Appendix A: General Artifact Form

This form records basic information about each artifact. Some artifacts will be recorded only on this form; others have details that are recorded on supplemental forms. Table A.1 is an example of a form for recording artifact attributes. Table A.2 lists suggested codes for this form.

ARTIFACT ATTRIBUTE EXPLANATIONS

Artifact Number. Every artifact should be recorded on this form with a unique artifact number.

Artifact Types and Subtypes as defined in this book. Codes can be added for artifacts not described in this book.

Condition. An artifact is considered whole even if it has been chipped. If the artifact is broken but the measurements for the whole can still be obtained, it can be treated as a whole artifact in summary descriptions. If fragments can be rejoined, they are counted as a single artifact. Some items, such as pigment and raw material for temper, are best considered samples, rather than counting fragments.

Burned. A burned artifact may be detected by a color change created by oxidation, smoke-blackening, or the presence of carbonized residue. A heat-cracked artifact may not be easy to distinguish from one broken by impact if it is not oxidized or blackened.

Shape describes the general shape of the artifact. This variable is most useful for remembering specific artifacts and has little analytical value.

Texture can be standardized so that rocks with grains of less than 1 mm are considered fine, 1–2 mm are medium, 2–4 mm are coarse, and larger than 4 mm are conglomerate. Rocks and minerals without macroscopically visible grains have no texture. Small vesicles are less than 2 mm; large are greater than 2 mm.

Manufacturing is an attempt to record the location and nature of damage created by manufacturing techniques. Categories can be added as needed. The purpose is to get the analyst to thoroughly examine the artifact and decide if it is of expedient or strategic design.
Design records whether an artifact is expeditiously or strategically designed. If the only manufacturing damage is on the use surface, it is expeditiously designed. If there is additional shaping to make a tool comfortable to hold, to create a shape not essential to its function, or to improve its appearance, then it is strategically designed.

Use records primary and secondary use categories. Single-use artifacts were used only in the activity for which they were designed. Reused tools were used secondarily in the same general task but in a slightly different way that did not impact tool design. Multiple-use tools were designed for use in more than one activity at a time. Redesigned artifacts were redesigned for secondary use and may not be usable in their primary function. Recycled artifacts were removed from tool use altogether. More detail is provided on these categories in the book.

Secondary Use uses the artifact type code to record the artifact’s second use.

Sequence refers to the sequence of secondary use. This is not applicable to those items used only in the activity for which they were designed. Sequential secondary use means the item was no longer usable in the activity for which it was originally designed. Concomitant secondary use means that the item was usable in both primary and secondary tasks.

Designed Activity codes the activity for which the artifact was designed. The artifacts described in the book are sorted into activity categories.

Actual Activity codes the activity in which the artifact was actually used. This determination involves use-wear analyses, residue analyses, and kinematic evaluations.

Measurements. Many of the illustrations in the book show the best places to take artifact measurements. Measurements should always be taken from the same locations on each artifact type, even if on a particular piece the greatest measurement is not the “length.”

Number of Used Surfaces keeps track of the location and orientation of used surfaces. This is not applicable to all artifact types.

Use Level standardizes the amount of wear the tool as a whole has received.

Contact Type records the interpretation of the use-wear analysis. This can be very general, such as hard, pliable, soft, etc., or more specific, such as stone-against-stone, stone-against-hide, etc., depending on the level of identification confidence and access to comparative collections.

Residues helps keep track of pigment, clay, carbon, and other residues.

Residue Color uses the Munsell Soil Color chart to standardize color terms. Use only to code pigment colors and use the chart consistently in the same light.
Rock Type codes should be selected that reflect the rock types recovered from the site.

Provenance codes can be as general as riverbed, bedrock, or talus slope or as specific as a mountain or point source with a mapped location.

Comments tracks whether or not there are additional notes about the artifact. Because coding forms are incapable of covering all possibilities, comments should be written about each artifact. Comments need not duplicate the data recorded on the forms but can explain minor variations or expand on unusual attributes.
Table A.1: Ground Stone Analysis Form: General Artifact Form

| Common | Provenance | Rock Type | Residue Color | Residue | Container Type | Use Level | Lid/Sealed | Use Level | secondary Use Sequence | Designed Activity | Actual Activity | Manufactured | Texture | Shape | Bound | Condition | Surface | Artifact Type | Artifact Number | Feature Name | Site Number/Project |
|--------|------------|-----------|---------------|---------|----------------|-----------|------------|-----------|------------------------|------------------|----------------|--------------|---------|-------|--------|---------|----------|---------|--------------|----------------|-------------|----------------|
Table A.2. Examples of Coding for General Artifact Form

