

## UPDATING THE WITTRY TYPOLOGY (Phase XVII dated 3/31/22)

By Monette Bebow-Reinhard, [www.UnravelingTheMyth.com](http://www.UnravelingTheMyth.com)

*“To leave out the question of what something is for, of what its function is, is to fail to explain a great deal about it.” Aristotle*

*Updates to Wittry’s 1957 typology (Wisconsin Archeologist, Vol. 32 #1) with some research and with Minnesota Archaeologist’s Copper Issue in 1940. Note that Wittry may have used this MN on which to base his, but not all of MN’s were used. According to Jack Steinbring (Ten Thousand Years, 53), Wittry’s classifications were based on 2,600 specimens from the “so-called Wisconsin heartland.” The CAMD is now at over 68,000 from all the Americas (over 22,000 from Wisconsin).*

*COLOR CODE – BLUE = WITTRY; Green = JACK STEINBRING/Gordon Morris; BLACK = ALL FROM CAMD RESEARCH; Black ITALIC = MY NOTES*

**STEINBRING:** “The database on copper technology is valuable to archaeological science because it includes taxonomies developed by “hands on” research. The most embracing and virtually timeless is the Wittry Typology initially created in 1950 in his “Bachelor’s Thesis” at the University of Wisconsin-Madison – a source most prehistoric copper researchers failed to examine. Typologies are changeable because new data and understandings of those data are constantly changing. This applies to Wittry’s typology as well. While it has seen changes through the years by several practitioners, it remains surprising intact. I think this is because the basic attributes reflect an uncommon uniformity for the ent

### **Type I – Points**

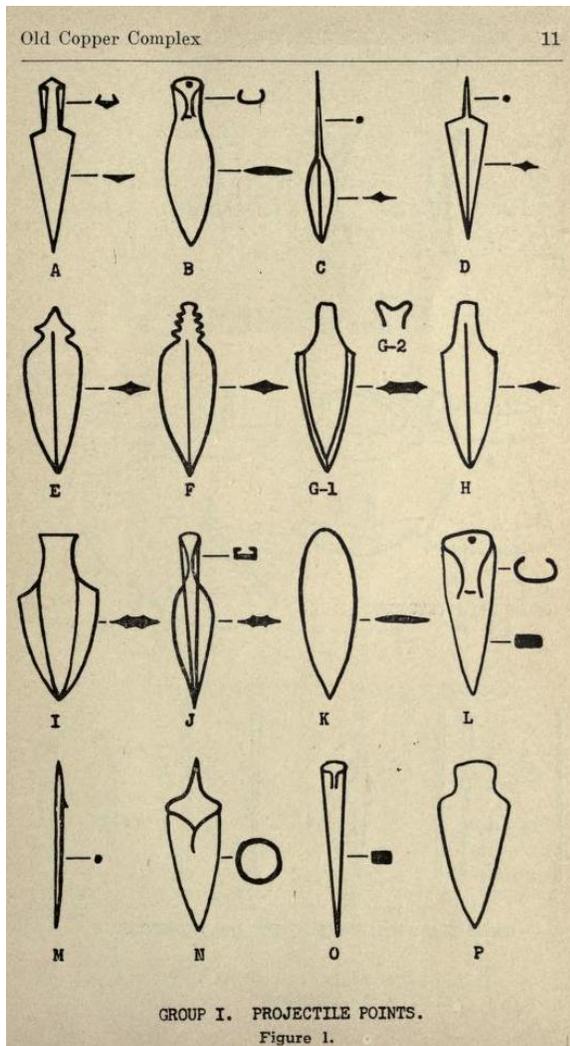
A1 = Elongated triangular blade, 3 sided socketed stem ridge down the back, front is flat. (One dated in Oneida County 6,000 BCE, but not known who did this dating, or how. One in MI is 3200 BCE) Also likely the one referred to as lanceolate or bayonet socketed (generally accepted as Archaic.) Note the deciding feature is the tip of the tang as pointed, not the squared shoulders of the blade. Believes 4,000-2500 BCE is accurate for these. The most numerous in Wisconsin (1970). Fregni (2009) appears to have added a category of Wittry’s called IAa but this is not accurate. Wittry only had the one I-A style.

A2 = Includes presence of a step in the surface of front face, causing the floor of the socket to be lower than the blade, providing an abutment for the shaft (Info from Wittry Vo. 38 #4; he also notes that while A1 was found mostly in Washington & Manitowoc counties, the A2 was in Wolf and upper Fox River valleys and more limited.

A3 = What appears to have a knife-shape to it but is basically a larger point that has one edge more worn, indicating knife use; most likely ridged.

A4 = ridge goes down the tang; rare. See Field entry in Northern Wisconsin.

B1 = Unridged socketed leaf blades, edges at socketed stem are rounded and often the socketed stem has a riveting hole. Confirmed that this is the leaf-shaped blade. Deciding feature is the rounded end of



the tang, not the shoulders (info per Steinbring and Gordon Morris, 6/24/17). Some have been found with hash marks, especially in Manitowoc County. Leaf-shaped is a common description for these, rather than the lanceolate; the I-A has no riveting hole but a pointed tang.

