REPORTS

A Clovis-like Point from the Rose Spring Site (CA-INY-372)

ROBERT M. YOHE, II,
Dept. of Sociology and Anthropology, California State Univ., Bakersfield, 9001 Stockdale Hwy., Bakersfield, CA 93311-1099.

DURING the recent reanalysis of the flaked stone artifacts from the 1951-1961 excavations of the Rose Spring site (CA-INY-372; Fig. 1), an unusual bifacially worked artifact was noted in the collection. This specimen (1-186965), collected from the surface of the site by Francis Riddell in June of 1956, had been catalogued as a broken biface. However, upon closer scrutiny, the specimen proved to be a pressure-flaked, late-stage proximal fragment of an obsidian point with large channel flakes removed from each side of the artifact.

The artifact was lenticular in cross-section prior to the removal of the channel flakes and had been subjected to some pressure flaking prior to the removal of the first channel flake. The second channel flake removal resulted in a reverse hinge fracture that broke the point in two. Clearly, the point was broken during the manufacturing process. The original length of the successful detachment scar was greater than the disto-proximal length (28 mm.) of the specimen. There is no evidence of edge-grinding on the base (a common feature in finished Clovis points), which does not seem unusual given that the point was broken prior to completion. The proximal remnant, 33.5 mm. wide by 8.1 mm. in maximum thickness, is illustrated in Figure 2.

The time range reported for fluted points from dated contexts is generally accepted to be 11,500 to 11,000 B.P. The recovery of a projectile point of this type and presumed great age

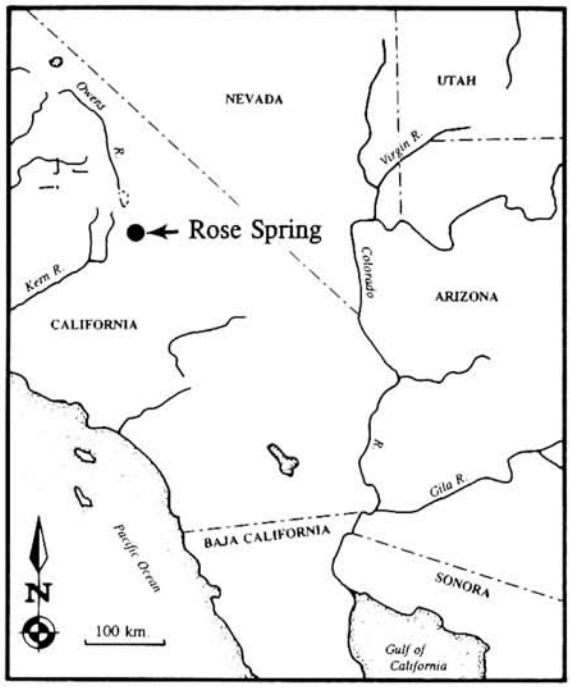

Fig. 1. Location of the Rose Spring site (CA-INY-372).

is problematical given the age of the Rose Spring site. The oldest radiocarbon date from the lowest occupation level of the site (3 m. in depth) obtained from the most recent studies (Yohe 1988, 1992) is 5,460 $\pm$ 80 radiocarbon years B.P. (UCR-2325). This is half the expected age of this type of point, and is further complicated because the point was found on the surface of the site. Both X-ray fluorescence and obsidian hydration analysis were conducted on the point to determine obsidian source and possible age. The point was sourced to the Coso Volcanic Field, the nearest quarry of which is less than 16 kilometers from Rose Spring. Interestingly, the obsidian hydration rim measured from a cut on one of the channel flake scars was found to be 9.2μ. Based on the various obsidian hydration rates proposed for

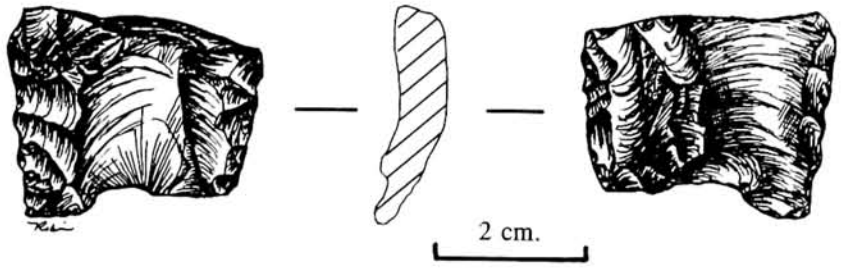

Fig. 2. Obsidian fluted point base (1-186965) from the surface of Locus 1, Rose Spring (CA-INY-372).

Coso obsidian (Meighan 1981; Ericson 1981; Michels 1983; Basgall and McGuire 1988; and Hildebrandt and Gilreath 1988), an artifact with this hydration value could range in age from 1,980 to 5,950 years, but certainly not 11,000 years. Such values would be more in line with the currently accepted time ranges for projectile points of either Elko series or "Pinto" type (Yohe 1992).