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percussion Tools</td>
<td>16. anvil; 381. billet; 7. chisel; 62. chopper; 18. cupped stone; 81. hammerstone; 9. pecking stone; 8. pottery anvil; 82. pulping stone; 83. digging tool.</td>
</tr>
<tr>
<td>Hafted Percussion Tools</td>
<td>28. adze; 20. axe; 22. hoe; 21. maul; 27. pick.</td>
</tr>
<tr>
<td>Spinning Tools</td>
<td>19. fire-drill hearth; 25. spindle base; 23. whorl.</td>
</tr>
<tr>
<td>Slicing, Scraping, and Perforating Tools</td>
<td>123. awl/pin; 68. file; 140. graver; 61. plane; 60. reamer; 110. saw; 6. tabular tool.</td>
</tr>
<tr>
<td>Paraphernalia</td>
<td>48. ball; 71. bell stone; 126. cruciform; 57. cylinder; 121. disk; 26. donut stone; 50. figurine; 2. geometric; 54. grooved stone; 70. lightning stone; 66. loop; 44. medicine stone; 98. natural shape; 124. offering; 49. ornament; 85. paddle; 200. painted rock; 14. palette; 55. pigment; 46. pipe; 156. plaque; 45. plummet/weight; 150. rasp; 122. shaped; 47. tube.</td>
</tr>
<tr>
<td>Containers and Container Parts</td>
<td>136. concretion; 96. crystal; 130. fossil; 135. gizzard stone; 97. mineral; 300. rock.</td>
</tr>
<tr>
<td>Structural</td>
<td>51. architectural; 105. firedog/trivet; 40. cooking slab; 41. griddle; 43. loomblock; 42. pikistone.</td>
</tr>
<tr>
<td>Other Codes</td>
<td>99. not an artifact; 100. fire-cracked rock; 137. manufacture debris; 255. raw material; 75. unidentified.</td>
</tr>
</tbody>
</table>
Examples of Coding for General Artifact Form (continued)

Subtype

Abraders
30. flat; 41. faceted, flat; 36. flat and single V groove; 37. flat and single U groove; 38. flat and multiple V grooves; 39. flat and multiple U grooves; 40. flat and both V and U grooves; 33. multiple V grooves; 34. multiple U grooves; 35. both 1V and 1U grooves; 31. single V groove; 32. single U groove; 270. edge abrader; 80. notched abrader; 172. blank; 4. indeterminate.

Architectural
152. bin stone; 150. building stone; 186. chink; 158. floor stone; 151. hearth stone; 154. lintel; 153. ring; 156. splash stone; 157. support; 155. threshold; 4. indeterminate.

Awls
43. flat; 46. hairpin; 42. needle (no head); 41. pin (headed); 4. indeterminate; 404. batten.

Axe and Adze Heads
87. blank; 81. full groove; 99. full—double bit; 86. incomplete groove; 80. notched; 82. 3/4 groove; 89. 3/4—double bit; 88. 3/4 and wedge groove; 175. 3/4 groove and poll ridge; 176. 3/4 groove and bit ridge; 177. 3/4 groove and both ridges; 83. 5/8 groove; 84. spiral groove; 85. regrooved; 4. indeterminate.

Balls
172. blank; 121. 1 flat side; 122. 2 flat sides; 124. concretion; 4. indeterminate; 123. irregular; 9. other; 120. spherical.

Choppers
172. blank; 240. expedient; 241. hand axe; 4. indeterminate; 80. notched; 385. pulping stone.

Containers/Bowls/Vessels/Trays
92. effigy—flat bottom; 93. effigy—round bottom; 96. incised—flat bottom; 97. incised—round bottom; 4. indeterminate; 90. plain—flat bottom; 91. plain—round bottom; 94. shaped—flat bottom; 95. shaped—round bottom; 98. tray—plain; 99. tray—bifurcate.

Cylinders/Plummets/Medicine Stones
118. bilobed; 111. conical; 114. conical and groove; 117. conical and head; 110. cylindrical; 113. cylindrical and groove; 116. cylindrical and head; 119. geometric; 4. indeterminate; 112. parabolic; 115. parabolic and groove.
Examples of Coding for General Artifact Form (continued)

Disks/Whorls/Donut Stones
131. whorl—concave; 130. whorl—flat; 138. disk—unperforated; 134. donut—biconcave; 136. donut—basin (incomplete perforation); 137. donut—biconvex; 133. donut—concave; 132. donut—flat; 135. donut—unperforated; 250. perimeter groove ring; 4. indeterminate.

