

A Fragmentary Fluted Point from Silurian Valley, San Bernardino County, California

Michael F. Rondeau and Thomas T. Taylor

Abstract

A fragmentary fluted projectile point was found at CA-SBR-3186. The site consists of a cluster of small rock cairns and only the fluted point fragment. No other artifacts were discovered. No age could be assigned to the cairns nor could an association of those rock features with the fluted point be demonstrated. The fluted point is made of a cryptocrystalline silicate. It lacks the distal end and is heavily weathered. That weathering precluded the identification of edge grinding. Otherwise, the specimen exhibits attributes typical of fluted points in the region and appears to be of Paleoamerican origin.

Introduction

The Silurian Valley fluted point is one of more than 40 fluted point specimens that have been found in San Bernardino County (Brott 1966; Campbell et al. 1937; Davis and Panlaqui 1978; Davis and Shutler 1969; Glennan 1987; Jenkins 1985; Moratto 1984; Rogers 1939; Rondeau 2004a, 2005; Simpson 1947; Skinner 1984; Sutton and Wilke 1984; Warren and Phagan 1988). Additional specimens have been found, but not reported (Claude Warren, personal communication 2005).

Fluted points remain undated in California although they have been found throughout the length and breadth of the state. Although over 400 fluted point specimens have been suggested for California

(Dillon 2002) recent studies indicate that the numbers may be far fewer when typological issues regarding the Tulare Lake specimens are recognized (Rondeau 2006). While it is generally accepted that fluted points were manufactured during the terminal Pleistocene and earliest Holocene, the surface nature of most finds in California have precluded radiocarbon corroboration of that temporal placement. Likewise, clear associations with Pleistocene megafauna remains have not been successful. Even so, considerable antiquity for these specimens seems apparent.

In addition, the typological placement of many fluted points in California and adjacent states remains an issue. Many of the fluted points in the Far West appear to be neither classic Clovis nor Folsom fluted points (Beck et al. 2004; Huckell 1982; Touhy 1988). Fluted points that cannot be assigned to the Folsom type, but appear to be post-Clovis in technology have been recognized in both Nevada (Beck et al. 2004) and California (Rondeau 2006.). However, specific types have yet to be defined for the Far West as has been done elsewhere in North America (Rondeau 2007).

Given that numerous other fluted point types are recognized elsewhere in North America, the very use of the Clovis label in California can be questioned (Rondeau 2007). Because there are issues of temporal and typological placement and because such placements can have significant implications regarding cultural positioning, associated lifeways and subsistence practices, the reporting of this artifact is offered as a contribution to the growing information base on fluted points in California. The compilation of such information may one day help to successfully address a variety of Paleoamerican research topics.

Silurian Valley Fluted Point

The Silurian Valley fluted point was found in 1984 during an archaeological research project on stone cairn sites in the Lake Mojave area. This artifact was found on the surface of CA-SBR-3186, a cluster of small stone cairns that could not be related to the fluted point find. No other artifacts were discovered during the survey. The site is located in Silurian Valley about two and one half miles west of the Silver Lake playa. That playa combined with the Soda Lake playa to form Pleistocene Lake Mojave (Taylor et al. 1987).

The point lacks its distal or tip end because of a perverse fracture. It is made of a gray cryptocrystalline silicate with several light-colored diagonal bands of quartz. This specimen is generally parallel sided with some constriction of the lateral margins toward the distal end. The base is somewhat concave. The concavity, however, is off center (Figs. 1 and 2).

The Silurian Valley specimen measures 39.8 by 24.7 by 6.7 millimeters in length, width and thickness. It weighs 8.9 grams. The basal indentation is 7.86 millimeters. Microscopic evidence of aeolian abrasion shows extensive pitting with

rounded edges formed by a process that was eating away portions of the surface. Even so, this weathering neither precluded definition of most of the flake scars nor their relationship to each other. No evidence of thermal alteration was observed. This specimen has been assigned artifact number SBR-3186-001 and is to be curated at the San Bernardino County Museum.

Description Of Details

All technological descriptions are made in reference to either the obverse side (Fig. 1, Face 1) or the reverse side (Fig. 1, Face 2). Descriptions referencing locations to the left or right on either face are made with the distal end oriented to the top of the page (Fig. 1). The observations were made using a 16X hand lens and direct incandescent light (Table 1).

