SAM NOBLE OKLAHOMA MUSEUM OF NATURAL HISTORY

PROCESSING AND CATALOGING INSTRUCTIONS FOR INCOMING COLLECTIONS

Introduction

A well-organized collection, properly labeled and packaged, effectively limits the possibility of information loss caused by an object becoming separated from its associated collection. Because the research value of a group of artifacts stems directly from the information contained in their associated records, artifacts and their associated records are jointly referred to as a "collection" in this document. Proper cleaning, cataloging, labeling, and housing (packaging) of a collection is vital in the collection curation process to maximize s the potential for scholarly research, heritage education, public exhibition, and accessibility. These instructions are meant to create guidelines in the processing and cataloging of archaeological collections according to SNOMNH standards. The information in this document is meant to supplement, but not replace, the Collections Management Policy at the Sam Noble Oklahoma Museum of Natural History (SNOMNH). Any variance must be approved in advance of depositing the collection to the SNOMNH. If any questions arise while reading this manual, please contact the Collection Manager.

Initial Procedure and Required Forms

The Archaeology Department should be contacted early in the planning stages and a Request for Curation form must be submitted prior to beginning the work in this document. This form is used to identify contact information and any anticipated needs (including size) of the collection. A Collection Submission form must be completed and submitted by the depositor at least one week prior to delivery of the collection. Any culled, missing, or loaned objects no longer present in the collection must be documented on this form. An archival copy of all permits (including landowner permissions) must be included with the collection submission. Each collection will be reviewed to evaluate the organization and state of the collection.

Documents

An archival *finding aid,* as defined by the Society of American Archivists, is a tool that facilitates discovery of information within collections of records. It is a single document that inventories the information contained in various media within a collection. The goal of a finding aid is to consolidate information into an easily searchable and navigable format by gathering all available information from the folders within a collection.

Associated documents must be well organized and properly cataloged/inventoried. The SNOMNH will generate the official finding aid using the information provided from the organizational structure of the documents and the catalog. Types of acceptable documentation include field notes, analysis, photos (including digital), maps, research files, etc. The SNOMNH will accept a disk copy of the documentation, however a hard copy all documentation on archival paper of must still be provided.

Packaging and Organizing Documents

Documents in the archaeology department at the SNOMNH are organized in a hierarchical system by collection, series, subseries, folder, and item (see below). All documents with associated artifacts share the same archival collection number: AA-03. Series is divided by collection owner. Subseries is synonymous with a project, whereby the submitter acquired the material through a singular event almost always attributed to the same final report. Folders are housed in archival legal size filing cabinets and oversized map drawers. Each item is further separated by the primary material it is composed (i.e., film). An item is something distinguishable within a folder and is complete in itself.

Figure 1: Archive Organization Chart

Documents must be organize by project, site, subject, and primary material type and placed in letter or legal archival acid and lignin free straight cut folders. For some projects, it may be impossible to separate documents by site; contact the Collections Manager for assistance. Only one material type is allowed in each folder to minimize cross contamination and deterioration. Material types include paper, negatives, slides, photos (if developed), digital media (if available), etc. Below is a list of general housing requirements by material type:

- <u>Photographs, Negatives, Slides</u> – Are to be packaged in virgin polypropylene or polyethylene sleeves accompanied with a photographic catalog.

- <u>Paper records</u> – All documents are to be on acid-free paper or an archival copy should be packaged in folders separate from their original counterparts.

- <u>Catalogs</u> – One copy of the artifact, document, and photographic catalog is required. An electronic copy of each catalog must be transmitted on either a PC formatted drive, CD-Rom, or e-mail in a Microsoft Excel® or ASCII tab delimited format. Other electronic formats and delivery methods are available with advanced arrangements.

- <u>Electronic Media (i.e., CAD, GIS)</u> - May be included with the documentation and must be accompanied by a statement describing the system, software used, and the content of each disk, tape, etc. The file name for each digital photograph must include the site number and either provenience or the image number from the photo log, along with any other identifying information (i.e., 34Gv203_N100E200_lev1.jpg or 34Gv203_01.jpg). Digital photographs must be printed, minimally 3.5"x4" in size on archival acid-free lignin free paper, and clearly labeled, in the event that the digital copy is damaged and the files cannot be retrieved. Multiple photos per page are allowable, but photographs must be organized and separated by site number.

- <u>Oversized Maps, Drawing, and Charts</u> – Must be rolled or folded and properly labeled. Fragile and/or frequently used materials may require encapsulation in Mylar®. Maps on acidic paper should be copied onto acid-free paper whenever possible. Minimally, separate each map with a sheet of acid free tissue paper. Contact the Collection Manager early in the process if any housing larger than legal size is required.

Cataloging and Labeling Documents

Documents must be cataloged, minimally, at the folder-level. Contact the Collections Manager if it becomes necessary to process the documents at the item-level. The archival numbering system in the archaeology department at The SNOMNH is a concatenation of the collection, series, subseries, folder, and item numbers (see below).
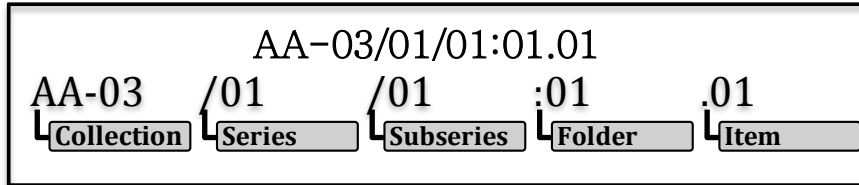

Figure 2: Archival Numbering System

Each folder must be labeled in pencil (preferred) or archival light fast ink with the folder number, title, date, and site number(s). Do not include the item number on the folder. The folder number must be written on the top right corner on the folder tab.

