

Unit 2 - Standards and Guidelines for Artifact Documentation and Analysis

Stage 2, 3 and 4 archaeological fieldwork reports must include documentation and analysis of artifacts and other archaeological materials found.

Objectives

The intent of documentation and analysis in the land use planning and development context is to provide:

- A record of artifacts and other archaeological resources recovered from a property or archaeological site
- A basis for recommendations for ceasing or continuing assessment or mitigation of archaeological resources
- Enough basic information to help future researchers determine if the site is relevant to their studies.

This section outlines standards (minimum required documentation and analysis) and guidelines (optional additional documentation and analysis). Standards must be completed to achieve the intent of the documentation. Guidelines describe additional analysis representing best practices for the archaeological site or artifact class in question.

These general requirements apply to analyzing and reporting on all artifact types:

1. When employing or referencing formal typologies established in the literature to describe category terms or type classifications, cite the sources used.
2. In Stage 4 excavation projects, artifact analysis must be done on complete assemblages, including all materials recovered from soil flotation when samples have been taken. Soil samples and recovered fractions must be retained as part of the collection until they have been processed and sorted.
3. For unstable artifacts (individual or classes) with a high risk of deterioration and loss of interpretive integrity in storage, record condition and document as needed any additional information that may be lost (e.g. measurements of nails, graphic reproduction of faint writing or surface decoration).
4. For large assemblages of unstable artifact classes (e.g. nails) measuring 100 specimens per meaningful context (i.e. temporally

discrete feature or associated with a specific structure or functional area) will provide meaningful documentation to augment basic counts.

5. The report must include an artifact catalogue. In addition, artifact documentation may be reported as tables in text.
6. The catalogue must correspond to the packed collection (e.g. contents of each box listed in the catalogue) and provide information on artifact type and provenience for future researchers' reference.
7. The report must include the size of the collection (e.g. number and size of boxes), and long-term curation plans.

Aboriginal Artifacts

| Material/Artifact Type | Standards Required documentation and analysis | Guidelines Optional documentation and analysis |
|--|--|---|
| <p>Stone: Lithic Debitage (unretouched flakes and shatter) Objective is to document lithic industry or activities represented, e.g.:</p> <ul style="list-style-type: none"> • Quarrying • Initial reduction • Tool manufacture • Tool maintenance • Domestic activities | <p>Debitage categories must correspond to:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Analytical procedures established in the literature, citing the relevant source, or <input checked="" type="checkbox"/> If not using categories established in the literature, the following descriptive categories: <ul style="list-style-type: none"> • Reduction sequence (e.g. primary, secondary, cortical removal) • Tool thinning (e.g. biface or uniface maintenance or refinement) • Channel flakes • Fragments • Shatter/block <input checked="" type="checkbox"/> In addition, provide counts for each flake category by: <ul style="list-style-type: none"> • Excavation unit/feature context • Raw material • Number of specimens exhibiting heat alteration | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Detailed flake type identifications, e.g.: <ul style="list-style-type: none"> • Stages of reduction sequence • Presence of cortex • Tool edge retouch <input checked="" type="checkbox"/> Flake measurements (length/width/thickness) <input checked="" type="checkbox"/> Presence or absence of striking platforms and platform angle <input checked="" type="checkbox"/> Weight and/or volume <input checked="" type="checkbox"/> Colour <p>Sampling:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Complete debitage analysis is required for all Paleo-Indian and Early Archaic archaeological sites. <input checked="" type="checkbox"/> Stage 4 excavation reports for all other site types may provide category descriptions for a sample of debitage. For the remainder of the assemblage, only counts by raw material per excavation unit/cultural feature and heat alteration are required. <input checked="" type="checkbox"/> Sampling may be used only for archaeological sites where the overall debitage assemblage is above 1000 |

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| | | <p>specimens.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sampling may not be used to reduce the minimum debitage analysis to less than 1000 specimens described overall. <input checked="" type="checkbox"/> Sampling must ensure representation from all meaningful contexts (e.g. cultural features, individual spatial or functional areas such as within a longhouse or across a block of excavation units) across a site. <input checked="" type="checkbox"/> Sampling strategies may differ by site and assemblage and may be determined based on professional judgement. The strategy adopted must be cited and supported in the report. |
| <p>Stone: Formal Lithic Artifact Types Includes:</p> <ul style="list-style-type: none"> • Scrapers, perforators, knives, cache blades, formal bifaces and unifaces, points | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts of each type by: <ul style="list-style-type: none"> • Excavation unit/feature context • material • Sub-type (e.g. end or side scrapers, point types) • Measurements (length/width/thickness) • Relevant measurements associated with hafting elements | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Analysis of edge/hafting to determine function <input checked="" type="checkbox"/> Description and measurements of tool edges <input checked="" type="checkbox"/> Weight and/or volume <input checked="" type="checkbox"/> Use-wear analysis |