The obverse face (Fig. 1, Face 1) is recognized as having one percussion sized flute scar with a smaller pressure end thinning flake overlying it, off center to the right. The single flute scar has a length and width of 13.8 by 16.6 millimeters. It is wider than it is long. It is easily more than one-third maximum point width, which fits within the size criterion for channel flake scar identification

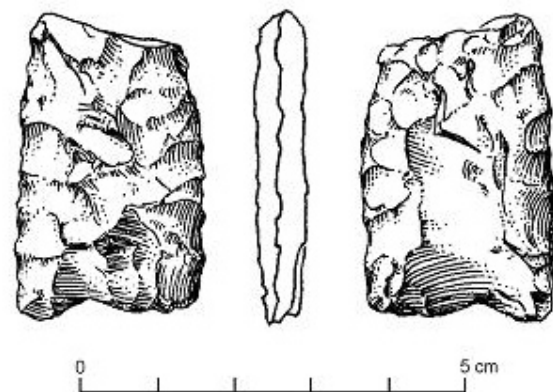


Fig. 1. Artifact SBR-3186-001. Face 1 (left) and Face 2 (right).

suggested for the region (Warren and Phagan 1988). It has a step termination. No flute scratches were observed due to weathering. As noted above, a small, pressure end thinning flake scar overlies the flute scar, but is off center on top of a portion of the right-hand half of the channel scar. No pressure end thinning flake scars that might have served as guide scars prior to fluting or ridge removal scars to basally thin the margins of the channel flute were observed on this face.

The obverse appears to have been the first side of the point to have been fluted. This conclusion is suggested by the lack of attributes indicating the proximal end of the channel scar. Such attributes include a narrowing toward what would have been the initial “bottleneck” portion of the flute scar and a remnant of the negative bulb of force. The

inference is that the proximal end of the channel flake scar was removed by preparations for and fluting of the reverse face.

Table 1. Metric Attributes Of The Silurian Valley Fluted Point

Measured Attribute	Overall Specimen	Obverse	Reverse
Maximum length (mm)	39.8	-	-
Maximum width (mm)	24.7	-	-
Thickness (mm)	6.7	-	-
Weight (g)	8.9	-	-
Length of flute (mm)	-	13.8	25.2
Maximum width of flute (mm)	-	16.6	17.3

The horizontal pressure flake scars from the left lateral margin were roughly parallel while the

