DAACS Cataloging Manual: FLMNH Lithics

FLORIDA MUSEUM OF NATURAL HISTORY

Created August 2016
Updated February 1, 2017

1. General Artifacts Lithic Information

The Lithics Information Tab, and the fields contained on it, were added in September 2016 to accommodate data generated by the University of Florida's Natural History Museum's project, *Cataloging Spanish Missions of La Florida*. Prior to September 2016, no data were entered for these fields, as they did not exist in the database. Currently, only the University of Florida uses the fields on the Lithics tab for their projects. If you are cataloging for the FLMNH project, please follow the FLMNH Lithic Protocols detailed in Section 6.

1.1 Lithic Category

Specify whether the Lithic being cataloged is a Tool or Debitage. If unsure, record as Unidentifiable.

1.2 Lithic Form

This field carries over from the Form field on the General Artifact Main Tab. It is grayed out and it can only be modified from the Main Tab.

1.3 Point Type

If the lithic is a bifacial point, record point type. See description of biface types in Section 2.1.5.

1.4 Flake Type

If the lithic is a flake, record flake type. See description of flake types in Section 2.1.

1.5 Screen Size

Use only for Flakes. Record the screen size for the flake batch.

1.6 Core Form

If the lithic is a core, record the core form: Multi-directional; Bifacial; Bipolar; Prismatic; Nodule, Unidentifiable. See description of core types in Section 2.2.

2. Native American Lithics: FLMNH Protocols

2.1 Flakes

Flakes are generally thin and exhibit characteristic signs of working, such as conchoidal fracture (concentric semi-circular lines of force emanating from the "bulb of percussion," or the point where the stone was impacted to knock the flake off). Larger flakes may themselves have been utilized as tools; these are considered tools and should be entered as flake tools and recorded as "Flake, retouched", "Flake, denticulate", "Flake, perforator" etc. on the Main Tab (see section 2.3.2 for more information). This use wear should not be cataloged as Post-Manufacturing Modification.

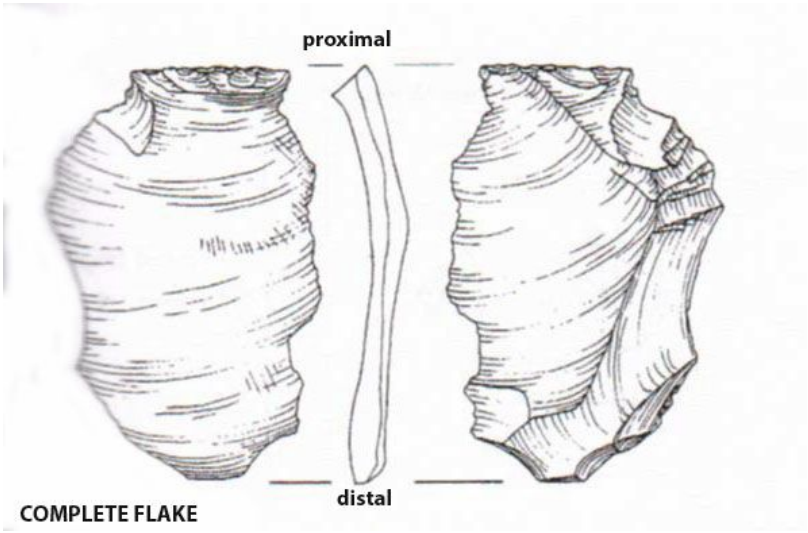
Lithic research has demonstrated that a number of flake attributes (see below) are sensitive to relative point in the reduction sequence and type of technological tradition. For example, the bulb of force becomes smaller and more diffuse later in the reduction sequence if a transition is made from a heavy percussor (such as a hammerstone) to a lighter percussor (such as an antler billet). However, the recording of many of these attributes suffers from a high inter-observer variability.