B2 = Median step, no ridge, sometimes a riveting hole (this is Wittry's subtype per a Canadian source)

B3 = Well-formed ridge and median step, often riveting hole.

B3a = no ridge, median step, riveting hole, hash marks; see Shawano Co. (MPM)

B4 = socket is barbed; Steinbring says this is Wittry's I-B3 but I see nothing in Wittry's chart that shows a third variation, or a barb in the B form. These have been found and will be noted as this type.

B5 = at MPM Shawano County, this appears to be a distinct form of atlatl point. I have never broken those out before. Atlatls were used at the same time as spears, and ran out of favor with bow and arrow. Ridged and socketed.

C = rat-tail point, short rounded blade with long thin

and rounded stem, sometimes ridged. (dated as Late Archaic in IL) Can be ridged on both sides of the blade. Referred to as ellipsoidal (elliptical); could be nearly diamond shaped, to broad ovate. Loss of ridge indicated by shorter tang. Probably also referred to as lanceolate spatulate. Noted as the first to change hafting from enclosure to insertion (Ten Thousand Years, 69)

C1 = Without ridge and shorter tang is a feature of Canadian.

D = Shorter rounded thin stemmed point with elongated triangular blade, often ridged on both sides. Can be un-ridged. Also referred to as lanceolate rat-tail. (Good example in IL) Blade is elongated triangulate with short rat-tail tang, pointed and usually circular.

E = ridged, single-notch "hat" tang, can be ridged on both sides, blade is leaf-shaped. Stem can vary in shape but is always with a single side notch on each side. Considered Middle Archaic 6000-1500 BCE (Stoltman 1977); Oldest found with a bison head 8000 BCE. Possibly developed off the I-K. One was found in Massachusetts.

F = **Ridged, sawtooth point, leaf-shaped, generally narrower than I-E** (I'd in IL as Hopewell and as ROC in Oneida County, Middle Woodland in IL) **At Morrison's Island site, given a date of 4700 BCE,** (far earlier than ROC Late Archaic), can be ridged on both sides.

F1 = Wide and flat and no ridge, but with sawtooth stem. See MN data in Rouseau County.

G1 = **elongated triangulate, beveled flat stem triangular point;** these are sometimes decorated with hash marks.

G2 = **beveled fishtail flat stem triangular point;** refers to difference as "notch in the base" as Wittry's description. **At Riverside dated 1,060 BCE and at Oconto of 5660 BCE, Steinbring argues against the dating controversy at Oconto (112).** See photo above.

G3 = a third type of stem, a knob, making it look like a turkey tail. If it's not beveled, it wouldn't belong here.

H = **ridged flat stem triangular point, can be ridged on both sides or just one side. Unlike D, this has a thick flat stem, blade is more leaf shaped. Extremely rare; stemmed and ridged, elongated triangular, tang has squared base.** Possibly ROC, see Ontario.

H1 = same without a ridge. (see MPM WI4, no location)

H2 = rounded shoulders, not squared, with or without ridge

I = **Beveled ace of spades triangular shape, flat stem** (Red ocher culture (ROC) point); **stemmed, ridged, elongated triangular "ace of spades" (not ridged, beveled); red ocher associated, perhaps only used from 1500 to 500 BC.** Reigh site establishes dating of 1660 BCE per Ritzenthaler, 1960.

I1 = Spade point with long tang, very wide and no bevel; potentially a spatulate but in the MI2922 one, the tip was broken off, which indicates point use.

J = **Deep bevel socketed, leaf shape point** (ROC point); **includes under I-B;** the difference is in the beveling. Can be riveted, see Oshkosh Mueller sample. Can have a slight step to tang. MPM 1/12/22 example shows beveling only on back side.

K = **cache blade point, no stem; lanceolate; check to make sure stem wasn't broken off; some have ridge, some have decoration; found at Starved Rock, also known as McCreary point, dated to 8000 BCE, the base is concave.** Also referred to as elongated obvate; *lanceolate is a mistake here. The dating of 7,000 BCE is Archaic, not Paleo, so we'll take some caution with using this to identify a Paleo site (Bill Ross says none have been found in Paleo context).*

L = is flattened tip with conical tang. Dated in Oneida County to 6430 BCE. Morris has one dated 1350 BCE.

L1 = open **socketed with flat tip, perforated.** This would be a "toggle harpoon" if perforated (Tom Fruit).

L1a = same but barbed in socket

L2 = Deep socket, socketed handle appears 'sunken' or 'stepped' (see IMG3860); depending on size, could be a chisel but would need a new type assignment. *Could also have a more defined arrow type head. (see International Falls MN) Or a very long blade (see LOL GM) in Vilas County.*



L3 = ridged and with a pointed tang; Gordon Morris suspected this as a new type so this best fit seems to be here, although he sees it more as an I-B variant. Also include not ridged here; socket is in the middle with a tang (could be pointed) on one end, and flat tip on the other (like photo left). Don Spohn showed one from central Wisconsin with a very long blade. Also called socketed awls. The socket is in the middle and only one tip is pointed. Morris's two in Rusk County have longer sockets, down to the tang's end. This category is all

central socket.