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| | <ul style="list-style-type: none"> or other distinctive elements • Heat alterations | |
| <p>Stone: Informal Lithic Artifact Types Includes:</p> <ul style="list-style-type: none"> • Cores, undiagnostic bifaces and unifaces, informal tool preforms and rejects, and fragments • Improvised tools such as utilized flakes, wedges, flake burins or spurs | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts of each type by: <ul style="list-style-type: none"> • Excavation unit/feature context • Material • Heat alterations | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sub-type identification (e.g. formal, bipolar, blade, core type, number of used edges) <input checked="" type="checkbox"/> Description and measurement of tool edges <input checked="" type="checkbox"/> Weight and/or volume <input checked="" type="checkbox"/> Use-wear analysis |
| <p>Stone: Ground, Pecked, Polished Or Other Stone Objects Includes a range of ground stone artifacts:</p> <ul style="list-style-type: none"> • Celts, adzes, axes • Mortars, matates, pestles, grinding stones, whetstones, hammer-stones • Netsinkers • Slate or other stone pendants, beads, tubes, pipes, bannerstones, birdstones • Points, knives | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts of each type by: <ul style="list-style-type: none"> • Excavation unit/feature context • Material <input checked="" type="checkbox"/> For complete specimens, provide measurements (length/width/thickness) <input checked="" type="checkbox"/> Brief identification of specific type (e.g. trihedral axe, pop-eyed birdstone). <input checked="" type="checkbox"/> If type is not recognisable, provide a brief description | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> For incomplete specimens, measurements (length/width/thickness) <input checked="" type="checkbox"/> Weight and/or volume <input checked="" type="checkbox"/> Description of use edges, bore holes |
| <p>Stone: Fire-Cracked Rock</p> | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Frequencies by excavation unit/feature context | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Weight and/or volume of fire cracked rock recovered per unit |

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| | | <input checked="" type="checkbox"/> Identification of materials |
| Ceramics: Rim Sherds | <input checked="" type="checkbox"/> Counts by: <ul style="list-style-type: none"> • Excavation unit/feature context • Decorative method or attributes • Construction method (e.g. coil breaks, paddle-and-anvil) • “Juvenile” vessel fragments <input checked="" type="checkbox"/> For vessels and complete rims (interior, lip through to shoulder) record: <ul style="list-style-type: none"> • MacNeish/Wright Types or other established typologies, citing the relevant source • Rim profiles | <input checked="" type="checkbox"/> Measurements of rims <input checked="" type="checkbox"/> Surface treatment <input checked="" type="checkbox"/> Weight <input checked="" type="checkbox"/> Mouth circumference <input checked="" type="checkbox"/> Interior residue analysis <input checked="" type="checkbox"/> Temper and construction <input checked="" type="checkbox"/> Minimum Vessel Counts or Estimated Vessel Equivalents by contextual units (e.g. middens, houses), by attribute/type |
| Ceramics: Neck through Shoulder Sherds | <input checked="" type="checkbox"/> Counts of each type by: <ul style="list-style-type: none"> • Excavation unit/feature context • Decorative method or attributes • Construction method (e.g. coil breaks, paddle-and-anvil) • “Juvenile” vessel fragments | <input checked="" type="checkbox"/> Surface treatment <input checked="" type="checkbox"/> Weight <input checked="" type="checkbox"/> Temper and construction |
| Ceramics: Body Sherds | <input checked="" type="checkbox"/> Counts of each type by: <ul style="list-style-type: none"> • Excavation unit/feature context • Construction method (e.g. coil | <input checked="" type="checkbox"/> Weight by unit total <input checked="" type="checkbox"/> Temper description |

