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**ARCHAEOLOGY**

LAB PROCEDURES MANUAL

2024



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## Overview

This manual provides an overview of standard laboratory procedures for the Monticello Department of Archaeology. The following sections describe the steps involved in seeing the artifacts from the field to the shelf. These steps are **1) Logging Bags, 2) Washing Artifacts and the Processing Log, 3) Sorting, Bagging, and Labeling**, and **4) Storing**. Cataloging procedures are not discussed in this manual. For a detailed description of the cataloging protocols, see the “DAACS Cataloging Protocols Manuals” available at [www.daacs.org](http://www.daacs.org).

Tips while working in the lab: The first rule of artifact processing—whether washing, bagging, or labeling—is to work with only one context at a time. This avoids mixing contexts, which would result in the loss of critical provenience information. It is equally important to write legibly. Illegible artifact labels or bag tags also result in the loss of provenience information. Finally, anyone should be able to take over your work at any time. This means that you should document your progress as described in the sections below and report the status of your activities to lab staff before you leave for the day.

## Logging Bags

Field Supervisors, crew, and field school students are responsible for logging in their artifact bags and flotation samples at the end of each day. Artifact bags collected in the field will be entered into the **Artifact Tracking Log** (see Appendix A), which is saved to the department drive and can be accessed via any computer in the lab. Please ask a lab staff for assistance logging onto the computer. The spreadsheet, **Artifact Tracking Log 0.4**, includes the log-in date, context, and bag count. It is important to record the bag count information exactly as it is noted on the original artifact bag. Note that each project has its own color-coordinated worksheet tab at the bottom of the spreadsheet. Note that some projects have multiple tabs, determined by year of processing. Consult the lab staff if you are not sure which tab to log incoming bags into.

Flotation samples should be entered into the **Float Tracking Log VO.1**. This also can be accessed via any computer and is organized in the same way as the artifact tracking log. Once logged in, all the field bags are placed on the shelves in the annex room, or if space is limited, on the black plastic shelves in the hallway.

Artifact bags are to be washed by the order in which they were logged unless otherwise directed by the lab staff. Flotation samples are processed differently. See Appendix B for the procedures on how to process flotation samples.

## Washing Artifacts and the Processing Log

Artifacts need to be cleaned as soon as possible. Wash one bag of artifacts at a time and always make sure that the context information is never separated from the artifacts being washed.

Record each bag on a line on the **Wash Log** located on the kitchen counter. Make sure that all information matches exactly what is on the original bag tag. Ask a lab member if unsure what information goes where.

Every context must have an original brown context tag and a **Temporary Processing Tag** (Figure 1) before washing begins. The **Temporary Processing Tag** must be kept with the original brown context tag and must be filled out when each task is completed.

Note that there are three types of processing tags used in the lab. For current projects, use type A. For floats, use type B. For legacy collections that do not need to be washed, use type C.

1. Cut the original context information from the brown paper field bag and place the paper label in a 3" x 5" polyethylene zipper bag along with a **Temporary Processing Tag** (use a 3" x 4" bag for the shorter processing tag). Bag labels contain project and site information, context designations, excavator initials, and date.
2. Before washing, cut open the bottom of the paper artifact bag to double-check for small artifacts possibly caught under the seam and/or between layers of bags.
3. Make sure the **Temporary Processing Tag** is filled out by copying the **Project, Context,** and **Bag Number** information from the excavation bag and placing your initials and date next to the "Washed" heading.
4. The bag with both tags **MUST** follow the associated artifacts throughout processing. Eventually, these processing tags will be replaced by a new, acid-free **Bag Tag** (Figure 4) before the artifacts are boxed for storage.

A) Normal processing tag for current projects

<b>Project:</b>		
Bag no: _____		
<b>Context:</b> _____ / _____		
	<b>Date</b>	<b>Initials</b>
<b>Washed</b>		
<b>Bagged/ Tagged</b>		
<b>Inspected for labeling</b>		
<b>Artifacts pulled for labeling</b>	Y or N	
<b>Re-Integrated</b>		
<b>Catalogued</b>		

B) Processing tag for floats

<b>Project:</b>		
- S -		
<b>Context:</b>		
	<b>Date</b>	<b>Initials</b>
<b>Bagged/ Tagged</b>		
<b>Picked</b>		
<b>Inspected for labeling</b>		
<b>Artifacts pulled for labeling</b>	Y or N	
<b>Re-Integrated</b>		
<b>Catalogued</b>		

C) Processing tag for legacy collections that do not need washing

<b>Project:</b>		
<b>Context:</b>		
	<b>Date</b>	<b>Initials</b>
<b>Inspected for labeling</b>		
<b>Artifacts pulled for labeling</b>	Y or N	
<b>Re-Integrated</b>		
<b>Catalogued</b>		

**Figure 1.** Temporary Processing Tags

5. Empty the contents of the artifacts onto a sorting tray.
6. Check for small, fragile, or metal objects that should not be washed or that need gentle treatment (e.g., bone, straight pins, overglazed painted ceramics) and set these to the side to avoid damaging. Any artifact that appears to be particularly fragile or those that could disintegrate in water should not be washed. Typically, fragile artifacts such as these are placed in a film canister or other protective container in the field.
7. Separate out all metal (iron, copper, lead, etc.) artifacts for dry brushing.
8. Take a drying screen from one of the shelves and place it next to the sink. **Make sure you place the bag with the Temporary Processing Tag and Brown Context Tag in this screen.**
9. Carefully place artifacts that can be washed into one of the small, wooden screens that sit on a plastic basin in the sink.
10. Only use the brushes intended for artifact washing. **Do not use the brushes in the sink caddies for dish washing.**
11. Use a small, slow stream of water to wash the artifacts, with all dirty water going into the basin. Take note of the small holes drilled through the sides of the basins. These holes are intended to keep silt and clay in the basin and out of the drainage system.
12. Carefully and thoroughly wash all other artifacts, **especially the edges**. A soft-bristled toothbrush will handle almost all of your washing needs.
13. Place clean artifacts onto the drying screen you have placed next to you. Group the artifacts by type, i.e., ceramics, buttons, beads, buckles, utensils, tobacco pipes, container glass, nails, bricks, etc.
14. Once all the artifacts from a single context are washed and sorted on the drying tray, place them on the wire shelves left of the sinks. Stack the trays on the shelves from top to bottom, so that wet artifacts do not drip down onto a tray of dried or drying artifacts. You may need to move trays that have been drying to the upper shelves to make room for new trays.
15. Clean your work area/sink; but **do not empty the basins into the sink**. Instead, gently tilt the basin so that some water flows out the side drain holes (enough that you can carry it without sloshing) and empty the rest in grass or gravel near the float tank outside. Wipe out any residual sediment with a paper towel before putting the basin away, upside down, to dry.
16. Wipe any sediment out of the sinks with a paper towel and use the sink sprayer to rinse.

Different contexts from the same project can be placed in the same drying screen. Wooden dividers, which are stored in the kitchen island, should be used to separate contexts within a tray. Keep artifacts away from dividers and **do not put more than 4 contexts** in any given tray. If your context takes up more than 1 drying screen, label all additional screens appropriately with the context and as trays 1 of 3, 2 of 3, etc. using sticky notes or masking tape. If you do not finish washing a context, place a plastic tray of unwashed artifacts *inside* the corresponding drying rack and label it as “in progress” with a sticky note.

