

Technical Update No. 1 of the  
Standards and Guidelines for Archaeological Investigations in Maryland:  
Collections and Conservation Standards

Supersedes “VI. Processing and Curation of Collections (Artifacts and Records)” from  
Standards and Guidelines for Archeological Investigations in Maryland, Shaffer and Cole, 1994

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## Table of Contents

List of Figures .....	iii
List of Tables .....	iii
Introduction .....	1
1. Isolated Find Numbers and Lot Numbers .....	2
1.1 Obtaining isolated find numbers .....	2
1.2 Obtaining lot numbers .....	2
2. Cleaning.....	2
3. Cataloging .....	3
3.1 Assigning artifact numbers .....	3
3.2 Digital artifact catalog.....	3
3.3 Cataloging tools.....	3
3.3.1 Diagnostic Artifacts in Maryland.....	3
3.3.2 X-Radiography .....	4
4. Labeling .....	5
4.1 What to label.....	5
4.2 Accepted artifact labeling procedures.....	6
5. Packaging and Organization.....	10
5.1 Boxes, bags, and tags .....	10
5.2 Specialized storage containers for fragile or oversized objects.....	11
5.3 Packaging of soil, flotation, and charcoal samples .....	11
5.4 Box organization .....	11
5.5 Temporary box labels.....	11
6. Sampling and Discard.....	13
7. Conservation .....	14
7.1 When to consult with a professional conservator.....	14
7.2 Qualifications of a professional conservator .....	14
7.3 Prioritizing artifacts for conservation .....	14
7.4 Budgeting for conservation.....	15
8. Project Documentation.....	15
8.1 Preparing non-digital records for submission.....	16

8.1.1	Artifact catalogs .....	16
8.1.2	Photos and photo logs .....	17
8.1.3	Report .....	17
8.1.4	All other paper records (field notes, lab records, maps, etc.) .....	17
8.2	Preparing digital records for submission .....	17
8.2.1	Artifact catalogs .....	17
8.2.2	Photos and photo logs .....	18
8.2.3	Report .....	18
8.2.4	All other records (field notes, lab records, maps, etc.).....	18
8.2.5	File naming protocol .....	18
8.2.6	Digital file delivery .....	18
8.3	List of associated records.....	19
9.	Curation Fees .....	20
9.1	Curation box fee for state collections.....	20
9.1.1	Applicable collections .....	20
9.1.2	Cost .....	20
9.1.3	Curation box fee exemptions.....	20
9.2	Fees for federal collections.....	20
10.	Collection Submittal Requirements .....	21
10.1	Submitting a collection for curation .....	21
10.2	Forms .....	21
10.3	Fee payment .....	21

## List of Figures

Figure 1: Examples of artifacts identified through x-radiography .....	4
Figure 2: Example of nails x-rayed for identification .....	4
Figure 3: Use this box as a guide to determine whether an artifact is too small to be labeled .....	5
Figure 4: Examples of artifact label formats .....	5
Figure 5: Examples of what to label and what not to label .....	7
Figure 6: Examples of acceptable labels .....	8
Figure 7: Examples of what not to do when labeling artifacts .....	9
Figure 8: How to label and organize bags and interior acid-free tags .....	10
Figure 9: Examples of how to organize boxes for delivery .....	12
Figure 10: Options for making temporary box labels for delivery .....	13
Figure 11: Requirements for submitting paper catalogs .....	16
Figure 12: How to label folders for hard copies of records .....	17

## List of Tables

Table A: Summary of how to clean different artifact types .....	2
Table B: Example of artifact number assignments within a catalog .....	3
Table C: Artifacts that should and should not be labeled .....	6
Table D: Summary of conservation issues and treatments by material type .....	15
Table E: Summary of project documentation to submit to the MAC Lab for permanent curation .....	16
Table F: Hypothetical example projects with folder labels and corresponding digital file names .....	19

## Introduction

The Maryland Archaeological Conservation Laboratory (MAC Lab) is a state-of-the-art archaeological research, conservation, and curation facility located at Jefferson Patterson Park and Museum, the State Museum of Archaeology. The MAC Lab serves as the primary repository for archaeological collections recovered from land-based and underwater projects conducted by state and federal agencies throughout Maryland.

The standards outlined in this document have been developed to ensure the long-term preservation and accessibility of Maryland's archaeological collections. They provide guidance for preparing artifact collections and their associated records, both paper and digital, for permanent curation at the MAC Lab.

While every attempt has been made to ensure these standards are comprehensive, it is not possible to address every potential situation or material encountered when processing archaeological collections. Therefore, it is recommended that consultants contact MAC Lab curation staff for case-by-case guidance on preparing collections for curation as soon as possible for any unique or challenging situations.

**The MAC Lab reserves the right to refuse collections that do not meet these curation and conservation standards.**

**These revised curation and conservation standards apply to all archaeological projects for which the budget is developed after January 1, 2019.**

# 1. Isolated Find Numbers and Lot Numbers

## 1.1 Obtaining isolated find numbers

Artifacts that are not associated with an inventoried site but can stand alone as valuable for research, education, or exhibit (i.e. a diagnostic projectile point, a decorated button, ordnance) should be assigned an isolated find number, or “X-number.” This number is represented as a trinomen, just like a site number, but with an “X” included after the two-letter county designation; for example, 18BAX54. To obtain an X-number, please contact the MAC Lab curation staff.

**Decisions regarding whether or not to obtain an X-number should be made in consultation with the MAC Lab curation staff and the Maryland Historical Trust’s (MHT) archaeologists reviewing the project. For State Highway Administration (SHA) projects, SHA archaeologists must also be consulted.**

## 1.2 Obtaining lot numbers

The state of Maryland uses a lot number system to track provenience within a collection. One lot number should be assigned to each unique provenience within a collection. Lot numbers are assigned sequentially and should be keyed to the collection’s catalog. **Please contact the MAC Lab curation staff for the next available lot number for previously recorded sites.** This requirement is essential to ensure that lot numbers are not duplicated across different projects at the same archaeological site.

# 2. Cleaning

All stable artifacts must be cleaned unless being retained for residue analysis (Table A).

