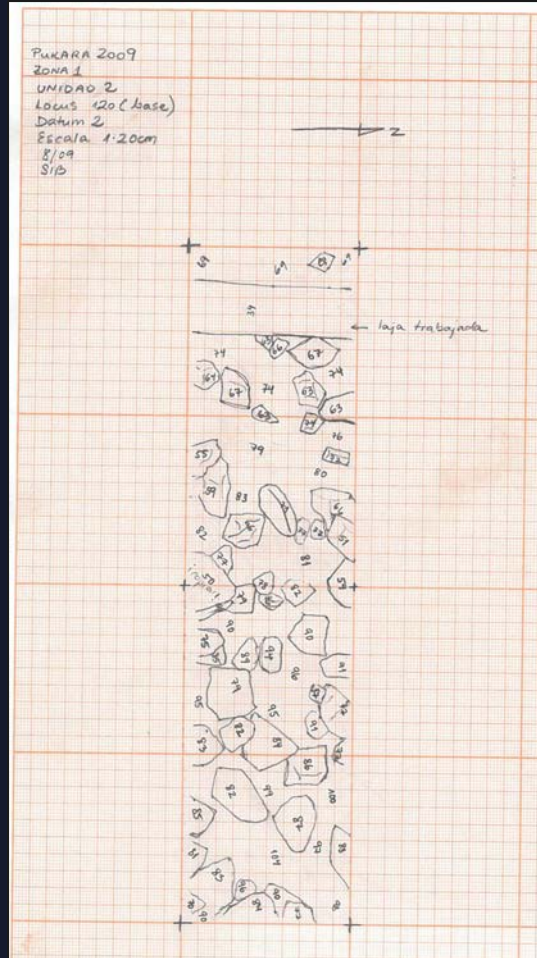
Measurements (elevations)

Recording





Profile & Plan





Recording: Paperless Excavations [[Pompeii](#) & [2022 article](#)]



Recording: Paperless Excavations [Pompeii & 2022 article]



Recording: Mapping & Drone Technology [[link](#)]



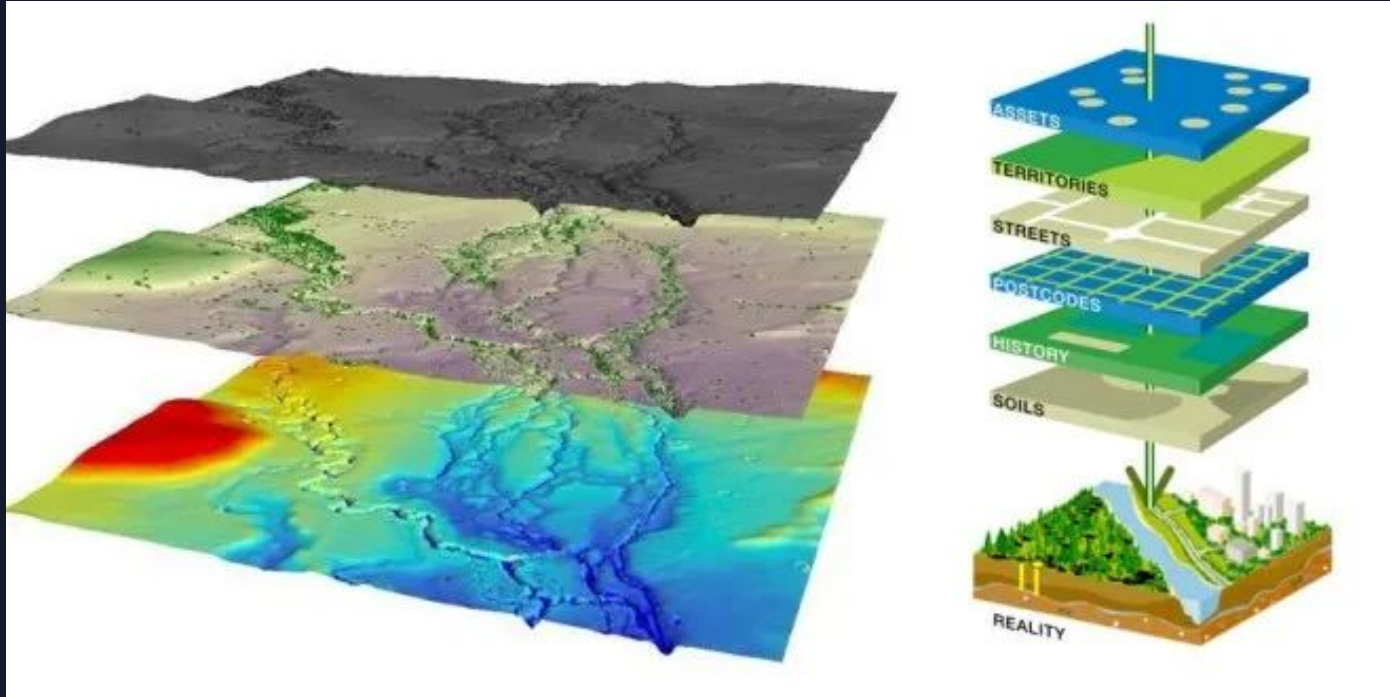
Drone with Lidar Scans Archaeological Site High in Peruvian Andes

Archaeology is more associated with shovels than drones, but in a recent study of the ruins of Kuelap, in the Peruvian Andes, drones helped create the most detailed map of the site ever made.