## ***Tips for Washing Artifacts***

The following are some tips on how to handle certain artifacts. **If you are unsure how to treat an object, please ask the lab staff.**

### Ceramics

- Edges of ceramic sherds
  - Clean edges make it easier to mend sherds together and ensure accurate form and paste identification.
- *Overglazed painting* (e.g., reds, greens, yellows and gilding) on ceramics easily rub off.
  - **Do not** use a brush on a surface with overglazed decoration; instead, rub gently with fingers and rinse with a gentle stream of water.
  - If the overglaze appears to be lifting from the surface of the sherd, **stop washing**.
- *Low-fired ceramics* (i.e., Native American pottery, tin-enameled refined earthenwares like Delft) have soft clays that are easily scored
  - Lightly brush with a wet toothbrush
  - If marking on the surface occurs or tin-enameled glaze separates, **stop washing**.

### Tobacco Pipes

- Brush the edges and surfaces carefully.
- Use dissecting needles to remove all dirt from the bore.
  - The bore diameters are later measured to determine a relative date.

### Metal artifacts

- Metal artifacts such as nails, tacks, and buttons should be dry brushed to remove as much dirt as possible.
  - If selected for conservation, artifact should be transferred to a polyethylene bag without any cleaning.
- Do not try to remove any corrosion.

### Bricks

- Use the large scrub brushes.

### Glass

- Use a bottle brush to help clean bottle necks and interiors of whole containers.
- Do not try to remove patination, the iridescent or golden flaky material that often forms on the surface of glass.

### Bone

- Dampen a toothbrush with water and lightly brush the bone. If the bone begins to crumble, **stop washing**.
- Do not submerge the bone into water.



## Sorting and Bagging Artifacts

It takes artifacts approximately **24 hours to dry**. More porous artifacts, such as brick and mortar, can take several days to dry thoroughly and **should not be bagged until completely dry**. Wet bricks are cool to the touch.

- Once dry, separate artifacts by broad type (i.e., ceramics, brick, mortar, iron, etc.) and put them in the smallest possible plastic bag.
- Put all bags from the same context into a larger plastic bag with the original brown paper context tag and **Temporary Processing Tag** (Figure 1).

Make sure fragile artifacts are protected and use film canisters or another protective container to secure these artifacts. All polyethylene bags, except the Bag Tag bag, should be perforated at the top, using a one-hole punch, to allow for air exchange. **If artifacts are too deteriorated or smaller than the punched hole, use a dental pick to poke three small holes. If this is still too big, put these artifacts in a non-perforated bag.** Artifacts collected from float samples are also placed in non-perforated bags.

Once the artifacts are grouped and bagged according to type (e.g., ceramics, glass, metal) for a given context, each bag of grouped artifacts gets a completed **Artifact Tag** (Figure 2). The Artifact Tag is a small acid-free label that includes project and site information as well as a Context Sample ID number. Fill in the Context Sample ID number which consists of the project number, the context number, and the abbreviated recovery method (e.g., 108-2324U-DRS). Once tagged, all artifact bags from a context should be placed into a larger bag that should be no smaller than 4" x 6". Remember to place the bag containing the **Temporary Processing Tag** and **Brown Context Tag** inside this larger bag as well.

Upon completion of these tasks, add your initials and the date under "Bagged/Tagged" on the **Temporary Processing Tag**.

<b>Project:</b> Home Farm Qtr. Site 30
<b>State Site Number:</b> 44AB712
<b>Context Sample ID:</b> 130-072A-DRS-;

FIGURE 2. ARTIFACT TAG

### *Tips for Sorting and Bagging Artifacts*

With few exceptions, artifacts should be sorted and bagged according to the artifact type listed below (Figure 3). Items listed under a bold heading can be bagged together, while items listed individually must be bagged separately.

For example, all stone from the same context can be bagged together. Likewise, all ceramic sherds from the same context can be bagged together. However, all straight pins should be bagged separate from other copper alloy items.

**Consult the lab staff if you encounter any artifact not represented in the list below.**

**Blue:** Artifact types bagged together

**Green:** Artifact types bagged separately by material (i.e., copper buttons and iron buttons in two separate bags)

<b>Mortar</b>	<b>Charcoal</b>	<b>Slag</b>	<b>Coal and Cinder</b>
<b>Ceramics</b>	<b>Tobacco Pipes</b>		<b>Beads</b>
<b>Coins</b>	<b>Buckles</b>	<b>Utensils</b>	<b>Buttons</b>
<b>Stone</b> -Flakes/shatter -Gunflint -Mica -Slate, phyllite, and all architectural stone (Appendix C) -Misc Stone	<b>Modern</b> -Aluminum foil -Paint chips -Plastic wrappers -Misc plastic -Pull tabs -All other moderns	<b>Flat Glass</b> -Window glass -Mirror glass	<b>Vessel Glass</b> -Container glass <i>All colors</i>
<b>Shell (Modified)</b>	<b>Bone (Modified)</b>	<b>Iron</b>	<b>Lead/Lead Alloys</b>
<b>Shell (Unmodified)</b> <i>*Separate bags for aquatic shells vs. land snail shells</i>	<b>Bone (Unmodified)</b>	<b>Copper Alloys</b> (unidentified items or sheeting/scrap)	<b>Other Metal</b>
<b>Brick</b> -Chinking -Daub	<b>Organics</b> -Wood -Seeds/Beans/Pits -Corn cobs -Nutshell -Seed pods	<b>Straight Pins and Hook-and-Eyes</b> (If same metal)	

**FIGURE 3.** ARTIFACT BAGGING GUIDE

**Items to discard:** BandAids, Gum, or any other health hazards.

For discarded items, write out an **Artifact Tag** with the correct information on the front and write on the back what was discarded (Ex: "Gum discarded"). Place the tag in an empty 2"x 3" bag and add to the context bag.

## Flotation Samples: Bagging, Picking, and Storing

Each sample collected for flotation is given a unique sample number and recorded in the field sample log (i.e., S-02). Once brought to the lab, it is then entered into the **Flotation Tracking Log V0.4** spreadsheet prior to processing. For instructions on how to conduct flotation using the float tank and Flote-Tech system, see Appendix B.

### *Bagging Flotation Samples*

Flotation samples are separated by light and heavy fractions. When the flotation samples are dry, bag the light fraction and heavy fraction in separate, appropriately sized polyethylene bags. **Do not pierce these bags with the hole punch or dental pick**, as the small size of recovered material will fall through any holes in the bags.

Each context bag should receive a **Temporary Processing Tag** specific to flotation (Figure 1B) and placed inside a 3x5 polyethylene bag, pending a permanent printed tag. This tag should include the **Project Name**, **Context ID**, and **Sample Number**. The sample number should be written after the letter S (include a 0 in front of single digits) as seen in the following example:

**2293C-S-02**

Place the light and heavy fraction bags for each sample into an appropriately sized polyethylene bag so that light and heavy fraction for a given sample are bagged/stored together. Complete a **Float Tag** (Figure 4) for the light fraction bag. Fill out the **Context Sample ID** so that it contains the context, sample number, and recovery method (e.g., 2293C-S-02-FLT). Circle the Fraction Type: "Light." Do not create tags for heavy fraction yet (that will be done in the picking step next). Place this tag in an un-punched polyethylene bag, and put this in the light fraction bag.

