

This assignment will be due **Thursday, Oct. 12** at 10:45 AM. It will be late and subject to the late penalties described in the syllabus after Friday, Oct. 13, at 10:45 AM.

Complete submission of this assignment will require three steps: 1) turning in a hard copy to me. This should be typewritten, double-spaced, and printed on white paper with black toner or ink. Please: no cursive or bizarre fonts. The hard copy is what I will actually comment on and return to you with a grade. Your entire answer should require about three pages and no more than four pages. 2) Uploading a copy to Turnitin.com. The instructions for that with the course ID (15963381) and password (**stratum**) are in the syllabus. Please ignore the so-called "Post Date." I do not publish grades on Turnitin. They will be written on your hard copy. 3) Upload a copy to Livetext.com.

This is **NOT** a group assignment: you are to work out your answers individually. It is a violation of the UE Honor Code to copy anyone else's answer or to consult with anyone else.

Do not waste your time looking for an answer on the Internet, because I MADE THE PROBLEM UP, including the names and date ranges of the archaeological periods. Please don't make me tear out the small amount of hair I have left by telling me, for example, that you tried to research the "Rill Period," but could not find anything about it. It did not exist. Emperor Moofus did not exist. You don't need to "research" anything. All you need is your brain and the basic stratigraphical principles that we have examined.

The sectional diagram provided is **NOT** based on any particular archaeological site or time periods, although it is very similar to the kinds of diagrams we actually use in analyzing stratigraphy. For purposes of this exercise, assume that only one kind of pottery was actually being produced (e.g., "handmade; white spirals on dark surface") in each period. Remember, however, that artifacts made earlier regularly appear in later levels because people are constantly digging down into earlier levels and bringing up old artifacts, so do not be surprised if some strata have items from multiple periods. People also keep certain items long after their manufacture and do not throw them away casually, either because they are valuable or are heirlooms with sentimental value.

The latest datable item in each stratum will provide the best *terminus post quem* ("time after which") for the deposition of the stratum. You may assume that all radiocarbon dates have been calibrated using the best possible method. The term "stratum" here is used very loosely as a way to describe a level homogeneous in soil color, texture, and other characteristics. In a real site, such "strata" would likely be excavated in many separate units, not in a single pass. When strata are discontinuous (as when cut by a later feature), I indicate that by using the same stratum number for each segment of the stratum.

Your assignment is to reconstruct the occupational history of this site using the sectional diagram and other information provided. For the purposes of this assignment, we will assume that this trench is representative of the entire site. In real life, it often happens that some parts of a large site may have been abandoned at a particular time, while others were occupied, but we will ignore that possibility here. You should assume that if you have pottery of a particular period present, then people were actually occupying the site during that time.

First, identify the basic times of occupation using the pottery data, datable artifacts and radiocarbon dates provided. By “times,” I mean continuous episodes of people occupying the site, which may extend across several archaeological periods. For example, “The site was occupied continuously from the Late Gill through Developed Mill periods, based on the presence of handmade pottery with black squares on a pale surface in Stratum X, and handmade pottery with white bands and zigzags in Strata Y and Z immediately above. It was abandoned during the Advanced Mill Period because” Indicate briefly what evidence leads you to your conclusions. You do NOT need to regurgitate all of the evidence given for each stratum. **Second**, identify any probable buildings and what wall features and floors belong to them, any graves, or other features (e.g., pits) evident in the sectional diagram and what period they were probably constructed in. If evidence allows a more specific *terminus post quem* for the construction date than a whole period, provide that. **Third**, answer the specific questions below.

- 1) What is the **latest** *terminus post quem* we can assign to Stratum 10? Think twice and carefully about this one.
- 2) The student Jimmy Jehosaphat is extremely worried about the date of Stratum 4, because the datable items seem so far apart. What is the actual **latest** *terminus post quem* for this stratum and how do you know?
- 3) Polly Purebred is very confused about the date of Stratum 12, because the wood and the pottery sherds seem to be indicating different dates. Help her out with determining the **latest** *terminus post quem* of Stratum 12. What is a possible explanation for the apparent discrepancy in dates?

Information about the strata excavated:

Stratum 1: Coin of 1900 AD, many sherds of wheelmade white glazed pottery.

Stratum 2: Many sherds of wheelmade red-glazed pottery, with a few sherds of green-glazed pottery; the green-glazed pottery is more common at the bottom of the stratum, though.

Stratum 3: This stratum, along with Stratum 4, cut into Stratum 5 underneath. The soil was very soft and the excavator did not see a very clear difference from Stratum 2 above. At the bottom of the stratum, the excavator found some burned human bones and teeth in a red-glazed pot. Alongside the pot were two coins of Obamion II, the Dominator of the Villian Dominion from 195-210 AD.

Stratum 4: As with Stratum 3, this stratum cut into Stratum 5 underneath, without a very clear difference from Stratum 2 above. At the bottom of the stratum, the excavator found a whole skeleton of a young woman, with some pieces of a broken red-glazed pot. The young woman had an unusual ivory bracelet of a type known to have been made only during the time of Trumpicles III, the Villian Dominator who ruled between 240-265 AD. She also had a silver pendant that had been made from a silver coin of the Roman emperor Nero (54-68 AD), and a gold Egyptian amulet made during the time of the pharaoh Necho I (672-674 BC).