**Table A: Summary of materials that should be wet-washed, dry brushed, thoroughly wet-washed in bulk, or left unwashed. For questions about exceptions or anything not on this list, contact MAC Lab curation staff.**

<b>Wet-wash each artifact</b>	<b>May be wet-washed in bulk</b>	<b>Dry-brush</b>	<b>May be left unwashed for specialized analysis</b>
<ul style="list-style-type: none"><li>• Ceramics</li><li>• Glass</li><li>• Tobacco Pipes</li><li>• Lithics</li><li>• Bone</li></ul>	<ul style="list-style-type: none"><li>• Shell</li><li>• Brick</li><li>• FCR</li><li>• Slag</li><li>• Coal</li></ul>	<ul style="list-style-type: none"><li>• All metals</li><li>• Wood</li><li>• Leather</li><li>• Textiles</li><li>• Fragile objects</li></ul>	<ul style="list-style-type: none"><li>• Stone tools (blood or pollen residue)</li><li>• Ceramics (food residue)</li><li>• Tobacco pipe stems (DNA)</li><li>• Tobacco pipe bowls (tobacco residue)</li></ul>

### 3. Cataloging

All collections must be cataloged and the catalog must include the following information:

- Site number or X-number
- Lot number
- Artifact number
- Detailed provenience information
- Artifact count
- Detailed artifact description

Additional information may be included in the artifact catalog. As long as the catalog includes the information listed above, the names, types, and/or number of fields within the catalog may be determined by the project archaeologist.

#### 3.1 Assigning artifact numbers

Assign artifact numbers within each lot number/provenience to each object(s) entered in a single catalog entry (Table B). Use three decimal places to ensure proper sorting.

Table B: Example of artifact number assignments within a catalog.

Site #	Provenience	Lot #	Artifact #	Count	Artifact Description
18MO775	TU 49, Lvl 1	547	.001	5	rhyolite secondary flakes
18MO775	TU 49, Lvl 1	547	.002	10	quartz secondary flakes
18MO775	TU 49, Lvl 1	547	.003	3	quartz decortication flakes
18MO775	TU 49, Lvl 1	547	.004	1	black chert corner-notched projectile point
18MO775	TU 49, Lvl 2	548	.001	5	Rhenish blue and grey salt-glazed stoneware sherds
18MO775	TU 49, Lvl 2	548	.002	23	white clay tobacco pipe stem fragments, 5/64"
18MO775	TU 49, Lvl 2	548	.003	5	white clay tobacco pipe stem fragments, 6/64"
18MO775	TU 49, Lvl 2	548	.004	1	iron hoe fragment
18MO775	TU 49, Lvl 2	548	.005	3	wrought nails, uid heads
18MO775	TU 49, Lvl 2	548	.006	15	brick fragments
18MO775	TU 49, Lvl 2	548	.007	37	oyster shell fragments

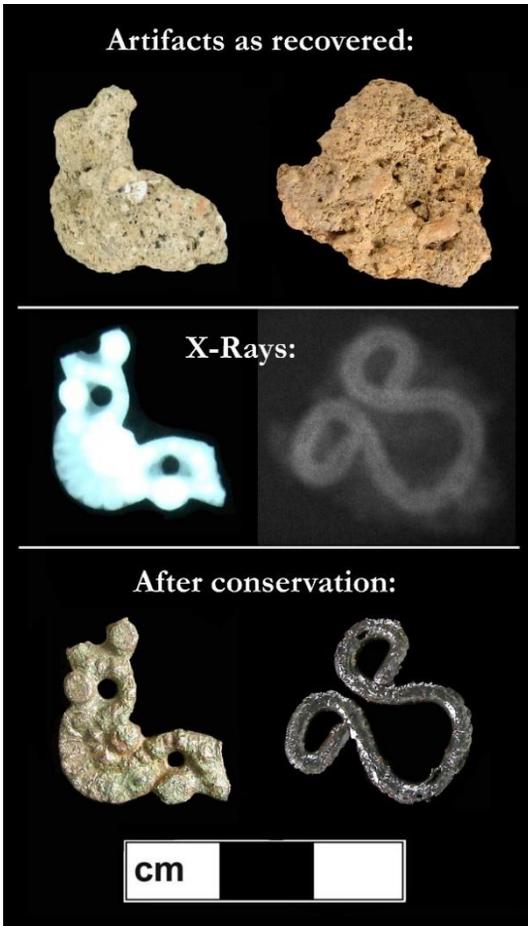
#### 3.2 Digital artifact catalog

Digital artifact catalogs are required in a Windows-compatible spreadsheet such as Excel, preferably with the archival format extension .xlsx. See Section 8.2.1 for more about digital artifact catalogs.

#### 3.3 Cataloging tools

##### 3.3.1 Diagnostic Artifacts in Maryland

The MAC Lab provides the online reference *Diagnostic Artifacts in Maryland* for help with the identification of artifacts. This tool can be found at <http://www.jefpat.org/diagnostic/index.htm>.



### 3.3.2 X-Radiography

X-rays are recommended as a tool for identifying corroded metal artifacts, documenting them prior to deterioration, and making decisions about conservation and discard (Figures 1-2; See also Section 6). The word “unidentifiable” should not be used in the catalog to describe any heavily corroded metals that have the potential to be identified through x-radiography. Instead, use “unidentified” or “indeterminate” in the catalog. When x-radiography is used, the metals should be x-rayed **BEFORE** collections are cataloged to ensure catalog accuracy.

The MAC Lab offers x-radiography services for a fee (See <http://www.jefpat.org/conservation.html>), but x-rays can also be obtained elsewhere (the dentist, universities, other archaeology or conservation labs, etc.).

Figure 1: Examples of artifacts identified through x-radiography and deemed important enough to warrant full conservation.

Figure 2: Example of nails x-rayed for identification. When found in small numbers, nails can be left in the bag for x-ray (top portion of tray/x-ray). Nails are rarely a conservation priority, so with prior approval of the MAC Lab x-rays may be used as documentation for responsible nail sampling and discard (See Section 6).



X-radiography is not a requirement for collections being donated to the MHT unless as part of a sampling and discard plan developed in conjunction with the MAC Lab curation staff, the MHT archaeologists reviewing the project, and SHA archaeologists for SHA projects (See Section 6).

X-radiography **is required** for corroded metals in federally-owned collections slated for curation at the MAC Lab as part of the MAC Lab’s obligation under 36 CFR Part 79 to report to owner agencies on the condition of their collections. Upon delivery the MAC Lab charges federal clients for a one-time conservation survey fee that includes x-radiography. The MAC Lab strongly encourages firms processing federal collections to have these x-rays done **before** cataloging. No costs will be incurred by the firm processing the federal collection because x-rays are included in the federal curation fee schedule.

X-rays delivered with a collection as part of the associated documentation should be labeled with site, lot, and artifact numbers corresponding to the catalog. See [www.jefpat.org](http://www.jefpat.org) for more guidance on x-radiography.

## 4. Labeling

### 4.1 What to label

Artifacts one-half inch or larger (Figure 3) must be labeled with site number (or X-number), lot number, and artifact number (Figure 4). Leading zeros in the artifact number may be dropped from artifact labels to save space. See Table C for the types of artifacts that should and should not be labeled.