Record your initials and date next to "Bagged/Tagged" on the **Temporary Processing Tag**.

FLOTATION	
Project: Hm Fm Qtr Site 30	
Fraction type:	Light
Heavy<2mm	Heavy>2mm
Context Sample ID: 130-	

FIGURE 4. FLOAT TAG

### *Picking Flotation Samples*

All heavy fraction is picked to identify artifacts to be removed for cataloguing. Any botanical remains (charred wood, seed pods, etc.) found **are not removed unless they are extremely fragile**, but rather left in the heavy fraction residuals for later analysis by an ethnobotanist.

1. Run the heavy fraction sample through a ¼" and 2 mm sieve.
2. Pick out all artifacts, including brick and mortar, from the ¼" screen.

- a. Limestone, slate, phyllite, alaskite, architectural stone, and modified stone should be picked out. All unmodified stone larger than 25mm can be discarded.
3. Pick all artifacts **except brick and mortar** from the 2 mm screen.
4. All artifacts are sorted and bagged following the protocol outline above and then cataloged. Place an **Artifact Tag** (Figure 2) in each individual artifact type bag, filling out the context sample ID (e.g., 2293C-S-02-FLT).
5. Bag all the remaining rock and coarse granules from these two screens together. Create a **Float Tag** (Figure 4) for this bag, writing the **Context Sample ID** and circling "Heavy > 2mm."
6. Do not pick anything that goes through the 2 mm screens. Put these residuals (including unmodified stone) in a separate bag. Create a **Float Tag**, fill in the **Context Sample ID** and circle "Heavy < 2mm."
7. Record your initials and date next to "Picked" on the **Temporary Processing Tag**

### ***Storing Flotation Samples***

After picking, all artifacts will be catalogued. Artifacts are stored with their appropriate float sample. Light fraction, heavy fraction artifacts, and heavy fraction residuals should all remain in the same parent bag for each sample and then be boxed for storage.

Place the **Temporary Processing Tag** (Figure 1B) in each sample bag so that it is visible from the front. Final bag tags will eventually replace these tags.

### **Labeling Artifacts**

Most diagnostic artifacts (those that have established manufacturing date ranges) are individually labeled (see Figure 5). The remaining non-diagnostic artifacts, such as slag, nails, mortar, brick, flakes, or window glass, are not labeled but should be sorted by material class into separate zip-lock bags and identified with an artifact tag as described above.

The label written on the artifact itself consists of the State Site Number (without the state designation 44 and without the zeros) and the context. For example, an artifact recovered from the Monticello Home Farm Quarter (AB442) in context 133A would be labeled **AB442-133A**.

If the artifact being labeled was recovered from a **float sample**, then the sample number is included in the label as: **AB442-220G-S-05**.

For **projects without State Site Numbers**, labels include an alphabetical project code followed by the context information, such as **NDV-01A** from the North Dependency Vault project. Because **Plantation Survey** has multiple projects, artifacts recovered would include the alphabetical project code, project ID, area #, and STP. For example, an artifact recovered from Plantation Survey (Project 6) would be labeled: **PS6-19-P06**. For all projects without State Site Numbers, refer to the spreadsheet "**ProjectList**" in P://LabAdmin to see what the labeling code is. Refer to a lab staff member if a code has not been assigned yet.

For unprovenienced artifacts **from an existing project that cannot be assigned to a specific quad**, label the artifact with the site number followed by the alphabetical project code and UNPROV. **AB89WKY-UNPROV** would indicate an unprovenienced artifact from the West Kitchen Yard. We opt for the alphanumeric code for greater spatial resolution even if the UNPROV falls within an assigned State Site Number. Because there are multiple UNPROV from the same site number but different projects, simply recording the site number would confuse multiple projects. **These project-specific labeling assignments should be noted in the Project Table on DAACS.**

### ***Pull Artifacts for Labeling***

When	What	Condition
<b>Almost Always:</b>	Ceramics	Label if bigger than 15 mm. Consult the lab staff before labeling unglazed coarsewares (Native American, colonoware, etc)
	Bone	Label if it is worked
	Utensils	
	Tobacco Pipes	
	Container glass	Label if bigger than 15 mm.
<b>Almost Never:</b>	Slag	
	Shell	
	Rocks	
	Mortar	
	Coal	
	Modern Bottle Glass	
	Window glass	Label only if artifact has a finished edge or evidence of manufacturing technique.
	Flower pot sherds	
	Flakes/shatter/core	Label if there is evidence of utilization or working, usually along an edge, such as a projectile point.
	Ferrous Objects	Use an artifact tag with string for unique iron objects.
	Nails	
	Buttons	Use an artifact tag with string.
	Buckles	Use an artifact tag with string.
	Beads	Use an artifact tag with string.

**FIGURE 5. WHAT TO LABEL**

1. Grab a new labeling tray and record the context information on the **Labeling Tray Template** (Figure 6). Cross out any old information on that sheet from past labeling.
  - a. The **Context ID** should include the quadrat and the layer (e.g., 072A)

- b. The **Quadrant No.** only refers to legacy collections (like North Yard) that bagged artifacts by quadrant. Ask a lab team member before recording those contexts.
- c. If there are a lot of artifacts needing labeling, you may need to use multiple trays. The **Tray No.** field is **very important for keeping track of contexts when reintegrating artifacts that are labeled.**

Project		
Context ID		
Quadrant No. (if appl.)		
Tray No.	/	
	<b>Date</b>	<b>Initial</b>
Labeled by:		

**FIGURE 6.** LABELING TRAY TEMPLATE

2. Grab a maximum **Artifact Size Template** and a **Label Count Form** from the lab forms box.
3. Using the conditions listed in Figure 5, go through the context bag and remove any artifacts that meet the conditions for adhesive or string-tagged labels
4. Estimate how many artifacts were pulled for each context and record on the **Label Count Form**. Record the **Project Name, Context ID, and estimated count.**
5. Place one of the small, brightly colored “Artifacts Pulled for Labeling” tags into the original context bag from which you pulled artifacts, being sure it is easily visible.
6. **At most, you can place two contexts on one labeling tray, separated by a wooden divider.** Do not put more than this.
7. You must add your initials and date under the “Artifacts pulled for labeling” heading on the **Temporary Processing Tag** (Figure 1).
8. Once an entire box has been pulled for labeling, check off the line “All Artifacts Pulled for Labeling” on the **Temporary Box Label** (Figure 7).