The three key attributes to be catalogued are ones that have been shown to display more inter-observer consistency in measurement and recording: platform facets (facet = 1 or facets $\geq$ 2); relative size as measured through graduated screens (1 inch, ¾ inch, ½ inch, ¼ inch); and flake type (complete, broken, fragment, debris, and blade). Within the flake type category, complete flakes and broken flakes are further classified by the number of platform facets: "Complete-1 platform facet"; "Complete-2+ platform facets"; "Broken-1 platform facet"; "Broken-2 platform facets."

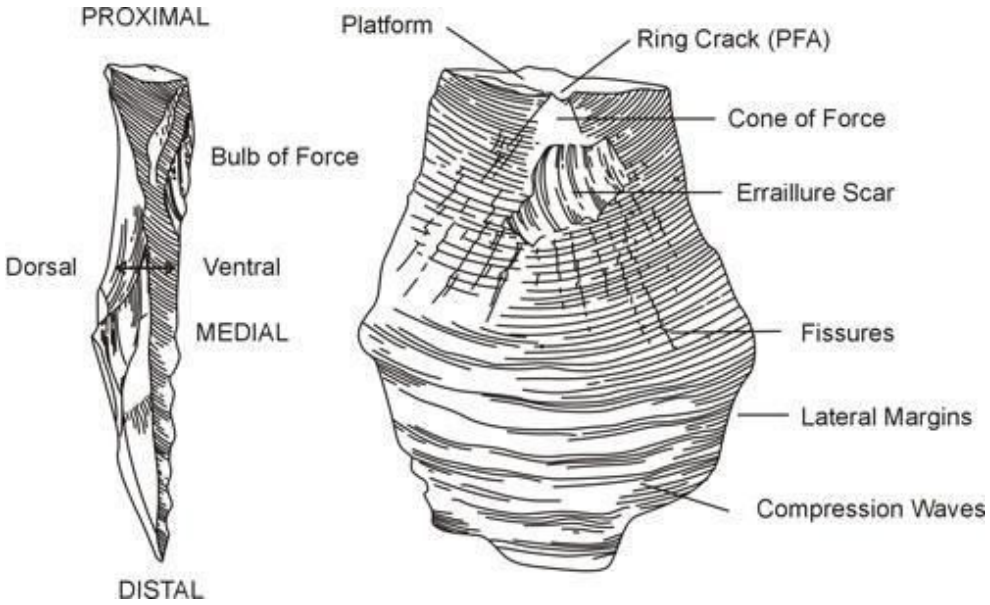
If you cannot identify flake type, record as "Unidentifiable."

2.1.1 Complete Flake

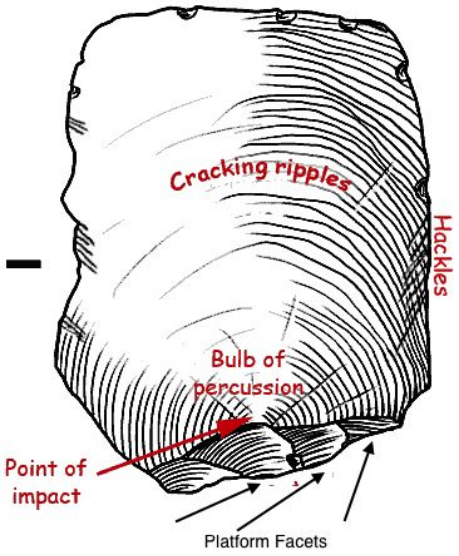
A **complete flake** displays a striking platform and a successful termination (usually exhibiting a feathered distal end).



Key attributes of a complete stone flake with a **single (1) platform facet**:



