

**AN ADDITIONAL PALEOINDIAN COMPONENT ON THE DEMPSEY  
DIVIDE: 34RM602B, THURMOND RANCH #94B, ROGER MILLS  
COUNTY, OKLAHOMA**

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**ABSTRACT**

*The recently discovered archeological site 34RM602 contains remains of both Paleoindian and Archaic/Woodland period occupations. The spatially separate Paleoindian component is representative of a Plainview affiliated occupation. As such, the site augments our understanding of human settlement and resource use along the Dempsey Divide some 10,000 years ago.*

**INTRODUCTION**

Six Late Paleoindian components on the Dempsey Divide in southern Roger Mills County, Oklahoma, have been previously reported (Thurmond 1990a). A more comprehensive treatment of the archeological sites on record along the Dempsey Divide is provided in this volume (Thurmond 1990b). A seventh Late Paleoindian component was discovered by my ranch foreman, Charles Batchelor, too late for inclusion in either of these studies. The component is in the upper reaches of Brokenleg Creek, about 250 meters upstream (west) of 34RM208, the Beaver Dam site (Figure 1).

Oklahoma Anthropological Society member Dean Renfrow and I recorded a deposit of melanized (dark) valley fill at this location in 1988 as 34RM602, Thurmond Ranch Site #94, during the course of the Society

Spring Field School at Beaver Dam. The fill remnant stretches some 85 m along the north side of Brokenleg Creek, at a width of 5-30 m and an average depth of about 1.5 m. This stretch of the valley has filled in to a much greater degree than at Beaver Dam, and the top of the melanized fill remnant is only about 2 m above the modern valley floor. Unlike the much deeper Holocene stratigraphy at Beaver Dam, the melanized fill rests directly atop Permian sandstone of the Elk City formation at 34RM602. The deposit contains large flakes, flake tools and biface fragments of Ogallala quartzite, burned rock fragments and processed bison bone fragments in considerable quantity. No diagnostic pieces have been recovered from the valley fill remnant, but it is almost certainly contemporaneous with the Late Archaic/Woodland deposits at Beaver Dam, 34RM-331 (Thurmond Ranch #10) and 34RM601 (Thurmond Ranch #93) (Thurmond 1988a-c, 1990b). A small charcoal sample from near

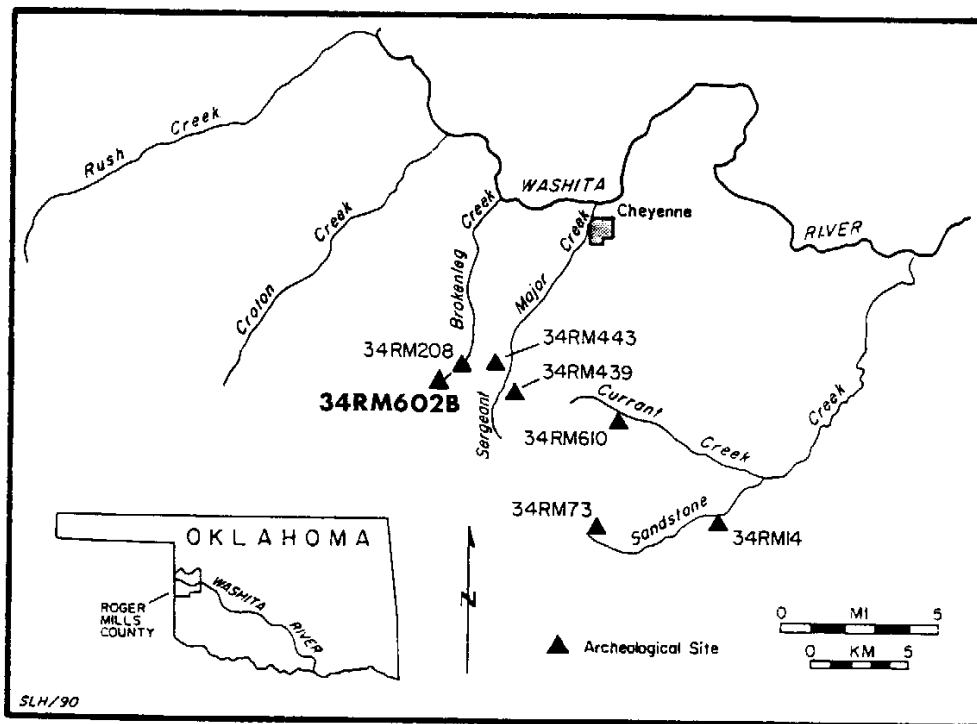


Figure 1. Location of 34RM602B, and other recorded Late Paleoindian components on the Dempsey Divide in southern Roger Mills County, Oklahoma.

the base of the deposit at Beaver Dam (NZA-1388) has yielded an AMS date of  $1514 \text{ BP} \pm 79$ , or AD 390-660 dendro-corrected (Thurmond 1990b).