L4 = Unusual forked tang, appears to be with a flattened tip although hard to tell in a photo. (Michigan)

M = Long thin barbed point, double-pointed.

M1 = socketed (See Canada).

M2 = Multiple barbed thin awl-like point, can be pointed on both ends (see Fond Du Lac)

N1 = barb in socket triangular point; thought to be immediately pre-ceramic; (potentially ROC); could also be barbed conical.

N2 = Socketed point with barb in blade, rivet hole, blade like I-B or I-L. Also called conical riveted. Probably the oldest toggling harpoon.

O = conical point (one dated in Oneida County to 6145 BCE).

O1 = conical point with completely open socket. Different from I-L because its tip is not deliberately flattened.

O2 = with rivet holes on each side of wide end (2) (see MI from MPM), and potentially barbed; some with one hole.

I-P = A nondescript point that is flat, with flat tang, but not in the distinct x-mas tree style. (see Michigan)

P1 = is an arrow point, flat blade, flat wide "spalutate" tang, slightly triangular; small in size. Often without a tang. Tang can be socketed; one has a fish tail (Forest Co). I suggest they're all under around an inch in length. Has anyone studied this? What length would an atlatl point fall between, before it becomes a spear point?

P2 = what's called Xmas tree point, spear point, flat blade flat wide tang, triangular. Id'd in MI as Late Archaic; Steinbring gives added locations (122). Redskin (p. 58) notes that it's found almost exclusively in MI. Can be ridged, see nice one in Shawano County (MPM).

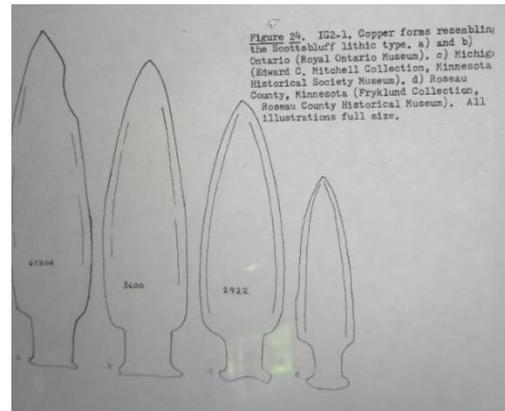
P3 = I'm going to make a new category here for an MPM Menominee County point that appears to be either knife or point, small with flat tang and no apparent beveling. It is old and likely used either way.

Q = Ovate spatulate (new type) see MPM photo in Calumet County. Similar to I-P2 but less exaggerated in tang area.

MN1 = Eye tang point, tang is flat and tapered, blade is long and leaf shaped (see Loudon's in Barron Co.)

MN2 = Spatulate tang, tang is knobbed or thicker at the end, blade has heavier shoulders than MN1

MN3 = Notched tang, the bottom of the blade, at the tang, has heavy indents or notches with knobs at other end of tang. This could be similar to what Steinbring shows as an I-G2, not always fish-tail but sometimes knobbed. See photo on right for variants in this category.

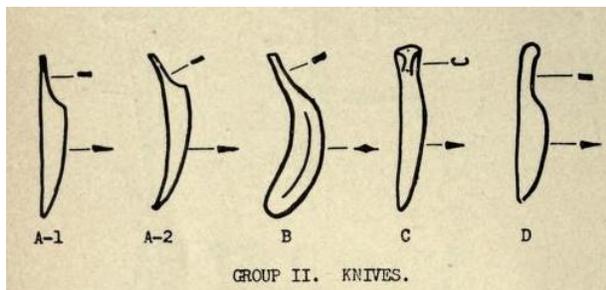


MN4 = Turkey tail, unlike I-E this is missing the tang with a diamond shape at the end, but is often more rounded to distinguish from I-E (perhaps this should instead be a variant of I-E)

MN5 = the Half-conical or "clad" was used as a tip of a digging stick. Sometimes with small hole for riveting. This could potentially be a new ID for some of the I-L points as well, or this is what we would call the open conical. Photo in Neubauer MN photos.

These are from Minnesota Archeologist "Copper Issue" 1941; the last from MN Arch 59, 2000, 129

## TYPE II - KNIVES



A1 = Straight back, flat tanged; starting in Archaic, has a long use span. Spatulate knife could be any one of these, until further notice, I'll use it here. Also called rat-tail.

A2 = Curved back, flat tanged; less used than A1; also called rat-tail lunate.

B = Ridged, curved back, squared tang; considered rare. Also called lunate spatulate. One found that was associated with ROC (see Ontario).

B1 = not ridged, but smoothed out still between tang and blade.

C1 = Socketed tang; could be riveted or not. Steinbring agreed that riveted did not warrant a separate distinction.