Figurines
142. animal; 143. animal part; 146. bird; 145. bird part; 140. human; 141. human part; 144. natural; 147. morphic; 4. indeterminate.

Handstones/Manos
1. basin; 5. blank; 3. flat; 7. flat/concave; 225. hide processing; 6. multiple; 226. polishing; 2. trough; 9. other.
77. blank; 72. boulder; 73. bowl; 76. disk; 98. knobbed; 70. pebble; 71. rock; 74. shaped—anthropomorphic; 73. shaped bowl; 78. shaped—zoomorphic; 401. tray—bifurcate; 400. tray—plain; 4. indeterminate.

Natural
142 animal; 12. cylindrical; 515. layered; 14. pebble; 120 spherical; 4. indeterminate.

Netherstones/Metates/Grinding Slabs/Lapstones
50. basin; 160. basin—open; 162. basin—3/4; 172. blank; 55. flat; 58. flat/concave; 53. trough—closed; 51. trough—open; 52. trough—3/4; 54. trough—Utah; 59. trough—indeterminable; 4. indeterminate.

Palettes
62. anthropomorphic; 64. blank; 61. raised border; 60. flat border; 63. zoomorphic.

Personal Ornaments
304. bead—barrel; 308. bead—bilobe; 305. bead blank; 315. bead—convex; 309. bead—cuboid; 302. bead disk; 306. bead—irregular; 316. bead—planoconvex; 307. bead—teardrop; 300. bead—tube; 303. bead—zoomorphic; 350. blank; 325. bracelet—C; 320. bracelet—ring; 331. button; 340. figurine—2 dimensional; 332. plug; 341. figurine—3 dimensional; 34. geometric; 148. mica disk; 330. mosaic tesserae; 370. necklace; 313. pendant—blank; 314. pendant—inlay; 310. pendant—2 dimensional; 311. pendant—3 dimensional; 326. ring—C; 321. ring—finger; 334. spool; 333. toggle; 360. whizzer; 312. zoomorphic inlay; 4. indeterminate.

Pestles
Examples of Coding for General Artifact Form (continued)

Pigment
602. cake; 510. processed; 505. parent—pigment.

Pipes/Tubes
104. conical—biconical hole; 100. conical—conical hole; 101. conical—cylindrical hole; 105. cylindrical—biconical hole; 102. cylindrical—conical hole; 103. cylindrical—cylindrical hole; 106. elbow; 108. globular—biconical hole; 109. globular—cylindrical hole; 4. indeterminate; 110. other.

Polishers
26. disk; 27. faceted; 23. floor; 24. handstone; 20. pebble—surface;
21. pebble—edge; 22. pebble; 4. indeterminate.

Pottery Anvils
250. grooved; 251. handled; 252. plain.

Planes
221. backed; 220. hafted; 4. indeterminate.

Raw Material
601. altered; 507. blank; 506. debitage; 500. ornament; 502. ornament/pigment; 508. parent temper; 501. pigment; 503. temper; 504. tools; 600. unaltered.

Tabular Tools
221. backed; 207. edge and surface; 214. hafted; 200. 1 straight edge;
204. 1 concave edge; 202. 1 convex edge; 209. 1 irregular edge; 203. more than 1 convex edge; 205. more than 1 concave edge; 210. more than 1 irregular edge; 201. more than 1 straight edge; 206. multiple edges; 213. multiple surfaces; 216. notched for fiber straightening; 215. shaped but not used; 212. too fragmentary. If more than one of these apply, record the most salient and describe the rest in notes.

Condition
1. whole; 7. conjoined fragments; 9. fragments to one item; 4. indeterminate;
6. measurable; 2. more than 1/2; 3. less than 1/2; 8. reused fragment; 11. sample;
5. reconstruct whole.

Burned
4. after use total; 5. after use partial; 3. before use; 7. before and after use;
8. before second use; 2. from use; 6. heat cracked; 9. indeterminate; 1. no.

Shape
11. bilobe; 17. broken; 7. conical; 15. crescent; 6. cylindrical; 13. diamond;
5. triangular.
Examples of Coding for General Artifact Form (continued)

Texture
2. coarse; 6. coarse and fine; 5. coarse and medium; 1. conglomerate;
12. fibrous; 4. fine; 7. fine and medium; 3. medium; 11. no texture; 8. vesicles—
large; 9. vesicles—small; 10. vesicles—large and small.

