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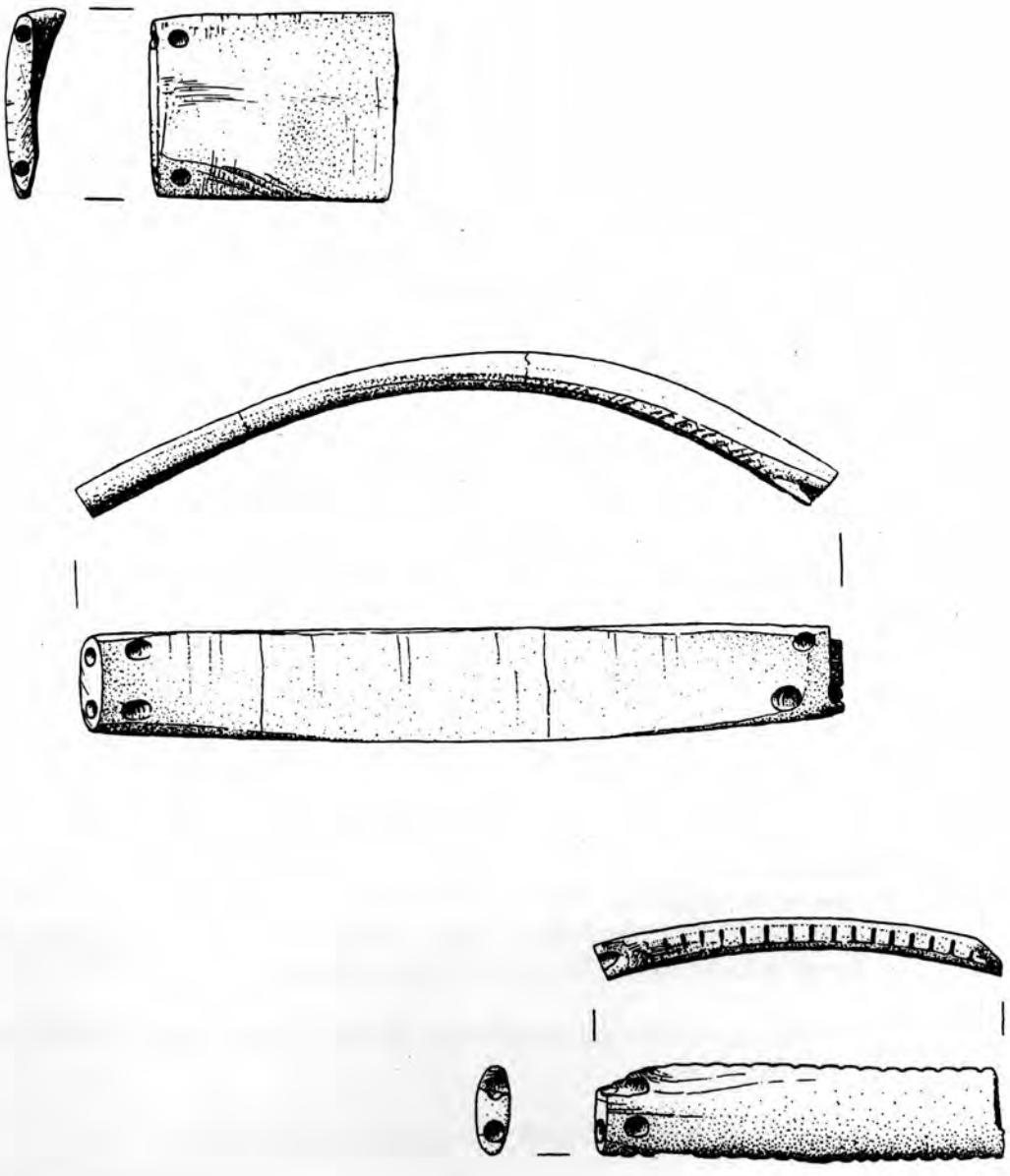

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LA TIERRA

QUARTERLY JOURNAL OF THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

Volume 22, No. 4
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Evelyn Lewis
Editor

About the Cover: Some long rectangular shell pendants from the Lower Rio Grande areas of Tamaulipas, Mexico and Texas. See article by C. K. Chandler and Don Kumpe beginning on page 3. Drawings by Richard McReynolds are found on pages 4, 5, 6, and 13 as well as the cover.

Manuscripts for the Journal should be sent to: Evelyn Lewis, Editor, *La Tierra*, 9219 Lasater, San Antonio, Texas 78250. Past issues of the Journal and Special Publications available by requesting an order form from STAA (Jim Mitchell), P. O. Box 791032, San Antonio, Texas 78279. Dr. T. R. Hester may be contacted at the Texas Archeological Research Laboratory, PRC 5, 10100 Burnet Rd, Austin, Texas, 78712-1100.

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NOTES ON SOUTH TEXAS ARCHAEOLOGY 1995-4
Issues Facing the Southern Texas Archaeological Association

Thomas R. Hester

In a recent issue of *La Tierra* (Vol. 22 , No. 2), I had a brief article on the future of field schools. Since it appeared in the same issue with reports on the 1994 STAA field school, some members took it as a critique of STAA field schools, or that field school in particular. Nothing could be farther from fact; indeed, I had not even seen the articles that appeared in that issue, and was merely responding to a request from Editor Lewis for a short piece on "field schools." But, since that seemed to get the attention, and ire, of some members, let me express some views—that are premeditated—with regard to the future of the STAA.

I recently completed, for the *New Handbook of Texas*, to be published by the Texas State Historical Association in 1996-1997, a summary of the "Southern Texas Archaeological Association." In pulling together the information for this, it reminded me of our original charter meeting in 1974, the many accomplishments of the Association over its 22 years of activity, and of its long-term goals. Of course, my view is prejudiced, but I think the STAA has done an outstanding job in promoting the cause of archaeology, Native American studies, and archaeological preservation in south Texas and adjacent areas.

But archaeology, and Texas archaeology included, is at a critical juncture–and the STAA needs to be aware of the problems that have to be faced. First, commercial digging of sites is commonplace in south central and central Texas, as well as in other parts of the state. Sites are looted not to find pretty points for artifact frames, but to sell for a profit. In some quarters, this is known as "investment art." I had a letter a few weeks ago from a reformed pothunter in south central Texas, accusing some STAA members of looting sites, and of obtaining official site survey forms, by whatever means, to locate new sites. I am dubious of the latter, since the pothunters know where the sites are long before avocationals or professionals get to them. I am concerned, though, that the statement of ethics that is the backbone of the STAA is not being followed, and would urge that a serious review should be done by the Board of Directors. This is not a new controversy to face the STAA, but it is one that I personally believe might be undercutting the group's foundation.

Secondly, all of American archaeology has to face the realities of the Native American Graves Protection and Repatriation Act (NAGPRA). This affects the excavation and study of human remains and associated grave goods–if the work is done, and the materials curated, by a museum, lab, college or university that accepts Federal grants or funds. This does not affect, at least not yet, the activities of avocational archaeologists on private property, or the curation, by them, of such materials. The NAGPRA statute provided for consultation by federally-affected agencies with tribes recognized by the Bureau of Indian Affairs. Thus, tribes like the Caddo have been working closely with universities in Texas, Arkansas, Louisana and Oklahoma. As the September issue of *Texas Highways* points out, there are now "urban Indians" (their term, not mine) who claim affiliation to the "Coahuiltecans" and even to the Karankawa. The latter is difficult to believe, but certainly in the San Antonio and Goliad areas, there must be descendants of the mission Indians. Despite the proclamation by one San Antonio group, there was never a "Coahuiltecan Nation"–and indeed, the writings of T . N. Campbell record the multitudinous autonomous bands of hunter-gatherer Native Americans across southern Texas, some speaking the language that came to be known as "Coahuilteco," but with at least seven other language groups present in the region. Further complicating any claims stemming from descent from San Antonio mission neophytes is the fact that there were many remnants of groups from various parts of Texas and northeastern Mexico who were absorbed into the missions as the cultural landscape was thoroughly rearranged during the 18th century.

It appears that sometime soon the NAGPRA Review Committee will grant some sort of status to "groups" (non-Federally recognized tribes), going beyond (in the view of many anthropologists) the legal boundaries of the original statute. The STAA should be very aware of the shifting political and

emotional currents in this situation. Broad claims have, and will be, made for **"unaffiliated"** remains on behalf of peoples who have been culturally and biologically extinct for hundreds, if not thousands, of years. Some claims will be made by descendants whose very ancestors killed some of the peoples in question! These groups, and those who support them, will make claims based on "human rights." While there is no doubt that Native Americans were horribly treated by Europeans, archaeologists should not be seen as the enemy. Reburying human remains and associated artifacts will not change history, but it will prevent an understanding of prehistory that gives Native Americans their rightful place in the development of North American cultures. Further, I think that Native Americans who are concerned about repatriation should be aware that the looters are doing ongoing, tremendous damage to buried human remains and associated objects, and their activities are not subject to NAGPRA. Additionally, Native Americans in the San Antonio area should be aware of how the early citizens of San Antonio evicted their acculturated ancestors from their lands, as noted in recent books by Prof. Felix Almaraz (1989, *The San Antonio Missions and Their System of Land Tenure*, UT Press) and Dr. J. F. de la Teja (1995, *San Antonio de Bejar: A Community on New Spain's Northern Frontier*, University of New Mexico Press). Clearly, all Americans should extend to Native Americans every consideration due them with regard to their religion(s) and cultural beliefs. But, as Steven Simms has just pointed out in the Sept.-Oct. 1995 issue of the Society for American Archaeology *Bulletin*, should archaeologists accept **all** of the varied repatriation claims and statements anymore than we would accept **all** of the edicts of the Religious Right, Scientific Creationists, or the perpetually Politically Correct (e.g., the Berkeley, CA school board trying to ban books with references to the Bering Strait land bridge since there was no mention of that in Native American folktales)?

Finally, the 1995 *Bulletin of the Texas Archeological Society* will contain a paper by STAA member Dr. Stephen L. Black, addressing many issues confronting Texas archaeology, including the "unaffiliated remains" situation. I recommend this paper to STAA members, as it raises further questions about the nature of Texas archaeology and the role that avocational archaeologists must play.

[The views expressed above are solely those of the author and not of The University of Texas at Austin or the Texas Archeological Research Laboratory.]

ERRATA-VOL. 22, NO. 3

In Volume 22, No. 3 (July), 1995, of *La Tierra*, page 2 of Dr. Hester's paper, the last sentence of the text should read: Call it what you will; once we learn more about this critical time frame, we can talk with more clarity about the continuity, or lack thereof, of *material* culture into the mission setting (Hester 1989).

Another error occurred in line 12 from bottom of second column on page 2: 41VT12 should be 41VT11; and on page 2 paragraph 2, third sentence, should read: She suggests instead a "Late Prehistoric/Historic Aboriginal Contact" construct.

A closing parenthesis was omitted from line 9 of second paragraph, second column of page 1 should read: (or "late Late Prehistoric") sites ...

Our apologies to Dr. Hester.

LONG RECTANGULAR SHELL PENDANTS FROM THE LOWER RIO GRANDE AREAS OF TAMAULIPAS, MEXICO AND TEXAS

C. K. Chandler and Don Kumpe

ABSTRACT

The importance of marine resources to inhabitants of Texas coastal sites has been researched and published by a number of authors but there is still much to be learned about the manufacture and use of marine shell tools and ornaments along the Texas and Tamaulipas coast, and in areas well inland.

This report illustrates a group of long rectangular marine shell ornaments of a type rarely reported or described in Texas literature. These artifacts are all manufactured from sections of the outer whorl of conch or whelk and are rectangular in shape.

THE ARTIFACTS

One group of five was recovered from eroding surface sites in coastal northeastern Tamaulipas, Mexico; two were surface-collected from sites in the coastal area of Cameron County and four were recovered with a juvenile burial being eroded by water movement along the shoreline of Falcon Lake in Tamaulipas, Mexico, across from Zapata, Texas. A large number of other grave goods were recovered with this burial. Only the long rectangular shell ornaments will be discussed in this report.

All of the bar-shaped shell ornaments from coastal northeastern Tamaulipas were broken. They were found in small pieces on eroded surface sites over a period of nine years (1982-1991). Where possible, the pieces were fitted together and one complete specimen was reconstructed.

Figure 1 illustrates the five rectangular shell artifacts from coastal northeastern Tamaulipas with drawings by Richard McReynolds.

Figure 1, A,A' is an end fragment of what is probably a long rectangular shell artifact of conch or whelk. It is the widest of all the specimens in this group of eleven. Original existing edges are straight and smooth. One end has two holes drilled in the butt end that are intersected with two holes drilled at an angle from the interior shell surface. It is without decorative edge notching or engraving. It is 33 mm long and 25 mm wide. The drilled holes do not pass through the thickness of the shell and are not visible from the outer surface of the shell.

Figure 1, B,B' is an end fragment of four pieces of a rectangular shell ornament made of conch or whelk that is unlike the other specimens in this group in that it is without holes of any kind, though holes may have been present in the missing end. The intact end is extensively ground and appears to be a reduced knob from the shoulder area of a conch in a late stage of production. This specimen appears to show that Indian craftsmen had reason to reduce the knobs of conch as it would facilitate the cutting and smoothing necessary for the manufacture of these kinds of artifacts.

It is 83 mm long, 15.4 to 16 mm wide, and 9.5 mm thick at the intact end and 7 mm thick at the broken end. It was surface-collected in November 1991 from Site T229 in coastal Tamaulipas.

Figure 1, C,C' is an end fragment of two pieces of a rectangular shell ornament made of conch or whelk that is much like Specimens A, A', D, D' and E, E'.

Area of Tamaulipas/Texas discussed in text.

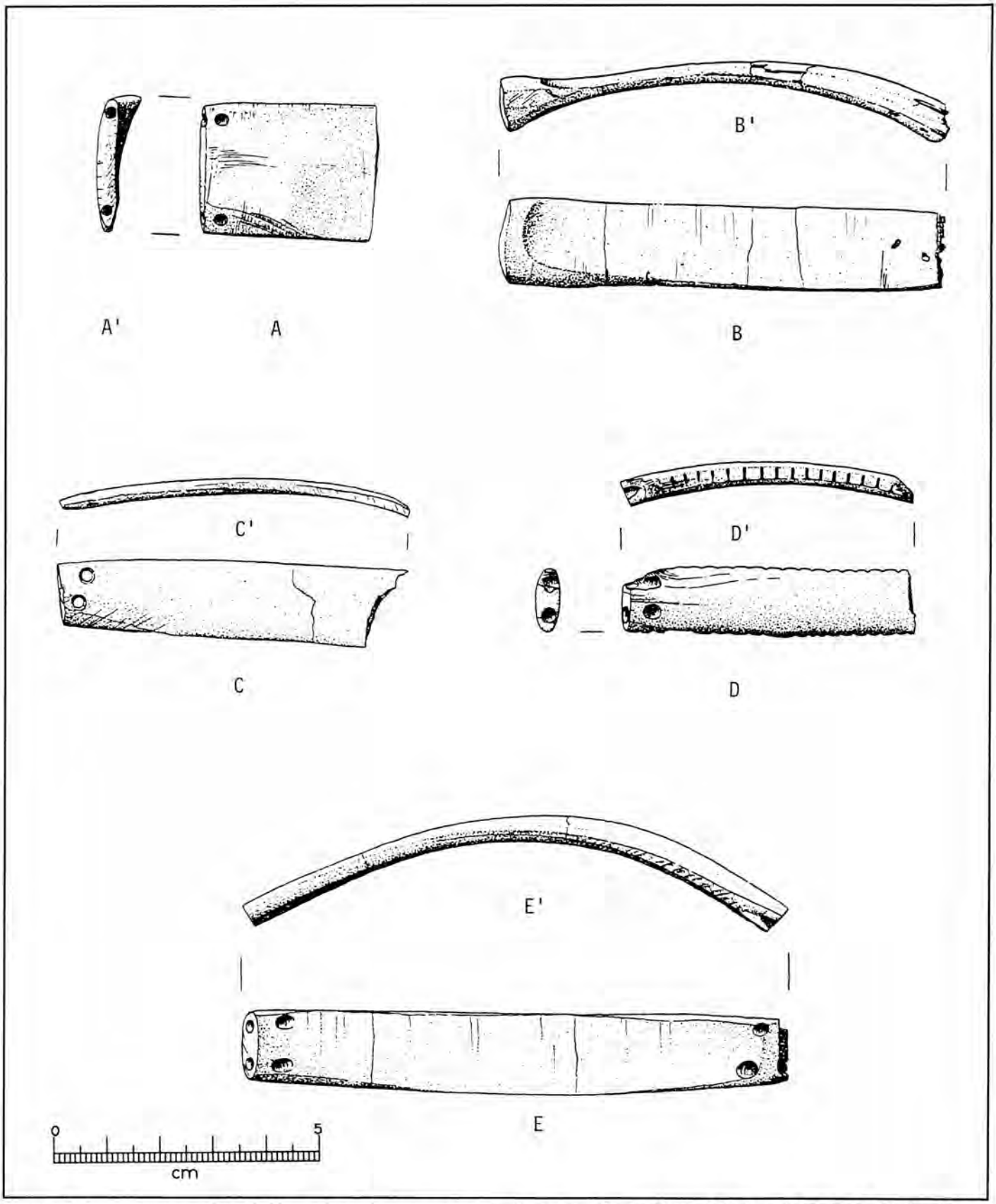

Figure 1. Long rectangular shell pendants from coastal northeastern Tamaulipas, Mexico. A, B, C, D, E: "top" view of specimen; A', B', C', D' and E': shows curvature and/or end view of specimen.

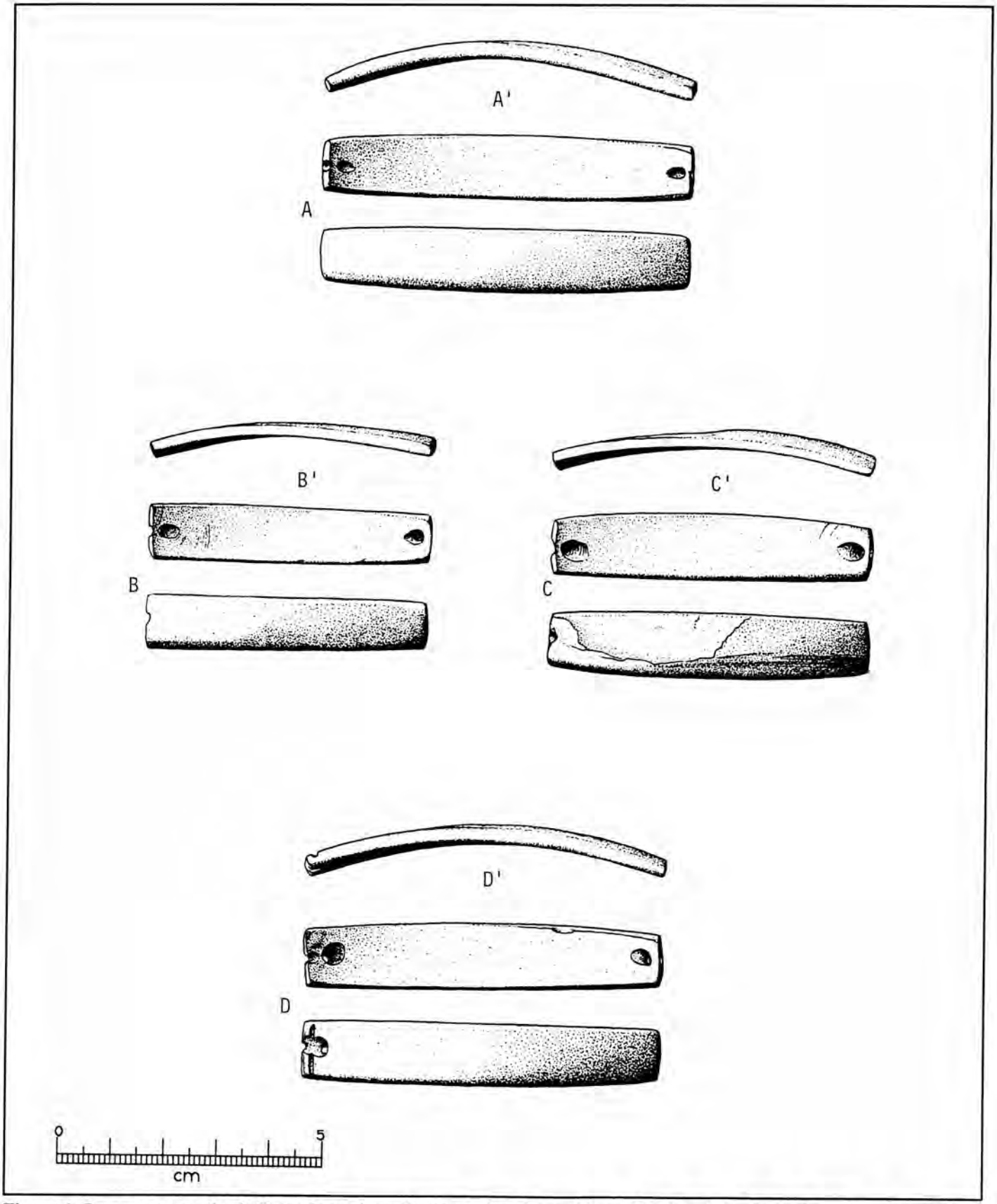

Figure 2. Long rectangulr shell pendants from Falcon Lake, Tamaulipas, Mexico. A, B, C, D: dorsal and ventral surfaces; A', B', C', D', curvature of specimens.