This suggests, therefore, one of two possibilities: (1) the artifact is not Clovis in age and is merely an unusually flaked specimen, perhaps a preform for a Humboldt Basal-notched biface (commonly found at Rose Spring); or (2) there may be some problem with our interpretation of the obsidian hydration process, either in general or as it has occurred at this particular site. The first possibility does not seem likely in view of the large number of bifaces recently examined from both the original collections made between 1951-1961 at Rose Spring and those collected during the 1987-89 excavations (n = 518) (Yohe 1992). None of these specimens exhibit evidence of the disto-proximal removal of large flakes that might be interpreted as channel flakes. The removal of such a large amount of mass from the base of the point could be beneficial in the production of Humboldt Basal-notched bifaces, since most points of this type from the site have deep basal notches. However, most of the complete Humboldt specimens are *thicker* than the Clovis-like specimen (n = 14; mean thickness = 8.4 mm.). Found under any other circumstance without the suprisingly small hydration rim reading, this specimen would be classified as a Clovis point based solely on morphology.

The second explanation seems the more likely of the two given the uncertainty of the artifact's history. Recognizing that there may be some verity to the use of obsidian hydration as a *general* temporal indicator when large sample sizes are involved, it is also important to consider that a single reading represents *one* data point. Assuming that this Clovis-like point/preform was not part of some as yet undetected ancient, primary cultural deposit at CA-INY-372, it probably came from the surface of one of the older sites near the center of Rose Valley (see below). Rapid burial versus long exposure on the surface are both factors that can have an impact on the rate of water adsorbtion into the surface of the obsidian, given that hydration is a function of temperature. It is also apparently a function of intrinsic water content of the obsidian flows themselves (Stevensen et al. 1992). In short, a seemingly anomolous hydration rind thickness may be the result of a particular depositional history.

Another problem is that there still does not exist a clear consensus on what is a "good" hydration rate for Coso obsidian. As noted above, there is a wide range of proposed rates. New radiocarbon dates from the Stahl site, an

essentially single-component Pinto ("Little Lake") occupation, suggest an age of approximately 8,500 years for Pinto dart points, where the preliminary Coso obsidian hydration data suggest a mean hydration value of 9.9 microns (Schroth 1992). Using the common schemes for the region, the Stahl site would be between 2,200 and 3,400 years in age. Further potential problems with the Coso hydration chronology have been demonstrated by Yohe (1992) based on the analysis of a limited sample of obsidian debitage (n = 95) from various levels of the Rose Spring site, although a recent obsidian hydration analysis of projectile points from the same site (Yohe et al. n.d.) suggest the rate proposed by Basgall and McGuire (1988) to be the most useful for the region. There is also the problem of older points (Great Basin Stemmed, Lake Mojave, Silver Lake, Great Basin Concaved-base) exhibiting a greater range of hydration values around a mean (e.g. Hall and Jackson 1989). In short, the apparent "lateness" of the specimen indicated by the hydration reading does not necessarily negate the possibility that the point fragment is Clovis in age.

DISCUSSION

Early, Clovis-like points are not uncommon to the region. Sixty-four km. to the south, Davis (1978) reported Clovis points along the relict shorelines of Pleistocene Lake China. Fluted points have been found as surface finds in the central portion of Rose Valley less than eight kilometers south of Rose Spring (Borden 1971), and at least one obsidian Clovis point has been sourced to the Coso obsidian source that is within 16 km. of the Rose Spring site (Sutton and Wilke 1984). An additional fluted biface was discovered during the archaeological evaluation of a site located within 24 km. southeast of CA-INY-372 in the late 1980s (William Eckhardt, personal communication 1987).

The presence of this fluted point on the surface of the Rose Spring site, if it is indeed Clovis in age, suggests that the aborted preform may have been scavenged from another, older site (possibly in central Rose Valley, where Borden's [1971] collections were made). The reuse of older sites as "quarries" for raw lithic materials is a likely explanation for the appearance of this specimen at Rose Spring, especially after the adoption of the bow and arrow when smaller points became the norm and small flakes and broken bifaces could be made into arrow points.

If the interpretation of this point is correct, then we have learned two important things: (1) one should be cautious in attempting to arrive at the age of a specimen based on a single hydration reading, and (2) that local scavenging from surface sites was done even with a wealth of raw material (obsidian) fairly close to the site.

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Jasper Procurement, Trade, and Control in Orange County: Comments and Observations

HENRY C. KOERPER,
Dept. of Anthropology, Cypress College, 9200 Valley View St., Cypress, CA 90630.
JONATHON E. ERICSON,
Program in Social Ecology, Univ. of California, Irvine, CA 92717.
DONALD L. FIFE,
Donald L. Fife & Associates, P.O. Box 1054, Tustin, CA 92681.
M. STEVEN SHACKLEY,
Hearst Museum of Anthropology, Univ. of California, Berkeley, CA 94720.
CLAY A. SINGER,
C. A. Singer & Associates, 2450 Main St., Suite 99, Cambria, CA 93428.
JOHN A. MINCH,
Dept. of Geological Sciences, Saddleback College, 28000 Marguerite Pkwy., Mission Viejo, CA 92692.

NO other issue in Orange County archaeology has been as intense and sustained as that surrounding the question of prehistoric jasper procurement/trade/control. The once-conventional wisdom that jasper recovered from Orange County sites was obtained in trade from desert regions to the east (McKinney 1967:27) went un-