C2 = Has more of a defined edge, like an A-1 (see MI Quimby)

D = Flat back, rounded blade, flared or knobbed tang (these appear more refined); sometimes has hash marks. Considered as old as 2500 BCE. *Problem is the misidentification of one at Falcon Lake in Canada. Need more data.* A folded over tang (Juntunen) could be for hafting. Also referred to as butter-style. (See Door County)

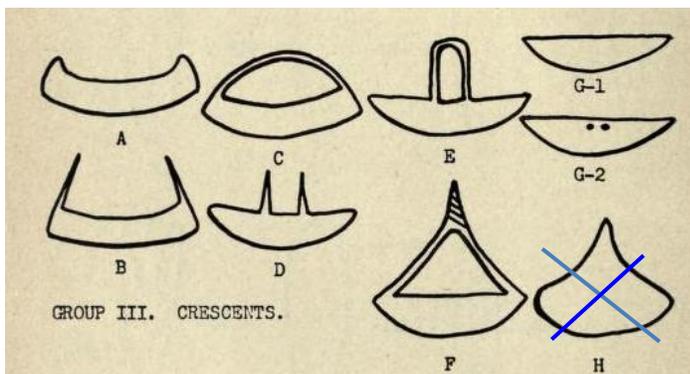
D1 = very deep blade, straight tang. (see Michigan 2923) Also found in Tabasco, Mexico.

E = New knife type has a very curved, crescent-like blade, but long tang out one end, scooped out on top of blade until it resembles a "bowl." (see photo from Lincoln County) *I had first noted one of these in a newsletter in 2011, as found in Oneida County. The Lincoln County piece is only a tentative location but the two are definitely not the same as the "bowl" has a wider sweep. These are very rare.*

(all MN knife types fit above)

F = blade looks like an I-K but is notched to form a tang, point blunted on both ends; does appear, as Kalamazoo Museum has ID'd it, as a knife, but a completely new type. Knowing if it was beveled on one long edge would help. Photo is shown in their PDF.

### Type III – Crescents knives or ornaments



A1 = Canoe style, no prongs (various length ends); Steinbring notes prongs vs. no prongs.

A2 = Canoe with notch in outer center of blade edge (could be ornamental); sometimes deep center indicates gorget.

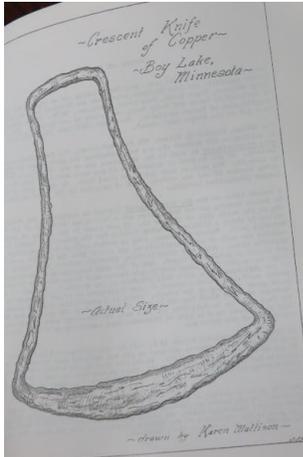
A3 = canoe with notched ends (could be ornamental); Steinbring also saw a lack of

beveling, indicating ornamental. Potential gorget.

B1 = Prongs on both ends (various lengths) and in all tang varieties, such as rounded, squared, thin and stubby, and turned inward; Overstreet identified as ROC at Milwaukee County. Some are nobbed on each end (see Morris Collection in Rusk County).

B2 = High prongs up from either edge with a straight handle on top connecting the two. See Canada & Reigh Site & Riverside; locations indicate Late Archaic.

B3 = it looks like it's missing the handle on one side, a form similar to a scythe. Steinbring also believes the tang on only one end is deliberate; he shows another of curved ends (see Pickerel Lake);



C1 = full but short handle on top; considered rare. See WA 3-3 Plate 15, #120, from MN, and Hamilton 1209, also MN, with different curvature.

C2 = High curvy handle (see MN database and photo right).

C3 – similar to C2 but handle is shorter and more stylized. See ROM Canada, Fort Frances.

D = two prongs up from the center, evenly spaced from either end (various lengths)

E = Prongs from D join to form a complete handle. One found in MI with high handles, similar to MN above but prongs in the center.

F1 = Prongs on both ends form a V in the middle, handle twisted

F2 = Prongs up from center meet to form V, not twisted

G = Ornament, some perforated, no prongs (MN shows one); Steinbring also combines these two forms, as they are rare.

*Moved H to the Spatulate category VIII.*



I = High tangs from both ends but ends are rounded, and then the tangs form angles to straighten upright. See example in Steinbring's Figure 8 in MN. Sounds like an ornament from ROM in Ontario, too.

J = This is the infamous "oar tip" shaped decorative crescent (photo left), must be ornamental, can't see a use for this otherwise. See IMG3468. It is rounded with a v-bump on the middle inside of the crescent.

J1 = what could also be called the latchkey style or what had been called "jew's harp" (photo right), also sickle style; this one has a tang handle coming up off one end, with the other end of the crescent looped over to touch (Oneida County).