Manufacturing
10. carved; 16. chipped; 15. chipped and ground; 11. chipped for hafting;
3. ground; 17. ground and incised; 19. ground edge only; 5. ground perimeter;
24. ground surface only; 9. ground stone hold; 38. incised; 1. natural; 8. pecked,
ground, and polished; 2. pecked to hold; 30. pecked and ground; 2. pecked edge
only; 23. ground for stability; 20. pecked perimeter; 18. pecked for stability;
14. pecked to hold; 13. pecked surface only; 21. pecked surface and to hold;
7. pecked and polished; 6. polished; 4. indeterminate; 28. scored and snapped.

Design
1. expedient; 2. strategic; 4. indeterminate; 3. not applicable; 5. incomplete.

Use
8. destroyed; 3. multiple use; 2. reused; 5. recycled; 6. redesigned; 1. single;
7. unused; 4. indeterminate.

Secondary Use. Insert artifact type code.

Sequence
1. sequential; 2. concomitant; 5. both; 3. not applicable; 4. indeterminate.

Designed Activity
1. food processing; 2. general processing; 3 percussion; 12. abrading; 5. pol-
ishing; 6. cutting/scraping; 15. perforating; 7. ornamentation; 8. representation;
9. paraphernalia; 14. resource; 13. smoothing; 10. structural; 11. specimens
(samples); 4. indeterminate.

Actual Activity
1. food processing; 2. general processing—pigment; 3. general processing—
other; 12. manufacture—pottery; 5. manufacture—stone; 6. manufacture—wood/
bone; 7. manufacture—other; 10. multiple; 11. other; 8. procurement; 19. ritual;
20. symbolic; 12. unused; 4. indeterminate.

Length.
Generally measured at greatest dimension, although some artifact types have
specific locations for measurements as illustrated in the text.

Width.
Generally measured perpendicularly to the length measurement, although some
artifact types have specific locations for measurements as illustrated in the text.
Examples of Coding for General Artifact Form (*continued*)

**Thickness.**
Generally measured at a right angle to the length and width measurements, although some artifact types have specific locations for measurements as illustrated in the text.

**Weight**

**Number of Used Surfaces**
1. one; 2. two opposite; 3. two adjacent; 8. three opposite and adjacent;
5. four—two adjacent each side; 6. multiple surfaces; 11. corner; 9. one edge;
10. edge and corner; 12. multiple edges; 4. indeterminate; 7. not applicable.

**Use Level**
1. light; 2. moderate; 3. heavy; 7. nearly worn out; 5. worn out; 6. not applicable;
4. indeterminate; 8. unused.

**Contact Type**
3. bone; 11. hard; 8. hide; 4. indeterminate; 7. multiple; 20. not applicable;

**Residues**
7. caliche; 6. carbon; 2. clay; 4. indeterminate; 5. none; 1. organic; 11. other;
3. pigment; 8. pigment and caliche.

**Residue Color—Munsell Values**
1. 10R4/6; 2. 10R4/8; etc.

**Rock Type**
1. sedimentary; 10. sandstone; 11. silt stone; 2. metamorphic; 20. quartzite;
21. argillite; 3. volcanic; 30. basalt; 31. tuff; etc.

**Provenance**
1. Santa Cruz River bed; 2. Rillito Creek bed; 3. Tucson Mountains; 4. Tortolita Mountains; etc.

**Comments**
1. yes; 2. no.
Appendix B: Handstone Form

This form records details about handstones, including manos, abraders, polishers, and any stone that is held in the hand during operation. Table B.1 is an example of a form for recording handstone attributes. Table B.2 lists suggested codes for this form.

ARTIFACT ATTRIBUTE EXPLANATIONS
Artifact Number from the General Artifact Form.
Artifact Type and Subtype from the General Artifact Form.
Surface Number keeps track of which surface or edge is being recorded. The largest or most worn surface or edge is recorded as number 1. The written comments kept about each artifact can help track the locations of surface or edge numbers.

Grips/Grooves keeps track of the nature and location of finger grips, grooves, notches, handles, and other methods of holding artifacts. Grips are roughened areas, grooves have depth, and notches are not as long as grooves. Some artifacts have been ground to make them comfortable to hold; others were prepared for handle attachment or had holes drilled to secure leather backing.

Surface Wear records the condition of wear on each surface or edge. A separate line on each form should be filled out for each used surface or edge. If wear is barely visible on the surface, it is light. If it is easy to see but does not alter artifact shape, it is moderate. If the wear alters the artifact shape, it is heavy.

Surface Configuration records the general shape of the surface or edge. For example, some surfaces are flat from end-to-end and convex edge-to-edge. Abrader grooves may have been worn in a uniform manner, or they may have been used in such a way that they are deeper toward the end. Some edges are serrated.