The document catalog must be submitted with one archival paper copy and one electronic copy with the following rules for each fields/columns:

- Folder Number (required) – Contact the Collections Manager for the collection, series, and subseries number prefix to the folder number. Folder numbers restarts at '1' for each subseries and continue in sequential order to the end of a subseries, regardless of the container/box/drawer.

- Date (required) - Dates refer to the creation date of the document, not the project date. Always expressed with numeric year. If more detailed dating is required spell out the month. If a day is given place that numeric value last without suffixes (th, st, etc.). If documents are undated, write 'n.d.' (not dated).

- Title (required) – Is typically already expressed on the folder, whether it is handwritten text, a stick label, or folder tab label. If a title sums up the information within well enough, nothing need be added. As a guide, look to make sure all of the nouns are covered. Any time there are photographs, slides, or anything other than print media, add it into the description to aid in separating materials later. If there is no folder title, write in cap locks 'UNTITLED'.

- Site Number(s) (required) - Identifies the site number(s) represented in the folder. Site numbers must be 4 digits to the right of the county code (34Lf0000). Use a ';' (i.e., 34Lf0040; 34Lf0001), if it is impossible to separate the contents by site number within a folder (see above).

- Description (as appropriate) – Information in the description may include the range of information, full bibliographic information, or any other information that could expand the browsing (and therefore research) capabilities of the archive. Do not itemize the contents of the folder in the description field. Focus on gathering relevant information, not *all* the information, just which relates context. Examples of information included in the description include additional information regarding the process of creating a folder (i.e., includes 3 subfolders organized by…), folder

contents (i.e., correspondence letters and notes from landowners), or other access information (i.e., cross-referenced with…).

- Notes (as appropriate) **-** An annotation or comment about a document or actions taken during processing of a collection (i.e., torn, partially discarded, lost)

Folder No.	Title	Description	Site #(s)	Date(s)	Notes
AA−03/01/01:01	Field notes, John Doe	Range of information included	34Ck0001; 34Ck0002	June 2014	Part of it was lost/destroyed.
AA−03/01/01:02	Project Report	Full bibliographic information	34Ck0001	2014	
AA−03/01/01:03	Bag List	Range of information included	34Ck0001	June-August 2014	
AA−03/01/01:04	Correspondence	Range of subjects of correspondence included.	34Ck0001; 34Ck0002; 34Ck0003	n.d.	
AA−03/01/01:05	Photos – Color	Photos of all the diagnostic artifacts, including pottery, lithics, and faunal. Includes 3 subfolders.	34Ck0002	2011-2014	

Table 3: Example Document Catalog

Document Boxes

For submission, documents must be packaged separately from artifacts in boxes no larger than 15" x 12" x 10" and weigh no more than thirty (30) pounds. Boxes must be packaged so documents are not crushed, readily accessible, and be easily removed and replaced. Because documents will be transferred to filing cabinets, it is not necessary for the boxes to be archival; however, boxes must be clean and free of any pests and debris.

Artifacts

The purpose of an archaeological catalog is to identify, classify, and record attributes of all materials recovered from an archaeological project, including artifacts and associated documentation. Artifact catalog numbers for artifacts (including isolated finds) are standardized at SNOMNH and *must* be reserved by the Collections Manager, at the request of the submitter, and only after the Request for Curation form is signed and completed. *Before* assigning catalog numbers, contact the Collection Manager to verify if catalog numbers already exists.

Cleaning

Prior to cataloging, most, if not all, artifacts should be cleaned. Exceptions might include friable materials, artifacts found in contexts where residue from use is preserved on the object, or whole or partial vessels that still may contain food residue. Artifacts should be laid out on a sieve or tray to be examined. Investigate foil packets, bags, and vials to ensure no artifacts are missed. Foil packets with wood, charcoal, or soil samples should be left open so the contents can dry.

It is mandatory that all provenience information, including field lot/bag number (and catalog number if already assigned), stays with the correct lot of artifacts as they are washed and dried. Only one provenience at a time is washed. Use dividers to separate various proveniences on drying screens or trays. Use extreme care to maintain the correct provenience information with the artifacts. DO NOT throw anything away from inside the artifact bag, including pieces of torn paper

with various information written on them, specimen cards, etc. It is recommended that the provenience label from the original artifact field bag (as well as any other sections with writing) be cut and placed on the drying rack with the properly provenienced artifacts.   Consult the Collection Manager (SNOMNH) or Principle Investigator before throwing anything away. *Never* leave artifacts without provenience information**.**

Below is a list of instructions for cleaning commonly found artifacts in an archaeological collection[3]:

