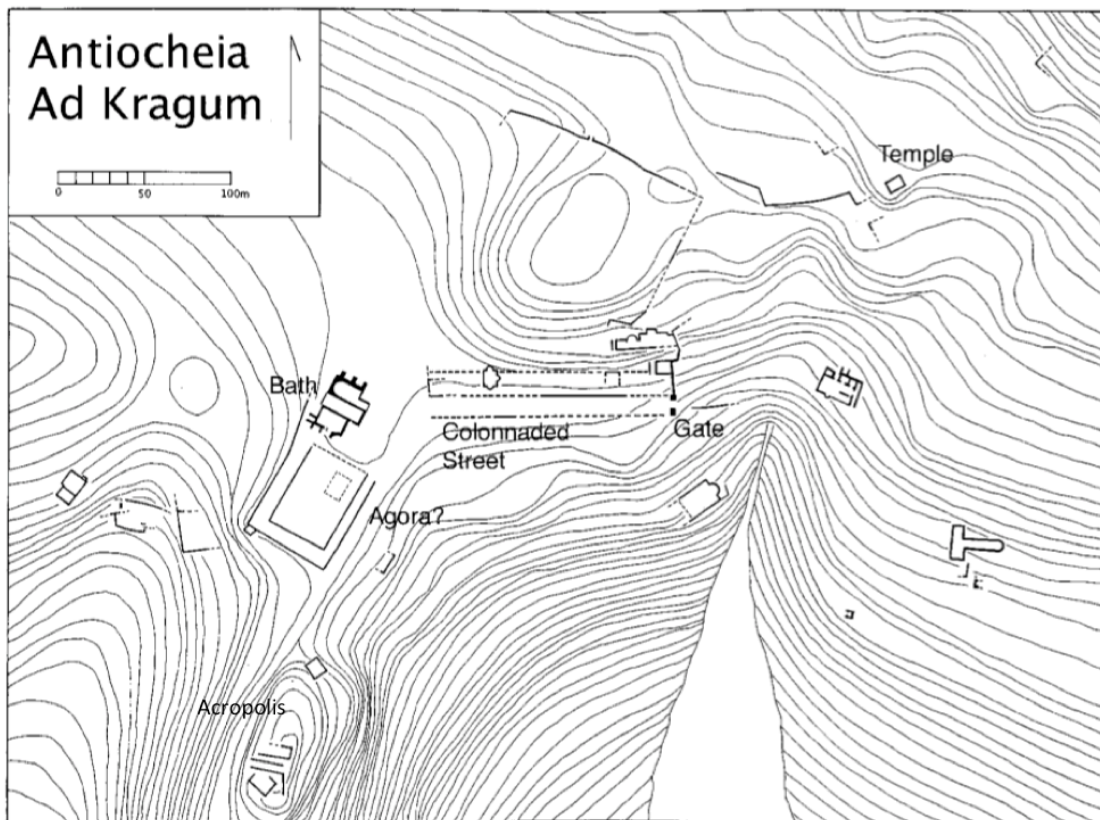


**St. Olaf Archaeological Field School
Antiochia ad Cragum
Daily Field Manual 2015
Regional Site Director: Michael Hoff
Field School Director: Timothy Howe**



Preface

In 2014, excavations began on the site's acropolis. Buildings were located closely together in no particular pattern, resembling most closely a typical mountain village in the region. Three principle structures were identified on the northeastern section of the Acropolis and selected for excavation (arbitrarily named I, II, and IV). A trench was also opened in the "street" area between the southwest wall of Structure II and the northeast wall of Structure IV. Clearing excavation in all three structures removed loose debris, including wall-fall, organic debris, alluvia, and windborne sediments. Architectural pottery predominated but fine wares and storage amphora were present as were glass, bronze, iron and worked marble and limestone.

Structure I appears to be an industrial work area of two storeys, with a porch on the eastern side, a dry-stone dividing wall of much later construction, external stairway that extends from the northeastern wall down to the eastern corner, underneath the porch. A curvilinear wall from an earlier structure emerges beneath the foundations of the southern wall, which Structure I shares with Structure II. Of particular note were the two grave features, lined with large stones and capped with flat flagstones, one along the western wall, which had been robbed, the other along the northern wall, which was undisturbed. The undisturbed grave contained the remains of a mature adult male. Dentition was worn but not particularly so, indicating mature, but not advanced age. Fine wares, glass, glass beads were found in the fill surrounding the human remains.