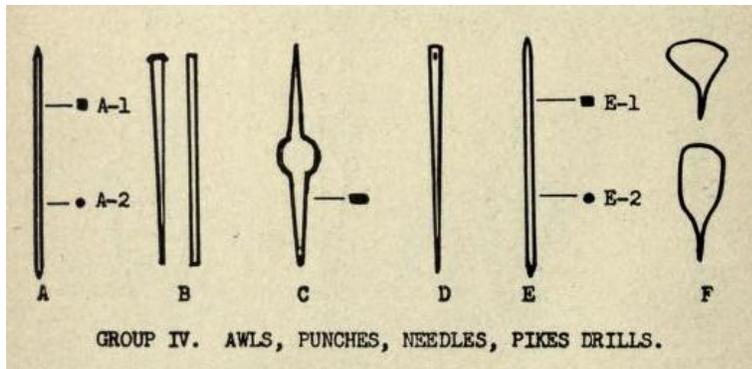


#### **Type IV – Awls, punches, needles, pikes, drills**

***Any awl longer than 10" should be put in pike category.***

A1 = squared awl, double pointed; at Riverside, one found inserted into a wooden handle.

A2 = round awl, double pointed



A2a = round awl, pointed one end

A3 – double pointed, flattened the whole length. *There are more awls than we can create types for; include pointed on one end here, if flattened.*

A3a – Flattened (rectangular) and wider on one or both tips (rare; see Pownell)

A4 = cylindrical rolled copper shaft with pointed tip (see photo below and type in IL).

B1 = pointed awl, either squared or rounded, with other tip flattened; probably predominately round. *Because of a 1994 Beadmaker Cache revealed by Susan Martin, this is now being referred to here as “beadmaker awl.” This would make it potentially as old as Late Archaic.*

B1a = Flat top tip appears to be hammered, sometimes called nail.

B2 = squared awl, both tips flat; often shows the effects of being hammered on.

B3 = Mackinac Awl, has a deliberately created “second” tip, potentially shaved.

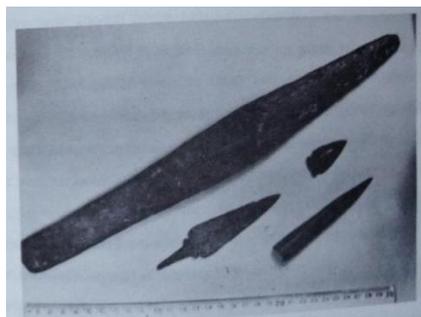
C = Awl with two pointed ends and bulge in middle (as in making larger holes)

C1 = Same but the thickness is tapered rather than bulged out (more common).

D1 = Needle (hole or evidence of one on one end), hole appears perforated; this includes broken eye types; oldest type, in Mexico around 600 CE. (photo at right)

D2 = flat end with hole, rounded to other end, sharp. (Steve Dwyer)

D2a = needle with hole that has tucked loop; newer type (1200 CE) (in photo)



D2b = needle with hole with flapped loop

D3 = notched needle

E1 = Pike, squared; Steinbring notes them at 8” or more.

E2 = Pike – rounded

E3 = Pike, socketed. This was noted in a Canadian collection on the Kam River, but no photo is available.

E4 = Pike, with a thickening middle, almost knife-like. (see photo above left, found in Manitoba)

E5 = Harpoon pikes, shown on Madeline Island.

E5 = see Shawano County, a new category for awls over 10", the small pike sometimes hafted.

F1 = **Piercers (also called punch or drill)**, these have a flat gripping edge with a point. *Flat gripping point, longer tip like an awl.*

F2 = Large gripping area, short tip for piercing. The wide end could also be used as a scraper if the tang is long enough. These are small, not to be confused with the VIII scrapers.

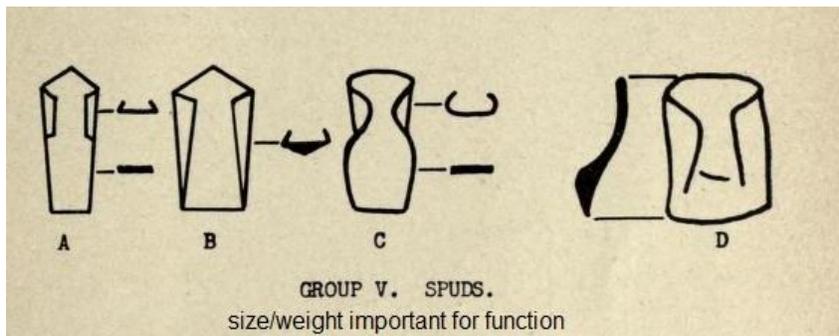
G = Stripper (newly ID'd by a collector), these appear liked worked flattened pieces but have a notch that he surmises was used for prepping string, leather and rope. *(Will add name and photo with his permission.)*

H = potential category for an awl that appears to have a deliberate bent; if large, could be a gaff hook; if small, a lester hook. No none use for this second one, unless they were doing their own dentistry. Gaff hook is listed in Type VII.

I = gouge; a short flat and thick awl, purpose unknown; this type can hold a number of this variety, as long as it has no sharp point.

J = Awl with a zigzag effect. Could be historic but am putting this here as it doesn't appear to be. See Ashland County.

### Type V – Spuds



(used for stripping bark off trees, cutting holes in ice to secure water, digging out logs and household troughs and for agriculture – per MN Arch Copper Issue (41). Also saw one demonstrating digging out

the burnout in a birchbark canoe.)

