Th: Jefferson
MONTICELLO

DEPARTMENT OF ARCHAEOLOGY

Field Procedures Manual

Revised 2025

Table of Contents

List of Figures

1. Introduction

Excavation is an inherently destructive process, akin to tearing out and burning the pages of a book as you read them. Once finished, nothing remains beyond the recollection of the reader. To remedy this, archaeologists have developed field methods and recording strategies designed to extract the most information from the archaeological record. What information is important? There is no single, absolutely correct answer to this question. But some answers are definitely better than others. In the final analysis, what is important is determined by the theoretical and methodological tools we use to decode the archaeological record and by the specific archaeological problems we are trying to solve in a given research project.

The approach to excavation outlined in this manual represents our current best thinking about which data should be recorded and how they should be recorded. Through years of experience, we have designed a recording system that will help you create field records that are accurate, consistent, and above all, useful not only to us, but to generations of future archaeologists who will be studying our work. This manual, compiled by the Monticello Department of Archaeology and reviewed annually, provides a reference for those participating in fieldwork at Monticello. The manual details common archaeological procedures ranging from establishing points on a grid to the documentation of contexts as they are excavated. Strict adherence to these procedures ensures thorough and consistent fieldwork.

The procedures outlined here have been developed from decades of field experience in this region by scores of field archaeologists doing archaeological research here at Monticello and elsewhere in the Chesapeake region (e.g., Historic St. Mary's City, Mount Vernon, the Colonial Williamsburg Foundation). We also draw on ideas from the wider literature on archaeological field methods and especially geoarchaeological approaches that over the past decades have advanced our understanding of the causal processes responsible for the archaeological record. Repeated application and rigorous evaluation of the techniques detailed in this manual mean that they are in a constant state of refinement.

2. Site Etiquette

The Archaeology Department supports an environment of curiosity, learning, respect, and teamwork. We echo the sentiments described in Monticello's Code of Conduct (pp5): "Staff [and students and volunteers] are expected to conduct themselves with courtesy, objectivity, and professional integrity in all aspects of their work, and in all circumstances relating to the operation or reputation of the Foundation. Staff are expected to exemplify honesty, integrity, respect, friendliness, openness, accountability, and commitment to the mission."

What follows are several points that we have found best support these sentiments. The list is not exhaustive but rather is a starting point in establishing common ground to maintain a safe environment.

1. You are expected to arrive in time to be in the Archaeology Lab or worksite at the start of the workday.

2. To optimize safety, functionality, and professionalism, several notes about attire follow. While we appreciate your need for comfortable clothing, out of respect for your colleagues and visiting members of the public, please keep in mind that we are representatives of the Foundation and the profession of archaeology. Pants or shorts are acceptable, and shirts must be worn at all times. You may wear tank tops, as long as they are not undershirts or spaghetti straps. Revealing clothing and shirts with sayings or images that may be offensive to others should also be avoided. Smooth-soled shoes or boots are optimal; sandals or other open-toed shoes are **not** allowed. If wearing sunglasses, remove them while taking Munsells or troweling as they will alter the sediment's color. Supervisors reserve the right to ask you to change should they find your attire inappropriate for the site.

3. In this setting, instruction takes place throughout the day. As engaged members of this course, refrain from texting, using headphones, and other behaviors that may distract from your learning experience. Except in case of emergencies, cell phone use is limited to our midday break for lunch.

4. Be very careful where you step on the excavation site. Do not step on or near the sidewall of a quadrat. Sidewalls tend to collapse after rain has saturated the soil and crumble from being dried out by the sun. Do not step in or through another person's quadrat unless absolutely necessary, and even then, request the excavator's permission to do so.

5. Watch out for the quadrat nails and the string lining the quadrats. They have been measured in, and tripping on them not only rips the sidewall of the quadrat but also moves the string out of alignment with the site grid.

6. DO NOT SIT ON QUADRAT PROFILES OR IN THE QUADRAT. Sitting on the edge of the quadrat causes the sidewall to collapse. Sitting in the quadrat also limits your reach and makes it difficult to see what you are digging in relation to the rest of the quadrat. While buckets or toolboxes may appear to make good seats, they bend and break easily. Please squat or kneel.

7. Empty wheelbarrows before they become full. Take initiative – don't wait for someone else to do it.

8. Keep the site as neat as possible. Discard your own trash. Likewise, keep the tubs and the site toolbox organized. The tubs have been marked to indicate where certain equipment lives. Return equipment to the proper location, particularly at the end of each day.

9. Be aware of site safety. Don't throw tools or other objects, and be careful to place shovels face down so that no one steps on the blade and causes the handle to swing into the air.

10. Everyone is responsible for both loading equipment into the truck in the morning and picking up tools and general cleanup at the end of the day. Screen all sediment in buckets at the end of the day. Everyone must pitch in to open the site in the morning, and no one leaves the site until all tools are picked up and returned to the tool bins and boxes and the site is covered with boards and plastic.

11. Stay well hydrated throughout the day. If it is a particularly hot stretch, drink plenty of water throughout the evening, as well. Proper nutrition throughout the course is important, too. Healthy snacks are encouraged during the day.

12. Do not track dirt or mud into the office, bathrooms, or other buildings. Take off your shoes in the Archaeology Lab's crew bay when too muddy. It is useful to have an extra change of clothing should fieldwork get rained out for the day.

13. Please be mindful of your language. Be aware that profanity as well as sensitive topics may be offensive to others. This includes conversations at all Foundation property, including the excavation site, parking lot, lab, and shuttle bus.

14. Be polite to your fellow students as well as your instructors. Archaeology requires teamwork, and this can be made more pleasant with consideration for one another. If you have problems or issues arise, your supervisors are here to help.

15. Tobacco products (cigarettes, vaping products, chew) and alcohol are not allowed on the site.

16. Breaking any of these rules may result in a grade reduction or job termination.

3. Controls

3.1 Horizontal Control

Horizontal and vertical control must be secured over the site before excavation begins. Horizontal control is achieved by establishing a grid over the site. Each set of coordinates in the horizontal plane consists of two numbers: the first is the distance east from the origin of the coordinate system. This is called an "easting" coordinate. It corresponds to the X axis in a Cartesian coordinate system that you learned in 8th-grade algebra. The second is the distance in feet north of the origin of the coordinate system. This is called the "northing" coordinate. It corresponds to the Y axis in a Cartesian coordinate system. The location of a point on the horizontal plane is known by using both the easting and the northing to plot the point's location in two-dimensional space. The coordinates (0,0) refer to the origin, where both the easting and northing are equal to 0.

At Monticello we use two different grid systems depending on the location of our fieldwork. For sites adjacent to Jefferson's mansion and within the First Roundabout, we use a local grid system that was established in the 1980s by archaeologist William Kelso when he excavated along Mulberry Row. This grid system is oriented with Monticello mansion and does not run directly north-south. We refer to this as the "Kelso grid."

For sites that are located outside the First Roundabout, we use the Virginia State Plane (VSP) coordinate system, which is measured in tenths of a foot at Monticello. This is a system that is used in surveying throughout the state, which allows any project to be tied in with a single set of “real world” coordinates. The location of the grid coordinate on the ground at Monticello has been established using survey grade Global Positioning Technology (GPS).

To use either grid, we first choose a datum near our site that serves as a reference point for all our measurements. We then identify this datum according to its Kelso-grid or VSP coordinates, and we place a permanent marker in the ground at this spot. This has already been done prior to the field-school season using a Total Station. From the datum, an orthogonal grid system can be imagined covering the site, with one set of lines running north-south and another east-west. Since the datum is a known point on the coordinate system, any point on the site also has known coordinates relative to the datum.

For the Kelso grid, the origin lies a few feet east of Monticello mansion's east portico. This means that some northing and easting coordinates on the Kelso grid will be negative numbers: these points lie south and west of the origin. The origin of the VSP coordinate system lies far to the south and west of Monticello. Hence, all VSP coordinate values at Monticello are positive.

3.2 QUADRATS

Having established a coordinate system at the site, we can then use it to locate and map excavation units or *quadrats.* Each quadrat is identified by a unique number and by a set of coordinates that indicates its location in two-dimensional space. One corner nail of each quadrat (usually its southwest corner) may have a shiner with this information written on it in permanent marker. A shiner is a flat metal disk – a Ball-jar top – with one side enameled in white, which makes it easier to see the information written on it. When setting out a new quadrat, the nails for the shiner corner and one other corner of the quadrat are established using a Total Station. Other corner points for quadrats are established by triangulation using measuring tapes and are marked with large nails. These nails will be double-checked with the Total Station. Note that not every quadrat will have a shiner. Shiners are typically present every ten or so feet when working in block excavation and may show up less frequently in stratified random sampling.

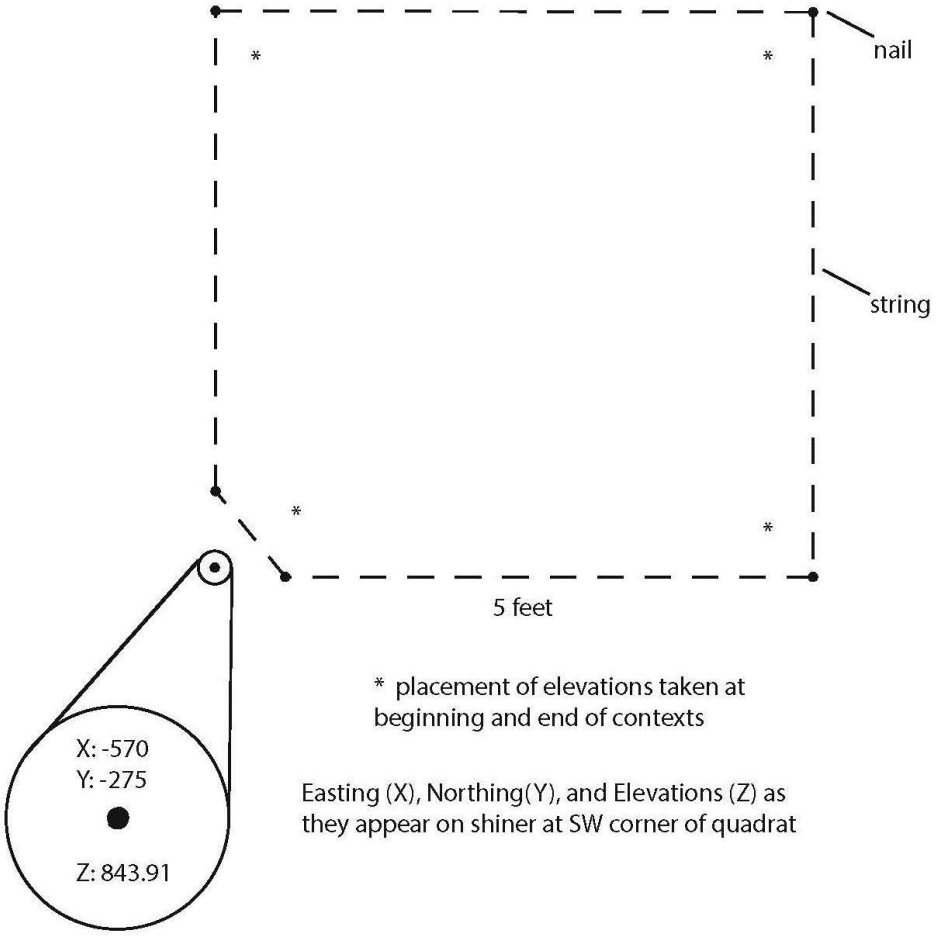


Figure 1: Quadrat Layout

Quadrats are then strung from these nails with the string wound toward the interior of the quadrat. A triangular balk may be maintained in the corner that contains the shiner as shown in Figure 1. The nails that are used for establishing this corner balk are located exactly one-half foot from the shiner nail along the sides of the quadrat. Once the quadrat has been excavated, this balk is the only sediment remaining within the square that delineates the quadrat. If adjacent quadrats are excavated, corner balks are maintained around this shiner. The balks provide a stratigraphic reference once the area has been excavated as well as a convenient place to take samples. Balks are often removed at the end of the project in order to photograph the open excavation area. When a balk is removed, it is divided in plan into four quadrants or quarters, along the grid lines that define the quadrats, and the sediment contained in each quadrant is assigned to the contexts associated with the quadrat in which it falls.

It takes three people and two tape measures to lay out a quadrat. One person holds a tape measure on the shiner nail while another holds a tape measure on the other nail that has been surveyed in using the Total Station. Using the other end of the two measuring tapes, the

last person uses the Pythagorean Theorem to triangulate the third and fourth corners of the quadrat and places nails in the ground to mark their location. Note that 7.07 feet is the length of the hypotenuse of the triangle formed by the tapes. The length is derived from the Pythagorean Theorem of $A^2 + B^2 = C^2$, where C is the length of the hypotenuse of a right triangle. An important corollary to this theorem is that for a right triangle having side lengths of 1, the length of the hypotenuse will be the square root of 2, or 1.414. Thus, the diagonal for a 10'x10' square is 14.14 feet.

Triangulation is accomplished by forming right triangles with the two tapes. In the schematic drawing (Figure 2), assume that points A and B have nails and points C and D need to be marked. The first two people each hold tapes over the nails at points A and B. The third person holds the two tapes in one hand, crossing the tape from person A at 5 feet with the tape from person B at 7.07 feet (all measurements are made in decimal feet). Upon pulling the tapes so that they are taut, a nail is placed in the ground at the intersection which is the location of D. This process is reversed to find point C.

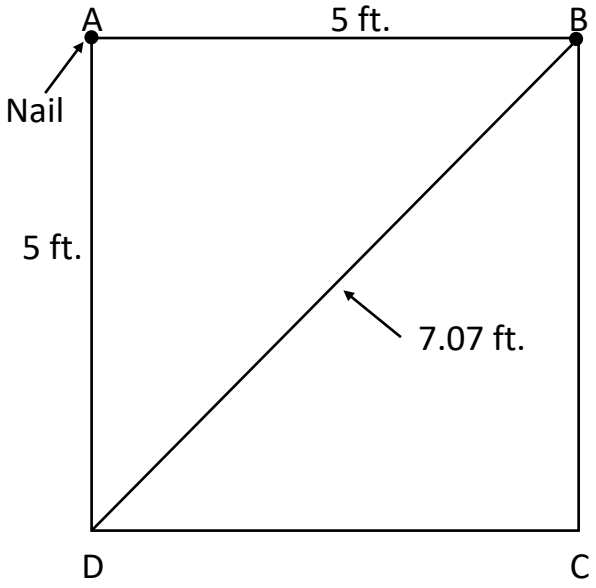


Figure 2: Triangulation

As a final check to make sure the dimensions are accurate, the distance between points C and D is measured. The total distance should be 5 feet plus or minus an acceptable error of 0.04 feet. If the margin of error is greater than this, then the triangulation needs to be redone.

3.3 Vertical Control

Vertical control is achieved by taking elevations with reference the datum, whose elevation *above mean sea level* (AMSL) is known. This corresponds to the Z axis in a three-dimensional Cartesian coordinate system.