However, it differs from these in that the two end holes are drilled through the thickness of the shell. This is the only specimen in this entire group drilled in this manner. It is without edge notching and appears to be one-half or more of the complete specimen. Present dimensions are 65 mm in length, 14.5 mm in width near the broken end and 3 mm in thickness. One piece of this specimen was collected in August 1983 from Site T108 and the other in October 1986.

Figure 1, D,D' illustrates an end fragment of a shell ornament made of conch or whelk like Specimens A, A' and E, E' though it is noticeably smaller. It has the same pattern of two holes in one end. The other end is broken, so the overall length can not be determined, though it is probably shorter than Specimen E,E'. Specimen D, D' differs from the others in this group in that it has continuous notching on both edges. Dimensions of this specimen are: length, 55 mm; width, 13 mm; thickness 4.2 mm. It was surface-collected in November 1991 from Site T229 in the same general area as Specimen E, E'.

Figure 1, E,E' is the only completely reconstructed specimen of the five from northeastern Tamaulipas. It is reconstructed from three pieces of the original artifact. They were surface-collected over a period of three years from Site T108 between July 1982 and July 1985. The now complete artifact is 103 mm long across the curve with a maximum width of 15 mm near the center. It weighs 14.3 grams. It is 4 mm thick at one end and 4.7 mm thick at the other end. It is the longest of the eleven artifacts in this collection. There are two holes drilled in each end that are intersected by two holes drilled at an angle from the interior surface. There is no decorative engraving or edge notching on this specimen. None of the drilled holes pass through the thickness of the shell and are not visible from the outer curved surface.

Figure 2 illustrates the four rectangular shell ornaments recovered with the juvenile burial from Falcon Lake. Illustrations are by Richard McReynolds. (see Table 1).

Table 1. Dimensions (mm) and weights (gms) of shell artifacts with juvenile burial from Falcon Lake.

Spec. #	Length	Max. Width	Thick-ness	Wt.
A	70	12	3.8	7.3
B	54	10.4	3.6	4.3
C	61	12.4	4	5.7
D	69	12	3.8	7.2

These four specimens are complete and are without engravings or edge notchings. They are consistently smaller than the one complete specimen from coastal northeastern Tamaulipas and are in remarkably good condition. Unlike the Tamaulipas and Cameron County specimens that have two end holes these have only one hole in each end that is manufactured in the same manner as the coastal specimens A,A', D,D' and E,E'.

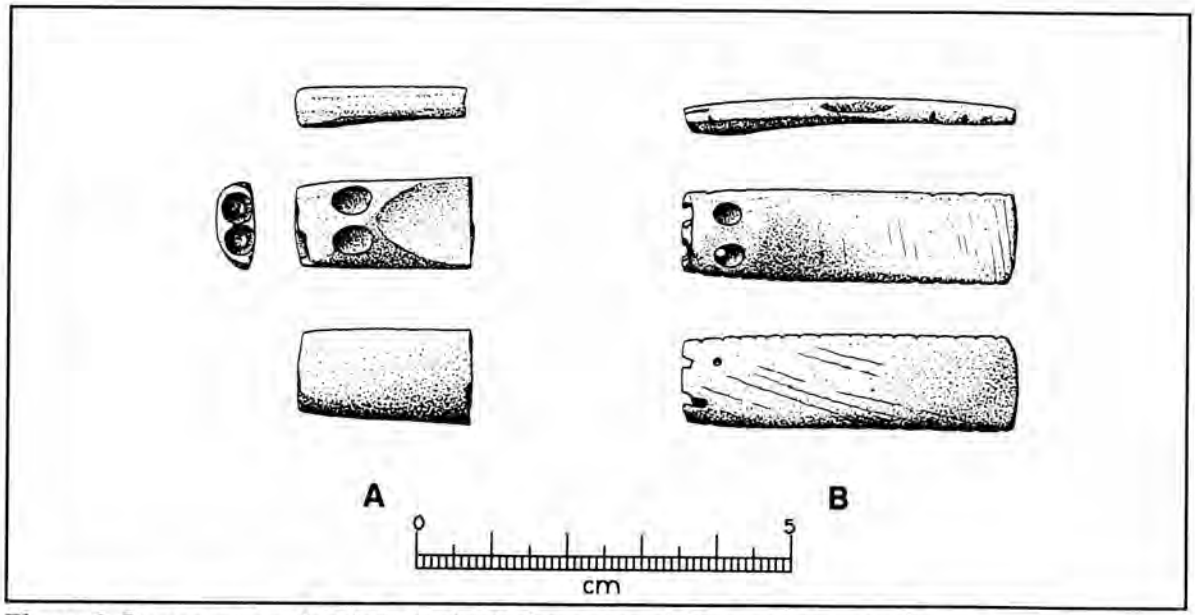

Figure 3. Long rectangular shell pendants from coastal Cameron County, Texas.

Figure 3 illustrates the two rectangular shell pendants from the coastal area of Cameron County. Both are fragmentary much like the specimens from coastal Tamaulipas illustrated in Figure 1; however, each is in one piece without any reconstruction.

Specimen A is quite short at 23 mm in length, 12.5 mm maximum width and 5.3 mm thick. Edges are abraded smooth and are nearly parallel. It is without decoration or edge notching. The one original cut end has two drilled holes that are intersected with holes drilled from the interior side of the shell surface. It is a surface find from a plowed field on the bank of Resaca de los Fresnos.

Specimen B also has two drilled holes in the original end that are made in the same fashion as those in Specimen A. Specimen B is 45.7 mm in length, 12.6 mm wide and 9.5 mm thick at the original end. One edge is fully notched with 18 shallow nicks. The opposite edge has four shallow notches toward the broken end. This specimen is from the Laguna Madre near the town of Laguna Vista.

A third end fragment without drilled holes is also known from coastal Cameron County but is not illustrated because of its tiny size.

SUMMARY

MacNeish (1958) in examining the A. E. Anderson collection at the Texas Archeological Research Laboratory (TARL) recorded a number of specimens of this type and referred to them as long rectangular shell pendants. He illustrates only one of these and it is incomplete (ibid.:185, Figure 51, Specimen 20).

The specimens in the Anderson collection are 90 to 175 mm in length and 18 to 45 mm in width (dimensions by MacNeish 1958:191) making them longer and wider than the specimens we are reporting from coastal Tamaulipas, Cameron County and Falcon Lake. The long rectangular shell pendants in the Anderson collection are said by MacNeish to be confined to the Barril Complex in coastal Tamaulipas. Although he reports two Barril Complex sites in Cameron County, no "Long rectangular shell pendants" are previously known from Cameron County, nor are any reported from as far inland as Falcon Lake.

CONCLUSION

The "long rectangular shell ornaments" from coastal Tamaulipas, Cameron County and Falcon Lake reported and illustrated in this paper greatly expands their known distribution and provides evidence for coastal shell trade well inland.

We have followed MacNeish in naming them "pendants"; however, we believe that some were strung end to end and worn around the neck as a choker style necklace.

ACKNOWLEDGMENTS

The shell ornaments from coastal Tamaulipas, Cameron County and Falcon Lake were collected by several individuals. The artifacts were drawn by Richard McReynolds. We extend our sincere appreciation to them all for their cooperation and participation.

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The Editor and Staff

USE OF A CHERT FLAKE AS A PRESSURE FLAKING TOOL

Leland W. Patterson

ABSTRACT

The advantages and limitations of use of a chert flake as a pressure flaking tool are discussed. Experimental examples of this pressure flaking technique are given.

INTRODUCTION

It has been noted previously (Patterson 1981; Patterson and Sollberger 1974, 1980) that a chert flake is suitable for use as a pressure flaking tool to manufacture some types of stone tools. It is customary to employ a pressure flaking tool with a pointed metal or antler tip for modern flintknapping experiments. Indians used antler and sometimes native copper (Jennings 1974:Figure 6.4) tips for pressure flaking tools. A chert flake can be more efficient than a pointed pressure flaking tool for certain tasks. In general, use of a chert flake as a pressure flaking tool is only suitable for doing retouch on thin flake edges to make unifacial tools. The advantages and limitations of use of a chert flake as a pressure flaking tool are discussed here, and examples are illustrated for a variety of unifacial tools made by this flaking technique.

PRESSURE FLAKING WITH A CHERT FLAKE TOOL

Pressure flaking of lithic flake blanks to make tools is done by applying force to an edge of a flake blank to remove smaller size flakes. A pointed pressure flaker tip generates a high pressure in relation to force applied, because of the small area of a pointed tip. A chert flake used as a pressure flaking tool does not have a pointed tip, and is capable of generating less pressure than a pointed tool. Therefore, a chert flake is not a suitable tool for pressure flaking of thick flake blanks where long retouch flake removals are desired, such as for the manufacture of bifacial arrow points. There are advantages, however, for use of a chert flake as a flaking tool to make unifacial tools where only limited marginal retouch is needed on the flake blank edges.

A chert flake can be used as a pressure flaking tool in two methods. One method is simply to apply force to a spot on the edge of a flake blank in the same manner as a pointed pressure flaking tool. The other method is to apply force to the edge of a flake blank with a raking action. Hawkes (1963: 223) has noted that a flaking tool was probably used with a raking action to manufacture microlithic tools in the Eurasian Mesolithic period. A raking action of a flaking tool gives rapid and even retouch on the thin edge of a flake blank. There is less breakage of thin flake blanks by this method, because no high pressure spot loads are generated as with a pointed pressure flaking tool. Use of a chert flake as a flaking tool also eliminates the need for a special flaking tool, which has advantages for some expedient tasks. I have made stemmed unifacial arrow points from prismatic blades in less than two minutes each (Patterson and Sollberger 1980:Figure 5).

EXPERIMENTAL EXAMPLES

Several unifacial chert tools were made for this study to show the manufacturing variety possible by use of a chert flake as a pressure flaking tool. The chert flake used as a pressure flaking tool for these experiments is shown in Figure 1, together with two unifacial perforators which were each made in about one minute. A graver, a denticulate, and a notched tool made in these experiments are shown in Figure 2. These three specimens were each made in about 20 seconds. More time was taken to select suitable flake blanks than to actually make unifacial tools. In southeast Texas, many specimens of formal unifacial tool types do not have much edge use-wear. Therefore it is concluded that Indians in that region regarded both formal unifacial tool types and utilized flakes as expedient tools. No breakage of thin flake blanks occurred in any of the experiments described here.

Some unifacial arrow points made in these experiments are shown in Figure 3. For all specimens the distal ends of flake blanks were shaped to a pointed tip by raking the chert pressure flaking tool along both lateral edges of the flake blank. It is often not

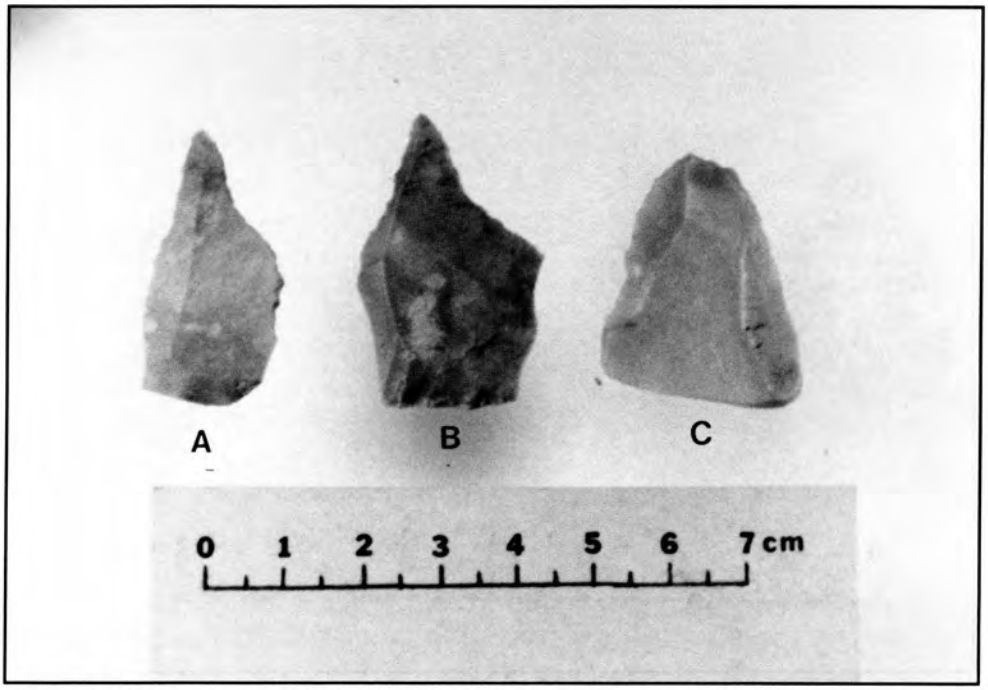

Figure 1. Perforators and Flaking Tool. A, B, perforators; C, chert pressure flaking tool.

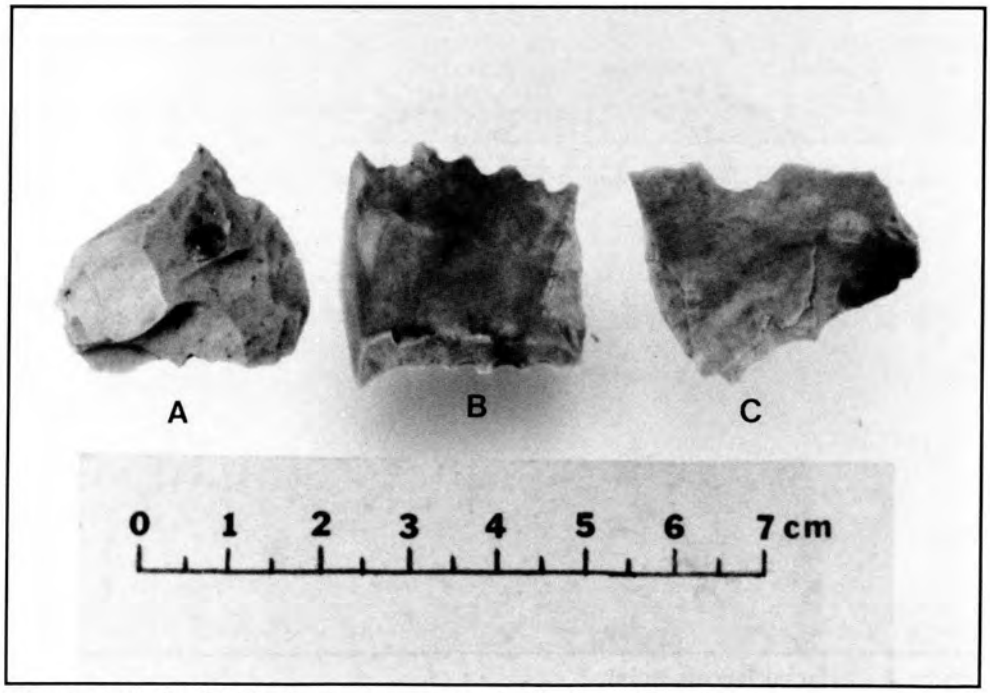

Figure 2. Unifacial Tools. A, graver; B, denticulate; C, notched tool.

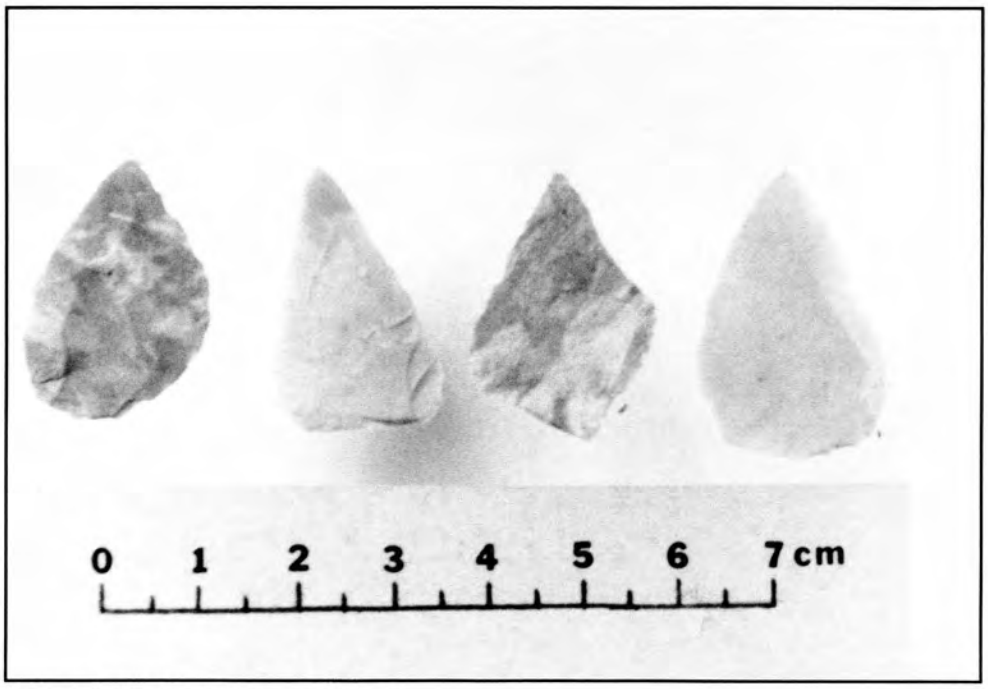

Figure 3. Unifacial Arrow Points.

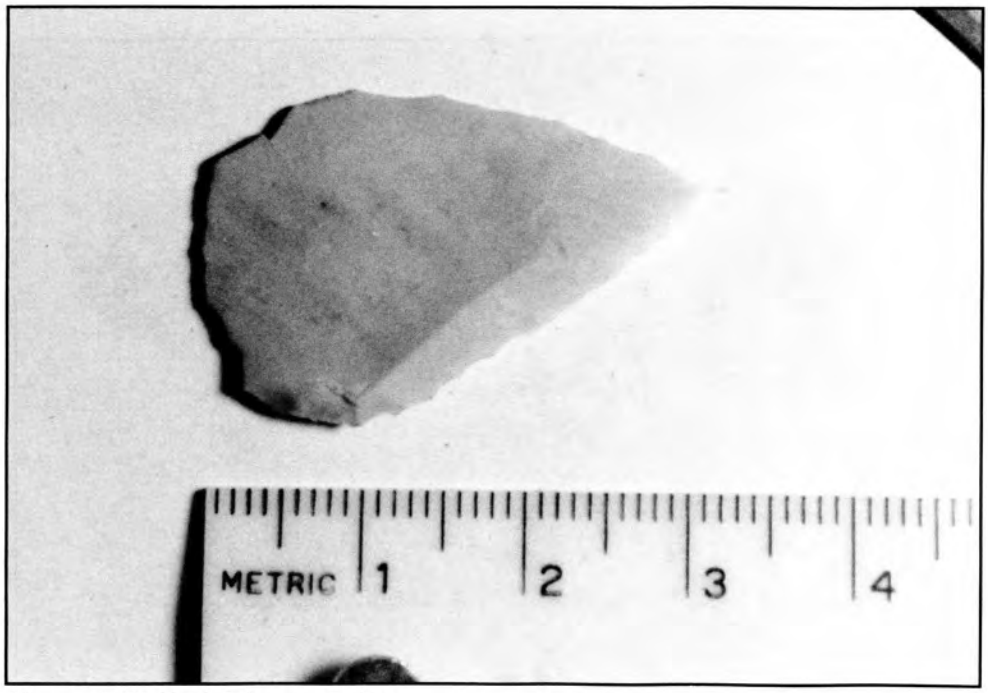

Figure 4. Unifacial Arrow Point.

necessary to retouch both lateral edges to obtain a pointed tip. Some archaeological examples of unifacial arrow points where only one lateral edge has been retouched have been shown for site 41HR315 in Harris County, Texas (Patterson 1980:Figures 10, 13,15) and site 41NU11 in Nueces County, Texas (Headrick 1993:Figure 11U). The fine retouch that can be achieved by raking the edge of a flake blank with a chert pressure flaking tool is shown in Figure 4 for a greater than lifesize enlargement of a unifacial arrow point replicate.