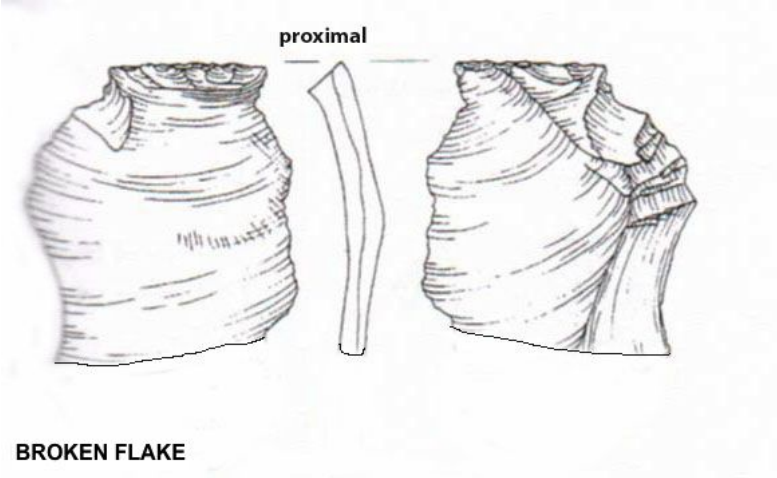
Ventral side of complete flake showing **multiple (2+) platform facets**:



Multiple facets are the result of the removal of other flakes from the core prior to the current flake.
You may need to use a 10x loop or other magnification to identify the number of platform facets.

2.1.2 Broken Flake

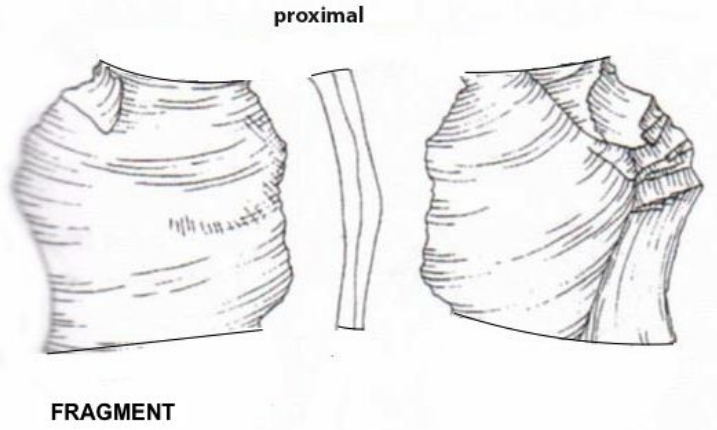
A **broken flake** has a striking platform, but the distal end displays a break generally perpendicular to the length of the flake (typically referred to as either hinge and step fractures).



Number of platform facets should also be recorded for broken flakes (see images above), either 1 or 2+.
You may need to use a 10x loop or other magnification to identify the number of platform facets.

2.1.3 Flake Fragment

A **fragment** displays all the attributes of a flake, but lacks a platform. Platform facets cannot be recorded for this artifact type (record facets as Not Applicable).

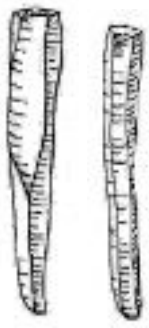


2.1.4 Debris

Debris includes irregularly-shaped pieced of rock that reflect the incidental removal of material. Debris is often blocky and angular. Platform facets cannot be recorded for this artifact type (record facets as Not Applicable). Form on the Main Tab should be recorded as “Shatter.”

2.1.5 Blade

A **blade** is a flake with two parallel margins, typically displaying a length to width ratio of at least 2:1. Typically, one to two arrises (ridges) run the length of the blade. Broken and complete blades are considered in the same category in this module. Blades are produced with a prismatic core technology (see Section 2.2 for description of prismatic core).



2.1.6 Protocols for Cataloging Debitage Flakes

Suggestions for Sorting Flakes

1) Identify whether any flakes have been modified or retouched. These should be cataloged as Lithic Category "Tool", not "Debitage."
2) Sort by categories: Complete, Broken, Flake Fragment, Debris, and Blade.
3) For Complete and Broken flakes, identify the number of facets on the platforms (1 or 2+) and separate by this attribute
4) Sort all sub-groups by size (¼, ½, ¾, 1 inch etc.)

Debitage Flakes should be cataloged as follows:

General Artifact Main Tab

Count: Debitage Flakes can be batched by material, form, and screen size. Insert number in batch.

Category: "Stone"

Form: "Flake." If the flake shows signs of having small flakes removed to blunt, sharpen, or refine the edge, see Section 2.3.2.06. NOTE: "Blade" in the Form pull-down refers to metal tools. Stone blades are entered as a "Flake."