Traditionally in archaeological excavation, elevations were taken using a transit, measuring tape, and stadia rod, or by using a string, line level, and folding ruler. Today, a Total

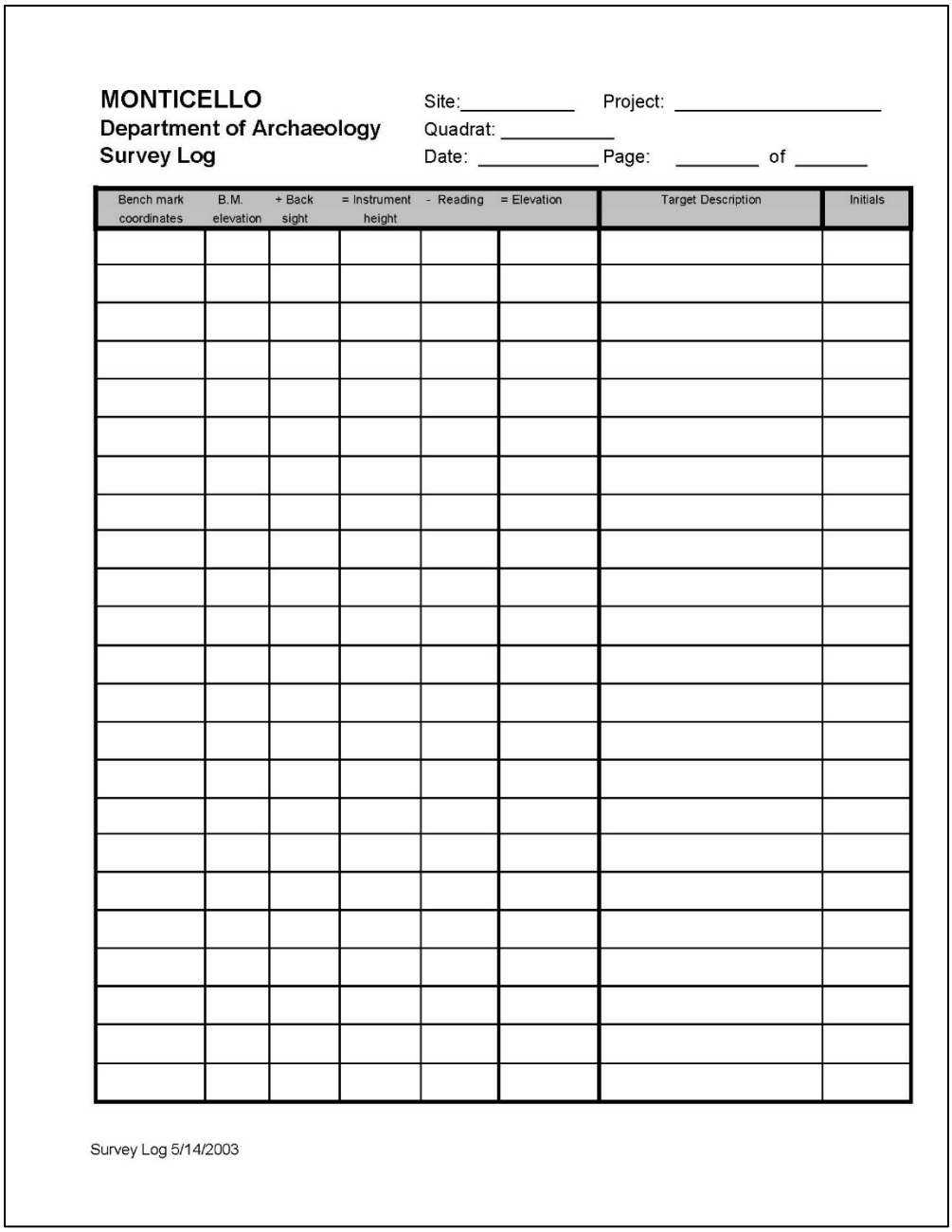
Station is used for recording both horizontal and vertical points. We will use the Total Station and at times the string-and-line-level methods for recording elevations or coordinates on the Z axis. The elevation of the shiner nail is shot in with the Total Station and labeled on the shiner prior to beginning excavation.

Before a new quadrat is excavated, all four corners need to have opening elevations taken with the Total Station. You must take elevations for the top and bottom of each layer or *context* you excavate (see below). Opening and closing elevations are taken from all four corners of the quadrat and are recorded in the "Elevations" box on your Context Record form. In some instances, a context may not cover the entire quadrat. In these cases, elevations may be taken at the center of the context, an east and a west point, a north and a south point, or whatever combination makes sense to cover the spatial extent of the context. Closing elevations *must* be taken as close to the opening elevations as possible. Elevations are also needed for the datum line used to make measured Section Drawings. When holding the prism, place the rod on a trowel so the point does not sink into the ground. Make sure the prism is square with and facing the Total Station. To keep it level, be sure the bubble stays in the middle of the circle and hold as still as possible.

The Total Station will be used to take all elevations except when it is not available (for instance, when it is in use elsewhere or you cannot see the target point). In that case, a local datum will established, and elevations will be taken with a line level. The necessary calculations will be entered on the ***Survey Log*** (Figure 3). To take elevations using this method, a chaining pin is placed in the ground outside a corner of the quadrat with a known elevation. This should be a point that is higher than any point in the quadrat, out of the way of other excavation, and as near as is practical to a corner of the quadrat whose easting (X), northing (Y), and elevation (Z) coordinates have been shot in with the total station. This is your "Benchmark". A string long enough to reach all parts of the context is attached to this chaining pin, and a line level is suspended from the string. Holding the string taut and level, the backsight is measured, which is the difference in elevation between the level string and the benchmark. This is measured with a folding ruler. The backsight added to the benchmark elevation is the height of instrument for the set of readings to be taken at that time. The reading is the difference (measured with the folding ruler) between the level string and the surface or target whose elevation is being taken. This value is subtracted from the instrument height to produce the actual elevation, which is written on the ***Survey Log*** under "Elevation." To summarize:

Instrument height = *"benchmark" (nail) elevation + "backsight" (height of level string above the nail*

Elevation = *Instrument height - "Reading" (height of level string above target point)*



MONTICELLO
Department of Archaeology
Survey Log

Site:_____ Project: _____
Quadrat: _____
Date: _____ Page: _____ of _____

Bench mark coordinates	B.M. elevation	+ Back sight	= Instrument height	- Reading	= Elevation	Target Description	Initials

Survey Log 5/14/2003

Figure 3: Survey Log

4. Excavation

4.1 Excavation Technique

Most excavation at Monticello is accomplished using round-tip shovels, which are used to remove thin layers of sediment in a practice known as *schnitting* (German for "cut") or shovel shaving. However, a pointing trowel (usually a Marshalltown 45/5) and a dustpan are also used for excavation, including the straightening of profiles and at the end of each context.

Straighten profiles from above, using a plumb bob to eliminate sloping sides. You may need to use other tools for specific situations, such as scoops and spoons to excavate small features.

There are many fine points to master in the archaeological techniques of schnitting and trowelling, including the most effective ways to hold the shovel or trowel (especially the angle of the blade to the excavation surface and correct body posture). It is critical to keep the excavation surface free of loose sediment so that the exposed color and texture of the sediment can be observed. Avoid stepping on surfaces without kneelers to prevent sediment from being compacted or from outside sediment and inclusions contaminating the fresh surface.

Most excavated sediment is screened through ¼ inch steel mesh as part of a sampling method of artifact recovery. The standardized ¼ inch mesh screen insures a uniform rate of recovery. Artifacts (including building materials such as stone and brick), animal bone, and shell are collected throughout the excavation. All cultural material recovered during excavations is kept unless directed otherwise by a supervisor. Artifacts are bagged according to provenience (specific quadrat and context) (Figure 4). Except with very large, very heavy, or very frequent artifacts (such as brick or mortar), all of a context's artifacts are placed together in a single bag. There is no need to separate artifacts by category (e.g., glass, metal, ceramic) while in the field. Indicate "Bag # of #" on the front of each bag, even if there is only one bag for a context. If there are too many artifacts to fit in a single bag, create additional bags for that context and indicate "Bag # of #" on the front. Large bags are double-bagged. Support heavy bags by placing your hand underneath the bottom of each bag. If you collect many artifacts (such as stone or brick), use sandbags. (Label the sandbags the same way you would an artifact bag.) Protect fragile artifacts like bone, copper alloy buttons, or ceramics with an overglaze either with smaller bags or film canisters within the main artifact bag. Label these smaller bags with the quadrat number and context. For film canisters, include inside the canister a small piece of flagging tape with the quadrat number and context. Place completed and unfinished bags into the proper marked bins. Record the bag in the lab in the appropriate bag log.

All bags are labeled as belonging to the Monticello Department of Archaeology and given the site number and project name (e.g., 44AB465 – Stone Stable), the quadrat and context designation (e.g., 2328A), the date, excavators' initials, and bag number (e.g., Bag 1 of 2). Always label the *seamless* side of the bag using an indelible pen (a Sharpie), and fold over a bag to seal it when complete.

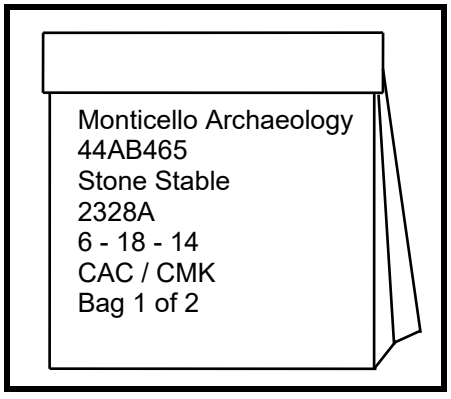


Figure 4: Labeled Artifact Bag

4.2 Layers and Contexts

Nearly all excavation at Monticello is based on the identification and delineation of stratigraphic layers or zones that are homogenous in gross, visible sediment texture and color (***lithology***) and that differ in lithology from adjacent zones. As you excavate, you need to be on

the lookout for a change in lithology that indicates the next layer or zone in the stratigraphic sequence. In addition, as you remove each layer or stratum, look for intrusions into the top of the strata below, such as a posthole filled with sediment whose textures and colors differ from the stratum through which the hole was dug. Like the strata they intrude, the sediments that fill intrusions are detected by changes in lithology.

The processes that cause the lithological homogeneity that characterizes one layer or zone and the distinctiveness that separates that zone from the homogeneous zones above, below, or adjacent to it are complex. Some zones or layers may represent discrete ***deposits***, for example, the ***sediments*** (transported particles) with which someone filled in a posthole. Other zones may represent ***soil horizons***, the results of decades or centuries of weathering on stable parent material. Sometimes a zone may display homogeneous lithology to a considerable depth, and we may suspect that it actually contains several temporally successive depositional episodes that are not visible to the naked eye. In that case, we may wish to excavate it in two or more ***arbitrary layers*** whose boundaries are set by an arbitrary thickness, for example, 0.2 feet. For mitigation projects ahead of construction work, construction parameters may direct us to excavate arbitrarily, as well.

Given the variety of processes that can cause lithological homogeneity and the need to more finely divide homogenous zones, we need a neutral term for a single body of sediment that we describe, excavate, and collect artifacts from as a single unit. We call this unit a ***context.***

5. Documentation

Documentation is essential in archaeology simply because excavation is a destructive process. As a result, the Monticello Department of Archaeology has developed forms for detailing archaeological excavation. **Properly filling out these forms is the most important of field tasks. Given the destructive character of archaeological excavation, the observations you make can never be repeated, and the records you create are the only records there will ever be.** The notes, drawings, and photographs made in the field during a project represent all that remains of a site once it has been completely excavated. The quality of these records is the largest determining factor in how completely and accurately the site will be interpreted. Following excavations, all of the information recorded in the field is entered into a database that lies behind the Digital Archaeological Archive of Comparative Slavery (DAACS) (https://www.daacs.org/). The DAACS data structures, classification, measurement protocols offer a powerful means of organizing excavation information. The field records that you create will be served to the public via the DAACS website.

5.1 The Quadrat Register

As each new quadrat is opened, the site supervisor assigns it a unique sequential number, and it is logged in the ***Quadrat Register*** (Figure 5).

MONTICELLO
Department of Archaeology
Quadrat Register

Site: ___44AB465 Project: Joiner Shop

Date: ___ 6/15/2014 Page: ____1_____ of _____

Quadrat Number	Grid Coordinates E	Grid Coordinates N	Date Opened	Initials	Date Closed	Initials	Short Title
2323	-270	-565	6/15/2014	DSF	6/25/2014	TWT	Interior NE quadrat next to chimney base
2324	-270	-570	6/15/2014	MSD			Interior NW quadrat next to chimney base

Excavation Unit Register 5/14/2003

Figure 5: Quadrat Register

This form provides a concise way to identify and organize contexts throughout the site and asks for the following information:

(1) *Quadrat Number* - This designation represents the quadrat number.

(2) *Grid Coordinates* - The east and north coordinates from the *southwest* corner of the quadrat (e.g., E -270, N -565).

(3) *Date Opened* - The date that the quadrat was opened.

(4) *Initials* - The person(s) who started excavating the quadrat.

(5) *Date Closed* - The date that excavation of the quadrat was completed.

(6) *Initials* - The person(s) who completed excavating the quadrat should initial here.

(7) *Short Title* - This is a brief description describing the location of the quadrat. It may provide a reason the quadrat was opened if it was for a specific purpose.

5.2 The Context Index

The ***Context Index*** (Figure 6) is a list of the context letters assigned within each quadrat. This form records each context as it is assigned and provides a brief description of the context. A Context Index is kept for each quadrat and an entry is made for each context as soon as it has been assigned. The form records the following information for each quadrat:

(1) *Context Letter* - For each quadrat (e.g., 070), a letter is assigned to each new context in alphabetical order (A, B, C-Z and then AA, BB, etc.). These letters do not imply stratigraphic sequencing; they are simply assigned in the order that they are encountered and identified. It should not be assumed that E is earlier in time than F.
Sometimes, you will come across a feature or deposit that you will not excavate (e.g., a stew stove or a brick floor). To ensure that it appears in the Harris Matrix, assign the unexcavated deposit a context letter.

(2) *Date Opened* - The date the context is opened is entered in this space.

(3) *Date Closed* - The closing date of the context is entered, usually when taking closing elevation.

(4) *Brief Description*- A brief description is provided so that that the context can be instantly recognized (e.g., “Reddish Silty Clay Across Quadrat”). This should be the same as the Short Title listed on the Context Record.

MONTICELLO Site: 44AB469 Project: Site 6

Department of Archaeology

Context Index Page: 1 of 1

QUADRAT: 070 Date: 7/10/12

Context Letter	Date Opened	Date Closed	Brief Description
A	7/10/2012	7/11/2012	Top Layer across Quadrat
B	7/11/2012	7/12/2012	Reddish Silty Clay Layer across Quadrat
C	7/12/2012	7/17/2012	Red Silty Clay Layer across Quadrat under Context B

Context Index 5/14/2013

Figure 6: Context Index

5.3 The Context Record

The ***Context Record*** (Figure 7 and Figure 8) is designed to prompt the systematic observation and documentation of the properties of excavated contexts, including sediments, inclusions, samples, and artifacts. While most of the form is standardized to facilitate the transfer of field data into DAACS, the Context Record also furnishes separate areas for discursive written description and interpretation. When filling out the Context Record, make sure that you keep description and interpretation separate. The sections of the Context Record are described below.

(1) *DAACS Project #-* Record the Project Number as assigned in DAACS (e.g., 86 for Mountaintop Accessibility – East Lawn).

(2) *Site Number* - Record the Virginia state site number (e.g., 44AB89). Archaeological sites at Monticello are registered with the Virginia Department of Historic Resources (VDHR). The state site number assigned by DHR is used as the primary identification number for the site. Common site numbers used at Monticello include 44AB89 (sites inside the First Roundabout), 44AB465 (Mulberry Row and the Vegetable Garden), 44AB442 (Sites 7 and 8), 44AB469 (Site 6), and 44AB712 (Site 30).

(3) *Project Name* - Sites are identified by project name (e.g., Mountaintop Accessibility – East Lawn).

(4) *Quadrat Number*- Each quadrat is assigned a number for identification (e.g., 2676) and must be a minimum of three digits (e.g, 005, 012, etc.). Quadrat numbers are assigned when quadrats are laid out, are assigned consecutively, and are recorded in the Quadrat Register.

(5) *Context* - Each context is assigned a letter (e.g., A, B). Letters are assigned consecutively from A to Z within each quadrat as new strata are exposed during excavation. Since excavation proceeds stratigraphically, context letters generally (but not always) reflect a progression from the youngest to the oldest deposits.