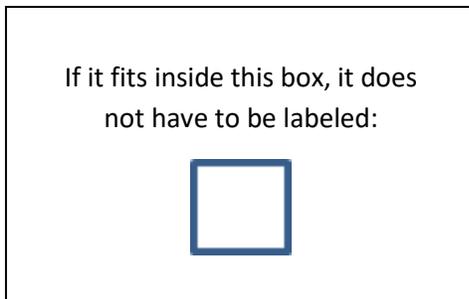


Figure 3: Use this box as a guide to determine whether an artifact is too small to be labeled.

Artifact Label Format	
✓	18CV317/17.1
	18CV317-17.1
	18CV317/17.001
	18CV317-17.001
✗	18CV317.17.001
	18CV317.17.1

Figure 4: Examples of artifact label formats. Separate the site number from the artifact and lot number with a line, hyphen, or backslash, not a period.

Table C: Artifacts that should and should not be labeled (Figure 5). For questions about anything not on this list, contact MAC Lab curation staff.

Label	Do not label	Label a 10% sample within a lot
<ul style="list-style-type: none"> <li>• Diagnostic ceramics</li> <li>• Diagnostic glass</li> <li>• Lithic tools and cores</li> <li>• Tobacco pipes</li> <li>• Stable non-ferrous metals</li> <li>• Small finds</li> </ul>	<ul style="list-style-type: none"> <li>• Ferrous metals</li> <li>• Mortar/daub/plaster</li> <li>• Wood</li> <li>• Leather</li> <li>• Textiles</li> <li>• Fragile bone</li> <li>• Fragile shell</li> <li>• Fragile non-ferrous metals (brittle pewter, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Plain, undecorated ceramic body sherds</li> <li>• Plain glass body sherds</li> <li>• Window glass</li> <li>• Brick</li> <li>• Lithic debitage (flakes, shatter, etc.)</li> <li>• FCR</li> <li>• Stable bone</li> <li>• Stable shell</li> </ul>

## 4.2 Accepted artifact labeling procedures

The MAC Lab accepts the following labeling systems (See Figures 6 and 7 for examples of what to do and what not to do when labeling):

### *Permanent archival ink*

If labeling artifacts with permanent archival ink using a rapidograph or crow quill pen, an undercoat of 10% Acryloid B-72 in acetone should be applied to the artifact prior to labeling, followed by a protective top coat of 20% Acryloid B-72 in acetone. Dark artifacts may be labeled using an undercoat of 10% Acryloid B-72 in acetone with titanium dioxide or using an archival white ink.

### *Acid-free paper labels*

If labeling artifacts with acid-free paper labels, print labels with a laser printer, NOT inkjet, using a sans serif font such as Calibri, Tahoma, or Verdana with font size 4 or 5 pt.

To apply paper labels to artifacts, use the following procedure:

- Apply a layer of adhesive to the artifact
- Using tweezers, apply paper label on top of adhesive
- Apply another layer of adhesive on top of the label

The following adhesives are acceptable for use with paper labels:

- PVA or Liquitex Matte Medium
- Rhoplex for porous objects

### *Acid-free paper string tags*

Acid-free tags with site number (or X-number), lot number, and artifact number may also be used and tied with string to small artifacts, such as beads, buttons, or pierced coins, as long as they are not too fragile.

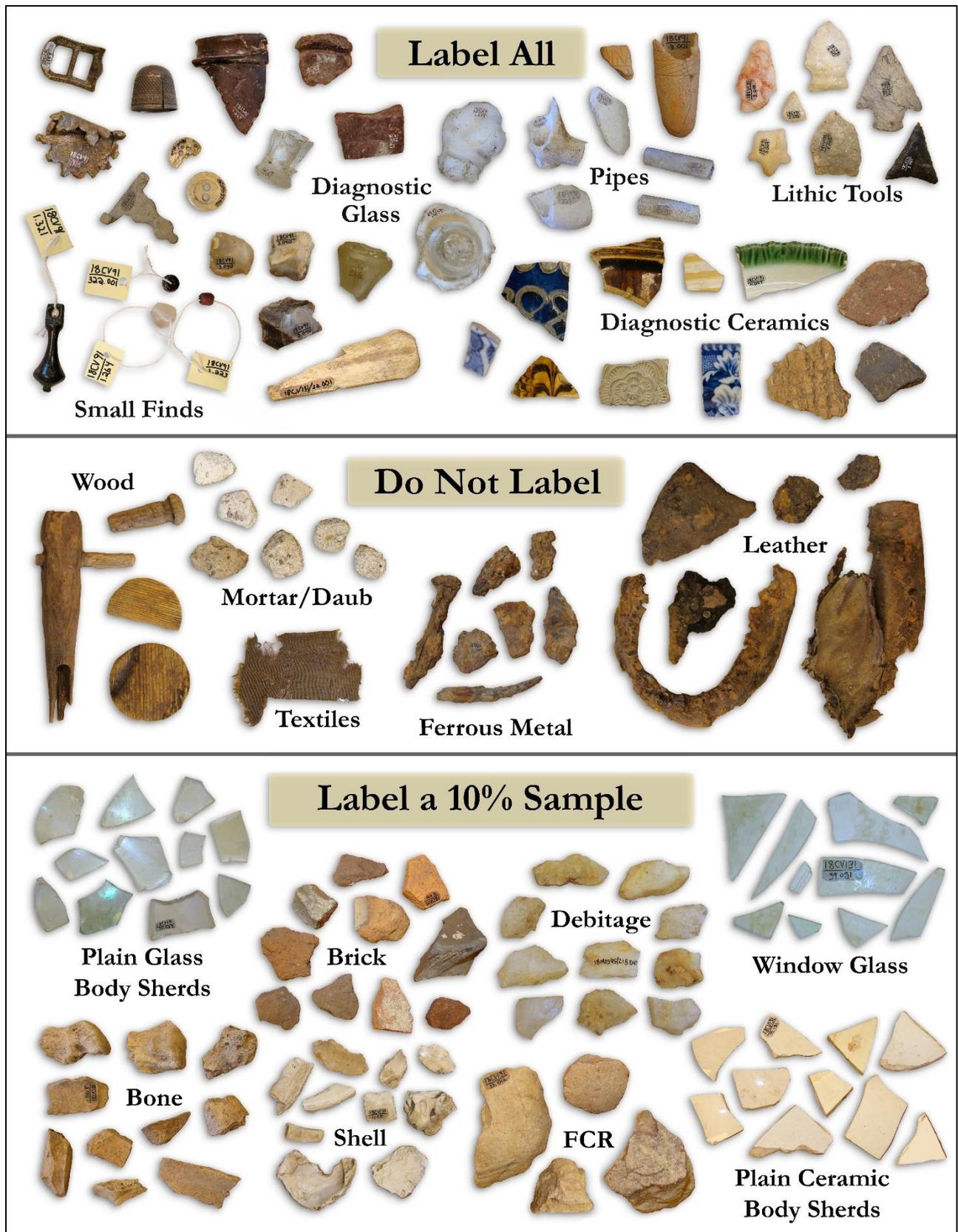


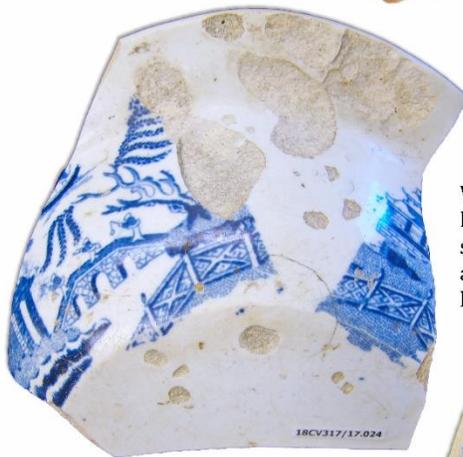
Figure 5: Examples of what to label and what not to label as described in Table C.

