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R-6, A PRELIMINARY REPORT OF A CODY SITE  
IN NORTH-CENTRAL NEW MEXICO

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## INTRODUCTION

The R-6 site is one of four Cody Complex localities found by J.P. Mathieson on his ranch near Las Vegas, New Mexico. The site is on a terrace above the confluence of the Sapello River and Manuelitas Creek, where the river cuts through the easternmost hogback of the Sierra Madre Mountains. A spring, which was located near the site during the occupation by Cody hunters, has since migrated about 1/2 mi. up the valley. High ridges occur on either side of the site from which one can command a view of the Plains and several large Pleistocene lakes. Immediately east of the hogback is a slight rise caused by a dike that contains hornfels (locally known as felsite). This was the major lithic raw material utilized at R-6 and the other Cody sites in the area.

Mr. Mathieson found these sites, along with three large Folsom sites, in the early 1950's. At this time he notified Dr. H. Marie Wormington of their existence. Wormington, along with Cynthia and Henry Irwin and C. Vance Haynes, tested several of the sites the following year. Their tests indicated that the cultural materials were redeposited so they terminated their investigations. At one of the Cody sites (Sapello 2), they found a complete Cody knife, which is now on display at the Denver Museum of Natural History and is available as a cast in the Denver Museum series.

In the late 1960's, Mr. Mathieson again brought these sites to professional attention. Dennis Stanford, then of the University of New Mexico, examined the collections and the localities. Although it was apparent that the sites were indeed largely redeposited, he felt that since the Cody sites were associated with the quarries and since Mr. Mathieson had collected several hundred broken bifaces in various stages of reduction, further investigation of the sites could yield a wealth of data concerning Cody lithic technology. Although no funds were available for research at these localities, Stanford and several other graduate students tested the sites during the fall of 1971.

The testing of the locality known as R-6 provided evidence of a paleo-soil and indicated that a small area might still yield in situ cultural material. Thus, in 1972, six weeks were spent investigating the locality in conjunction with Dr. William J. Judge's U.N.M. field school. Again in the spring of 1973, with funds from the Paleo-Indian Program of the Smithsonian Institution, a crew of five spent approximately one month at the site. The following is a brief report of the results of this fieldwork and analysis.

## THE R-6 SITE

Along with Mathieson's collection, the lithic sample from the R-6 site numbers over several thousand specimens and took considerable time to analyze. Investigators working on the site materials included: Larry Banks, lithic resources studies; Dan Witter, paleoecology;



Robert Patten, lithic technology; and Stephen Hall, geology and pollen studies.

From the area collected by Mathieson it was determined that the site encompassed approximately 20 acres. Although most of the site was highly eroded and redeposited, an area of approximately 6 m. by 20 m., located between an existing arroyo cut and a filled fossil arroyo, contained in place soil units and an occupation level. However, since the major portion of the site was situated up-hill from this area and had eroded, redeposited Cody artifacts and flakes occurred in soil units above the occupation surface.

Three soil units were identified: The upper, a weakly developed soil termed unit A; a highly leached soil, unit B; and the lower, a well developed paleo-soil, unit C. Within these strata (A, B, and C) excavation was divided into 10-cm. units, and all artifacts, flakes and rocks were mapped in situ. These soils were not conducive to preservation and no bone, charcoal, or pollen were recovered.

Within the occupation level our efforts were rewarded with numerous artifacts and the remains of several possible features. The first feature is a semicircular ring of boulders, with an opening measuring slightly less than 2.5 m. (Fig. 1). The diameter (from front to back) of the semicircle is approximately 2 m. The interior (which is slightly depressed to a depth averaging 10 cm.) was littered with flakes and artifacts--including three preforms, a Cody knife, a broken projectile point, a hammerstone, and an abrader. The area immediately in front of the opening contained approximately double that concentration. Behind the semicircle there were no artifacts and comparatively few flakes. No post hole molds or fire hearth features were found.

Along with this semicircle of rocks and artifact concentrations were two other boulder areas, one approximately 6 m. away from the first and the third approximately 14 m. away. These rock clusters were situated at the edge of the fossil arroyo cut. If they were also semicircular features, their configurations had been destroyed by the cutting of the fossil arroyo. It is conjectured, at this point, that the first feature and possibly the others, represent semicircular hut structures.