(6) *Feature* - ***Feature*** is an archaeological term that typically refers to a depositional basin or intrusion into underlying sediments and soils (e.g., postholes, hearths). Features often extend into multiple quadrats and are assigned site-specific feature numbers. The site supervisor will assign a feature number. If the context is part of a feature, the number of that feature is recorded here. For more on what is recorded, see the *Feature Form* section below.

(7) *Coordinates* - Record the four grid coordinates that identify the corners of the quadrat (e.g., X: -105 to -110, Y: -230 to -235).

(8) *Short Title* - Record a brief description of the context. Locations are good to include in the short title (e.g., "Dark brown clay loam with brick fragments across quad"). ***Do not use interpretations here***.

(9) *Excavators* - Record the initials of the excavators.

(10) *Date Opened* - Record the date the context was begun.

(11) *Recorder* - Record the initial of the recorder(s) of the paperwork.

(12) *Date Closed* - Record the date the context was completed.

(13) *Elevations* - Record the opening and closing elevations for each context. The

closing elevation should be *lower* (less than) than the opening. ***Make sure the numbers decrease***. Additionally, when taking fewer than the four NW, NE, SE, and SW elevations, write the new locations of elevations clearly and accurately.

(14) *Stratigraphic - Relationships*

Record the immediate relationships between the current context and other strata within the quadrat and adjacent quadrats. For example, a context (010B) may be sealed by 010A and, in turn, seal 010C. Record only those relationships that are revealed through excavation. These field assignments are critical: there is no better time than during excavation to accurately make these assignments, particularly with correlations. Correlated contexts are excavations of a single deposit also found in adjacent quadrats. Making accurate *Correlate* assignments in the field requires good communication with your colleagues excavating adjacent quadrats.

(15) *Sediment - Description*

Color is gauged using ***Munsell Soil Color Chart*** (2009). This system measures sediment or soil color according to the three dimensions that comprise all colors and are recorded in the following order: ***hue, value, and chroma***. Hue refers to the relative position of a color on a spectrum ranging from red through yellow, green, and blue. Value refers to the lightness of a color, while chroma represents its strength or intensity. Accordingly, a dusky red would be expressed as 2.5YR 4/2. The *Sediment Description* should represent the entire deposit as excavated and not just be copied from the closing *Sketch Map* of the previous context. Depending on how many mottles are present, you may need to list multiple colors. If you are wearing sunglasses, be sure to remove them while taking a Munsell. The tint will affect your ability to determine the color correctly.

After noting the Munsell, determine each sediment's *Frequency* within the entire layer by percentage (e.g., 97%) using the chart in the front of the Munsell book on pages 9 and 10.

Finally, record each sediment's *Texture* using the appropriate numeric code listed in the *Texture Codes* box on the Context Record. Learn how to identify textures in Figure 10 and Figure 11.

The combined *Frequencies* for all *Sediments* and *Inclusions* must total 100%.

(16) *Inclusions* -

Determine the presence of *Inclusions*. Nearly every deposit will have an inclusion. Use the chart on pages 9 and 10 in the Munsell book to note *Frequency* of each inclusion within the entire layer by percentage (e.g., 10%).

Record each Inclusion's *Particle Size* using the *Particle Size Codes* box on the Context Record. The codes range from 1 to 5 and can be listed as a range (e.g., Size 2-3, 3-5, etc.).

The combined *Frequencies* for all *Sediments* and *Inclusions* must total 100%.

(17) *Screening - Method* — Check (√) the appropriate screening method. If the *Other* category is marked, record the method beneath the checked box.

(18) *Does the context cover the entire unit?* — Check (√) the appropriate box. If "No" is checked, record the length and width. Length is the measurement of the longest horizontal axis of the context through the centroid. The width is a measurement of the horizontal axis perpendicular to the length.

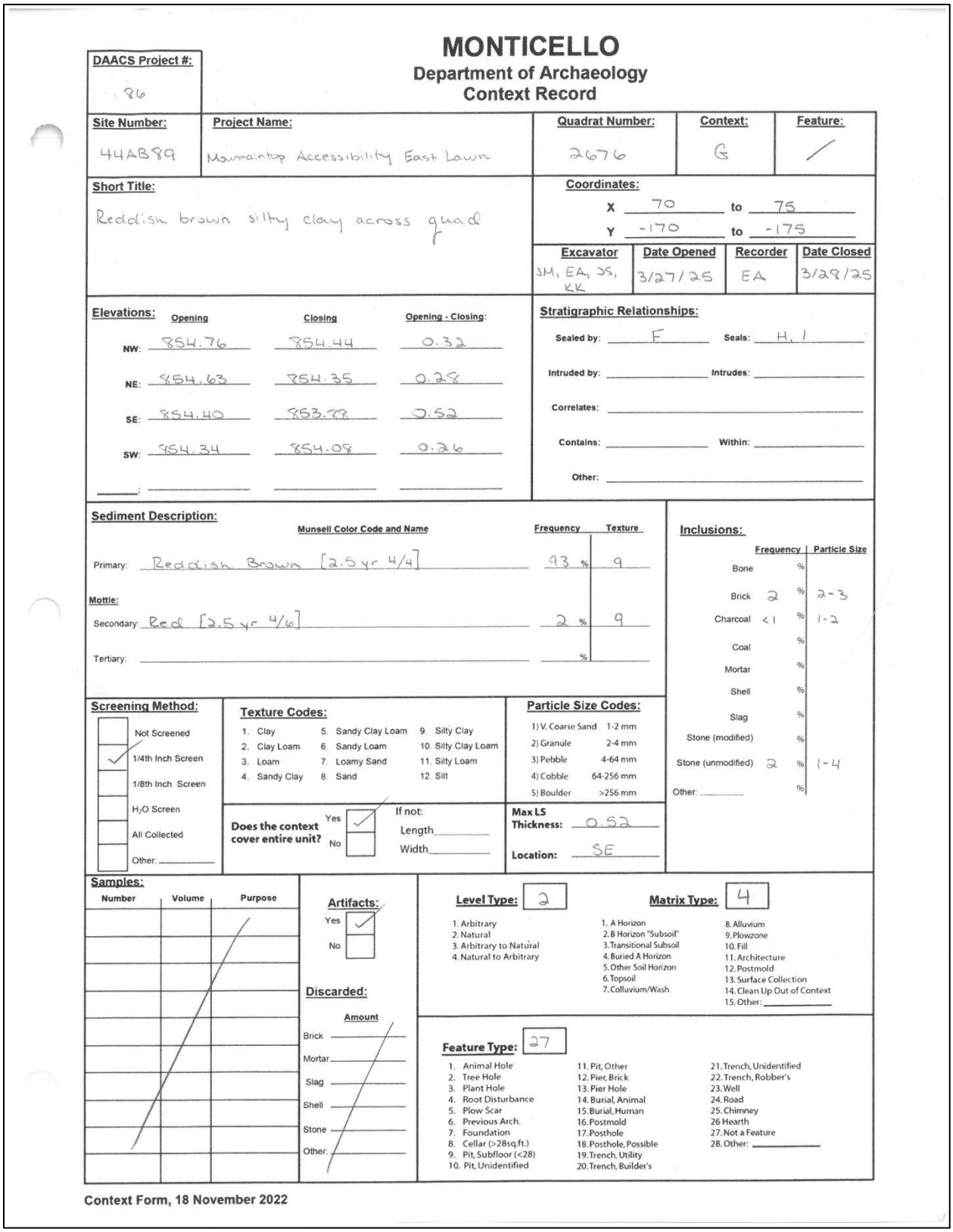
(19) *Samples* - List the sediment sample *Number* (i.e., S-01 for Sample 1), *Volume* (i.e., 10 L), and *Purpose* (i.e., Float) for each samples collected. Cross out this box if samples are not taken.

(20) *Artifacts* - Check (√) *Yes* or *No* to indicate the presence or absence of artifacts. Sometimes decisions are made to count, weigh, and discard certain artifact types in the field. In these cases, record a count and total weight of the material before discarding. Do not include any samples kept in your discarded weights. Unless a specific decision is made to record and discard artifacts, *all artifacts are kept* (except for bubble gum, batteries, band-aids, and excessive amounts of plastic).

(20) *Level Type* - *Level Type* refers to the decisions made to define contexts. When an interface between contexts is noted based on definable differences in sediment texture, color, and inclusions, it is described as ***Natural.*** A decision to divide a deposit by depth or lack of artifacts without sediment change would be classified as ***Arbitrary*.** A level may be opened based upon a natural interface but stopped arbitrarily, such as in the case of excavating to an arbitrary depth during a mitigation project, and vice versa.

(21) *Matrix Type* - Select the number associated with the natural or cultural processes that created the deposit. If *Other* is chosen, record the matrix type. The terms used to assign *Matrix Type* are discussed in more detail in the *Matrix Type* section below. Fundamental to identifying the right matrix is understanding the distinctions between 1) soil and sediment and 2) soil horizons and lithostratigraphic units (deposits).

(22) *Feature Type* - Choose the appropriate numeric code from list. If *Other* is chosen, be sure to name the feature type.



MONTICELLO
Department of Archaeology
Context Record

DAACS Project #: 86

Site Number:	Project Name:	Quadrat Number:	Context:	Feature:
44AB89	Mountaintop Accessibility East Lawn	2676	G	/

Short Title: Reddish brown silty clay across quad

Coordinates: X 70 to 75; Y -170 to -175

Excavator	Date Opened	Recorder	Date Closed
JM, EA, JS, KK	3/27/25	EA	3/29/25

Elevations:

	Opening	Closing	Opening - Closing
NW:	854.76	854.44	0.32
NE:	854.63	854.35	0.28
SE:	854.40	853.88	0.52
SW:	854.34	854.08	0.26
_____:			

Stratigraphic Relationships:
Sealed by: F Seals: H, I
Intruded by: _____ Intrudes: _____
Correlates: _____
Contains: _____ Within: _____
Other: _____

Sediment Description:

	Munsell Color Code and Name	Frequency	Texture
Primary:	Reddish Brown [2.5 yr 4/4]	93 %	9
Mottle: Secondary:	Red [2.5 yr 4/6]	2 %	9
Tertiary:		%	

Inclusions:

	Frequency	Particle Size
Bone	%	
Brick	2 %	2-3
Charcoal	<1 %	1-2
Coal	%	
Mortar	%	
Shell	%	
Slag	%	
Stone (modified)	%	
Stone (unmodified)	2 %	1-4
Other: _____	%	

Screening Method:
- [ ] Not Screened
- [x] 1/4th Inch Screen
- [ ] 1/8th Inch Screen
- [ ] H_2O Screen
- [ ] All Collected
- [ ] Other: _____

Texture Codes:

1. Clay	5. Sandy Clay Loam	9. Silty Clay
2. Clay Loam	6. Sandy Loam	10. Silty Clay Loam
3. Loam	7. Loamy Sand	11. Silty Loam
4. Sandy Clay	8. Sand	12. Silt

Particle Size Codes:

1) V. Coarse Sand	1-2 mm
2) Granule	2-4 mm
3) Pebble	4-64 mm
4) Cobble	64-256 mm
5) Boulder	>256 mm

Does the context cover entire unit? Yes [x] No [ ] If not: Length_____ Width_____

Max LS Thickness: 0.52 **Location:** SE

Samples:

Number	Volume	Purpose

Artifacts: Yes [x] No [ ]

Discarded:

	Amount
Brick	
Mortar	
Slag	
Shell	
Stone	
Other:	

Level Type: 2
1. Arbitrary
2. Natural
3. Arbitrary to Natural
4. Natural to Arbitrary

Matrix Type: 4
1. A Horizon
2. B Horizon "Subsoil"
3. Transitional Subsoil
4. Buried A Horizon
5. Other Soil Horizon
6. Topsoil
7. Colluvium/Wash
8. Alluvium
9. Plowzone
10. Fill
11. Architecture
12. Postmold
13. Surface Collection
14. Clean Up Out of Context
15. Other: _____

Feature Type: 27
1. Animal Hole
2. Tree Hole
3. Plant Hole
4. Root Disturbance
5. Plow Scar
6. Previous Arch.
7. Foundation
8. Cellar (>28sq.ft.)
9. Pit, Subfloor (<28)
10. Pit, Unidentified
11. Pit, Other
12. Pier, Brick
13. Pier Hole
14. Burial, Animal
15. Burial, Human
16. Postmold
17. Posthole
18. Posthole, Possible
19. Trench, Utility
20. Trench, Builder's
21. Trench, Unidentified
22. Trench, Robber's
23. Well
24. Road
25. Chimney
26 Hearth
27. Not a Feature
28. Other: _____

Context Form, 18 November 2022

Figure 7: Front of Context Record.

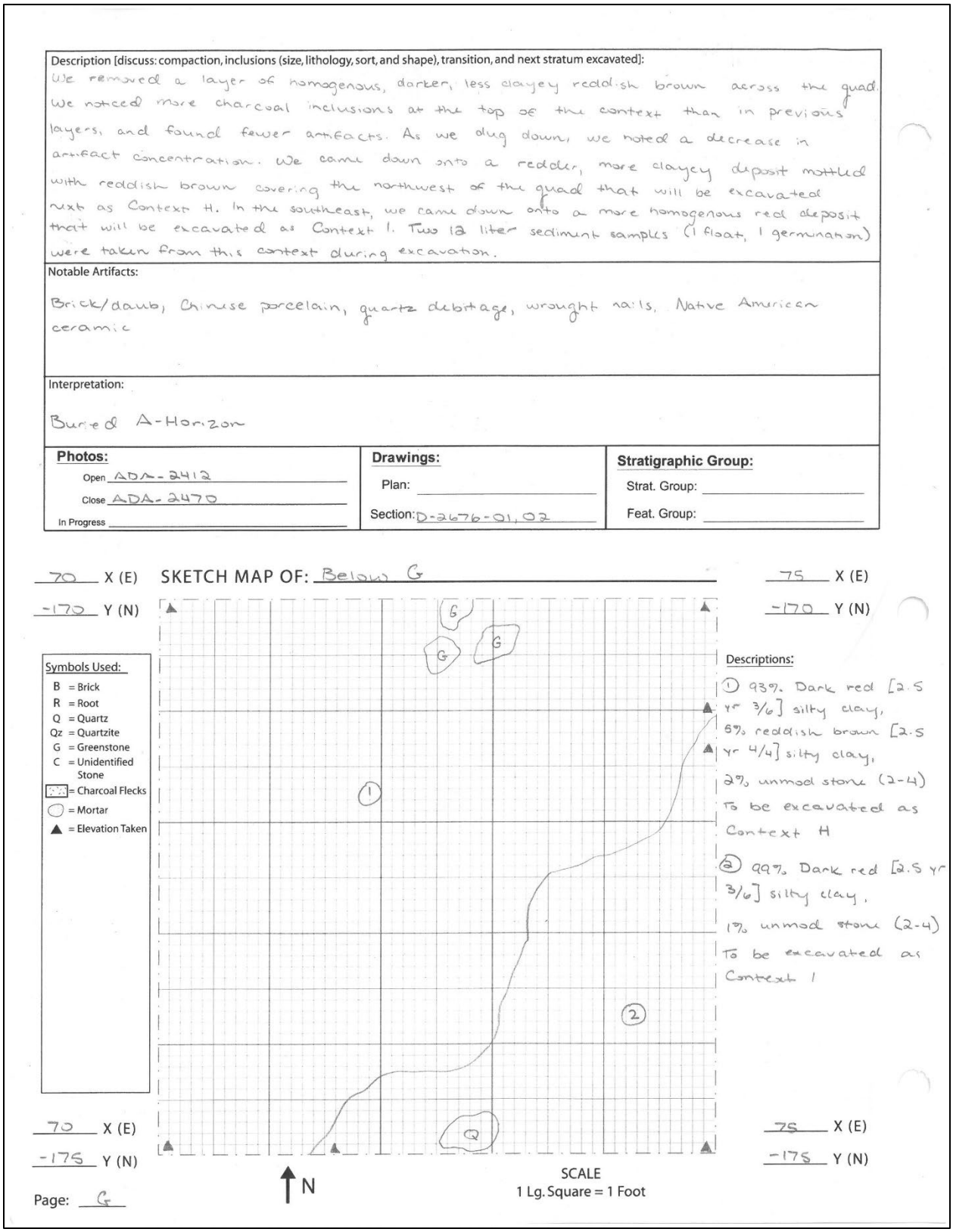


Figure 8: Back of Context Record.

