

Data and Images of Fluted Points from the Petersen Site (33OT9), the Kasten Site (33ER782), and the Firelands Historical Society

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Abstract

We provide data and images of fluted points from the Petersen site, the Kasten site, and the Firelands Historical Society collections. Our data and images may be useful to syntheses or meta-analyses, and our report serves as a marker for where, or by whom, these fluted points are currently curated.

Introduction

Several fluted points in Ohio have recently come to the attention of professional archaeologists at Kent State University and the Cleveland Museum of Natural History. Our goal here is to provide new or updated information and images of these specimens, following a long tradition of Ohio fluted point data publication (e.g., Lepper 1983; Prufer 1960; Perrone et al. 2020; Shetrone 1936; Smith 1951). Although such studies are not of the highest profile, the data and pictures we provide here may be useful to syntheses or meta-analyses, and our report serves as a marker for where, or by whom, these fluted points are currently curated.

One fluted point is from the Petersen Site (33OT9), a multicomponent site in Ottawa County, Ohio (Abel 2012) (Figures 1-2; Table 1). Abel (2012:22) notes that fieldwork at Petersen recovered seven (or eight)¹ Paleoindian-style points in total “from surface assemblages only” at Petersen (Abel 2012:7). These specimens, all initially found by and originally in the possession of Mr. Gary Johansen, are two “Gainey points,” three “Holcombe points,” and two (or three) “Hi-Lo points.” In our view, most of these points likely fall within Clovis variation (e.g.,

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Buchanan et al. 2014). This includes the Petersen point we describe here, which is listed in Abel (2012:Figure 25e) as a “Holcombe non-fluted biface.” However, our re-examination of this



Figure 1. Map showing the locations and/or current curation facility of the fluted points reported in the present manuscript.

specimen suggests that it is indeed fluted on both faces, while a morphometric analysis demonstrates that its plan-view shape falls within Clovis variation (Figure 3). A stack is present on one face, perhaps a result of knapping mistakes. The notches and battered edges are likely from rolling, trampling, or some other process. Abel (2012) identifies the point's chert raw material as Upper Mercer and we concur. The specimen is currently curated by the Cleveland Museum of Natural History, having been previously acquired by co-author Charles Stephens.

Two newly recovered fluted points are from the Kasten Site (33ER782), a multicomponent site in Erie County, Ohio (Eren et al. 2025) (Figure 1, Figures 4-5; Table 1). Previous Clovis, or

possible-Clovis, finds from Kasten include two fluted points, bifaces, and endscrapers. Both new fluted points are made from Upper Mercer chert, both are basal fragments, and both currently reside with the Kasten site owner and co-author, Paul Kasten. Due to their fragmented nature, these two Kasten fluted point fragments could not be assessed via geometric morphometric analysis.

Nine fluted points are curated by the Firelands Historical Society (FHS), in Norwalk, Ohio (Figure 1, Figures 6-14; Table 1). Of these, only two points were made on cherts that could be macroscopically (albeit provisionally) identified: FHS specimen #1 appeared to be made on Upper Mercer chert while FHS specimen #4 appeared to be made on Columbus-Delaware chert. Future work should aim to geochemically assess all these specimens



Figure 2. Fluted point from the Petersen site.

(e.g., Boulanger et al. 2015, 2022). F.H.S. specimen #4 was also the only specimen that possessed provenience information, having been originally found in Ross County, Ohio (Figure 1). All the FHS fluted points are consistent with Clovis plan-view form (Figure 3), even specimens #5 and #7 (Figures 10 and 12), which other archaeologists might argue are ‘technologically’ more consistent with the Cumberland/Barnes point types given their full-face flutes (e.g., Bradley et al. 2010; Deller and Ellis 1988). Alternatively, perhaps the cultural phenomenon of “Clovis fluted points” encompasses more variation than is traditionally recognized, including that of the Cumberland and Barnes types, especially given the latter’s lack of radiometric dates (Lepper 1986).

