

The Little Clovis Point that Wasn't

Leo Pettipas

Manitoba Archaeological Society

The projectile point illustrated in Figure 1 was surface-found at FaMi-10 in the Upper Swan River valley of Manitoba (Fig. 2) in the 1960s. It is made of Swan River Chert, is edge-ground, triangular in outline, and seems to be “fluted” on one face. To all appearances it looks like an Early Indigenous (“Palaeo-Indian”) Clovis point, except for one thing – it’s very small: it’s less than 4.0 cm long, whereas “full-grown” Clovis points when newly made can reach as much as 10.0 cm in length. Archaeologist Eugene Gryba has cautiously classified it as a McKean point, and in size and shape it is indeed McKean-like. However, the bilateral grinding it displays isn’t a standard McKean trait, so I have chosen to orient this presentation around the Clovis point type.

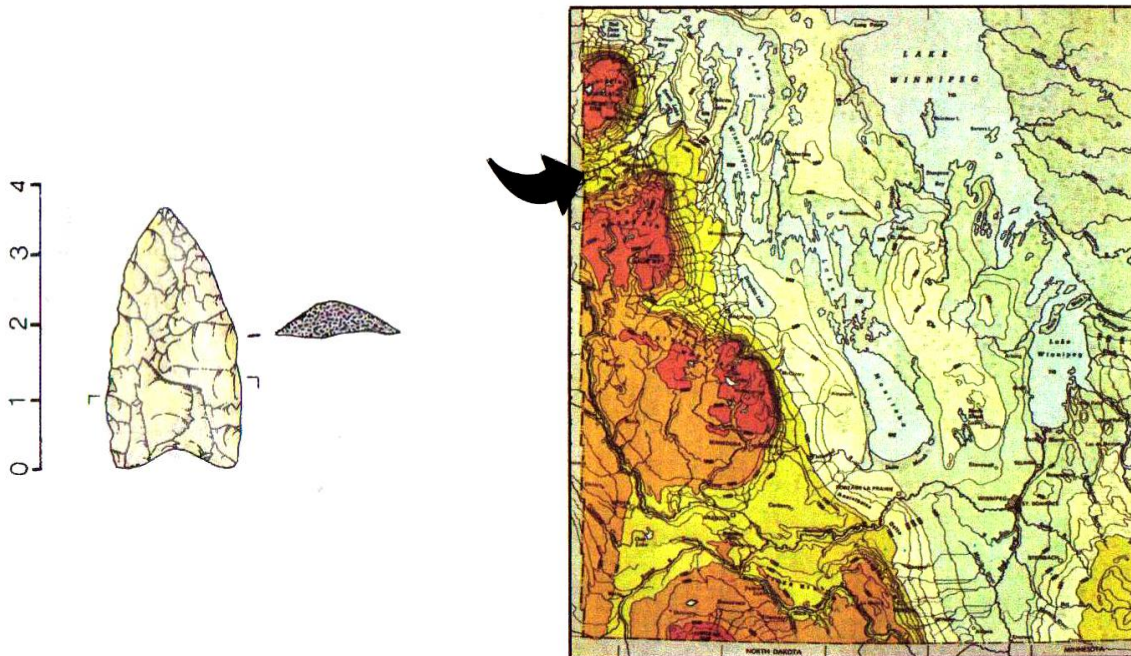


Fig. 1. (left) The miniscule point from FaMi-10. Drawing by the present writer.

Fig. 2. (Right) Location of the Swan River valley in regional context (Manitoba Department of Agriculture).

Actually, bona fide diminutive Clovis points are not unprecedented; several good examples (Fig. 3) were archaeologically excavated in company with typical Clovis points at the Lehner Mammoth site in Arizona. The centre specimen in Figure 3 is 3.6 cm long, slightly less than the corresponding measurement taken from the Swan River artefact. So

while miniature Clovis points are rare, they're not unheard of and so the occurrence of one from the Second Prairie Level of Manitoba shouldn't be problematic at first blush.

But here's a problem – the three points in Figure 3 are all made of crystal quartz. Quartz crystals aren't necessarily very big to start with (Fig. 4), and any flaked artefact made from a piece of the stuff is likewise going to be small, as was suggested by the authors of the Lehner Mammoth site report. However, the FaMi-10 point is made from local material (not quartz crystal) that is very abundant and available in large chunks. So the locally-available stone material didn't necessarily impose size constraints on things made from it – things like the FaMi-10 point, for example.