# DO:

Place labels on unbroken surfaces, nearer the edge than the center.



For lithics, label the cortex if present. If there is no cortex, find a relatively flat area away from diagnostic attributes (striking platforms, worked areas, edges, etc.).



When possible, apply labels to glazed surfaces and avoid placing the labels over decoration.

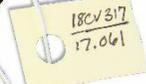


Avoid worked edges and label the least photogenic side of projectile points.



For dark artifacts, use any of the following three options:

- 1) Printed paper labels
- 2) Labels written in white ink
- 3) Labels written on a white background layer



Feel free to use acid-free string tags as needed for durable items that are otherwise hard to label.



Apply labels so that they are visible without turning the object.



For patinated glass, aim for areas with the least decay where labels will be less subject to loss if the surface flakes off.

Figure 6: Examples of acceptable labels.

# DON'T:



Do NOT label broken edges or any other broken surfaces with potential for mending.



Do not put artifacts in the bags until labels are COMPLETELY dry, or they may stick together and ruin the labels.



Make sure artifacts are clean before labeling, and avoid labeling over stains or residues that do not wash off.



Avoid striking platforms, point bases, and other diagnostic attributes of lithic flakes and tools.



Labels should be visible without having to turn the artifact; do not fold labels over edges or wrap them around pipe stems.



Avoid covering important characteristics such as pontil marks, surface treatments, and decoration.



Avoid putting labels in the center of an artifact instead of along an edge.



Figure 7: Examples of what not to do when labeling artifacts.

## 5. Packaging and Organization

### 5.1 Boxes, bags, and tags

All artifacts must be stored in perforated polyethylene 4 mil (or greater) ziplock bags with acid-free tags and placed in 3 mil polypropylene boxes (12" x 15" x 10") with separate lids. Collections equal to one half box or less, including associated field records, may be turned over in a large 4mil ziplock bag.

Artifacts must be bagged by lot number and artifact number as assigned in the artifact catalog. Individual artifact bags must be labeled with the site number and lot/artifact number. The artifact bags must then be grouped in a larger bag by lot number and labeled at a minimum with site number, lot number, and full provenience information. Both artifact and lot bag labels must be written in permanent black ink on the exterior of the bags and the information must be duplicated on an interior acid-free tag with either laser-printed or archival ink (Figure 8).

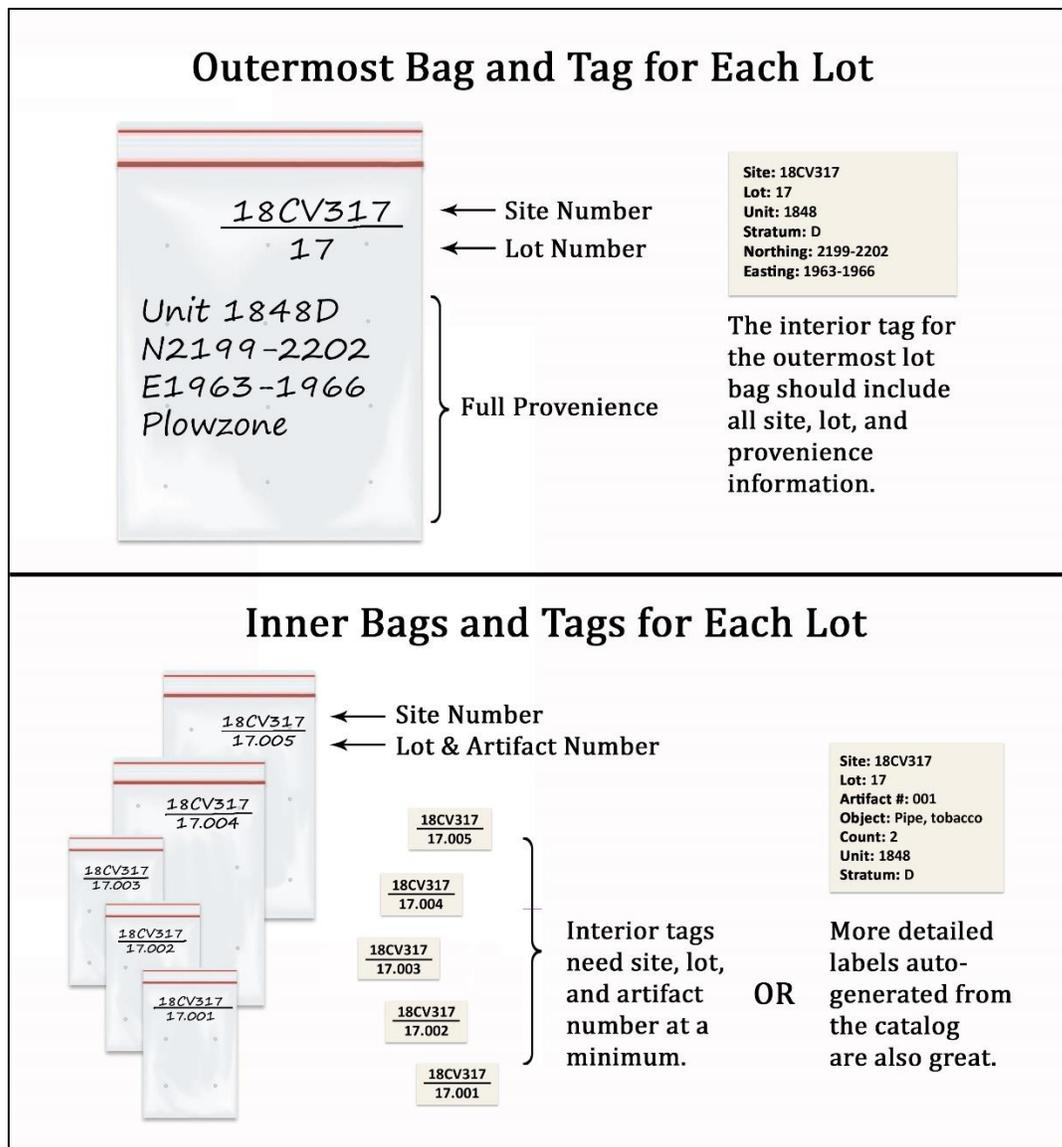


Figure 8: How to label and organize bags and interior acid-free tags.