SUMMARY

Use of a chert flake as a pressure flaking tool to produce unifacial tools from thin flake blanks has been discussed here. This pressure flaking method can be more efficient for some applications than with use of a pointed pressure flaking tool. Use of this pressure flaking method can also result in less breakage of thin flake blanks. When used in a raking action a chert pressure flaking tool can produce a fine, even retouch pattern on the edge of a flake blank.

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COASTAL BEND ARCHEOLOGICAL SOCIETY

Another local archaeological society our readers may find interesting to participate in is the Coastal Bend Archeological Society, a very active group.

Their monthly meeting the first Wednesday of each month. The meetings will be in the Hilltop Community Center, Corpus Christi, at 7:00 o'clock p.m.

Contact Larry Beaman, 303 Rolling Acres Dr., Corpus Christi, Texas 78410 to confirm time and place and for further information.

CLOVIS POINTS FROM MONTGOMERY AND BRAZORIA COUNTIES IN SOUTHEAST TEXAS

C. K. Chandler and Dwain Rogers

ABSTRACT

Four Clovis points surface-collected from undocumented sites near Houston are reported and illustrated. Three of these are from Montgomery County just north of Houston and one is from Brazoria County just south of Houston. There are no Clovis points previously recorded from these two counties.

DESCRIPTION OF ARTIFACTS

Specimen 1, Figure 1, A, A′ is a nearly complete Clovis point with a restored distal tip. When found in the mid-1950s this point was complete. Sometime after it was found the tip was broken and exposed the interior as a dark translucent gray chert that is now covered with a creamy white patina. The broken tip has been restored with a creamy white synthetic material that matches the heavy coating of patina. Present dimensions are 79 mm in length, 24.6 mm in width and 7 mm in thickness. Lateral Edges are parallel and the base width is also 24.6 mm. Basal concavity is 5 mm due to a small edge break near the center. Edges are ground 28 mm each. It is fluted on both faces with single flute scars. The obverse flute is 16 mm long and 12 mm wide. The reverse flute is 17 mm long and 12 mm wide. It weighs 15.8 grams.

This specimen was found in the mid-1950s in a cultivated rice field near Chocolate Bayou in southeastern Brazoria County south of Liverpool near the west arm of Galveston Bay.

Specimen 2, Figure 1, B, B′, is a complete Clovis point with maximum dimensions of 64.8 mm in length, 20.8 mm in width and is 6.4 mm thick. Lateral edges are parallel and basal width is the same as maximum width at 20.8 mm. Basal concavity is 1 mm. . Edges are ground 28 mm each and the base is lightly ground. It is fluted on both faces with single flute scars. The obverse flute is 29 mm long and 7 mm wide. The reverse flute is 18 mm long and 9 mm wide. It is made of light brown good quality chert having lighter specks. It weighs 13.8 grams. These light specks may be the beginning of patina.

This specimen was recovered from a site at Camp Strake Boy Scout Camp in 1963 just south of Conroe in Montgomery County.

Specimen 3, Figure 1, C, C′ is a complete Clovis point with maximum dimensions of 94.4 mm in length, 34 mm in width at 36 mm above the base and is 8 mm thick. Base width is 31 mm and basal concavity is 2.6 mm. Lateral edges are heavily ground 40 mm each. Base is more lightly ground. It is fluted on both faces with single flute scars. The obverse flute is 28 mm in length and 22 mm in width. The reverse flute is 25 mm long by 18 mm wide. It weights 33.5 grams. Blade edges and distal tip are dulled and have occasional tiny chips. All surfaces are glossy and slick. Overall flaking is irregular with both faces displaying some broad lateral thinning flakes.

Under initial observation this specimen appears to be made of solid black chert of excellent quality but under microscopic examination and improved lighting the tiny edge and distal chips show a much lighter interior material that is a hazy light gray that, in bright sunlight, is reddish brown and is nearly translucent. The high surface polish, slick feel and edge dulling is probably from stream rolling.

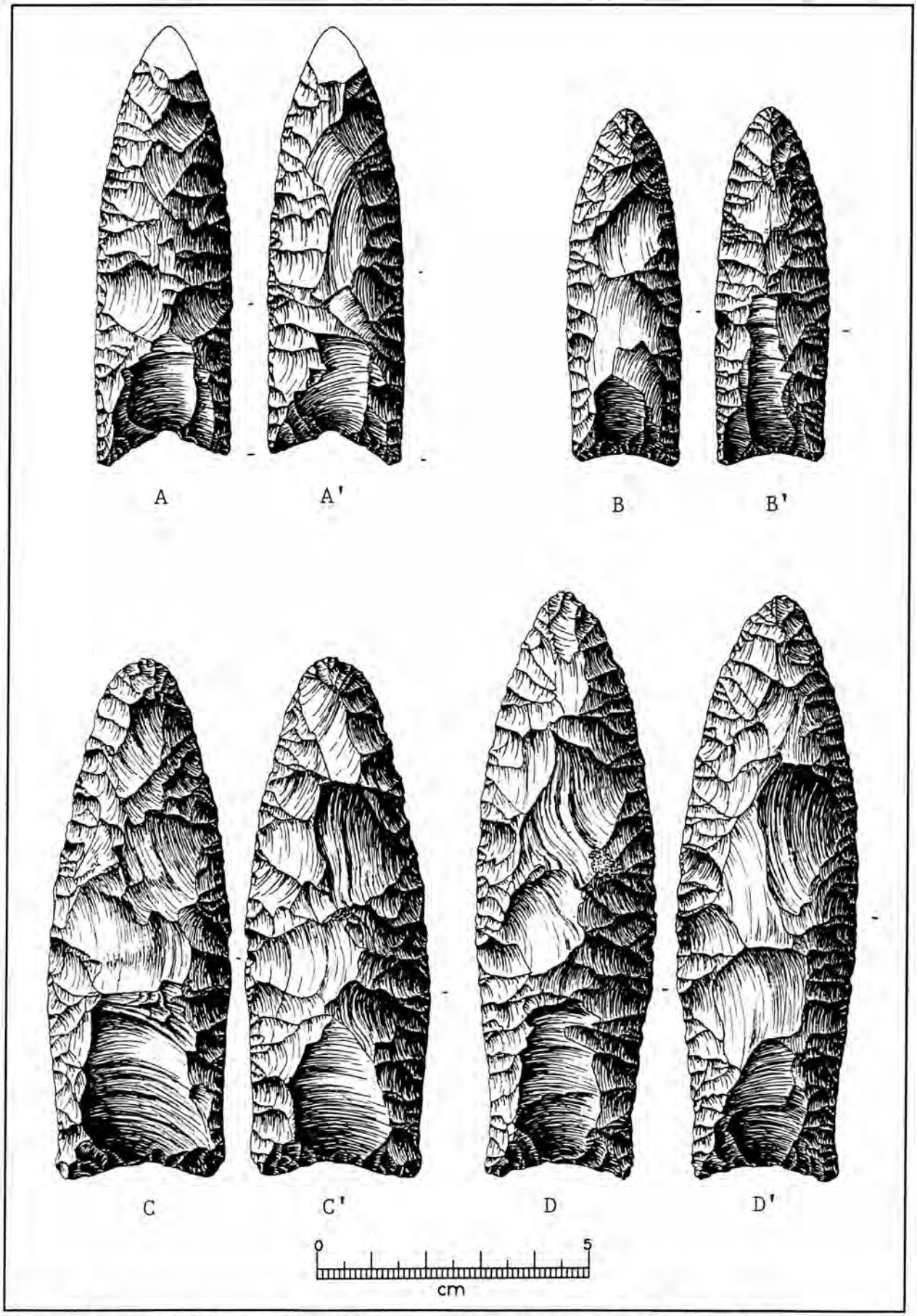

Figure 1. Clovis points from southeast Texas. A, A′, Brazoria County; B, B′, C, C′, D, D′, Montgomery County.

This specimen was found in the summer of 1993 on a sandbar in an unnamed tributary to the San Jacinto River in Montgomery County near its border with Harris County. The parent material is obviously chert but its source has not been identified. It is not a Central Texas chert (Glenn Goode, personal communication).

Specimen 4, Figure 1, D-D' is a complete Clovis point with maximum dimensions of 106 mm in length, 32.7 mm in width at 43 mm above base, and 10.4 mm in thickness. Lateral edges are heavily ground 36 and 40 mm and the base is lightly ground. Base width is 27 mm with a basal concavity of 2 mm. It is fluted on both faces with two overlapping flakes on each side. The obverse flute is 31 mm in length and 16 mm wide. The reverse flute is 21 mm in length and 16 mm wide. It weighs 41.8 grams. All surfaces are glossy and slick. Blade edges and distal tip are lightly dulled. This glossy slick finish and edge dulling is probably from stream rolling.

This specimen is made of good quality greenish tan and gray chert containing a number of light specks that may be the beginning of patina. Overall flaking is irregular with some broad lateral thinning flakes.

It was found in May, 1993 on a sandbar in a tributary to the San Jacinto River in Montgomery County about five miles east of Interstate Highway 45.

DISCUSSION

Meltzer's (1987) Texas Clovis Fluted Point Survey produced data on 205 Clovis points distributed among 95 of the 254 counties in Texas. The four Clovis points in this report were not included in that survey. There were none recorded in Brazoria and Montgomery Counties. Only eight counties were reported with as many as three Clovis. Three Clovis from Montgomery County in this report increase the number of counties with at least three Clovis. With the continued reporting of new finds the total number of Clovis and their distributional information will be increased.

Meltzer (1989) reported he had received 36 new reports of previously undocumented Clovis fluted points since his 1987 report. This information added 13 new counties to the known distribution. They are: Anderson, Brisco, Dawson, Falls, Galveston, Hall, Kaufman, Kimble, Milam, Potter, Webb, Wilson, and Wise. The known number in several other counties was increased. The four points reported here add two new counties, Brazoria and Montgomery, to Meltzer's known distribution, and add substantially to the total number of recorded Texas Clovis fluted points.

ACKNOWLEDGMENTS

We extend our sincere appreciation to Richard McReynolds who prepared the illustrations for these artifacts.

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Meltzer, David J.

1987 The Clovis Paleoindian Occupation of Texas: Results of the Texas Clovis Fluted Point Survey. *Bulletin of the Texas Archeological Society* 57 (1986 published in 1987).

1989 The Texas Clovis Fluted Point Survey: An Update and Request for Assistance. *Texas Archeology* (the Texas Archeological Society *Newsletter*) Vol. 33 (1): 18.

NEW TARL PUBLICATIONS*

Two major new TARL publications have just appeared. Both are 2-volume works that provide a great deal of new information on Texas archeology. Both are in TARL's *Studies in Archeology* series.

Robert Ricklis (TARL Research Fellow) and Michael B. Collins (TARL Associate Director) are the authors of *Archaic and Late Prehistoric Human Ecology in the Middle Onion Creek Valley, Hays County, Texas* (Studies No. 19, a 2-volume, 651-page report (with 275 figures and 161 tables, and covers designed by Ken Brown of TARL) that details the excavations of several sites near Buda in 1989-1990 under contract with the Texas Department of Transportation.

Volume 1 provides details on the components found at the Barton site (Early Archaic: Bell/ Andice/ Calf Creek), the Mustang Branch (Bluff) site (a Late Archaic burned rock midden), and the Mustang Branch (Terrace) site (a Toyah campsite). ... In Volume 2, there are numerous topical studies. They include the study of a historic site, geomorphic studies in the middle Onion Creek valley, vegetational analyses, paleobotanical research, faunal analysis, molluscan studies, reports on radiocarbon dates (and thermoluminescence and archeomagnetic research), archeomagnetism, the use of a magnetometer at the Barton site, ceramic paste analysis, stable isotope research, use-wear studies, residue analysis of burned rocks and artifacts, and a replicative study of Andice/Bell points.

The Loma Sandia Archaic cemetery in Live Oak County, southern Texas (41LK28) is fully published in Studies No. 20, *Archeological Investigations at the Loma Sandia Site (41LK28), A Prehistoric Cemetery and Campsite in Live Oak County, Texas*, authored by Anna Jean Taylor and Cheryl Lynn Highley. The 2-volume, 856-page report, with 399 figures and 123 tables, features original cover art by Dr. Frank A. Weir, and is accompanied by a map packet containing large plans of the cemetery, drawn by Kathy Dodt-Ellis, Bruce Ellis and Frances Meskill. ... These 2 volumes contain the work of many collaborators, including an archeological and ethnohistorical background by Dr. Stephen L. Black of TARL, detailed reviews of prehistoric cemeteries in Texas by Dr. Grant D. Hall of Texas Tech, analysis of the shell artifacts by Meredith L. Driess, along with numerous other special studies including bone and antler artifacts, ceramics, a late Paleoindian/Early Archaic lithic cache, use-wear analysis of Tortugas points, fluoride dating of the burials, etc.

* Exerpted from *The Newsletter of The Friends of the Texas Archeological Research Laboratory* (Vol. 3, No. 2, October 1995).

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A STUDY OF SOME EARLY PROJECTILE POINTS FROM THE J2 RANCH SITE (41VT6), VICTORIA COUNTY, TEXAS:

THE SCHMIEDLIN-STUDER COLLECTION

Norman G. Flaigg

ABSTRACT

Local collectors and both professional and avocational archaeologists have been collecting from the J2 Ranch site (41VT6), in Victoria County, Texas, for many years. Artifacts have been collected mainly from the surface and range in age from the Paleoindian to Late Prehistoric periods. The Schmiedlin-Studer Collection, now in the possession of E. H. Schmiedlin of Victoria, consists of several hundred artifacts. Those artifacts believed to be of Paleoindian and Early Archaic age, 103 in number, were loaned to the Office of the State Archeologist for study. This analysis has identified 43 Paleoindian points, 21 Early Archaic points, 18 unclassified concave-base points (an indeterminate mixture of Paleoindian and Archaic), 10 miscellaneous points of Archaic origin, 7 bifaces and biface fragments, and 4 perforators in this collection. All of the later Paleoindian dart-point types, beginning with Plainview, are present, and many of the very early Archaic types are represented. The data presented for this collection include dimensions of each specimen and the currently recognized criteria used in classifying each specimen. It is hoped that this descriptive approach will provide to the archaeological community a permanent record of this important privately held collection.

INTRODUCTION

The J2 Ranch site (41VT6) is an important, multicomponent archaeological site located in Victoria County, Texas. Archaeological investigations of the site have been undertaken by a local archaeological group and the Southern Texas Archaeological Association, but the site has also been visited by collectors for many years. The archaeological investigations have indicated that the site contains artifacts dating from Paleoindian to Late Prehistoric occupations. To date, only two brief reports on the site have been published (Birmingham and Mitchell 1978; Fox, Schmiedlin, and Mitchell 1978). In order to further document some of the artifacts from the site, E. H. ("Smitty") Schmiedlin of Victoria, Texas, loaned the Paleoindian and part of the Early Archaic portion of the Schmiedlin-Studer Collection to the Office of the State Archeologist, Texas Historical Commission, for study. This report is the result of that study.

Schmiedlin, a member of the Texas Archeological Stewardship Network, has been an avocational archaeologist for many years. He has been active in the affairs of the Coastal Bend Archeological Society, the Southern Texas Archaeological Association (STAA), and the Texas Archeological Society. He also has been involved in the investigation of the J2 Ranch site since the earliest studies and, in the process, has collected a number of significant artifacts from the site. A number of these artifacts are from very early occupations.

In June 1965 Schmiedlin prepared a 20-page report (unpublished) summarizing the investigations up to that time and including outlines and photographs of 153 artifacts. Many of the points discussed in this report are outlined in that earlier report. In February 1966 he recorded the site and submitted the site report for curation at the Texas Archeological Research Laboratory (TARL) in Austin.

Schmiedlin loaned to the Office of the State Archeologist for documentation those artifacts which were thought to be of the Paleoindian or very Early Archaic period. The loaned artifacts consist of 92 projectile points or fragments of points, 7 bifaces or fragments of bifaces or projectile points, and 4 perforators.

SITE LOCATION

The J2 Ranch site is located about 18 miles northeast of Victoria, Texas, on Arenosa Creek in Victoria County. Details of the site and of the excavations carried out there are shown in Figure 1. In July

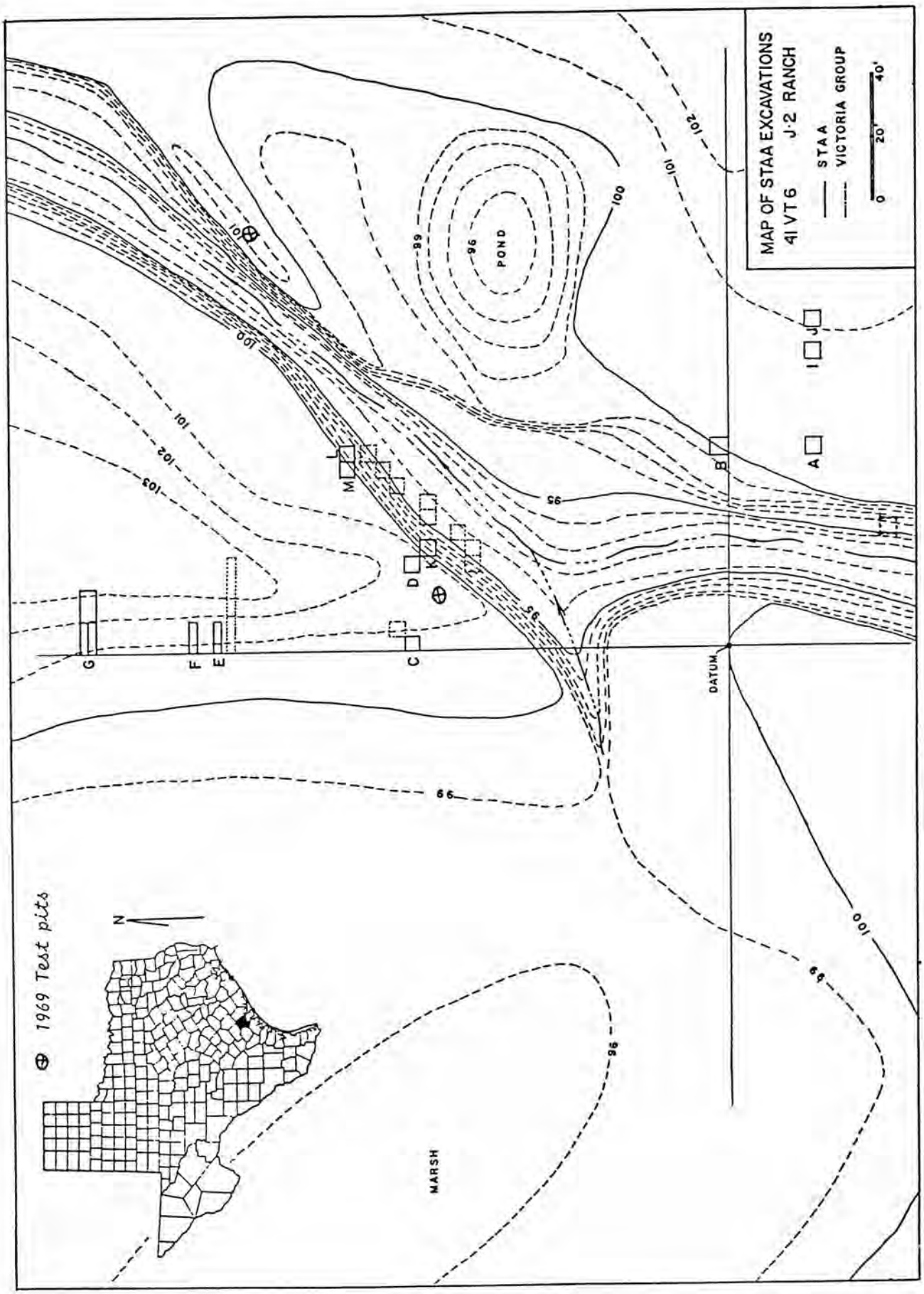

Figure 1. Map of 41VT6, J2 Ranch site (from Fox, Schmiedlin and Mitchell 1978; used with permission.)