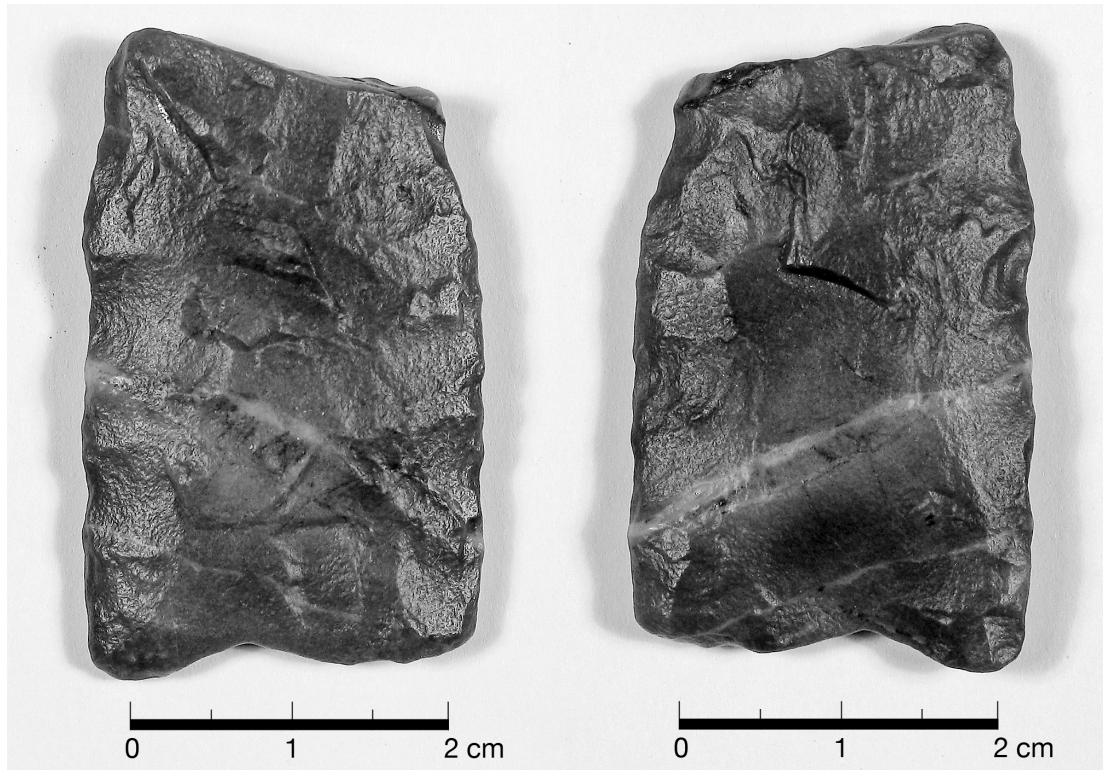


Fig. 2. Artifact SBR-3186-001 photographs. Face 1 (left) and Face 2 (right).

pattern of those from the right margin were clearly irregular in size and orientation. From the right margin two pressure scars overlapped onto the channel flute scar. None of the horizontal pressure scars from either margin were truncated by the flute scar.

The basal and lateral point margins are heavily weathered, precluding the identification of edge grinding, a common fluted point characteristic. However, the lateral snap margins are less rounded than either the lateral or basal edges. This indicates less weathering of the lateral snap, suggesting that the snap break is probably much more recent than the point surfaces. Likewise, the snap surface shows much less erosion than either point face. This is evidenced by pitting that is much less pronounced than on either of the two point faces.

The basal margin is slightly irregular. The basal concavity is off center to the left when viewed from the obverse side. The lateral margins of the basal element tend to be generally parallel, neither expanding nor contracting towards the proximal end of the artifact. The basal cross section is biconcave meaning that, morphologically, this specimen qualifies as a fluted point. In addition, the flute scars, from a long-section view diverge away from each other as they move towards the distal or tip end of the specimen.

The reverse face (Fig. 1, Face 2) is identified by having a single, notably longer channel scar and has the basal concavity off center to the right. The single flute scar runs sixty-three percent of the surviving length of the specimen. The flute scar ends partly in a feather termination, but the majority ends in a step. Again, because of weathering, no intentional scratching of the flute scar was found. The channel scar measures 25.2 by 17.3 millimeters in length and width. Like the obverse face, the width measurement is easily more than a third of

the maximum width of the point. The proximal end of the channel scar clearly shows a remnant of a negative bulb of force. This argues for the reverse face having been the second side of the point to have been fluted. The fluting order of the two point faces has been defined for other specimens in California. (Rondeau 1998, 2004b). No guide scars, ridge removal scars, or any other end thinning scars are present on the base of the reverse face.

The pattern of horizontal pressure flake scars from the left lateral margin are only roughly parallel, and the pattern for those from the right are again irregular. Three pressure scars from each lateral margin overlap onto the flute scar. No horizontal pressure flake scars from either edge are truncated by the channel scar.

The aforementioned basal concavity is off center to the right from the reverse view. This concavity appears to be aligned with the surviving portion of the negative bulb on the flute scar. Because microscopic details of the channel flute scar were erased by weathering, an exact alignment between the negative bulb remnant and the concavity cannot be demonstrated, although it appears nonetheless to be quite close.

What may once have been the basal left ear appears broken, as a heavily weathered surface partially perpendicular to the cross section is slightly visible from the reverse view (Fig. 2). A small step scar that ends in a hinge on the right basal ear may suggest that some damage, although much more limited, may have occurred to that ear as well.

Discussion

Many fluted points do not belong to the Clovis type. Currently in North America it is recognized that there are a range of fluted point types having morphological, technological, and temporal

differences (Faught and Freeman 1998). These findings indicate that post-Clovis fluted point types are regionally circumscribed and much more numerous than the Clovis type. Any significant presence of both the Folsom type as well as Classic Clovis points fades away with western movement beyond eastern Utah (Copeland and Fike 1988) and eastern Arizona (Huckell 1982; Faught and Freeman 1998).

Neither point type is completely excluded further west, but their general replacement by other fluted point types is indicated. The recognition of fluted point types specific to the Far West have been suggested for western Arizona and the Mojave Desert (Huckell 1982; Faught and Freeman 1998), Nevada (Beck et al. 2004; Touhy 1988) as well as Alaska and the Pacific Northwest (Meltzer and Dunnell 1987).

For the Mojave Desert, “Many of the [fluted] points appear to exhibit the criteria of the Clovis type. However, some do not” (Warren and Phagan 1988:129). Faught and Freeman (1998) have listed non-Clovis fluted point attributes unique to the Far West including the Mojave Desert. They recognized V-shaped basal concavities, smaller, narrower, less regular morphologies and tendencies toward being stubby, multiple-fluted and excurvate sided varieties (Faught and Freeman 1998:38-39).