Completeness: "Complete" or "Incomplete." Only record complete if Flake Type is "Complete-1 platform facet" or "Complete-2+ platform facets." For stone blades record as "Complete" if a feathered termination is evident; as "Incomplete" if the distal end of the flake is a step or hinge fracture.

Material: Most often "Chert/Flint, other."

Manu Tech: "Flaked"

Lithics Tab

Lithic Category: "Debitage"

Flake Type: Select the appropriate Flake Type: "Complete-1 platform facet", "Complete-2+ platform facets", "Broken-1 platform facet", "Broken-2 platform facets", "Fragment", "Blade"

Screen Size: Select appropriate screen size for the batch: 1 inch, 3/4 inch, 1/2 inch, 1/4 inch; N/A.

Measurement Tab

Weight: Record weight of individual flake or batch in grams.

Do not record any other measurements.

Debitage Shatter/Debris should be cataloged as follows:

General Artifact Main Tab

Count: Shatter/Debris can be batched by material, form, and screen size. Insert number in batch.

Category: "Stone"

Form: "Shatter"

Completeness: "Incomplete"

Material: Most often "Chert/Flint, other."

Manu Tech: "Indeterminate."

Lithics Tab

Lithic Category: "Debitage"

Flake Type: "Debris"

Screen Size: Select appropriate screen size for the batch: 1 inch, 3/4 inch, 1/2 inch, 1/4 inch; N/A.

Measurement Tab

Weight: Record weight of individual debris or batch in grams.

Do not record any other measurements.

Please record the DAACS Artifact ID number for the individual flake or batch on the back of the bag tag.

2.2 Cores

A core is a piece of stone used as a blank from which flakes and blades were removed by toolmakers. Cores are usually the by-product of tool making but may also have been shaped and modified to serve as a tool. This section focuses on recording cores that are

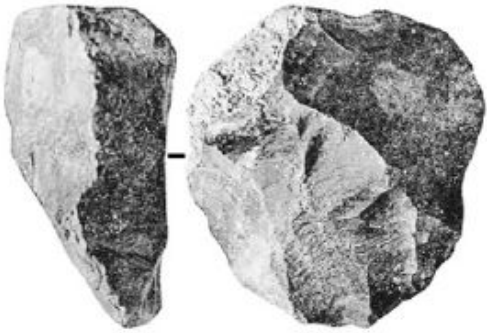
the spent by-products of tool production, not those modified for use as tools. Any worked tools should be entered in the tool section.

2.2.1 Prismatic Core

A prismatic core is a stone nucleus prepared for the removal of blades. The core has a cylindrical shape from the systematic detachment of blades. The top of the core is flat (where platforms are established for flake removal) and it usually tapers downward. Referred to in the literature by a number of other terms, such as polyhedral core.

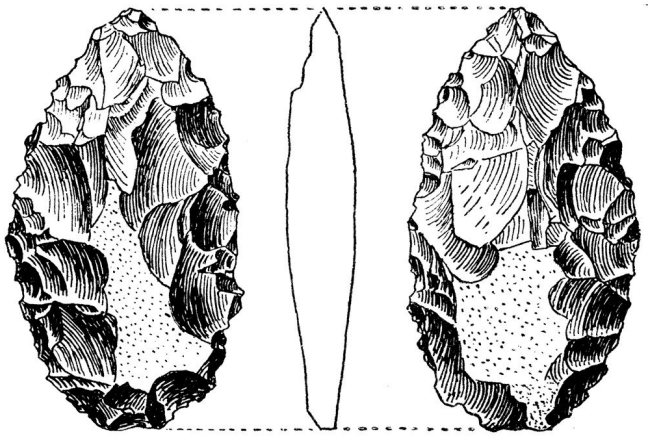
2.2.2 Multi-directional Core

A multi-directional core is an amorphous nucleus exhibiting the seemingly random removal of flakes.