1969 Thomas R. Hester visited the site and noted that it lay on both sides of the creek. He observed that the creek is a narrow, sandy stream flowing year round, with freshwater mussels present, and that a small pond adjacent to the site on the north side of the creek contained typical pond vegetation (cattails, reeds, etc.). Arenosa Creek is a major tributary of Garcitas Creek, which empties into Lavaca Bay. The site is about 30 miles from the Gulf of Mexico. The specific location of the site is withheld in accordance with the wishes of the landowner. For a general environmental overview of the Victoria County area, see Huebner and Comuzzie (1992).

HISTORY OF INVESTIGATIONS

Before an official trinomial was assigned to the J2 Ranch site, C. A. Calhoun, a local resident, referred to it as 41V10 and Schmiedlin assigned his personal number of 41V48 to the site. In 1966, when Schmiedlin filed the site report at TARL, the site was assigned the trinomial 41VT6. Since then the site has been known by that number or as the J2 Ranch site.

Information on the early history of the site has been derived largely from Schmiedlin's 1978 account (in Fox, Schmiedlin, and Mitchell 1978) and is supplemented by Schmiedlin's comments on a preliminary draft of this report. The date of the discovery of the site is unknown. In the early 1900s, archaeological material was exposed during construction of an earthen dam across Arenosa Creek. Cattlemen, driving herds to the northern markets, built the dam to divert water into a dry lake north of the creek. The borrow pits used for construction of the dam were probably partially in the lake bed. The resulting reservoir was used to water cattle for many years, but eventually the dam was dynamited and destroyed. The erosion resulting from the destruction of the dam and subsequent floods caused the formation of gravel bars downstream from the dam site that have been popular collecting areas ever since.

In 1959 Bert Barber of Victoria brought the site to the attention of Mr. and Mrs. Gene Studer. The Studers and other local amateur archaeologists spent a great deal of time trying to define the borrow areas used in the construction of the dam. During their surveys they found both Archaic and Paleoindian artifacts, and the locales of these finds seemed to be concentrated slightly upstream from the former dam.

In 1961 the local investigators established a datum and laid out a north to south baseline. In the period 1961 through 1963, a total of 17 units measuring 5 x 5 ft. were excavated in 6-in. levels to various depths. Artifacts recovered ranged from Paleoindian material to arrowpoints, including a large amount of Transitional Archaic material. Large amounts of well-preserved animal bone and chert debitage were recovered; however, no ceramics were found at the site. The Paleoindian materials were found at varying depths but always near the basal clay layer.

Surface collecting continued over the years, with Paleoindian materials continuing to appear. Several Scottsbluff points were among these findings (Birmingham and Mitchell 1978). In 1969 two test units, one on each side of the creek, were excavated by local avocational archaeologists in an effort to find the exact location of the dam. The tests revealed disturbed soils, indicating that the high ground on both sides of the creek was not natural but was, instead, probably part of the original dam. Very little archaeological material was recovered during the 1969 investigations. The locations of these two test units are indicated by small crossed circles in Figure 1.

In 1976 Schmiedlin advised the STAA of the location and importance of the J2 Ranch site. The STAA then initiated a series of weekend excavations at the site. Three weekend sessions (held on July 3–5, 1976; October 14–17, 1976; and July 2–4, 1977) produced artifacts ranging from a fragment of a Scallorn point to a Plainview-like basal fragment. The work consisted of excavating nine 5 x 5 ft. units and three 2.5 x 10 ft. trenches. These tests were not completed because of lack of time. The locations of these and earlier excavations are shown in Figure 1. Details of the excavations and the results can be found in Fox, Schmiedlin, and Mitchell (1978). Since the STAA work in 1978, no additional investigations have been undertaken at the site.

For an overview of archaeological investigations and chronology in the surrounding Victoria County area, researchers are referred to Huebner and Comuzzie (1992), and for an overview of the Coastal Bend, to Shafer and Bond (1985).

METHOD OF STUDY

Each artifact was examined carefully, and measurements and other attributes were recorded on individual projectile-point description and dimensions forms (after Mallouf 1987). In addition to the stan-

dard items required by the form, comments were made on the flake pattern and basal treatment of each artifact. For most of the concave-base points, additional dimensions were included for the benefit of other investigators wishing to apply the criteria devised by Kelly (1983) or others for sorting Paleoindian projectile points; those additional dimensions include:

Haft distal width (HDIST) measured 10 mm above the base;
Haft proximal width (HPROX) measured at widest part of the ears or at base otherwise;
Base concavity (BCON); and
Length of shortest ground edge (GRED).

In addition, thickness at 10 mm from the base was recorded on the work sheets in case this measurement becomes significant in future studies. Tentative typological identifications were made after the measurements were complete.

The artifacts were then grouped by type and compared with standard type descriptions and each other to determine conformity within each group. This comparison resulted in considerable reclassification. Artifacts that could not be confidently classified were placed in an unclassified category according to shape. After the type identifications were finalized, tables summarizing the artifacts' attributes were prepared and the members of each group were briefly described, with emphasis on any unusual features such as material, heat treatment, and flaking. Mention of the artifacts in any previous publications also was noted.

The identification of materials from which the artifacts were manufactured is limited to the generic mineral and color, and no attempt has been made to specify whether the material is Edwards chert or derives from the Wilcox or Uvalde gravels. Identification of minerals from this area is complicated by weathering (Robert J. Mallouf, personal communication, 1994) and the colors of the patina, which is often yellowish or light shades of brown (Thomas R. Hester, personal communication, 1994). According to Schmiedlin, the coloring of the patina is unique to the Paleoindian material from this site.

Recognition of heat treatment of the specimens was complicated by the fact that surface-collected materials often exhibit natural sand blasting, resulting in a "slickness" that usually is typical of heat-treated lithics (Thomas R. Hester, personal communication, 1994). In this study heat treatment was determined by changes in color and texture in addition to "slickness."

Because most of the artifacts were recovered from the surface, no attempt is made to discuss the stratigraphic or temporal relationship of the types. This report is simply a description of the recovered artifacts.

EARLY PROJECTILE POINTS

The classification of Late Paleoindian and Early Archaic projectile points is a minefield for the typologist. Different archaeologists have allowed substantial variation in each of the types. A notable example is the wide range of variation that has been allowed in the Angostura type. Another example is the number of look-alikes that have been classified as Barber, Golondrina, and Plainview types. Descriptions of certain specimens by terms such as "Mini-Plainview" adds even further confusion. The similarities among specimens that have been classified as Early Triangular, Tortugas, and Matamoros add to the problem. And, finally, the reworked Plainview-Meserve-Dalton problem has not been resolved (see, for example, Johnson 1989).

In this study, each of the major types present in the collection is described and the criteria used in assigning classifications are enumerated. Following each type description, the points in the collection that have been assigned to that type are tabulated, illustrated, and discussed. That not everyone will agree with the decisions made herein is to be expected. Forewarning of disagreement was clear when three different people made three different classifications of one point during the course of this study. It therefore is evident that the author is not alone in the minefield. Nevertheless, and despite the many people who so helpfully assisted in these classifications, any errors are the sole responsibility of the author.

The Paleoindian projectile point types from site 41VT6 are classified as Angostura, Early Stemmed Lanceolate, Golondrina, Meserve, Plainview, Scottsbluff, and Victoria, and a group of similar but unclassified points are referred to as "Ang-view." The very early Archaic types present are Andice, Bell, and Gower. Other Early Archaic types are the Early Triangular, Hoxie, Pandale, and Uvalde points.

Angostura

In Texas the Angostura type has been broadened to include considerable variation in size, shape, and flaking pattern. As originally defined, the Angostura point was a long, slender, lanceolate point with oblique to horizontal parallel flaking, concave to straight bases, and ground basal edges (Wormington 1957). In this study, Angostura points are considered to be medium to large lanceolate points having a tapered hafting area that usually begins near mid-length. Bases vary from slightly concave to slightly convex and may be ground. Stem edges are usually well ground. The flaking pattern is usually parallel oblique, but specimens with random flaking may be included if other attributes are predominantly Angostura-like. Kelly (1983) identifies the unfailing attribute that separates the "Texas Angostura" from most other Paleoindian points as its narrow base and suggests that Angostura points generally have the following dimensions:

Length	58 to 89 mm
Width	17 to 28 mm
Thickness	5 to 8 mm
Basal concavity	–1* to 3 mm
Basal width	10 to 17 mm
Stem grinding	12 to 30 mm
Stem width (10 mm from base)	15 to 22 mm

* Minus sign (–) indicates convex measurement.

Angostura points are found in Late Paleoindian to Early Archaic sites with dates around 6000 B.C. (Turner and Hester 1993).

Fourteen points and fragments of points in the J2 Ranch site collection are classified as Angostura. Their dimensions and other data are shown in Table 1, and they are illustrated in Figures 2a and 2b.

Artifact 2A is essentially complete, missing only a few millimeters of the tip, which was removed by a snap fracture. A series of step fractures along the right reverse edge, near the tip, gives that edge a recurved shape. The blade edges are slightly serrated. This artifact has been previously described as a "weak shouldered lanceolate" (Fox, Schmiedlin, and Mitchell 1978:3, 5).

Artifact 2B also is nearly complete except for a few millimeters of the tip, removed by a snap fracture. About 20 mm of the left obverse distal edge has been strongly beveled. Both the beveled edge and the right edge show moderate wear. The shape and wear pattern indicate that this point was reworked and used as a perforator.

Artifact 2C is a complete point with slight serration of both edges and some beveling on the right edges of both faces, indicating that the point has been resharpened. The basal concavity is 1.6 mm, slightly greater than the range suggested by Kelly (1983).

Artifact 2D is a wide, thick specimen. The broad, short shape is probably the result of reworking of the distal portion. Some color change suggests that this artifact may have been heat treated. The point is unusual in that a sandy, calcareous encrustation about 2 mm thick occurs on a portion of the obverse face.

Artifact 2E is a resharpened point with a somewhat ragged outline. A hinge fracture has removed a few millimeters of the tip. The point is unusual in that the obverse face of the blade has an axial ridge.

Artifact 2F in outline is suggestive of the Hell Gap type, but the flaking pattern of the specimen, especially in the haft area, is not typical of that type. A complex fracture removed a portion of the tip after the specimen had been resharpened. The material, with a variegated pattern of tans, browns, and reddish brown, is unusual and may be a silicified wood. The very high luster of the artifact suggests heat treatment but may be a characteristic of the unusual material or the result of natural sand blasting.

Artifact 2G is the proximal portion of a large lanceolate point that was truncated by a complex snap fracture. The shape is Angostura-like, but the minimal basal smoothing and the strong left-hand beveling of the stem are unusual. The specimen resembles examples of the E, K–N group from the Sinkhole site (41WM754; Flaigg 1993) but lacks the smoothing of stem and base characteristic of those specimens. The preponderance of percussion flaking suggests that the artifact may be a preform. It is made of a yellowish tan chert.

Artifact 2H is a short, thick point made of a light brown chalcedony that may be pseudomorphic after wood. The left edges of both faces are beveled as a result of resharpening. Intense step fracturing and polish are present on both edges of the distal one-third of the point and may be due to resharpening or to some unknown use.

Artifact 2I is a perforator made from a rejected

Angostura-like projectile point. It appears that the originally intended tool did not respond properly to the knapper's efforts and was converted to a perforator. The blade has a distinct rhomboidal cross section due to beveling of the right edges of both faces. The tip shows wear and step fracturing suggestive of use as a perforator.

Artifacts 2J, 2K, and 2L are the basal portions of Angostura points that were truncated by transverse hinge fractures. Artifact 2J is characterized by basal treatment that occurs almost entirely on the obverse face. If luster is a reliable guide, Artifact 2L may have been heat treated.

Artifact 2M is the basal portion of an Angostura point that was truncated by a snap fracture. The left basal corner also has been snapped off.

Artifact 2N is the basal portion of an Angostura point that has been resharpened to a very narrow width, possibly indicating use as a perforator. The portion that is assumed to have been pointed for use as a perforator was removed by a transverse compound fracture. The high luster is suggestive of heat treatment.

All of these points were evaluated according to Kelly's criteria for the Angostura type, and the criteria were met by 100% of the specimens.

Andice

The Andice point is best described by Prewitt (1983). In literature and in practice it is confused with Bell and Calf Creek types. Generally Andice is distinguished by its greater size, stem length, and barb length. A somewhat arbitrary dividing point in stem lengths has been used to separate Andice and Bell points. Points with stems longer than 16 mm are usually called Andice, and those with shorter stems are termed Bell points—tempered by the researcher's judgment, of course.

Andice points are broad and subtriangular, with convex lateral edges, long rectangular stems, and massive barbs that extend almost to the base. The points are thin for their size and often exhibit Paleoindian-type flake techniques. Barbs are formed by basal notching and are usually narrowest at the juncture with the blade. Stem edges and bases are not ground. The stems are bifacially thinned, usually by several long flakes, giving the stem a thin wedge-shaped appearance. The ranges of dimensions for this point, according to Prewitt (1983), are given in Table 2. Davis (1991) suggests that the presence of circular flake scars at the top of the blade notch is a key attribute for identifying these points. Another characteristic attribute is length of the thinning flakes, which often extend the full length of the stem (Chandler 1983). The distribution of the point ranges fairly widely across the state (Robert J. Mallouf, personal communication, 1994), and its cultural affiliation is Early Archaic (Turner and Hester 1993).

Three artifacts in the collection are classified as Andice points. Their dimensions are shown in Table 3, and they are illustrated in Figures 3a and 3b.

The stems of all three points are thinned, usually by the removal of two or three long narrow flakes from one or both faces. The resulting shape is a long wedge. Artifact 3D is made of a gray brown chert, Artifact 3E is made of a chocolate brown jasper, and Artifact 3F is made of a light brown, translucent chert or possibly silicified wood. As is common, all of these points exhibit snapped barbs. Artifact 3E is missing both barbs, while 3D and 3F are missing their left barbs. In the case of 3D, the barb stub has been reworked. Artifact 3E was terminated by a transverse snap fracture, and 3F was truncated by a complex (impact?) fracture. Artifact 3E has a high luster and slick surface that may be due to the uniqueness of the material. Artifact 3F was previously reported by Fox, Schmiedlin and Mitchell (1978:Fig. 2f).

"Ang-view" Points

This is a group of three points that do not fit any presently described type. They are distinctive in that they are extremely narrow and have carefully controlled, parallel oblique flake patterns. They are narrower than most Plainview points and at the lower limit of the template envisioned for Angostura points (Kelly 1983). They lack the contracting, narrow base usually attributed to Angostura points. All three have Plainview-like basal thinning, smoothed haft edges, and unsmoothed concave bases; however, despite these similarities, the parallel oblique flaking of the specimens is not usually considered a Plainview trait. Application of Kelly's criteria (1983) to these points resulted in a marginal preference for Plainview classification for 3A, while 3B and 3C tended strongly toward the Plainview classification.

Other investigators have struggled with classifying similar points. Alexander (1963:14), discussing

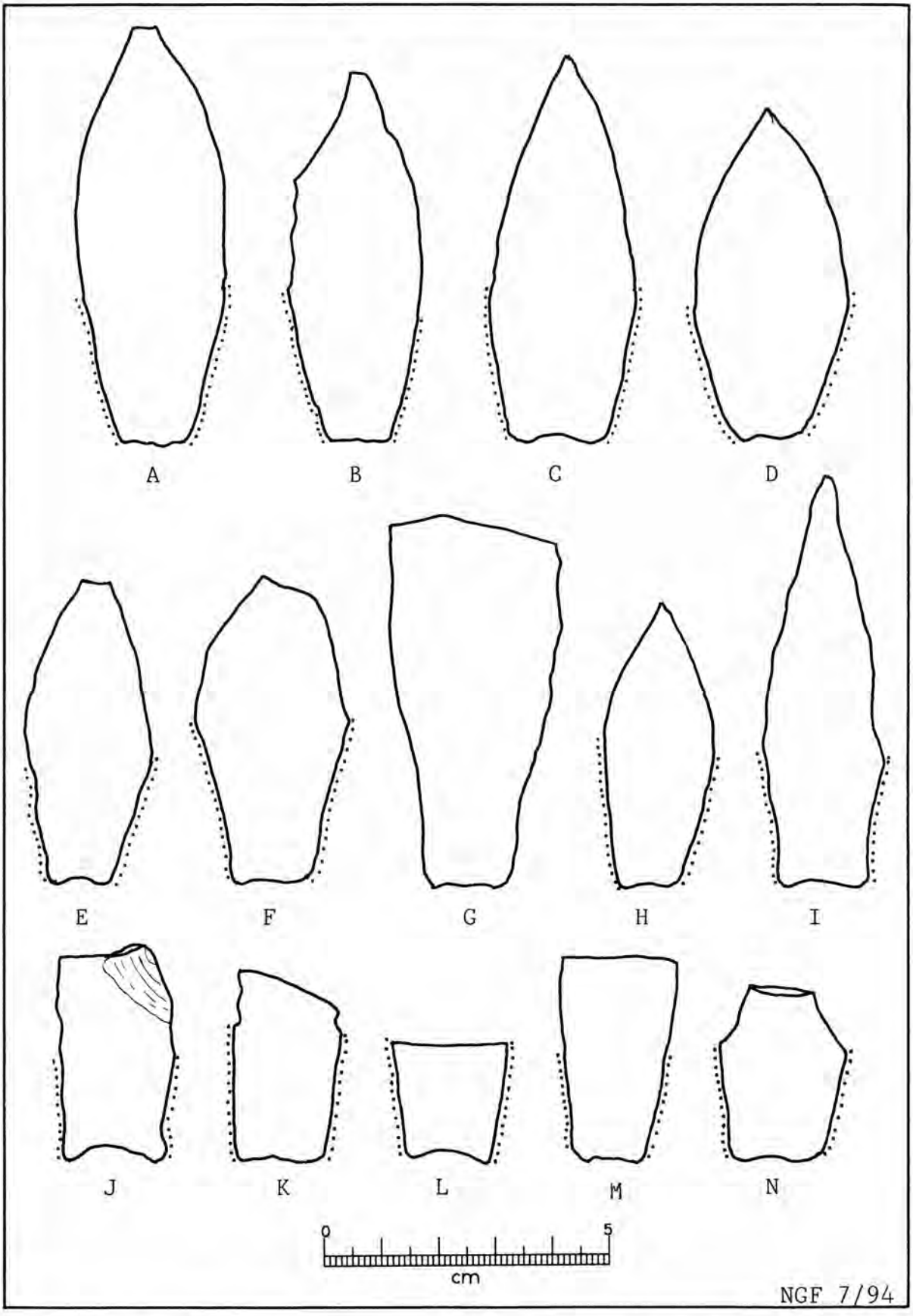

Figure 2a. Outlines of Angostura points (dotted lines indicate areas of smoothing).