General Instructions	Use only tap water. DO NOT use soap. DO NOT reconstruct any artifact without prior permission from the SNOMNH's Collection Manager. Very fragile artifacts should not be cleaned; consult with a conservator or the SNOMNH's Collection Manager for assistance.
Shell	Avoid getting shell wet. Carefully remove as much dirt as possible without damaging the shell. Use a dry sponge or soft toothbrush to remove loose dirt. For large chunks of dirt, lightly spray water onto dry dirt (be careful not to get the shell wet). Once the dirt is moist, gently remove it with a blunt wooden pick.
Bone	Gently rinsed it to remove excess soil or clay. DO NOT let it soak. Use either fingers or a soft artist's brush to remove soil or clay residue, but be gentle to not leave damaging brush marks. If the bone is very friable, do not get it wet. Brush off loose dirt with a dry artist brush.
Pottery	Investigate it first for cooking residue PRIOR to cleaning. Pottery may be delicately washed with fingers, a damp sponge, or a soft artist's brush, being careful not to leave damaging brush marks. A sponge is preferable to a brush. Make sure the pottery is completely clean, including the edges.
Pipe	DO NOT clean and please save all of the contents *in situ*, if possible.
Lithics	Wash thoroughly using a soft toothbrush. Make sure each piece is completely clean, including the edges. Exceptions will be artifacts that have been previously identified for use wear and/or residue studies.
Groundstone	Utilized groundstone should not be washed, due to potential pollen or other residue analyses. If needed, dry brushing is recommended to remove excess dirt, however, avoid worn or utilized areas to preserve any residue.
Daub, Pigments, Kaolin	DO NOT clean. Consult with a conservator or the SNOMNH's Collection Manager for assistance.
C-14	DO NOT clean. Dry it completely by opening the sample containers. DO NOT place paper labels directly with samples, as paper can contaminate samples for radiocarbon dating. Once dry, wrap the C-14 sample in aluminum foil. Label the foil with the catalog number, using a permanent pen. Place this in a 4-mil zip lock bag or glass vial with the catalog tag.
Historic artifacts	Iron, copper, and other metal artifacts should NOT be washed. Instead, dry brush with a stiff artist brush or a soft toothbrush. All glass and ceramics may be washed in tap water with a soft toothbrush. However, check the surface of each prior to washing – do not wash if any residue is present on the surface (for possible future analysis) or if the object is friable.

Table 1: Recommended Cleaning Instructions

Classification

Prior to cataloging, artifacts must be classified by site, primary material type, and if appropriate, by secondary analysis type.

Primary Material Type

Primary material type identifies what material an artifact is fashioned from (i.e., pottery/wood). Artifacts may not be in direct contact with other primary material types, and must further be bagged separately if a secondary analysis type is used to protect it from deterioration

from abrasion (i.e., lithics and pottery together) or chemical destabilization (i.e., metal).If an artifact contains multiple material primary material types, choose the type with the highest percentage.

Primary Material Types		
Lithic	Plastic (synthetic)	Textiles
Prehistoric ceramic	Seeds/botanical	Flotation
Shell	C-14/charred material	Rubber (natural)
Faunal	Metal	Soil or midden samples
Glass	Historic ceramic	

Table 2: List of Acceptable Primary Material Types

Secondary Analysis Type

The secondary analysis type further describes an artifact. Lithics and metal *must* be subdivided into a secondary analysis type. Other primary material types should be further subdivided into a secondary analysis type whenever possible. Any additional information not available on the secondary analysis type is to be placed in the catalog description.

Required Secondary Analysis Types Lithics and Metals		Optional Secondary Analysis Types	
Primary Material Type	Secondary Analysis Type	Basket	Modified
Lithics	Chipped Stone *(i.e., debitage/debris,primary, secondary, and tertiary flakes, chunks/shatter, modified/utilized flakes, tools;* Groundstone – *(i.e., grinding basins, manos)*	Beads	Pigment
		Decorated	Pipe
		Fabric	Undecorated
		Figurine	Unmodified
		Fire Cracked Rock	
Metal	Aluminum; Brass**;** Copper; Iron; Lead; Tin; Zinc		

Table 3: Required and Optional Secondary Analysis Type Options

Cataloging and Data Entry

The information in this section defines the columns/information to be included on the catalog. A catalog number is a unique number which relates an object (or a group of objects) back to its provenience information[1]. Catalog numbers must be reserved by the Collections Manager and use the following format: [Site Number]/[Provenience Number].[Specimen Number (e.g., 24Rb1094/001.001)]. Every bag must have a unique number and no more than one description is allowed per bag. Multiple artifacts with different catalog numbers or descriptions may not be housed together in the same bag. Each record in the catalog must correspond to a container on a one-one relationship with the same information. A catalog template in Microsoft Excel® is available upon request to use to generate the catalog inventory. This template includes data validations (data entry rules), automatically performs the concatenations to generate the official catalog number and provenience information, and can assist in eliminating data entry errors caused by poor transcription and formatting.

Site Number

Assigned by the Oklahoma Archeological Survey. The site number uses the Smithsonian trinomial site designation. Consult with the Collection Manager regarding isolated finds or other site designations outside of Oklahoma.

Provenience (Lot Number)

Assigned by the Collections Manager and must be approved by the Collection Manager *prior* to cataloging any artifacts. Each unique provenience from a site (the 3-D location of an excavation unit, feature, or object collected from a unit or feature) is assigned its own individual and unique number. This number includes piece-plotted artifacts and/or artifacts from levels excavated over different days (and placed in separate bags).

Specimen Number

Following the site number and provenience number, is a unique serial number assigned to each artifact from that particular provenience. Assign specimen numbers sequentially to like groups of artifacts within a provenience. If an object is broken into two or more pieces, it is bagged together and counted as one object. The official catalog number is then created by concatenating the site number, provenience number, and specimen number. The table below is shown here as an example of how the artifacts are organized and assigned catalog numbers.