Stratum 5: Many sherds of green-glazed wheelmade pottery, some sherds of wheelmade pottery with black animals. Coin of the Sillian Emperor Snerko I (500-480 BC)

Stratum 6: This stratum contained mostly wheelmade pottery with black animals, but with some wheelmade pottery with black plants. Near the base of this stratum, two stone walls appeared, Wall 1 and Wall 2.

Stratum 7: This stratum was very hard-packed dirt and pebbles; the excavator believed it was a floor going with Walls 1 and 2. The only artifact in the floor was a coin of the Sillian Emperor Moofus, who ruled between 530-520 BC

Stratum 8: This was another hard-packed surface that the excavator believed was a floor going with Walls 1 and 2. It had one pot sherd of wheelmade pottery with black plants on a pale surface. It also had ten broken walnut hulls. These are very useful, because the hull grows and dies in a single year. The same is true of seeds of different kinds, like barley and wheat. One of these hulls was C-14 dated to 580 ± 30 BC.

Stratum 9: Many sherds of wheelmade pottery with black plants on a pale surface were found, along with broken clay tablets. The writing on these refers to the Sillian Empress Brizola (690-675 BC)

Stratum 10: Nothing at all was found in this stratum except an unusual bone spear-head. An expert dated this to the beginning of the Upper Paleolithic Period, around 40,000 BC.

Stratum 11: A large number of sherds found here. All were handmade, with most either having white spirals on a dark surface or white spirals on a dark surface; a few had white zig-zags on a dark surface. Near the bottom of this stratum, two more stone walls appeared, Walls 3 and 4.

Stratum 12: This was a hard-packed gravel surface that the excavator thought was a floor going with Walls 3 and 4. Embedded in the gravel were three pottery sherds, all handmade with white spirals on a dark surface. Also embedded in the gravel was a large piece of wood. A C-14 date on its innermost growth ring was 2610 ± 80 BC.

Stratum 13: Many pottery sherds with white circles on a dark surface, and some with white zig-zags on a dark surface.

Stratum 14: Many pottery sherds with white zig-zags on a dark surface.

Stratum 15: The excavator did not see a clear break between this and Stratum 14, but the deepest part of the stratum was full of animal bones, carbonized seeds, pot sherds, and pieces of broken groundstones. The sherds were all with white zig-zags on a dark surface. C-14 date on two barley seeds were 3000 ± 120 BC and 2970 ± 110 BC.

Stratum 16: Few sherds, all handmade with red squares on a pale surface; few stone tool fragments.

Stratum 17: Many handmade sherds with red squares on pale surface and a few handmade red burnished. Many stone tool fragments.

Stratum 18: Many handmade red burnished sherds and stone tool fragments. Walls 5 and 6 appeared near the bottom of this stratum.

Stratum 19: This stratum was hard-packed earth between Walls 5 and 6, possibly an earthen floor. Several burned wheat seeds were found, and two were C-14 dated, one to 5400 ± 200 BC and the other to 5350 ± 180 BC.

Stratum 20: Many handmade sherds of red burnished pottery were found, along with broken stone tools.

Wall 1: No datable material

Wall 2: A wall block was found to have a readable inscription that said, "House of Bluto, faithful servant of Emperor Lamponion." The Sillian Emperor Lamponion is known to have ruled between 595-560 BC.

Wall 3: Embedded within the wall at the time of construction was a small pocket of burnt barley seeds. One dated to 2260 ± 70 BC.

Wall 4: No datable material.

Wall 5: No datable material.

Wall 6: No datable material.

Note that burning of organic materials like bones or seeds will not affect the dates yielded by C-14 dating. It is in fact partial burning that preserves some of these biofacts like seeds and walnut hulls from decaying.