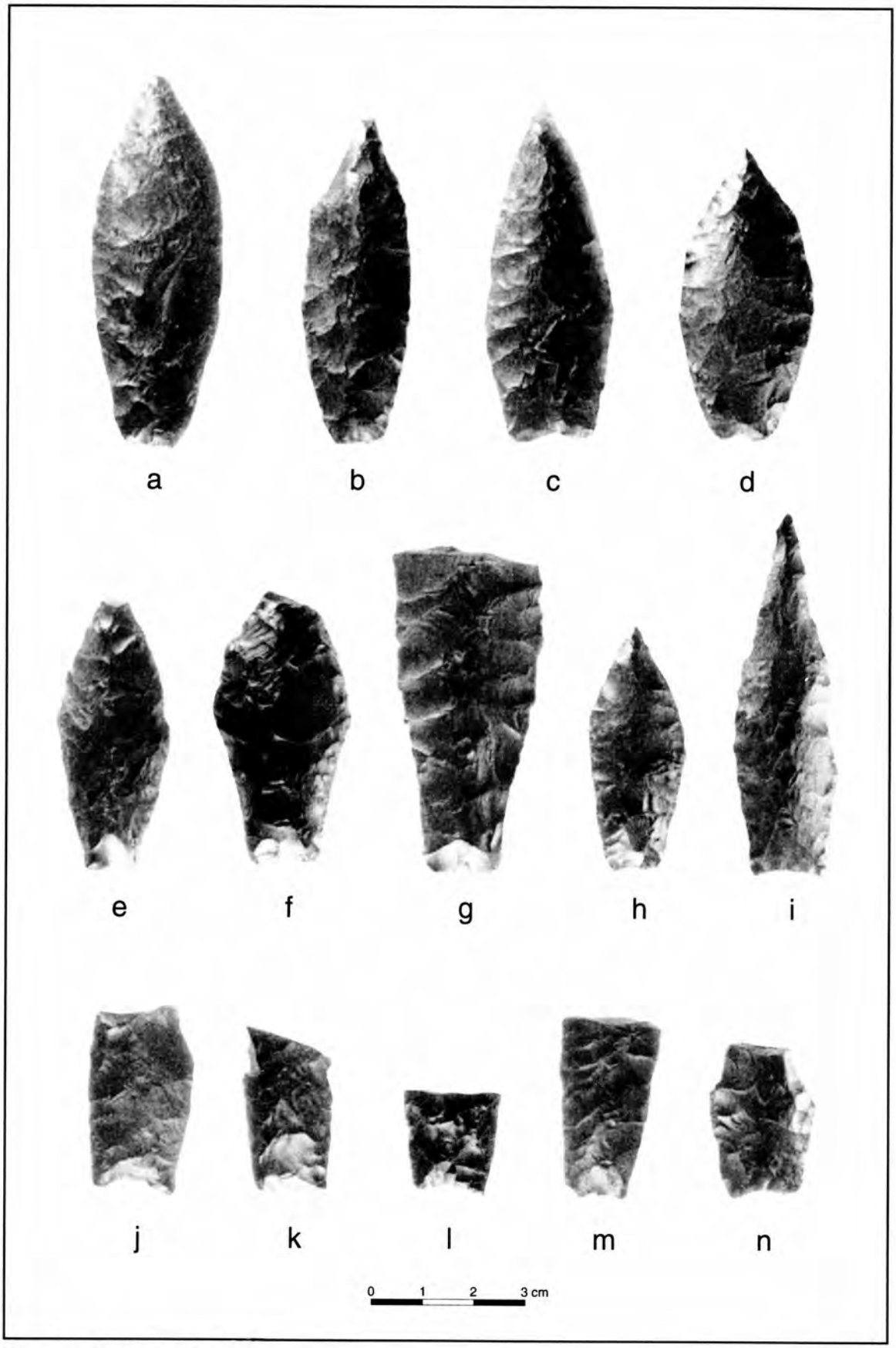

Figure 2b. Angostura points.

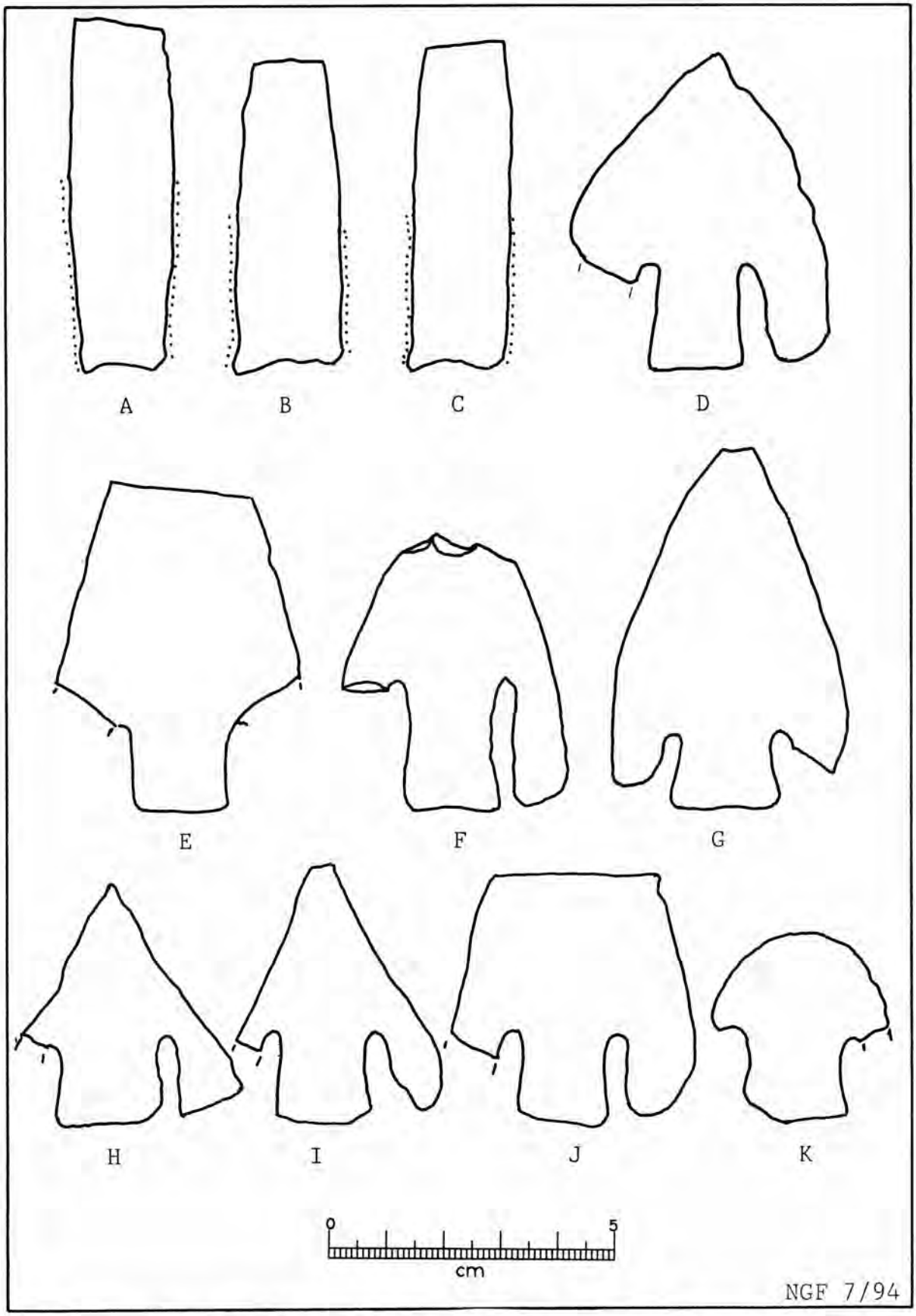

Figure 3a. Outlines of "Ang-View" (A-C), Andice (D-F) and Bell (G-K) points (dotted lines indicate areas of smoothing).

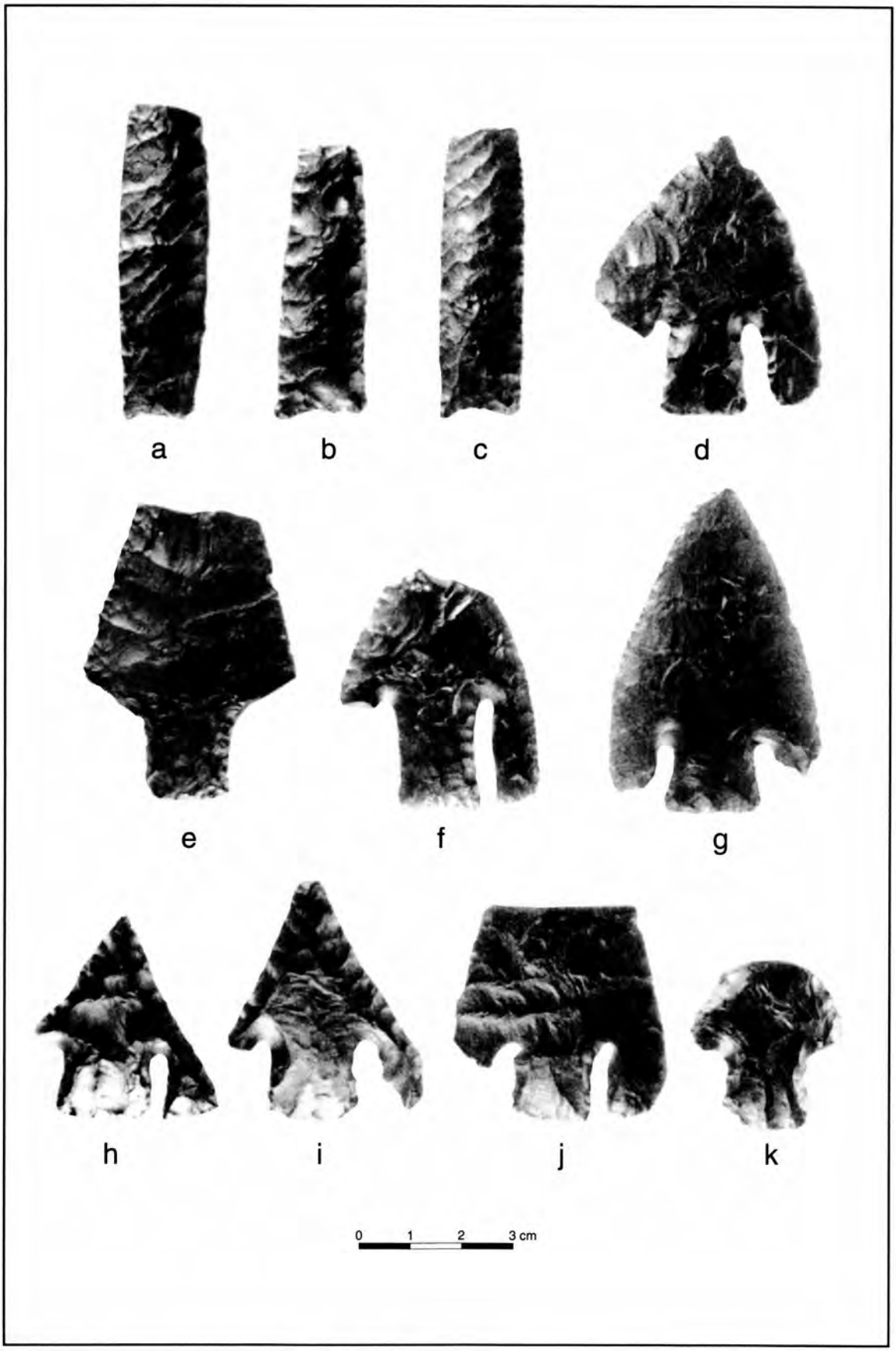

Figure 3b. "Ang-view," Andice and Bell points.

Table 1. Dimensions of Angostura Points.

Specimen	Dimensions (mm) Length	Width	Thick	HDIST	HPROX	BCON	GRED	BTHIN	Flake Pat.	Therm. Alter.	Material
Fig. 2A	73.5	26.2	8.6	17.2	11.0	0.0	24.5	3	OP	No	Gray-brown chert
Fig. 2B	65.0	26.1	8.0	16.4	11.1	0.0	27.0	3	HP	No	Dark yellowish brown chert
Fig. 2C	67.1	25.2	6.8	21.5	16.7	1.6	25.6	3	HP	No	Chalcedony, pseudomorphic after wood
Fig. 2D	57.9	26.1	8.6	20.4	13.2	1.3	25.6	3	HP	Maybe	Yellowish brown chert
Fig. 2E	58.2*	24.5	8.3	15.2	10.6	1.2	24.3	3	R	Yes	Brown chert (dendritic)
Fig. 2F	54.0*	26.8	10.2	17.2	15.0	1.0	31.0	3	R	Yes	Brown silicified wood
Fig. 2G	64.5*	30.2	10.0	16.6	15.5	0.8	27.0	3	R	No	Yellowish tan chert
Fig. 2H	48.5	20.3	8.7	15.0	11.0	1.2	24.0	3	HP	No	Light brown chalcedony (after wood?)
Fig. 2I	71.3	20.8	9.0	17.3	15.3	1.3	20.8	3	OP-R	No	Grayish brown chert (Edwards?)
Fig. 2J	37.8*	20.7	6.5	17.9	16.3	2.3	20.0	3	HP	No	Tan chert
Fig. 2K	33.3*	18.3	6.0	16.9	15.0	0.8	24.0*	3	OP	Yes	Light brown chert
Fig. 2L	21.0*	20.3	6.0	17.4	15.1	1.7	21.0*	3	R	Yes	Brown chert
Fig. 2M	36.2*	20.1	6.3	15.1	12.7	0.9	16.2	3	OP	No	Yellowish tan chert
Fig. 2N	30.7*	20.8	6.2	18.9	15.1	1.4	21.0*	3	R	Yes	Yellowish gray and tan chert

* = incomplete; BTHIN 3 = irregular flaking; OP = oblique parallel; HP = horizontal parallel; R = random

Table 2. Ranges of Dimensions (in mm) for Andice Points According to Prewitt (1983).

Range	Length	Width	Thickness	Haft Length	Neck Width	Base Width	Base Depth
Maximum	106.0	52.0	10.0	32.0	23.0	21	−4
Minimum	42.0	27.0	6.0	16.0	13.0	15	+2
Mean	69.9	43.8	7.6	22.7	17.9	18	0

Plus (+) = concave; minus (−) = convex; 0 = straight.

Table 3. Dimensions of Andice Points.

Specimen	Dimensions (mm) Length	Width	Thick.	HPROX	Neck Width	Stem Length	BCON	Flake	Thermal Alteration
Fig. 3D	56.3	44.6	6.4	17.0	14.0	18.8	0	Random	No
Fig. 3E	58.5*	42.1	6.5	18.2	18.1	17.5	0	Random	Maybe
Fig. 3F	47.5*	38.7*	6.8	16.3	16.6	22.0	1.1	Random	No

* = incomplete.

Table 4. Dimensions of "Ang-view" Points.

Specimen	Dimensions (mm) Length	Width	Thick.	HDIST	HPROX	BCON	GRED	BTHIN	Flake Pattern	Thermal Alteration
Fig. 3A	61.7*	17.2	6.4	14.9	14.0	1.3	19.2	1	OP	No
Fig. 3B	54.1*	18.5	6.6	17.0	18.7	2.2	18.6	1	OP	No
Fig. 3C	57.4*	16.6	6.9	16.7	15.9	1.8	18.7	1	OP	Burned

* = incomplete; BTHIN 1 = narrow, vertical scars; OP = oblique parallel.

points from the Levi rockshelter, called them Plainview-Angostura. Others have suggested the term "Mini-Plainview" (Kelly 1983), while still others have gotten off the fence in the minefield and called them either Angostura or Plainview. While this writer deplores excessive "splitting," these points do seem to merit a niche of their own. For the moment, lacking stratigraphic and chronological data, they must remain unclassified. Nevertheless, for the purpose of this report they are called "Ang-view" points. This term is not used to suggest a new type; rather, the term recognizes their difference from both Plainview and Angostura while maintaining their relationship with the other Paleoindian points.

The three "Ang-view" points in the collection are illustrated in Figures 3a and 3b, and their properties are summarized in Table 4.

Artifacts 3A, 3B, and 3C all show evidence of wear, indicated by step fractures, rounding, and polish on the blade edges. The wear is suggestive of light use for cutting, but the artifacts appear too delicate for that function. They show no evidence of having been reworked. All have slight ears or remnants of ears on their bases. The careful flaking and extreme narrowness of the specimens suggest that they were made for some special purpose. Artifact 3A is made of a dark brown chert, 3B is made of a yellowish tan chert, and 3C is made of yellow jasper. The burning of 3C may have caused the color change.

Bell

The Bell point (Davis 1991:38) is a small- to medium-size point with a triangular outline. It is a thin, well-made point with long, narrow barbs formed by deep basal notches. The stems usually have straight, slightly expanding edges, but they may be parallel. Basal edges are usually slightly convex but may be straight or even slightly concave. A tentative criterion suggests that Bell points have stems no longer than 16 mm. Stem edges and bases are not ground. The bases are bifacially thinned, resulting in a thin wedge shape. Thinning flakes do not typically run the full length of the stem. This type intergrades with the Andice type. Bell points are found in Early Archaic sites having suggested dates of 6000 to 3500 B.C. They are found in central Texas, extending from the eastern edge of the Llano Estacado to the gulf coast (Turner and Hester 1993).

Five artifacts in the collection are classified as Bell Points. Artifact 3G is somewhat large for classification as a Bell, rather than an Andice, point, but it is included in the Bell type group because the stem is less than 16 mm long. Artifact 3K, even though its stem is marginally longer than 16 mm, is called a Bell point because the overall size of the specimen seems smaller than is characteristic of the Andice type. The dimensions and other data for the five specimens in this group are shown in Table 5 and illustrated in Figures 3a and 3b.

Generally the basal treatment on these specimens has resulted in a thin wedge-shaped stem made by a combination of one to three longitudinal flakes and several short flakes. Barb damage is common to this type, and all five specimens display some form of damage. The right barb on Artifact 3G and the left barb on Artifact 3J were reworked after fractures removed the barbs. Artifact 3J is truncated by a snap fracture across the blade. Artifact 3K has been so extensively reworked that only a nub of the blade is left.

Artifact 3G is made of a light brown chalcedony that could be pseudomorphic after wood. Artifacts 3H and 3I are made of yellowish brown cherts. Artifact 3J is made of a light gray-brown chert, and artifact 3K is made of a gray, probably Edwards, chert.

Artifact 3H was previously reported in Fox, Schmiedlin, and Mitchell (1978:Fig. 2g).

Early Stemmed Lanceolate

Early Stemmed Lanceolate is a poorly described type that generates considerable disagreement over where on a specimen the haft-ground edges end and the shoulders begin. Nevertheless, a category is emerging for which the term "Early Stemmed Lanceolate" is gaining some acceptance. Generally these points are described as being lanceolate in outline, having poorly defined stems, and exhibiting edges that have been dulled (Turner and Hester 1993). This category may encompass the Victoria point, which is described as having the above characteristics as well as contracting stems and slightly to mildly concave bases (Davis 1991). The distribution of Early Stemmed Lanceolate points has not been well documented to date. At present artifacts of this type are thought to occur in the central portion of the coastal plain and extend into central Texas. They are believed to be associated with late Paleoindian occupations.

Four specimens in the collection are placed in

this category. According to Thomas R. Hester (personal communication, 1994) the specimen shown as Figure 4C is a classic example of an Early Stemmed Lanceolate point, and the specimen shown as Figure 4A is a good example as well. The specimens shown as Figures 4B and 4D may fall into this category by virtue of having shoulders, but their inclusion is tentative because the specimens are incomplete. Data for these specimens are shown in Table 6, and the specimens are illustrated in Figures 4a and 4b.

Artifact 4A is made of a reddish brown chert, 4B and 4C are made of brown (possibly Edwards) chert, and 4D is made of a yellowish gray chert. All of the specimens have lenticular cross sections. Artifact 4C has traces of asphalt on the stem and blade edges. Artifacts 4A, 4B, and 4C are truncated by transverse hinge fractures. Artifacts 4A and 4C were previously reported by Fox, Schmiedlin, and Mitchell (1978: Figs. 3c, 3d).