## 5.2 Specialized storage containers for fragile or oversized objects

Small fragile artifacts may require specialized packaging, such as acid-free boxes, vials, acid-free tissue or ethafoam. Oversized artifacts may require custom-built boxes or supports. Please contact the MAC Lab curation staff for guidance when packaging these types of artifacts for long term curation.

## 5.3 Packaging of soil, flotation, and charcoal samples

All soil samples collected for flotation or soil analysis must be processed before being submitted for permanent curation. Any material produced from the analysis must be packaged in archival materials.

Any unprocessed soil samples that an archaeologist wishes to retain for future research will only be considered for permanent curation on a case-by-case basis and must have prior approval from MAC Lab curation staff.

Charcoal samples may be packaged in one of the following two ways:

- aluminum foil, which is then placed in an archival artifact box
- glass vial, which is then placed in a ziplock bag

## 5.4 Box organization

Pack artifacts in polypropylene boxes using the following guidelines:

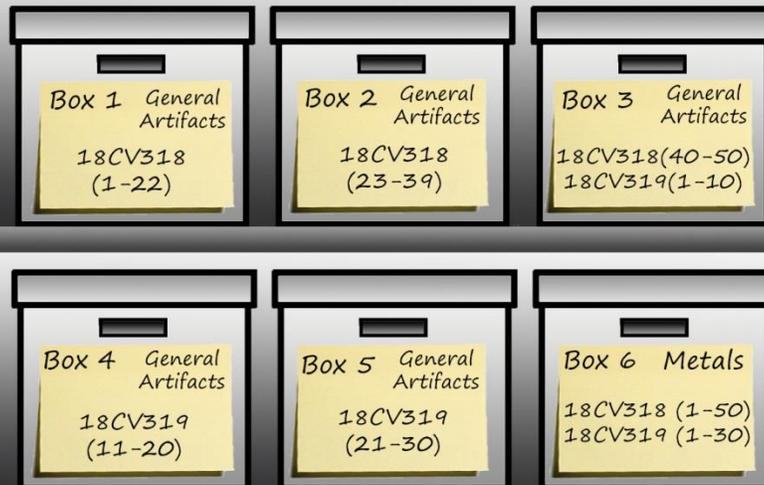
- Organize lot bags sequentially.
- Artifact categories that have been pulled for specialized analysis, such as ceramic or glass vessels, tobacco pipes, or diagnostic lithic tools may be boxed separately from the general lot bag (Figure 9B).
- For Phase II and III collections, pull all metal artifacts from the general lot bags and store them in their own boxes organized sequentially by lot number (Figure 6). For collections that are one box or less, pull all metal and place it in a separate bag within the box. For collections with less than one box of metal artifacts, place all metal in a separate bag within the last box.

Organize boxes in the following order: general artifacts, special/diagnostic artifacts, metal artifacts (Figure 9). This organization should be reflected on the Box Inventory form.

## 5.5 Temporary box labels

Permanent box labels will be generated by the MAC Lab after delivery. See Figure 10 for acceptable temporary labeling options for use prior to delivery.

A) Example of how to organize a 6 box Phase I/II collection with two sites and no special analyses.



B) Example of how to organize a 9 box Phase III collection with ceramic and faunal analysis.



Figure 9: Examples of how to organize boxes for delivery.

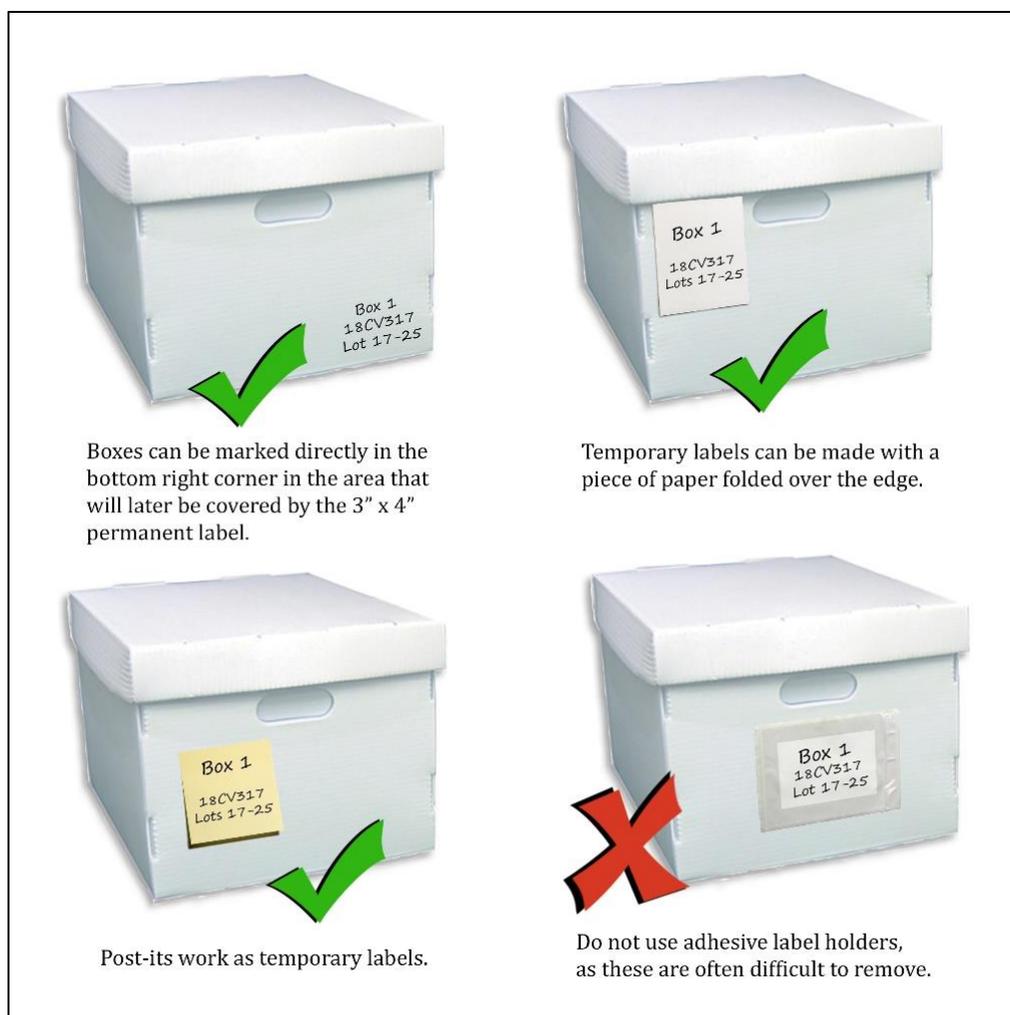


Figure 10: Options for making temporary box labels for delivery.