Surface Texture records the nature of the use surface. A coarse-grain material can be worn smooth and then resharpened by pecking to restore the roughness of the stone. This attribute helps the analyst decide the nature of the contact surface and assess the use of wear-management strategies.
Table B.1. Ground Stone Analysis Form: Handstone Form

<table>
<thead>
<tr>
<th>Project</th>
<th>Site Number/ Name</th>
<th>Feature Number</th>
<th>Artifact Number</th>
<th>Artifact Type</th>
<th>Subtype</th>
<th>Surface Number</th>
<th>Grips/ Grooves</th>
<th>Surface Wear</th>
<th>Surface Configuration</th>
<th>Surface Texture</th>
<th>Wear Level</th>
<th>Wear Type</th>
<th>Contact Type</th>
<th>Stroke</th>
<th>Compatible</th>
<th>Residues</th>
<th>Surface Length cm</th>
<th>Surface Width cm</th>
</tr>
</thead>
</table>
Wear Level is an assessment combining both macroscopic and microscopic observations. Like surface texture, this attribute helps the analyst evaluate the nature of the contact surface. The Chapter 2 discussion of use-wear analysis explains why these are important attributes to observe.

Wear Type is another assessment that relies on both macroscopic and microscopic observations. It records the nature of the damage from the mechanisms described in Chapter 2.

Contact Type is the same code as on the General Artifact Form if the artifact was only used in one activity. If the artifact was secondarily used, this code will be different when it is recording the surface or edge that was used in the secondary activity.

Stroke records the type of motor habits used with the artifact. Reciprocal strokes move the tool primarily in back-and-forth motions. Circular strokes move the tool in rotational motions around a surface. Flat strokes maintain the tool in full contact with the opposing surface at all times. Rocking strokes lift either the proximal or the distal edge away from the opposing surface at some point in the motion. Crushing motions use pressure and the weight of the stone; pounding motions are more forceful, involving more muscle and lift of the stone. Pecking strokes are at more of an angle than crushing or pounding strokes.

Compatible records the analysis number of any other artifact that might have been used with the artifact being recorded. For example, some manos are compatible with certain metates and not others. Compatible means that the size, configuration, and use wear match on both tools.

Residues records the nature of visible residues. Some residues are probably remnant from burial. Others may be related to use, and this code allows for tracking items that may require further investigation. This variable is also recorded on the General Artifact Form but refers here to the specific surface.

Surface Length and Surface Width are two measurements taken on the surface so that we can understand how much was actually involved in wear.
Table B.2. Coding for Handstone Form

Unique Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Surface Number.  
Number of the surface for which attributes are being recorded. If more than one,  
surface 1 is generally the largest or most used.

Grips/Grooves
1. no; 3. grip—1 edge; 7. grip—2 edges; 2. groove—1 edge; 13. groove—  
2 edges; 11. groove—encircling; 12. ground to fit hand; 8. handle; 9. notched;  
4. too worn; 10. wear only; 5. not applicable; 6. indeterminate.

Surface Wear
1. light; 2. moderate; 3. heavy; 4. unused; 5. indeterminate; 6. not applicable.

Surface Configuration
15. basin; 9. concave all over; 8. concave—end-to-end, flat—edge-to-edge;  
4. convex all over; 13. edge; 14. edge—serrated; 1. flat all over; 3. flat—  
edge-to-edge, convex—end-to-end; 2. flat—end-to-end, convex—edge-to-edge;  
11. groove—not to end; 5. groove—uniformly worn; 6. groove—worn more on  
the end; 7. irregular; 10. variable; 12. indeterminate.

Surface Texture
4. coarse; 2. fine; 3. medium; 5. mixed; 6. resharpened; 7. resharpened—worn;  
10. rough from manufacture; 1. smooth; 8. not applicable; 9. indeterminate.

Wear Level
1. highs only; 2. highs and lows; 3. smooth spots; 4. smooth all over; 5. indeter-
minate; 6. unused.

Wear Type
1. abrasion; 5. abrasion and impact fractures; 15. abrasion, impact fractures, and  
chips; 22. abrasion and rounding; 7. abrasion and sheen; 3. chips; 8. chips and  
impact fractures; 23. chips and rounding; 10. chips and sheen; 2. impact frac-
tures; 9. impact fractures and sheen; 17. impact fractures and rounding; 12. man-
ufacture only; 11. multiple; 13. rounding; 18. rounding and sheen; 4. sheen;  
19. indeterminate.