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| | breaks, paddle-and-anvil) <ul style="list-style-type: none"> • Surface treatment • “Juvenile” vessel fragments • Fragmentary sherds | <input checked="" type="checkbox"/> Interior treatment |
| Ceramics: Pipes Includes: <ul style="list-style-type: none"> • Complete pipes • Bowl and stem fragments | <input checked="" type="checkbox"/> Counts of bowl and stem fragment frequencies by: <ul style="list-style-type: none"> • Excavation unit/feature context • Bowl form type <input checked="" type="checkbox"/> Description of decoration on bowls and stems <input checked="" type="checkbox"/> Stem profile shape <input checked="" type="checkbox"/> Measurements of complete specimens | <input checked="" type="checkbox"/> Measurements of fragments <input checked="" type="checkbox"/> Descriptions of boreholes <input checked="" type="checkbox"/> Bowl circumference <input checked="" type="checkbox"/> Residue analysis |
| Faunal/Shell Artifact Types Includes artifacts made wholly or partly of bone, antler or other material of animal origin, e.g.: <ul style="list-style-type: none"> • Perforating tools • Hooks, harpoons • Beads, pendants, combs | <input checked="" type="checkbox"/> Counts of each type by: <ul style="list-style-type: none"> • Excavation unit/feature context • Material <input checked="" type="checkbox"/> Description of use edges, bore holes <input checked="" type="checkbox"/> If type is not recognisable, provide a brief description <input checked="" type="checkbox"/> Measurements of complete specimens | <input checked="" type="checkbox"/> Measurements of fragmentary specimens <input checked="" type="checkbox"/> Weight <input checked="" type="checkbox"/> Species identification |
| Indigenous Metals | <input checked="" type="checkbox"/> Counts of each type by: | <input checked="" type="checkbox"/> Use-wear analysis |

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| | <ul style="list-style-type: none"> • Excavation unit/feature context • Material • Object (e.g. celt, adze, scrap) • Measurements (length/width/thickness) • Weight | |

European and Other Non-Aboriginal Manufactured Artifacts

| Material/Artifact Type | Standards Required documentation and analysis | Guidelines Optional documentation and analysis |
|--|--|---|
| <p>Ceramics</p> <ul style="list-style-type: none"> • Includes undecorated sherds, decorated sherds and rim sherds (sherds include complete or nearly complete objects) | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts for excavation context by: <ul style="list-style-type: none"> • Type and colour (e.g. earthenware, stoneware, porcelain, pearlware, ironstone) • Glaze type (e.g. saltglaze, unglazed) • Decorative technique and colours • Functional object when known (e.g. cup, saucer, plate, bowl, inkwell, chamber pot, teapot) <input checked="" type="checkbox"/> Description of maker's marks or other manufacturer's information where evident <input checked="" type="checkbox"/> Date ranges <input checked="" type="checkbox"/> Heat altered items <input checked="" type="checkbox"/> For both formal typologies and reference to date ranges, cite the relevant source | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Minimum vessel counts <input checked="" type="checkbox"/> Measurements <input checked="" type="checkbox"/> Vessel size or circumference <input checked="" type="checkbox"/> Vessel profiles |
| <p>Glass</p> <ul style="list-style-type: none"> • Includes bottles, glassware, window glass, other household and personal objects (e.g. chimney glass, beads, buttons) | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts for excavation context by: <ul style="list-style-type: none"> • Functional type (e.g. platter, bowl, medicine bottle, soda bottle) • Colour • Technique of manufacture | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Minimum vessel counts <input checked="" type="checkbox"/> Measurements (for window glass, this may be measurement of total area) <input checked="" type="checkbox"/> Decorative patterns <input checked="" type="checkbox"/> Vessel profiles |

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|---|---|---|
| | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Description of maker's marks or other manufacturer's information where evident <input checked="" type="checkbox"/> Description of categories (e.g. trade beads) <input checked="" type="checkbox"/> Date ranges <input checked="" type="checkbox"/> For both formal typologies and reference to date ranges, cite the relevant source | |
| <p>All Other Inorganic, Organic and Composite Artifacts</p> <ul style="list-style-type: none"> • Includes metals, stone, plaster, bone, shell, ivory, horn, rubber, wood, leather, textiles, paper, plastics and other synthetics | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts for excavation context by: <ul style="list-style-type: none"> • Material (or materials if composite) • Technique of manufacture • Surface finish, decorative techniques where evident • Object type • Functional category <input checked="" type="checkbox"/> Description of maker's marks or other manufacturer's information where evident <input checked="" type="checkbox"/> Description of categories (e.g. military hardware; coins) <input checked="" type="checkbox"/> Date ranges <input checked="" type="checkbox"/> Heat altered items <input checked="" type="checkbox"/> For unidentified scrap and fragments, | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Weight <input checked="" type="checkbox"/> Measurements <input checked="" type="checkbox"/> Decorative patterns |