The total number of artifacts recovered included 27 projectile points and fragments, 164 preforms and fragments, 218 plano-convex scrapers, and six Cody knives, as well as numerous flake tools, graters, hammerstones, abraders, and other miscellaneous artifacts.

The projectile points are clearly related to the Cody Complex (Fig. 2). The finish flaking is very regular, with small flake scars that are co-medial, leaving a lenticular to diamond-shaped cross-section. These points exhibit slight shoulders and are basally ground. Some bases are slightly convex, but most are flat. The bases range in width from 15 mm. to 26 mm.; however, in general they are narrow. Only two complete projectile points were recovered; both were heavily rejuvenated and were no doubt discarded. Raw materials utilized for the projectile



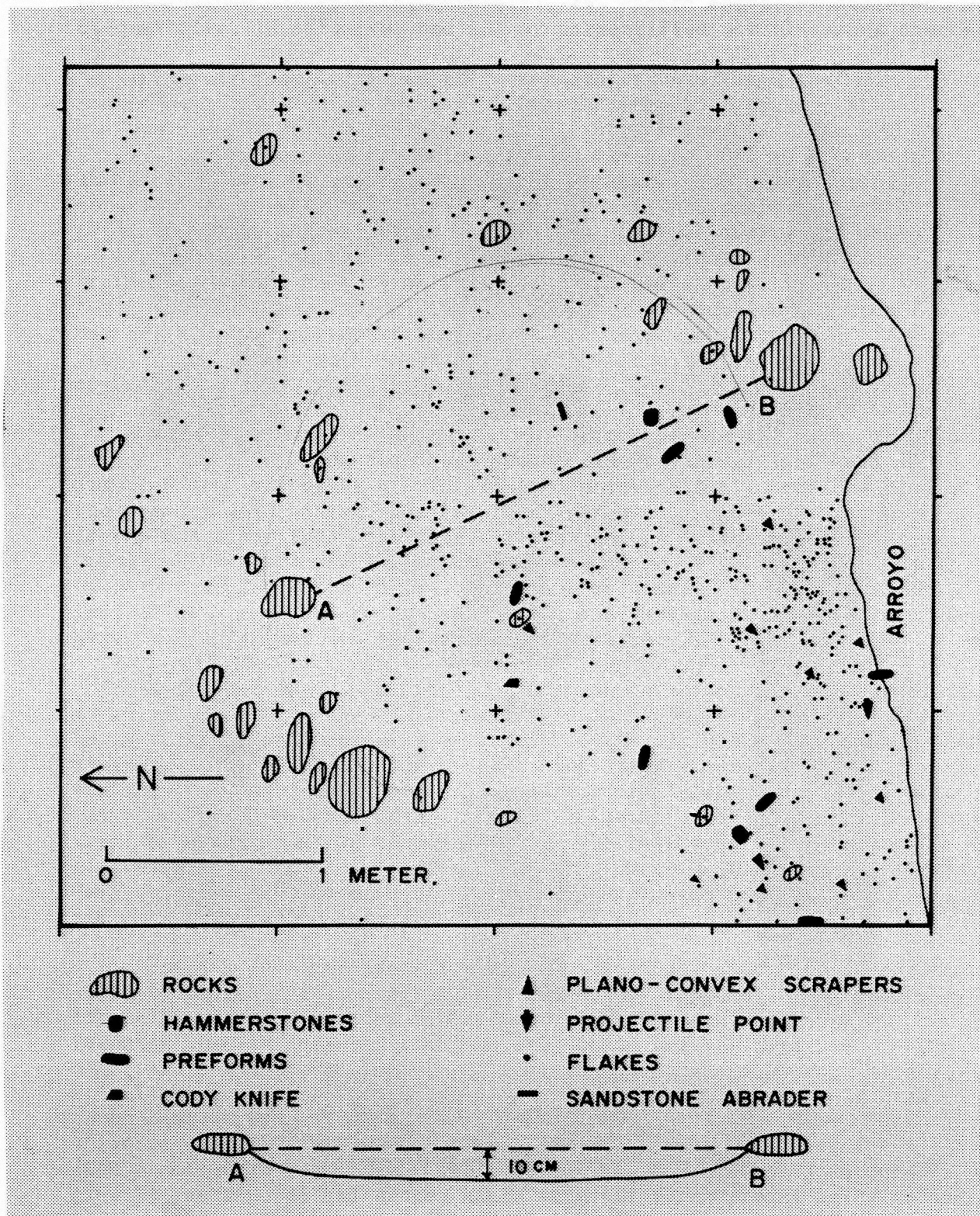


Fig. 1. Plan view of possible Cody Age structure showing rock placement and artifact manufacturing activity area.