Identifying and Describing Artifacts

Type names need only be included if easily recognized by the cataloger. For example, decorated pottery should primarily be labeled as "incised," "slipped," "punctate," etc. Points should primarily be described by general shape ("triangular," "contracting stem," "corner-notched expanding stem," etc, and designated spear/dart vs. arrow). Lithic objects need not be microscopically examined for use-wear; simply note obviously utilized objects. Consult the Collection Manager if unsure how to classify an object.

Table 4: Example Artifact Catalog.

Site #	Provenience #	Spec.#	Catalog #*	Primary Material	Secondary Analysis	Description	Ct.	Wt.	Provenience*
14Co0001	14Co0001/001	001	14Co0001/001.001	Lithic	Chipped Stone	projectile point, expanding stem,	2		Surface
33Li0000	33Li0000/001	002	33Li0000/001.002	Lithic	Chipped Stone	Niobrara Clovis variant point type	1		Unknown,
34Wg0191	34Wg0191/001	001	34Wg0191/001.001	Lithic	Chipped Stone	Chert Debitage	6		Shovel Test 1 10cmbs, 10-15cmbs
34Wg0191	34Wg0191/001	002	34Wg0191/001.002	Lithic	Groundstone	Mano	1		Shovel Test 1 10cmbs, 10-15cmbs
34Wg0191	34Wg0191/002	001	34Wg0191/002.001	Prehistoric Ceramic	Decorated	Rim, Sherd	2		Shovel Test 2 15-20cmbs
MEX00056	MEX00056/001	001	MEX00056/001.002	Prehistoric Ceramic	Figurine	female figurine; banded headdress	1		Unknown
* The official provenience is derived from the multiple fields required in the provenience section in the catalog. See Table 5: Required and Optional Fields to be Included on the Catalog									

Updated October 2015   7

	Field/Column Name	Definition and Acceptable Examples			Required*
Fields associated with Site Information	Site	Smithsonian trinomial site designation with the 2-letter county designation written as an upper case followed by a lower case letter and a four-digit site number (e.g., 34Mc0104).			Y
	Site Name	As identified on the site report.			N
	County	County			Y
	State	Must be written out all the way (ex: Oklahoma)			Y
	Section	As identified on the site report.			Y
	Township	As identified on the site report.			Y
	Range	As identified on the site report.			Y
	Subsection	As identified on the site report.			Y
	UTM Easting	As identified on the site report.			N
	UTM Northing	As identified on the site report.			N
	UTM Zone	As identified on the site report.			N
Fields associated with Provenience Information	Provenience/Lot numbers	Each number corresponds to a unique provenience within a site within the SNOMNH archaeological collections management database. The number must be minimally 3 digits (i.e., 001).			Y
	Field Number	Descriptive identifier given to a provenience by the principal investigator. Use as applicable. (e.g., Lot 001, Bag 001).			N
	General Location	Descriptive information about a provenience location (i.e., Surface, Edge of the Stream).			N
	Area Type	Choose one: Area, Block, Grid, Mound, Row, Shovel Test, Trench			N
	Area Number	The number or unique identifier to the area.			N
	Unit Number	The number or unique identifier to the unit. (ex: 1, A)			N
	Level Number	The number or unique identifier to the level.			N
	Depth	The depth of a provenience. (ex: 10-20cmbs)			N
	Feature/Burial	Feature or burial unique identifier. Must prefix the number with either a 'F' or 'B' (e.g., F1 or B1)			N
	Excavation Date	Date recovered.			Y
Fields associated with Specimen Information	Specimen Number	A serial number starting over with 1 for each new provenience.			Y
	Primary Material Type	Must choose from Table 2: List of Acceptable Primary Material Types			Y
	Secondary Material Type	Choose from (see table below)			Y (if lithic/metal)

Secondary Material Type detail:

Required Secondary Analysis Types — Lithics and Metals		Optional Secondary Analysis Types	
Primary Material Type	Secondary Analysis Type		
Lithics	Chipped Stone *(i.e., debitage/debris, primary, secondary, and tertiary flakes, chunks/shatter, modified/utilized flakes, tools;* Groundstone – *(i.e., grinding basins, manos)*	Basket	Modified
		Beads	Pigment
		Decorated	Pipe
		Fabric	Undecorated
		Figurine	Unmodified
Metal	Aluminum; Brass; Copper; Iron; Lead; Tin; Zinc	Fire Cracked Rock	

Table 3: Required and Optional Secondary Analysis Type Options

Description	Any information not included in the primary or secondary types that describes and artifact. Must be in the format from the most general to the most specific separated by ','. See Table 4: Example Artifact Catalog.	Y
Count	Number of artifacts sharing the same description within the same provenience.	Y
Weight	Must be in grams. Required for highly crumbly artifacts, like shell, faunal, and fractions.	Y (if crumbly)
Excavation Date	Date recovered.	N
Field Number	Assigned by the PI for a specific artifact or bag of artifacts at the specimen-level (e.g., bag 1, field plotted 1).	N
Height		N
Length		N
Thickness		N
Maker's Mark	The manufacturer's information on an object. Use a '#' as a spaceholder if it is difficult to read a character (e.g., Obear-Nester Glass Co. or L#ric)	N
Notes	Comments about changes made to an object after it was collected (e.g., broke, missing)	N

Any information not required must be included, whenever available.