### ***Label the Artifacts***

1. Label one bag or context at a time.
2. Using Excel, print off (or ask a lab team member to print off) labels for the contexts you will be labeling, using the **Label Count Form**. These labels should be printed in **Times New Roman, size 5 font**, and on regular **acid-free paper** (not cardstock).
3. If an area is particularly small, labels can be printed in size 3 or 4 font. Just make sure all the components of the label are easily read.
4. Cut out the labels as close to the lettering as possible, making the label as small as possible.
5. Put a small amount of Liquitex into a film cannister top (dime size or smaller). The glue will dry out if left too long, so start with a small amount and add more as needed.
6. Choose an inconspicuous and non-decorated area to label.
  - a. ***Make sure to check for evidence of overglazed decoration (ghosting).***

- b. ***Do not write on the broken edge (profile) or painted areas of an artifact.***
  - c. Place the label alongside the edge avoiding central or prominent areas.
  - d. For glass, choose an area with minimal patination.
  - e. For hollow glass and ceramics, prioritize the exterior of the sherd if you can.
  - f. For flat-vessel glass and ceramics, prioritize the interior of the sherd if you can.
  - g. If you are unsure what area is best, ask the lab staff.
7. Once you have chosen an appropriate spot for the label, use a stiff paint brush to dab a small amount of Liquitex onto the chosen spot. Then use the wet paintbrush to pick up the label and place it onto the applied glue. Cover the entire paper label with a thin layer of Liquitex.
  8. Do NOT swipe the label with the Liquitex paintbrush. This can dislodge the label and drag it out of place, or it can smudge the printed label. Instead, gently dab the Liquitex onto the surface of the label, making sure to cover the whole paper.
  9. Make sure the whole paper label is on the artifact!
  10. If any mistakes are made (e.g., wrong label applied), simply wash the artifact under water and gently remove the label and Liquitex before starting over. Do NOT put artifacts with overglaze/ghosting under water. Instead use a wet Q-tip or paper towel to dampen the surface and remove the label and glue.
  11. The artifacts must dry on trays for a minimum of two (2) hours.
  12. Record your initials and date on the **Labeling Tray Template**
  13. Rinse film cannister lid and paint brush under water to remove Liquitex. Make sure to properly clean the brushes so they do not harden over time.

**Note:** Sometimes, it will still be preferable to use the paraloid and ink system for labeling certain artifacts (hard-to-apply surfaces, artifacts in humid/un-controlled exhibit spaces, matching labeling procedures for a mended artifact, etc.). If so, refer to an older version of the lab manual on how to complete this process.

### ***Reintegrate the Labels***

1. Once the labels are dried, reintegrate the artifacts into their original bags and add your initials and the date under “Reintegrated” on the **Temporary Processing Tag** (Figure 1).
2. Make sure you have the right bag and all trays associated to that bag! Pay attention to quadrat number and tray number.
3. Remove the “Artifacts pulled for labeling” tag.
4. Replace the artifact bag into the appropriate project box.
5. Once an entire box has been labeled and the artifacts reintegrated, check off the line “Labeling Completed for Box” on the **Temporary Box Label** (Figure 7).

### **Storage**

Artifacts are stored in polyethylene, zip-lock bags with their appropriate labels and tags and placed into acid-free Hollinger boxes. They are housed in the climate-controlled environment in the Monticello Lab storage room and the Montalto-Granary storage building. For in-process boxes, tape a **Temporary Box Label** to the exterior of the box (Figure 7). Write only the Project Name next to “Site” and highlight that top box with a color that is not used (or infrequently

used) by the other projects on the shelves in the main Monticello lab. Use the Notes field as needed. This tag will stay on the boxes until all contexts from that project's season have been fully processed and cataloged.


<b>Site:</b>	Home Farm Qtr Site 30
	All Artifacts pulled for Labeling
	Labeling Completed for Box
	Catalogued
	Weighed and bags organized
<b>Notes:</b>	2024 Floats

**Figure 7.** TEMPORARY BOX LABEL (SITE 30 EXAMPLE)

The boxes are arranged by Site, year of excavation, context, and recovery method.

### ***Final Bag Storage***

When the laboratory process is complete, each context is given an official, acid-free cardstock **Final Bag Tag** (Figure 8) that is placed with the original brown context tag in a 3" x 5" polyethylene bag. At this point, you can remove the **Temporary Processing Tag** (make sure that all steps in the process were completed). **Keep the original brown artifact bag tag.** Place the **Final Bag Tag** upright and visible from the exterior of the context bag.

			
<b>Project:</b>	<b>Weaver's Cottage/Building E</b>		<b>44AB0465</b>
<b>Context:</b>	<b>45-2370E</b>		
<b>Sample ID:</b>	<b>45-2370E-PSR-;</b>		
<b>Excavated By:</b>	<b>DSF, KMC</b>	<b>Recorded By:</b>	<b>DSF, KMC</b>
<b>Date Opened:</b>	<b>3/27/2014</b>	<b>Date Closed:</b>	<b>3/27/2014</b>

**FIGURE 8.** FINAL BAG TAG




Instructions on how to create these **Final Bag Tags** using Microsoft Access can be found here: P:\LabAdmin\Labels and Forms-New\Label Templates\Final Box\_Bag Labels\Manual\_CreatingBoxBagLabels.docx. **Note that you may need to print duplicates of contexts if there are multiple associated bags.** In this case, you will create a duplicate row in the excel step of the above instructions.

Bags are organized within each box and stored according to their context (alpha-numeric), which is indicated on the **Final Bag Tag**. If an object does not fit neatly into the box, label it and set it aside for oversize storage.

### ***Final Box Storage***

Keep the box to a manageable weight—anywhere between 25 and 30 lbs is acceptable—and be careful not to overfill the box. Check the weight of the box by using the available floor scale in the lab.

Once the box is full or the weight limit is reached, the box's contents will be added to the Artifact Box Table in the DAACS database. Make sure that the Notes field of this entry contains a brief but clear list of the contexts and/or samples within the box - this is the information that will be copied to the **Final Box Label** (Figure 9)

		
<b>Building C (Joiner's Shop).001</b>		
<b>ProjectID</b>	109	<b>ProjectYear</b> 1979, 1980, 1994
<b>BoxLocation</b>	Montalto-Grainery	
<b>Quadrats 105-109, 117-119</b>		

**FIGURE 9. FINAL BOX LABEL**

**Final Box Labels** (Figure 9) are created by the lab staff. Instructions on how to create these using Microsoft Access can be found here: P:\LabAdmin\Labels and Forms-New\Label

Templates\Final Box\_Bag Labels\Manual\_CreatingBoxBagLabels.docx. They are printed on acid-free cardstock.

Remove the **Temporary Box Label** and stick an adhesive shipping sleeve to the front (short end) of the box (under the handle opening). Slide the **Final Box Label** into this sleeve. Store this box in the appropriate spot in storage, keeping boxes within a project organized by year, context, and recovery method.


## Artifact Removal

When an artifact is removed from its original box/bag for any reason—such as for loans, exhibits, the study collection, conservation, or analysis—we must record this action. **Before artifacts can be removed from the lab, they must be cataloged and imaged.** Artifacts must be packed safely in a box and with sufficient padding during transportation.

Tracking artifact removal accurately is the only way to ensure artifacts retain their integrity and make sure artifacts are not stolen or lost. Two protocols exist for artifact removal. **Yellow** pull slips are used for objects moved/mended between contexts or pulled for the study collection. **Blue** pull slips indicate artifacts have been removed from the archaeology lab.

