

Introduction to Archaeology

Fall 2024
Lecture 12 (10/17)



Week 7

Labwork & Materials Analysis

- Studying Pottery
 - Hands-on Analysis
 - [Weekly Exercise 5](#)
- Assign. 2: Pottery Methods Essay
 - Handout overview







Ceramics and/or Pottery???

Ceramics are any of the various hard, brittle, heat- and corrosion- resistant materials made by humans for at least 26,000 years by shaping clay and firing the product at a high temperature.

In archaeology, ceramic artifacts, especially **pottery** and earthenware, play an important role in conveying the culture, technology, and behavior of peoples of the past. [Kolb]

Kolb, C.C. (2017). Ceramics. In: Gilbert, A.S. (eds) Encyclopedia of Geoarchaeology. Encyclopedia of Earth Sciences Series. Springer, Dordrecht.

https://doi.org/10.1007/978-1-4020-4409-0_32

Kolb, C.C. (2022). Ceramics. In: Gilbert, A.S., Goldberg, P., Mandel, R.D., Aldeias, V. (eds) Encyclopedia of Geoarchaeology. Encyclopedia of Earth Sciences Series. Springer, Cham.

https://doi.org/10.1007/978-3-030-44600-0_32-1

Sinopoli, C.M. (1991). Defining Ceramics. In: Approaches to Archaeological Ceramics. Springer, Boston, MA.

https://doi.org/10.1007/978-1-4757-9274-4_2

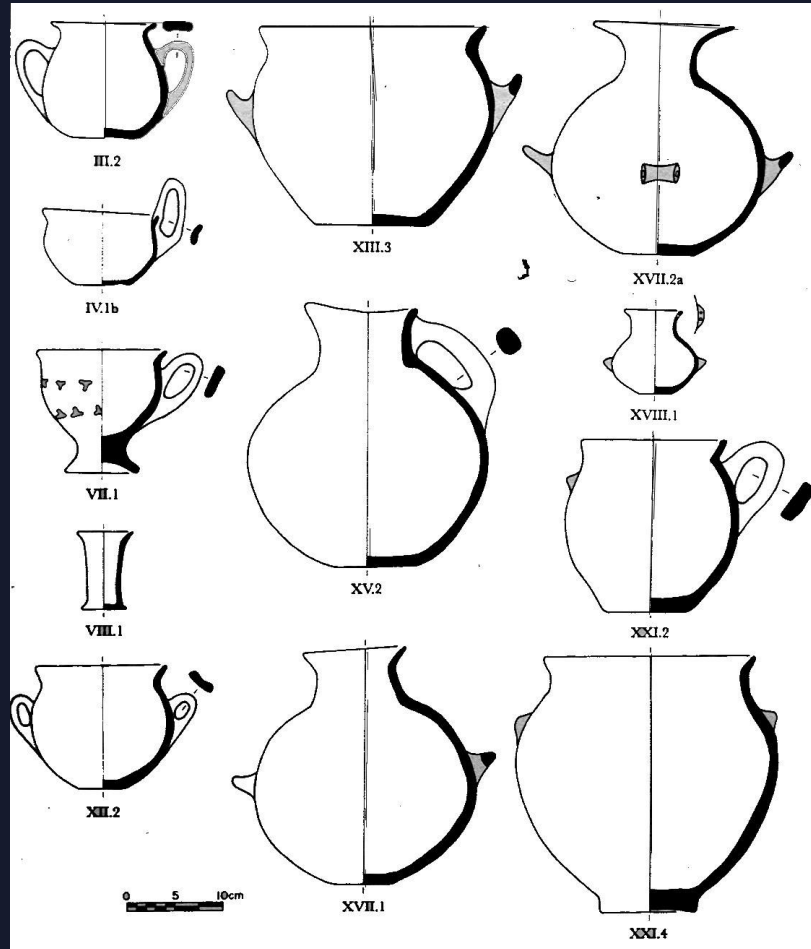
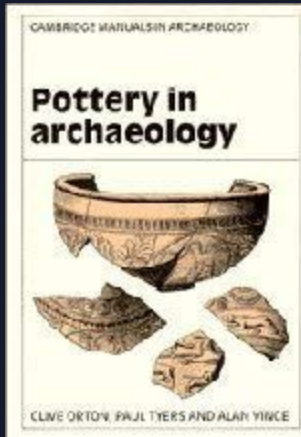