While Faught and Freeman (1998) attribute the multiple-flute attribute to Alaska (cf. Clark and Clark 1980) these distinctive, equally sized, parallel scars have also been observed on fluted points from Sunshine Well, Nevada and Tulare Lake, California. The “stubby” tendency of some western fluted points is the result of extensive resharpening. Others, as many from China Lake (Davis and Panlaqui 1978; Rondeau 2004a), are consistently smaller.

The V-shaped base that is present in the Mojave Desert and elsewhere, appears to be a pressure retouched variant of fluted points that had once had a notch in the concave basal margin. This notch appears to be incidental to the fluting process and not an intentionally produced attribute. Such notched points have been recognized at China Lake, Tulare Lake and Borax Lake in California and Jakes Valley and Sunshine Well in Nevada. Even so, the large majority of fluted points in the Far West retain a concave base rather than a V-shaped or notched base. In addition, remnants of small, non-Clovis nipple platforms for fluting have been recognized on points from such localities as Sunshine Well and Tulare Lake.

To compare the Silurian Valley point to the variable technology and morphology of fluted points in the Mojave Desert see Warren and Fagan (1988:125-126, Fig. 1 and 2) for examples. The Silurian Valley fluted point does not present attributes diagnostic of the Folsom type. It does not present a Clovis-like maximum width, which would have correlated with maximum thickness in a locality just distal of the flute scar terminations. The base is parallel sided rather than having an initial expansion of the margins in the distal direction. The concave base does exhibit somewhat of a V-shaped tendency. The morphology of this specimen is decidedly at variance with the classic Clovis form. However, the Silurian Valley specimen does fit well within the variable range of Mojave Desert fluted points.

Conclusions

The Silurian Valley specimen makes an interesting comparison to other fluted points in the region in that there is a high degree of morphological variability among such specimens as noted above. The lack of identifiable edge grinding as result of its weathered condition is unfortunate. However, this

weathered condition for points of such antiquity is typical for the region (Rondeau 2004a).

To conclude, the Silurian Valley fluted point exhibits a flute scar on both faces as well as showing the general form and size of fluted points from California. The clear presence of channel flute scars, the resultant biconcave cross section, the typical overlap of the channel scars by later horizontal pressure scars from the lateral margins, and the limited concave base morphology, all serve to document the Paleoamerican morphology of this artifact. The point exhibits a form typical of many if not most fluted points from the Far West in that it appears to be neither a Clovis nor a Folsom style fluted point (Huckell 1982).

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References

- Beck, Charlotte, George T. Jones, Dennis L. Jenkins, Craig E. Skinner, and Jennifer J. Thatcher
2004 Fluted or Basally-Thinned? Re-Examination of a Lanceolate Point from the Connley Caves in the Fort Rock Basin. In, *Early and Middle Holocene Archaeology of the Northern Great Basin* edited by D. L. Jenkins, T. J. Connolly, and C. M. Aikens, *University of Oregon Anthropological Papers* 62:281-294.
- Brott, Clark W.
1966 How Stones Became Tools and Weapons. In, *Ancient Hunters of the Far West*, pp. 139-193. R. F. Pourade editor, San Diego Museum of Man, Union Publishing Company, San Diego.
- Campbell, E. W. C., W. H. Campbell, E. Antevs, C. A. Amsden, J. A. Barbieri, and F. D. Bode.
1937 The Archaeology of Pleistocene Lake Mohave. *Southwest Museum Papers* 11.
- Clark, Donald W. and A. McFadyen Clark
1980 Fluted Points at the Batza Tena Obsidian Source, Northwestern Interior Alaska. In, *Early Native Americas, Prehistoric Demography, Economy, and Technology* edited by D. L. Browman. Mouton Publishers, The Hague.
- Copeland, J. M. and R. E. Fike
1988 Fluted Projectile Points in Utah. *Utah Archaeology* 1988:5-28.
- Davis, E. L. and C. Panlaqui
1978 Stone Tools: The Action Units. In, *The Ancient Californians: Rancholabrean Hunters of the Mojave Lakes Country*, edited by E. L. Davis. *Natural History Museum of Los Angeles County, Science Series* 29:30-75.
- Davis, E. L. and R. Shutler, Jr.
1969 Recent Discoveries of Fluted Points in California and Nevada. *Nevada State Museum Anthropological Papers* 14:154-169.
- Dillon, Brian D.
2002 California Paleoindians: Lack of Evidence, or Evidence of Lack? In, *Essays in California Archaeology, A Memorial to Franklin Fenenga, William J. Wallace and Francis A. Riddell*, Editors, *Contributions of the University of California*