Packaging Artifacts

The artifact catalog must reflect the sorted organization of the collection, minimally at the level of primary material type. The primary material type (or more specific category) containers then must be stored together in a larger container that includes all materials from a single catalog site (creating multiple inner and outer containers). Do not reuse dirty field containers. A container may be a polyethylene bag, small archival box, or polyethylene or glassine vial.[3,5] Select the size container that is appropriate for the object or group of objects. When using bags, a minimum of 4-mil polyethylene bags are required. Each bag must be no more than 2/3rds full. Bags must be broken into multiple bags (e.g., bag 1 of 3) if the bag is too full, or the artifacts are crumbly due to variation in size or fragility. Thicker bags or rigid containers should be used for heavy objects or objects with sharp edges, and padding should be added when necessary. Acid-free tissue or polyethylene foam sheets may be used to provide an extra measure of cushioning for objects or to cover a sharp object that might otherwise tear the artifact container.[3] Artifacts must not be packaged in a way that would result in crumbling or crushing. Store very small and/or fragile objects (i.e., bone, seeds, shell) in a padded rigid container rather than in a bag.[5] All artifacts must be organized within each archival box in sequential groups of catalog numbers. Larger containers of micro-climate metal, flotation, shell, soil, and matrix samples collected during a project may be boxed separately from the artifacts. Soil samples are not accepted without written prior authorization. Contact SNOMNH early as possible to if the collection contains a highly unstable or oversized artifact.

SNOMNH performs an inventory for incoming collections to verify if an artifact is stable or unstable. Generally, artifacts are identified as unstable if they show evidence of debris due to crumbling, abrasion, breaking, and/or rusting inside its container. The stability of an object can usually be improved by wrapping it in appropriate acid free tissue paper, using a more rigid container, using special packaging or support, etc. Some artifacts may be highly unstable without

conservation. Conservation practices, however, also may hinder some forms of analysis and the Principal Investigator should make informed decisions regarding specific conservation needs. Nevertheless, conservation must not be practiced without first consulting a professional conservator. Below is a list of material classes of archaeological artifacts with a guide to appropriate packaging for curation. This list is not exhaustive and additional requirements may be needed to ensure the stability of an object.

- Floral and Faunal Remains - artifacts and ecofacts are often small, dry, fragile, and/or brittle. These frequently require sturdier containers like a box or vial. If the artifact needs to be wrapped, unbuffered Ph-neutral tissue paper must be used because the buffering agent ($CaCO3$) can react with the artifact, changing its pH.[3]

- Ceramics (Historic and Prehistoric) – Ceramics generally can be packaged together inside the same container. Unstable ceramics need to be wrapped in buffered acid-free tissue paper to stop abrasion. Larger ceramic pieces or vessels can be packaged inside a box supported with tissue paper or foam.

- Glass - Glass fragments need to be packaged in heavy mil bags and/or wrapped with tissue paper or foam to prevent breaking or tearing the bag. Vessels and other whole objects should be individually wrapped and supported with tissue paper or foam.

- Lithics - Most lithics are considered stable, however care must be taken to prevent crumbling due to excessive weight and abrasion. Lithics must be sorted by size. Smaller flakes must never be packaged with larger heavy objects. Lithics can be wrapped in buffered tissue paper and/or subdivided into multiple bags.

- Metal – All corroding and/or crumbling unstable diagnostic metal artifacts must either be stabilized through electrolysis or placed in micro-environment. Non-diagnostic items must be packaged so as to reduce deterioration. Many different classes of metal artifacts exist. The most common are iron, bronze, silver, copper, and gold. Each class of metal requires a slightly different environment and must be packaged separately so that no one class is in direct contact with another. Place the artifacts inside a ventilated plastic bag. Below are the general warning signs of instability associated with each class of metal artifact.[2]
  - Unstable iron is identified as crumbly and shows signs of pits and/or active rust and leaves a red powdery residue on gloves or in the package.
  - Unstable bronze crumbles and shows signs of pits and leaves a green powdery residue on gloves or in the package.
  - Tarnished silver is relatively stable, as the patina acts as a protective barrier. Any newly formed abrasions that tear through the patina cause the rate of deterioration of silver artifacts to greatly increase. Therefore, the method of packaging needs to eliminate the possibility of scratching the silver artifacts during transportation and curation.
  - Copper is highly reactive and difficult to stabilize. It leaves either a green or white crumbly residue on gloves or in the package.
- Soil and Midden Samples - Heavy bulk samples should be double-bagged and packaged separately from the artifacts. All samples must be dry. Must have prior written authorization before soil samples can be submitted.

In addition to the packaging identified above, further packaging requirements are utilized for nondiagnostic and diagnostic artifacts. Within each provenience, all artifacts with the same description must be bagged together and assigned a unique catalog number.

Nondiagnostic artifacts may be bulk bagged and housed together in the same container. Lithic debitage, undecorated (plain) pottery body sherds, daub, burned earth, unmodified bone fragments, unmodified limestone, unmodified groundstone fragments, fire cracked rock, charred organics (corn, seeds, etc.), hematite, and limonite, etc. should each be placed in one bag with a catalog tag. Additional wrapping or stabilization may be required. Refer to the housing information identified above for approved methods.