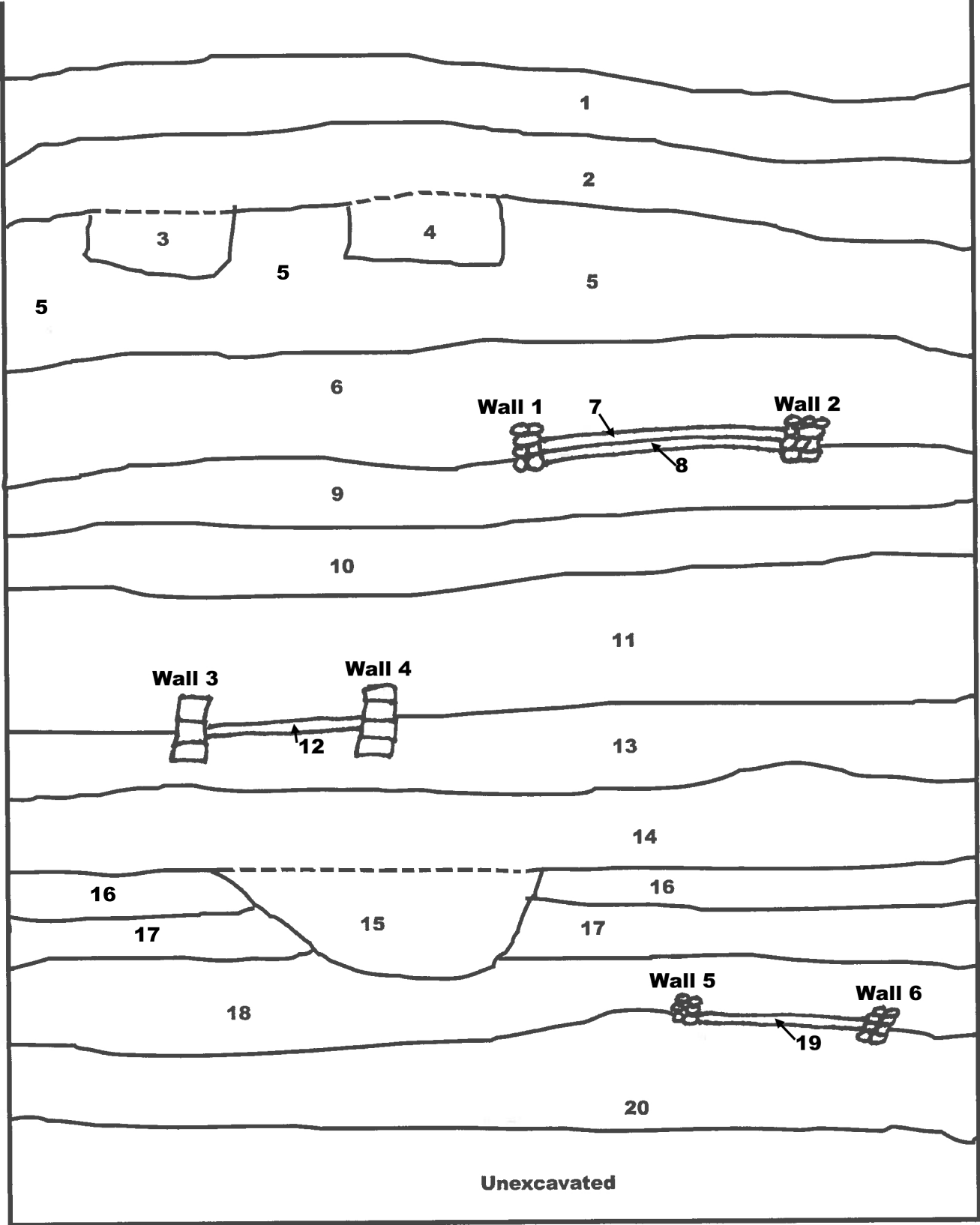
Information about the pottery:

The large region this particular site is in has been investigated in previous excavations and archaeologists have developed a regional chronology based on the decoration of the pottery, which you may assume to be reliable; the various periods are described below. Once again, the details are fictitious. The periods are shown here going from the present backward in time. We will pretend that the Sillian Empire, Villian Dominion, Zillian, and Modern periods are historical ones for which we know the names and dates of many rulers. The Rill, Mill, Gill, and Dill periods are prehistoric. The only written evidence we have for those periods is on imported items from other cultures.

| Period name | Absolute dates | Characteristic pottery of period |
|----------------------|-----------------|--|
| Modern | 1500 AD-present | wheelmade; white-glazed surface |
| Zillian | 600-1500 AD | wheelmade; purple-glazed surface |
| Villian Dominion III | 300 AD-600 AD | wheelmade; pink-glazed surface |
| Villian Dominion II | 100 BC-300 AD | wheelmade; red-glazed surface |
| Villian Dominion I | 400 BC-100 BC | wheelmade; green-glazed surface |
| Sillian Empire II | 600-400 BC | wheelmade; black animals on pale surface |
| Sillian Empire I | 1000-600 BC | wheelmade; black plants on pale surface |
| Late Rill | 1500-1000 BC | wheelmade; plain red surface |
| Middle Rill | 1800-1500 BC | wheelmade; plain brown surface |
| Early Rill | 2100-1800 BC | wheelmade; plain yellow surface |
| Final Mill | 2400-2100 BC | handmade; white spirals on dark surface |
| Advanced Mill | 2800-2400 BC | handmade; white circles on dark surface |
| Developed Mill | 3200-2800 BC | handmade; white zig-zags on dark surface |
| Early Mill | 3400-3200 BC | handmade; white bands on dark surface |
| Late Gill | 4200-3400 BC | handmade; black squares on pale surface |
| Early Gill | 5000-4200 BC | handmade; red squares on pale surface |
| Late Dill | 6000-5000 BC | handmade red burnished |
| Middle Dill | 7000-6000 BC | handmade brown burnished |
| Early Dill | 8000-7000 BC | handmade black burnished |

It is also known that this region was occupied during the Middle Palaeolithic (200,000-45,000 BC) and Upper Palaeolithic (45,000-9,000 BC), but only stone tools are known from this time.

This site is one of many in the larger region. Do not assume that it was always occupied.



Section through a trench used for this problem