In December of 1990, Mr. Batchelor collected a Plainview point of Edwards chert that had been "Meserved" from the northern edge of site 34RM602 where the Late Archaic/Woodland valley fill meets the upland slope. I visited the site later that same day, and collected another Plainview and a small quantity of debitage and burned rock. The material appears to be buried about 25 cm below the modern slope surface, and is washing out along an east-west span of some 20 m on the north side of a pasture road which follows the northern edge of the melanized valley fill. This part of the site has been designated 34RM602B, and the Late Archaic/Woodland deposits will in the future be referred to as 34RM602A.

The north-south dimension of the Late Paleoindian component is not apparent. Material probably continues to the north some 5-15 m under the surface, but

this is just a guess. The southern part of the site was undoubtedly destroyed by Holocene erosion, as the stream appears to have incised and flushed out its valley in early to mid-Holocene times, refilled during the Late Holocene (creating the melanized Late Archaic/Woodland deposits), and reincised during the Historic era. The Late Paleoindian component probably lay along the northern valley margin at a time when the immediately adjacent valley floor was about 2 m higher than at present. It is associated with a shallow, pale brown, calcareous soil which continues up the slope to the north.

Since a detailed treatment of the Amerindian use of the Dempsey Divide has been so recently completed, this article is intended only as an addendum to report the newly recorded component at site 34RM602B. A description of the artifact collection from the Late Paleoindian collection follows, succeeded by a brief comparison of this component to contemporaneous components previously recorded along the Dempsey Divide.

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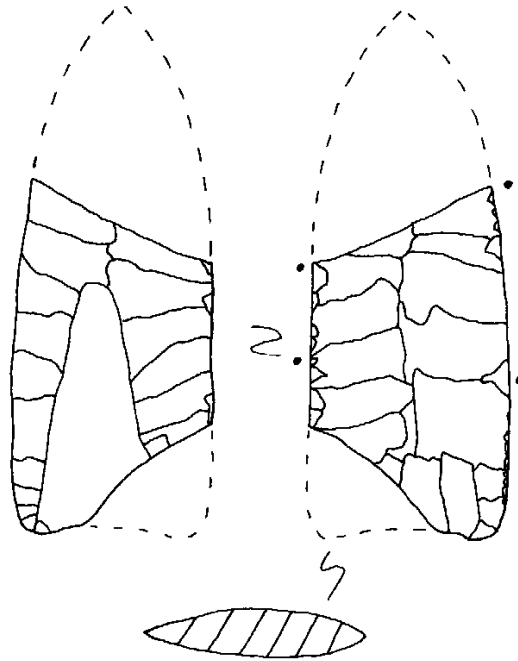


Figure 2. Specimen 34RM602B-1, a Plainview PP/K fragment of an unidentified orthoquartzite. The lateral dots show the extent of edge abrasion, presumably from use as a hafted knife. The lower lateral and basal edges are not ground. Illustrated actual size.

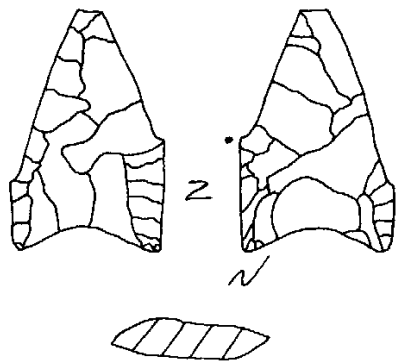


Figure 3. Specimen 34RM602B-2, a Plainview PP/K of Edwards chert which has been "Meserved" in resharpening. The laterally adjacent dots show the extent of preserved edge grinding. Both the lower lateral and basal edges are ground. Illustrated actual size.