(23) *Description* - This section provides a space to record observations beyond what is given in the standardized sections of the Context Record. When describing a context, think about:

- What did the context look like at the start of your excavation?
- What did you encounter during the excavation of the context?
- What interface did you uncover by the excavation of the context?

This should be a description of what you see, not an interpretation of what you think it means.

(24) *Notable Artifacts* - List the recovered artifacts that may be important for dating or characterizing the function of a particular context. Be as specific as possible (e.g., "transfer-printed pearlware, wrought nails," instead of "ceramics, nails.") Do *not* use abbreviations (e.g., "PW" for pearlware or "bgl" for bottle glass). Record any artifacts that you discard here, as well (e.g., "gum, plastic discarded in field). Write "None" if no artifacts were found.

(25) *Interpretation* - Draw on the information recorded throughout the Context Record and provide a *succinct* interpretation of the context (a few words will do). This can include ideas or hypotheses of what you think of this context (i.e., Plowzone, A-horizon, 20th-century construction fill). Be as clear as possible here. If you know the specific era to which the context dates, include it. A final interpretation may be assigned once the context is analyzed in relation to others on the site.

(26) *Photos* - Record whether photographs were taken of the context during excavation. Include the numbers assigned by the camera and recorded in the Photo Log (e.g., HVAC_1059). Cross out these lines if no photos were taken. Record photo numbers and their descriptions in the site wide Photo Log. In most cases, Closing photos for one context (ex: Context A) will be used a the Opening photos for the following context (ex: Context B).

(27) *Drawings*- List the appropriate drawing number (e.g., D-2310-02) from the Drawing Log for plan or profile drawings. Cross out these lines if no separate plans or profiles were completed.

(28) *Stratigraphic Group*- This field records which contexts belong to the same deposit or stratigraphic unit. For example, if Context C in one quadrat is lithologically the same as and stratigraphically continuous with Context B in the adjacent quadrat, they would be assigned to the same Stratigraphic Group (SG). The Stratigraphic Group number

for a context is assigned from groupings interpreted on site with the help of the Harris Matrix produced for the site. SG numbers are site-specific and assigned sequentially.

(29) *Sketch Map* - The *Sketch Map* provides a place to draw the context(s) uncovered and recorded in the *Description*. Provide a short title describing the map (e.g., End of Context A). List the coordinates in the spaces provided, and note any special symbols used. Each context or distinct sediment appearing in the plan should be numbered on the map as well as be identified with a corresponding, complete sediment description to the right of the map. Include what each context will be excavated as (e.g., "100% Red [2.5YR 4/6] silty clay; To be excavated as Context B"). If a context is not excavated, write "Not excavated" after the Munsell. You can also record "Subsoil" after a Munsell if you have reached subsoil. Number in the order in which you would excavate the deposits. See the Plan Drawings section below for further details.

5.4 Description of Sediments

In order to fill out the Context Record correctly, you need to learn the basics of describing a context and the sediments that comprise it. Accurate context description requires using the standardized syntax and terminology. This same standardized syntax and terminology is used on plan and section drawings. Learning how to use this terminology is a critical skill in doing responsible archaeological fieldwork and creating records that will be useful to later generations of archaeologists.

Description starts by identifying the ***primary sedimentary matrix***, the ***mottles*** that it contains, and any ***inclusions***. The discursive sediment description should conform to follow the syntax in Figure 9. The primary sedimentary matrix is the mixture of fine-grained particles (clays, silts, and sands) with a uniform color that comprise the greatest percentage of the context. The mottles are small patches of fine-grained sediment whose texture and color differ from the matrix. The context may contain one or more kinds of mottles, distinguished by their color and texture from one another. The inclusions are particles or ***clasts*** (e.g. rocks, bricks, daub, charcoal fragments) that are greater than 2mm in diameter. You must describe the relative frequency (or percentage), the color, and the texture (or size) of the matrix, mottles and inclusions, using standard terminology.

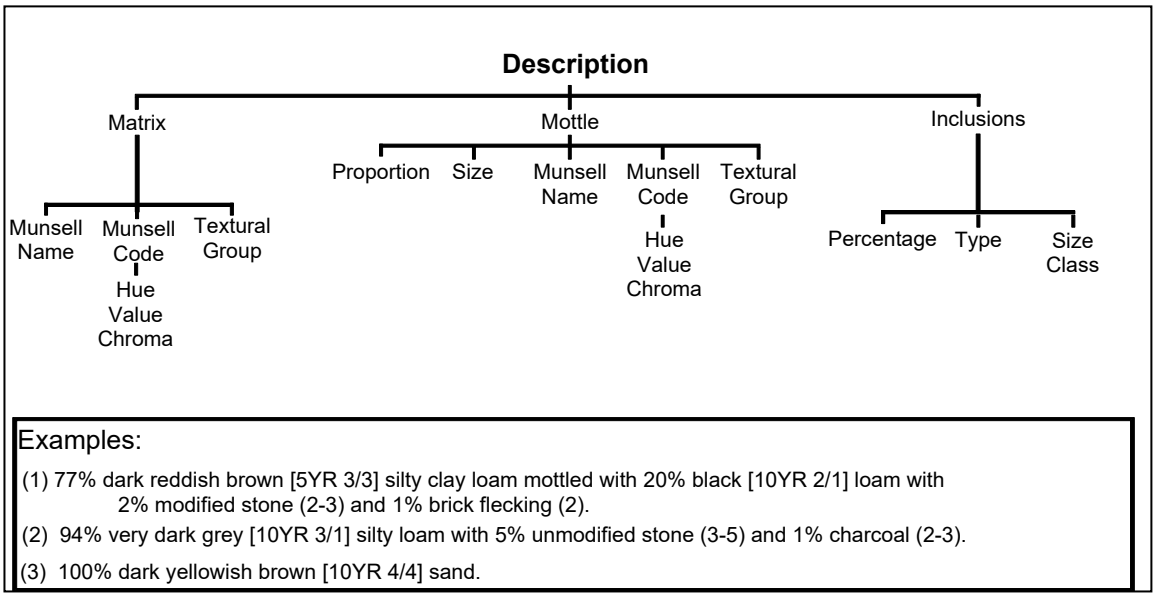


Figure 9: Sediment description syntax, to be used in the "Description" field on the Context Record and on plan and section drawings.

Colors of the primary sedimentary matrix and the contrasting secondary or tertiary mottles are described using the ***Munsell Soil Color Chart*** (2009). Color notation is recorded using the appropriate Munsell color name followed by its color code and then texture (*e.g., reddish gray [5YR 5/2] clay loam*).

Texture of both the primary sedimentary matrix and any secondary or tertiary mottles is described in terms of textural groups, which are defined as different mixtures of ***sand, silt,*** and ***clay***. "Sand", "silt", and "clay" are ordinary English words, but here we are using them in a scientific, geoarchaeological sense to denote three mutually exclusive classes defined by the size of the grains or clasts. Sand grains are visible to the eye, but silt and clay particles are not and must be detected in the field by feel.

A specific mixture of sand, silt, and clay can be visualized as a point on a ***triangular or ternary diagram*** (Figure 10). In the diagram, the coordinates of the points are the percentages of each of the three grain-size classes. Different zones in the diagram define textural classes which have different technical names (e.g. loam, sandy loam, etc.) In describing texture, you are identifying the textural class to which the matrix and mottles you are excavating belongs.

While precise characterization of sediment texture requires laboratory analysis, accurate assessments made in the field are essential. Figure 11 offers a relatively objective means of doing field textural assessment.

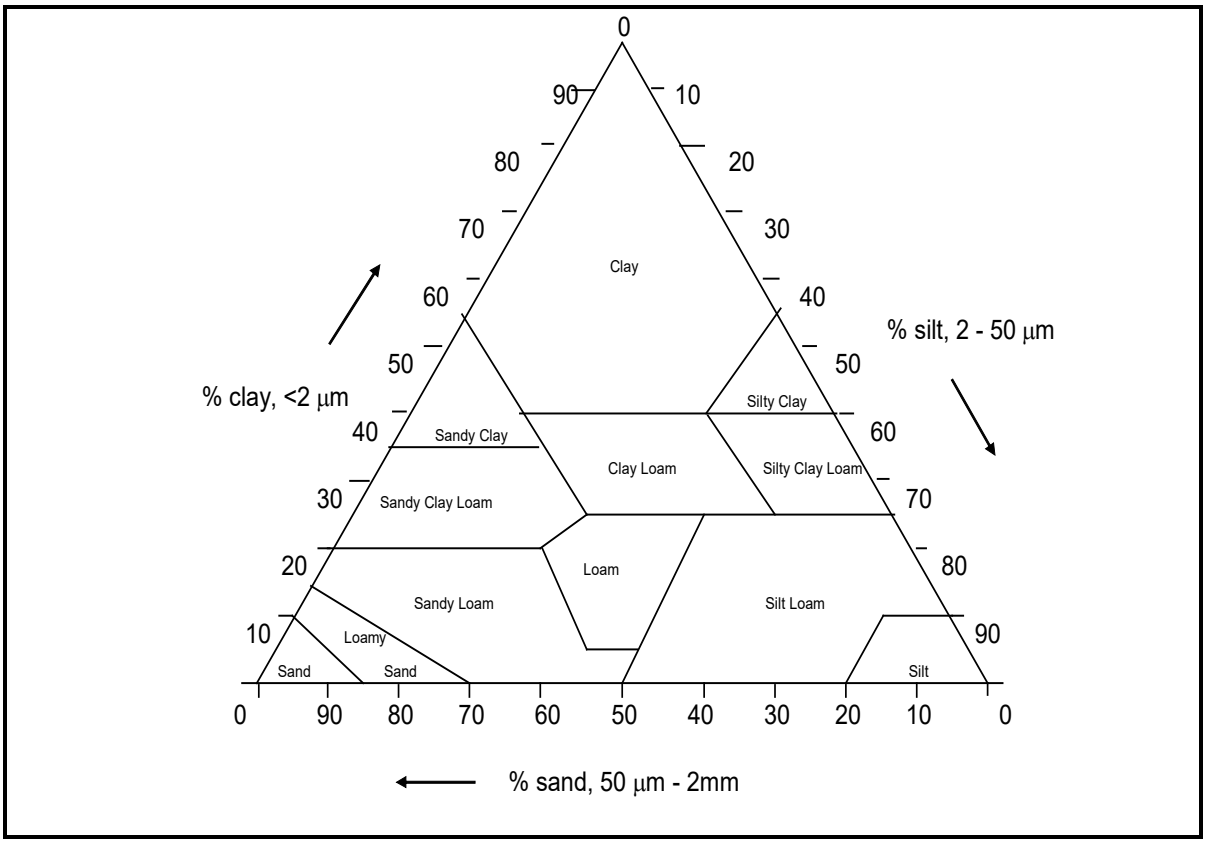


Figure 10: Soil Texture Chart: the American (USDA) System

Particles or clasts larger than coarse sand (larger than 2 *mm*) are quite easily and accurately identified in the field using standard particle size groupings, which can be found on page 5 in the Munsell Soil Color Chart. Particle size grades 2 mm and larger are defined as follows:

(1) Very coarse sand: 1-2 mm
(2) Granule: 2-4 mm
(3) Pebble (or gravel): 4-64 mm
(4) Cobble: 64-256 mm
(5) Boulder: Greater than 256 mm

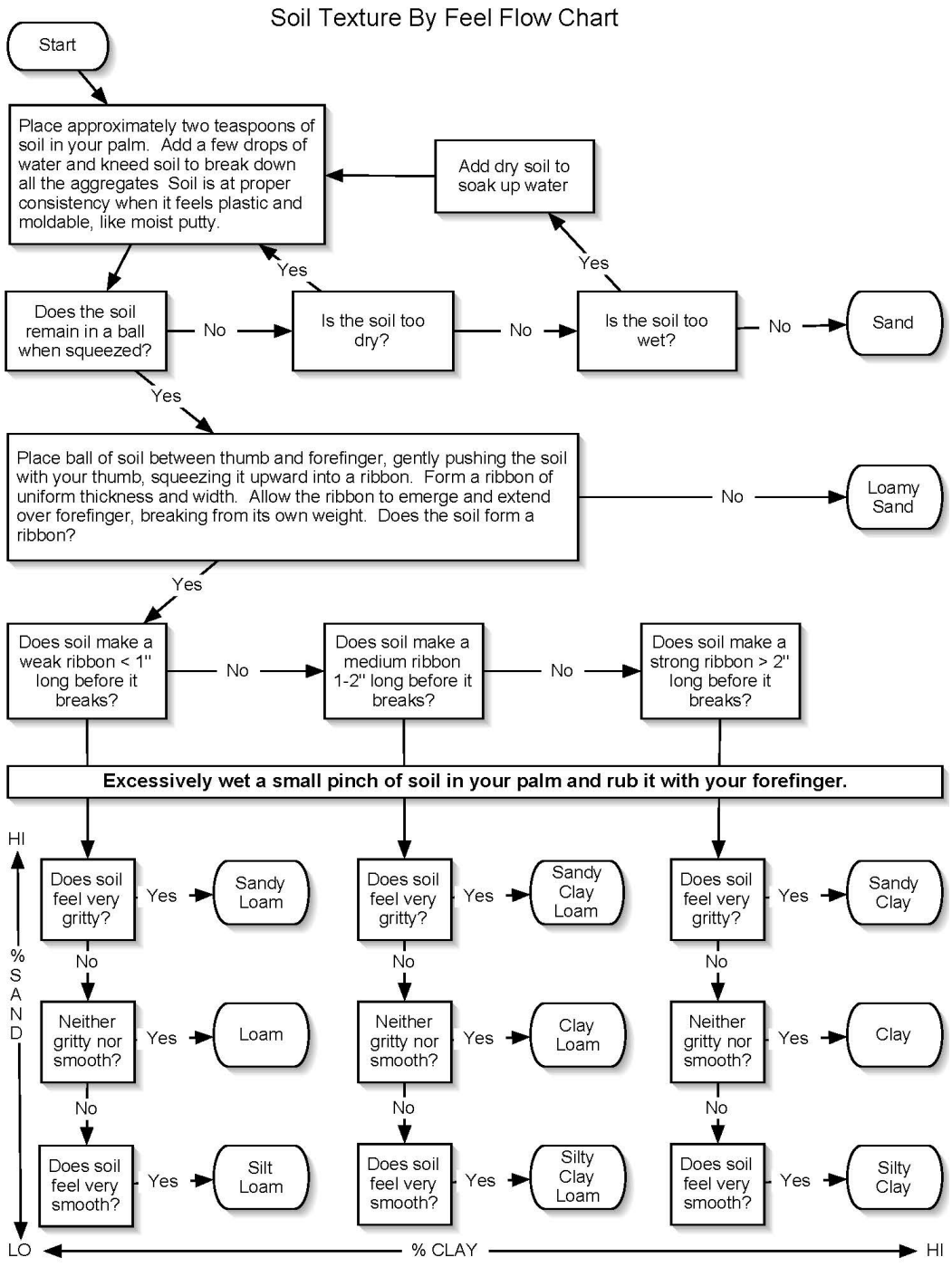


Figure 11: Soil Texture Assessment Guide

5.5 Determining Matrix Type

The *Matrix Type* field on the Context Record asks you to choose between several options. The best way to ensure you get this right is to start with the distinction between soil and sediments. Soils are the result of decades to centuries to millennia of weathering and other

pedogenic processes at work on stable parent material. On a millennial time scale, these processes will create a ***soil profile***, consisting of a stacked-up set of ***soil horizons***. Soil scientists, or pedologists, assign letters to these horizons. Figure 12 shows a soil profile and its component horizons. The first question you should ask in matrix type assignment is whether the process that created the lithological homogeneity of the context that you are recording could have been soil formation. In other words, is the homogeneous layer a soil horizon? If so, which horizon is it? If the context is a soil horizon, or a portion of one, then it is a pedostratigraphic unit (*a body of rock that consists of one or more soil horizons*), which does not obey the law of superposition. For example, an A horizon is the same age as its B horizon despite the fact that one overlies the other.