Figure 4: Example of Bulk Bagging of Nondiagnostic Artifacts

Individual bagging is done to reduce or alleviate damage to artifacts in constant contact. Items that may be individually bagged include: diagnostic pottery sherds (rim/neck sherds, body sherds with handles, base sherds, and decorated sherds), lithic tools/tool sections (points, drills, utilized flakes, etc.), pottery with cooking residues, modified limestone, sandstone abraders, decorated or diagnostic shell (such as shell hinges), bone tools, utilized hematite or limonite, or any exotic (non-regional) material.

If more than one diagnostic object is present from one provenience (sharing the exact same description and catalog number) the individually bagged objects should be placed inside one larger zip lock bag with a catalog tag. For example, each of two contracting stem points from one provenience will be contained in its own bag. These two bags will then be placed in a larger bag with the catalog tag.

Figure 5: Items that are Individually Bagged and then Bagged Together

Special Packaging

If an object is particularly friable (liable to fall apart easily) or unstable, it should be bagged and/or boxed separately. An example of this is unmodified shell, which should be cushioned in a small archival box with acid free tissue paper to prevent it from being crushed against other objects. Another example is a complete pottery vessel, which may require a special box be tailor-made to support it properly.

When cushioning friable objects, make sure each object is supported well and that it will not shift if its box is moved. Do not wrap these objects, as unwrapping a friable object for viewing and/or inventory needs causes unneeded and excessive handling of the object. Place a catalog tag inside each box to maintain the object's provenience information. In addition, write the catalog number and provenience information on the outside of the box with an archival pen. Whole pots can either be boxed together in a standard sized archival box (although bagged separately with individual catalog tags and properly supported) or be boxed individually in a tailor-made archival box with a catalog tag if it will not fit in a standard-sized box. In either case, a thumbnail-sized digital photograph of the pot(s) should be placed inside a polyethylene sleeve on the exterior of the box to mark the presence of whole pottery in that box.

Figure 6: Examples of Custom Boxes and Supports with Thumbnails

If a sample is too large to wrap, double-bag the sample (with the catalog tag placed within the outside bag, to reduce the possibility of contamination by the paper label). This double-bag process should also be used for any *processed* flotation samples, to add an extra barrier to these samples (in case a bag should break in the box).

<u>*Artifact Boxes*</u>

The standard box used for housing is Hollinger Metal Edge white tan, acid and lignin-free buffered corrugated box measuring 24.5" x 12.75" x 10.75" [model 10781]. The maximum allowable weight for each box and its contents is thirty-five (35) pounds and the box must be packaged so artifacts are not crushed. All boxes should be lined on the bottom with a layer of polyethylene foam (1/4-inch thick) to cushion the objects inside.

The contents of each box (regardless of total weight) must be well organized, readily accessible, not crushed, and packaged in a way that allows individual bags to be easily removed and accurately replaced. The boxes must be organized according to primary material type and provenience or catalog number. Do not put more than one primary material type in a box, unless the quantity is low. For example, only a few flora and historic artifacts exist, they can be placed in the same box. If you have a question about how to organize your collection into boxes, please ask the Collection Manager for assistance.
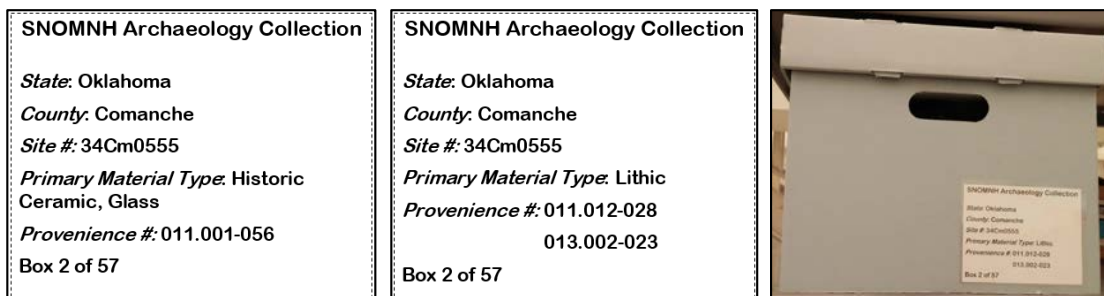
SNOMNH Archaeology Collection	SNOMNH Archaeology Collection
State: Oklahoma	*State*: Oklahoma
County: Comanche	*County*: Comanche
Site #: 34Cm0555	*Site #*: 34Cm0555
Primary Material Type: Historic Ceramic, Glass	*Primary Material Type*: Lithic
Provenience #: 011.001-056	*Provenience #*: 011.012-028
Box 2 of 57	013.002-023
	Box 2 of 57

Figure 7: Examples Box Labels

Each box must have a temporary label on the bottom right corner placed inside a self-adhesive box label holder [either Hollinger Metal Edge catalog no. LHRSCE or Staples Model RCF46] with the collection name, primary material type(s), provenience numbers, and box number (e.g., Box 3 of 5). The labels must be no more than 3.75" tall x 4.75" wide.

Labeling

Labeling involves directly labeling and placing a tag inside the storage contaier with the object. This section defines approved archival materials, identifies when to directly label artifacts, what information is to be included on tags, and how to label associated documentation. Artifacts must be labeled with its associated catalog number as applicable to its material and status in the collection, yet be reversible if the label must be removed or changed.[3] Variations may occur and are handled on a case-by-case basis.