DESCRIPTION OF THE ARTIFACT  
COLLECTION*Chipped Stone Tools*

34RM602B-1 (Figure 2). The proximal two-thirds of a Plainview PP/K (projectile point/knife) manufactured from a pale reddish gray, medium-textured, sugary-looking orthoquartzite. One basal corner and the tip are missing. One face of the specimen is noticeably patinated. It is likely that the point was complete when deposited, as both breaks are unpatinated and the patination on one face is clearly visible in cross-section on both breaks. I have revisited the site twice since recovering this specimen, but have been unable to locate the rest of it. The existing basal corner is rounded, and the base appears to have been moderately concave. The lateral edges are parallel, and begin to curve in towards the tip at a distance of 42.7 mm from the base. Thinning was effected by the removal of ca. 11 mm-wide expanding flakes, many of which terminate in hinge fractures probably caused by the intractability of the material. One side has been basally thinned by the removal of a single large flake, which measures 31.6 mm in length and 14.8 mm in average width. There is a hint of a second (precedent) basal thinning flake preserved on this face. Multiple short (ca. 9.3 mm long) flakes were removed to thin the base on the other face.

The specimen is biconvex in cross-section. Its weight is 11.2 g, extant maximum length is 50.9 mm from an estimated original length of 78 mm, and its maximum width is 28.7 mm. Width at the base is indeterminable, but probably was not significantly different from maximum width. Maximum thickness is 5.8 mm. Basal angle is 80°, lateral edge angle, 35°. Grinding of the lateral edges near the base is not apparent, but the lateral edges, beginning at 25.3 mm from the base, are abraded, presumably as edge preparation in the thinning process. The absence of basal edge grinding, the preservation of lateral edge abrasion, and the presence of several high remnants on both faces suggest that this specimen may not have been completed.

34RM602B-2 (Figure 3). A Plainview PP/K which has been "Meserved" in resharpening, of medium gray Edwards chert. This is the only specimen from the collection that fluoresces a golden yellow under an ultraviolet light (an identification technique was discovered by Michael B. Collins). The point was probably about 70-80 mm in original length, but has been resharpened to a length of 34.7 mm. Resharpening has obliterated all original thinning scars except for those along the base. Basal thinning was effected by

the removal of three contracting-to-parallel-sided flakes from each face. The base is moderately concave, and the lateral edges appear to have been parallel on the original specimen. The basal corners form fairly sharp points at 65° angles. Lateral edge angles below the resharpening are 45°. The base is ground, as are the lateral edges distal to the beginning of resharpening. The specimen was resharpened after breakage by the removal of irregular flakes 4.7-9.6 mm in width. It appears to have been discarded after impact damage resulting in burin-like scars along both edges, blunting the edges and tip. A flake scar also rolls off the tip and extends proximally from the tip on one face some 11.8 mm. Alternatively, it is possible that the burin removals were deliberate, although there is no apparent wear on their edges or the tip of the specimen. Reworking to produce sharp lateral edges would have reduced the point to an unserviceable size. Length is 34.9 mm; maximum width is 22.8 mm at base; depth of basal concavity is 3.4 mm; maximum thickness is 5.8 mm; weight is 4.6 g.

34RM602B-3 (Figure 4). A large, wedge-shaped, expanding, mostly decorticate, hard hammer percussion flake of Ogallala quartzite with a thick, decorticate platform. The entire distal edge of the flake, 70 mm in length, has been retouched on its dorsal surface. Looking at the flake from the dorsal side with the platform oriented upward, progressing from left to right, the first 29.5 mm of this edge has had seven small pressure flakes removed to form a steep, strongly convex bit at an edge angle of 74°. The next 23.0 mm has had four percussion flakes removed to form an irregular, partially overhanging edge with a single projecting beak which could conceivably have been used as a graver. The remaining 17.5 mm has had five pressure flakes removed to form a moderately convex edge at an angle of 50°. The first working edge would have been most easily employed with the tool held in the right hand and the index finger resting on the flake platform. The other, more acute, edge would have been best used with the tool in one's left hand, the index finger resting on the broad, smooth cortex remnant adjacent to the platform. There is no obvious use-wear on either of these retouched spans. Maximum length (orthogonal to the platform) is 52.7 mm; maximum width is 39.4 mm; maximum thickness is 14.0 mm; weight is 31.7 g.

