



RESEARCH BRIEF



## A Crescent Biface from Southeastern Utah

Jesse W. Tune  and Jon M. Fox

Department of Anthropology, Fort Lewis College, Durango, CO, USA

### ABSTRACT

Crescent bifaces are one of the most enigmatic stone tool types in North America. While these artifacts are poorly understood, they are widely known from sites throughout a core area consisting of the Great Basin and California. Here, we report on one of the eastern-most crescents from southeastern Utah, which is also the only crescent currently documented from the northern Colorado Plateau.

### KEYWORDS

Crescent bifaces; lithic technology; Paleoindian; northern Colorado Plateau; Great Basin

Crescent bifaces are known from locations throughout western North America and have been found in association with Western Stemmed Tradition tools, concave-base lanceolate projectile points, and fluted projectile points (Sanchez, Erlandson, and Tripcevich 2016). Sanchez, Erlandson, and Tripcevich (2016) found that nearly all (99 per cent) crescents currently known have been recovered from within 10 km of paleo-wetland habitats that existed during the Pleistocene-Holocene transition. Crescents are most often documented from surface contexts and, thus, are poorly dated. Fewer than 10 sites throughout the Intermountain West have produced radiocarbon ages for crescents ranging from about 12,000 to 8400 cal yr BP (Beck and Jones 2010; Smith et al. 2014).

Crescents are most commonly known from a core area consisting of the Great Basin and California. However, a few have been documented from the Rocky Mountains and even into the central Great Plains (Moss and Erlandson 2013; Sanchez, Erlandson, and Tripcevich 2016; Terlep and Holen 2008), an area that is referred to here as the “eastern periphery” of crescent distribution. Amick (2007) documented two crescents from the Caligore Collection that were recovered within a few km of the North Platte River in southeastern Wyoming. Terlep and Holen (2008) describe two additional crescents (Sterling and Crowley) in northeastern and southeastern Colorado. Similar to the Wyoming crescents, both of the Colorado crescents were recovered near riverine settings along the South Platte River and a tributary (Horse Creek) of the Arkansas River (Terlep and Holen 2008). Frison (1991) described a crescent in the Fenn Cache, from the boundary area of Utah, Wyoming, and Idaho, as being made from Green River

chert. Finally, two additional crescents have been reported from western New Mexico near Pleistocene Lake San Agustin (Carlson 1983).

Here we describe a newly discovered crescent from eastern San Juan County, Utah, near Bears Ears National Monument. To our knowledge this appears to be the only crescent currently known from the northern Colorado Plateau. This crescent was recovered during the Operation Cerberus law enforcement action in 2009 that confiscated illegally looted artifacts from the Four Corners Region (Pérez, Harrod, and Martin 2009). Fortunately, the looter kept meticulous notes and recorded exact site locations. Thus, we know this crescent was picked up from a surface site near Indian Creek in San Juan County, Utah. This location is unusual compared to other crescent locations because there are no major water sources nearby. Available water consists of intermittent, seasonal streams and seeps. There is no documentation of other artifacts being associated with this crescent.

The Cerberus crescent easily falls into Tadlock's (1966) Type I lunate crescent category (Figure 1). It is made from gray and white mottled chert and has a random flaking pattern across both faces, with maximum dimensions of 32.48 mm long, 13.0 mm wide, and 7.24 mm thick. Both faces are moderately-to-heavily patinated. There are no obvious indications of being thermally altered. Both edges exhibit grinding, though grinding on the convex edge is more extensive.

Similar to Amick's (2007) study of crescents from southeastern Wyoming, the Cerberus crescent is 35–38 per cent smaller than those from the Great Basin (Table 1). The availability of toolstone in relative close proximity to most of the eastern crescents makes it



**Figure 1** Cerberus crescent biface from San Juan County, Utah.

unlikely that raw-material-package size was a determining factor in biface size. Rather, the relatively diminutive sizes of crescents found in the eastern periphery may be related to the artifacts' use lives and resharpening, or to differences in regionally specific functions. Extending the use life of bifaces through prolonged resharpening will have greatly impacted the overall size. However, crescents in the eastern periphery may be smaller than those in the Great Basin due to procuring and processing resources in a different environmental region. While crescents are associated with the lacustrine and marine setting in the Great Basin and California, their use in the non-lacustrine settings of the eastern periphery may have led foragers to produce smaller crescents. Until larger sample sizes and more robust studies are completed, these hypotheses will remain speculative.

A Great Basin influence in the Colorado Plateau and southern Rocky Mountains has been previously hypothesized and demonstrated in Paleoindian lithic assemblages (Black 1991; Hartman 2019; Pitblado 1998). The existence of a crescent biface from southeastern Utah provides additional evidence that lithic technologies in the Great Basin were influencing technologies

to the east during the terminal Pleistocene and early Holocene.

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### Disclosure Statement

No potential conflict of interest was reported by the authors.

### ORCID

Jesse W. Tune  <http://orcid.org/0000-0002-3679-5808>

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**Table 1** Metric dimensions and contexts of crescent bifaces from the eastern periphery and Great Basin.

Specimen	Location	General context	Material	Maximum length	Maximum width	Maximum thickness	References
Cerberus	San Juan County, Utah	Canyonlands with intermittent streams and seeps	Chert	32.5	13.0	7.2	
Sterling	Logan County, Colorado	~ 5 km from the N. Platte River	Quartzite	32.8	12.9	5.9	Terlep and Hohen (2008)
Crowley	Crowley County, Colorado	Near the Arkansas River	Petrified wood	48.7	18.8	5.2	Terlep and Hohen (2008)
Caligore 1	Platte County, Wyoming	~ 5 km from the S. Platte River	Chalcedony	26.3	17.3	3.7	Amick (2007)
Caligore 2	Platte County, Wyoming	~ 5 km from the S. Platte River	Chert	28.1	14.8	2.8	Amick (2007)
Eastern periphery average (n = 5)				33.7	15.4	5.0	
Great Basin average (n = 424)				49.7	20.8	5.6	Amick (2007)

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