Direct Labeling of Artifacts

All diagnostic artifacts and a representative sample of non-diagnostic artifacts submitted must be labeled with the associated catalog number either directly with the reversible "sandwich" technique described below or, when the material dictates, a small label attached to the artifact with archival string. The distinction between diagnostic and non-diagnostic is to be determined by the Principal Investigator (P.I.) of the project. For non-diagnostic artifacts, the representative sample, is defined as *minimally* 20% of the collection for objects larger than a dime (i.e., debitage and sherdlets <0.5 inches) so *at least* 2-3 artifacts per bag are labeled. It is crucial that this identifying number not be separated from the specimen. Diagnostic artifacts are particularly important to label because of the high probability of their being researched or exhibited in the future, increasing the risk of disassociating the object from its provenience information. Directly labeled artifacts are less likely to lose their provenience information or to be separated from their catalog number than are artifacts that only have catalog numbers on paper labels or labeled containers.[5] For this reason, all objects that can be directly labeled safely should be.

It is important to use methods and materials appropriate to the artifact which do not harm it in any way.[4] The approved method for directly labeling objects is a "sandwich" technique where the number is either preprinted (preferred) or written on by hand and placed between two layers of Acryloid B72. If an object is unable to be directly labeled due to its physical stability of its surface, roughness, porosity, physical strength, or flexibility it will require an archival tag tied or sewn on with 100% cotton string or thread. Most paper, basketry, plastics, leather, textiles, rusting metal, and wood should not be marked directly[3].

Instructions for Preparing Preprinted Labels

Preprinted labels must be printed on 100% archival rag or Permalife® paper on either a laser or an Epson ink-jet printer. A .pdf template of the catalog numbers can be provided at the submitter's request by the Collections Manager. If designing the labels in-house, use the full catalog number (e.g., 34Cz0003/1.1) with font Cordia New or Comic Sans MS, and print the labels small enough to be read without a magnifying glass (generally 4-7 point). Because every printer is different, it will be necessary to run several tests to ensure the label size is appropriate. It is helpful to work over a contrasting-colored tabletop and cut only the needed label just prior to adhering it.

Instructions for Making Acryloid B72

At the SNOMNH, a solution of 10% Acryloid B-72 and 90% acetone/ethanol is used. Ethanol is added to minimize bubbling. Acryloid B-72 is preferred over PVA (Polyvinyl Acetate) because B-72 is more durable and resistant to yellowing.

For ~100 mL of the B-72/acetone/ethanol solution:
1. Add ~ 80 mL of acetone and 10 mL of ethanol to the bottle. (Note: It does not have to be exact – anything in the range of an 80-20 or 90-10 ratio of acetone-ethanol will work).
2. Add 10g of B-72 beads to the acetone-ethanol.
3. Let the beads sit for a few days to dissolve, prior to stirring. It is possible to dissolve it faster by stirring, but it increases the risk of unwanted air bubbles.

Helpful hints: Bottles with narrower lids (i.e., fingernail brush bottles) are easier to work with if some of the glue gets in the threads and less of the solution is wasted if it gets dirty from the artifacts. If the solution gets too thick/thin it can be diluted with more acetone, or if it gets too thin more B-72 beads can be added. Blot the paintbrush along the inside of the neck, not on the top of the lid, to prevent glue build-up. Make sure to clean the rim with acetone after every use.

Instructions for Applying the Label

The catalog number should be placed in an area that does not impact important diagnostic or aesthetic features of the object, and minimizes the handling needed to view the number. It is possible to remove a label if it is incorrect or applied in the wrong location. If a base coat and inked label have been applied, the ink may be removed with a cotton swab slightly moistened with water and will not affect the lacquer base coat for the application of a new number. If all three layers have been applied, the lacquer and ink may be removed with careful application of the solvent acetone by rolling it on the label with a cotton swab.[5]

To create the sandwich method:
1. Clean (if necessary) the area to be labeled.
2. Place a thin coat of clear reversible lacquer Acryloid B72 on the labeling area. Multiple applications may be necessary on porous objects, such as unglazed ceramics. Let the base coat dry thoroughly.
3. Apply the label.
   o By hand – If the artifact is dark in color, use a second layer of white lacquer for the base coat and wait for it to dry completely. Use only a permanent water- or pigment-based ink (e.g., India ink) on top of the base coat. Let the ink dry completely.

     o Preprinted label - Cut the label to avoid sharp edges and apply it to a second layer of Acryloid B72 while it is still tacky, being sure to press it down securely on the artifact.

4. Apply a topcoat of clear varnish (e.g., Acryloid B72) so the writing or paper (if appropriate) is 100% sealed from any air contact.
5. Let the label dry thoroughly before placing the object in a container.

Figure 8: Example Labeled Objects

Tags (Specimen and Bags)

Labels are required for each inner and outer bag. All information tag is printed on acid free cardstock (65lb or similar) and placed so it is clearly visible. Template for both outer bag tags and specimens is provided by the Collections Manager.

Each outer bag must be accompanied with a tag with the site number, provenience information, description of contents, and any other essential information. The outside of each outer container must be labeled with the same information.
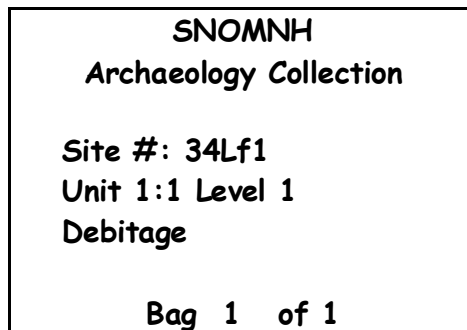

SNOMNH
Archaeology Collection

Site #: 34Lf1
Unit 1:1 Level 1
Debitage

Bag 1 of 1

Figure 9: Outer Bag Tag

Identification labels in inner bags containing shell, metal, bone, soil samples, or other materials which may deteriorate or stain labels must be placed first in smaller resealable bags to prevent contact with these artifacts[3]. Direct writing on inner (specimen) bags/containers is not required, unless the container is not translucent (i.e., box).