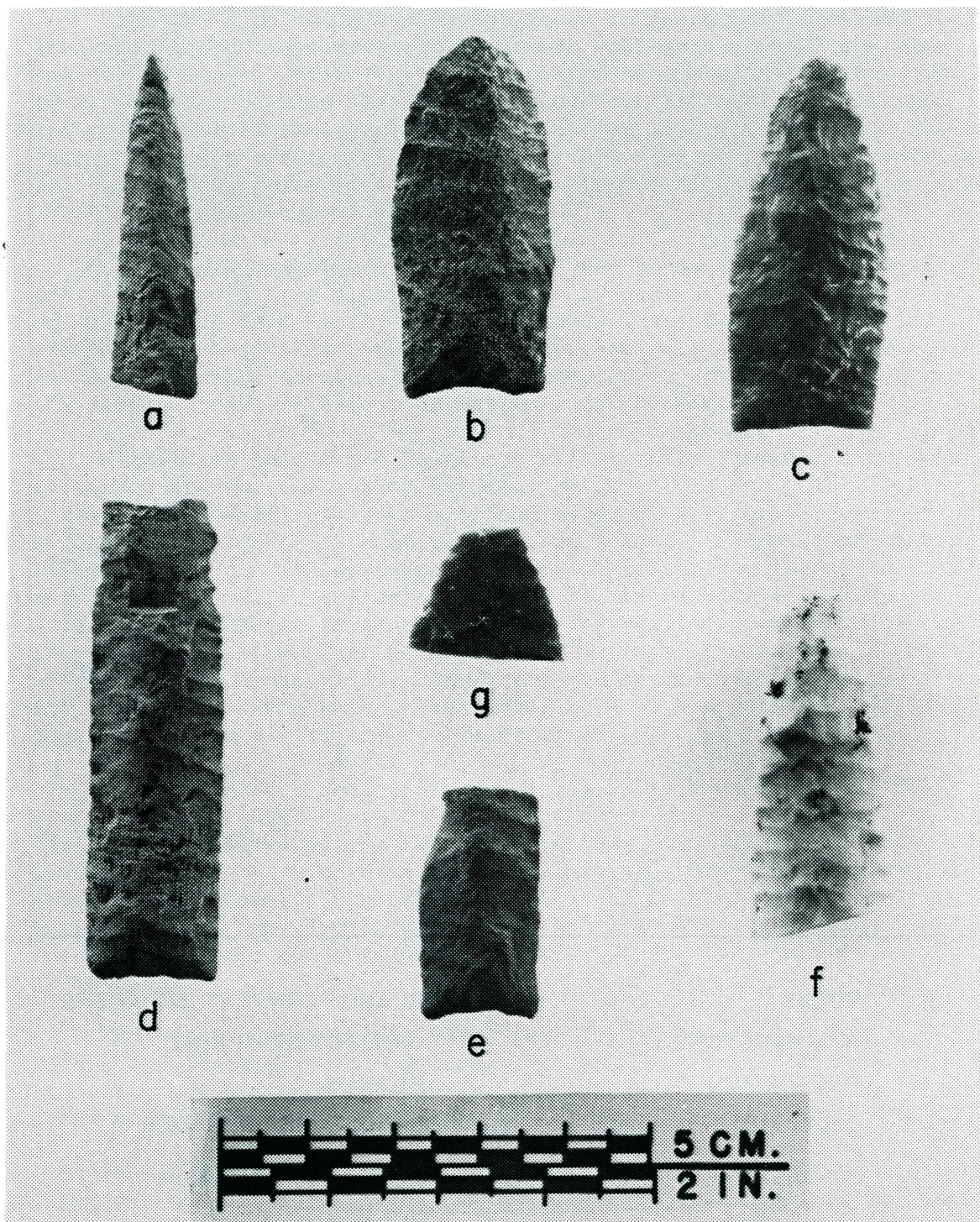


Fig. 2. Cody Projectile Points from R-6. Specimens a, b, d, and e are made of felsite; c and g are of Madero chert; f is made from an unidentified chert.



points include 43% felsite (hornfels), 28% Madero chert, 9% obsidian, 6% quartzite, 1% Alibates, and 13% of unidentified miscellaneous cherts.

Evidence from cores and preform fragments indicates that one of the major activities at R-6 was the replenishment of preform stock. One hundred sixty-four preform fragments were recovered (Fig. 3). Of these, felsite was the predominant material--i.e., 88% as opposed to 7% Madero chert, 4% quartzite, and 1% Alibates. The quarry stock material was tabular but at R-6 almost none of the preforms/cores retained abrupt edges. Since the site is near the quarry and many of the preforms are very thick and short, with widely spaced flake scars, it appears that primary edge shaping was accomplished in conjunction with quarrying. This stage of the reduction sequence may have been completed at the quarry to preview the stone for flaws--thus, the stock carried away had an excellent potential for artifact completion.

The use of overshot technique was deliberate in the early stage of biface reduction. The resulting flake removes obstruction, such as abrupt edges, and creates a lenticular cross-section. Once the edge of the preform was created, the remaining percussion appears to have been accomplished one face at a time. The signature of the preform methodology is that the edges remain near the center of the plane of the preform throughout the entire percussion sequence. The platforms are individually prepared by pressure to take advantage of a ridge near the edge. Grinding was applied only to the platform.

Many preforms broken during percussion reduction were found. This is to be expected because the narrow biface is extremely fragile. However, there was a paucity of artifacts that illustrated the succeeding pressure stage of manufacture, suggesting either a smaller risk of breakage or more likely, that the majority of finished projectile points may have been completed at a different location on the site or elsewhere. This latter observation is supported by the fact that few pressure flakes, which represent the final stages of manufacture, were recovered. This is not a problem of recovery because small flakes resulting from platform preparation were found in abundance.

Scrapers show considerable diversity in size, shape, thickness, skill of workmanship, material, and technology (Fig. 4). A greater diversity of stone sources for scrapers suggests a wider range of foraging than is apparent from the projectile points. The raw materials for scrapers include 47% felsite, 39% Madero chert, 11% miscellaneous cherts (including a banded chert that is probably from south-central New Mexico), 1% Alibates, and 1% Edwards. Some of the scrapers exhibit extreme wear. Several broken specimens were found with pieces that could be fitted together, and one example had been clearly resharpened and broken again with all three pieces being found in the same activity area. This activity area also contained several other end scrapers and a highly retouched unifacial flake knife. Thus, this area clearly indicates the utilization of the scrapers and knife, perhaps in hide-working activities.