Contact Type
7. multiple; 3. bone; 11. hard; 4. hide; 6. other; 9. pliable; 5. pottery; 12. resil-
ient; 10. soft; 13. soil; 1. stone; 2. wood; 8. indeterminate.
Coding for Handstone Form (continued)

Stroke

Artifact number of any compatible artifact.

Residues
7. caliche; 6. carbon; 2. clay; 9. multiple; 13. iron; 5. none; 1. organic; 20. paint; 3. pigment; 8. pigment and indeterminate; 4. indeterminate.

Surface Length.
Dimension of the working surface oriented concurrent with the length of the tool.

Surface Width.
Dimension of the working surface oriented concurrent with the width of the tool.
This form records details about netherstones, lapstones, metates, anvils, bowls, mortars, and so on. Table C.1 is an example of a form for recording netherstone attributes. Table C.2 lists suggested codes for this form.

ARTIFACT ATTRIBUTE EXPLANATIONS

Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Surface Number records the number of the surface for which attributes are being recorded. Generally the largest or most heavily used surface is recorded first.

Surface Coverage records the extent and nature of the surface. In some cases, this helps the analyst recognize the size and configuration of the handstone or other artifact used with the netherstone.

Surface Wear records the wear on each surface. A separate line on each form should be filled out for each used surface. If wear is barely visible on the surface, it is light. If it is easy to see but does not alter artifact shape, it is moderate. If the wear alters the artifact shape, it is heavy.

Surface Configuration records the general shape of the surface. For example, some surfaces are flat end-to-end and concave edge-to-edge. This variable helps the analyst understand the nature of the handstone and the type of stroke used against the netherstone.

Surface Texture records the nature of the use surface. A coarse-grain rock can be worn smooth and then resharpened by pecking to restore the roughness of the stone. This attribute helps the analyst decide the nature of the contact surface and assess the use of wear-management strategies.

Surface Manufacture records the nature of visible damage created by the manufacturing techniques used to shape the surface. If use has obliterated all evidence, then record as indeterminate.
<table>
<thead>
<tr>
<th>Date:</th>
<th>Project/ Site Number/ Name</th>
<th>Feature Number</th>
<th>Artifact Number</th>
<th>Artifact Type</th>
<th>Subtype</th>
<th>Surface Number</th>
<th>Surface Coverage</th>
<th>Surface Wear</th>
<th>Surface Configuration</th>
<th>Surface Texture</th>
<th>Surface Manufacture</th>
<th>Stroke</th>
<th>Compatible</th>
<th>Residues</th>
<th>Smoke</th>
<th>Compatible</th>
<th>Surface Phenomena</th>
<th>Surface Texture</th>
<th>Surface Configuration</th>
<th>Surface Coarse</th>
<th>Surface Wear</th>
<th>Surface Coarse</th>
<th>Surface Type</th>
<th>Artifact Type</th>
<th>Artifact Number</th>
<th>Feature Number</th>
<th>Site Number/ Project</th>
</tr>
</thead>
</table>
Stroke records the general nature of the motor habit used with the netherstone. Reciprocal strokes move across the surface in a back-and-forth motion. Circular strokes move around the stone. It is not unusual for damage from multiple stroke directions to be visible.

Compatible records the artifact number of any other artifact that might have been used with the item being recorded. For example, some manos are compatible with certain metates and not others, and similarly some netherstones are compatible in surface shape and texture to have formed particular axe heads.

Residues records the nature of visible residues. Some residues are probably remnant from burial and do not need to be recorded, but notes should record the analyst’s opinion of how the residues formed. Others may be related to use, and this variable allows for tracking items that may require further investigation. This variable is also recorded on the General Artifact Form but refers here to the specific surface.

Surface Length, Surface Width, and Surface Depth record the dimensions of the used surface.

Border/Rim Width is recorded if there is one. Select a spot that looks typical.
Table C.2. Coding for Netherstone Form

Unique Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Surface Number.
Number of the surface for which attributes are being recorded. Surface 1 is generally the largest or most used.

Surface Coverage
2. border—flat; 3. border—raised; 1. complete; 6. incomplete; 4. indeterminate; 5. not applicable.

Surface Wear
1. light; 2. moderate; 3. heavy; 4. unused; 5. indeterminate; 6. not applicable; 7. destroyed.

Surface Configuration
10. basin; 7. convex; 4. concave; 1. flat all over; 3. flat—edge-to-edge, concave—end-to-end; 2. flat—end-to-end, concave—edge-to-edge; 5. irregular; 6. indeterminate.

Surface Texture
4. coarse; 2. fine; 3. medium; 5. mixed; 6. resharpened; 7. resharpened—worn; 10. rough from manufacture; 1. smooth; 8. not applicable; 9. indeterminate.