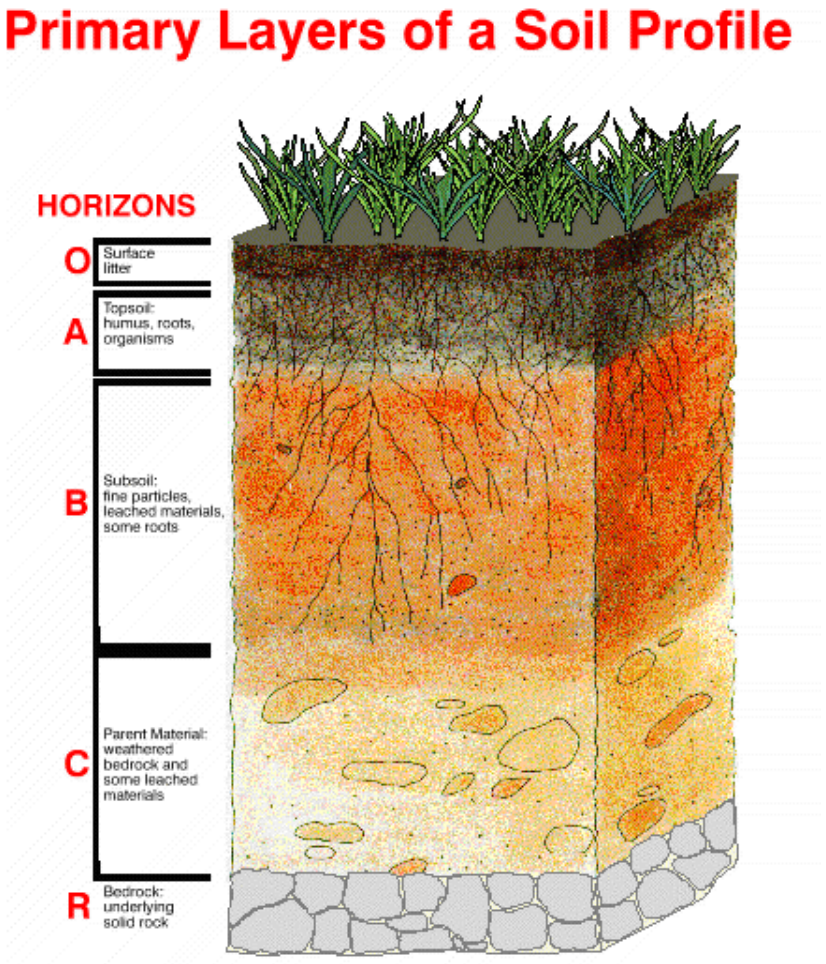


Figure 12: A soil profile typical of the Eastern Woodlands of the United States.

Sediments, on the other hand, consist of particles that have been transported by some agent (e.g., people, gravity, water, or wind) and are deposited where they are found. In this case, the lithological homogeneity that you have picked out by assigning the sediments to a single context is the result of a more-or-less constant source for the transported particles and a constant agent of deposition. If a context is a deposit, then it counts as a ***lithostratigraphic unit*** and obeys the law of superposition: older deposits underlie younger deposits.

Geologists and archaeologists use different technical names for deposits created by different agents. These are the four most commonly encountered at Monticello:

Fill	*created by*	People
Colluvium	*created by*	Gravity
Alluvium	*created by*	Water
Aeolian	*created by*	Wind

You should be familiar with a few terms. The first term is **Plowzone,** and it is a zone in which the lithological homogeneity has been created by plowing. At Monticello, we often see plowzones that have been abandoned for decades, in which case there are signs of A horizon formation on the surface. In this case, we would excavate the incipient A horizon separately from the plowzone (the parent material) on which it was forming. The first layer would be interpreted as "A Horizon" and the second layer would be interpreted as "Plowzone".

The second term is **Topsoil**. This is what pedologists and geoarchaeologists call an A horizon. It is also used to refer to the bag of organic-rich dirt you buy to put on your garden. In our case, we also use this term to describe the top layer in a lawn (i.e. sod), which is often not really an A horizon, but a deposit of sediment, rich in organic material, spread by the lawn crew, and planted in grass. Finally, we define **Fill** as sediment that occupies a basin (in the case of a feature) or a layer which has been deposited by humans' or animals' activities. It is sediment that has been altered physically by a human or an animal-driven event.

5.6 Section and Plan Drawings

Clear and neat section drawings and plans are indispensable in the proper recording of the archaeological record. Coupled with detailed field notes, these drawings are, at times, the only records available to the archaeologist for correlating the stratigraphic levels of all quadrats on a site. Listed below are instructions on how and when to make section and plan drawings and the conventions to follow so that all drawings are uniform and comprehensible.

While there is a space for sketching archaeological deposits on the back of the Context Record, formal sections and plans are drawn on graph paper. When using graph paper, the binder holes should be on the left. If a drawing needs to accommodate multiple quadrats, then the graph paper should be turned horizontally, and the binder holes should be on the top of the drawing. Title information appears in the top right corner. The first line will be "Monticello Archaeology". The next three lines of the title include the site number, project name, and quadrat number(s). All of this information can be found on the Context Record. For plans, be sure to indicate which context was just removed (e.g., 2382 Below G). Next will be the drawing number (e.g., D-2382-02). Consult with the quadrat's Drawing Log prior to assigning a drawing number (Figure 13). Note that each quadrat has its own Drawing Log. Drawing numbers follow a format that is similar to sediment sample numbers. The drawing number is a three-part notation (e.g., D-2382-02) consisting of a "D" for drawing, the quadrat number, and a sequentially assigned number for each drawing of a particular quadrat beginning with 01. For example, D-2382-02 represents the second drawing from quadrat 2382.

MONTICELLO
Department of Archaeology
Drawing Log

Site: 44AB89 Project: AUAC 2013

Date: 4/9/14 Page: 1 of 1

Quadrat: 2382

Drawing Number	Location Coordinates	Short Title	Initials	Date
D-2382-a	x= -115 y= -165 to -160	West Profile	CLP LKM EAF	3/24/14
D-2382-02	x= -115 TO -110 y= -165 TO -160	PLAN VIEW below G1	EAF/LKM	3/24/14
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				
D-				

Drawing Log 1/17/2013

Figure 13: Drawing Log Form.

Every plan and section drawing should include the drawing number followed by the date it was drawn, the initial(s) of the person(s) who drew it, the scale used, and an arrow representing grid north in the case of a planview. Should a drawing need multiple pieces of paper for sediment descriptions, do not use the back of the graph paper. Rather, copy the title information onto each additional piece of paper with “Page 1 of 2” and “Page 2 of 2” clearly

marked. North arrows are not necessary with section drawings, but it should be indicated which wall is being drawn (north, south, east, or west). If a drawing consists of more than one quadrat, one drawing number will be assigned and listed on each quadrats' Drawing Log with a cross-listing to the other quadrat's log. Finally, if a context is drawn on either a section or plan, the drawing number must be written on the back of each Context Record in the "Drawings" box.

Each stratum should be labeled with an Arabic number in a circle. Do not label any layer on your drawings with its Context letter (e.g., A, B, C) since there might not be a one-to-one correlation between excavated and drawn layers. A section might show, for example, two excavated levels to be only one homogenous layer in the profile or vice versa. ***For each numbered layer on section and plan drawings, note which contexts(s) the layer was "Excavated as".*** For example, Layer 1 may be "Excavated as Contexts A and B" or Layers 2 and 3 may both be "Excavated as Context B." Additional symbols may be used as needed in your drawings, but they *must* be shown with their referents in a key (see Figure 17 for commonly used symbols).

5.6.1 Section (Profile) Drawings

Sections are scale-measured drawings of the vertical profile of the strata of a quadrat, including the interrelationship of sediments in profiles, balks, and features. Sections are diagrammatic renditions of the stratification, and they allow the archaeologist to determine the relationship between sediment layers (Figure 15). This is where spending time during excavations to make sure the side walls of the quadrat are vertical pays huge dividends because not only does it allow for easier mapping, but it also decreases the chance of making measurement errors. Sections are drawn at a scale of 1 inch=1 foot. Section photograph numbers should be listed below the title of the drawing as assigned by the camera and as recorded on the Photo Log.

Section drawings are usually completed of bisected features and when a quadrat is completed. At the minimum, the quadrat wall with the greatest number of contexts present should be drawn, although more than one wall can be drawn. For feature profiles, as mentioned below, the procedure for feature excavation is to divide the feature in half or into quarters, depending on its size, and then excavate half of the fill (from alternating quadrants if using the latter technique). A section drawing is then made of the resulting profile after the feature has been bisected.

To make a section drawing, a level line from a datum must be set up. Take two chaining pins, and place one pin securely into the ground at either end of the section to be drawn (Figure 14). The chaining pins should not interfere with the shiners, corner nails, or the ground surface. It is critical that the plane created by the string and chaining pins should extend immediately over the quadrat's side wall. The quadrat wall should be a continuation of this plane. Connect the chaining pins with a string, making sure that the string is taut and contacts only the chaining pins. Place a line level in the middle of the string; if the weight of the line level causes the string to sag, retighten the string. To level the string, push one pin or the other into the ground, but never pull out the pins, as this will reduce the tension, causing the line to sag.

Figure 14: Setup for a section drawing.

Next, lay a folding ruler or tape horizontally on the surface of the ground with the end centered over one of the nails that anchors one end of the section string. Then, using a second folding ruler, take vertical measurements down to each stratigraphic interface starting with the ground surface. Note any significant, large objects such as bricks, rocks, roots, and artifacts in the section. Taking vertical measurements every half-foot along the horizontal rule or tape will yield sufficient detail on flat or gently sloping interfaces. For uneven, undulating or irregular interfaces, take measurements at closer intervals (generally where the interface increases or decreases in height) if the increased precision will be reflected in the completed drawing. Lightly pencil in a mark indicating the point at which a point was read. You will connect these points when the extent of the context or object is complete, or you can connect the dots as you draw.

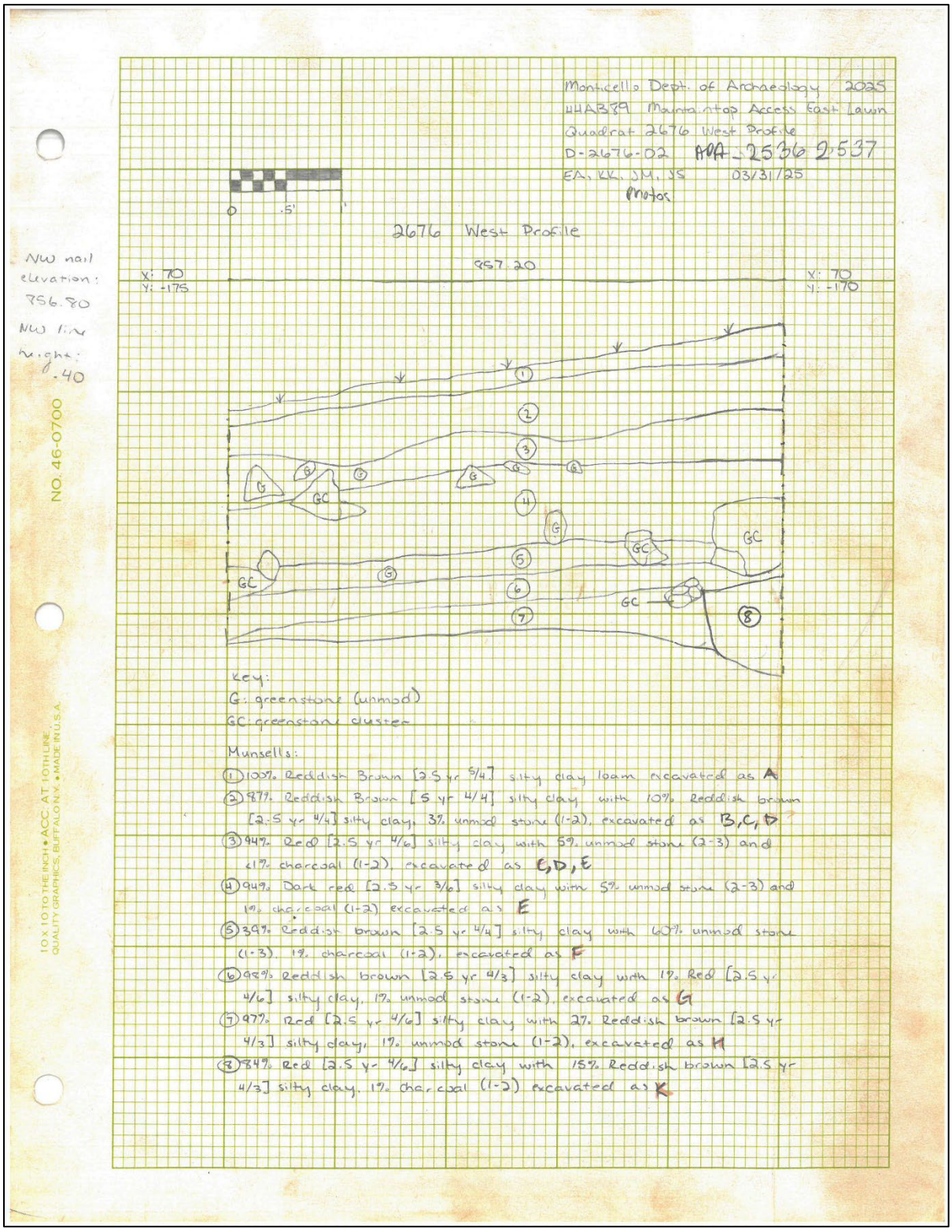


Figure 15: Example of a Section Drawing.

Next, using a folding ruler, measure the distance from the top of a corner nail to the height of the line level and note this on the drawing. Use the total station to measure the elevation of the corner nail and also record this on the drawing. This will allow for accurate elevations based on the section drawing. Label the grid coordinates (x,y) of quadrat boundaries present in the section drawing. Shiners and balks should be drawn when present. Note that the edges or limits of excavation, including the vertical extents if excavations were paused or stopped arbitrarily, are denoted as a dot-dashed line. This is distinguished from interfaces between natural layers, which are drawn using solid lines. This distinction is used to indicate that the natural sediment layers continue beyond the bounds of the quadrat; however, excavation has been arbitrarily halted to coincide with the boundaries predetermined for the quadrat. This is a subtle but essential point. The distinction between arbitrarily divided sediments (done by archaeologists) and naturally divided sediments is extremely important to accurate site interpretation.

Finally, number the strata sequentially, from top to bottom (including subsoil if it appears in the section or immediately underlies the bottom excavated layer) and describe the sediments, including the Munsell color and texture plus inclusions, below the drawing. In describing sediments, use the sediment description syntax outlined in the sediment description (Figure 9). If multiple quadrats are present in a section drawing, indicate which quadrat is which on the drawing above ground surface. Similarly, make sure sediments boundaries match if they extend into adjacent quadrats' drawings.