Table 1.2 Ceramic Bodies and Their Characteristics

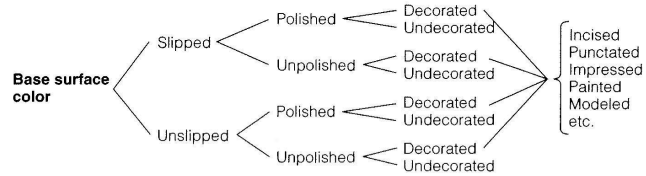
Body Type	Porosity	Firing Range	Typical Applications	Comment
Terracotta	High: 30% or more	Well below 1000°C	Flowerpots, roof tiles, bricks, most archaeological pottery	Unglazed, coarse, and porous; often red-firing
Earthenware	Usually 10–25%	Wide: 900–1200°C	Coarse: drainpipes, filters, tiles, bricks Fine: wall and floor tiles, majolicas	Glazed or unglazed; body nonvitrified
Stoneware	0.5–2.0%	ca. 1200–1350°C	Glazed drainpipes, roof tiles, tableware, artware	Glazed or unglazed; vitrified body
“China”	Low: usually less than 1%	1100–1200°C	Tableware	White, vitrified
Porcelain	Less than 1%; often nearly 0%	1300–1450°C	Fine tableware; artware; dental, electrical, and chemical equipment	Hard body; fine, white, translucent

(1) Stylistic Attributes

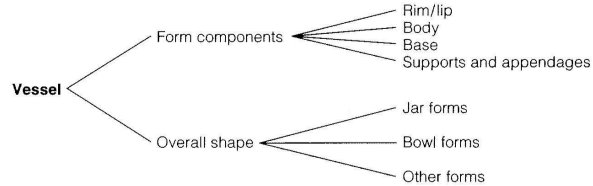
(2) Form attributes

(3) Technological attributes

STYLISTIC ATTRIBUTES



FORM ATTRIBUTES



TECHNOLOGICAL ATTRIBUTES

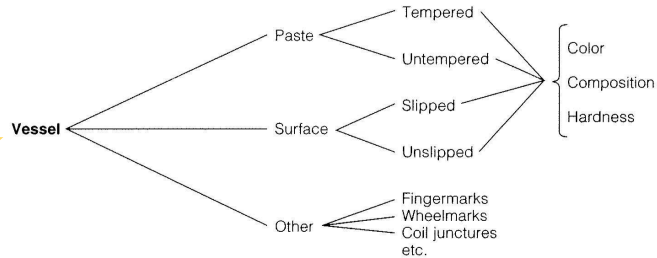


FIGURE 5.24

In the classification of pottery, these kinds of attributes are used to define stylistic, form, and technological types.

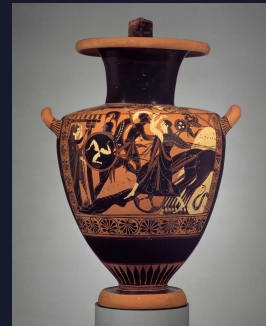
Style: Is the surface of the vessel decorated?

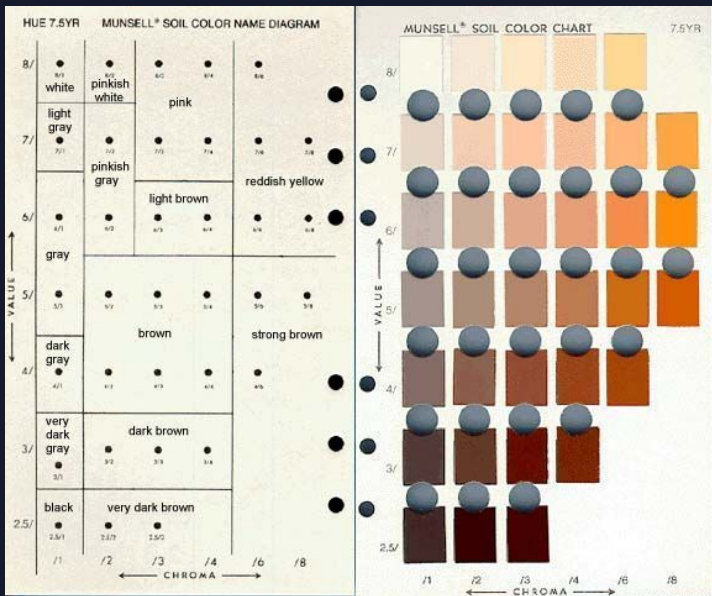


- **No.** Is there evidence of **other types of treatment** ? wiped, polished, etc.
- Other things on the surface to notice?