Structure II appears to be a Christian church with eastern apse, as well as a vaulted ceiling preserved to the west. Excavations uncovered a plaster floor throughout trenches AC2A and AC2C, with interior buttresses and a bench on the southeastern wall of AC2C. Trench AC2B contained a flagstone floor, amphora storage niches, as well as glass, fine ware pottery, and bronze door and furniture pieces. Of particular note was a child burial, neonate or perinate, in a repurposed osteotheke, found along the northeastern wall.

Structure IV appears to be a residential complex. It is a large two-room building with ashlar walls, regular post-holes in the walls to support floor beams above the ground floor, two well-constructed thresholds and doorframes in the northeast and southeastern walls, and a small storage room along the northwestern side of the interior, dividing wall. A large cross in low relief in two pieces was found outside the northeast doorway and the stones to the east of the same doorway bore a number of small inscribed crosses. The wall-stones above the lintel of the northeast doorway were cut and positioned in such a way as to accommodate the large stone bas-relief cross found directly below it in the "street" area between Structures II and IV.

Research Goals

Despite living in relative isolation, more than a thousand miles from Italy, the inhabitants of Antiochia ad Cragum participated in many aspects of Roman culture. For example, the conspicuous lack of a Roman theatre and arena contrast starkly with the existence of a Roman temple, bathhouse, mosaics and imperial mint. A general research goal of the Project is to document the extent to which the inhabitants articulated their own unique religious and personal identities while simultaneously engaging and participating in wider Roman culture.

Specific questions for the 2015 Season, which will focus on the Religious and Domestic sections of the acropolis are: (1) Did Christian worship change over time; (2) Did habitation shift over time between low-status, single-family units and larger, higher status multi-person dwellings; (3) Did physical indicators of identity shift over time between regional and international (i.e. “Roman”) characteristics.

To facilitate this research effort, the following fieldwork goals have been identified: (1) to map and record architectural remains, utilizing a combination of survey and 3D techniques, (2) assemble extensive, quantifiable collections of architectural, ceramic and other artifactual remains from each of the principal phases of domestic and industrial activity at the site, (3) integrate the data collected in 2 and 3 in a way that will permit the detailed comparative analyses necessary to address the research questions and objectives outlined above.

Daily Schedule (M-F)

5:20 AM Depart from Dig House

6:00 AM Breakfast

6:30 AM Start of Work

10:00 AM Break

10:30 AM Return to Work

1:00 PM Lunch

2:00 PM Artifact Analysis, Processing and Interpretation

4:00 PM Return to Dig House

7:30 PM Dinner at Dig House

8:00 PM Lecture or Discussion

Frequently Asked Questions

1. What should I do when I arrive at the site in the morning?

- When you arrive at the site each morning, check the cleanliness of all balks; and ensure that no foreign debris has entered the unit overnight. Check if the dampness of the night has revealed new colors or textures in the dirt. Each unit supervisor is to take daily digital photographs of their **Unit** first thing in the morning to document differential changes in soil color that might have occurred overnight as a result of drying. Equipment should be assembled, pottery bags (and other artifact bags) prepared and labeled, and any overnight contamination removed from the Unit.

2. What should I do at the end of the day?

- Anticipate the close of work each day by shutting down earth-moving operations in time to clear out all excavated dirt, give the entire unit a good brush or sweep, complete field records, collect tools and equipment, take the end-of-the day photos, and ensure that the Unit is left in a clean and controlled condition.

3. What is a Locus?

- The locus represents the smallest indivisible depositional unit or feature in a unit, such as a wall, a surface, an oven, a Soil Layer, a burial, etc. Everything you dig must belong to a locus. A locus is a three-dimensional feature and therefore must always have a length, width and height.

4. What is a locus and how do I record loci in my trench?

- The locus represents the smallest indivisible depositional unit or feature in a unit, such as a wall, a surface, an oven, a Soil Layer, a burial, etc. Everything you dig must belong to a locus. A locus is a three-dimensional feature and therefore must always have a length, width and height.

5. When do I start a new Locus?

- Never probe deeper than about 50 cm. Soil Layers can be deeper than that, but it is best to assign a new locus number to the deeper debris, arbitrary as this may be, because Soil Loci can always be combined, but they can never be separated into smaller units once they have been excavated. If you are unsure whether you should assign a new Soil Locus, go ahead and do so. At the very least, assign a new pottery pail and number.