## 6. Sampling and Discard

When a survey or excavation generates non-site materials or large quantities of bulk materials, such as brick, shell, nails, FCR, or slag, a sampling and discard strategy should be established **in consultation with the MAC Lab curation staff and the MHT archaeologists reviewing the project. For SHA projects, SHA archaeologists must also be consulted.**

- All artifacts must be cataloged and, in some cases, photographed prior to discard.
- Non-site materials should usually be discarded unless they can stand alone as valuable for research, education, or exhibit (i.e. a diagnostic projectile point, a decorated button, ordnance).
- In the case of corroded iron objects, sampling is not required. However, not all artifacts are a priority for conservation (see Section 7), and there is little value in retaining metals that will turn to dust in the bag. Instead, archaeologists faced with bulk metals (i.e. nails) are encouraged to contact the MAC Lab to develop a responsible sampling/discard strategy. Depending upon the nature of the project, x-radiography may be required to properly document the metals prior to discard.

## 7. Conservation

There is a responsibility to preserve artifacts recovered from an archaeological investigation. Preservation can be accomplished using preventive conservation techniques such as environmental controls in combination with interventive conservation measures, such as cleaning and chemical stabilization.

### 7.1 When to consult with a professional conservator

When developing a scope of work for an excavation, a conservator should be consulted during the planning phase. A conservator on contract while in the field can provide quick response to a request for stabilization and removal of artifacts, reduce the loss of information through rapid deterioration, and reduce the cost of stabilization and treatment of artifacts.

### 7.2 Qualifications of a professional conservator

Conservators should be affiliated with the American Institute for Conservation (AIC), a national association of professional conservators, and adhere to the "[AIC Code of Ethics and Standards of Practice](#)." Conservators must have formalized training, a broad range of theoretical and scientific knowledge, and be committed to maintaining high standards and an ethical performance of duties. A guide, "[How to Choose a Conservator](#)," is available on the AIC website as well as the "[Find a Conservator](#)" tool, which provides a computer-generated list of conservators who have met peer review, practice conservation in the specialty of inquiry, and are located near the inquirer.

### 7.3 Prioritizing artifacts for conservation

A conservator should work in collaboration with the consultant's project or lab manager to determine the priorities for conservation treatment and provide the most cost-effective methods. The assessment should include consideration of artifact significance, material condition, potential benefit from conservation efforts, and budgetary restrictions. It is not practical or feasible to conserve every artifact. A deliberate effort must be made to ensure the preservation of the most significant and/or vulnerable objects (See Table D). The majority of artifacts (with low curatorial priority or that require minimal stabilization), are best addressed using a preventive conservation program with archival storage materials, mounts, and environmental controls.

Priority conservation candidates include:

- Artifacts significant enough to be individually described or discussed in the site report.
- Organic remains from wet or waterlogged burial environments.
- Metal artifacts that show active signs of corrosion.
- Artifacts likely to be placed on public exhibit

**Prioritizing artifacts for conservation treatment should be done in consultation with the MAC Lab's Head Conservator and the MHT archaeologists reviewing the project. For SHA projects, SHA archaeologists must be consulted.**

Table D: Summary of conservation issues and treatments that apply to different material types.

Material Types	Types of conservation issues	Possible treatments
Metals (iron, copper alloys, lead, aluminum, composites)	Active corrosion, material loss, concretions obscuring surface detail	Desalination, cleaning, application of corrosion inhibitors, mechanical repairs, x-radiography
Wet Organics (wood, leather)	Mold, loss of dimensional information (shrinking, warping)	Biological inhibitors, controlled drying methods
Dry Organics	Mold, brittle, material loss	Biological inhibitors, consolidation, mechanical repairs
Bone and Shell	Embrittlement, material loss	Consolidation, mechanical repairs
Glass	Delamination, material loss, breakage	Consolidation, mechanical repairs
Ceramics	Surface loss, crumbling, breakage, staining obscuring surface detail	Consolidation, mechanical repairs, de-staining

## 7.4 Budgeting for conservation

During the planning phases of the excavation, accommodations should be made within the budget for conservation. Conservation is a labor-intensive process involving specialized materials and, depending on the quantity and type of material to be treated, can add a significant cost to a project budget. When considering the potential for artifact conservation, it is important to consider the type of site and the anticipated assemblage it could generate. For example, a precontact site may require little conservation intervention as the majority of finds are ceramic or stone and are generally more stable. In comparison, historic-period sites may contain large quantities of iron and composite artifacts which require a greater degree of treatment to stabilize. Statistically, only 1-3% of the material in a terrestrial phase II or III survey will be both diagnostically significant and derive benefits from conservation. For underwater sites, such as shipwrecks, most of the objects recovered may require conservation treatment. **Please contact the MAC Lab’s Head Conservator for assistance with creating conservation budgets for archaeological projects.**

**The MAC Lab, in consultation with MHT and SHA archaeologists, may refuse to accept collections with unconserved or unstable material remains.**

## 8. Project Documentation

All project documentation that tells the story of the archaeological investigation (Table E) should be submitted, even if there are no associated artifact collections. Records are required in three forms unless stated elsewhere in Section 8:

- Original hard copy
- Acid-free hard copy
- Digital copy

Table E: Summary of project documentation to submit to the MAC Lab for permanent curation.

Required if Generated	Optional	Not Accepted
<ul style="list-style-type: none"> <li>Artifact catalogs</li> <li>Photos of excavations</li> <li>Photo logs</li> <li>Field records (STP/ Unit/ Feature forms, daily logs/journals, maps, etc.)</li> <li>Lab records (conservation records/photos, analyses, artifact drawings, etc.)</li> <li>Maps</li> <li>Final report</li> <li>Public interpretation/ outreach files</li> </ul>	<ul style="list-style-type: none"> <li>Site forms</li> <li>Project background (e.g. scope of work, proposal, etc.)</li> <li>Historical research (land records, historic images, etc.)</li> <li>Artifact photos</li> <li>Up to 5 crew-at-work photos</li> <li>Project shape files (site location, unit location, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Images that are not needed to directly document the site or artifacts (e.g. duplicate images, pictures of indistinguishable fields or wooded landscapes, fun but unnecessary wildlife shots, etc.)</li> </ul>

## 8.1 Preparing non-digital records for submission

### 8.1.1 Artifact catalogs

Submit two hard copies of artifact catalogs on 8.5" x 11" paper, leaving enough room on the left margin for three-hole punching (Figure 11). Two-sided printing is preferred for multiple pages. Do NOT put multiple sites on one page; each different archaeological site or isolate "X" number gets its own page(s). Catalogs need not be submitted in acid-free folders.