5.6.2 Plan Drawings

Plans are drawings of the horizontal plane of a quadrat showing the location of the visible contexts, including sediment layers and features. Prior to its excavation, each context is drawn on the back of the Context Record ***for the previous context***. While this sketch map is often sufficient, a more detailed plan drawing made on a separate piece of graph paper is sometimes needed (Figure 16). Plans are drawn at the scale of 1 inch=1 foot. As with sections drawings, grid coordinates are recorded at each corner of the quadrat. Additionally, shiners and balks should be drawn when present.

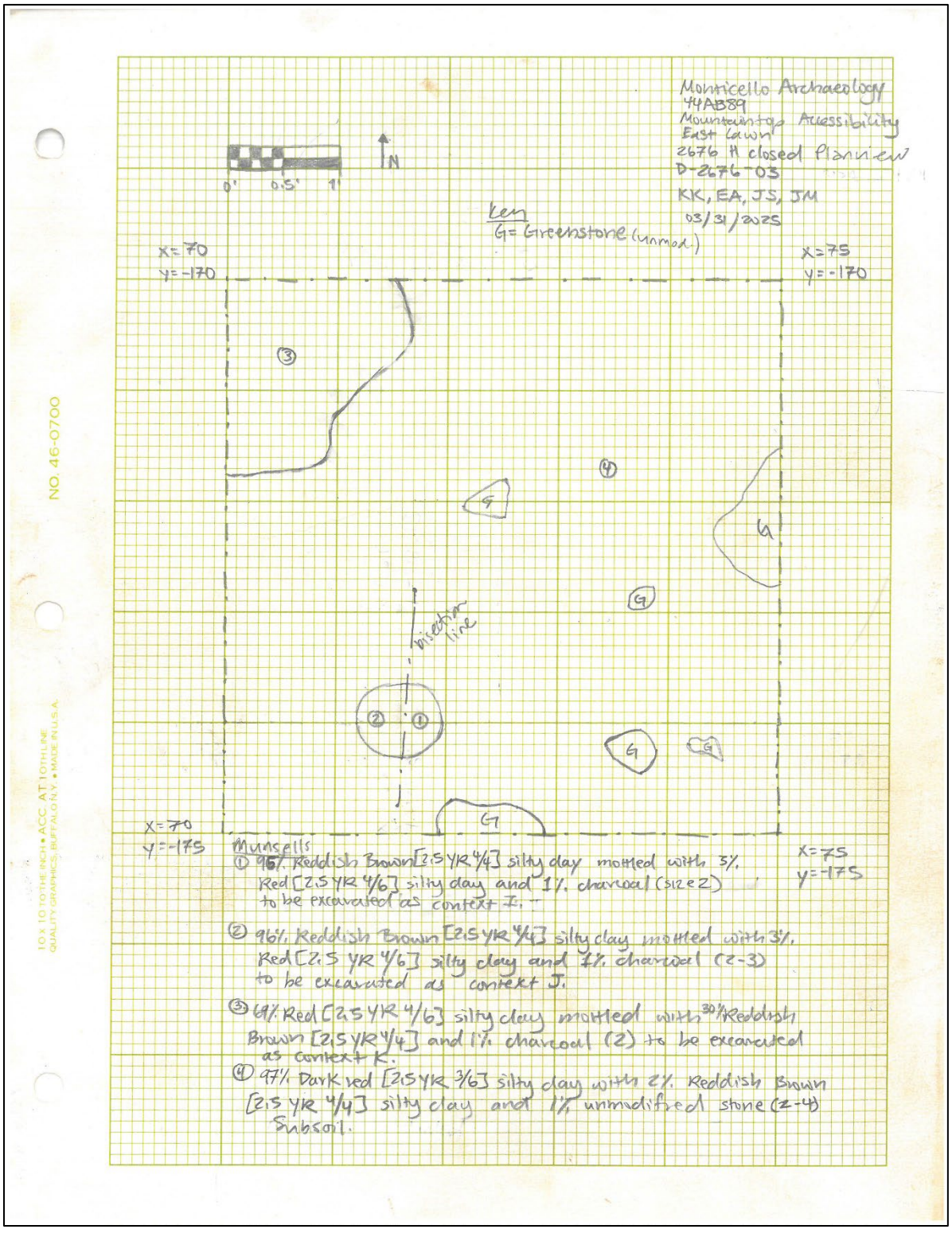


Figure 16: Example of a Plan Drawing.

There are a variety of methods for producing a plan drawing. For the sketch map on the back of the Context Record, only two folding rulers are required. It is essential that the four walls of your quadrat are completely vertical and straight, since any deviation will result in inaccurate measurements. Make sure the corner nails have not moved. Lay one folding rule on the ground surface next to the quadrat, with the zero-end centered over a corner nail. Use the other folding rule to take measurements out from this baseline at necessary intervals along it, making sure that the rulers form a 90^{o} angle when taking measurements. A plumb bob can help ensure greater accuracy. Plot enough X- and Y-coordinates to sketch in the strata and large inclusions. Note that sometimes plotting too many points or being overly precise can lead to a drawing that looks nothing like the observed quadrat (for instance, to draw a circular feature, you can plot its center point and measure its diameter rather than try to plot ten points around its circumference). It is most important that these drawings are measured accurately **and** that it reflects what is occurring in the ground.

Another method is to use a drawing frame, which consists of a wooden frame that is divided into half foot squares by string. This is usually employed when greater detail is desired. The frame is placed over the quadrat and leveled, after which features are mapped one square at a time. Stone or brick paving and burials are examples of when the drawing frame is appropriate.

As with section drawings, the edge of the quadrat is a dot-dashed line, while the interfaces between strata and deposits are separated by a solid line. Label all four corners of the quadrat with location using X and Y coordinates. The same labeling rules apply for plans as for sections: identify each stratum with a small, circled number, and describe the deposit, giving its Munsell color, texture, and any inclusions below the drawing. At the end of each Munsell description, note what each context is to be "Excavated as." *Number the contexts sequentially in the order in which one would excavate them.* Additional symbols *must* be defined in a key (see Figure 17 for common symbols). If multiple quadrats are drawn in a plan, identify each quadrat on that plan and on each quadrat's associated Drawing Log.

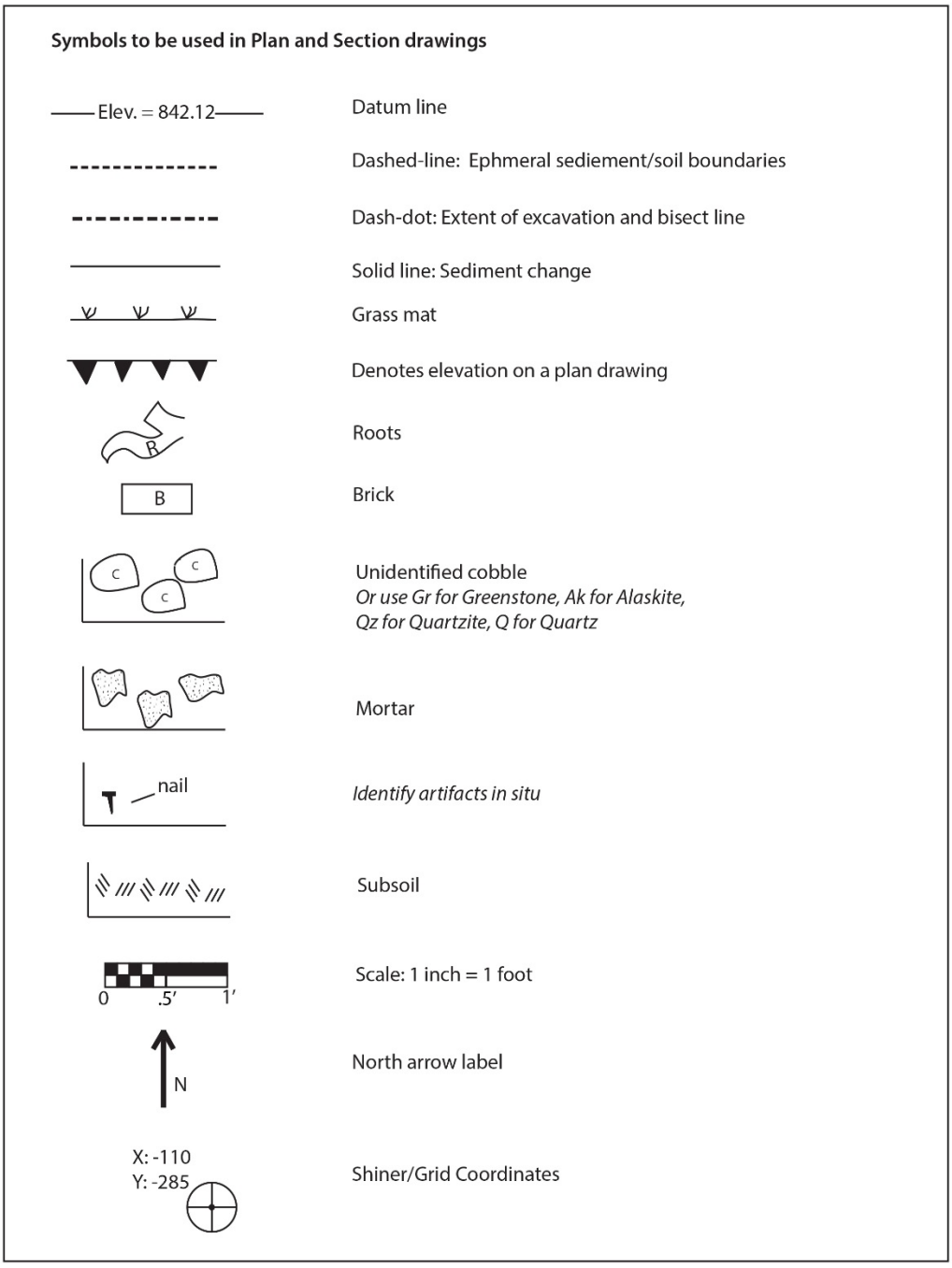


Figure 17: Commonly Used Symbols for Plan and Section Drawings.

5.7 FEATURES

Features are depositional basins or intrusions into underlying sediment layers or soil horizons that contain various cultural and natural sediments. Features are usually noted once disturbed sediments, such as plowzone, have been removed from the surface of undisturbed strata, such as a B-horizon. Sediments contained within feature basins are usually distinguished from surrounding sediments or soils by color, texture, and inclusions. When the more obvious distinguishing characteristics of features are not present, other ways of recognizing features include: careful trowelling to distinguish *very* subtle textural differences, noting cracks along the interface between feature fill and the surrounding matrix, and plant roots following along these same interfaces. When the site supervisor decides to excavate a feature, a unique Feature Number is assigned to it and an entry is made in the site's Feature Index. A detailed Feature Form (Figure 18) will be filled out by the excavator. This form records the entire extent and all deposits in the feature regardless of how many quadrats the feature expands into. A Feature Form contains the following information:

(1) *Site* - Record the Virginia state site number (e.g., 44AB465).

(2) *Project Name* - Record the site name (e.g., Joiner Shop).

(3) *Feature Number* - A unique, sequential number for each feature obtained from the Feature Index.

(4) *Short Title* - A short interpretive title (e.g., Brick floor).

(5) *Associated - Quadrats and Contexts* A list of all contexts excavated from within the basin or cut of the feature.

(6) *Feature Type* - The feature type as recorded on the Context Record. This may be different from the Short Title. Write the type of the feature (e.g., Previous Archaeology), not its Feature Number.

(7) *Date Started* - Date feature was first excavated.

(8) *Date Finished* - Date feature excavation ended.

(9) *Length* - A measurement of the longest horizontal axis of the feature through the centroid.

(10) *Width* - A measurement of the horizontal axis perpendicular to the length (also through the centroid).

(11) *Depth* - A measurement of the vertical axis perpendicular to the length (also through the centroid).

(12) *Centroid - Coordinates* The location of the center of the feature, in VSP or Kelso coordinates.

(13) *Photos* - A list of the photographs taken of the feature from the Context Records.

(14) *Drawings* - A list of the drawings done of the feature, from each of the context records.

(15) *Shape in Plan* - What the feature looks like in planview once excavated.

(16) *Shape in Profile* - What the feature's profile looks like once excavated.

(17) *Description* - Write a description including, for instance, the sides of the feature (smooth or irregular; vertical, convex, concave, or stepped), the break of the top and bottom of slope (sharp or gradual), compaction of sediment, what soil or sediment the feature came down to, and so on.

Features that are large enough will be bisected and profiled. Much larger features (i.e., subfloor pits) may be bisected along two perpendicular planes and excavated in quarters or quadrants. Feature excavation is conducted in natural layers, which may be further subdivided into in .2-foot arbitrary levels when they are thicker than .2 feet. In many cultural features, all fill sediment is saved for flotation.

MONTICELLO

DRC AHP 11/25/15

Department of Archaeology
Feature Form

Site Number:	Project Name:	Feature Number:
/	North Dependency Vault	07

Short Title: dark red clay loam intrusion in SE of quad

Feature Type: root disturbance

Associated Quadrats and Contexts: 11D

Date Started:	Date Ended:
11/20/15	11/23/15

Length: 3.4 **Width:** 1.3 **Depth (Thickness):** 0.37 **Centroid Coordinates:** E 11,496,344.6 N 3,891,731.7

Photos:
Open NDV-5873,5877
Close NDV-5901
In Progress /

Drawings:
Plan /
Section /

Shape in Plan:
(Amorphous) Hexagonal Oval L-Shape
Circular Linear D-Shape Sub-Rectangular

Shape in Profile:
(Irregular) Unidentifiable Flat-based U Round-based
Stepped Flat-based V Double U

Description: [discuss corners (square, rounded, etc), sides (smooth or irregular), break of slope (sharp, gradual), compaction, inclusions, and orientation]

Feature 07 appeared as a loose, dark red, clay loam intrusion in the SE corner of the quad in context 11C. This was excavated as 11D. The feature contained a small amount of greenstone, saprolite, and quartzite. It came down quickly (0.37') on a red clay subsoil and contained no artifacts, aside from some charcoal flecking (discarded)^. At this point, excavation of this feature was terminated.

Feature Form 19 June 2015

Figure 18: Completed Feature Form.

5.8. UNEXCAVATED FEATURES OR CONTEXTS

Not all deposits and features identified during fieldwork will end up being excavated. In those cases, it may still be useful to have complete descriptions of the deposit and its stratigraphic relationships to other deposits. This is mostly the case to show that the feature exists, especially if you want it to be represented in a Harris Matrix. We can capture these relationships by filling out a Context Record for the unexcavated deposit. If the unexcavated deposit comprises a feature, it will also be useful to fill out a Feature Form. Note on the forms that the deposit or feature was not excavated and why. If deposits and features that were recorded and left unexcavated in one field season are excavated in a later field season, context(s) and feature records should be updated to capture the new information.

5.9 EXCAVATION SUMMARY

The Excavation Summary form (Figure 19) is completed for each quadrat once it has been completely excavated. This form prompts excavators to review the Context Records completed during excavation and provide a narrative of the excavation, deposits encountered in the quadrat, any important decisions made and why, especially if they were not captured in the Context Records, as well as hypotheses explaining how the archaeological contexts were formed and their significance to the larger site. This is a summary but should not only repeat information from the Context Records.

MONTICELLO
Department of Archaeology
Excavation Summary

Site:	Project:
44A889	Mountaintop Accessibility East Lawn

Quadrat:	Location:	Recorder:	Date:
2671	X 85 Y -165 to X 90 Y -170	AB	2/14/25

Excavation Summary:

Quad 2671 was placed on the East Lawn for mitigation of new accessibility walkways. Within the section to be impacted, it was in the southeastern area.