Mukusha et al. (2022) has previously highlighted the research potential for collecting Paleoindian artifact data from historical societies’ collections. The nine fluted points from the FHS reported here are more evidence of that potential. Yet, we would like to note that there are likely more Paleoindian artifacts in the FHS’s substantial collections. For example, we spotted a fluted point in an artifact display (Figure 15). While we could not record data from this latter specimen during our visit since it was mounted and behind glass, we would encourage other researchers to visit the facility, to comb through their collections, and to make arrangements to access specimens that are currently unavailable due to their being on display.

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Table 1. Data recorded from the fluted point reported in this study.

Specimen	Catalog #	Figure #	Mass (g)	Length (mm)	Width (mm)	Basal Width [Basal Constriction] (mm)	Proximal-Lateral Edge Grinding Length #1 (mm)	Proximal-Lateral Edge Grinding Length #2 (mm)	Flute Length #1 (mm)	Flute Length #2 (mm)	Basal Concavity Depth (mm)	Chert type
Petersen	n/a	2	12.5	55.22	24.82	24.82	n/a	n/a	19.96	13.08	2.85	Upper Mercer
Kasten #1	n/a	4	1.6	16.41	17.17	16.74*	n/a	n/a	n/a	n/a	2.73*	Upper Mercer
Kasten #2	n/a	5	2	18.87	19.3	18.01*	n/a	n/a	n/a	n/a	3.01*	Upper Mercer
F.H.S. #1	104/10	6	12.8	69.48	24.35	24.78	30.29	37.83	29.68	14.94	4.6	Upper Mercer
F.H.S. #2	20 2008-5	7	21.2	91.33	30.91	28.49	37.16*	49.5	53.17	25.12	7.62	Unknown
F.H.S. #3	3930	8	5	48.24	15.4	15.37*	17.02	23.64*	22.16	22.49	1.81	Unknown
F.H.S. #4	Ross Co. 4617	9	2.5	38.54	14.31	15.02	17.08	19.72	15.41	7.83	3.14	Columbus Delaware
F.H.S. #5	2008-5 20	10	20.9	84.03	24.7	22.98 [19.67]	49.66	38.15	71.08	59.62	4.08	Unknown
F.H.S. #6	1784	11	13.7	61.14	28.01	24.84	34.45	28.62	27.83	24.5	6.54	Unknown
F.H.S. #7	2013-1	12	9.9	52.37	18.08	17.27 [14.31]	31.61	31.06	45.04	43.26	2.62	Unknown
F.H.S. #8	4097	13	14.5	59.2	29.9	29.25	14.65	25.43	15.21	15.44	4.41	Unknown
F.H.S. #9	2013-2	14	11.5	58.26	22.88	23.29	16.13	24.29	12.07	14.08	3.97	Unknown