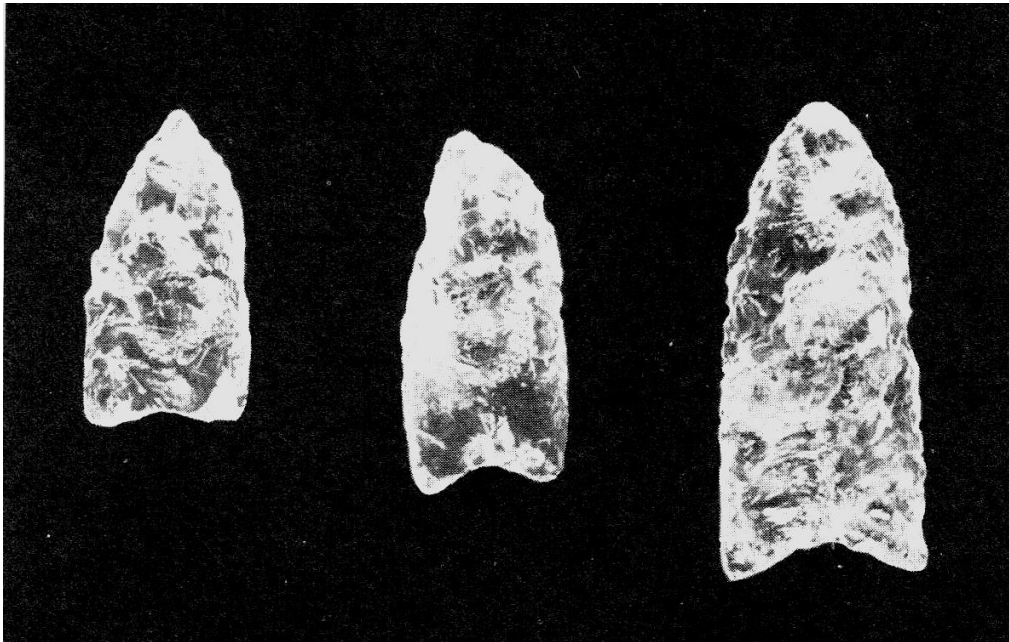


Fig. 3. The three quartz crystal Clovis points from the Lehner Mammoth site. From H.M. Wormington's "Ancient Man in North America," Denver Museum of Natural History, 1957.



Fig. 4. An unworked quartz crystal. Photograph by Katherine Pettipas.

And there's another problem – the received wisdom is that Clovis points are between 11,200 and 10,800 radiocarbon years old in the North American Interior, and the Manitoba find spot was beneath glacial meltwater throughout that time (Fig. 5). So either

1. the Clovis tradition survived longer in west-central Manitoba than it did elsewhere;
2. the specimen originated some distance away more than 10,800 years ago and was subsequently transported into the find-area later on after the meltwater had disappeared; or else
3. it simply isn't a Clovis point to begin with.

My bias coincides with 3, and here's why. Lithic projectile points are the products of a reductive technology (flintknapping). The implications are, stone tools that had to be sharpened or renewed required the extraction/removal of material, which further reduced the size of the original object. Because Swan River Chert is brittle, projectile points frequently had their tips broken off during routine use. The subsequent re-tipping/re-sharpening of the still-hafted piece progressively resulted in a smaller artefact than the original (Fig. 6).

I suggest that our Swan Valley point was initially one of the long, slender “Nipawin” forms that had been broken one or more times and re-sharpened. The piece as it presently exists is therefore a remnant of something that was much larger at one time. Coincidentally, it now looks like a small Clovis point.