We excavated a layer of A-horizon (Context A) and three layers of fill (Contexts B, C, and D). Contexts B and C contained a mix of 18th-, 19th-, and 20th-century artifacts. Context D was a bright red clay with lots of decomposing greenstone cobbles and is interpreted as Monticello I fill. Context E was interpreted as a lens of C-sourced clay fill. We excavated Context F and Context G as buried A-horizon. We then removed a layer of transitional subsoil (Context H) that exposed five root intrusions that were excavated separately (Contexts I, J, K, L, and M).

The deposits became more red, and the clay content increased in Contexts B, C, and D. As we excavated, we observed an increase in handmade brick and 18th-century artifacts within the fill. The upper fill (Contexts B and C) contained a greater variety of artifacts that would indicate an increase of human activity over time. This likely could have been part of Monticello II construction. As we excavated down into the other fill layer (Context D), the variety of artifacts decreased, with brick/daub being the most prevalent artifact in the lower fills. The decrease in artifact variety and the thickness of the lower fill could indicate the construction phase of Monticello I. As part of the levelling process for Monticello I, a significant amount of clay would have been redistributed across the mountaintop, and would likely contain construction debris such as brick, window glass, or wrought nails.

Underneath the fill layers was buried A-horizon (Contexts F and G), which we interpret as the original 18th-century ground surface. This layer was a less compact reddish-brown silty clay with charcoal inclusions across the quad. The charcoal may represent a burning event that cleared the mountain of vegetation prior to the levelling and construction of Monticello I. Underneath the buried A-horizon and a transition to subsoil layer (Context H), we encountered subsoil. We excavated five root intrusions separately (Contexts I, J, K, L, and M), and then stopped excavation at subsoil.

Excavation Summary 6/12/2014

Figure 19: Excavation Summary Form.

This form requires the following information:

(1) *Site* -	Record the Virginia state site number (e.g., 44AB712).
(2) *Project* -	Record the site name (e.g., Site 30).
(3) *Quadrat* -	Record the quadrat number (e.g., 050)
(4) *Location* -	Record the coordinates from the two surveyed corners (e.g., X: -11498190 to 11498195, Y: 3890775 to 3890780).
(5) *Recorder* -	Record the initials of the recorder of the form.
(6) *Date* -	Record the date of completion of the form.
(7) *Excavation - Summary*	This section should summarize the excavation details listed on the Context Record. Try to include any information that is not listed on the form, such as why the quadrat was dug or where it is located on the site. Explain the decisions made during excavation or the reasons behind decisions if excavators deviated from typical excavation procedures. Remember that the rationale behind many field decisions is quickly forgotten. This is also the place to frame hypotheses about the data observed, test alternate hypotheses against the observations, and outline additional information needed to confirm or reject alternative explanations. Discarded hypotheses should be listed along with the reasons for their rejection.

5.10 PHOTOGRAPHY

Supervisors will take photographs on the site to record and archive the site, the excavation itself, important site visitors, and public events. However, in some cases, field crew will be asked to take photos. First and foremost, it is essential that all photographic equipment is kept clean and is handled carefully. Make sure you have clean(ish) hands before handling the camera. Dust and dirt will cause precision equipment to wear and eventually to break. Heat is equally as destructive, so keep all photographic equipment out of direct sunlight. The archaeology department uses a Nikon D-750 Digital SLR camera. The camera's lens is equipped with a UV haze or daylight filter, which is used to remove haze and accentuate lighting to produce a clearer picture. Filters also provide an inexpensive means of protecting expensive lenses. While filters should be cleaned prior to use, blow the dust off before wiping to avoid scratching the lens coating. Make sure that it is not cracked before taking photographs.

We take several types of photographs on site – record and candid shots. Record shots are taken of quadrats with completed contexts, features, completed column samples, profiles, feature bisections, and others that are left to the discretion of the site supervisor. Candid shots may include images taken to document construction projects, mice nests, or archaeologists working, for example. Final, overall site photographs are also taken.

Before taking a record shot, the quad's surface should be carefully trowelled, roots should be clipped, and stone and masonry should be brushed. (*Sediment is <u>never</u> brushed because it obscures the color and boundaries of strata.*) Moreover, make sure that all equipment, loose dirt, roots, trash, and people are beyond the view of the camera. Place a scale bar in the area to be photographed along with a photo board (Figure 20). The photo board should include Monticello Archaeology, the state site number, project name, context removed or closed, a north arrow with the letter "N" (planview only), and the date the photograph is taken. When taking a photograph of a wall profile, you do not need the north arrow. Instead, include the quad number along with the direction and profile (ex: 2350 South Profile).

Figure 20: Example of a Photo Board

Compose the photo. Make sure that the area is clean and that sediment boundaries, if present, are clearly defined. Use of a sprayer may help highlight the colors and sediment boundaries, particularly if a surface has been open and baked for quite some time. The ranging pole (scale) should be aligned within the frame of the camera, and, when possible, placed on one wall immediately perpendicular to the photo board. Try to avoid oblique angles when possible, and make sure the photo is directly above the middle of the quadrat or straight on for a profile. Ideally, take plan photos facing north. Unless you are trying to accentuate fine details, try to take photographs at F-stop 8 (F8) or higher to ensure a good depth of field. Lighting in the field is rarely poor enough to warrant the use of flashes unless you are inside. The Auto setting on the camera generally takes good photos and is a good place to start when figuring out F stop and shutter speed for the Manual setting on the camera.

Document photographs on the <u>Photo Log</u> (Figure 21). Each project has its own <u>Photo Log</u>. The following information is recorded:

In the heading, record the Site, Project Name, Page Number, and Code assigned to the project's set of photographs (which is set on the camera itself). This code will be assigned to every photograph taken by the camera during a project.

(1) *Date* - Record the date that the photograph was taken.

(2) *Initials* - Record the photographs' initials.

(3) *Photo Number* - Record the photo number assigned by the camera. The number will have a prefix of the project code (ex: WCN_2329).

(4) *Subject/Description* - Record a brief description of the subject of the photograph or series of photographs. If there are people in the image, list their names.

(5) *Direction* - Record which direction the camera faced when the photograph was taken.

A digital photo log is generated to accompany the final paperwork. This is a separate process with its own manual.

MONTICELLO Site: 44AB89 Project: South Pavilion
Department of Archaeology Code(s): SPD
Photo Log Date: 11/8/2016 Page: 1

Date	Initials	Photo Number	Subject/Description	Direction
11/18/16	CLP	SPD_0031	Lauren w/ Total Station	W
11/22/16	CLP	SPD_0062	Pavilion Shot Post-demo-removal	NE
↓	↓	SPD_0064	↓	SW
↓	↓	SPD_0065	↓	SW
↓	↓	SPD_0069	↓	S
12/1/16	LEG	SPD_0107	2588B In Progress	N
12/3/16	CMK	SPD_0158	End of A Contexts in South Pavilion from door	W
12/14/16	CLP	SPD_0618	Toothbrush from South Pavilion 2585C w/ Lauren	—
1/11/17	LEG	SPD_1071	2591 C CLOSE (*Note North arrow is Pointing West*)	W
1/11/17	JEJ	SPD_1080	2581C + 2585C CLOSE	W
1/23/17	CLP	SPD_1241	Crew Mapping in South Pavilion	N
↓	↓	SPD_1245	↓	NE
↓	↓	SPD_1247	↓	NW
3/1/17	JEJ	SPD_2725	25830 Removed Planview	N
3/2/17	CMK	SPD_2741	2584 South Profile	S
3/10/17	CLP	SPD_3028	2582 Feature 10 Bisection	E
3/23/17	CMK	SPD_3529	2593 East Profile Column Sample	E
3/24/17	LEG	SPD_3556	2582 F10 North Profile Column Sample	N
3/27/17	CMK	SPD_3531-3533	2584X + 2588Q CLOSED	W

Photo Log 9/13/2016

Figure 21: Completed Photo Log Form.

6. Rock Samples

Rocks can provide important information regarding patterns in landscape use, local and regional raw material sourcing, and technological and economic trends in a given area. Often material present on an archaeological site is rock, which is typically a combination of modified and/or imported (manuported) rock material and non-anthropogenic, natural colluvial, alluvial, or *in situ*, decaying greenstone. Distinguishing between naturally occurring rocks and those that have been modified for human use and quantifying the characteristics of different materials can help inform excavations and enrich the final interpretation of the site. For example, specific

rock types are sourced at certain points in time depending upon trends in economy, architectural specifications, material availability, and transportation methods. Quarries open and close depending upon a number of factors. The prevalence of one rock type on a site and the degree to which it is modified may indicate the source of the material, the cultural activity it may be associated with (the construction of a foundation or stone tool production, for example) and the time period during which a site was used.

At Monticello, Alaskite (an igneous rock containing high amounts of pink feldspar) is associated with a specific quarry on the lower slopes of Montalto. Historic records indicate that Thomas Jefferson had laborers use the quarry during the last quarter of the 18th century and gradually less after 1810. Greenstone and quartzite are additional common rock types at Monticello, part of which because greenstone is the underlying bedrock of Monticello mountain. Natural quartz is not uncommon, either. Both were quarried locally and were used for a variety of purposes at Monticello. By quantifying rock types and volumes at an archaeological site, one may compare this data to regional trends seen in the historic record and observed in the archaeological record. Rock sorting can therefore help inform the questions, hypotheses, and conclusions surrounding the interpretation of cultural activity at a site.

6.1 PROCEDURES

Rocks are collected for identification, sorting, and weighing on a context-by-context basis and when we have specific research questions. (For more information on identifying different rocks, please see the Lab Manual.) Rocks from contexts excavated and collected as Flotation samples should be left as part of those samples. Collect all rocks in a bucket that is clearly labeled with flagging tape as a particular context. If boulders are too large to fit into that container, label the rock with flagging tape and set aside until the time of data recordation. Cobbles and pebbles collected from the screen should be placed in a bucket and/or added to the boulder pile. Quantify them with a single context. We always keep and record alaskite whether it is modified or unmodified and greenstone, quartzite, and quartz only if modified.

With a context excavated and with a Rock Size Sorting Form (Figure 22) in hand, sort the rocks first by size using soil sieves. Place rocks into the graduated sieves and create piles according to the sieves' four size classifications: 2 ½", 63mm; 1 ¼", 31.5mm; 5/8", 16mm; and 5/16", 8mm. With size-sorting accomplished, further sort each size by material. For more information on the types of rocks found at Monticello and how to identify them, consult the Lab Manual. "Unidentified" may be a category, but do not record a rock as such until consulting with other crew members or a supervisor.

MONTICELLO
Department of Archaeology
Rock Size Sorting Form, with sieves

Site Number:_____ Project Name:_____
Quadrat Number:_____ Context: _____ Initials: _____

	2½", 63mm		1¼", 31.5mm		5/8", 16mm		5/16", 8mm		
Material	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	**NOTES**
Modified Unmodified									
Modified Unmodified									
Modified Unmodified									
Modified Unmodified									
Modified Unmodified									
Modified Unmodified									
Modified Unmodified									
Modified Unmodified									
Total									

Figure 22: Rock Size Sorting Form

Once rock size and material sorting are accomplished, weigh and count each pile. Work through each size+type, and count the total number of objects in the pile. Move on to the next size+type pile. In some cases, the rocks may be too numerous or too large so as to exceed the capacity of the scale. In this case, take measurements of each size+type in parts and add them together when finished. You can place rocks into a bucket and total them that way; just be sure to subtract the weight of the bucket from your total weight.

Weight should be recorded as grams (g) in accordance with DAACS protocols. Field scales frequently measure in kilograms (kg) or pounds (lbs). Care should be taken to set the scale either to grams or kilograms, as pounds are more difficult to convert to grams. In all cases, only record grams on the field form. To convert kilograms to grams, multiply the kilogram weight by 1000 (or add three zeros, e.g., 3kg=3000g).

In all archaeological contexts, it is important to discern between those rocks that are naturally occurring and those that were either modified or brought to the site. In some cases, your supervisor will have you do a third step in the sorting process and separate rocks into "modified" and "unmodified" categories. Always check with your supervisor to see if this level of detail is needed.

In some cases, rocks are collected for processing in the laboratory. In these cases, do not include their count and weight on the Size Sorting Form.

Once all rocks are quantified, they may be discarded in a designated area. Indicate on the front of the Context Record the total weight of discarded rock material. In some cases, unique or morphologically exceptional specimens may be retained for the lab's study collection. On both items, consult your supervisor.

7. Sediment Samples

Sediment samples provide important data regarding the cultural activities in an area. For example, pollen and phytolith samples can provide clues about what the environment looked like in the past, including plants that were cultivated or used by the occupants of a site. Likewise, sediment or soil chemistry can point towards activities conducted on a site. The pH level of the sediment or soil provides clues about the preservation of organic matter. Water-screen and flotation samples are collected to recover those things that are normally missed during dry screening because of their small size. These include seeds, animal bones, insects, and small artifacts. Finally, grain sizing, or the analysis of sediment composition and structure, can tell a great deal about the way in which deposits were formed. In certain cases, we take samples for micromorphological analysis. All sediment samples should be recorded on the Sediment Sample Log (Figure 29).

7.1 Chemical, Phytolith, and Pollen Samples

Soil sampling design varies according to site stratigraphy and research questions. Samples are usually removed from a profile wall, and the procedure is detailed below. Chemical samples are collected to determine the pH level and characterize the sediment or soil chemistry. Phytoliths are the silica concretions that form around the cells of certain plants as they take in water. Because the root cells are often unique to individual plant species, the silica mold that forms around the cell makes it possible to identify plant remains. Likewise, pollen samples are collected from important contexts to provide information on the local environment.

7.2 Procedures

Chemical and phytolith samples are taken from a column within a profile starting at the current ground surface and continuing down to the depth of excavation. Pollen samples are then taken in reverse order starting from the bottom of the recently removed chemical/phytolith column sample and working up to the ground surface to prevent contamination. Sample collection is best performed by two people. One person takes the samples while the other labels the bags, updates the Sample Log, and records the sample numbers and locations on the photocopied section drawing. If artifacts are recovered from the sediment in the column sample, fill out an artifact bag and include the sample number and whether the sample was chem, phyto, or pollen.

The following supplies are necessary in taking samples:

- 5”x 8” zippered plastic bags with the white writing surface (three bags for every tenth of excavation)
- Smaller zippered plastic bags for pollen samples (one bag per tenth of excavation)
- Sediment Sample Log
- Folding ruler
- Clean trowel
- Photocopy (never the original) of the profile drawing labeled with the contexts
- Sharpie

7.2.1 Chemical and Phytolith Samples

To begin taking samples, you will need a 0.5’ square column from the area of the profile to be sampled (Figure 23). If samples have already been collected from a quadrat, continue recording information on the same sample log by beginning with the next available number.

Begin by scraping the area with a clean trowel. Sediment or soils to be analyzed are removed and placed into a 5”x 8” plastic bag being sure to avoid touching the sample. Label the bag as you would an artifact bag and write the two-digit sediment sample number (Figure 24). (Review the sediment sample labeling procedure in Section 7.3.) Measure to the nearest whole tenth from a corner nail and mark the location on the photocopied drawing (Figure 25). Remove any loose sediments and vegetation from the ground surface. A 0.5’ wide column is standard, but additional sediment should be removed to fill two 5”x 8” bags about three-quarters full for every tenth below surface – one sample for chemical analysis and one for phytolith analysis. Elevations should be the top of the tenth removed. If the deposits are sloped, you may need to adjust accordingly or not sample parts of the column to ensure only one stratum is sampled at a time. If a sample is being taken from a context during excavation, be careful not to pit the stratum or dig a hole.

Once samples are brought in from the field and logged in the lab, open the samples to allow them to dry. Pollen samples, however, must be kept sealed until analysis to prevent contamination. Add a tablespoon of alcohol to bags once you take them to the lab.

Figure 23: Start of a column sample.