*Estimated value

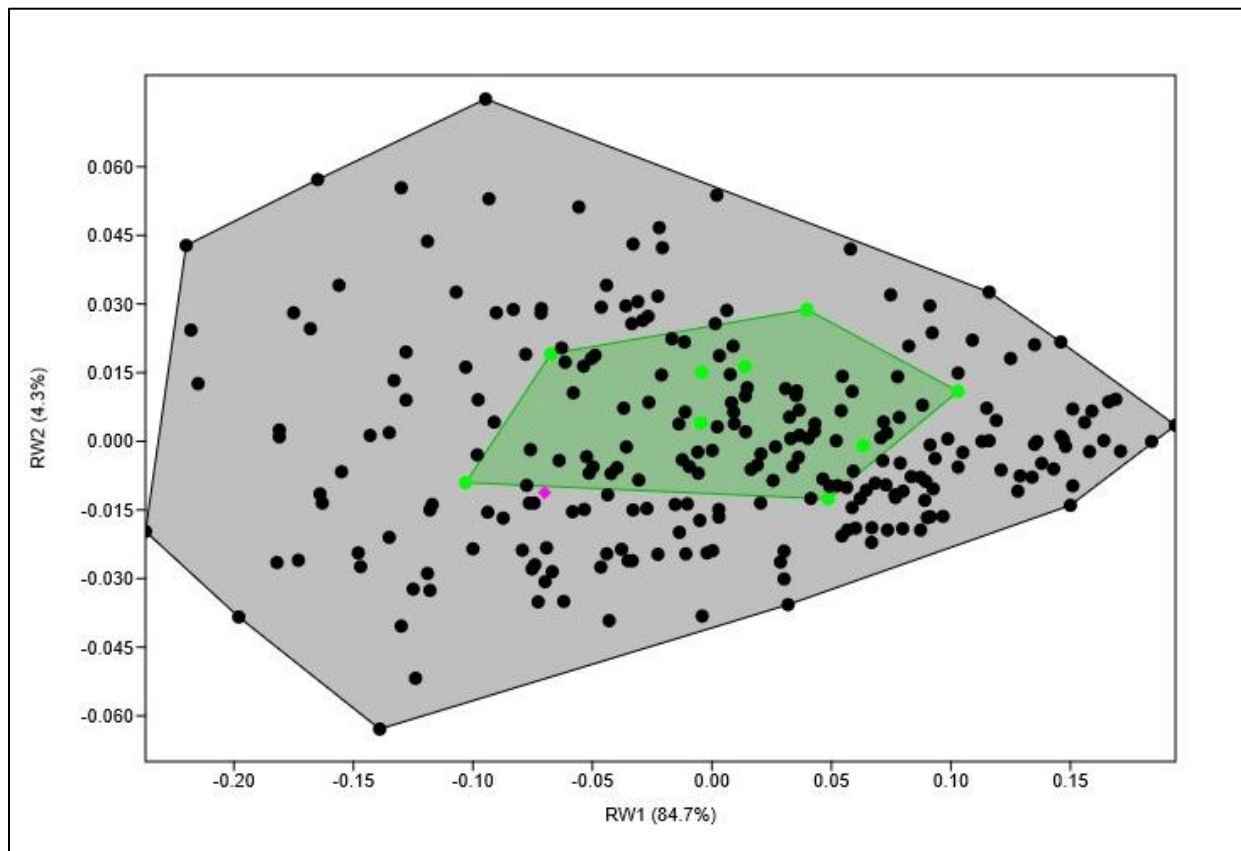


Figure 3. Results of the geometric morphometric analyses of the FHS and Peterson fluted points (for methods see Buchanan et al. 2014, 2018). The graph shows relative warps scores describing shape variation in the sample of points. The x-axis is relative warp 1 and represents 84.7% of the overall shape variation in the dataset and the y-axis is relative warp 2 and represents 4.3% of that variation. The FHS fluted points (n=9) are shown in green, the Peterson specimen is shown in purple, and the Clovis point sample (n=241) is shown in black. The Clovis sample came from across North America (see Buchanan et al. 2014, 2018). Convex hulls are used to demarcate the extent of shape variation in the FHS and Clovis samples.

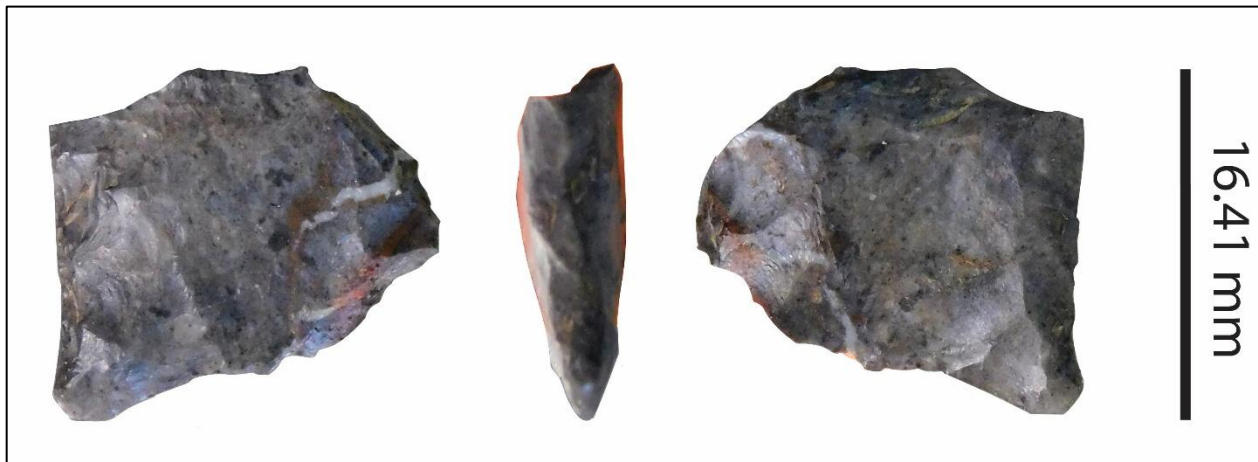


Figure 4. The Kasten fluted point #1. The specimen is a basal fragment, and there is evidence of proximal-lateral edge grinding, suggesting that the point was finished.