34RM602B-4 (Figure 5). A much smaller and thinner hard hammer percussion flake of Ogallala quartzite. The platform is thick and decorticate, and cortex remains on about 75% of the dorsal surface. A 21.0 mm long, weakly convex lateral edge with an angle of 41° has been lightly retouched by the removal of numerous tiny pressure flakes and has been moderately abraded.

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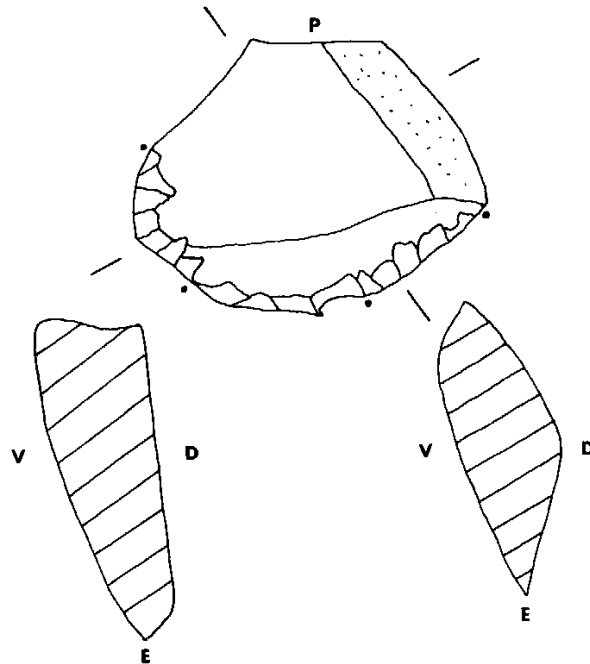


Figure 4. Specimen 34RM602B-3, a large retouched flake of Ogallala quartzite. The laterally adjacent pairs of dots demarcate the two utilized edges. P = platform. On the cross-sections, V = ventral face, D = dorsal face, and E = utilized edge.

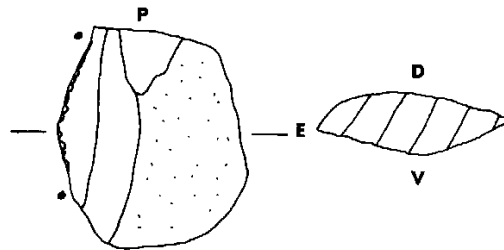


Figure 5. Specimen 34RM602B-4, a lightly retouched flake of Ogallala quartzite. The pair of dots demarcates the utilized edge. On the cross-section, V = ventral face, D = dorsal face, and E = the utilized edge.