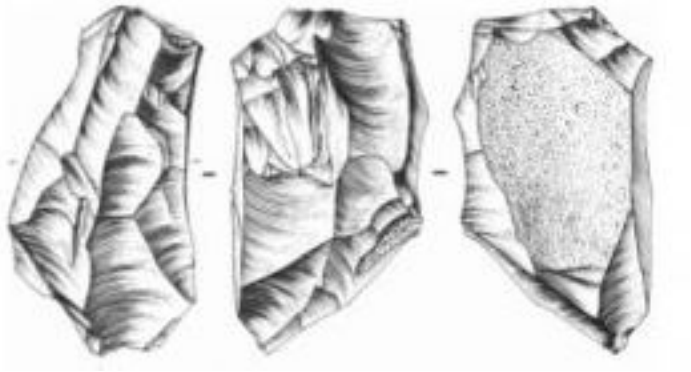
2.2.3 Bifacial Core

A bifacial core is a nucleus that has been flaked on opposing sides so as to create a symmetrical shape in plan, with a lenticular cross-section. Bifacial cores may range from thick and relatively crude (early stage biface), to thin with finely prepared margins (late stage biface). You may see a broken edge of a biface in progress (sometimes referred to as a “biface fragment” which should be cataloged as a Bifacial Core.



2.2.4 Bipolar Core

A bipolar core is a blocky nucleus that has been worked from opposing directions to remove flakes in an expedient manner. Typically, the core is placed on a stone anvil and rotated from one end to the other as flakes are detached; it thus exhibits flake scars that emanate from each end. These cores may resemble blocky debris or shatter. Expedient removal creates long, linear flakes.



2.2.5 Nodule

A nodule is a rock cobble with only a few flakes removed. Lacks sufficient flake detachment to ascertain whether it was intended for a particular technological tradition.

2.2.6 Unidentifiable

Use this term when the fragment is identifiable as a core, but the type cannot be identified. On the main tab, form should be “Core.”

2.2.7 Protocols for Cataloging Cores

Cores should be cataloged as follows (note: strictly speaking cores are not debitage, but they nonetheless will be coded as “Debitage” under LIthic Category):

Main Tab

Count: Debitage Cores can be batched by material, form, and completeness. Insert number in batch.
Category: “Stone”
Form: “Core”
Completeness: “Incomplete” or “Complete” as appropriate.
Material: Most often “Chert/Flint, other.”
Manu Tech: “Flaked”

Lithics Tab

Lithic Category: “Debitage”
Core Type: Select the appropriate Core Type: “Multi-directional”, “ Bifacial”, “ Bipolar”, “Prismatic”, “Nodule”, “Unidentifiable”

Measurement Tab

Weight: Record weight of batch in grams.

Please record the DAACS Artifact ID number for the individual flake or batch on the back of the bag tag.

2.3 Stone Tools

This heading includes information about bifacial tools and other stone tools such as scrapers and drills.

A bifacial tool is the end-result of a bifacial core being modified to a designed shape, typically a projectile point or knife. Do not use the term 'Biface' to record any forms; these tools should be identifiable to tool type (e.g., point, drill, etc.) or as bifacial cores.

2.3.1 Bifaces: Points

Although a large variety of bifacial tool types exist, in the Florida research region for the late pre-Contact to early Colonial periods there are three commonly occurring types and these are projectile points: the Pinellas point, the Ichetucknee point, and the Tampa point. If you come across recognizable point types that do not fit into these categories, ask Dr. Charlie Cobb to add the appropriate terms.

2.3.1.1 Pinellas Point

A small triangular point with a flattened to elliptical cross section. The blade edge is primarily straight, but may have an excurvate or, even less frequently, an incurvate margin. Occasionally the edge is finely serrated. The point dimensions approximate an isosceles triangle (about half as wide as the height). The base is primarily straight to slightly concave and commonly has basal thinning.

2.3.1.2 Ichetucknee Point

A small, thin lanceolate point with a thin elliptical cross section. The blade is excurvate, curving in at the tip and curving back in towards the base. The base ranges from straight to concave. Most often the base is rounded.