### ***Protocol 1: Pulling Artifacts for the Study Collection***

1. Create an **Object Record** for this artifact in DAACS. Object records should be filled out as completely as possible. Be sure to:
  - a. Record the location of this artifact in the Study Collection in the “Object Location” field on the “Main” tab by listing the number of the cabinet and the letter of the drawer where it will be placed.
  - b. You do not need to fill out the “Object Location” tab as this object has not left the archaeology department.
  - c. Create and attach an image of the object to the object record. See the DAACS “Image Manual” for creating and attaching images to the database.  
P:\DAACS\Manuals and Documents\DAACS Cataloging Manual\Images
2. Create an **Object Tag** (Figure 10). This tag will follow the artifact to the study collection.
  - a. Record all pertinent categories on the front side including: site number, site name, MSC # (if applicable), location in the study collection, DAACS Object ID (you will need to create one if not already assigned -see above), Artifact ID(s), and artifact count.
  - b. Record either the ER numbers or other context information as labeled on the sherd if no Artifact ID can be created. Include a succinct description of the object.
  - c. Once complete, place this tag either in the box or bag with the artifact and add it to the study collection.
  - d. The template for creating these tags lives here: P:\LabAdmin\Labels and Forms-New\Label Templates\ObjectTags.xlsx


 <b>MONTICELLO STUDY COLLECTION</b>			
<b>44AB0465</b>		<b>BUILDING O</b>	
<b>MSC #:</b>	90	<b>LOCATION:</b>	6F
<b>DAACS OBJ ID:</b>	222	<b>COUNT:</b>	1
ER530AA			
<b>WESTERWALD TABLEWARE</b>			

<b>DAACS OBJ #</b>
<b>DAACS ID'S:</b>

**FIGURE 10.** STUDY COLLECTION OBJECT TAG (FRONT LEFT, BACK RIGHT)

3. Create an acid-free cardstock **Yellow Pull Slip** (Figure 11) with pertinent provenience information including the new DAACS Object #, Artifact ID(s), location in the study collection, an artifact description, your initials and date of pull.
  - a. **Every original context bag from which something was pulled needs to have a yellow pull slip, even if sherds cross-mend and are cataloged as one object.**
  - b. Place this yellow pull slip in the bag with the original provenience context tag.
  - c. For large groups of artifacts needing yellow pull slips, generate the slips using Microsoft Access. The manual for doing this lives here: P:\LabAdmin\Labels and Forms-New\Label Templates\PullSlips\Manual\_CreatingPullSlips.docx.
  - d. For individual yellow pull slips, these can be handwritten. The templates live here: P:\LabAdmin\Labels and Forms-New\Label Templates\PullSlips\BlankPullSlips

 <b>MONTICELLO</b>		<b>Pull Slip</b>
<b>DAACS OBJECT ID:</b>	1786513	
<b>DAACS #:</b>	48-1200J-NOS—00064	
<b>DESCRIPTION:</b>	Chinese Porcelain, Unidentified Hollow Teaware, Overglaze band & botanical decoration	
<b>MONTICELLO STUDY COLLECTION LOCATION:</b>	5D	
<b>DATE:</b>	12/31/15	<b>INITIALS:</b> KMC

**FIGURE 11.** YELLOW PULL SLIP

## Tips for Artifact Descriptions

In an attempt to keep artifact descriptions as uniform as possible, follow the general rules below established and laid out in the DAACS Cataloging Manual for Images (for the Access-generated slips, these descriptions are created for you):

### Ceramics

Ware Type, Form (if identifiable), additional details.

For example: "Pearlware, platter with Pinwheel transfer print."

### Glass

Form, Color, additional details.

For example: "Pharmaceutical vial, aqua, Balsam of Life."

### General Artifacts

Form, Material, additional details.

For example: "Upholstery tack, copper alloy, hand-made."

For example: "Unidentified object, iron wrought/forged."

### Button

Button, Material, additional details.

For example: "Button, copper alloy, military eagle."

### Bead

Bead, Material, additional details (Type and/or Color).

For example: "Bead, Glass, blue polyhedral."

Descriptions for all other artifact types should follow the same general rules.

## ***Protocol 2: Pulling Artifacts to Leave the Archaeology Department***

This includes cases like: loans, exhibits on/off the property, conservation, outside analysis, walking tour and display boxes for public programs, DAACS teaching institutions, etc.

1. Check DAACS to make sure there is an object record and image. If there is no object record and/or image, create one. Object records should be filled out as completely as possible. Be sure to:
  - a. Record the current location (e.g., Monticello lab storage) of this artifact in the "Object Location" box on the "Main" tab. If an object was pulled out of the study collection, leave that as the original "Object location" to ensure it is returned to the study collection.
  - b. Record all custodial information in the "Object Location" tab. Add the new object location and include:
    - i. the organization that is now in custody of this artifact (loaned to)
    - ii. contact for that organization (institution contact)
    - iii. date loaned
2. Create an **Object Tag** (Figure 10) if it does not already have one, and place this tag in the bag or box with the artifact. If this was pulled from the study collection, it should already have a tag. If it does not you will need to create an object tag to accompany this artifact. **This tag will follow the artifact while on loan.**

- a. See Step 2 under Protocol 1 above for details on creating an Object Tag.
3. Create an acid-free cardstock **Blue Pull Slip** (Figure 12) with pertinent provenience information including the DAACS Object ID, Artifact ID(s), the location to which the object is going, an artifact description (see Tips for this above), and your initials and date of pull.

<i>The Jefferson</i> <b>MONTICELLO</b>		<b>Pull Slip</b>	
<b>DAACS OBJECT ID:</b>	1791303		
<b>DAACS #:</b>	110-1045C-NOS--00901		
<b>DESCRIPTION:</b>	Pharmaceutical Bottle/Vial, Colorless, Neck & Finish		
<b>DESTINATION:</b>	Monticello Visitor's Center		
<b>DATE:</b>	12/3/15	<b>INITIALS:</b>	KMC

**FIGURE 12.** BLUE PULL SLIP


- a. For large groups of artifacts needing **Blue Pull Slips**, generate the slips using Microsoft Access. The manual for doing this lives here: P:\LabAdmin\Labels and Forms-New\Label Templates\PullSlips\Manual\_CreatingPullSlips.docx.
  - b. For individual **Blue Pull Slips**, these can be handwritten. The templates live here: P:\LabAdmin\Labels and Forms-New\Label Templates\PullSlips\BlankPullSlips
  - c. Place this **Blue Pull Slip** in the bag or box from which this object/artifact was pulled. Do not remove artifact tags or DAACS cataloged tags from the original context.
2. When an artifact is returned, its Object Location tab is updated, and the **Blue Pull Slip is thrown away**.

## ***Special Cases***

### **Mends between contexts**

Occasionally, we will need to record the movement of artifacts between bags. This is especially important in cases where artifacts are mended between contexts. These sherds often have old pull slips already filled out from previous excavations (i.e., old hand written pull slips). In these cases, we need to record this movement though these artifacts are not being stored in the study collection and are not leaving the lab. In these instances:

1. Create a **Yellow Pull Slip** (Figure 13) with pertinent provenience information including the context of the artifact bag the sherd is being moved to and an artifact description using the general rules as described above.
2. If an old pull slip exists from a previous excavation, record the new DAACS ID # on the original tag and staple it to the new yellow pull slip. Place both slips in the context bag located with the **Final Bag Tag** and the original **Brown Context Tag**.
3. Cross out the "Study" in "Monticello Study Collection Location" as shown in Figure 13

 <b>Pull Slip</b>	
DAACS OBJECT ID:	-----
DAACS #:	48-1200D-NOS--00078
DESCRIPTION:	Pearlware, Unidentified Serving dish, Transfer printed blue, "Pinwheel" pattern
MONTICELLO STUDY COLLECTION LOCATION:	48-1261D Bag
DATE:	12/31/15
INITIALS:	KMC

**FIGURE 13.** PULL SLIPS FOR MENDED SHERDS

**Note:** if a mended sherd is not being returned to its original artifact bag but is being placed in the study collection or being sent on loan, do not follow this protocol. Return to protocols 1 or 2.