**DO:**

- Use 8.5" X 11" paper
- Leave room in the margin for 3-hole punching
- Have separate pages for each site
- Print 2-sided if possible

**DON'T:**

- Put more than one site on a page
- Put headings too close to the edge
- Use legal size or 11" X 17" paper
- Have entries extending to multiple pages (not every column is always necessary for the print out; be selective so that they fit on one page)

Site inventory artifact inventory

Unit	Area	Level	Class	Shape	Inventory	Type	Material	Material	Quantity	Color	Features	Comments
1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50	50	50	50	50

Site inventory artifact inventory

Site	Area	Level	Class	Shape	Inventory	Type	Material	Material	Quantity	Color	Features	Comments
1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50	50	50	50	50

Figure 11: Requirements for submitting paper catalogs.

### 8.1.2 Photos and photo logs

Submit two copies of contact sheets (thumbnails) and photo logs for all digital photos. Place these together in a folder as described in Section 8.1.4 below. Photo prints are not required, but if they are generated, contact the MAC Lab curation staff about how they should be packaged for submission.

### 8.1.3 Report

Submit three hard copies of the final report; one bound for the MAC Lab library and two unbound to be archived with the original records and the acid-free copy as described in Section 8.1.4.

### 8.1.4 All other paper records (field notes, lab records, maps, etc.)

Organize original and acid-free copies of records in letter-sized acid-free folders, separated by document category. Directly label the right-hand side of each folder tab in acid-free ink or pencil with a brief project name, contents, and the designation “Original” or “Copy” (Figure 12). Legal-size folders are accepted only if needed to fit larger documents. Other oversize records such as maps are accepted without folders.

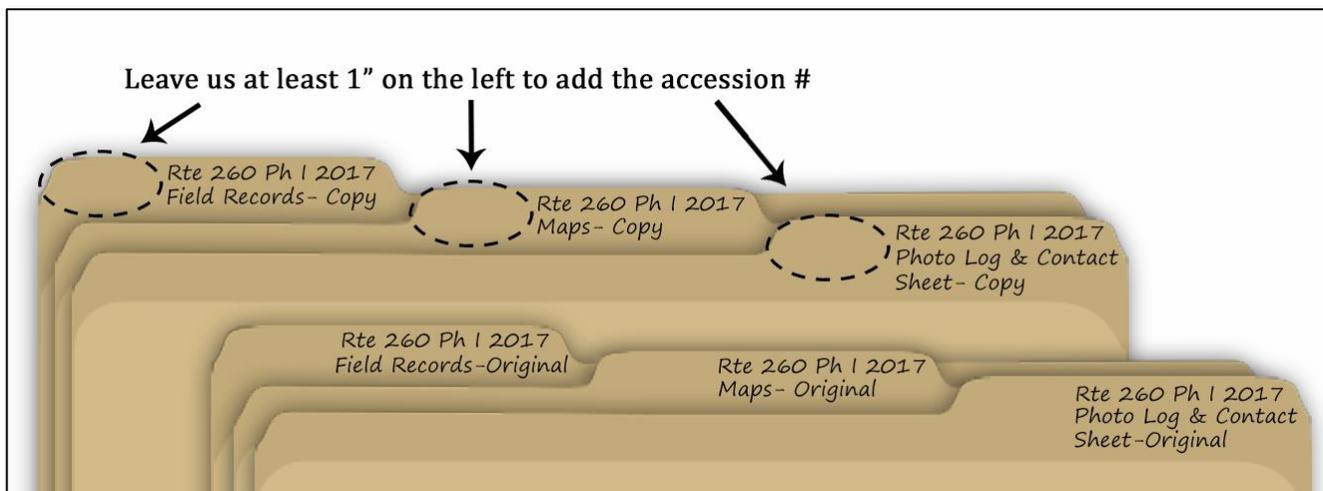


Figure 12: How to label folders for hard copies of records. Directly label the folders; do not use stick-on labels.

## 8.2 Preparing digital records for submission

For a current list of acceptable file types, refer to the list of formats that can be deposited at the Maryland State Archives ([http://msa.maryland.gov/msa/intromsa/html/record\\_mgmt/electronic\\_guidance.html](http://msa.maryland.gov/msa/intromsa/html/record_mgmt/electronic_guidance.html)).

**Contact MAC Lab curation staff if the following guidelines, written in 2018, require clarification or updates as digital technology changes.**

### 8.2.1 Artifact catalogs

Digital artifact catalogs are required in a Windows-compatible spreadsheet such as Excel, preferably with the archival format extension .xlsx. Submit one catalog file only; separation of site numbers is only for printed hard copies and can be achieved using filters or different worksheets in one spreadsheet.

### 8.2.2 Photos and photo logs

Submit only digital photos that are worthy of permanent archiving as essential and recognizable documentation of the project area, excavations, or artifacts. Failure to cull duplicative, non-descript, and non-essential digital photos prior to submission may prevent or delay a collection's acceptance.

Photo logs are required in a Windows-compatible spreadsheet using the MAC Lab's template (<http://www.jefpat.org/curation.html>) to ensure sufficient metadata collection for each image. If original photo logs are hand-written, these should be submitted with the paper records, but the digital photo log must be in searchable spreadsheet form, not a scan of a hand-written log.

### 8.2.3 Report

Submit the final report in .PDF format.

### 8.2.4 All other records (field notes, lab records, maps, etc.)

Scan all hand-written records into .PDF or .PDF/A format, creating one file for each folder category used in organizing the paper records. Do not create a separate PDF file for each individual page of field records, and do not submit digital field records formatted as images (.jpg, .tif).

Any records that originated as digital files (e.g. a spreadsheet generated for an artifact analysis) should be submitted in a file format that is accepted by the Maryland State Archives ([http://msa.maryland.gov/msa/intromsa/html/record\\_mgmt/electronic\\_guidance.html](http://msa.maryland.gov/msa/intromsa/html/record_mgmt/electronic_guidance.html)).

### 8.2.5 File naming protocol

Submit all digital files with names that include a unique project title, followed by an underscore or hyphen and a brief description of the file contents or image title. The project title can be abbreviated but should be distinctive and should not consist solely of a project number. If the project title is somewhat generic, such as a combination of a location and project Phase, add the year to help set it apart. For digital images, add a unique photo number in front of the project title to reflect how they should be sorted (alphabetical sorting alone could separate images that go together in sequence). Do not use spaces in the file names; indicate a space with an underscore or hyphen, or use capitalization to help differentiate words without spaces between. See Table F for more examples.