Early Triangular

Early Triangular points are usually characterized by parallel oblique flaking, straight to slightly convex bases, and alternately beveled lateral edges. The edges may be serrated (Turner and Hester 1993), and bases occasionally may exhibit small barb-like projections (Thomas R. Hester, personal communication, 1994). Specimens are relatively thin for their size, and the bases are thinned. The thinness of the base is a strong diagnostic characteristic, according to Davis (1991:68). Artifacts of this type are found in north, south-central, south, and southwest Texas in Early Archaic (ca. 3700– 3600 B.C.) occupations (Turner and Hester 1993).

Nine artifacts in this collection have triangular outlines, and most of them are probably Early Triangular points; however, they will be discussed herein only as triangular points. Although there is some question about whether they are actually knives (Black and McGraw 1984), they will be treated as projectile points because of the presence of an impact scar (Thomas R. Hester, personal communication, 1994) on Specimen 4G. Dimensions and other data are presented in Table 7, and the artifacts are illustrated in Figures 4a and 4b.

The original flaking pattern of the artifacts is largely obscured by beveling and basal thinning flakes but in most cases appears to be random. As a result of the beveling, most of the specimens are thin and hexagonal in cross section. None of the blades is serrated. Generally the beveling flakes are carefully made and are parallel and perpendicular to the lateral edges—common attributes (Thomas R. Hester, personal communication, 1994).

The bases of all but one of the artifacts have been thinned by the removal of longitudinal flakes. The exception, artifact 4I, has a beveled base and quite probably is not an Early Triangular point. The remnant of a barb on the left basal corner and the suggestion of a barb on the right basal corner, together with the beveled base, strongly suggest that this was once a stemmed point, broken from its stem and reworked to a triangular point (Thomas R. Hester, personal communication, 1994). Two other points, artifacts 4E and 4H, have slight, terminated projections on their right basal corners that are probably the remnants of barbs.

Golondrina

Archaeological evidence currently justifies the classification of Golondrina points as a separate type. However, they were originally considered a variety of the Plainview point by Johnson (1964), who was trying to establish a category for Plainview points that were typically larger than usual, with slightly flaring bases and deep basal cavities (over 4 mm). The present template for a Golondrina point visualizes a broad, Plainview-like, lanceolate point characterized by outflaring basal corners, or "ears." Deep (4 to 10 mm) basal concavities are diagnostic of this type. The basal concavity may vary from a flattened inverted V to recurved in shape (Turner and Hester 1993). In comparison with Plainview points, Golondrina points are heavier and the flaking is more random and cruder. Both the stem edges and the base are ground. Kelly (1982) suggests the following range of dimensions for the Golondrina type:

Length	55–80 mm
Width	23–31 mm
Thickness	6–8 mm
Stem width	22–31 mm
Stem width (10 mm above base)	22–29 mm
Basal concavity	4–10 mm

Basal treatment is usually accomplished by a single, or a small number, of crescent-shaped flakes

Table 5. Dimensions of Bell Points.

Specimen	Dimensions (mm) Length	Width	Thick.	HPROX	Neck Width	Stem Length	BCON	Flake	Thermal Alteration
Fig. 3G	63.6*	41.4	5.9	19.0	15.6	14.0	0	Random	No
Fig. 3H	40.0	37.2*	5.9	18.8	16.7	13.3	0	Random	No
Fig. 3I	44.5*	36.2*	7.6	16.7	15.2	14.5	–1.0	Random	Maybe
Fig. 3J	43.1*	43.0*	6.0	15.9	16.1	14.6	0	HP-R	Maybe
Fig. 3K	33.7*	30.9*	5.8	16.9	15.7	16.3	0	Random	Burned?

* = incomplete; minus (–) = convex; HP-R = Horizontal parallal-random.

Table 6. Dimensions of Early Stemmed Lanceolate Points.

Specimen	Dimensions (mm) Length	Width	Thick.	HPROX	Stem Length	Flake Pattern Obv.	Rev.	Bevel Blade	Stem	BCON	Thermal Alteration
Fig. 4A	44.3*	23.1	7.6	20.5	15.0	R	HP?	LES	ORE	1.1	Maybe
Fig. 4B	34.6*	21.3	6.1	15.0	18.0	R	R-OP		LES	0.6	Maybe
Fig. 4C	71.9	27.7	8.3	13.9	21.1	R	R		LES	2.0	No
Fig. 4D	36.7*	21.3	8.4	16.7	22.0	R	R		LES	2.6	No

* = incomplete; R = random; HP = horizontal parallel; OP = oblique parallel; LES = left edges; ORE= obverse right edge.

Table 7. Dimensions of Triangular Points.

Specimen	Dimensions (mm) Length	Width	Thick.	BCON	Weight (g)	Bevel	Thermal Alteration	Material
Fig. 4E	35.7	31.1	5.5	0	4.96	RES	No	Tan chert
Fig. 4F	36.8	31.3	6.8	0	7.04	RES	No	Lt. yellowish brown chert
Fig. 4G	42.5	30.9	6.3	–	7.06	RES	Maybe	Brown chert
Fig. 4H	32.2	34.3	5..3	0	5.64		No	Gray-brown chert
Fig. 4I	34.0	27.6	5.9	0	4.84	RES	No	Light brown chert
Fig. 4J	36.9	36.0	6.5	0	7.78	LES	No	Brown chert
Fig. 4K	41.7	35.9	5.8	0	7.67	None	No	Brown chert
Fig. 4L	26.6*	42.0*	6.1	0	*	*	Maybe	Brown to red jasper
Fig. 4M	22.0*	36.2	4.9	0	*	*	Maybe	Brown chert

* = incomplete; RES = right edges; LES = left edges; BCON minus (–) = convex.

Table 8. Dimensions of Gower Points.

Specimen	Dimensions (mm) Length	Width	Thick.	Stem L.	HPROX	BCON	Beveling Blade	Stem	Flake Pattern	Therm. Alter.
Fig. 5C	57.1*	20.6	7.1	15.8	16.4	2.5	LES	RRE	Random	None
Fig. 5D	60.8*	22.9	8.9	12.9	19.7	2.8	LES	RES	Random	None
Fig. 5E	30.6*	28.0*	8.2*	18.5	20.7	3.2	*	LES	Randon	None
Fig. 5F	72.1	23.1	10.8	18.0	20.3	3.9	RES	LES	Random	None

* = incomplete; LES = left edges; RRE = reverse right edge; RES = both right edges.

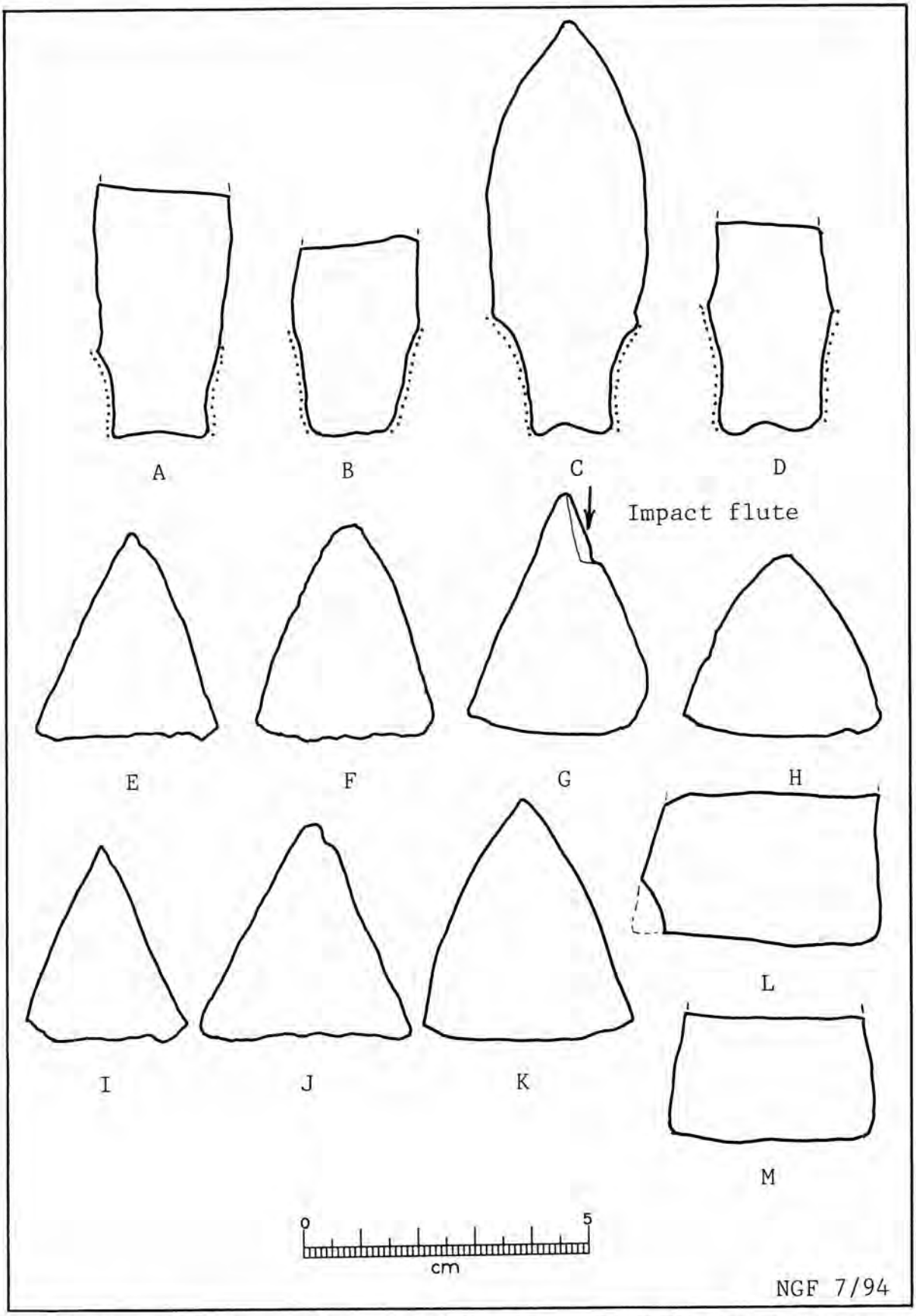

Figure 4a. Outlines of Early Stemmed Lanceolate (A-D) and Triangular (E-M) points (dotted lines indicate areas of smoothing).

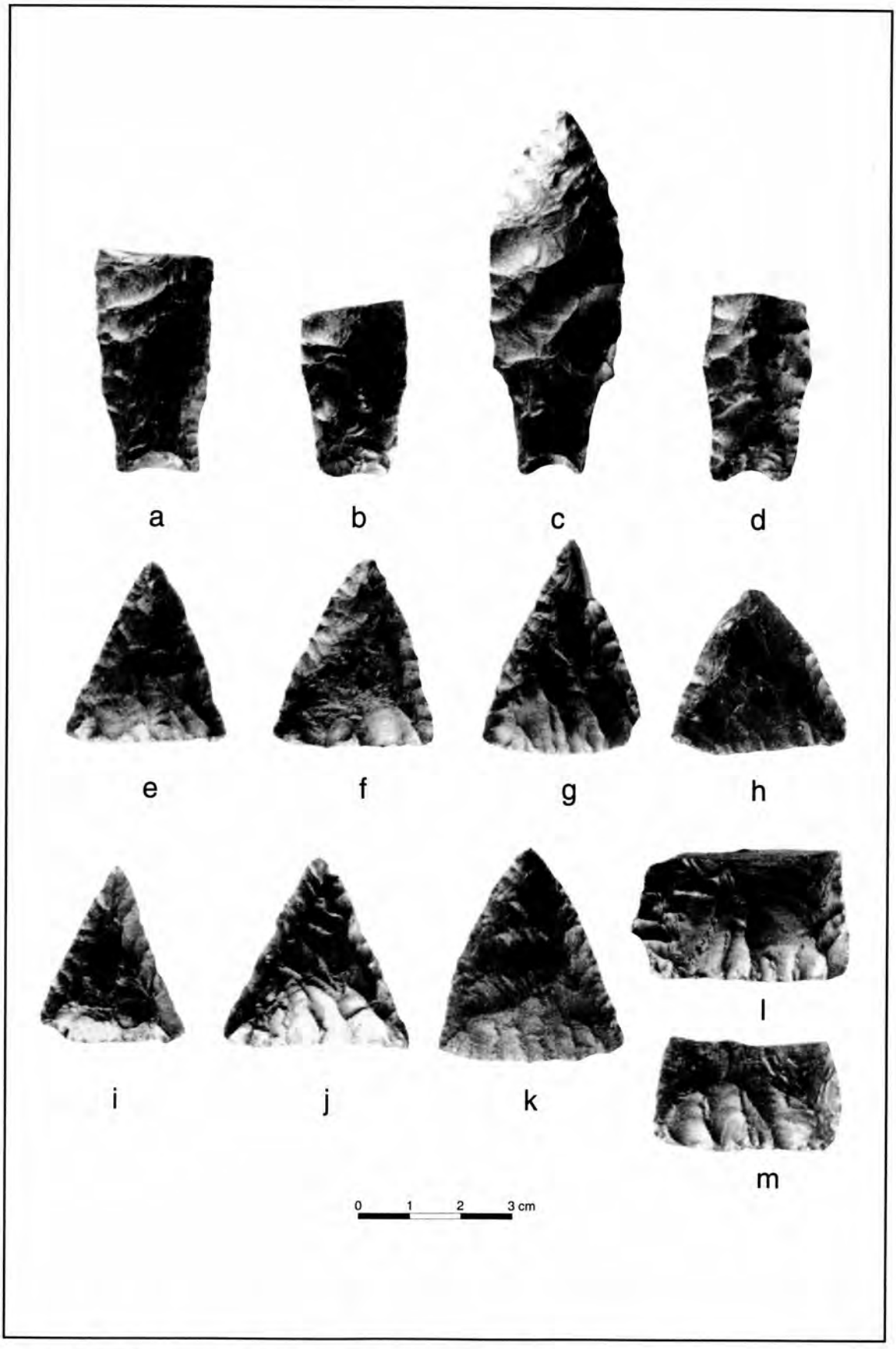

Figure 4b. Early Stemmed Lanceolate and Triangular points.

(Kelly 1982). Golondrina points apparently occur primarily in the central, south, and Lower Pecos regions of Texas. They are attributable to Paleoindian occupations from ca. 7080 to 6830 B.C. (Turner and Hester 1993).

Two artifacts in the collection are classified as Golondrina points. They are illustrated in Figures 5a and 5b as artifacts 5A and 5B.

Artifact 5A, a surface find, measures 52.0 mm long (incomplete), 28.0 mm wide and 6.9 mm thick. Application of Kelly's (1983) criteria resulted in the following: HDIST = 27.3, HPROX = 27.8, BCON = 4±, and GRED = 25.0 mm. The present basal concavity is a bit short for the Golondrina type, but it probably measured about 4 mm when both ears were complete. The haft edges and the basal concavity are all well smoothed. The specimen is made of a brown chert that may be an Edwards variety. The point is truncated by a diagonal hinge fracture. The blade edges have a strong right hand bevel on both faces. At least some of this reworking was done after the fracture occurred. Basal thinning was accomplished by the removal of two longitudinal flakes on the obverse face and six on the reverse face. The flake pattern is faintly horizontal parallel on both faces.

Golondrina point 5B was excavated in 1961 from the same 6- to 9-inch level of a square, located southeast of the creek, that produced Scottsbluff 7B and the basal fragment of a Kinney point (see Unclassified Concave-Base Artifact 8H). It is 36.2 mm long (incomplete), 27.8 mm wide, and 6.1 mm thick. The dimensions resulting from application of Kelly's (1983) criteria are: HDIST = 26, HPROX = 28, BCON = 8, and GRED = 35 ±. Haft edges and the basal concavity are well smoothed. The flake pattern is broad horizontal parallel. The basal edge is beveled, formed by the removal of multiple short flakes on both faces. It is made of a reddish brown jasper(?). This point was previously reported by Fox, Schmiedlin and Mitchell (1978:Fig. 3h).

Gower

The Gower point was named by Harry J. Shafer (1963:64) for a group of indented-base points found at the Youngsport site in Bell County, Texas. According to Perino (1985:154), the Gower point is a basally indented, stemmed point with angular shoulders and convex blade edges. Specimens from the Granite Beach Site (Crawford 1965:77–78) range from 30 to 50 mm in length, 18 to 30 mm in width and from 5 to 8 mm in thickness. Their stems range from 16 to 19 mm in length and from 12 to 24 mm in width. Their basal concavities range from 4 to 11 mm. Crawford reports that the blades are usually beveled on either the right or left edges. According to Turner and Hester (1993:128), Gower points are found in Early Archaic sites dating around 6000 to 4000 B.C.

Four points in the collection have been placed in the Gower category, as suggested by Thomas R. Hester (personal communication, 1994). The four points have similarities in that all have smoothing of the stem edges and basal concavity (slight in some cases) and all have the same basal treatment. The basal thinning is a bevel created by the removal of one short, broad flake from one face and numerous short flakes from the opposite face. The broad flake extends across most of the width of the basal concavity. Their dimensions and other attributes are arrayed in Table 8 and illustrated in Figures 5a and 5b.

Artifact 5C has a twist due to the different beveling of the blade and stem. A small portion of the tip is missing due to a hinge fracture. It is made of a gray-and-tan chert that may be an Edwards variety.

Artifact 5D is truncated at the tip by a transverse snap fracture. It is made of a mottled light brown chert that may be an Edwards variety.

Artifact 5E is truncated by a snap fracture near the stem. It is made of a yellowish brown chert.

Artifact 5F is included in this group, with some trepidation, because its basal characteristics are similar to those of the other three. It is made of a yellowish brown chert. The high luster and the slickness suggest that the artifact has been heat treated. It is truncated just above the stem by a transverse snap fracture. Like artifact 5C, this artifact has a twisted appearance due to the left hand bevel of the stem and the right hand bevel of the blade. This specimen seems large for a point of the Gower type, although a similarly long specimen (ca. 70 mm) was recovered at the Jetta Court site (Wesolowsky, Hester and Brown 1976:46, Fig. 11f).

Meserve

The Meserve point is a medium to large dart point that is triangular to lanceolate in outline. The blade edges are straight, tapering, and sometimes serrated; they extend backward and make an angle with the basal edges (Bell 1958). The lateral edges

are essentially parallel for approximately one-third of the length, the upper portion is unifacially beveled, and the distal tip is pointed (Turner and Hester 1993). The base has lateral and basal grinding (ibid. 1993). The flake pattern is random to horizontal parallel. Bases, which are always concave, are bifacially beveled by the removal of several longitudinal flakes that sometimes result in a short flute. In addressing the common confusion of Meserve and Dalton points, Bell (1958) suggests that the Meserve point has a pronounced bevel, is less likely to be serrated, and is not as likely to appear to have a fluted stem. Turner and Hester (1993) suggest that the Meserve type is similar to Dalton, Plainview, and Golondrina points and that many may be reworked lanceolate points of those types, while Johnson (1989:43) recommends abandonment of Meserve as a type name because of the confusion with modified specimens of other types. Nevertheless, Meserve points are currently considered a separate type, with specimens in Texas being recovered primarily in the central and eastern regions of the state. Their age is thought to be Late Paleo-indian, perhaps ranging from 7500 to 6000 B.C.

Four artifacts in the collection are classified as Meserve. Data for the Meserve points are presented in Table 9, and they are illustrated in Figures 5a and 5b.

Artifact 5G is made of a tan chert. Its flake pattern is broad horizontal parallel on both faces. The right edges are strongly beveled, and the edges are slightly serrated. The haft area is lenticular in cross section, but the blade is rhomboidal as a result of the beveling. The artifact has a high luster and a slick feel, suggesting that it may have been heat treated. The haft edges are well smoothed and the basal cavity is slightly smoothed. The blade edges show wear, perhaps from use as a knife.

Artifact 5H also is lenticular in cross section at the basal section and rhomboidal at the blade. The flake pattern on the haft area is broad, with a horizontal parallel patterning, but in the blade area seems random, although largely modified by the beveling flakes. The haft edges and basal concavity are well smoothed, and the blade edges are slightly serrated. Step fractures and polish on the blade edges suggest wear from use as a knife. The specimen is made of a brown chert.