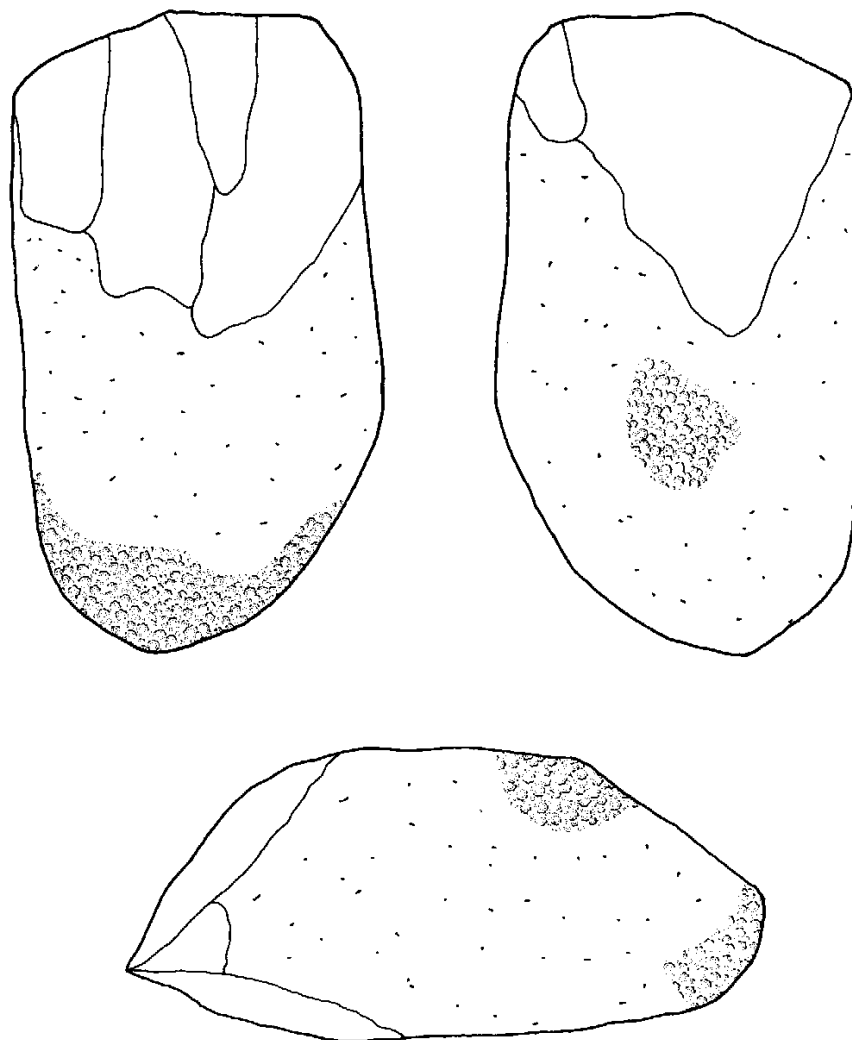


Figure 6. Specimen 34RM602B-27, a bifacial cobble tool/hammerstone of an unidentified quartzite. The lightly shaded areas are unmodified cortex, and the densely shaded areas are heavily battered.

The specimen could have been employed as a cutting tool in either hand, with the index finger resting on the platform. Maximum length (platform to distal edge) is 32.2 mm; maximum width is 25.4 mm; maximum thickness is 7.4 mm; weight is 7.1 mm.

Battered/Chipped Stone  
Cobble Tools

34RM602B-27 (Figure 6). A fairly large quartzite cobble with a sinuous bit formed on one end by the bifacial removal of four percussion flakes from one face and

two flakes from the other. The bit occurs at an angle of  $77^{\circ}$ , is moderately convex, and is 45.0 mm long. It has been moderately abraded. The opposite end of the cobble is severely battered, as is a high spot on one face, presumably from use as a hammerstone. Maximum length is 94.6 mm; maximum width is 55.5 mm; maximum thickness is 43.8 mm; weight is 312 g.

34RM602B-38 (not illustrated). A fragment of a quartzite cobble that has been moderately battered on one end. The opposite end is missing, as the cobble has been split as a result of having been used as a hearth

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stone. About one-third of the cobble is present. Maximum extant length is 61.6 mm; maximum width is 53.5 mm; maximum thickness is 49.4 mm; weight is 284.3 g.

**CONCLUSION**

The recently recorded Late Paleoindian component at site 34RM602B fits the pattern of the previously recorded components for this period along the Dempsey Divide rather well. The site is located along

harmony with the other recorded components of the period along the Divide (ibid.).

The pattern of lithic raw material utilization at 34RM602B is strikingly similar to that at the previously reported components (Figure 7). Ogallala quartzite, which is available in gravel deposits immediately adjacent to all of the components, dominated the collections at percentages averaging slightly over 50%. Alibates agatized dolomite is the second most com-

