

To the Point Calf Creek

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Lee Adams (1958:62–63) was perhaps the first to recognize this type as a distinctive basal-notched point, but Dickson (1968) named it Calf Creek based on basal-notched points derived from Calf Creek Cave in Searcy County, Arkansas.

Description

Calf Creek is a medium to large dart point or knife that ranges in length from approximately 40–65 mm (resharpened) to 65–120 mm (unresharpened). The mean length of 33 Calf Creek bifaces (Expanding Stem and Parallel Sided Stem, Series A) from the Primrose site in southern Oklahoma is 52.6 mm (Wyckoff et al. 1994:Table 2). Calf Creek points have deep, generally parallel, basal notches that isolate a relatively long stem (range=14–27 mm; mean=19.8 mm). The depth and narrowness of the notches (range=2.6–4.1 mm; mean=3.5 mm) suggest that they were produced by indirect percussion.

Stems are generally straight, but may be slightly expanding. Bases are usually straight, although some may be slightly convex or slightly concave. Calf Creek specimens with a slightly expanding stem and concave base often exhibit a lobed appearance (Duncan and Wyckoff 1994:Figure 3; Gettys 1994:Figure 1). On occasion, a deep notch was placed in the base of the stem (Adams 1958:Figure 36; Getty 1994:Figure 1). The stems of some Calf Creek points exhibit thinning flake scars emanating from the base on one or both faces (Adams 1958:Figure 36). The stem edges may exhibit steep bifacial flaking, producing a bi-beveled appearance, which may be an attribute diagnostic of stem-only

Calf Creek fragments.

Eight of 47 (18%) Calf Creek stems

from the Bass site were bi-beveled (Ray 1995:73). The stems and bases of Calf Creek points appear to be inconsistently lightly ground, which may represent regional variation. Duncan and Wyckoff (1994:260) reported that 35 of 36 (97%) Calf Creek points from the McKellips site in eastern Oklahoma were ground, whereas Wyckoff et al. (1994) reported that stem and basal grinding was highly variable on Calf Creek points from the Primrose site. In contrast, Ray (1995:73) reported that only 1 of 47 (2%) Calf Creek points from the Bass site in southwest Missouri had ground stems.

The blades of pristine or unresharpened Calf Creek points (rare) are large, broad, relatively thin, and flat or tabular in cross section. The midline portions of unresharpened blades of Calf Creek points exhibit broad, random, soft-hammer percussions scars, whereas the edges of the blade exhibit fine, systematic, parallel to diagonal pressure-flake scars. Maximum thickness (range=4.6–8 mm; mean=6.5 mm) is generally at the blade-stem juncture or along the lower portion of the blade. Blade edges of these unresharpened specimens are excurvate and they may exhibit serrations along the proximal half of the blades and barbs. Maximum blade width (range=29–66 mm; mean=40.2 mm) is along the lower portion of the barbs on unresharpened specimens and at the shoulders of resharpened specimens. The blades of extensively resharpened specimens are short, straight, and rarely serrated. Beveled blade edges are very rare (Ray 2010:60).

The barbs of unresharpened specimens are long and extend to the base of the stem. They are also wide (mean=10.5 mm), thin (mean=3.7 mm), tabular in cross section, and rectangular at the base. The barbs on extensively resharpened specimens are shortened substantially, become narrower, or are broken or missing entirely.

The vast majority of Calf Creek points are extensively resharpened, battered, and/or fractured, which results in fragments that are stems only or stems with small blade or barb segments. The frequent loss of the distinctive wide barbs and narrow notches makes the identification of extensively resharpened Calf Creek points difficult. The presence of a Calf Creek component, however, can sometimes be established with the recovery of a long, wide, thin, rectangular barb fragment (Lopinot et al. 2010:86; Ray 2002:51).

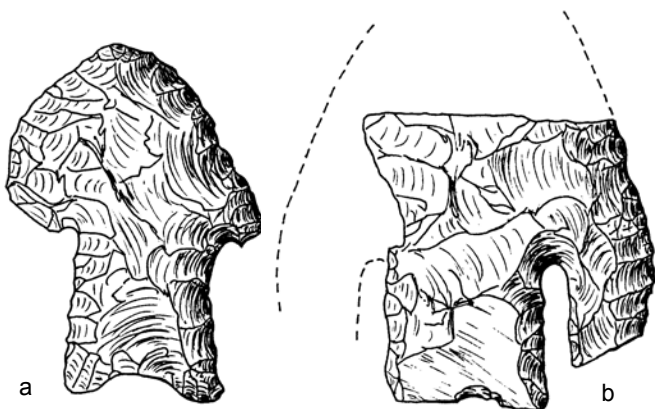
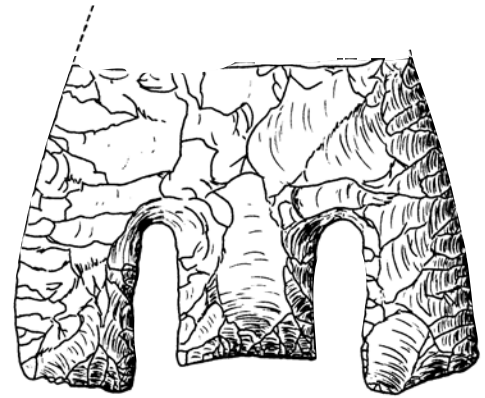


Figure 1. Calf Creek points. (a) From 23WB163, (b) from 23DG180.