Surface Manufacture
6. natural; 5. ground to shape; 1. pecked to shape; 7. pecked and ground to shape; 2. worn to shape; 9. worn and pecked to shape; 8. worn and ground to shape; 3. combination; 6. incomplete; 4. indeterminate.

Stroke
8. chopping; 2. circular; 1. reciprocal; 7. pecking; 3. combination; 5. grinding and pecking; 6. not applicable; 4. indeterminate.

Compatible.
Artifact number of compatible tools.

Residues
7. caliche; 6. carbon; 2. clay; 1. organic; 3. pigment; 8. pigment and caliche; 4. indeterminate; 5. none.

Surface Length.
Dimension of the working surface oriented concurrent with the length of the tool.
Coding for Netherstone Form (continued)

Surface Width.
Dimension of the working surface oriented concurrent with the width of the tool.

Surface Depth.
Measured at the deepest part—variations in depth can be recorded in the notes or additional columns in the table.

Border or Rim Width.
Measured at the widest location or at a representative location, but be consistent with all artifacts measured.
Appendix D: Hafted Tool Form

This form records the details about all tools designed for hafting. Table D.1 is an example of a form for recording hafted tool attributes. Table D.2 lists suggested codes for this form.

ARTIFACT ATTRIBUTE EXPLANATIONS

Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Measurement Points: See Figure 7.3 for an illustration of where to take measurements.

Bit Length is measured from the edge of the groove to the bit edge.
Bit Width is taken at the widest point perpendicular to the length and closest to the groove.
Bit Thickness is taken at the thickest point at a right angle to the length and closest to the groove.
Bit Edge Length is taken as illustrated in the book, Figure 7.3.
Bit Edge Width is taken as illustrated in the book, Figure 7.3.
Poll Length is measured from the edge of the groove to the end of the poll.
Poll Width is taken at the widest point perpendicular to the length.
Poll Thickness is taken at the thickest point at a right angle to the length.
Groove Width is measured at the top of the groove.
Groove Depth is measured at the top of the groove.

The measurements should be taken in the same place on all axe heads. For measurements on mauls or other tools that do not have a distinct bit and poll, record the largest side of the hafting feature as the bit and the smallest as the poll. Substitute notch measurements for grooves with notched hafting features.

Bit Edge Shape records whether the bit edge has been resharpened or not. A new, unresharpened bit has the profile of an isosceles triangle. Resharpening usually creates an off-center edge.
<table>
<thead>
<tr>
<th>Date:</th>
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</thead>
</table>

Table D.1. Ground Stone Analysis Form: Hafted Tool Form

<table>
<thead>
<tr>
<th>Project Site Number/Name</th>
<th>Feature Number</th>
<th>Artifact Number</th>
<th>Artifact Type</th>
<th>Subtype</th>
<th>Bit Length cm</th>
<th>Bit Width cm</th>
<th>Bit Thickness cm</th>
<th>Bit Edge Length cm</th>
<th>Bit Edge Width cm</th>
<th>Poll Length cm</th>
<th>Poll Width cm</th>
<th>Poll Thickness cm</th>
<th>Groove Width cm</th>
<th>Groove Depth cm</th>
<th>Bit Edge Shape</th>
<th>Bit Edge Damage</th>
<th>Bit Edge Shape</th>
<th>Poll Edge</th>
<th>Subtype</th>
<th>Artifact Type</th>
<th>Artifact Number</th>
<th>Feature Name</th>
<th>Site Number</th>
</tr>
</thead>
</table>
Bit Edge Damage records the nature of the damage to the bit edge. Do not confuse manufacturing damage with use wear.

Bit Edge Sharpness records the nature of the bit edge. The edge is considered sharp if it is less than 2 mm thick, dull if it is 2 mm to 1 cm thick, rounded if thicker than 1 cm, and flattened if there is no curvature to the edge.

Usable is an interpretation of how usable the axe is currently. Usable means that the edge is sharp and has not been resharpened (similar to Figure 7.4a). Usable with resharpening means that the edge is dull and there is no prior resharpening (similar to Figure 7.4b). Resharpened—usable means that the bit has been resharpened and remains sharp (similar to Figure 7.4c). Resharpened—dull means that the bit has been resharpened but is now dull (similar to Figure 7.4d). Not usable means that the bit is no longer usable for chopping and there is no evidence of resharpening (similar to Figure 7.4e). Resharpened—not usable means the bit has been resharpened but is no longer useable. Axes become unusable when the bit is either worn or broken to the point that it cannot be resharpened.
Table D.2. Coding for Hafted Tool Form

Unique Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Bit Length
Bit Width
Bit Thickness
Bit Edge Length
Bit Edge Width
Poll Length
Poll Width
Poll Thickness
Groove Width
Groove Depth

Bit Edge Shape
1. original; 2. resharpened; 3. indeterminate; 4. incomplete.