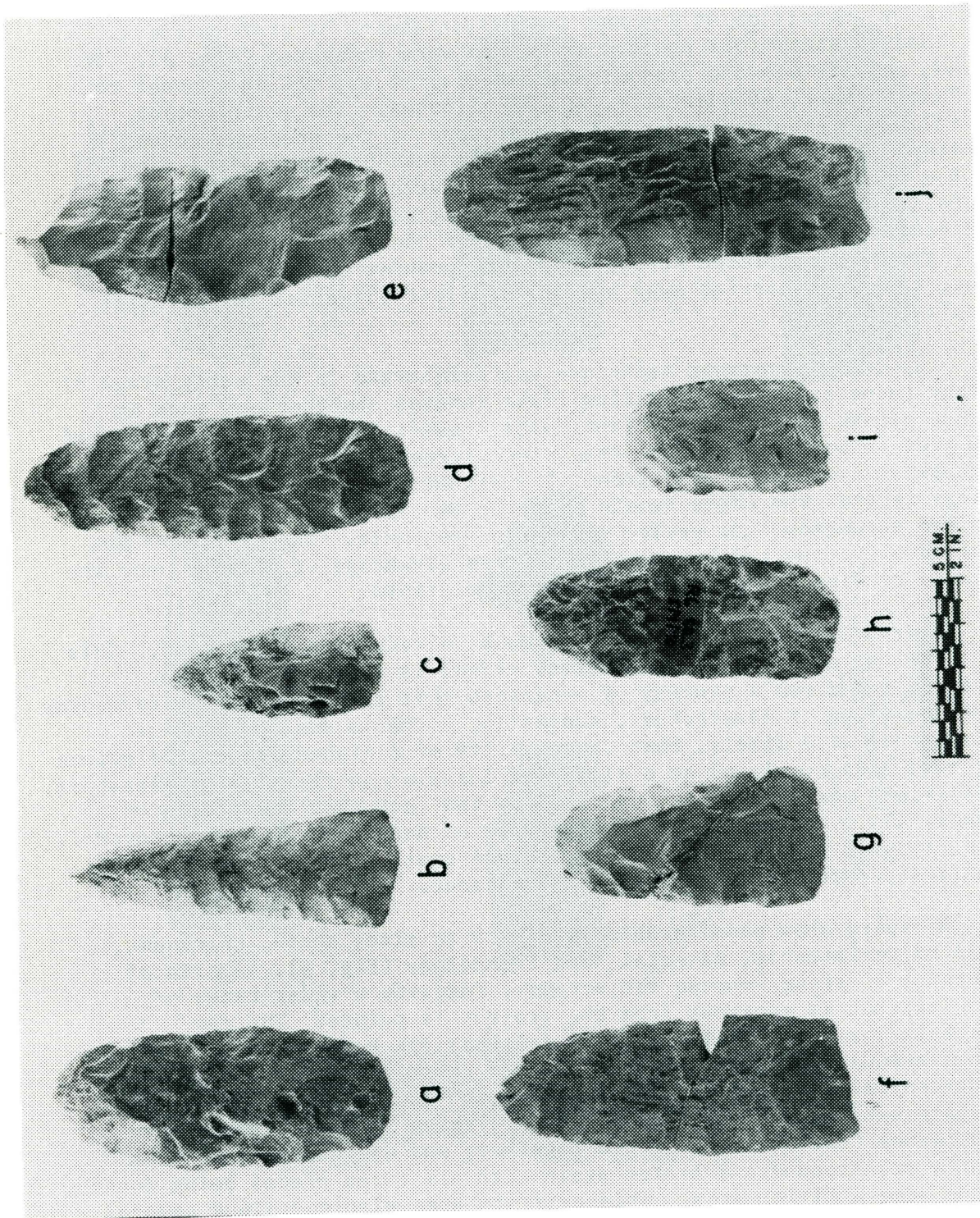


Fig. 3. Cody preforms in various stages of reduction. Specimen b has been used for a knife.



