

## ARHCAEOLOGY - Chapter 6: Classification and Analysis of Artifacts

### LEARNING OBJECTIVES

You should be able to:

1. Know the difference between temporal and other sorts of artifact assemblages, and the utility of organizing artifacts into various assemblages.
2. Define the various types of artifacts, including lithics, ceramics, glass, metal, and perishables.
3. Discuss the issues that lie behind the process of artifact classification
4. Discuss the procedures of artifact analysis and recognize what sorts of information those analyses can and cannot yield.

### Chapter Summary

- I. The “life” of a Chert Core, China to Afghanistan
  - A. Analysis of tools has potential to inform about technology, economics, social organization, and cultural beliefs
- II. Typology and Classification
  - A. Classification involves morphology (form) and function, and can help document and explain changes through time
  - B. Attributes
    1. Quantitative; qualitative; style
  - C. Temporal types
    1. changes in Egyptian pyramid types
  - D. Assemblage types
- III. Classifying Types of Artifacts
  - A. Stone
    1. groundstone
    2. flaked stone: flintknapping, percussion flaking, pressure flaking, cores, bifaces, unifaces, burins
    3. blades, composite tools, debitage
  - B. Ceramics
    1. ceramic technology as an important dating tool
    2. pottery development related to domestication of plants and animals
    3. pottery techniques: paddle, coiling, carving decorations, potter’s wheel
    4. ceramics classification: terracottas, earthenwares, stonewares, porcelain
    5. ceramics decoration: scratching/incising/punching/appliqués, paints/glazes
    6. vessel form and function
  - C. Metal
    1. metals that can be used in their natural form
    2. “impure” metals (ore) that must be smelted
    3. casting
    4. metallurgy-based economies
    5. changes through time: bronze to iron
    6. differences in metal preservation in archaeological sites
  - D. Glass
    1. earliest glass from Mesopotamia
    2. glass manufacturing techniques
    3. difficulties for archaeologists from recycling of glass in early history
    4. difficulties in dating glass from stability in manufacturing techniques

5. glass analysis objectives: determining approximate size and age of assemblage, likely source, original contents of vessels, etc.
6. glass beads
- E. Highlight 6.1: Historical Material Culture: A View from Riverside's Chinatown
- F. Shell and bone
  1. acquired through trade for those who didn't have direct access
  2. analysis of bone includes identifying species as well as artifact type
- G. Perishables
  1. basketry, textiles, wood, leather and bone
- H. Highlight 6.2: The Flutes of Jiahu
- I. Highlight 6.3: Inka textiles
- IV. Analyzing Artifacts
  - A. Use wear analysis
  - B. Geochemical sourcing
    1. especially with obsidian, jade, turquoise, some metals, and clay
  - C. Residue analysis
    1. gas chromatography, gas chromatography/mass spectrometry, protein residue analysis
  - D. DNA analysis
    1. from tool edges as well as preserved plant and animal tissues

### Key Concepts

- **Assemblage** All the materials – artifacts and ecofacts – collected from a site and representing all of the evidence of the activities at a site.
- **Attributes** Descriptive aspects of an artifact or site, such as its size, content, material, or shape.
- **Classification** The placement of materials into categories that can be used for identification and comparison.
- **DNA Analysis** The recovery of deoxyribonucleic acid (DNA) from archaeological specimens, replicated by polymerase chain reaction (PCR). The sequence of genes can be read to determine hereditary relationships between populations and even between individuals.
- **Flintknapping** The process of making flaked stone tools.
- **Geochemical Sourcing** Analysis to determine the chemical components of stone, metal or clay artifacts or ecofacts in order to trace it to a point of origin.
- **Morphology** The form or appearance of an archaeological object.
- **Protein Residue Analysis** The chemical recovery and identification of plant or animal proteins surviving on tools, in paleofeces, or in soils.
- **Style** A particular and distinctive form of an object or the way in which something is made.
- **Temporal Types** Artifacts of known age that can be used to date associated materials or activities.
- **Typology** The classification of materials into categories based on morphology.
- **Use-Wear Analysis** Examining the wear patterns – microscopic striations and polish – on the surface of tools to determine what the tools were used on.