## Educational sorting activities

Occasionally, we or the DAACS team will need to pull large groups of non-Study Collection artifacts (usually ceramics and glass) for educational sorting purposes. **These situations are approved on a case-by-case basis by the lab team.** These artifacts do not need to be made into objects before being pulled. However, the following steps need to be taken:

1. **For DAACS pulls**, fill out the "Artifact Loans to DAACS" spreadsheet located here: P:\LabAdmin\Artifact Locations\Artifact Loans\Artifact Loans to DAACS.  
**For Monticello pulls**, create a spreadsheet within the appropriate project folder. For field school, save this spreadsheet in the appropriate year under P:\Courses\Field School.
  - i. Each line can be grouped on the context level, with a summary of the artifacts from those respective contexts provided.
2. Take grouped scans (by context) of the artifacts pulled for loan.  
**For DAACS pulls**, save these scans to the "CurrentLoan\_Images" folder located here: P:\LabAdmin\Artifact Locations\Artifact Loans\Artifact Loans to DAACS.  
**For Monticello pulls**, create an images folder in the same folder to which the spreadsheet from Step 1 is saved.
3. Create **Blue Pull Slips** (Figure 12) to be placed in each original provenience context bag. These can be bulk-printed using Microsoft Access (see instructions above) or hand-written.
4. When returned, update the appropriate spreadsheet, move or rename the images folder so it is clear these are returned artifacts, and throw away **Blue Pull Slip**.

## Permanent Display Boxes and Walking Tour Boxes

We create permanent display boxes (blue archival sectional boxes) and smaller walking tour boxes (clear boxes) for groups of objects that help with tours and interpretive programming.

**These boxes should each have a permanent home in a study collection drawer.**

1. Like any artifact pulled permanently to the study collection, **Yellow Pull Slips** (Figure 11) need to be put in the original provenience context bags. Follow the steps above for this, with the following changes:
  - a. The object records for these artifacts should include one of the following in the “Object Location” field on the main tab:
    - [Project Name] Permanent Display Box [Cabinet Number and Drawer ID] (e.g., Site 6 Permanent Display Box 12H)
    - [Project Name] Walking Tour Display Box [Cabinet Number and Drawer ID] (e.g., Site 30 Walking Tour Display Box 14E)
2. Because these display boxes are consistently being removed from the lab, **Blue Pull Slips** need to be created and placed permanently in the drawer containing the respective display box (see Figure 14).
  - a. Instead of the **Blue Pull Slip** using the Object Location Tab for the “Destination” field, it should instead state the type of tour box and its location in the study cabinets (e.g., Site 30 Walking Tour Display Box 14E)
  - b. These tags should be grouped together in a 3x4 bag, with a note or tag on the front designating what they are for, e.g., “Site 30 Walking Tour Display Box Pull Slips”.
  - c. They will live permanently in the appropriate study cabinet drawer, with their respective box (unless it is out for programming).

<i>The Jefferson</i> MONTICELLO		Pull Slip	
OBJECT ID:	3036344		
ARTIFACT ID:	130-002B-DRS--00019		
DESCRIPTION:	Leaded stemware foot		
DESTINATION:	Site 30 Walking Tour Display Box 14E		
DATE:	03/16/2023	INITIALS:	CAS

**FIGURE 14:** BLUE PULL SLIP FOR PERMANENT AND WALKING TOUR DISPLAY BOXES

## Returning an Artifact

Once an artifact is returned to Archaeology from outside the lab, record this information in the “Object Location” tab in DAACS. Do not delete any of the object location information. Simply record the date returned for the corresponding loan.

1. Record any information on the "Object Location" tab especially from the conservator in the "Notes" box.
2. If the object was returned to the study collection, remove the **Blue Pull Slip** from the study collection. **These should not be saved unless otherwise instructed.**
3. If the object was returned to its original artifact bag in artifact storage, remove the **Blue Pull Slip** from the context bag.
4. For non-object bulk-educational pulls, record that the artifacts were returned in the appropriate spreadsheet (e.g., "Artifact Loans to DAACS" located here: P:\LabAdmin\Artifact Locations\Artifact Loans\Artifact Loans to DAACS). Additionally move the old images to a folder that indicates they are returned.



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## Appendix A. Bag Log-In Sheet

Artifact Tracking Log V0.3 [Read-Only] - Microsoft Excel									
File Home Insert Page Layout Formulas Data Review View Acrobat									
A20 4/13/2015									
A	B	C	D	E	F	G	H	I	
1	Stable Quads 2015								
2	Login Date	Context	Bag #	Total # of bags	Excavator's Initials	Excavation Date	Washer's Initials	Wash Date	Notes (i.e., Add To, Clean-up, Unprov)
3	1/1/2015	1234A	1	4	EEE	01/01/00	WWW	02/01/00	Just another nail from the surface
4	4/10/2015	2491A	1	1	CAC, AFR, CMC	4/10/2015			
5	4/10/2015	2488A	1	1	EEF, CMW, PMY	4/9/2015			
6	4/10/2015	2489B	1	1	JEJ, CMK	4/10/2015			
7	4/10/2015	2489B	1	1	JEJ, CMK	4/10/2015			
8	4/10/2015	2491B	1	1	AFR, CAC	4/10/2015			
9	4/10/2015	2488C	1	1	CMW, EEF	4/10/2015			
10	4/10/2015	2488D	1	1	CMW, EEF	4/10/2015			
11	4/13/2015	2491E	1	2	AFR, CAC, CMC	4/13/2015			
12	4/13/2015	2491E	2	2	AFR, CAC, CMC	4/13/2015			
13	4/13/2015	2489C	1	1	CLP, CMK, JEJ	4/10/2015			
14	4/13/2015	2488G	1	1	PMY, EEF, CMW	4/13/2015			
15	4/13/2015	2491D	1	1	AFR, CAC	4/13/2015			
16	4/13/2015	2489D	1	1	CMK, JEJ	4/13/2015			
17	4/13/2015	2488E	1	1	MY, EEF, CMC, CMW	4/13/2015			
18	4/13/2015	2488F	1	1	EEF, CMW	4/13/2015			
19	4/13/2015	2490A	1	1	CMC, CMK, CLP, EEF	4/6/2015			
20	4/13/2015	2491C	1	1	CAC, AFR	4/10/2015			
21									
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\*Note each project has its own color-coded worksheet tab. Always double-check that bags are being logged into the correct project worksheet.