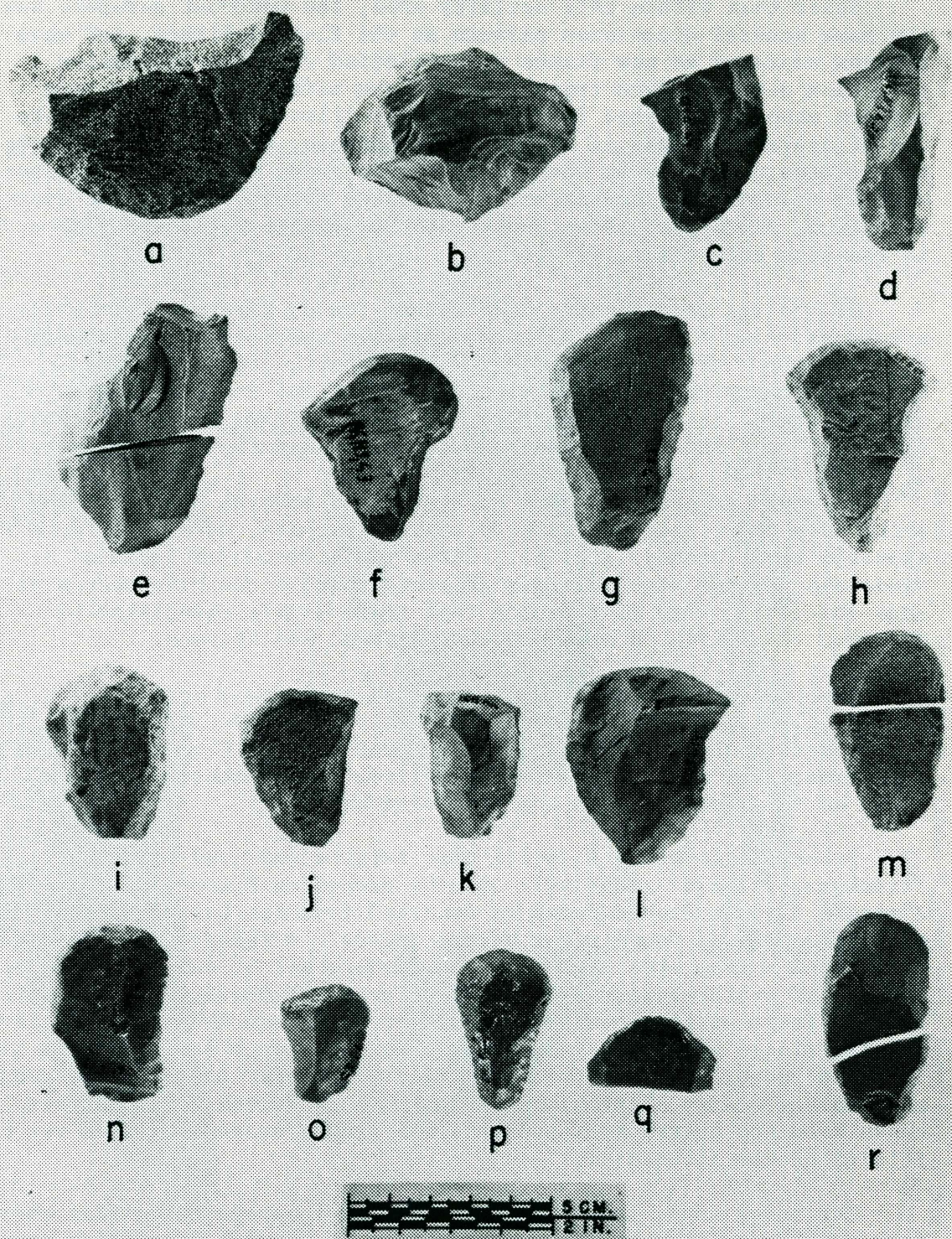


Fig. 4. Cody cutting and scraping tools. Specimens a-m and r are made from felsite; n-q are made from Madero chert.