Preprinted inner tags are provided as a .pdf to the submitter after SNOMNH has received the final specimen catalog. The advantages for these preprinted labels over the blank handwritten labels are: the decreased processing time required to handwrite information, assurance that all required catalog information is entered in the correct format, the addition of bar codes to facilitate future inventories, and the opportunity for SNOMNH to proofread the catalog to identify commonly found organizational and data entry errors which could reduce potential additional costs prior to submission.

Figure 10: Preprinted and Blank Specimen Label Example

If it is not feasible to use preprinted labels, it is permissible to handwrite the specimen labels using the blank template provided by the Collection Manager with the following information:

1. Project Name – It is permissible to use an abbreviated project name. Contact the Collections Manager for assistance, especially for sites commonly revisited to ensure the naming schema will be unique at SNOMNH.
2. Accession Number – The accession number must be entered 'A' / 'Four Digit Year' / 'number'. Leave this section blank if the collection has not yet been assigned a number.
3. Catalog Number **-** The first letter of the 2-letter designation is always a *capital letter* and the second letter is always *lower case* (34**Cm467**/2.7).
4. Provenience **-** All provenience information must be included. Unless a surface find, provenience usually includes the unit designation (northing and easting, row and alley, or stake), the level, and the depth (if available).
5. Date **–** Date the artifact was recovered, month/day/year.
6. P.I. **-** The person(s) who excavated the artifacts, if available. If no other information is present, list the name of the agency responsible for the excavation.
7. Description – Description of the artifact(s) in the bag. The description must include the primary material type, secondary material type (if appropriate), and all available diagnostic information from least to most specific.
8. Count/Weight – As identified in the catalog.

Organizing Bags and Tags

After the artifacts have been either bulk, individually, or double bagged, a tiered system is used to organize the site material. All bags must be less than 2/3rds full. Artifacts must be sorted in numerical order by site, provenience, and primary material type (Table 2). For example, all pottery from the same provenience must be placed together in a larger bag with a tag (i.e., Prov#: 34Cm0025/002). Then, all material from the same provenience will be put into a bag with a tag (i.e., 34Cm0025/002, pottery and lithics). Subdivide any bag by size or if too full and label the tag appropriately (i.e., Bag 1 of 2) for the safety of the artifact(s). Continue until bagging objects together no longer makes practical sense. The purpose of this method is to aid in finding specific artifacts in the future.

Figure 11: Examples of organization of provenienced objects with tags

Delivery to SNOMNH

An approved Request for Curation form must be on file with SNOMNH before a collection can be scheduled for a delivery. A Collection Submittal form must be completed for each project and submitted least one week prior to delivery of the collection, preferably electronically. Projects must be clearly separated. Artifacts and documents must be in separate boxes. Documents must be transferred in banker size boxes and will be discarded after being filed in their permanent storage location.

To comply with Integrated Pest Management protocols, delivery must be scheduled 5-6 weeks in advance and are generally made during the first week of the month. Deliveries are limited to 75 cubic feet and larger collections must be divided and submitted during another cycle.

Preference will always be to hand deliver the collection. Deliveries must be made to the loading dock on the east side of the museum. It is acceptable to package the artifacts in extra boxes and packing materials just for transportation purposes. All extra boxes and/or packing material can be returned during the delivery process (if hand-delivered). Prior approval is required for mail delivery. Appropriate measures must be made to ensure material will not be broken during shipment, including additional wrapping of artifacts. All material delivered through the mail must be insured, certified, and sent via a Fine Art Shipper. Many shippers are available and information can be found at www.icefat.org. The SNOMNH is not responsible for damage during shipment.

Additional Resources

Consult Curation of Federally Owned and Administered Archeological Collections (36 CFR 79) (www.cr.nps.gov/aad/36cfr79.htm); National Park Service's Museum Handbook (Part I, Museum Collections) (www.cr.nps.gov/museum/ publications/handbook.html); Managing Archeological Collections: Technical Assistance (www.cr.nps.gov/aad/ collections/index.htm) for more information about the processing and management of archaeological collections.

Footnoted References

1 Malaro, Marie. 1985. A Legal Primer on Managing Museum Collections. Washington, D.C: Smithosonian Institution Press. 351pp.

2 Canadian Conservation Institute. 1995. Storage of Metals. CCI Notes 9/2. 5 pp. Ottawa, CanadianConservation Institute.

3 Childs, S. Terry and Eileen Corcoran 2000 Managing Archeological Collections: Technical Assistance (www.cr.nps.gov/archeology/collections/). Washington, DC.: Archeology and Ethnography Program, National Park Service.

4 Buck, Rebecca A., and Gilmore, Jean Allman, eds. Museum Registration Methods. 5th Edition. Washington, D.C.: AAM Press, 2010. Print.

5 National Park Service, 1993. "Use of Acryloid B-72 Lacquer for Labeling Museum Objects." Conserve O Gram 1/4. July 1993. 4 pages.