## Appendix B. Operating Instructions for Model A Flote-Tech Flotation Machine

### *Setting Up*

1. Before you begin operating the tank, log in your float samples in the float log called “Float Tracking Log V0.1” located in P:\\\\LabAdmin. Enter your initials and the date. You also need to fill out a brief description of any notable artifacts in the heavy and light fractions of each sample after you finish floating. The float description forms are in a red binder located in the kitchen annex. Complete these forms after you finish floating.
2. Locate the float box in the lab that contains cheesecloths and clips.
3. The float tank consists of two separate compartments. The compartment containing a large, removal bin with a fine mesh screen on the bottom is where you put your running water source and dump your sample. The other compartment is a reservoir tank that contains a shallow pan used to collect the light fraction. Heavy materials will stay on the bottom of the large bin while lighter materials such as charcoal and burned macrobotanicals will float and eventually end up in a light fraction tray. In order to collect both the light and heavy fraction, place a cheese cloth in the fine fraction pan and another in a drying tray from the lab. Secure both cloths to the sides of their respective trays with large binder clips. Put the light fraction pan into the reservoir tank. It should sit level in the tank. Place the heavy fraction tray on the work table attached to the reservoir tank.

### *Manual Operation*

Flotation can be conducted with or without the use of the electronic water pump for mechanical agitation. If the pump is not functional or is otherwise not used for flotation, follow the set-up and operation instructions with the following exceptions:

1. Do not turn on the water pump at any time. No electrical hook-up is necessary.
2. Close the drain valves in the fill tank and the reservoir tank. The drain valves are located at the bottom of the flotation unit and reservoir and have hoses attached to them in order to drain the tank when finished. Fill the reservoir until the water is 1” below the fine fraction pan and then fill the flotation unit until the water overflows into the reservoir. Once there is water in each tank, partially open the reservoir drain valve to allow a slow but steady outflow of water. Keep the main flotation tank valve closed until you finish floating. If you do not open the reservoir valve, water will drain from the flotation unit into the reservoir, causing the water level to rise and light fraction residuals to float away. Leave the reservoir drain valve partially open so that the water level in the reservoir does not rise above the level of the fine fraction screen. The rate of water leaving the float tank can be altered by adjusting the valve to achieve the desired water level in the reservoir.
3. Remove the under-flow baffle from the coarse fraction screen box.

4. Each sample should come with two metal tags that have the unit, context, and sample number written on them. If this is not the case, you should take a blank tag and write the information on it. Place one tag in the heavy fraction tray and the other in the light fraction tray.
5. For dense clay samples, pour the sample into a 10-gallon paint bucket. Add  $\frac{1}{4}$  to  $\frac{1}{2}$  cup baking soda and enough water to create a slurry mix. Stir together in order to break up clay.
6. Pour the sample into the flotation tank. Light fraction such as charcoal will begin floating to the surface and will pass over into the fine fraction screen. You can use your hands to stir up light fraction items from the bottom of the flotation tank and rise to the surface to flow over the weir into the fine fraction screen.
7. If the sample contains larger artifacts such as ceramic sherds, glass, etc., use a toothbrush to remove excess dirt from the artifacts and place in heavy fraction tray.
8. When all the sediment has been removed and the sample is completely floated, any heavy fraction residuals at the bottom of the flotation unit screen should be deposited in the heavy fraction tray, along with its metal tag. This may require using a hose sprayer and gently spraying the residuals from the unit into the heavy fraction tray. The light fraction should also be removed from the fine fraction pan and placed separately in the same lab drying tray with its tag. All floated samples should be put in the lab drying racks until completely dry.
9. After the samples are floated, write a brief description of any diagnostic artifacts or macrobotanicals that can be identified in the heavy and light fractions in the binder labeled **"Flotation Log and Information"** located in the kitchen annex.

### *Mechanical Operation Using the Water Pump*

1. Place the fine fraction screen in the support pan.
2. Plug in the water pump and turn the pump on. Make sure the water flow control valve is closed.

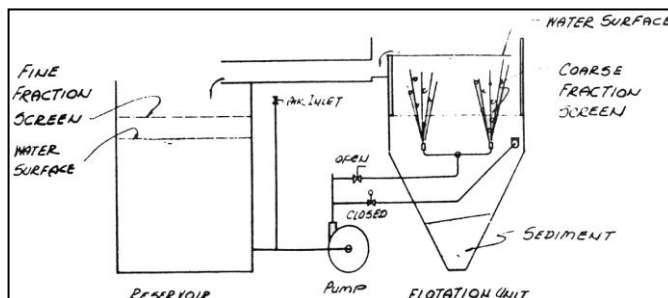
NEVER START THE WATER PUMP UNLESS THE WATER DISCHARGE  
NOZZLES ARE COMPLETELY SUBMERGED.

**CAUTION:** THE MACHINE IS TO BE OPERATED ONLY WITH 115  
VOLTS, 60 HERTZ SINGLE-PHASE ELECTRIC POWER. OPERATION WITH  
50 HERTZ MAY DAMAGE ELECTRIC MOTOR.

3. If diffused air is desired, open the air flow needle valve until the desired air flow rate is achieved.

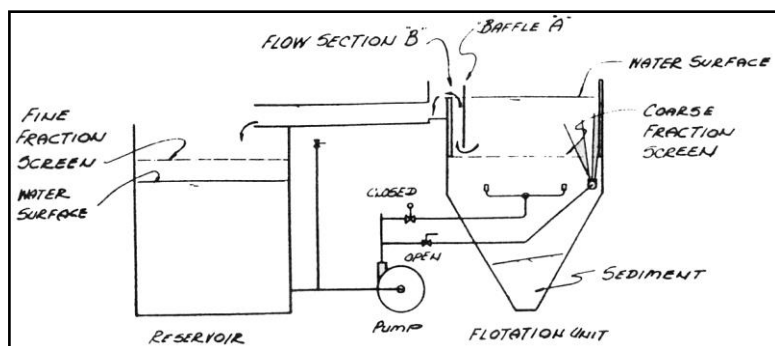
4. Swing the two coarse fraction hold-down brackets over the side of the coarse fraction box and tighten down the brackets with the wing nuts. These brackets hold the box from floating up

off the rubber seal on the box support shelf when the water is flowing through the system. If this is not done water will flow around the box rather than through it.



5. After making sure the water pump is circulating water in the machine and the under-flow baffle has been removed, place the soil sample into the machine and float off the fine fraction and pass all the sediment into the sediment trap.

NEVER PLACE THE SOIL SAMPLE INTO THE MACHINE WHEN THE WATER IS NOT FLOWING. SUBSEQUENT SAMPLE CONTAMINATION AND OR LOSS OF OBJECTS TO THE SEDIMENT TRAP MAY OCCUR IF THIS IS DONE.



6. After all the sediment has been removed, insert the under-flow baffle (Baffle A-see image to left) and open the water flow control valve until the desired water flow rate for near-flotables removal has been achieved. Remove the near-flotables by moving the coarse fraction over near the

bottom edge of the under-flow baffle. The high velocity water in this area will sweep the near-flotables up and over the discharge weir and onto the fine fraction screen. The higher the water flow rate the heavier the objects will be that are swept over the weir.

7. Turn off the water pump and remove the fine fraction screen and replace it with a clean screen. Loosen the hold-down brackets and remove the coarse fraction screen box from the flotation tank and invert it over the work table. Remove the coarse fraction using the spray hose to wash the material from the screen and the sides of the box. When doing this make sure that a fine fraction screen is in the support pan to collect any material that may be washed over the edge of the work table. The water pump must be running to use the spray hose attached to the flotation unit.