6. How do I assign Loci?

- Every locus must be assigned a locus number, and be described on a locus Form. Locus numbers must be assigned sequentially in the order of their discovery in the unit. Continue this sequence from season to season so that locus numbers are not duplicated. There are three main types of archaeological loci that are frequently encountered: Soil Loci, Architectural Loci, and Installation Loci. For each type, specific excavation protocols must be followed.

7. What is a Soil Layer?

- The most common loci are **Soil Layers**. They are the most important units in our method of excavation because they contain datable artifacts such as potsherds, coins, inscriptions, etc., that can help date other associated artifacts and features. Soil Loci also provide a stratigraphic context for features such as walls, etc., by connecting walls in a single stratum or phase. A Soil Layer is made up of a homogenous mixture of dirt and inclusions and can be separated from other layers above and below it. Ideally, a single Soil Layer stretches at an even depth across the unit with no observable irregularities or interruptions. Unfortunately, this is seldom the case. Soil Layers may be thin in one place and thick in another; they may dip or slope; they may be easily defined in one place but difficult to define in another; they may be stony in one place and less stony in another; and they may be interrupted by other features (pits, trenches, etc.). Defining a single continuous Soil Locus will be one of the most common and yet most challenging and important tasks of a Unit Supervisor.

8. What do I do when I encounter a new soil layer?

- When you encounter a new Soil Layer in the probe, stop digging and **peel (excavate)** the upper layer throughout the rest of the unit. This helps to reduce the risk of contaminating the newly exposed Soil Layer by the one you are still digging. Excavate no deeper than 10 cm in a single peel, even if the layer is deeper. Always excavate in an orderly and uniform manner by stringing lines as guides. First, excavate a 1.0 m strip, then do the next 1.0 m strip, and so on until the upper layer is completely removed. Consult your field supervisor as you do this, and constantly clean and check your balks to make sure you are correctly tracing and removing the entire layer.

9. How do I excavate a soil layer?

- During the excavation of Soil Layers, scrape the dirt underneath and behind you as you move across the unit. Then carefully remove the buildup with a dustpan so that the emerging layer is not disturbed. If you establish that the layer you are removing is consistently very thick, use the large pick. With extremely delicate work, such as articulated skeletons and complete pottery vessels, use fine tools, such as dental picks. Brushing or sweeping each new layer may bring out underlying earth features and eliminates possible sources of contamination.

10. What if I lose track of my new soil layer?

- Even the best field archaeologists may lose an emerging Soil Layer as they trace it across (or around) the unit. Back up and begin again, always going from the known to the unknown. The Soil Layer may have changed slightly, or dipped, or a pit may have cut through the layer. Scrape transitional “border zones” between the two Soil Layers carefully with a trowel to help bring out subtle color or texture changes. As you trace Soil Layers, make sure you keep the area clean. This cannot be overemphasized. Do not allow large mounds of debris to build up while you dig. Carefully trowel the surface of the new layer to make sure all debris is removed. If you sweep or brush the newly exposed layer, you will not only make tracing easier, but you may also see interesting

new features, such as color or texture changes. These could signal the appearance of new features such as the tops of walls, which are particularly difficult to detect.

11. What do I do if I encounter a floor or surface?

- When floors or surfaces are encountered, the debris found lying on them (including restorable ceramic vessels, lithic tools, ground stone implements, and other objects) will be point-provenanced using the Dumpy Level. This will ensure that the full context of these material remains is preserved, and the functional use of activity areas can later be reconstructed. Use of the Level will also permit these data to be downloaded into ArcGIS, fully integrating both the archaeological and spatial information they contain. Excavating a surface is fraught with difficulties because the earth beneath is usually much softer than the surface itself. Remember, it is not a crime to take up some of the lower debris layer with the surface, but try to minimize this as much as possible. Leave stones, bricks, or other such items *in situ* until you can establish their relationship to the Soil Layers around them.

12. I think I found a wall, what should I do?

- **Walls** and wall-like **Installation Loci** are easy to define and excavate if they are made of stone. If three or more stones are found in a line, leave them standing until their relationship to other architectural features, surfaces, and Soil Layers can be established and recorded properly (i.e. described, drawn, and photographed). Remember, regular patterns are seldom found in nature--rectangles and straight lines are often the results of human activity.