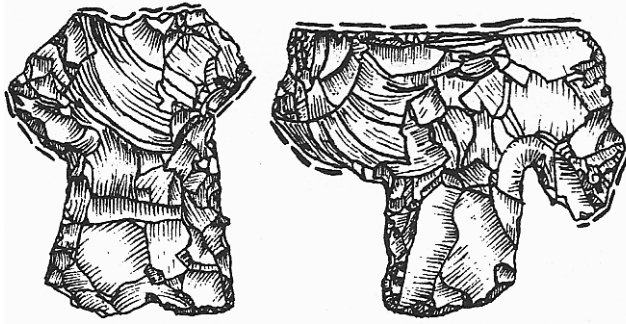


Figure 2. Calf Creek points from the Bass site, 23GR4I.

Heat Treatment

An exceptionally high incidence of heat treatment has been reported for Calf Creek components at sites in Missouri (Ray and Lopinot 2003:15) and Oklahoma (Bartlett 1994:84; Neal 1994:245–246; Neal et al. 1994:303; Shockey et al. 1994:343; Wyckoff et al. 1994:52). Calf Creek knappers at these sites were highly consistent in the practice of heat-treating bifacial preforms, especially preforms knapped from light-colored medium-textured cherts that can be transformed into high-quality material after heat treatment (e.g., Burlington, Frisco, Florence A, and Keokuk/Undifferentiated Osagean cherts). An exception to this high incidence of Calf Creek heat treatment may be in areas where high-quality, fine-grained raw chert is readily available (e.g., Reeds Spring chert in the upper White River valley of southwest Missouri and northwest Arkansas).

Distribution

Calf Creek points are widely distributed throughout the southern Plains and adjacent regions. The core area of Calf Creek appears to be central and eastern Oklahoma, eastern Texas, southern Kansas, southwest Missouri, and northwest Arkansas (Lopinot 1995:Figure 8.2; Wyckoff 1994:Figure 1). In Missouri, the bulk of Calf Creek sites occur on the Springfield Plateau subprovince of the Ozarks from the Missouri-Arkansas border north to just south of the Missouri River. However, Calf Creek points are occasionally found at sites farther east in portions of southeast and northeast Missouri (O'Brien and Warren 1985; Roberts 1965).

Age

Some have contended that Calf Creek points date to the Early Archaic period (O'Brien 1985:73; O'Brien and Wood 1998:138; Perino 1985:62), but multiple radiocarbon ages from the Kubik site and other sites in Oklahoma and Texas indicate that Calf Creek points date much later. Eight of 11 radiocarbon ages from the Kubik site, which has produced

the best stratigraphic and radiocarbon associations with Calf Creek, range between 5400 rcybp (3400 B.C.) and 4600 rcybp (2600 B.C.) (Neal 1998, 2001, 2002; Ray and Lopinot 2003:Table 3).

Comments

Bell and Andice are type names used for Calf Creek in Texas. Andice specimens are larger overall and have longer stems and barbs than Bell specimens, whereas Calf Creek specimens are intermediate in size between Andice and Bell (Prewitt 1983; Turner and Hester 1993). However, most now agree that all three names refer to a single type and that Andice and Bell simply represent different stages of resharpening, i.e., minimal and extensive resharpening, respectively (Perino 1985; Wyckoff 1994:3).

Calf Creek superficially resembles the basal-notched Smith type, but the two types differ in several attributes, age, and technology used in manufacturing each point type (Ray et al. 2009:177–178). See Dickson (1984) and Lopinot (1995:152–156) for excellent discussions of differences between Calf Creek and Smith points. For a comprehensive study of the Calf Creek manifestation in Oklahoma, see Wyckoff and Shockey (1994).

Large flakes and biface fragments (including broken Calf Creek points) were often used by Calf Creek knappers as practice pieces, presumably to teach apprentice knappers or for perfecting their skill in producing the deep narrow basal notches (Ray 1995:64–65; Wyckoff and Shockey 1994). Calf Creek preforms are large, wide (range=47–56 mm), trianguloid forms with straight to slightly convex bases (Ray 1995:Figures 5.5–5.6).

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