By Julian Smith March 9, 2021

GIS: Data Integration



Different types of information about the natural and cultural landscapes can be combined to examine spatial patterns in past human societies
<https://medium.com/digital-heritage/geographic-information-systems-gis-analysis-in-archaeology-fcd160d72876>

Data Processing: Screening

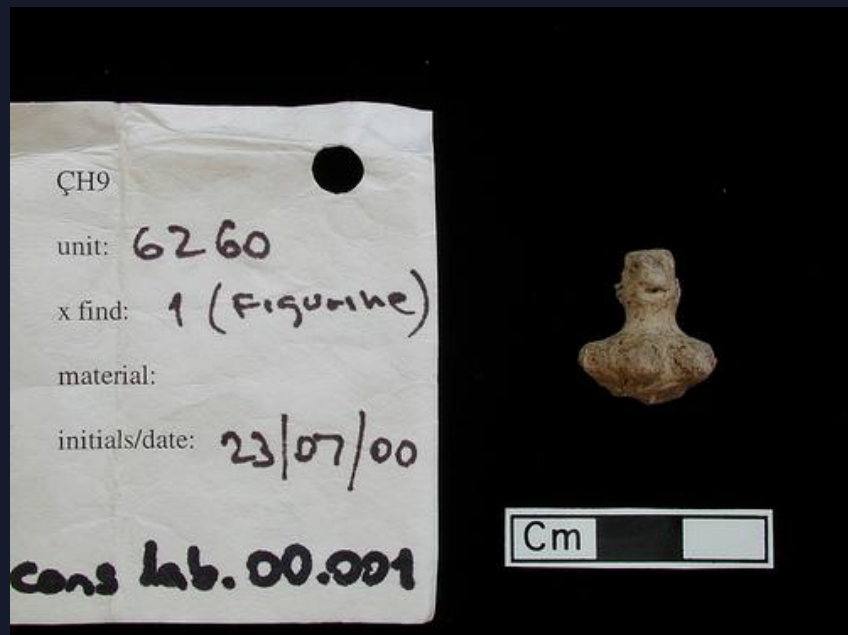


Data Processing: Flotation



Field example [[link](#)] & laboratory example [[link](#)]

Cataloging & Classification



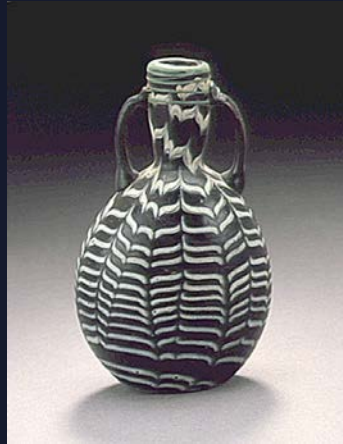


Analysis



Artifacts

Portable objects made or modified by people



Ecofacts

Animal bones, botanical remains & sediments recovered from archaeological sites



Features

Non-portable object related to human activity (manufacture, use, etc.) or an arrangement of a materials remains with a significant pattern (e.g. cooking area, burial)