- **Yes. How** was it decorated? Painted, incised/carved, modeled, etc.
- **Where** ? Interior, exterior, both?
- **What** is the decoration?
Representational (of what?), geometric, abstract, other
- **Meaning** of decoration?
- Use Munsell Color chart





POTTERY GUIDE SURFACE TREATMENT

Incised



Orange Incised



St. Johns Incised

Plain



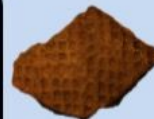
Orange Plain



Sand Tempered Plain

Stamped

Check Stamped



St. Johns

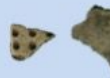


Deptford

Punctated



San Marcos Reed Punctated Rim



St. Johns Punctated



St. Johns Plain

St. Johns Burnished

Complicated Stamped



Swift Creek



San Marcos

Other



San Pedro Cob-marked



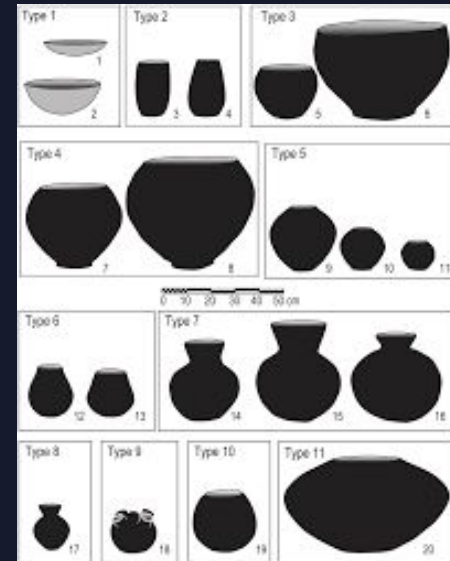
Ocmulgee Cardmarked



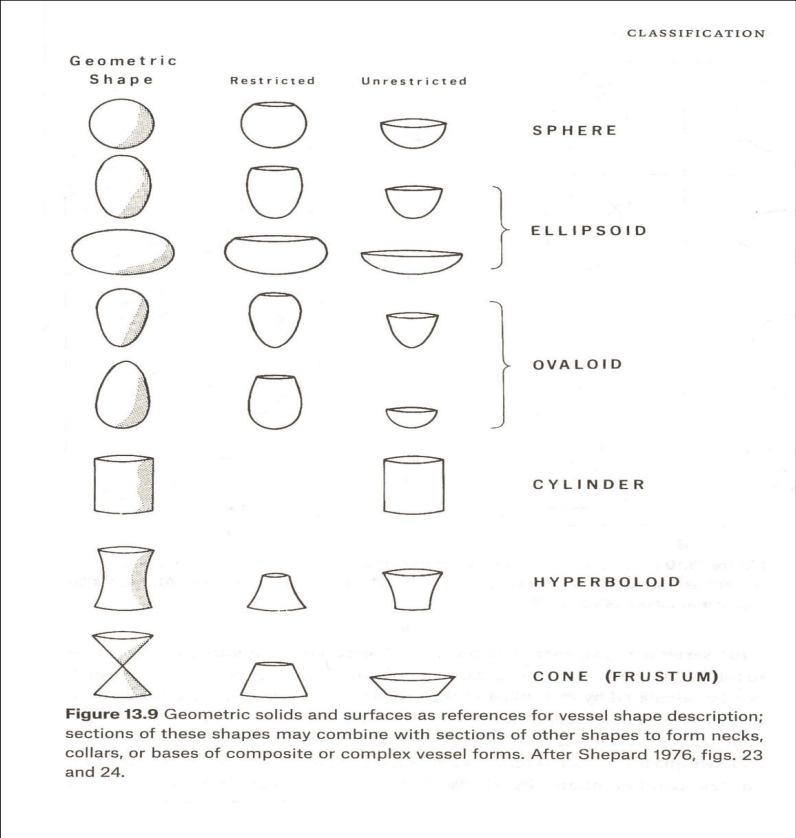
Little Manatee Shell Zoned

Form: What is the overall shape?