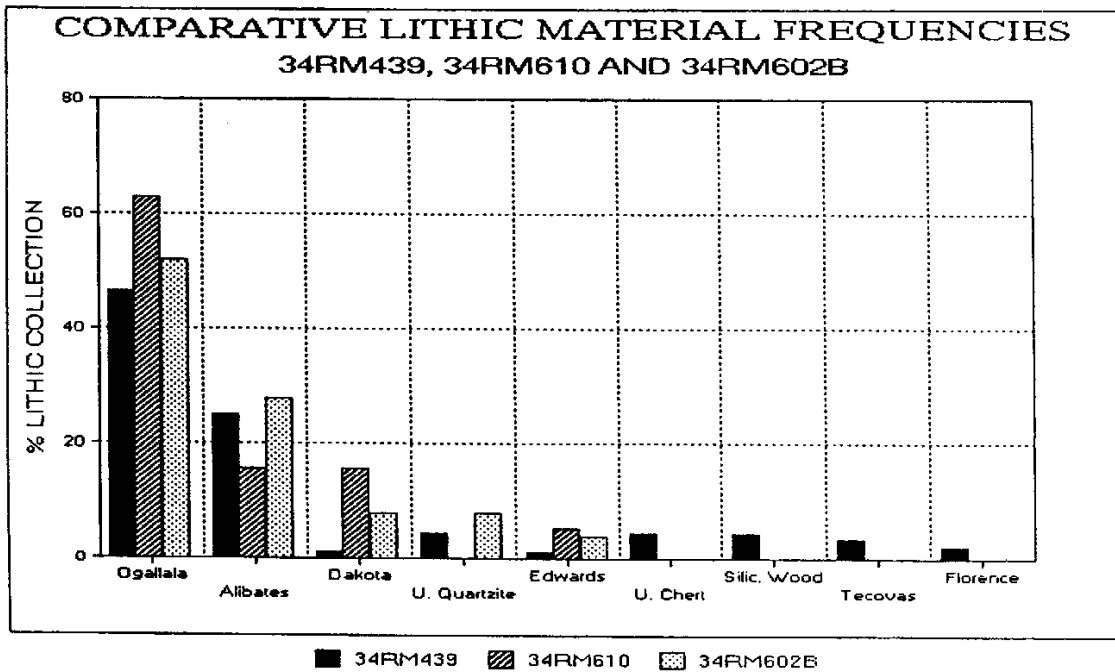


Figure 7. Comparative lithic raw material frequencies in the chipped stone tools and debitage collections from the Late Paleoindian components at 34RM439 (Charley Terrace), 34RM610 (Currant Creek) and 34RM602B (Thurmond Ranch #94B).

the ecotonal contact between the outcrop area of the sandy Tertiary Ogallala formation and the much less permeable Permian units to the north. It lies in a protected location, down within the deep, narrow valley of a clear, perennial stream. Of the Late Paleoindian components illustrated in Figure 1 (see Thurmond 1990a), all but site 34RM443B occur in similar settings, suggesting primarily wintertime use of the vicinity. The small assemblage collected from 34RM602B suggests a campsite with rock-lined hearths at which retooling activities took place, in

mon material, comprising about 25% of the collections. Materials present in small frequencies at the site from which we have the largest collection, 34RM-439 (Charley Terrace), have not been documented at other sites, but this situation may be a function of small sample size among those smaller sites. While the Ogallala quartzite, much of the Alibates (Wyckoff 1989), and probably most of the unidentified cherts, quartzites and silicified woods can be presumed to be of local origin, it seems likely that the Edwards and Florence cherts, Tecovas jasper and Dakota quartzite were brought in from their primary outcrop areas

150-300 km away (Thurmond 1990a: Figure 5). The extreme conservation of raw material exhibited in the Edwards chert Plainview point from 34RM602B, which was sharpened nearly to the vanishing point, is intriguing. It appears that the Late Paleoindian band that produced this component was at the nadir of its lithic retooling cycle, forcing these folks to carefully conserve their higher quality, non-local raw materials and to rely heavily upon less desirable, locally available materials.

The most striking phenomenon about the Late Paleoindian component at 34RM602 is the number of times we walked over the site without detecting this component. The site was visited by professional and amateur archeologists associated with the Oklahoma Anthropological Society and the Oklahoma Archeological Survey four times in 1988, and I have walked or ridden horseback over the site at least a dozen times since then. Had any Plainviews been lying about, someone would probably have noticed. The diagnostic artifacts have most likely been exposed by erosion within the past six months. My long-term involvement in documenting sites on the Dempsey

Divide has certainly been an education in the limitations of a one-pass archeological survey such as those I performed as a professional. There is clearly a high density of Late Paleoindian components along the edge of the Dempsey Divide, but the sites are small, ephemeral, and frequently buried. Diagnostic artifacts of any period are few and far between, and one can recover a useful sample only from an intensive inspection of a given study area over a period of many years. We generally return to the basics in any endeavor, if we stay with it long enough. By far the most important contribution to our understanding of spatial site distributions and land use over time in this part of western Oklahoma has been made by Charles Batchelor, the foreman on the Thurmond Ranch. The man had a high school education and has no formal training in archeology, but has applied the beneficial combination of a very good memory, an interest in projectile points, and 30 years of daily traversing the same 20 square mile area. How many other Charles Batchelors are there lying untapped?