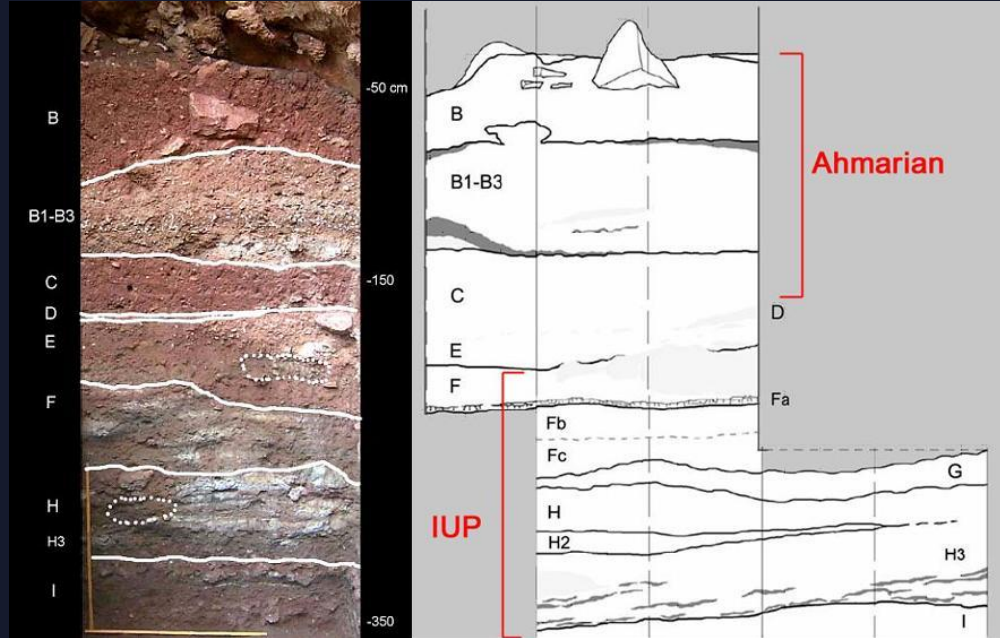


How are sites formed? Cultural & natural processes



<http://www.bible-archaeology.info/ziggurats.htm>

Studied via stratigraphy



<http://web.arizona.edu/~hatayup/webimages/stratigraphy.jpg>

Cultural Processes?

66 HOW ARCHAEOLOGY WORKS

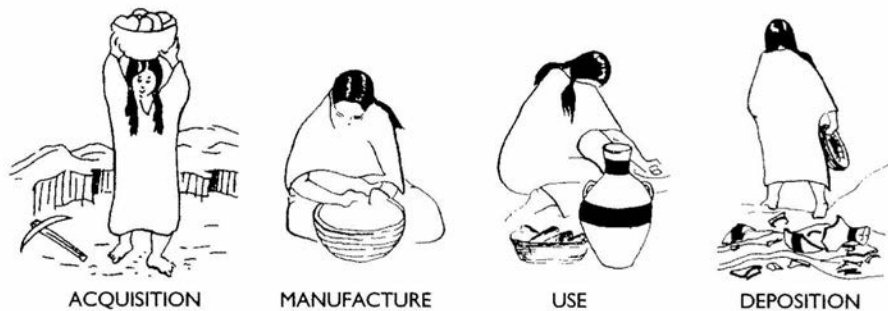


FIGURE 4.6

Archaeological data represent at least one behavioral cycle, as exemplified by the acquisition of clay, the manufacture and use of a pottery vessel, and deposition of its broken fragments.



FIGURE 5.14

This is one means by which accumulation of occupational debris results in vertical buildup.

Natural Processes?



<http://whc.unesco.org/en/list/675>

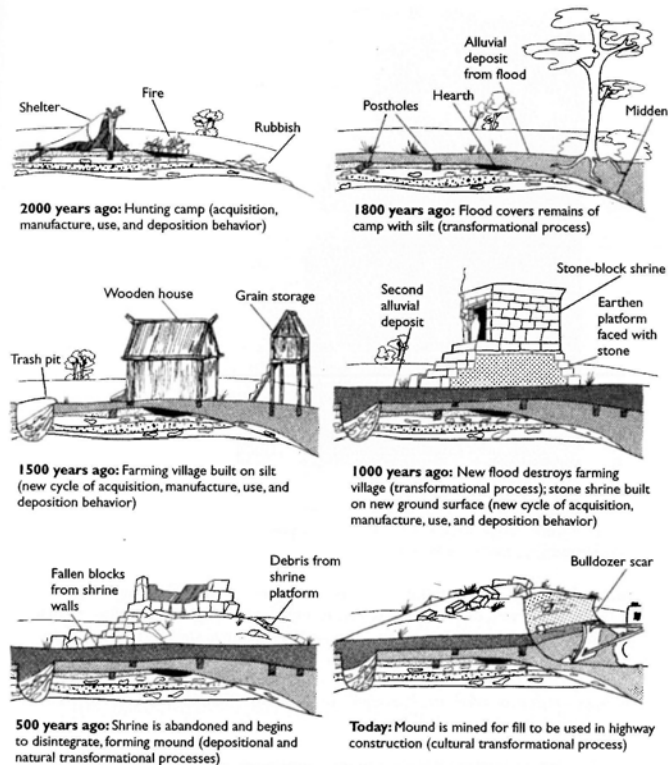


FIGURE 4.7

The characteristics of archaeological data and their deposition reflect both behavioral and transformational processes.

Preservation: Contexts?



Child sized Yucca sandal from a dry cave, TX



2000 year old butter preserved in an Irish bog



Inca female figurine, frozen, N. Chile

What survives? matrix, climate & natural occurrences

Google Earth Site Report

[Assignment & Related Documents](#)

Week 6

Editing & Special Collections

- 10/8 Peer Review
 - 10/10 Special Collections
 - 10/11 Google Earth Due
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