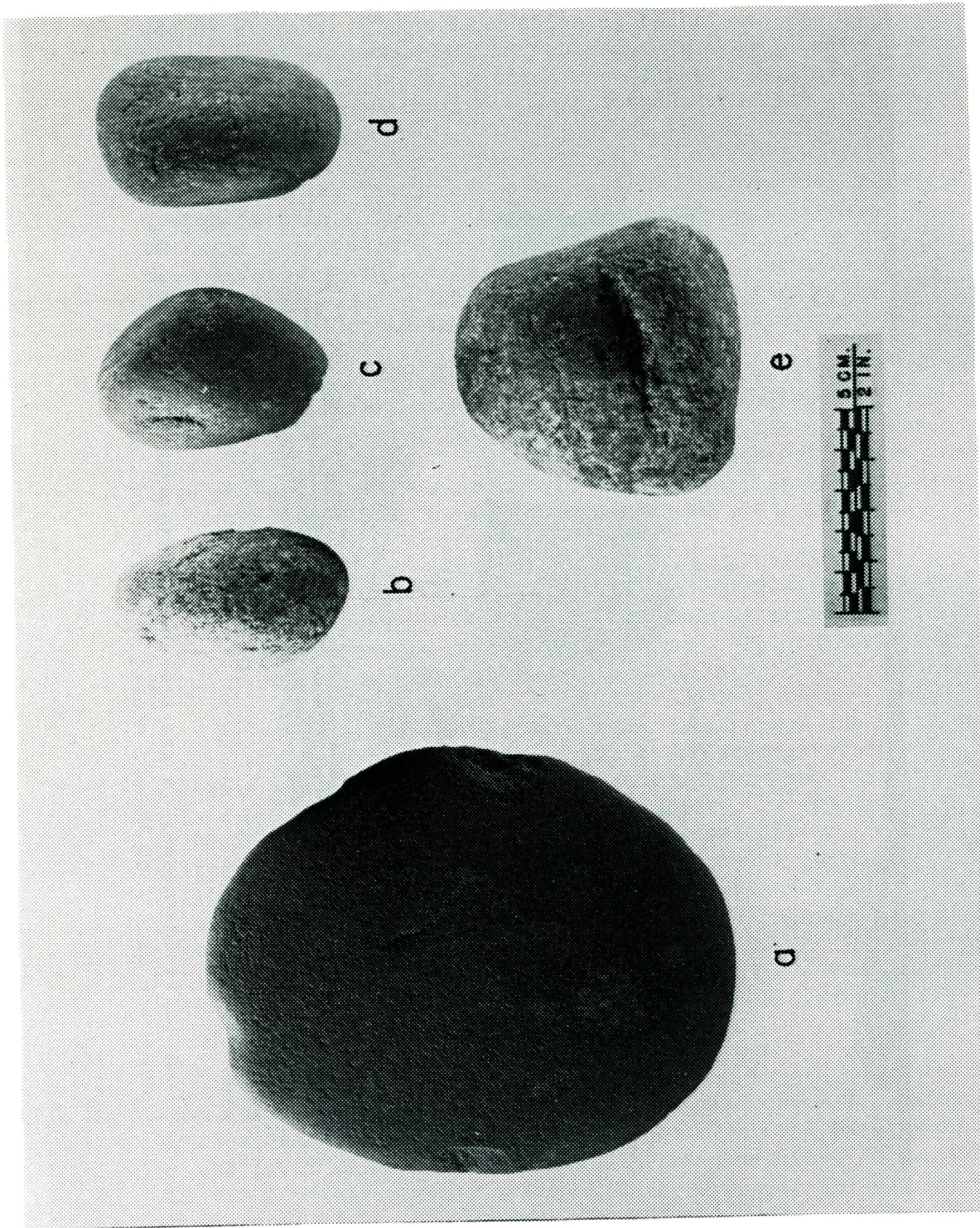


Fig. 6. Miscellaneous Cody artifacts. a is a thin, flat notched rock; c is a hammerstone; b, d, and e are unmodified cobbles that were probably collected for hammerstone use.



elsewhere and carried to R-6 to be abandoned and replaced by fresh felsite tools. This also suggests that Cody sites reflecting similar activities as R-6 should be found near the Madero quarries.

#### CONCLUSION

The tentative conclusion is that R-6 and the other nearby Cody sites represent task-specific campsites where raw materials were procured for tool kit rejuvenation and preform stock replenishment. The study of the lithic debitage from the site suggests that projectile points were not commonly completed at the site. The major efforts were directed toward the production of preforms and the selection of flakes suitable for tool use. Most of the complete tools found at the site were totally expended--and possibly discarded en masse when material for new tools was available. The newly manufactured tool stock was transported away from the site for final reduction, shaping, and use at subsequent locations.

The occurrence of a semicircle of rocks suggests the use of structures in front of which flintknappers worked. Other rock and debitage accumulations indicate that there may have been multiple shelters, all of which would have faced generally south toward the spring. Since no hearth features were found these structures may have served primarily as wind breaks for the knappers.

It is difficult to infer either the size of the population or duration of occupation from the available evidence. However, we would suggest that even though the numbers of artifacts and flakes are extremely high, this does not necessarily reflect a lengthy occupation by a large number of people. A single flintknapper, especially with an unlimited amount of raw material such as occurs here, can produce a great mass of flakes and rejected bifaces in an amazingly short period of time.