Figure 5. The Kasten fluted point #2. The specimen is a basal fragment, and there is evidence of proximal-lateral edge grinding, suggesting that the point was finished.



Figure 6. FHS #1. There is a notch on the lateral edge and the tip is damaged; both features may have been from taphonomic causes.



Figure 7. F.H.S #2. This specimen exhibits a broken ear and a possible impact scar at its tip. Both faces exhibit multiple flutes.



Figure 8. F.H.S #3. The basal edge of this specimen is ground.



Figure 9. F.H.S #4. This specimen exhibits a twisted morphology, suggesting that it was possibly made on a flake.



Figure 10. F.H.S #5. This specimen exhibits a possible impact scar at its tip and its basal edge is ground. This specimen is likely a post-Clovis point type.



Figure 11. F.H.S #6. The asymmetry of this specimen may be due to resharpening. Its basal edge is ground. Additionally, the specimen was broken but glued back together.



Figure 12. F.H.S #7. This specimen is likely a post-Clovis point type.

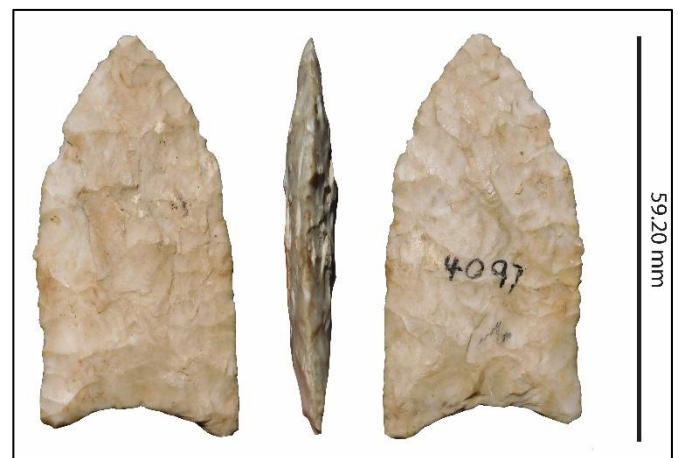


Figure 13. F.H.S #8. The small notch on this specimen's lateral edge is likely taphonomic. The point's basal edge is ground.

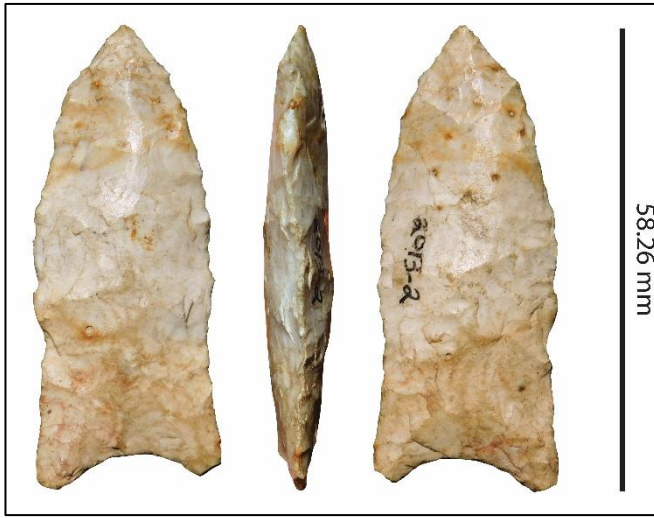


Figure 14. F.H.S #9. This specimen exhibits small breaks on each of its ears and its basal edge is ground.



Figure 15. There are likely more Paleoindian points in the FHS collections. This one (right), apparently made from Upper Mercer chert, was spotted in a display (left).

¹ There is a numerical discrepancy between the Abel's [2012:22] text and his Figure 25.