Bit Edge Damage
1. none; 4. abraded; 7. abraded and chipped; 9. abraded, chipped, and sheen;
8. chipped and sheen 3. battered; 6. battered and chipped; 5. multiple.

Bit Edge Sharpness
1. sharp; 2. dull; 3. rounded; 4. flattened; 5. broken; 6. unfinished.

Usable
1. usable; 2. usable with resharpening; 3. resharpened—usable; 4. resharpened—
dull; 5. not usable; 6. resharpened—not usable.
Appendix E: Grooved Artifact Form

This form records details about all grooved artifacts. Table E.1 is an example of a form for recording the attributes of grooved artifacts. Table E.2 lists suggested codes for this form.

ARTIFACT ATTRIBUTES EXPLANATION

Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Groove Number. If there is more than one groove on a tool, each should be numbered and recorded on a separate line.

Groove Configuration records whether the groove is uniform across its length or if there is more wear toward the end.

Groove Orientation records whether the groove is oriented along the length or width or diagonally across the stone.

Groove Length
Groove Width
Groove Depth

Groove dimensions should be taken at their maximum.

Embellishment records the nature of any embellishment. Embellishments include incised lines, raised ridges, and decorative grooves. These can occur singly or in multiples and can be mixed such that incised lines and raised ridges both occur on one tool. Record embellishment with the closest groove and provide details in the notes.
Table E.1. Ground Stone Analysis Form: Grooved Artifact Form

Date: 

| Project | Site Number/Name | Feature Number | Artifact Number | Artifact Type | Subtype | Groove Number | Groove Configuration | Groove Orientation | Groove Length cm | Groove Width cm | Groove Depth cm | Embellishment |
|---------|------------------|----------------|-----------------|---------------|---------|---------------|---------------------|-------------------|-----------------|----------------|----------------|---------------|--------------|
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
|         |                  |                |                 |               |         |               |                     |                   |                 |                |                |              |              |
Table E.2. Coding for Grooved Artifact Form

Unique Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Groove Number.
Choose a consistent numbering strategy so that every grooved tool is numbered in the same way—for example, largest groove to smallest groove or left to right.

Groove Configuration
1. groove uniform; 2. groove worn one end; 3. groove worn both ends.

Groove Orientation
1. lengthwise; 2. widthwise; 3. diagonal; 4. mixed.

Groove Length

Groove Width

Groove Depth

Embellishment
4. incised line; 3. incised lines perpendicular to groove(s); 1. one ridge perpendicular to groove(s); 7. multiple ridges perpendicular to groove(s); 2. multiple ridges and incised lines perpendicular to groove(s); 6. other; 5. none.
Appendix F: Perforated Artifact Form

This form records details about all perforated items. Table F.1 is an example of a form for recording attributes of perforated artifacts. Table F.2 lists suggested codes for this form.

ARTIFACT ATTRIBUTE EXPLANATIONS

Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Hole Number

Hole Type records the hole configuration. Biconical means the outside hole diameters on both ends of the hole are larger than the inside hole diameter. Conical means that one outside hole diameter is larger than the other outside diameter. Cylindrical holes have the same diameter throughout the hole.

Inside Hole Diameter is measurable only with conical or biconical holes.

Outside Hole Diameter measures the same as the inside diameter with cylindrical holes.

Measurements should be taken at their maximum.
Table F.1. Ground Stone Analysis Form: Perforated Artifact Form

<table>
<thead>
<tr>
<th>Project</th>
<th>Site Number/Name</th>
<th>Feature Number</th>
<th>Artifact Number</th>
<th>Artifact Type</th>
<th>Subtype</th>
<th>Hole Number</th>
<th>Hole Type</th>
<th>Inside Hole Diameter cm</th>
<th>Outside Hole Diameter cm</th>
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<tr>
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Table F.2. Coding for Perforated Artifact Form

Unique Artifact Number from the General Artifact Form.

Artifact Type and Subtype from the General Artifact Form.

Hole Number.
If there is more than one hole, list each on a separate line.

Hole Type
2. biconical; 3. biconical—incomplete; 6. broken; 1. conical; 7. conical—incomplete; 9. cylindrical; 10. cylindrical—incomplete; 11. incomplete; 5. natural; 8. remodeled; 4. not applicable.

Inside Hole Diameter

Outside Hole Diameter