## APPENDIX

Table 1. Unmodified Flakes.

Specimen	Length (mm)	Width (mm)	Thickn. (mm)	Weight (gm)	Platform *	Percent Cortex
Ogallala Quartzite						
34RM-602B-5	28.5	16.5	8.1	3.1	cort	>75
34RM-602B-6	33.4	19.5	12.2	6.6	cort	50-75
34RM-602B-7	46.3	29.9	11.1	11.8	flwd	50-75
34RM-602B-8	33.5	19.5	7.2	4.1	flwd	0
34RM-602B-9	21.5	19.6	5.7	2.8	flth	0
34RM-602B-10	25.2	22.8	5.9	2.5	flth	0
34RM-602B-11	21.3	18.4	5.2	2.3	fctd	0
34RM-602B-12	18.8	7.8	3.5	.6	abst	0
34RM-602B-13	19.4	17.5	4.5	1.5	fctd	0
34RM-602B-14	17.1	12.1	3.6	.7	abst	<25
34RM-602B-15	13.6	10.6	3.3	.6	abst	>75
Dakota Quartzite						
34RM-602B-16	25.6	19.8	6.3	2.3	cort	>75
Unidentified Quartzites						
34RM-602B-17	26.5	14.0	6.0	1.7	abst	0
34RM-602B-18	21.3	21.0	6.0	2.1	cort	plat
Alibates Agatized Dolomite						
34RM-602B-19	27.5	26.5	6.7	4.4	flth+	0
34RM-602B-20	18.3	10.3	4.2	1.0	abst	0
34RM-602B-21	12.7	9.5	1.8	.2	abst	0
34RM-602B-22	12.9	8.1	2.2	.3	abst	0
34RM-602B-23	32.1	21.2	7.4	6.1	fctd	0
34RM-602B-24	17.0	11.8	2.9	.7	cort	plat
34RM-602B-25	22.8	18.5	5.1	2.1	fctd	0

\* cort = corticate platform; flwd = flat, wide platform; flth = flat, th  
fctd = faceted platform; abst = platform absent; plat = cortex limited  
platform.

+ Platform is lipped.

Estimates of remaining cortex are for the dorsal face.

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OKLAHOMA ANTHROPOLOGICAL SOCIETY BULLETIN

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Table 2. Burned Rock Fragments.

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Specimen	Length (mm)	Width (mm)	Thickn. (mm)	Weight (gm)	Material
34RM-602B-28	60.5	37.4	32.3	98.4	Quartzite
34RM-602B-29	66.0	35.1	30.0	77.8	Quartzite
34RM-602B-30	53.6	50.2	34.2	99.4	Ogallala
34RM-602B-31	56.4	54.0	44.0	110.5	Ogallala
34RM-602B-32	35.2	29.2	23.8	32.8	Quartz
34RM-602B-33	54.9	41.4	31.1	64.8	Quartz
34RM-602B-34	33.8	21.8	20.8	21.7	Quartz
34RM-602B-35	28.7	27.8	18.5	16.9	Quartz
34RM-602B-36	28.4	25.0	16.2	15.7	Quartz
34RM-602B-37	20.4	13.6	9.8	3.1	Ogallala
34RM-602B-39	46.5	37.1	22.9	40.3	Ogallala
34RM-602B-40	25.3	16.8	13.2	6.2	Quartz
34RM-602B-41	46.1	34.6	25.4	32.1	Quartzite
34RM-602B-42	33.8	30.0	10.7	11.9	Quartzite
34RM-602B-43	25.3	19.8	18.7	9.5	Quartzite
34RM-602B-44	27.1	25.9	12.0	9.4	Quartz
34RM-602B-45	29.3	22.5	11.0	8.1	Quartz
34RM-602B-46	21.3	20.1	16.2	5.3	Quartz
34RM-602B-47	34.9	19.4	11.9	8.4	Ogallala
34RM-602B-48	42.3	27.4	22.0	26.3	Quartzite
34RM-602B-49*	46.3	33.9	21.5	31.8	Quartzite
34RM-602B-50	26.5	18.5	13.3	7.3	Quartz

\* Fits together with # 48.

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