- Archaeological Research Facility* 60:110-128.
- Faught, Michael K. and Andrea K. L. Freeman
1998 Paleoindian Complexes of the Terminal Wisconsin and early Holocene. In, *Paleoindian and Archaic Sites in Arizona*, J. B. Mabry, Center for Desert Archaeology, pp. 33-52. Arizona State Parks, Phoenix.
- Glennan, W. S.
1987 Concave-Based Lanceolate Fluted Projectile Points from California. *Southwest Museum Masterkey* 45(1):27-32.
- Huckell, Bruce B
1982 The Distribution of Fluted Points in Arizona: A Review and An Update. Cultural Resource Management Division, Arizona State Museum, *University of Arizona, Archaeological Series* No. 145.
- Jenkins, Dennis L.
1985 Rogers Ridge (4-SBa-5250): A Fossil Spring Site of the Lake Mojave and Pinto Periods – Phase 2 Test Excavations and Site Evaluation. *Fort Irwin Archaeological Project Research Report*, No. 18. Coyote Press, Salinas.
- Meltzer, Davis J. and Robert C. Dunnell
1987 Fluted Points from the Pacific Northwest. *Current Research in the Pleistocene* 4:64-66.
- Moratto, Michael J.
1984 *California Archaeology*. Academic Press Inc. Orlando.
- Rogers, Malcolm J.
1939 Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. *San Diego Museum Papers* 3.
- Rondeau, Michael F.
1998 A Technological Study of the Skyrocket Site Fluted Point, Calaveras County, California. Manuscript on file Rondeau Archeological, Sacramento.
2004a A Summary of Analysis, Twenty-Nine Projectile Points from China Lake, California. *CalFLUTED Research Report 7*, Manuscript on file Rondeau Archeological, Sacramento.
2004b An Analysis of the Volcanic Tablelands Fluted Point, Inyo County, California. *CalFLUTED Research Report 17*, Manuscript on file Rondeau Archeological, Sacramento.
2005 A Report on the Analysis of Three Fluted Points from China Lake, California. *CalFLUTED Research Report 20*, Manuscript on file Rondeau Archeological, Sacramento.
2006 Revising the Number of Reported Clovis Points from Tulare Lake, California. In press, *Current Research in the Pleistocene* Vol. 23.
2007 California Fluted Projectile Points. In, *California Prehistory* edited by Terry Jones. In press, Altamira Press.
- Simpson, Ruth Dee
1947 A Classic Folsom from Lake Mohave. *Southwest Museum Masterkey* 21(1):24-25.
- Skinner, Elizabeth J.
1984 Data Recovery of a Portion of Bow Willow Wash North, Fort Irwin, San Bernardino County, California. Fort Irwin

- Archaeological Project Research Report*
No. 11. Coyote Press, Salinas.
- Sutton, Mark Q., and Philip Wilke
1984 New Observations on a Clovis Point from
the Central Mojave Desert, California
Journal of California and Great Basin
Anthropology 6(1):113-155.
- Taylor, Thomas T., Diann L. Taylor, Delbert Alcorn,
Edward B. Weil, and Martin Tambunga
1987 Investigations Regarding Aboriginal Stone
Mound Features in the Mojave Desert:
Excavations at CA-SBR-221 and CA-SBR-
3136, San Bernardino County, California.
In, *Papers on the Archaeology of the*
Mojave Desert edited by M. Q. Sutton,
Coyote Press *Archives of California*
Prehistory 10: 79-114.
- Touhy, Donald R.
1988 Paleoindian and Early Archaic Cultural
Complexes from Three Nevada Localities.
In, *Early Human Occupation in Far*
Western North America: The Clovis-
Archaic Interface edited by J. A. Willig, C.
M. Aikens, and J. L. Fagan. *Nevada State*
Museum Anthropological Papers 21:217-
230.
- Warren, Claude N. and Carl Phagan
1988 Fluted Points in the Mojave Desert: Their
Technology and Cultural Context, In, *Early*
Human Occupation in the Far Western
North America: The Clovis-Archaic
Interface, edited by J. A. Willig, C. M.
Aikens, and J. L. Fagan. *Nevada State*
Museum Anthropological Papers 21:121-
130.