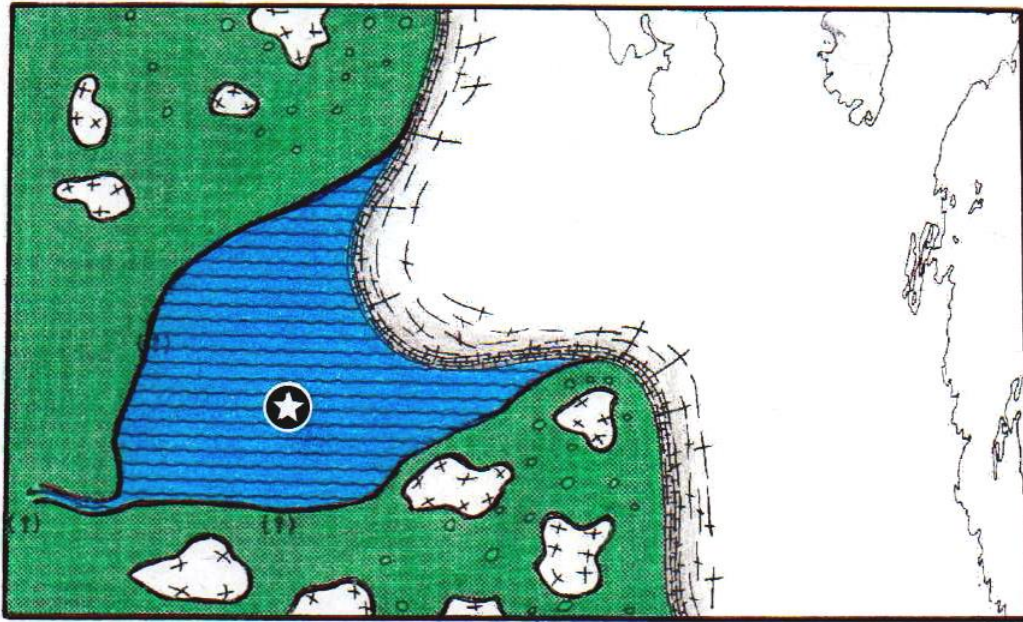


Fig. 5. Location of FaMi-10 (star) relative to the geography of the Swan River valley and environs during the Clovis period of 11,200-10,800 BP. Blue = glacial meltwater, green = vegetation, white = glacial ice. Base map after Erik Nielsen's "Surficial Geology of the Swan River Area," Manitoba Energy Mines, 1988.



Fig. 6. Hypothetical phases of re-tipping of the FaMi-10 point. Drawing by the present writer.

But wait ... what about the rather conspicuous “flute” on the illustrated surface (Fig. 1)? Doesn’t fluting typify Clovis points? In actual fact, that “fluting” scar runs a full 43% of the length of the specimen; doesn’t that qualify it as a Clovis fluted point?

Normally it would, but if my thinking is correct, our FaMi-10 example isn’t a “normal” point. Rather, it’s a vestige of a formerly larger artefact, and if we can reconstruct the original length of the thing, we just might find that the “flute” we see on it in its reconstructed form really isn’t that terribly impressive at all!

How do we “reconstruct” the artefact to its original configuration? First, we note that what’s left of the original lower edges converge toward the base. Next, we project the lines formed by the remnants of the lower edges upward, and extend them in gentle curves until they converge at the top. This gives us some idea how long the specimen might have been originally, and what it may have looked like when it was freshly made (Fig. 7). My estimate is that the newly-fashioned point was somewhere in the order of 8.0 cm long. In this “rebuilt” configuration, the “flute” only occupies 14%, not 43%, of the total original/reconstructed length of the projectile point. Under these circumstances, I would describe the treatment of the lower end of the item as simply basal thinning, a common attribute of Nipawin points, rather than true fluting.

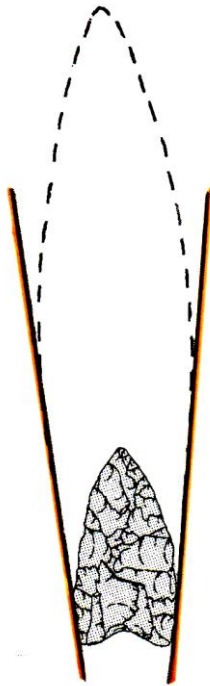


Fig. 7. Lines of projection (coloured) showing the diverging lateral edges trending upwards before curving in and converging to the tip. This method allows us to reconstruct outline of the FaMi-10 point when it was newly made. Drawing by the present writer.

In a previous paragraph, I drew a positive comparison between the FaMi-10 point and its small quartz crystal counterparts from the Lehner Mammoth site. Given my interpretation of the Manitoba piece, can we say that the Lehner items were also much larger at one time? To answer that question, we once again turn to lines of projection (Fig. 8). Here, the paired lines for each point either converge upward (A and C), or else are parallel (B). All three artefacts probably weren't reworked much; again, it all depends how large the individual parent crystals were to begin with. Also, quartz crystal is considered to have magical properties in many cultures, and these items may have been intentionally made short and stubby in the first place, since short spear points are less likely to snap in two as are longer pieces. The less the chances of breakage, and the less reworking that had to be done, the less loss and waste there would have been of special, prized material.

