ARCHAEOLOGY

The Science of the Human Past, 3e

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Chapter 4: The Archaeological Record

Archaeological Sites

A site is a geographic locality where there is some evidence of past human activity

- **Artifacts, Ecofacts, Features**
  - Nonrandom distribution
- **Site Boundaries**
  - Distance between concentrations
- **Large Sites**
  - Loci

Types of Sites

Geographic Context

Function

Age

Site Deposits

- **Anthropogenic Soils**:
  - Results from human behavior
- **Middens**:
  - Ancient garbage
- **Stratigraphy**
  - Vertical
  - Horizontal

Archaeological Evidence

Primary Context

Secondary Context

Artifacts

Portable objects made, modified, or used by humans

Geofacts?	Tools
Debris	Manuports

Ecofacts

Unmodified remains of biological materials

- **Cultural Origins**
  - Food Bones
  - Corncobs
  - Paleofeces
- **Noncultural Origins**
  - Rodent bones
  - Insect remains
  - Palynology

Features

Non-portable constructions that people made for some purpose

- Hearths
- Pits
- Roads
- Dams
- Rock Art
- Earthworks

Architecture

Human Remains

Inhumation/Ossuaries

Cremation

Mummies

Site Formation and Transformation

Cultural Action

Transformational Process

Geology and Hydrology

Water

Wind

Ash

Earthquakes

Mudslides

table 4.1

General Formation and Transformation Processes

PROCESS	FORMATION		TRANSFORMATION	
	Natural	*Cultural*	*Natural*	*Cultural*
Various kinds of deposition and erosion	X		X	
Earthquakes and tsunamis	X		X	
People living/working on a site in the past		X		X
Decomposition			X	X
Taphomonic processes			X	
Bioturbation			X	X
Modern development				X
Vandalism and looting				X

Taphonomy

The study of the transformation of biological materials in the archaeological record

Bioturbation

The disturbance or movement of deposited materials by organisms

- Burrowing and Nonburrowing Animals
- Plant Roots and Fallen Trees

Human Agency

As soon as sites form, humans begin altering them.

Pits for burial and building

Reusing and Recycling Materials

Preservation

Preservation refers both to physical items as well as their archaeological context

- **Preservation Conditions**
  - Biological activity
  - Inorganic action
- **Preservation and the Environment**
  - Extreme conditions
  - Warm and dry
  - Cold
  - Anaerobic conditions

General Preservation Conditions

Stone	Millions of years	Most	Exposure in erosional environments
Bone	Hundreds to many thousands of years	Rapid burial, slight burning, alkaline soils, fossilization	Disturbance, breakage, exposure to sunlight, acidic soils.
Shell	Thousands of years	Rapid burial, alkaline soils	Disturbance, breakage, acidic soils
Ceramics	Thousands of years	Most	Disturbance, breakage, acidic soils
Perishables (e.g., wood, textiles, and fibers	A few months to a few years	Where bacterial do not live, either very dry, very cold, or anaerobic	Moisture and warm temperatures
Flesh (soft tissue)	A few weeks to a few months	Where bacterial do not live, either very dry, very cold, or anaerobic	Moisture and warm temperatures
Glass	Thousands of years	Most	Disturbance, breakage
Ferrous metals (e.g.,iron)	Tens to hundreds ofyears	Most	Disturbance, breakage

Recognizing and Recovering Evidence

All materials from the past still exist in the archaeological record

As the pieces get smaller, more information is lost

Recognition is a prerequisite for recovery

Ongoing Impacts on the Archaeological record

- **Natural Actions**
- **Human Actions**
  - Development
  - Large-scale agriculture
  - Recreational activities
  - Warfare
  - Looting
  - Archaeology