13. I found a pit, how do I excavate it?

- The **Pit** locus is the actual line of the pit, not the debris in its fill. Treat the fill as a separate Soil Locus. This is because the original digging and use of the pit may have been completely unrelated to its fill, functionally and stratigraphically. Make sure you leave a subsidiary balk as you excavate all pits, if possible. Always excavate them before the surrounding material. Indeed, with dirt-lined pits it is often proper to excavate an arbitrary 10 cm of surrounding earth to make sure that absolutely all pit debris has been removed. Try to determine the Soil Layer from which the pit was dug, because it helps to date the pit. The fill, of course, represents the end date of the pit's use.

14. How do I tend to the balks?

- Keep balks (i.e. sidewalls of the Unit) clean and straight. Never undercut a balk or attempt to straighten it relying on eye alone. Periodically trim them so that they are straight and plumb to the balk line. Do not leave a few centimeters of debris, but carefully excavate right up to the balk line.
- Do not assign a locus number to the debris from balk trimming. It is arbitrarily discarded. Pottery and other finds however, may be saved and labeled "balk trim" on their identification tags and on Soil Locus Forms. If an exceptional find is made, designate the locus of origin (if you know it for certain), if not, designate the several loci from which it could have come with appropriate qualifying remarks.

- Leave sherds, stones, and bones protruding from the balks if they are secure, since removing them could undercut the balk. Remember that balks dry out and stones fall from dry balks more easily than they do from those freshly trimmed. Therefore, if a stone is of questionable stability, remove it before it falls out on its own. An undercut balk is preferable to a cracked head!

15. How do I measure the balk?

- 1). Using a tape measure, place an 18 inch spike horizontally into the balk corner at any quarter-meter level (e.g. 1.00, 1.25, 1.50, 1.75 m, etc.).
- 2). Tie one end of a firm, slightly stretchable string onto the spike, pull the string tight, and, using a line level, make sure the string is level. Place a second spike at the other end of the balk and tie the string to it so the string is level. This string becomes the datum line from which all measurements are taken. Remove the line level so the string does not sag.
- 3). Attach a meter tape to the two spikes so that zero begins where the true balk line is located, regardless of where the actual line is. (This will be obvious when the process is explained in the field.) Do not let the tape touch the datum line at any point. Although it does not need to be as tight as the datum line, stretch the measuring tape tightly enough to ensure accurate measurements.
- 4). Make sure the balk profile is outlined on a large piece of graph paper, and, using a scale of 1:25, draw heavy vertical lines for the balk edges and a light horizontal line for the datum line. Label the datum with its elevation at the side of the drawing. Leave space in the side margins, for balk stubs that will need to be added to the drawing when balks are removed, and at the bottom for lower portions of the balk.
- 5). Most drawings include stones and the tip lines of Soil Layers. Take measurements of all features vertically, up or down, from the datum line every 25 cm. Place light dots on the graph paper for each measurement and connect them with a lightly drawn line.
- 6). Your Field Supervisor will check the drawing.

16. How do I document the balks?

- To remember which Soil Layers in the balk section correspond to your locus forms in the notebook, place rectangular balk tags labeled with the locus number into the balk with nails. Write locus numbers with a black indelible felt pen, boldly enough to be visible in most photos (usually 5 cm or 2 in high). Insert the nails at the locus boundary and arrange them, one above the other, in as aesthetic an arrangement as possible. Tag your balks as early as you can, because locus boundaries are always more easily discerned in fresh, moist dirt, than in old, dry soil. Later, when trimming the balk, it is easy to scrape around the tag. Never remove them, because you may put them back in the wrong place!

17. How do I remove the balks?

- Remove them only after they have been drawn and photographed! Excavate the north and east balks as an integral part of your unit. Remove all balks locus by locus, using the same locus numbers as in the main part of the unit.

Add the new data to the old locus Forms. If new loci are encountered, assign new locus numbers. If balks are removed in a season subsequent to the primary excavation of the locus, fill out new locus Forms, but assign the old locus numbers.

- When the balks are gone, draw the stubs onto the appropriate balk drawings, photograph them and, if free-standing, remove them layer by layer. After the newly exposed architecture has been fully studied, restring the balk boundaries and begin excavating again.