Artifact 5I is virtually complete, missing only a portion of the left ear, and is lenticular in cross section throughout. Both blade edges have slight to moderate serration. The flake pattern is horizontal parallel on the obverse and roughly collateral parallel oblique on the reverse, resulting in a chevron pattern. Smoothing of the haft edges and basal concavity is minimal, and blade edges exhibit a slight polish. The material from which the specimen was manufactured is a grayish brown chert.

Artifact 5J has the same cross section as 5G and 5H. The flake pattern in the haft area is horizontal parallel but is largely obliterated by beveling of the blade. It has a strong right hand bevel on both faces. It is made of a yellowish gray chert with a high luster and may have been heat treated. Like the three other specimens, 5J has evidence of wear suggestive of use as a knife.

Plainview

Plainview points are small to large lanceolate points that have parallel to slightly convex lateral edges and a basal cavity ranging from 1 to 4 mm in depth (Kelly 1983). Basal edges are almost always ground. There is usually some thinning of the base accomplished by the removal of small longitudinal flakes (Turner and Hester 1993). Kelly (1983) suggests the following ranges in dimensions for Plainview points:

Length	50–74 mm
Width	21–26 mm
Thickness	5–7 mm
Basal width	20–24 mm (HPROX)
Stem width	
(10 mm above base)	20–25 mm (HDIST)
Stem grinding	21–45 mm (GRND)
Basal concavity	1–4 mm (BCON)

The flaking pattern is usually horizontal parallel but may be somewhat random at times. Plainview points are found sparingly throughout Texas. Their time frame seems to center around 8000 B.C.

Nine artifacts in the collection are classified (some with trepidation) as Plainview points. Their dimensions and other data are given in Table 10, and they are illustrated in Figures 6a and 6b.

Artifact 6A is essentially complete, missing only a few millimeters of the tip, which was removed by something causing a hinge fracture. Some reworking is evident on the tip, but the results did not produce an effective point. The specimen is made of a light

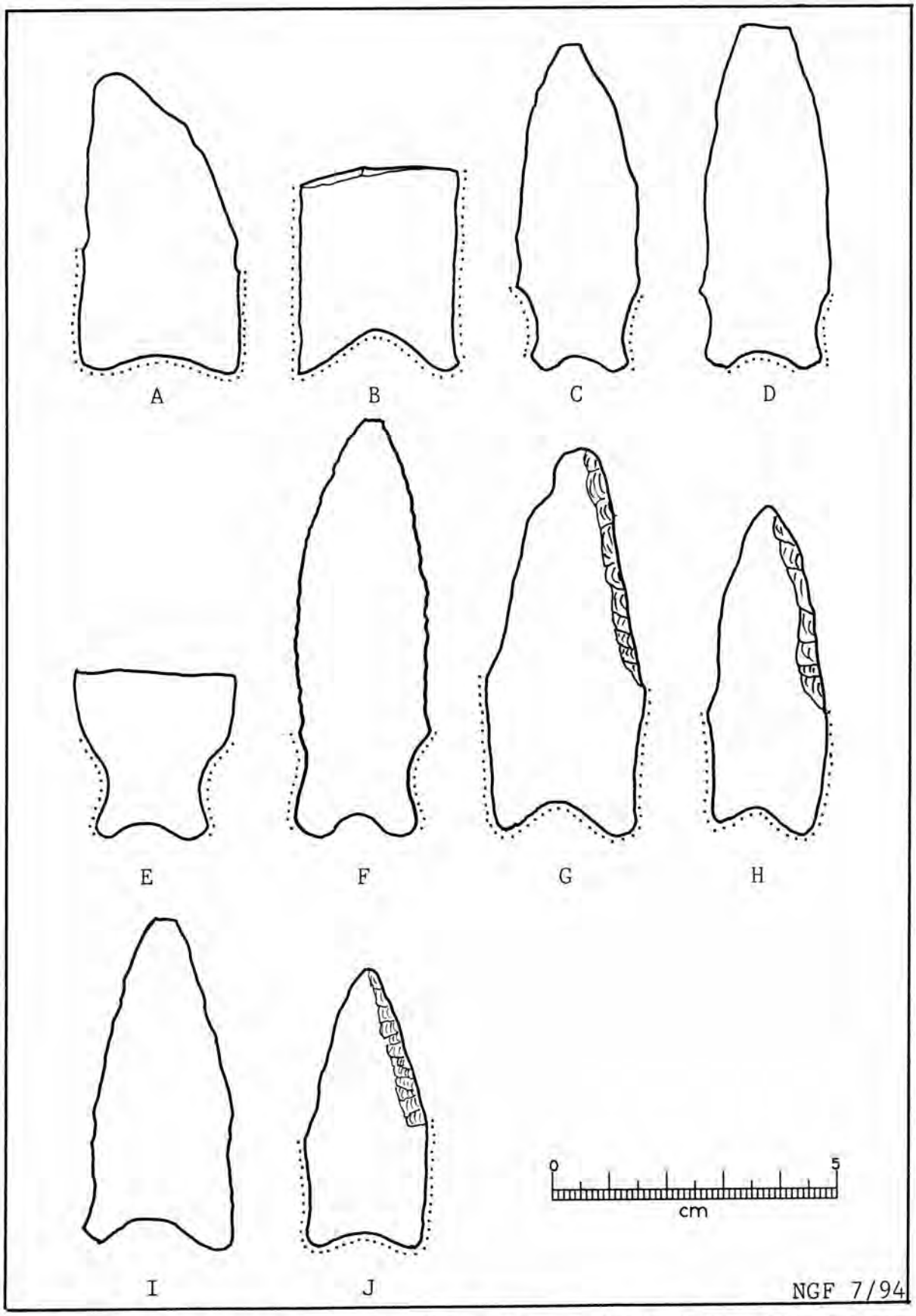

Figure 5a. Outlines of Golondrina (A-B), Gower (C-F) and Meserve (G-J) point (dotted lines indicate areas of smoothing).

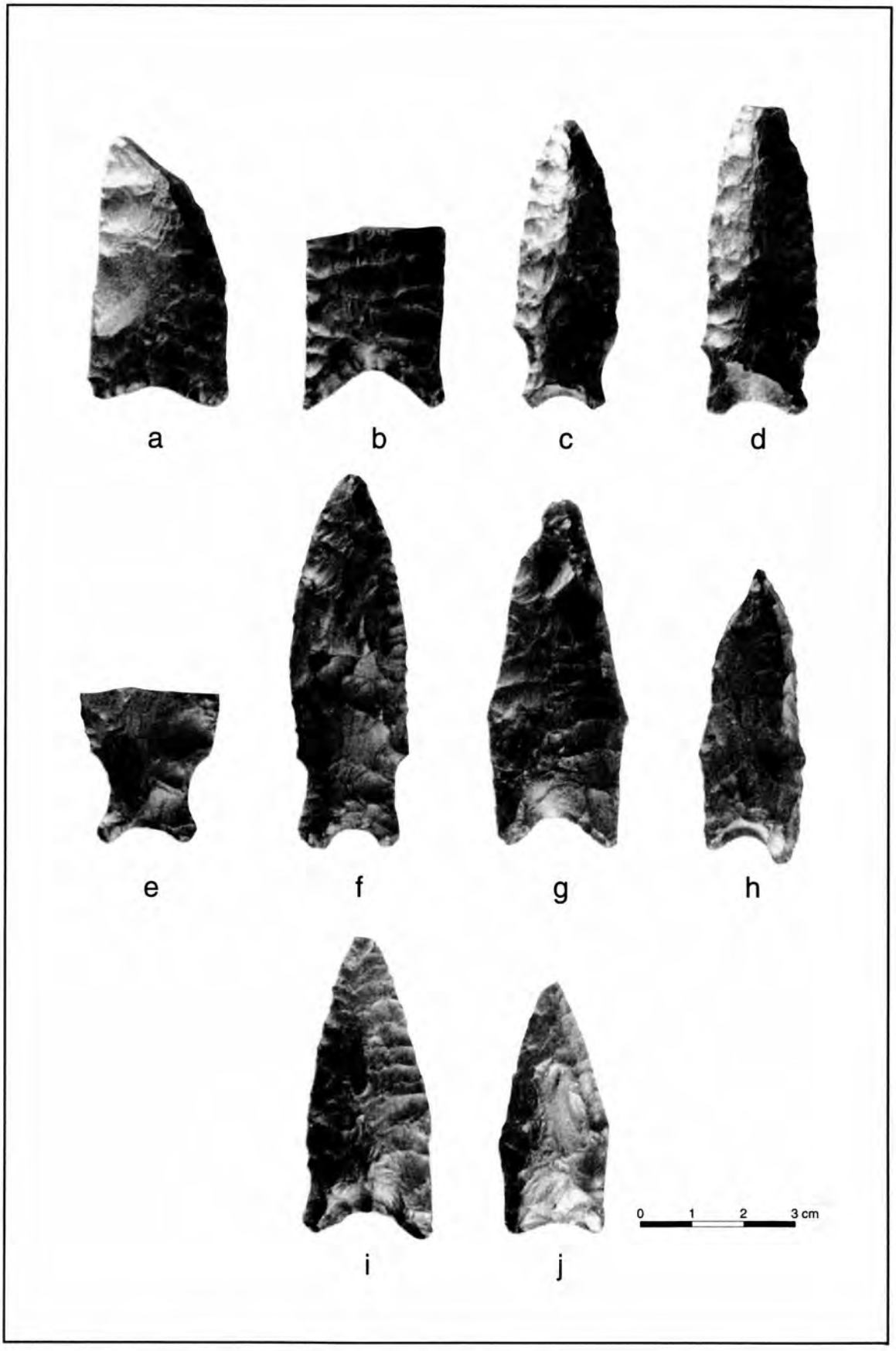

Figure 5b. Golondrina, Gower, and Meserve points.

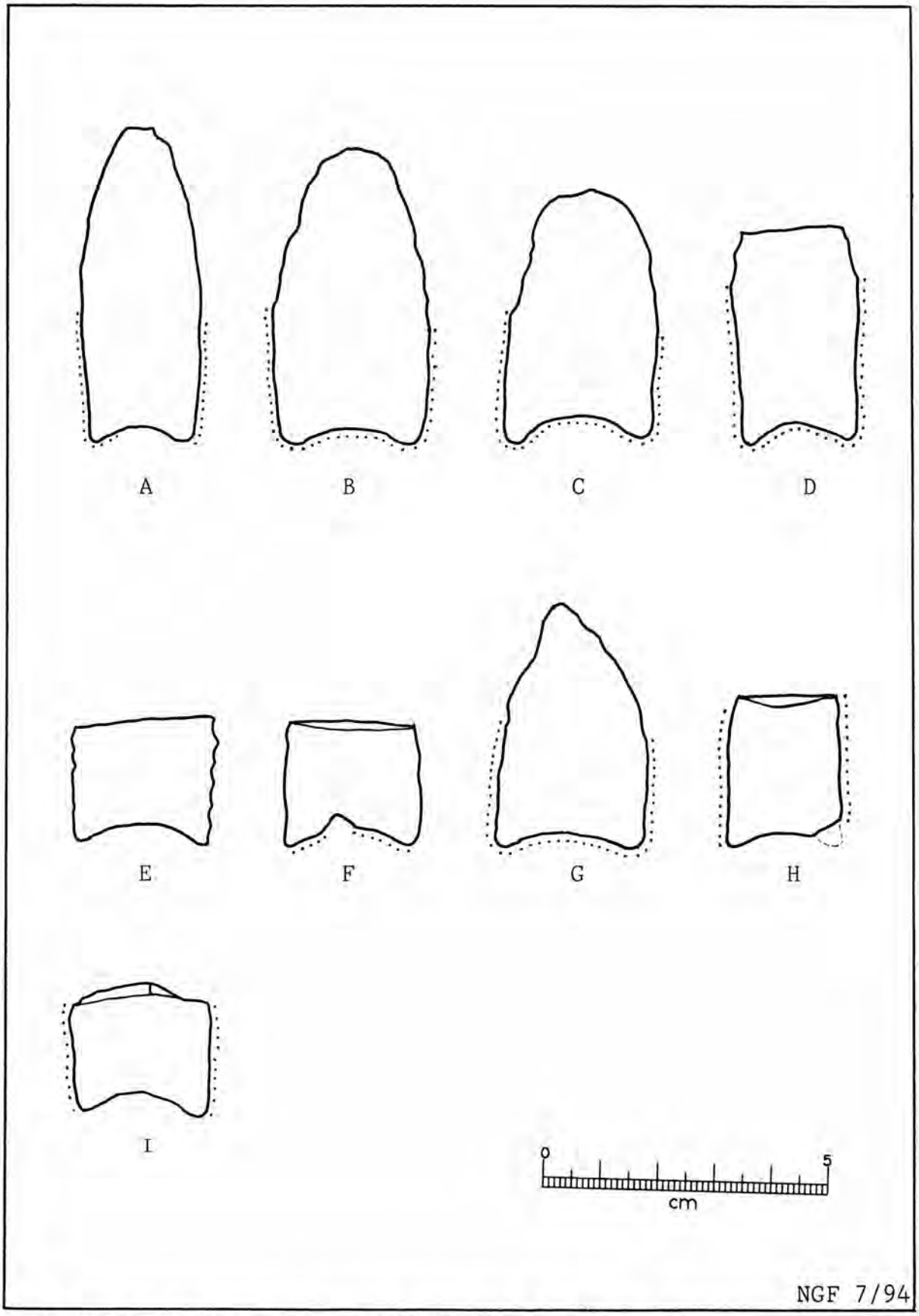

Figure 6a. Outlines of Plainview points (dotted lines indicate areas of smoothing).

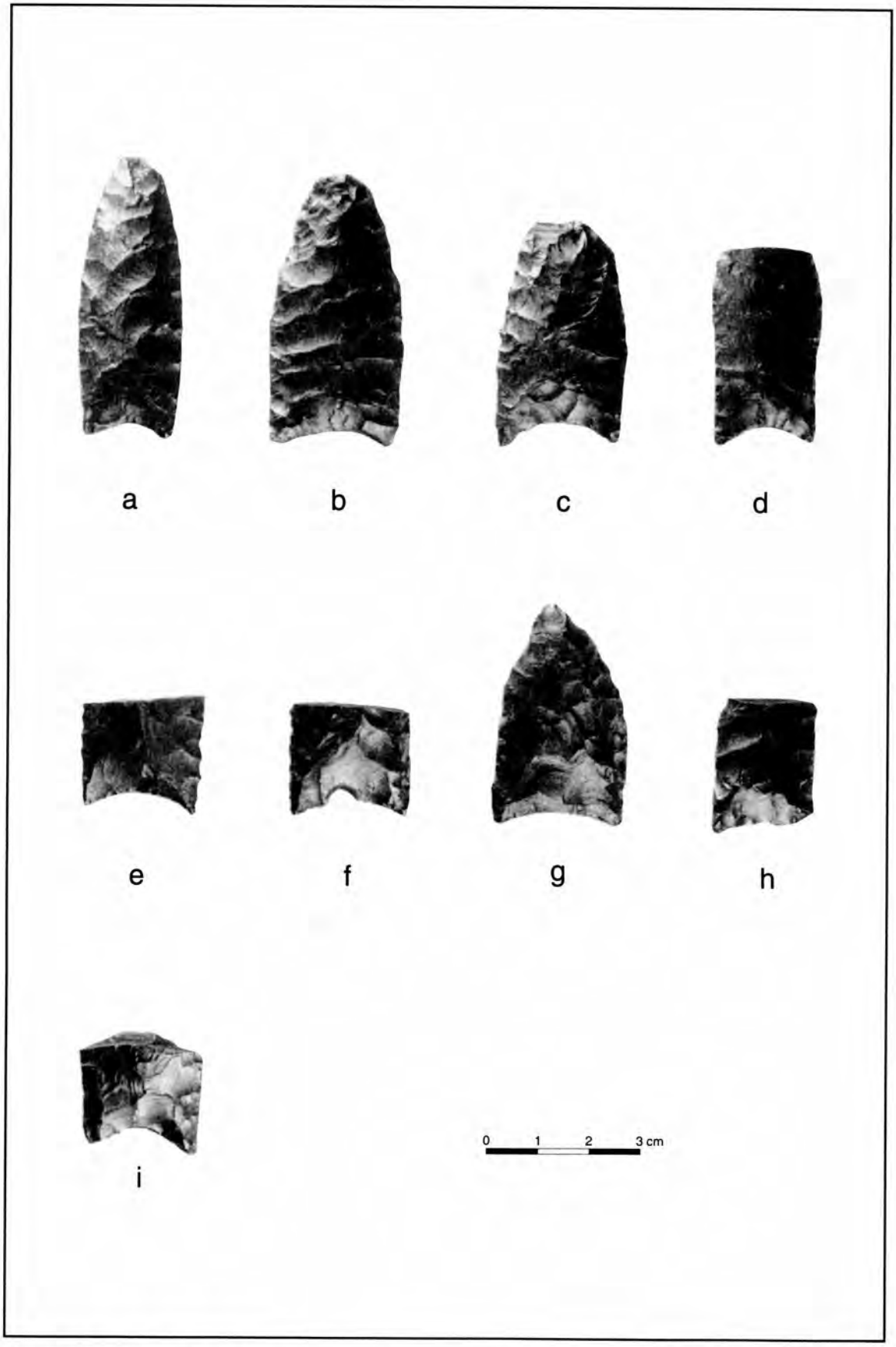

Figure 6b. Plainview points.

Table 9. Dimensions of Meserve Points.

Specimen	Dimensions (mm)						Smoothing		Bevel	Therm. Alter.
	Length	Width	Thick.	HDIST	HPROX	BCON	Haft	Stem		
Fig. 5G	67.5*	27.3	7.0	24.2	23.7	6.0	Yes	Slight	RES	Maybe
Fig. 5H	57.0	20.8	7.5	18.4	18.3	4.0	Yes	Yes	RES	None
Fig. 5I	58.5	25.9	7.9		25.8	5.1	Slight	Slight	No	None
Fig. 5J	48.7	21.5	6.9	19.6	19.5	2.7	Yes	Yes	RES	Likely

* = incomplete; RES = both right edges.

Table 10. Dimensions of Plainview Points.

Specimen	Dimensions (mm)								Flake Pattern		Smoothing		Therm. Alter.	Material
	Length	Width	Thick.	HPROX	HDIST	BCON	GRED	BTHIN	Obv.	Rev.	Haft	Base		
Fig. 6A	54.6*	21.1	6.9	18.0	20.3	2.8	21.9	1	OP	OP	Yes	Yes	None	Lt. brown chalcedony
Fig. 6B	51.6	26.3	7.1	25.2	25.2	2.8	25.0	1	OP	HP	Yes	Yes	None	Dk. brown chert
Fig. 6C	43.4*	25.4	8.9	24.4	24.7	4.8	22.9	1	HP?	R?	Yes	Yes	None	Yellowish brown chert
Fig. 6D	37.0*	21.7	6.6	20.6	20.5	3.5	28.2	1	HP	HP	Yes	Yes	Yes	Jasper?
Fig. 6E	22.4*	24.3*	6.7	23.2	24.1	3.8	0	1	?	?	No	No	None	Lt. gray chert
Fig. 6F	21.3*	23.8*	6.5	23.4	23.1	3.7	?	1	HP?	HP?	No	Yes	Maybe	Brown chert
Fig. 6G	41.5*	26.2	7.5	25.9	25.1	2.9	27.0	1	HP	HP	Yes	Yes	None	Lt. brown chert
Fig. 6H	25.6	20.8	5.8	18.7	21±	1.7	?	1	OP	HP	Yes	No	None	Lt. brown chert
Fig. 6I	22.5*	24.2*	6.2	22.3	23.1	3.8	?	1	HP	HP	Yes	No	Maybe	Brown chert

* = incomplete; BTHIN = long, narrow, vertical scars; OP = oblique parallel; HP = horizontal parallel.

Table 11. Dimensions of Scottsbluff Points.

Specimen	Dimensions (mm)						Smoothing		Material
	Length	Width	Thick.	Stem Length	Base Width	Neck Width	Stem	Base	
Fig. 7A	57.4*	33.1	7.8	22.4	33.1	29.2	Yes	Yes	Yellow gray chert
Fig. 7B	58.3*	30.3	7.2	18.5	26.7	23.1	Yes	Yes	Light brown chert
Fig. 7C	80.3*	25.6	6.6	21.0	25.6	23.2	Yes	No	Reddish brown jasper
Fig. 7D	?	28.9*	5.4	–	–	–			Mottled orange, greenish brown, and brown jasper?