A1 = **Pointed, socketed near the tip only, straight on bottom half, some ridged; believes the V-A and V-B are as old as the I-A1 point.** Indicates not strictly agricultural.

A2 = **the lower part has a 'step,' or recessed socket floor, which does not cause a protrusion on the back; V-A types are only in Wisconsin.**

B1 = **Full socketed, pointed; found only in Wisconsin.**

B2 = full socketed, rounded (MN Arch Copper Issue)

B3 = full socketed, flat blade (Canada)

B4 = Light socket on lower half, pointed tip, wide at lower end (Canada)

C = socketed on top, bottom is rounded and beveled, some rounding in the socketed area; see examples in Canada and IL.

V-C1 = blade is more celt-shaped, sometimes has a socket on each side. (see SL Science Center no location) referred to as a palstave

D = The most refined look with a bulge in the blade area, and is socketed (MN calls short socketed, rest are long socketed); most widely distributed type; dated to 2050 BCE. Can be ridged (see Dodge County "spudge.")

D1 = same style but with a handle as long as the socket (see Dane County)

D2 = cutting edge styled like a VI-C celt. (See Redskin p. 17)

D3 = Like D2 except socketed end is like the V-A, pointed, with perforation. (see Washburn County)

E = Long and flared, socketed, flare can be small or distinct. (MN Arch has two categories but these varieties all fit into one. I suspect VI-J (below) in Wittry could fit here.



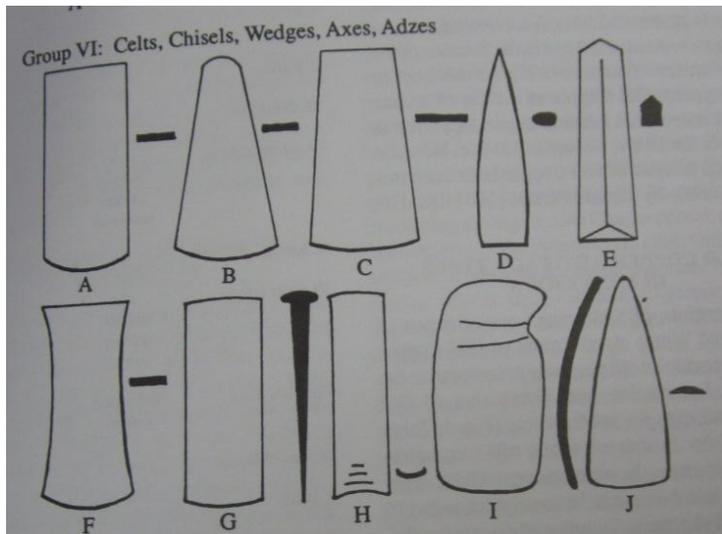
E1 = socketed and concave – see photo from Michigan below right; this photo looks a lot like a "palstave," found on Funen Island, Denmark (photo left; on right is from Peabody Museum, Harvard); make of that what you will. I wanted to share it, since V-E is very unusual.



### Type VI – Celts, Chisels, Wedges, Gouges, Axes, Adzes

A = squared off rectangular, axe, sometimes called celt axe but it's not; or extremely large wedge, unknown in Archaic context.

A1 = flared; also likely Hopewell or later.



- A. Most likely an Axe, depending on size
- B. Celt shape, Adze or wedge, depending on size
- C. Axe likely or wedge if small.
- D. Chisel or gouge; seen in use for socket bending
- E. Chisel
- F. Adze or axe, depending on size
- G. Rare, similar to A but with hammered head
- H. Chisel with beveled end
- I. Axe or hammerstone, rare
- J. Also rare – any guesses?

B1 = most often called celt, diamond shape, narrow on top edge, if thin, celt; edges often flared; tapers to rounded proximal edge. Found in Archaic context at Reigh and Morrison's Island but mostly Hopewell. Also referred to as ovate oblong or trianguloid. It is with reluctance that I must also refer to this type as a "war hatchet," due to designs of this type being found embedded in skeletal material.

B2 = same but if small is a wedge (evolutionary) – in MN Arch wedges can also be long, but then I think they're chisels. Said wedge use is splitting wood or mining (these uses would typically be smaller). Thick and heavier B2 removed and put into Archaic 'C' category.

B3 = Wider edge has a biting center point. Can be socketed.

C = Axe or wedge; is called flat blade by MN Arch (41), with parallel edges tapering toward base, cutting edge slightly convex or concave. Also called obvate oblong, so VI-B and VI-C may have seemed interchangeable. The distinct difference is with the top edge is flat or pointed. Can be slightly socketed. Can be ridged.

C1 = Flared on thick end, straight and thicker on top end, often with hammer marks, this has also been called a celt, but is most often an axe or wedge; Not different enough from VI-B to be considered. Difference could be in size or weight; refer to this as Archaic, and VI-B as Hopewell/evolutionary. These are much more common; more useful. Perhaps the VI-B is more ritual.