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| | record counts by excavation context by material <input checked="" type="checkbox"/> For both formal typologies and reference to date ranges, cite the relevant source | |
| Sampled Classes of Artifacts <ul style="list-style-type: none"> • Includes architectural materials sampled in the field (e.g. brick, plaster, coal, slag, clinker) | <input checked="" type="checkbox"/> Description of retained material <input checked="" type="checkbox"/> Count of retained material | |

Specialist Studies – Stage 4 Excavation only

Full documentation of a site subjected to Stage 4 mitigation by excavation must include as a minimum the following analysis. The licensee is responsible for ensuring that the analyst conducting the analysis is a knowledgeable expert in the appropriate field. Analysis must be based on the recovered assemblage from both excavation and processed flotation samples (light and heavy fractions) taken from feature contexts.

| Material type/description | Standards Required documentation and analysis | Guidelines Optional documentation and analysis |
|----------------------------------|--|---|
| Faunal Remains | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts by excavation context, identified to the lowest identifiable taxon. <input checked="" type="checkbox"/> Heat altered specimens | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Element identification <input checked="" type="checkbox"/> Bone modifications or cut marks <input checked="" type="checkbox"/> Species seasonality and range <input checked="" type="checkbox"/> Minimum Number of Individuals (MNI) or Minimum Number of Elements (MNE) estimates <p>Sampling:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> For non Paleo-Indian or Archaic faunal assemblages of over 500 specimens, sampling may be used to reduce the scale of analysis. <input checked="" type="checkbox"/> For the remainder of the faunal material from these sampled contexts, only identification to class is required. <input checked="" type="checkbox"/> Sampling may not be used to reduce the minimum to less than 500 specimens described overall. <input checked="" type="checkbox"/> Sampling must ensure representation from all meaningful contexts (e.g. cultural features, individual spatial or |

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| | | <p>functional areas such as within a longhouse or across a block of excavation units) across a site, and by representation of taxa.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sampling strategies may differ by site and assemblage and may be determined based on professional judgement. The strategy adopted must be cited and supported in the report. <input checked="" type="checkbox"/> The report must indicate how diversity and frequency has been sampled for across animal classes and element sizes. |
| <p>Floral Remains</p> | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Counts by excavation context, identified to the lowest identifiable taxon. <input checked="" type="checkbox"/> Carbonized wood: when available, identify tree species for 10 specimens per excavation unit/feature context | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Wood, plant and seed weights <input checked="" type="checkbox"/> Species seasonality and range <input checked="" type="checkbox"/> Provide environmental reconstructions based on identified material <input checked="" type="checkbox"/> Identify cultural uses for the plants identified <p>Sampling:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> For large floral assemblages of over 100 specimens, sampling may be used to reduce the scale of analysis. <input checked="" type="checkbox"/> For the remainder of the floral material from these sampled |

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| | | <p>contexts, only identification to class is required.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sampling may not be used to reduce the minimum to less than 100 specimens described overall <input checked="" type="checkbox"/> Sampling must ensure representation from all meaningful contexts (e.g. cultural features, individual spatial or functional areas such as within a longhouse or across a block of excavation units) across a site, and by representation of taxa. <input checked="" type="checkbox"/> Sampling strategies may differ by site and assemblage and may be determined based on professional judgement. The strategy adopted must be cited and supported in the report. <input checked="" type="checkbox"/> The report must indicate how diversity and frequency has been sampled for. |
| <p>Radiocarbon Dates</p> <p>This is only required for Stage 4 excavations when:</p> <ul style="list-style-type: none"> • Material has been recovered in sufficient quantity to lend itself to radiocarbon dating (e.g. organic, | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Documentation through two dates from short-lived organic material <input checked="" type="checkbox"/> Samples must be from well documented, sealed deposits (e.g. cultural features, post moulds, middens), either recovered during excavations or from flotation material | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> A single date may suffice for Late Woodland sites, based on professional judgement <input checked="" type="checkbox"/> A suite of dates if circumstances and site allow |

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| carbonized) and <ul style="list-style-type: none"> • Dating will be of value to site interpretation (i.e. pre-contact site) | <input checked="" type="checkbox"/> If multiple radiocarbon samples are available for future additional dating, these samples must be collected, preserved to avoid contamination and kept with the site collections | |
| Other Studies | | <input checked="" type="checkbox"/> Other specialist studies may be undertaken based on professional judgement. <input checked="" type="checkbox"/> Reports of conservation of unstable artifacts as appropriate. |