2.3.1.3 Tampa Point

A small, relatively broad and ovoid shaped point with an elliptical cross section. The blade is excurvate with a convex base giving the point a leaf appearance. Bases are often bulbous in appearance.

2.3.1.4 "Point, triangular"

Use this term when a point fragment is recognizably part of a triangular form, but is not identifiable to one of the three types listed above.
Triangular: "Refers to a point with three edges. The triangular point does not have a stem or notching. The sides are usually straight and the base width is often the same as the blade's length" (Hranicky and Painter 1989:7).

2.3.1.5 "Point, Stemmed"

Hranicky and Painter (1989:7): "Refers to a point that has a downward extension from the blade at the proximal end. The stemmed point has an extension at the base of the point, which makes the stem noticeably different from the blade."

2.3.1.6 "Point, Corner Notched" or "Point, Base Notched" or "Point, Side Notched"

Notched: "Refers to a point with circular indentation cut into the lower edges or corners. The notched point is usually a triangular-bladed point that has notches cut into either the side or corner areas of the proximal end of the point" (Hranicky and Painter (1989:7).

2.3.1.7 "Point, Lanceolate"

Lanceolate: "Refers to a parallel-edged point that does not have waisting, notching, or shouldering. Lanceolate points are usually long and slender with no distinction between blade and stem" (Hranicky and Painter 1989:7).

2.3.1.8 "Point, Unidentified"

Use this term if you can identify that the point fragment has a diagnostic shape (stemmed, notched, or lanceolate), but is not identifiable to a particular named type. Occasionally earlier Woodland Archaic points may occur on a mission site if it is multi-component. If identifiable to a specific type, contact Jillian Galle (jgalle@monticello.org) to add any new forms to the database.

2.3.1.9 Protocols for Cataloging Bifaces: Points

Bifacial Points should be cataloged as follows:

Main Tab

Count:	Bifaces cannot be batched and are cataloged individually. Enter count of 1.
Category:	"Stone"
Form:	"Point, triangular"
Completeness:	"Incomplete" or "Complete" as appropriate.
Material:	"Chert/Flint, other"
Manu Tech:	"Flaked"

Lithics Tab

Lithic Category:	"Tool"
Biface Type:	Select the appropriate Point Type (see above).

Measurements Tab

Length:	Record length only if measurement is complete.
Width:	Record width only if measurement is complete. This should be taken at the approximate mid-point of the point length.
Thickness:	Record the maximum thickness of the biface. This measurement should entered under "Height"
Weight:	Always record weight, regardless of completeness.

Please record the DAACS Artifact ID number for the individual flake or batch on the back of the bag tag.

2.3.2 All Other Stone Tools

This category includes a variety of flake and groundstone tools. Flake tools are characterized by a relatively expedient technology where an implement may be made from a generalized flake. This tool often displays a working edge that results from direct use (such as scraping) rather than intentional modification. However, a flake tool may also result from a combination of intentional retouch that is further modified by direct use.

Groundstone tools are those that result from grinding and pecking a rock into a given shape, with manos and metates being common examples in North America. This category may also include percussion tools, such as hammerstone, where battering as a result of hitting another object creates diagnostic surface damage attributes.

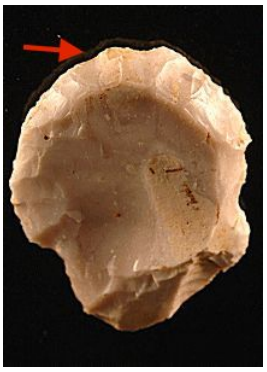
If you identify recognizable types that do not fit into these categories, contact Dr. Charlie Cobb.

Tool types include: Celt, Core, Drill, Grinding Stone, Hammerstone, Mortar, Chopper, Abrader, Endscraper, Uniface; Perforator; Drill; Graver; Spokeshave; Flake, retouched; Blade, retouched.