18. How do I use subsidiary balks?

- **Subsidiary balks** are used to document the relationship of a feature to others when the main balks cannot be used. When excavating walls, cut a subsidiary balk from the wall to one of the four main balks in order to document the wall's stratigraphic relationship to the main balk. Use subsidiary balks when excavating pits in order to illustrate the method of fill. Also, never remove large or special artifacts without first cutting a subsidiary balk to them, because it is important to know precisely how they are associated with the surrounding loci. Subsidiary balks are also useful when excavating very complex or unclear Soil Layers. The balks of a probe are actually subsidiary balks.

19. How do I transfer a newly excavated object?

- Support from below: use a piece of cardboard, place the object by itself in a container, hand carry it to the conservation lab.
- General padding: put plastic bags, paper towels, or Kleenex in the container (bag, bucket, or box) to keep the object stable and supported.
- Support the whole object: wrap the object in tissue, paper towels, paper napkins, toilet paper or gauze to hold pieces or layers together. If the object has a fragile surface, try to surround it with support in a container – don't wrap it tightly.
- If you are concerned about lifting the object without damage, send word to the lab and a conservator will come out to offer advice or to lift the object if desired.

20. What do I do with the pottery that I find?

- Each locus receives its own pottery bag for each day it is worked. If one bag becomes full, assign a second one with a new number. Using an indelible pen, fill out a pottery tag for every bag immediately when you begin a new one.

21. What do I do if I find an intact vessel?

- If undamaged, lift the vessel intact with contents still in place and place the entire pot in a bag or other container in the shade until it can be brought to conservation.
- If the pot is cracked or broken into pieces but still maintains its shape, wrap in gauze or similar material to support the pieces, consider supporting the object underneath, and lift with contents in place.
- If it is impossible to lift the pot intact, excavate the contents, put them in a ziplock bag, label them, and keep them with the pot. If you find a group of sherds that might be reconstructed, place them in a separate pottery bag and

mark them **Mendable**. Along with other sherds from the same locus, they should go to the Conservator for mending. Place complete vessels, along with their contents, in separate pottery bags, and enter them as objects on the locus forms as well. Put especially delicate sherds in a separate bag marked **Fragile**.

22. What do I do if I find a metal object?

- Keep metal objects out of the sun to avoid condensation poke small holes in the bag. If this still does not seem to be enough, put absorbent paper (Kleenex, paper towels) into the bag to absorb the excess moisture. Try to keep the object away from the damp paper.
- Larger or more fragile objects may need additional structural support to keep them from breaking. Wrap them in plastic bags or tissue, or if necessary place them in a separate container to carry them to the lab.

23. What do I do if I find glass?

- It is particularly important to keep glass damp until conservation treatment. Faience should be treated the same way as glass.
- Immediately put the glass in sealed ziplock bags, and if necessary, put a damp paper towel or tissue in the sealed bag so the glass doesn't dry out.
- Give the glass structural support.
- Do not put too many glass pieces together in one bag to avoid crushing fragments and damaging fragile surfaces.
- Bring extremely fragile or important glass objects to the conservation lab as soon as possible. Alert the Conservator that the object has been excavated.
- Put glass objects into the box marked "Damp storage for Glass" (a high humidity environment) located on the shelves outside the conservation lab, and reseal the lid tightly.

24. What do I do if I find plaster?

- Assume the worst: that the fragments are face down with a loose pigment layer on the reverse. Keep the find damp until it can be lifted (cover with plastic, soil or both, and spray the soil with water if necessary). Record the positions of the fragments in situ before lifting, as this will aid in conservation. Be aware that due to degradation of the binder, any pigment may now be more attracted to the soil than to the plaster. If desired, call the Conservator out to the site to record the fragments in situ, and to assist with lifting.

25. What do I do if I find bone?

- When bone is found in the field it should ideally be placed in a paper bag. Like pottery, the sifter should save all examples (including fragments) in paper bags, and all provenience data should be filled out on the bag. If paper bags are unavailable, a plastic bag punched with small holes to allow moisture to escape may be used along with an enclosed tag. The bone should be kept out of direct sunlight.
- In the case of mandibles (jawbones) with teeth, care should be taken to keep the teeth together. Either PVA or a line of contact cement or other glue should be applied to the teeth where they join the bone so as to better maintain cohesion.

- In the rarest of events, an articulation is found. If such is the case, contact the faunal analyst immediately upon identifying the articulation. The sun quickly destroys exposed bone.
- A further category of bone artifact is **worked bone**. Worked bone artifacts should be removed with care and packaged in cardboard boxes with acid-free paper.