8. Close the flow control valve and remove the under-flow baffle.

9. Put the coarse fraction screen box back in the flotation tank and the machine will be ready for processing the next sample.

10. Write a brief description of any diagnostic artifacts or macrobotanicals identifiable in the heavy and light fractions. These descriptions are kept in the red binder labeled “Flotation Log and Information” located in the kitchen annex.

### *Cleaning and Removing Sediment from Flote-Tech*

1. Sediment in the sediment trap must be removed on a continuing basis. The hand-operated bilge pump mounted on the flotation tank is used for this purpose. Pump the water-sediment mixture into a suitable container such as a 5-gallon bucket and then allow the sediment to settle to the bottom of the bucket and the clean water to collect over the sediment. Pour the clean water back into the water reservoir and discard the sediment. Do this as often as necessary to prevent the level of sediment in the trap from reaching the level of the discharge nozzles in the flotation portion of the flotation tank.

2. Occasionally, the water reservoir has to be examined for sediment build-up. When deemed necessary, the reservoir can be drained and cleaned by use of the water outlet provided and by pumping the water into the flotation tank through the spray nozzle where it can be removed by the hand pump. A small submersible pump can also be used to drain the machine. Do not let the level of sediment in the reservoir reach the level of the hose connecting the reservoir to the intake of the water pump.

### *Things to keep in mind:*

- TURN THE WATER PUMP OFF WHEN NOT PROCESSING SAMPLES TO PROLONG ITS LIFE.
- REMOVE THE FINE FRACTION SCREEN WITH ANY LIGHT FRACTION FLOATABLES IF YOU TEMPORARILY STOP THE FLOTATION PROCESS.
- WHEN OPERATING THE SEDIMENT PUMP, NEVER APPLY EXCESSIVE FORCE TO THE HANDLE. IF THE PUMP DOES NOT OPERATE WHEN THE HANDLE IS PULLED WITH MODERATE FORCE, IT MAY MEAN THE SEDIMENT HAS BEEN ALLOWED TO COMPACT IN THE SEDIMENT TRAP. IF THIS OCCURS, PROBE THE SEDIMENT WITH YOUR HAND TO LOOSEN THE SOIL COMPACTION. TO PREVENT DAMAGE TO THE RUBBER DIAPHRAGM IN THE HAND PUMP, ALWAYS BE GENTLE.
- DO NOT RUN THE PUMP WITHOUT PUMPING WATER.
- DO NOT ATTEMPT TO ROLL OR MOVE THE UNIT WHEN IT IS FULL OF WATER.
- DURING COLD WEATHER OPERATIONS, DO NOT LET WATER FREEZE IN THE PIPES OR PUMP. ALWAYS DRAIN THE WATER FROM THE WATER PUMP WHEN NOT IN USE.

## Appendix C. Rock Identification

At Monticello, discerning between rock types can be challenging due to color and texture variations within each type.

**Greenstone** (metamorphosed basalt; metabasalt) is the bedrock of the mountain and is therefore the dominant rock type. It is a fine-grained and heavy rock that occurs in a wide variety of bluish and greenish greys. As it decomposes, greenstone can appear in a variety of other colors due to the oxidization of iron, transitioning from yellow, to orange, and eventually to a rusty reddish brown. A characteristic often seen in modified greenstone is conchoidal fracture.

**Quartzite** is a secondary rock type occurring at Monticello. It consists of iron-rich sands that have been metamorphosed. The grains are visible to the naked eye and are round to sub-angular. These sand grains are predominantly quartz and feldspar, and can impart a light tan color upon the rock. As with greenstone, local variation exists. The iron that occurs in this local quartzite can result in hues of orange and red. Quartzite exhibits both natural heat fracture breaks (typically along flat and smooth surfaces) as well as conchoidal fracture. Both types of breaks happen during modification.

**Alaskite** occurs and is quarried locally but does not occur naturally on the Mountaintop. It is typically associated with cultural activity on the Mountaintop. It is the dominant architectural material in the all-weather passageway, the privies, the privy ventilation tunnels, and some Mulberry Row structures. This rock is typically salmon/pink in color with small black specks throughout. Its grain size is similar to quartzite and thus easily confused. A distinct difference between Alaskite and Quartzite is that mineral grains are crystalline and thus angular. A hand lens or microscope may be required to distinguish this feature.

Other rocks frequently encountered in the archaeological record at Monticello are **Limestone, Slate, Phyllite, and Soapstone (steatite)**.

**Quartz** is the most common mineral encountered. It exists as a natural element in the “float” of soils and sediments on the mountain and is most often utilized by humans in association with prehistoric contexts.

If you have questions about rock or mineral identification, please ask a supervisor before moving forward.



## Appendix D. Laboratory Etiquette

1. During Field School Lab Rotations, lab work will begin at 8:30am or after any/all morning class lectures. Work will continue until the end of the day or will end prior to any afternoon lectures/workshops.
2. Typical field clothes are not required in the lab. However, keep in mind that some laboratory tasks, such as washing or floating, can damage clothing; plan your apparel accordingly. As in the field, out of respect for your colleagues and visiting members of the public, please remember that we are representatives of the Foundation and the profession of archaeology. Revealing clothing or shirts with sayings or images that may be offensive to others should be avoided.
3. Please refrain from texting, personal phone calls, or the use of headphones that may distract from your learning experience. Headphones are permitted while you are working through longer tasks, such as labeling or washing. However, be mindful of your colleagues and participate in conversation/collaboration.
4. Please be mindful that the lab is a shared space with colleagues who are working on a variety of projects. Keep voice levels to a minimum and knock before opening doors that have been closed between bays.
5. The wet lab area doubles as the staff kitchen. When washing, keep your area tidy. Clean or put away equipment as much as possible since staff will make use of the kitchen at lunchtime and throughout the day. Students are welcome to make use of the kitchen (refrigerator, microwave, dishes, etc.) during their days in the lab. Please be sure to take any food in the refrigerator with you at the end of the day and to clean any dishes that you have used.
6. After washing artifacts, please empty all wash tub water and sediment outdoors and dry and replace the wash tubs. Do not stack wet tubs! Alternate the stacking or leave out on drying racks to prevent mold growth. Wipe out any remaining sediment in the sink prior to leaving the kitchen.

## Appendix E. Field School Lab Tasks Check List

During lab rotations, we expect each student to accomplish specific laboratory tasks. These jobs are designed to give each student an introduction to the different aspects of lab work typical to most research institutions. We will assign and distribute these tasks during the course of each student's three lab visits; however, it is up to each individual to keep track of what they have accomplished and to call any undone tasks to the attention of the lab TA or lab staff during their last lab rotation.

Task	Date	TA Initials
<input type="checkbox"/> Washing artifacts	_____	_____
<input type="checkbox"/> Sorting and bagging artifacts	_____	_____
<input type="checkbox"/> Labeling artifacts	_____	_____
<input type="checkbox"/> Overview of DAACS website and catalogue system	_____	_____
<input type="checkbox"/> Cataloguing artifacts	_____	_____
<input type="checkbox"/> Review Study Collection	_____	_____
<input type="checkbox"/> Ware type identification	_____	_____
<input type="checkbox"/> Flotation	_____	_____