Label each sample bag as follows:

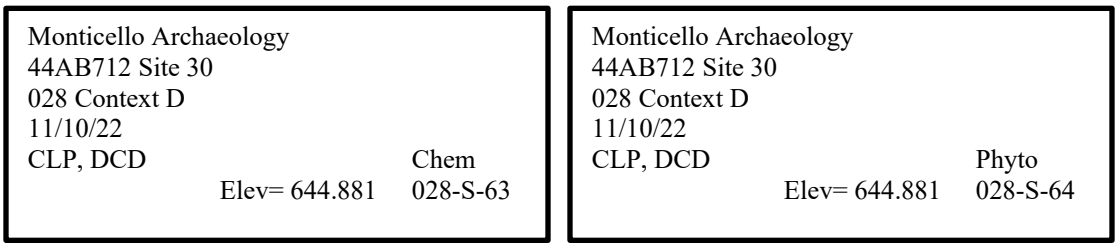


Figure 24: Sample labels on the exterior of the bag.

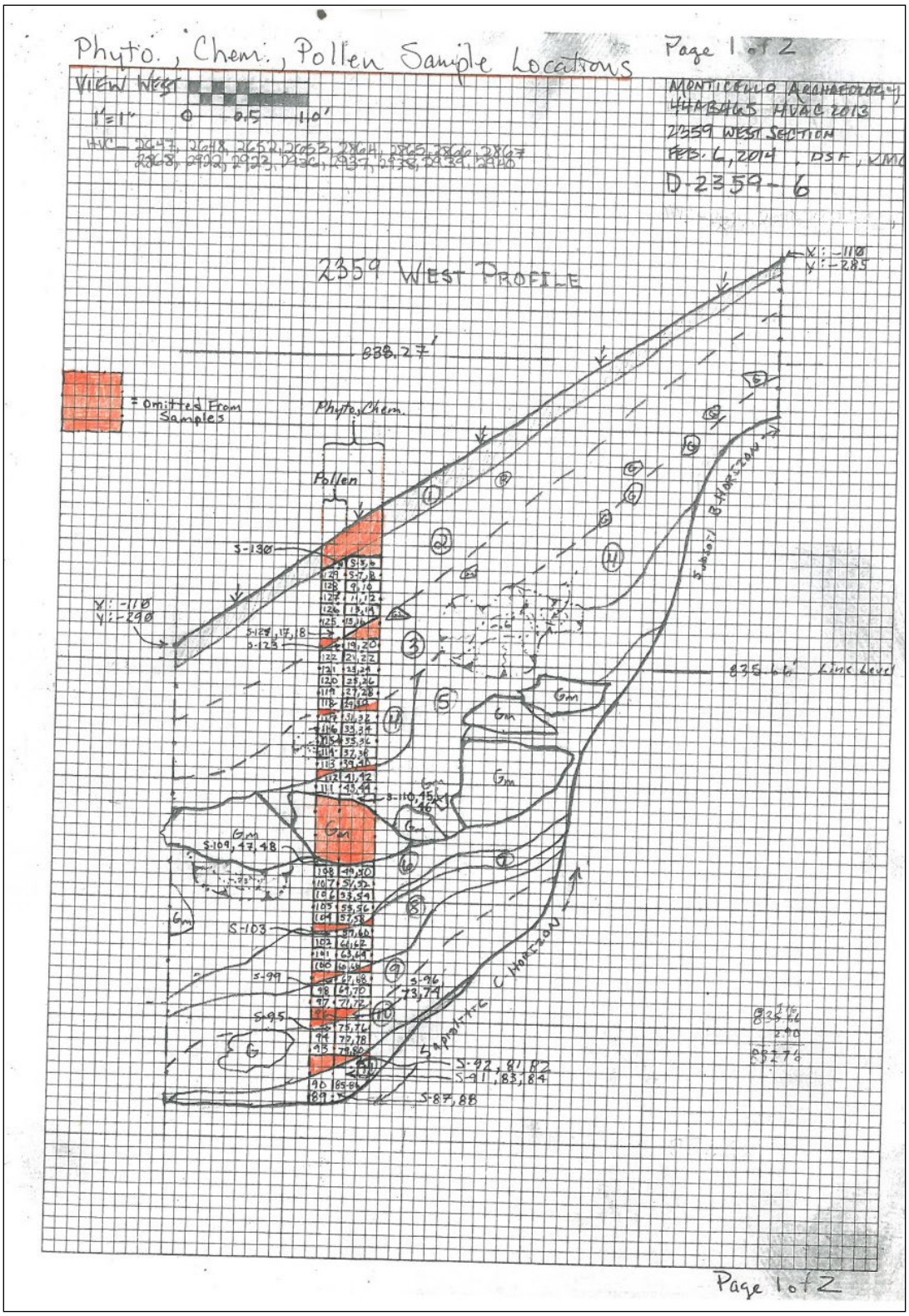


Figure 25: Example of how a photocopy of a section drawing is annotated showing the location and number of the samples.

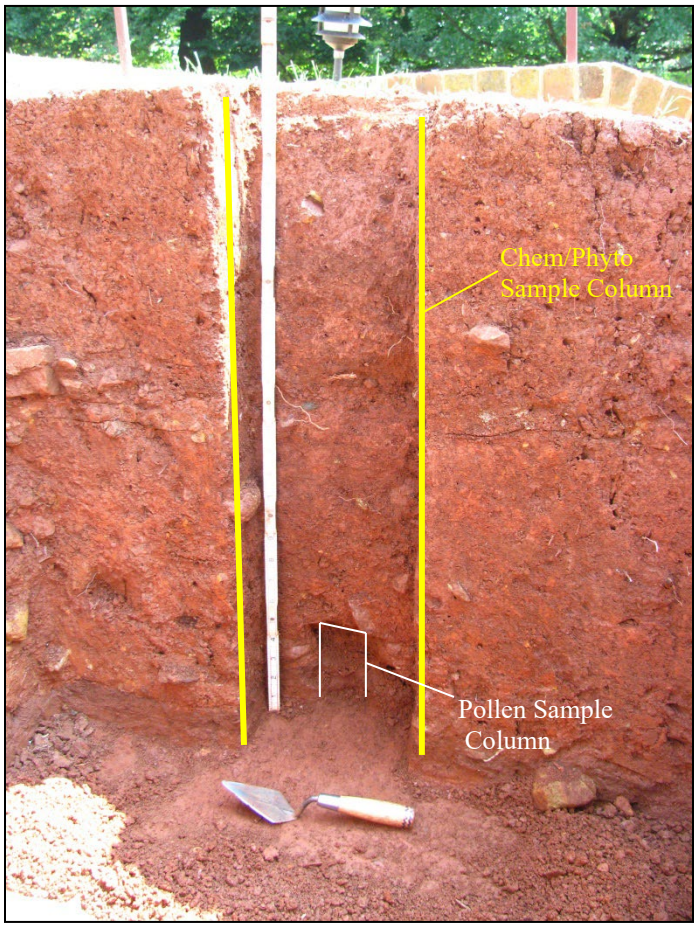


Figure 26: Example of a completed chem/phyto column and the start of a pollen sample.

7.2.2 Pollen

Pollen samples are taken after the chem/phyto samples are collected. Pollen samples are collected from the bottom of the column to the top to prevent contamination from upper layers into lower layers (Figure 28). Only a small amount of sediment is needed for a pollen sample (only about 50mL or a few tablespoons worth). Pollen samples are removed from the back wall from a one-tenth wide column.

Monticello Archaeology
44AB712 Site 30
028 Context F
11/8/22
CLP, DCD Pollen
Elev= 643.781 028-S-51

Figure 27: Information recorded on the pollen bag.

Pollen bags require a slightly different protocol. First, fill out a 5”x 8” bag with the white strip similar to the chem & phyto samples (Figure 27). However, the sediment will be collected in a smaller, zipped bag that is labeled with the sample number and date **only**. Once the smaller bag is filled, place it into the labeled 5”x 8” bag. Remember that your elevations will start at the bottom and increase as you work towards the top. Sample numbers continue consecutively.

Figure 28: Collection of pollen samples.

Once the samples have been returned to the lab and logged, add one cap full of rubbing alcohol to the Pollen samples. Be sure to place a note with the samples saying “Alcohol added.” Remember to ensure each sample bag has a context letter and absolute elevations if they were not completed in the field. Remember to completely fill out the Sediment Sample Log as seen in Figure 29, including elevations.

* Invoiced by ECO use but no data

MONTICELLO
Department of Archaeology
Sediment Sample Log

Site: 44AB712 Quadrat: 028 Project: Site 30

Date: 11/8/22 Page: 3 of 4

Quadrat Number	Sample Number	Grid Coordinates N	Grid Coordinates E	Vertical Location	Sample Volume	Date Taken	Date Processed	Context (exc. as)	Taken for/ Comments
028	S-51	3890721.2	11498152	643.781	100mL	11/8/22	5/2/23	F	Pollen
028	S-52			643.581	100mL		↓	D	
028	S-53			643.981	100mL		5/2/23*	D	
028	S-54			644.081	100mL			D	
028	S-55			644.181	100mL			D	
028	S-56			644.281	100mL			D	
028	S-57			644.381	100mL			D	
028	S-58			644.481	100mL			D	
028	S-59			644.581	100mL			D	
028	S-60			644.681	100mL			D	
028	S-61			644.781	100mL			D	
028	S-62	↓	↓	644.881	100mL	↓	↓	D	↓
028	S-63	3890720.7 3890721.25	11498152	644.881	5"x8"	11/10/22		D	Chem
028	S-64			644.381			12/17/23	D	Phyto
028	S-65			644.781				D	Chem
028	S-66			644.781			12/17/23	D	Phyto
028	S-67			644.681				D	Chem
028	S-68			644.681			12/17/23	D	Phyto
028	S-69			644.581				D	Chem
028	S-70			644.581			12/17/23	D	Phyto
028	S-71			644.481				D	Chem
028	S-72			644.481			12/17/23	D	Phyto
028	S-73			644.381				D	Chem
028	S-74			644.381		↓	12/17/23	D	Phyto
028	S-75	↓	↓	644.281	↓			D	Chem

Sample Log 5/14/2003

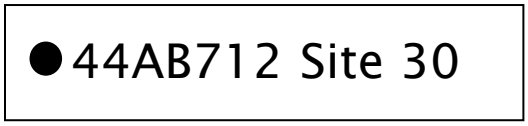
Figure 29: Example of a Sediment Sample Log.

7.2.3 Flotation and Water-Screen Samples

Flotation and water-screen samples are often taken from the most significant strata. These are taken early in the excavation of a context, again being careful not to pit or gouge the stratum. While 10 liters of sediment or soil is collected for flotation, this is considered to be the *minimum* acceptable sample size for water screening. However, contexts often contain less than 10 liters. In these cases, collect the entire deposit. If all sediment is collected, on the Context Record under Artifacts, check Yes. Do not screen the sample as this could remove important constituents or contaminate the sample.

Flotation and water-screen samples are collected in sandbags. Label one aluminum tag as outlined below (Figure 30) and place it in the bag. Label a second aluminum tag and attach it with a metal wire to the closed bag. Using a Sharpie, write the site name, site number, quadrat number, excavators' initials, date, sample number, "Flotation Sample," and the volume of collected dirt in Liters on the front of the bag. Fill the bag using a standard bucket. **Do not cherry-pick artifacts from the flotation sample**. You may place fragile artifacts such as bone into a paper bag but place the paper bag into the flotation bag.

Side 1:



Size 2:

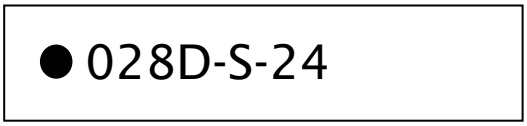


Figure 30: Sediment Sample Bag Tag

7.2.4 Wood and Charcoal Samples

Wood remains have been found on many precontact and historic sites throughout Virginia. Wood remains should be collected if at all possible and be assigned sample numbers. Wood can often be dated through dendrochronology and the radiocarbon (C-14) method. In addition, wood and other plant remains provide an indication of the types of vegetation present when the stratum was deposited. Quite often, wood reverts to a form of charcoal as part the decomposition process, making it fragile and easily contaminated. As a result, this material requires special handling so as not to compromise its analytical potential.

(1) Notify your supervisor – do not remove the sample until the supervisor and the Research Manager have determined whether the sample should be treated prior to removal.
(2) Samples should be removed with a clean trowel or tweezers.
(3) Do not touch carbon samples – human skin has oils and acids which can contaminate the sample.
(4) The sample size should be as large as possible.

(5) Carbon samples should be sealed in aluminum foil, placed in a zip-lock bag, and labeled *CARBON SAMPLE* (or wood sample if it has been consolidated) with the appropriate site and locational information.
(6) Give the sample to the Supervisor.

7.3 Sediment Sample Log

Sediment sample numbers are assigned for each quadrat. The sediment sample number is a three-part notation (e.g., 028-S-01) consisting of the quadrat number, an "S" for sediment sample, and a sample number assigned in sequential order for each quadrat. For example, 028-S-01 represents the first sediment sample collected from quadrat 028. These labels are relative to each site; therefore, site information must be kept with each sample. Excavators fill out a Sediment Sample Log (Figure 29) listing all of the samples collected from a specific quadrat. The initials of the person taking the sample are placed on the sample bag. The sample number, volume, and purpose for the sample are recorded on the front of the Context Record.

(1) *Quadrat Number*- Record the quadrat number (e.g., 028).

(2) *Sample Number* - Record the second two parts of the three-part sediment sample number (e.g., S-01). Note that this is a **two-digit** number.

(3) *Grid Coordinates*- Record the northings and eastings and their range, if appropriate, from where the sample was collected. Calculate coordinates by measuring from the existing coordinates on the section drawing.

(4) *Vertical Location* - Record the elevation of the sample if applicable by measuring the depth of the sample on the labeled section drawing.

(5) *Sample Volume* - Record the amount of sediment collected in metric (milliliters for pollen/phyto/chem or liters for flotation).

(6) *Date Taken* - Record the date the sediment sample was collected.

(7) *Date Processed* - Record the date in this box if and when the sample is processed by an analyst or specialist.

(8) *Context (exc. as)* - Record the context letter associated with the sample.

(9) *Taken for/Comments* - Record a brief description of the location where a sample was collected as well as the reason for taking the sample (e.g., Chem, Phyto, Pollen, Flotation, Micromorph, etc.).

8. Conclusion

The success of archaeological field work relies on two very important factors. The first is evident from the preceding pages: careful systems of observation and recording. The second is one that will become apparent in the field: teamwork. The coordination of efforts is important in archaeology more so than in many other kinds of research. No field researcher works alone, and all members of the team have an integral part in the success of the field season, and ultimately, the quality of data collected.

The cooperation and communication between team members is important throughout the season. Please try to keep this in mind, even during hot summer days when physical discomforts may seem to have greater impact than the need to construct complete and accurate records or the need to collaborate cheerfully with your team. We hope that the field season is exciting and enjoyable to you, and we look forward to our working together to contribute to an understanding of Monticello's dynamic past.

9. Field School Skills Checklist

We expect each field school student to fully participate in excavation and recording and to become proficient in the associated methods and techniques. This checklist will help you keep track of these skills. Supervisors will periodically check this list to ensure that all students are receiving the appropriate training.

Have you:	Date	Supervisor Initials
☐ Laid out and strung in a quadrat?	_____	_____
☐ Correctly completed a sediment description?	_____	_____
☐ Taken elevations?	_____	_____
☐ Become proficient at schnitting (shovel shaving)?	_____	_____
☐ Become proficient at troweling?	_____	_____
☐ Become proficient at screening?	_____	_____
☐ Completed a Context Record?	_____	_____
☐ Written an Excavation Summary?	_____	_____
☐ Excavated a feature?	_____	_____
☐ Measured for a plan drawing?	_____	_____
☐ Drawn a plan drawing?	_____	_____
☐ Set up for a section drawing?	_____	_____
☐ Measured for a section drawing?	_____	_____
☐ Drawn a section drawing?	_____	_____