26. What do I do if I find wood remains?

- If wood or other organics are found waterlogged, keep them waterlogged. If organics are recovered non-waterlogged, they will be **exceptionally** fragile and prone to rapid disintegration upon drying.
- Lift these objects particularly carefully, using adequate structural support, and ensure that they remain well supported as necessary after excavation.
- If waterlogged, keep wet, either in a bucket or a ziplock bag, and bring them to the Conservator as soon as possible.
- Consider block-lifting non-waterlogged organics. Avoid letting them dry out during excavation. If necessary, consider reburying them, covering them with plastic to slow evaporation, and excavating them at a time of day when they will be in the shade. Put non-waterlogged organics in plastic bags, well supported, to keep them from drying out, and bring to conservation as soon as possible.

27. What should be included in the Field Notebook?

- The spiral notebook should be used for recording all preliminary notes and observations. All facets of daily work should be included in the notebook, starting with a brief description of conditions—temperature, light, heat, and wind (which provide researchers with an idea of conditions that might reflect data recording). Also include a brief description of excavation strategy and the loci being excavated. Since excavation is a dynamic process, the notebook should be updated continually as the day progresses, accompanied by detailed descriptions of the results. As a rule, be liberal with your writing. **Daily Summaries** should also be completed for each day of excavation. The Field Notebook should also contain an introduction page, various other supplementary forms, and **Weekly Summaries**.

28. What should be included on the clipboard?

- The clipboard contains all locus, installation, and architectural Forms, as well as daily and weekly summaries. Every designated locus must receive its own locus Form. Since any locus can refer to a wide variety of finds, four separate analysis protocols, each with its own data organization, have been created: soil analysis protocol, architectural analysis protocol, and installation analysis protocol.

29. How do I complete a Top Plan?

- **Top plans** are to be done daily on the graphed paper in the clipboard. Top plans may include varying amounts of detail, but each locus should appear on at least one top plan, and should be drawn in detail (i.e. proper size, shape dimensions) at least once! Other graph paper entries frequently occur: subsidiary balk sections, elevations, sketches, etc.

30. How do I prep a Unit for photographs?

- The unit being photographed should be thoroughly cleaned, swept, and a scale and north arrow included. The smaller digital camera is to be used for daily opening and closing shots, as well as for “in progress” photos of various features and loci. Every feature or locus, no matter how small should be photographed. The Unit Supervisor is responsible for downloading and annotating the daily trench photos.

31. How do I photograph my Unit?

- Clean every stone, so that no dirt or dust adheres to them; brush out footprints in Soil Layers and on balk tops; and completely remove every excavator and their tools. Photographs of Squares containing several phases are very difficult to read, so it is important to keep the Unit in phase as much as possible. It is necessary to take regular photos of the Unit, every morning after it has had the evening to dry out, and at the end of the excavation day after it has been subjected to the heat of the late morning. Every photo must have a scale stick placed parallel to the baseline of the photo. Include a north arrow, or your trowel, to indicate north. Photo number, date, and description (including loci identifiable in the image) are to be recorded on the **Unit Photo Log** sheet.

32. How do I dig a control in my Unit?

- Use the **probe and peel method**, which allows for more accurate controls. In a corner of the unit (often the highest), string off a 1.0 m x 1.0 m area and arbitrarily excavate it to test the homogeneity of the Soil Layer, being careful to note when the next layer is encountered. Keep both the main balks and the subsidiary balks of the probe straight and clean as you dig to check for the appearance of new Soil Layers. That way you get the vertical as well as the horizontal information. Also, pay attention to the dirt as you scrape it with your trowel for indications of the appearance of a new type of Soil Layer. Indicators will include a different color, consistency, texture, hardness, etc.

33. How do I dig a foundation trench?

- **Foundation Trenches** are special kinds of pits that were dug to provide foundations for walls. Because the top Soil Layer cut by the foundation trench should be the latest material before the construction of the wall, and because they may contain potsherds from the period of the construction of the wall, they are very important stratigraphic indicators. A balk, or a subsidiary balk, running up to the wall is the best way to examine a foundation trench. When you find one, excavate it like a pit.

34. How do I collect soil samples?

- When excavating surfaces and floors, at least one 25-30 liter bag of soil should be collected from each Soil Locus to form a comparative standard for that locus. In the event that you excavate a surface in association with an installation, layout a 50 cm² fine grid over the locus on your Unit top plan. Randomly select three units, lay them out, and collect additional samples from each unit.