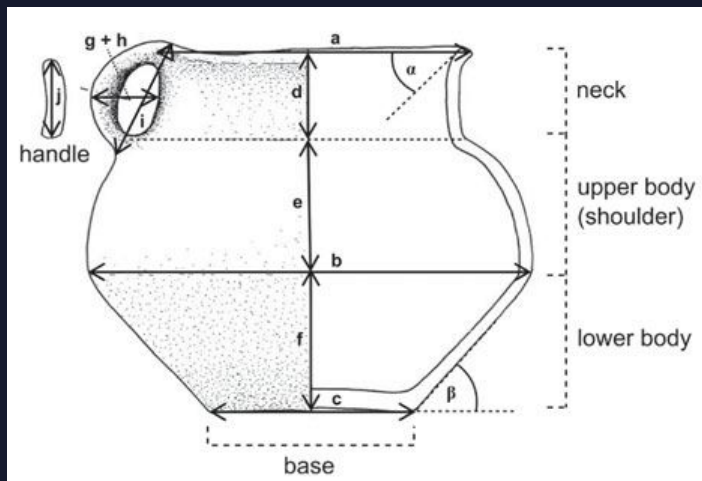
- Is it **open** (like a bowl) or **closed** (like a jar)?
- What other parts of the vessel can we study?
 - Rim or lip? Base or bottom? Handles?
- What can we tell about its size?
 - Height overall?
 - Diameter? (chart to measure rim and/or base)
- Any other questions or comments?



Restricted (closed) vs. Unrestricted (open)



Anatomy: Body, Base & Orifice



Box 13.2 Anatomy of a Pottery Container

Any ceramic vessel form can be described or characterized in a number of ways, often with explicit or implicit reference to particular shapes and their proportions in terms of human anatomy. Most simply, a vessel has three essential parts: body, base, and orifice (fig. 13.4a).

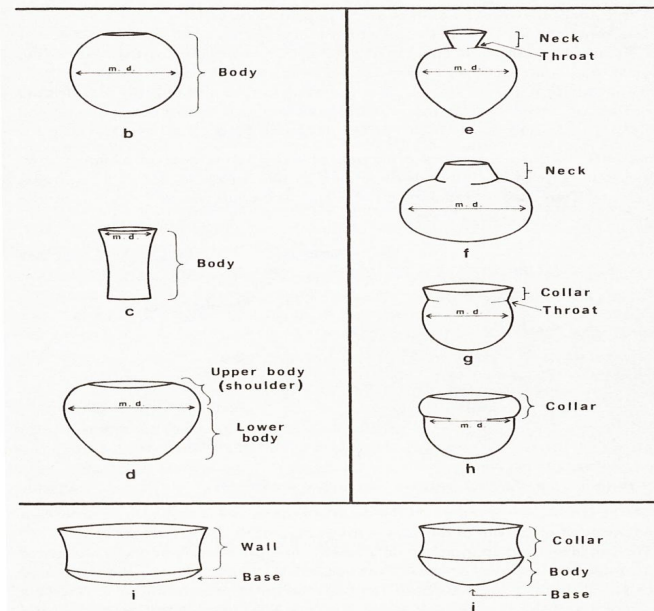
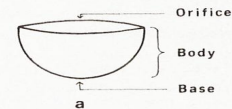


Figure 13.4 Major subdivisions of pottery vessel shapes: a, divisions of a simple vessel; b-d, vessel body; e-h, neck, collar, and throat; i, j, base and body on composite forms (m.d. = maximum diameter).

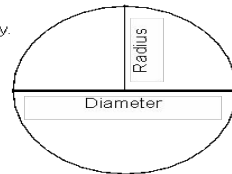
How Big?

How to use the rim chart:

When you are drawing pottery, you should use the rim chart on the next page to help you work out the diameter of your pot at both the rim and the base.

It is very easy to use! You just need to move your piece of pottery up the curved lines until the edge matches the curve of a line exactly.