C2 = End is not flared, straight edge at bevel.

D = Elongated, obvate, and pointed, this is generally a chisel or gouge; considers it an adze. Also likely referred to as oblate oblong. Can be beveled. In Michigan we find a use as a form to make points. Perhaps also referred to as a "gad" and found with the heavier ended pounded in (see Keweenaw).

D1 = Socketed and ridged, rounded one end and pointed on the other. (see Fruit #60)

E1 = Elongated, ridged, and pointed, also a chisel or gouge.

E2 = "linear celt," this is a new chisel or gouge type found in MPM Fond du Lac County. Elongated, ridged, and flared like a celt. Likely Hopewell, one was found in Stevens Point in a mound.

E3 = Oblong and ridged, with tang for hafting. See Dodge County, MPM

F = Curved shape with an indent in the middle (bell-shaped), flared & beveled on bottom, thicker and wider at the top, cutting edge is lunar, this is rare, probably an adze or axe. There's an example of one in Houghton, but not quite like this. Doesn't fit anywhere else though. Also see one in Boonville, MO

F2 = Same but double biting – beveled on both ends. Not common, also typical of stone. See IL

G = Wide but thin and most often appears hammered on the top. Very rare form, probably a scraper or gouge; VI-A could be an unused VI-G; probable wedges. Also called a rectangular celt. One end might be slightly refined.

G1 – also has a hammered head but is thin and pointed, large but looks like a nail shape.

H1 = Elongated but with a deep beveling on one end, pointed, also a chisel, back is rounded.

H2 = same but beveled end is squared

H3 = same as 2 but with a light socket (see one in Keweenaw)

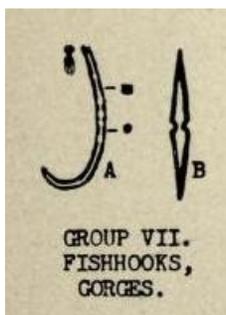
H4 = one end slightly flared

I = Grooved or notched (looks like stone hammerstone), irregular in shape, this is an axe. It's heavy on top and notched. Rare.

J1 = Curved celt-shaped, potentially a socketed chisel to fit in Type V but with socket worn down.

J2 = Another that might not need to be classed, this is an axe head that appears knife shaped, yet too big and without appearing to have had a handle broken off. (Canada); could be VI-A variant.

### Type VII – Fish hooks and gouges



A = the typical fish hook used from Archaic times; sometimes end is grooved or thickened.

A1 = Hook on one end with handle, or flattened on opposite end – see MI/Castle

A1a = instead of "J" shape, more like a "V".

A2 = large, referred to as a gaff

B = A gorge is bi-pointed, and notched in the middle, or zigzagged.

C = multi-barb, looks like saw blade, or any type I-M point with more than one barb; placed here for its use in fishing (*and would move I-M here if I could.*)

**Type VIII – Spatulates**



A = Paddle shape in Wittry photo, oblong blade and short tang; Tang can be thick and head rounded; use could be in pottery making.

B = Simple spatulate design in Wittry photo, long tang and short, rounded out blade; possibly used as scrapers for animal hides.

C = Crescent blade shape with short tang and thick crescent head (see Hamilton photo right). Crescent cutting edge and short tang in the center. (Also thought to be the style of Eskimo ulu, Steinbring, 63)



C1 = An evolved Tumi blade with a heavy tang and more defined curvature to the blade. Seen as axe-money (t-coin) in Mexico after about 1300 CE. Photo on right is from at Spurlock Museum in Illinois.

C2 = Long thin tang with wide blade, curvature on bottom of blade but not on the inside. See Peru 87754. Also called “fan-shaped”.

C3 = What appears to be a derivative of the VI-B or VI-C, except thinner and more stylized.



D = Tumi Chisel, appears to be a mushroom on a stem, long thin handle, with a short tumi style head that makes it look like a mushroom. See Peru F348



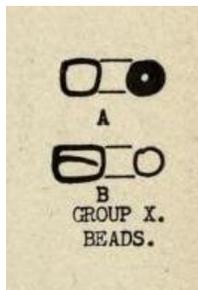
**Type IX – Bracelets**

A = thin and rounded (one is dated to 4000 BCE in Oconto)

B = thin and flattened, sometimes with decoration

C = thick and flattened, often ornate (arm band)

D = twisted



Keep eye out for Washington County etched design, like this: <<< >>>

**Type X – Beads** (Source for following breakdown is Ann Lewis, 2003 and the CAMD); Steinbring calls these all transitional, even if found in Archaic context.

A = Barrel beads (only Hopewell); wider in middle than on either end; Pozzo refers to these as globular.

B = **Tubular beads**, also called rolled, **longer and less** refined (identified as ROC by Overstreet and in MI). *The only other bead Pozzo referred to; she was more interested in how the seams were formed, not an issue in this typology.*

C = Conical (tinkling cones) (only Hopewell) (*lots of modern versions, too so I'm not sure how these can be Hopewell only*); Pozzo calls these beads but doesn't have them in the bead category.