Flakes with evidence of retouch or use should be considered as lithic category of “Tool.” If a flake shows evidence of bifacial retouch, then it should be recorded as a point, other tool, or bifacial core. Fragments worked on both sides with an unidentified form should be cataloged as “Core, Bifacial” (see Section 2.2.3).

2.3.2.01 Flake, Scraper

A modified flake showing steep and regular retouch along one or more margins.



Only record weight of the flake tool.

2.3.2.02 Flake, Spokeshave

Also known as notch, a modified flake displaying a pronounced concavity with steep retouch.

Only record weight of the flake tool.

2.3.2.03 Flake, denticulate

A flake tool with a serrated edge. The serrations range from fine, closely-spaced points to intermittent crude projections.

Only record weight of the flake tool.

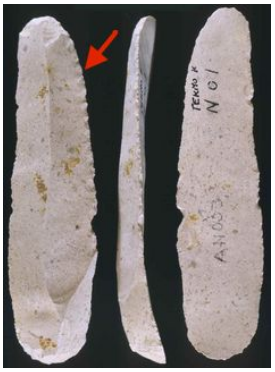
2.3.2.04 Flake, perforator

A flake with a pointed projection that has been retouched to achieve a sharpened tip. An enhanced point not 3- or 4-sided like a drill.

Only record weight of the flake tool.

2.3.2.05 Blade, Retouched

A blade from a prismatic core exhibiting evidence of retouch or use-wear along one or more margins.



Main Tab

Count: Retouched flakes are cataloged individually. Enter count of 1.
Category: "Stone"
Form: "Blade, retouched"
Completeness: "Incomplete" or "Complete" as appropriate.
Material: "Chert/Flint, other"
Manu Tech: "Flaked"

Lithics Tab

Lithic Category: "Tool"
All other fields should be "N/A."

Measurements Tab

Only record weight of flake tool.

2.3.2.06 Flake, retouched

Modified or retouched flakes that do not show additional evidence of working to become a specific tool type. Conservatively, one should use evidence of five contiguous flakes scars as evidence of retouch (to distinguish from random damage from field recovery and bagging, or other sources) If a flake shows evidence of bifacial retouch, then it should be recorded as a point, other tool, or bifacial core.

Retouched flakes should be cataloged as follows:

Main Tab

Count: Retouched flakes are cataloged individually. Enter count of 1.
Category: "Stone"
Form: "Flake, retouched"
Completeness: "Incomplete" or "Complete" as appropriate.

Material: "Chert/Flint, other"
Manu Tech: "Flaked"

Lithics Tab

Lithic Category: "Tool"
All other fields should be "N/A."

Measurements Tab

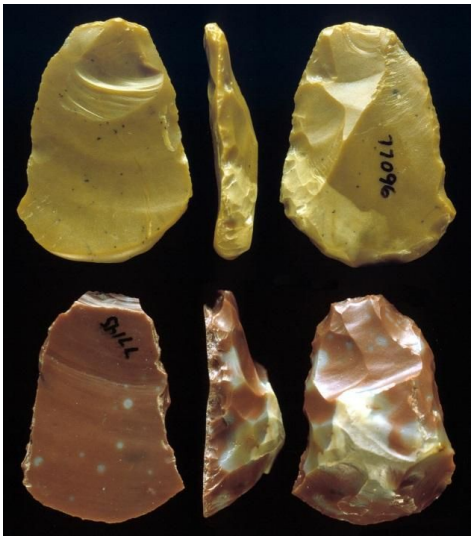
Only record weight of flake tool.

2.3.2.07 Uniface

A tool characterized by flake removal and retouch on one surface (in contrast to a biface that is worked on opposing surfaces). In cross-section, a uniface is typically plano-convex with the flat surface representing the unworked side. A wide variety of tools may occur as unifaces, ranging from so-called backed knifes to formal end-scrapers. This category is used as a general catch-all in this module. However, unifacial endscrapers as such (see 2.3.2.7).

2.3.2.08 Uniface, Endscraper

Although these tools are made from flakes, more care has been devoted to achieving a standard shape and working edge. They are rectangular to triangular in plan-view and display retouch on the lateral margins to achieve a relatively regular edge. The distal portion is the working end, and it displays a very steep retouch. In cross-section the tool often has a keeled appearance.