To work out the diameter, all you then need to do is follow the correct line to the edge of the rim chart and read off the number. This will give you the radius of your pot in centimetres. The radius is the distance from the middle to one side of your pot. To find the diameter, you need to double this number. The diameter is the distance across your pot from side to side (see diagram right):

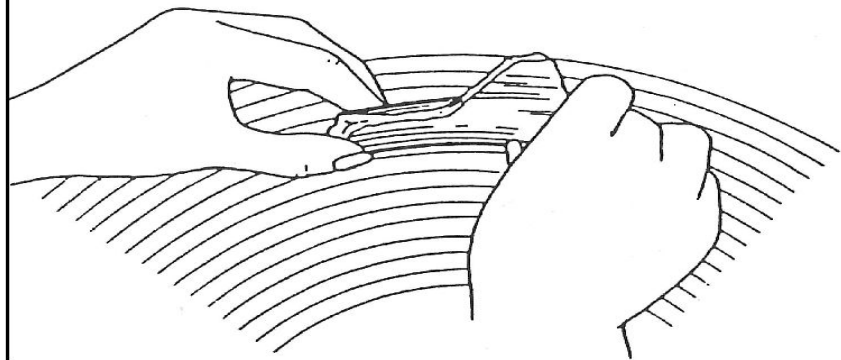


The chart will work for pots with diameters from 2cm up to 56cm.

If you do not have a complete piece of pottery, the rim chart can also help you work out what percentage of the pot your sherd represents. The dotted lines that radiate out from the corner will help you do this. Place the rim chart on the table in front of you in a landscape format. Position your rim sherd onto the correct curve as close as you can to the left-hand side of the chart. You can then work out the percentage that your sherd represents by reading off the % number on the diagonal dotted line nearest to the right-hand end of your pot sherd.

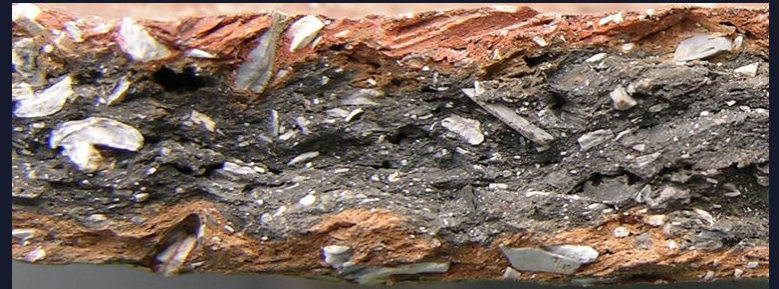
When you print the rim chart you **must** make sure that you print it at 100% or the measurements will be inaccurate. Do not print at a scale and make sure that it is printed on A4 paper; check your printer settings! It is a good idea to use a ruler to check that each centimetre marked on the chart really is a centimetre in real life!

Using a rim chart:



Technology: How was it made? (& used?)

- What can we observe the clay “body” or “paste” used to make the pot? (“ware”)
 - Color. Consistent? Munsell Color chart?
 - Additives/temper. visible? coarse or fine?
- What can we observe about production?
 - Fingermarks? Coil junctures/marks?
 - Wheelmarks? [[ht](#)] Mold marks? [[video](#)]
- Evidence of use? Sooting, chipping, other marks
- Thickness of wall?



IDENTIFYING TEMPER

TEMPER is any material added to clay to make it stronger and more resilient. It helps the vessel to survive the firing process and have a longer use-life. Many materials are used to temper prehistoric pottery. Basic temper identification involves using sight and touch but chemical analyses can be used for more advanced testing. Use the tips listed below to help you identify temper types popular in Florida.



FIBER TEMPERED

- Fiber is plant material like Spanish Moss
- Often soft and crumbly to touch
- Sherds are often thick and chunky
- Tubular voids are visible in sherd from where fibers were burned out during the firing process



SAND/CRIT TEMPERED

- Grit refers to large pieces of sand
- Gritty, sandpaper feel
- Sand granules can be visible in cross section and on surface of sherd
- Sherds can be heavy even when small



SPONGE SPICULE TEMPERED

- Sponge spicules are the structural elements of sponges
- Cross section is dense, no temper material is visible to naked eye
- Chalky and soft to the touch
- Sherds are usually very light regardless of size
- Vessels tend to break along coil lines creating long, thin sherds



GROG TEMPERED

- Grog is crushed pottery
- Small pieces of pottery can be visible in cross section and on surface of sherd
- Grog is typically angular and hard while unfired clay or concretions are not
- Grog may be a different color from the main sherd body



Pottery Exercise!



Week 8

Telling Time

- Absolute & Relative Dating
 - [studying technology overview]
- Alternative Approaches to Time