D1 = round (Hopewell or pre-Hopewell only), wider than they are long, with hole in the center, unflattened

D2, flattened, also called disk, also Hopewell or pre-Hopewell only (not Oneota)

D3, round, spherical (found in Washington State, see photo below; remember that where found is not necessarily where made.)

E1 = Spiral beads, also called coiled?

E2 = Diamond shaped beads (unusual find in Illinois), refined, likely late prehistoric.

F = Longer tubular beads, for breast plates, also called hair tubes

G = Ring or wire beads, thin and twisted shut

H = twisted (MN Arch)

I = Flat and squared, with folded over flap, likely worn at waist or collar

J = thin wire or ring bead (could be exclusive Fort Ancient, Ohio marker)

*Beads that that are copper plated over another material are considered Mississippian; found in IL.*

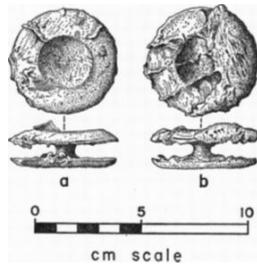


**Sample of Round Beads X-D1**



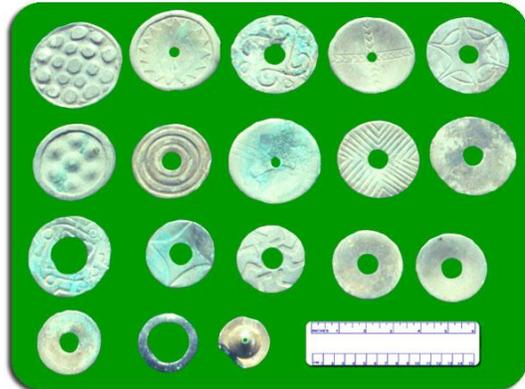
**Sample of Spherical Beads X-D3**

**TYPE XI – Ear Spools (not in Wittry)** (Michael Bradford (2017: 66) noted that this type had been Wittry's original for "rings," but that this category was eliminated in later versions. His reference appears to be Wittry 1951.)



A = Bi-cymbal (Hopewell) – solid (photo left from Arkansas)

B = Pulley, hole in middle for riveting (Later Hopewell to Mississippian) Those on the right are only half of one ear spool.



C = Bi-Conical – below is a pair; the hole is supposed where a thin wire piece is then inserted.



*If copper covered, it's considered Mississippian. Photo on right from Oklahoma; two of them appear to be Hopewell. Further determined here that Hopewell style intersects Mississippian.*

*See my ear spool article published at Academia.edu on 6/16/20.*

## **TYPE XII – OTHER ORNAMENTS (not in Wittry)**

A1 = rings (all variants);

A2 = ring-shaped, too large for rings, these are probably breastplate attachment

B1 = Bow-tie pendant; also in Michigan. Might also be called "dog-bone" shape.

B2 = Tear drop pendant, they were first identified in Ohio; also see MI for ones with pecked designs like Teotihuacan.

C = Gorget

C1 = Boomerang Gorget; see Michigan.

D = Round disk ornament, often with hole in center, like for breastplate attachment; In Michigan one was found with pecked design, like Teotihuacan.

D1 = small with center hole and no design; could be trade money, likely Late Woodland.

E1 = Hair pin ornaments straight with décor on top edge, slightly pointed on other edge

E2 = Hair ornaments dual pins (according to MN Arch, can be crescent shaped)

F = breastplate, larger than gorget, often with holes (MN calls plaques)

G = nose rings (dated to ROC in Oneida County, Late Archaic) These are crescent shaped, very small, just enough opening for the nostrils.

H = spirals, flat, like awls shaped into spirals (see MN Mckinstrey)

TYPE XIII - THE PENIS SHIELD (definitely not in Wittry)

I'm going to share a few unusual pieces here, not all necessarily of copper, to demonstrate another ornamental design that I believe had the same or similar purpose.



Sandal Sole Gorget - the photo is of Gulf of Mexico lightning whelk, but I am sure I saw a piece or two of copper. Note the placement of holes. Length is 9.25", which is just a little shorter than my size 8 foot and potentially quite long enough to act as a security for the man's penis. (Keller 2009:43) They are not all the same size, nor do they all use this hole placement. Some are decorated. Note the profile; this would appear to fit what a penis shield would look like.

This is a guess. I'm open to other suggestions. It would be typed, XIII-A.

One guess Keller noted on a gorget shown was that it was a headdress, because it was found on top of the skull. Another, however, was found on the chest. And yet another, between the legs. The largest number (14) found on the front of the skeletons about the middle (no sex known) (Keller 2009:68 & 71). They've

also been found in the graves of females.



This is the way the penis shield is worn in Scotland.

I have a photo of a penis shield being worn - I believe it's in the Spiro book.

There were also penis ornaments, and we might suspect these were worn for fertility. The one below is at the Chicago Field Museum and would be typed here as XIII-B.



From what I understand, animal penis bones were also worn; the human doesn't have one but many animals do. The one shown is almost identical to the racoon bone below.