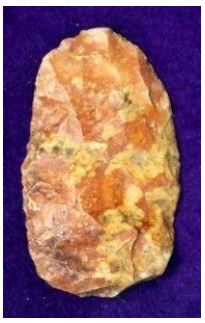
2.3.2.09 Drill

A tool with a long, thin, and relatively round projection or barrel. The barrel of the drill is three- to four-sided and shows steep retouch. Drills often have a hafting element at the base.

2.3.2.10 Celt

An axe-like tool that is usually manufactured through grinding, although flaked stone varieties also occur.

Groundstone celt.



Flaked stone celt.

2.3.2.11 Grinding Stone

A roughly tabular slab that is used as a platform for producing or refining other tools by grinding on the slab. The working area of the slab may be manifested in a shallow concavity or trough from repeated activity.

2.3.2.11 Hammerstone

A spherical rock used in stone-working to remove flakes from a nodule or core. Significant scarring of the hammerstone is manifested from repeated battering.

2.3.2.12 Mortar

Groundstone tools that are designed with a distinct basin meant to hold another substance that is subjected to crushing, battering, or stirring. Use-wear damage from these activities is evident with the basin.

2.3.2.13 Abrader

A stone with a coarse texture that is used to remove contact material from the surfaces of other tools through grinding and abrading. These typically are hand-held size, and commonly display grooves and incisions from attempting to abrade and smooth the edge of another tool.

2.3.2.14 Chopper

A cobble or small rock that has been roughly modified through flaking to create a crude edge.

2.3.2.15 Protocols for Non-Biface Stone Tools

Non-biface Stone tools should be cataloged as follows:

On the Main Tab

Count: Tools may not be batched and are cataloged individually. Enter count of 1.
Category: "Stone"
Form: Select appropriate form from the types listed above.
Completeness: "Incomplete" or "Complete" as appropriate.
Material: Most often "Chert/Flint, other."
Manu Tech: "Flaked"

Lithics Tab

Lithic Category: "Tool"
All other fields should remain "Not Applicable."

For Flake Tools:
Measurement Tab

Weight: Only record flake tool weight.

For Other Tools:
Measurement Tab

Length: Record length only if tool is complete.
Width: Record width only if tool is complete.
Height: Record height/thickness only if tool is complete.
Weight: Always record tool weight, regardless of completeness.

Please record the DAACS Artifact ID number for the individual flake or batch on the back of the bag tag.

2.3.2.16 Pièce Esquillé

This tool type is thought to have a wedge-like function. It is typically a thin, rectangular flake, often produced from a bipolar core. Opposing ends of the flake display evidence of hammering and flake removal. In historical contexts they resemble gunflints. Length, width, height, and weight of these tools are all documented.

2.3.2.17 Adze (flaked stone)

This is a bifacial tool thought to be used for woodworking. It is plano-convex in cross-section, with the ventral or flat surface representing the working side of the tool. In outline an adze may look similar to a celt, but the latter is typically symmetrical in cross-section. Length, width, height, and weight of these tools are all documented.

2.4 Miscellaneous Rock

The analysis of unmodified pieces of rock should follow the protocol set out under Section 7.5.5 Miscellaneous Rock under the General Artifacts Manual. These steps are as follows:

Category: "Stone"
Form: Each rock should be classified by size. Choose one of the following size categories:
"Granule (2-4mm)"
"Pebble (4-64mm)"
"Cobble (64-250mm)"
"Boulder (>250mm)"
Completeness: "Incomplete"
Material: Identify the type of stone, if possible. Unidentified stone should be cataloged as "Stone, unidentified," unless it can be identified as sedimentary, igneous, or metamorphic. In these cases, use the term "Stone, unid sedimentary," "Stone, unid igneous," or "Stone, unid metamorphic."
Manu Tech: "Natural"

Rocks of the same material and that fall under the same size classification can be batched together. The only measurements that need to be taken are count and weight.