#### Non-Image File Name:

*[Project title]\_[Content Description].[extension]*

**Example:** Willow\_Vale\_PhI-II\_ArtifactCatalogs.xlsx

#### Image File Name:

*[Image #]-[Project title]-[Image Title].[extension]*

**Example:** 03-Willow\_Vale\_PhI-II-Unit-1A.jpg

### 8.2.6 Digital file delivery

Digital files may be submitted on CD or DVD with the collection, or through cloud-based file sharing systems, such as Google Drive or Dropbox, that do not compress files. Other delivery options may also be considered, so contact MAC Lab curation staff with any questions.

### 8.3 List of associated records

A list of all paper records and digital files must be compiled and submitted with the collection. The list should include each folder category with a count of the number of pages in the folder, and a list of the corresponding digital file names. See Table F for an example of how to format the list of associated records.

**Table F: Hypothetical example projects with folder labels, number of pages of paper records, and corresponding digital file names. Note that no digital file is needed for the contact sheets, just as no individual prints of digital images are needed.**

Project Description	Paper Records Folders	# of Pages	Corresponding Digital Files
<b>Phase I survey of three areas along Route 260 [STP Survey only]</b>	Artifact Catalogs	3	Rte260_PhI_2017-ArtifactCatalogs.xlsx
	Field Records	25	Rte260_PhI_2017-FieldRecords.pdf
	Maps	12	Rte260_PhI_2017-Maps.pdf
	Photo Log & Contact Sheet	2	Rte260_PhI_2017-PhotoLog.xlsx 01-Rte260_PhI_2017-Area-A-OverviewFacingNW.jpg 02-Rte260_PhI_2017-Area-B-OverviewFacingEast.jpg 03-Rte260_PhI_2017-Area-C-OverviewFacingSW.jpg
	Report	90	Rte260_PhI_2017-Report.pdf
<b>Phase I/II of Willow Vale Subdivision [STP Survey with two test units and one feature]</b>	Artifact Catalogs	55	Willow_Vale_PhI-II_ArtifactCatalogs.xlsx
	STP Forms	36	Willow_Vale_PhI-II_STPForms.pdf
	Unit Forms	15	Willow_Vale_PhI-II_UnitForms.pdf
	Feature Forms	3	Willow_Vale_PhI-II_FeatureForms.pdf
	Maps	9	Willow_Vale_PhI-II_Maps.pdf
	Photo Log & Contact Sheet	2	Willow_Vale_PhI-II_PhotoLog.xlsx 01-Willow_Vale_PhI-II_OverviewFacingNorth.jpg 02-Willow_Vale_PhI-II_OverviewFacingSW.jpg 03-Willow_Vale_PhI-II_Unit-1A.jpg 04-Willow_Vale_PhI-II_Unit-1B.jpg 05-Willow_Vale_PhI-II_Unit-1C.jpg 06-Willow_Vale_PhI-II_Unit-1-EastProfile.jpg 07-Willow_Vale_PhI-II_Unit-2A.jpg 08-Willow_Vale_PhI-II_Unit-2B.jpg 09-Willow_Vale_PhI-II_Unit-2_WestProfile.jpg 10-Willow_Vale_PhI-II_Feature1Planview.jpg 11-Willow_Vale_PhI-II_Feature1BisectProfile.jpg 12-Willow_Vale_PhI-II_Feature1Final.jpg
	Report	152	Willow_Vale_PhI-II_Report.docx

## 9. Curation Fees

### 9.1 Curation box fee for state collections

The curation box fee is a one-time fee with the intent to ensure in perpetuity preservation and accessibility of the state's archaeological collections. Fees will be used in management activities directly related to the preservation of the collections.

#### 9.1.1 Applicable collections

Collections generated as a result of laws and regulations, which require archaeological investigations to evaluate, preserve, or mitigate archaeological resources, and are donated to MHT.

#### 9.1.2 Cost

See the MHT's Archaeological Curation Fee Policy for the current fee schedule or contact the MAC Lab's Curator of State Collections to determine the curation fee cost per project.

#### 9.1.3 Curation box fee exemptions

Archaeological collections donated to the MHT are exempt from the curation box fee if they are:

- Donated by avocational archaeologists or interested persons from their personal collections
- Donated by professional archaeologists or private landowners who generated the collections as a result of emergency or research-related investigations not related to county, state, or federally-mandated compliance projects
- Generated by archaeological investigations on properties owned by, or under easement to, the MHT or by projects receiving MHT grants or loans for archaeological investigations

### 9.2 Fees for federal collections

Collections from federal land cannot be donated to the state for in-perpetuity curation. When federal collections are held in trust at the MAC Lab they are subject to annual fees and require a purchase order or MOU with the federal owner agency.

Federal curation at the MAC Lab is a fee-for-service program. Fees are based on the estimated staff time needed to curate federal collections in compliance with *36 CFR §79: Curation of Federally-Owned and Administered Archaeological Collections*. The fees vary each year because they are tied to staff time and salary changes. A quote for curation must therefore be obtained from the MAC Lab's Federal Curator prior to delivery.

**For more information on curation fees for collections from federally-owned property in Maryland, see <http://www.jefpat.org/Documents/Federal%20Curation%20Fee%20Policy.pdf>, or contact the MAC Lab's Curator of Federal Collections.**

## 10. Collection Submittal Requirements

### 10.1 Submitting a collection for curation

Once a collection is ready to be submitted for permanent curation, consultants must contact MAC Lab curation staff to schedule delivery. The Collections and Record Transmittal Form and Box Inventory Form (see Section 10.2 below) for the collection should be emailed to curation staff for review prior to delivery. Curation staff will take up to five business days to review and approve the forms. Once approved, delivery will be scheduled within ten business days. Upon delivery, consultants will receive a signed delivery receipt. This receipt acknowledges delivery of the collection **only**. An acknowledgement of acceptance of the collection will be sent within 20 business days if no problems are encountered in the accessioning of the collection.

**Delivery should be made in person. Exceptions may be made for small collections or collections where there are records only with prior approval from MAC Lab curation staff.**

### 10.2 Forms

Forms required for collections submission:

- Collections and Record Transmittal Form
- Box Inventory Form
- Conservation Checklist
- Deed of Gift, Quitclaim Deed of Gift, Letter of Transfer, or agreement for curatorial services

Digital versions of these forms can be found at <http://www.jefpat.org/statecuration.html> for state collections or <http://www.jefpat.org/federalcuration.html> for federal collections.

**For questions about Deeds of Gift or Letters of Transfer, please contact the MAC Lab's Curator of State Collections.**

### 10.3 Fee payment

Payment is required either prior to or at the time of delivery of the collection.

- Checks should be made payable to "MDP/JPPM"
- MasterCard and VISA are also accepted