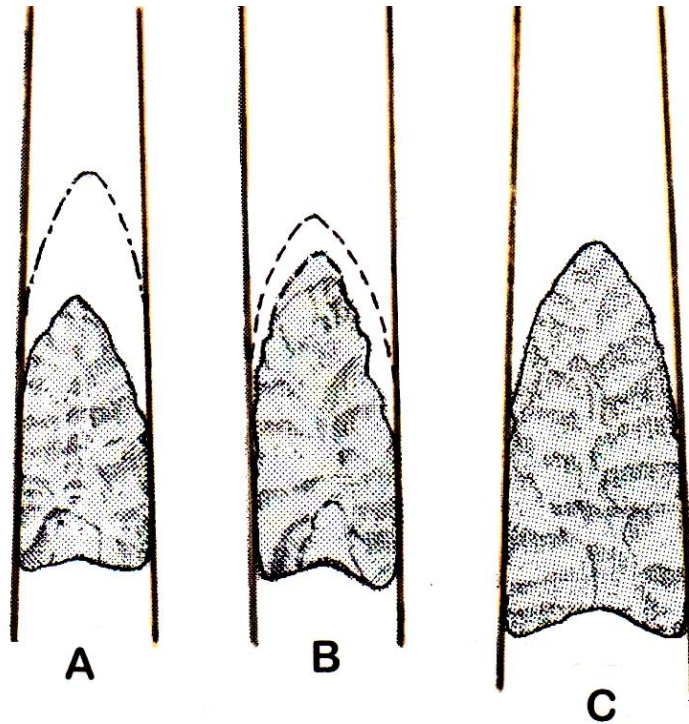


Fig. 8. The three miniature Clovis points from the Lehner Mammoth site, Arizona. The lines of projection are either converging upwards (A, C) or are parallel (B). These points probably did not undergo the degree of reworking hypothesized for the FaMi-10 example, and were likely miniaturized by design to begin with. Artefact drawings after those published in the field report of 1959 by E.W. Haury, E.B. Sayles and W.W. Wasley.

It is widely believed by archaeologists that renewal of broken stone artefacts was a common practice during Early Indigenous times, given the brittle nature of the stone materials from which they were made (Fig. 9). The small projectile point from FaMi-10 is probably yet another example of that ubiquitous custom, and perhaps lends support to the hypothesis that the Clovis complex never did form part of the culture history of west-central Manitoba.

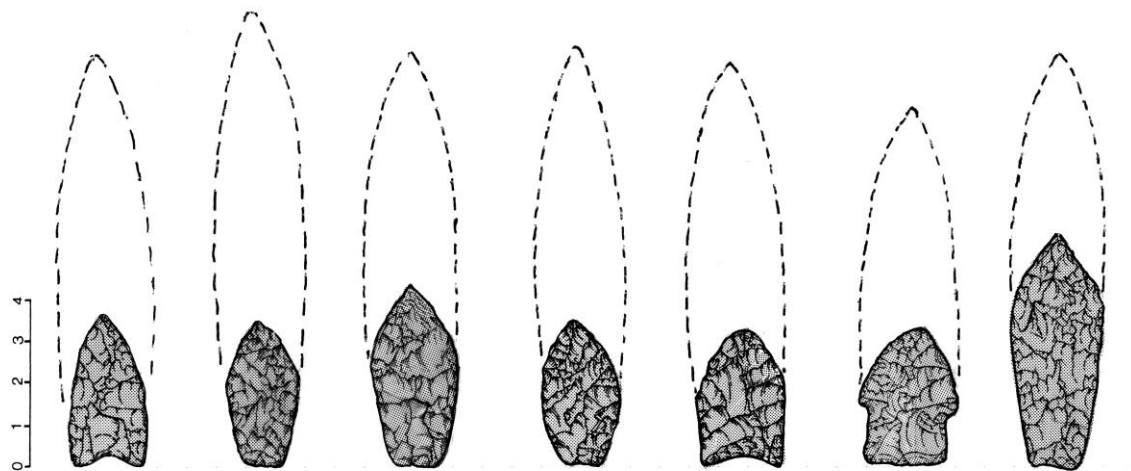


Fig. 9. Examples of re-worked (re-tipped) Early Indigenous projectile points of various styles from Manitoba. The FaMi-10 specimen is on the far left. Drawings by the present writer.

Concluding Remarks

A surface-found stone projectile point from site FaMi-10 in the Upper Swan River valley was originally classified by two different archaeologists as either an 11,000-year-old Clovis point or a 4,000-year-old McKean point. Subsequent reconsideration in light of palaeo-environmental reconstructions and the hypothesized processes of stone-tool breakage and renewal have given rise to a third typological alternative that is neither Clovis nor McKean. It is proposed that the subject artifact is a substantially reworked Nipawin point, a category that post-dates the deglaciation and follow-on inundation of the valley by glacial meltwater. It is concluded here that the FaMi-10 point is a relic of the second major phase of human (Nipawin) occupation of the Upper Swan River valley during Early Indigenous times.