* = incomplete.

Table 12. Dimensions of Victoria Points.

Specimen	Dimensions (mm)						Smoothing		Beveling		Therm. Alter.
	Length	Width	Thick.	HDIST	HPROX	BCON	Haft	Base	Haft	Base	
Fig. 7E	63.4*	31.1	9.0	18.1	15.9	3.0	Yes	No	No	RES	Maybe
Fig. 7F	94.5	25.6	11.2	14.4	15.1	3.0	No	No	LES	No	No
Fig. 7G	43.5*	21.1*	6.5*	13.6	14.4	1.7	No	No	No	No	No

* = incomplete; RES = right edges; LES = left edges.

brown chalcedony that is translucent.

Artifact 6B is complete but the tip has been reworked. The haft smoothing extends for 25 mm but may have been longer before the resharpening. The reworking has resulted in a slight beveling of the right-hand edge of the obverse face of the blade. The dark brown chert is translucent on thin edges.

Artifact 6C is a reworked proximal portion of a Plainview point. Apparently it was discarded when it became too blunt to be effective. In spite of all the reworking, there is no beveling of the blade. The original flake pattern is largely obscured by the flake scars of the reworking, but a suggestion of horizontal parallel patterning remains. The point is thicker and marginally wider than is usual for Plainview points. In addition, the basal concavity is greater than 4 mm and might be considerably deeper if the right ear were complete. Although some characteristics of the specimen suggest the Golondrina type, application of Kelly's (1983) criteria favors the Plainview classification.

Artifact 6D is the basal portion of a Plainview point that was truncated by a transverse snap fracture just in front of the hafted area. The dark reddish brown to green color of this material, called jasper, is unusual in this collection and suggests thermal alteration. Artifact 6D bears a striking resemblance to the lanceolate-variety Dalton illustrated as Figure 6 in Johnson (1989) and even has traces of the beveling on the right edges that is typical of Dalton points (LeRoy Johnson, personal communication, 1994.)

Artifact 6E is a basal fragment resulting from a snap fracture and is made of an opaque gray chert. Although fragmentary, the specimen reveals some odd characteristics. It has a thin haft area, the thinning accomplished with long vertical flakes and serration on the lateral edges. No smoothing occurs on the base or lateral edges. In spite of these oddities, the specimen still best fits the Plainview classification.

Artifact 6F also is a basal fragment, almost too fragmentary for classification, but its horizontal parallel flake pattern and basal thinning are typical of Plainview points. The haft edges are very slightly smoothed, while more smoothing is evident on the basal concavity. The blade was removed by a hinge fracture in the haft area. A chip out of the base appears to be of recent origin.

Artifact 6G is a Plainview point that has been resharpened to a nub. The haft area has retained its lenticular shape, but the blade has a rhomboidal cross section due to beveling of the right edges.

Artifact 6H is the proximal section of a lanceolate point that was truncated by a hinge fracture. The haft edges are ground, while the base is not. The right ear has been snapped off. One face of the artifact has random flaking and the other has oblique parallel flaking. Application of Kelly's criteria (1983) favors classification as a Plainview point.

Artifact 6I is another short basal section with Plainview characteristics, but the specimen is too fragmentary for further description.

Scottsbluff

Scottsbluff points are fairly large, triangular points with broad, short stems and usually straight or slightly convex bases. Horizontal parallel flaking (sometimes collateral), weak to moderate shoulders, rectangular stems, and a "flat feel" (Turner and Hester 1993) are diagnostic characteristics. Stem edges and bases are usually ground. Scottsbluff points are found widely scattered over most of Texas, and they are considered to be Paleoindian points, dating from ca. 7120 to 6650 B.C. (ibid. 1993).

Four fragments of Scottsbluff points are included in the collection. Their dimensions and other information are arrayed in Table 11, and the points are illustrated in Figures 7a and 7b.

Artifact 7A was found in the creek bed, while 7B was excavated along with Golondrina point 5B and the unclassified concave-base artifact 8H. The excavated points were recovered in 1961 from a square on the southeast side of the creek. The provenience of 7D is unknown. Artifacts 7A, 7B, and 7C have previously been reported by Birmingham and Mitchell (1978) and Fox, Schmiedlin, and Mitchell (1978).

Broad, horizontal parallel flakes, typical of Scottsbluff points, characterize all four artifacts. The basal treatment on the stems consists of beveling formed by numerous short flakes on both faces. Artifacts 7A and 7C are truncated by snap fractures, while artifact 7B is truncated by a complex fracture whose nature is complicated by some amateurish reworking. Artifact 7D is the midsection of a Scottsbluff biface. Artifacts 7C and 7D probably were heat treated.

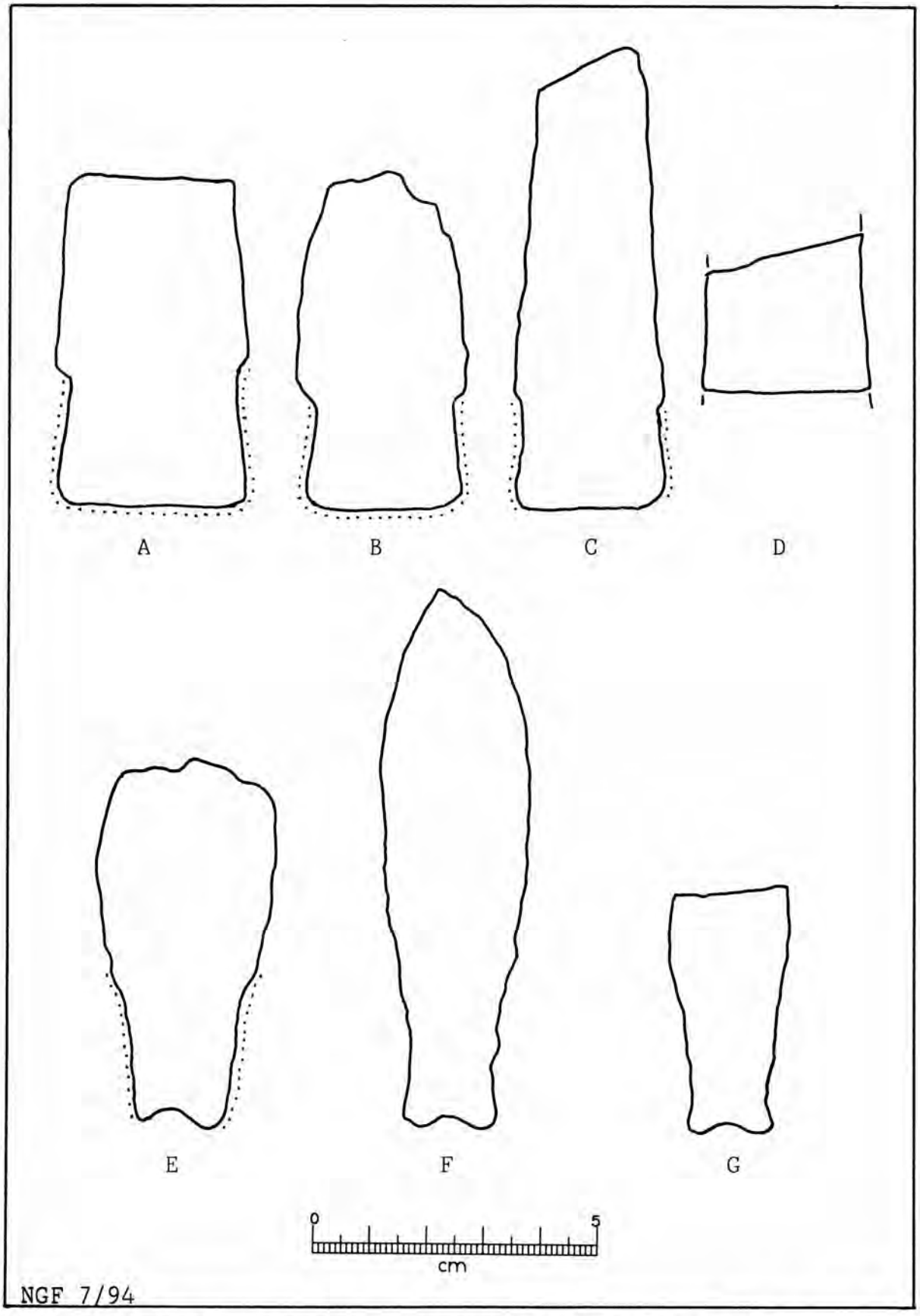

Figure 7a. Outlines of Scottsbluff (A-D) and Victoria (E-G) points (dotted lines indicate areas of smoothing).

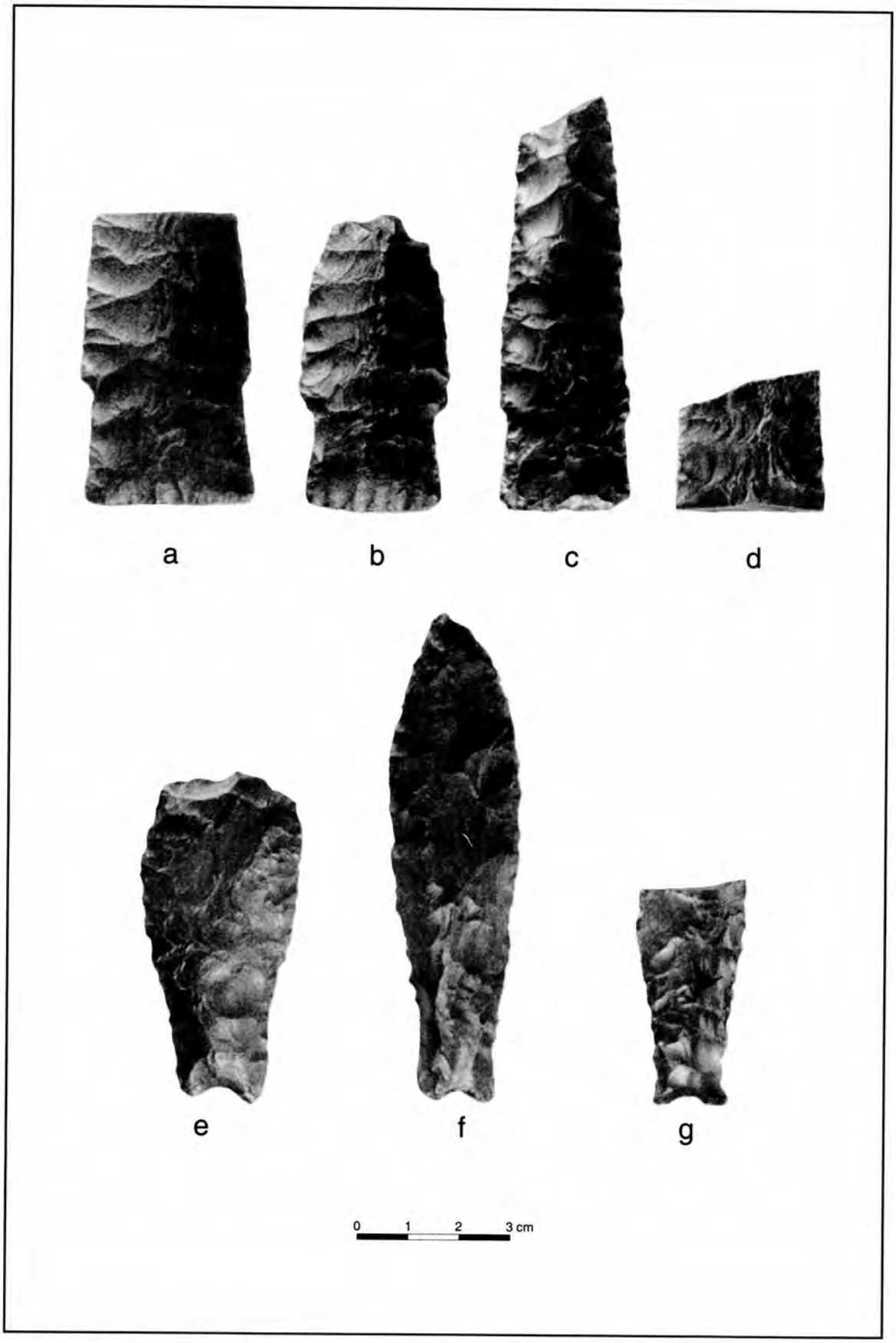

Figure 7b. Scottsbluff and Victoria points.

Victoria

The type name "Victoria" has been appearing off and on for many years in archaeological literature yet has received little official recognition. It may be that the classification is viewed as a "catchall" for Late Paleoindian points that cannot be placed in commonly recognized types. Then, too, there is the overlapping of the type description with that of Early Stemmed Lanceolate. The attributes of the Victoria type are perhaps best summarized by Davis (1991: 176–177).

For the purposes of this report, Victoria points are considered to be a medium to large lanceolate point with convex edges, a contracting haft area, basal concavities ranging from slight to moderate, and an interesting array of stem treatments. Shoulders, usually present, tend to be very weak and ill-defined. Stem edges are usually ground from the shoulders to the base. The flaking pattern is generally random, and the basal treatment is usually accomplished with numerous small short flakes, resulting in a beveled or short wedge-shaped base.

Cultural association for Victoria points is not well defined, but they are thought to be Paleoindian, occurring around 7000 to 6000 B.C. Their distribution is not well documented at present, but specimens tend to occur primarily in the central coastal plain.

Three artifacts are assigned here to the Victoria type, largely because of their shape. This designation is made with some misgiving because of the lack of smoothing of the hafts. Data for these Victoria-like points are presented in Table 12, and the points are illustrated in Figures 7a and 7b.

None of the artifacts is serrated, and basal treatment is different on all three artifacts. Artifact 7E has a base thinned by long, vertical flakes on both faces. Artifact 7F has a fishtail-like base thinned by a long (13 mm), narrow, flutelike flake and several short flakes on the obverse face and by one short, steep flake on the reverse face. Artifact 7G has Gower-like basal thinning consisting of one short flake on the obverse face and numerous short flakes on the reverse side. The flaking pattern is generally random, although the reverse face of 7E does have traces of oblique parallel flaking. Artifact 7E is terminated by a complex snap fracture, and 7G is truncated by a transverse hinge fracture. All of the artifacts are made of brown chert, although 7E has a pattern of tan, brown, and reddish brown, suggesting that this specimen may have been heat treated.

Unclassified Concave-Base Points

This is a catchall category that includes concave-base points that are either difficult to match with any currently described type or are too fragmented to classify with any degree of confidence. Eighteen artifacts are included in this group. Dimensions and other data are summarized in Table 13, and the artifacts are displayed in Figures 8a and 8b.

Artifact 8A has a 3.2 mm basal concavity, but the slight serrations, the hint of parallel oblique flake pattern, and the basal thinning suggest that it may be an Early Triangular point. Thomas R. Hester (personal communication, 1994) advises that concave bases are not unusual in Early Triangular points. The blade edges show considerable polish, suggesting that the specimen may have been used for cutting. It is made of brown chert with tan inclusions.

Artifact 8B has strong serrations, parallel oblique flaking, and a base thinned by short flakes—none exceeding 11 mm in length—on both faces. The haft edges are lightly smoothed for about 10 mm, but the base is unsmoothed. The blade edges exhibit polish and step fractures, indicating possible use as a knife. The short haft area could be the result of a snap fracture across the original haft area, after which the base was reshaped. Other than its somewhat elongated shape, this point has many of the attributes of an Early Triangular point. It is made of a dark brown chert.

Artifact 8C has no smoothing of the haft edges or base. It does not have any shoulders, but the haft area is defined by a change in the flake pattern. The blade edges show much evidence of wear. The beveling of the blade and the lack of basal smoothing suggest that this is a Darl-like point—perhaps of the Mahomet variety (Prewitt 1982). It is made of a dark gray chert.

Artifact 8D is a long, narrow point made of a light gray, translucent chalcedony that is pseudomorphic after wood. The broad, crude flake scars are arrayed in a parallel oblique pattern. Beveling is strong on both the stem and the blade, while stem smoothing is very slight. These attributes suggest that this is a Darl-like point with attributes about equally divided between the Mahomet and Hoxie varieties (Prewitt 1982).

Artifact 8E is a thick, narrow, lanceolate point with just a suggestion of shoulders. A small hinge fracture has removed a few millimeters of the tip. It is made of tan and brown speckled chalcedony that may be pseudomorphic after wood. The beveling, serration, and flake pattern are all suggestive of the Darl type, with the attributes favoring the Hoxie variety (Prewitt 1982).

Artifact 8F is somewhat enigmatic. It is a small, thick, lanceolate point with slightly serrated edges and a suggestion of beveling. The slight beveling may be unintentional, possibly resulting from the resharpening of a narrow, thick blade. The wear and step fracturing at the tip suggest that it might have been used as a perforator. The specimen is made of brown chert.

Artifact 8G has the shape of the base of a Plainview point, but a lack of haft smoothing and of long basal thinning flakes makes that classification improbable. The projectile point (if that is what it was) is truncated by a transverse hinge fracture. The cross section is diamond shaped with the suggestion of a keel on both faces of the blade. Those factors, plus the presence of a horizontal parallel flake pattern, suggest consideration of the Firstview type (Turner and Hester 1993), but the lack of heavy stem grinding and the somewhat crude appearance of the flake pattern argue against that classification. It is made of a dark brown chert.

Artifact 8H is a broad basal fragment with ground edges and Plainview-like basal thinning. It is made of a deep brown chert that is probably heat treated. It was classified as a Kinney point by Fox, Schmiedlin, and Mitchell (1978:Fig. 3g). However, the flaking pattern and the basal thinning do not seem to be consistent with the Kinney type, although Suhm Krieger and Jelks (1954) point out that some Kinney points may be confused with Plainview points. The size of the point is indicative of the Golondrina type, but the specimen is too wide for that type and lacks ears. It might even be a fragmentary Early Triangular point. Despite these intriguing possibilities, the specimen must be considered too fragmentary for determination of a reliable classification. Another interesting thing about this point is that it was broken by a transverse hinge fracture followed by a burin blow on the right edge of the termination.

Artifact 8I has been resharpened so much that few of the original attributes can be determined. The resharpening has resulted in an unequal biconvex cross section with a medial ridge on the obverse face. These characteristics suggest that it is a Plainview point (LeRoy Johnson, personal communication, 1994). Application of Kelly's (1983) criteria for Plainview and Angostura points suggests that this specimen is predominantly Angostura-like. It is made of a yellow chert that may have been thermally altered.

Artifact 8J is another point that has been reworked so much that it is impossible to classify. It is made of a light brown chert with a waxy luster that suggests it may have been thermally altered. The right ear has been shortened by a snap fracture.

Artifact 8K also has been too extensively reworked for classification, although the few remaining attributes are suggestive of the Plainview type. It is made of a light brown chert with areas of red and yellow that suggest thermal alteration. The tip has been reworked to a blunt end, and a trace of a probable burin blow is present on the right distal edge.

Artifact 8L, judging from its length and cross section, is probably the stem of an Andice dart point. It is made of a brown chert and has a high luster and slick feel that suggest thermal alteration.

Artifact 8M is too fragmentary for classification. The brown chert of which it is made has several red areas that suggest thermal alteration. The specimen is truncated by a transverse hinge fracture.

Artifact 8N has a ground base and stem edges, and the basal thinning and the traces of horizontal parallel flaking are suggestive of the Plainview type. It is made of a brown chert.

Artifact 8O is too fragmentary to classify. One of the most likely possibilities is that it is the base of an Early Triangular point. It is made of a light brown chert.

Artifact 8P is a 20-mm portion of the proximal end of a concave-base point. Although the specimen is too fragmentary for classification, the basal concavity and ears are suggestive of a Golondrina point. Application of Kelly's (1983) criteria for Plainview-Golondrina yielded results that favor the Golondrina type. The specimen is made of a brownish gray chert.

Artifact 8Q is distinctive because it is made of a black, shiny flint. The specimen is too fragmentary to classify, but it appears to be the stem of a dart point that was broken by a transverse hinge fracture.

Artifact 8R is the stem of a projectile point, too fragmentary for classification. The basal thinning is

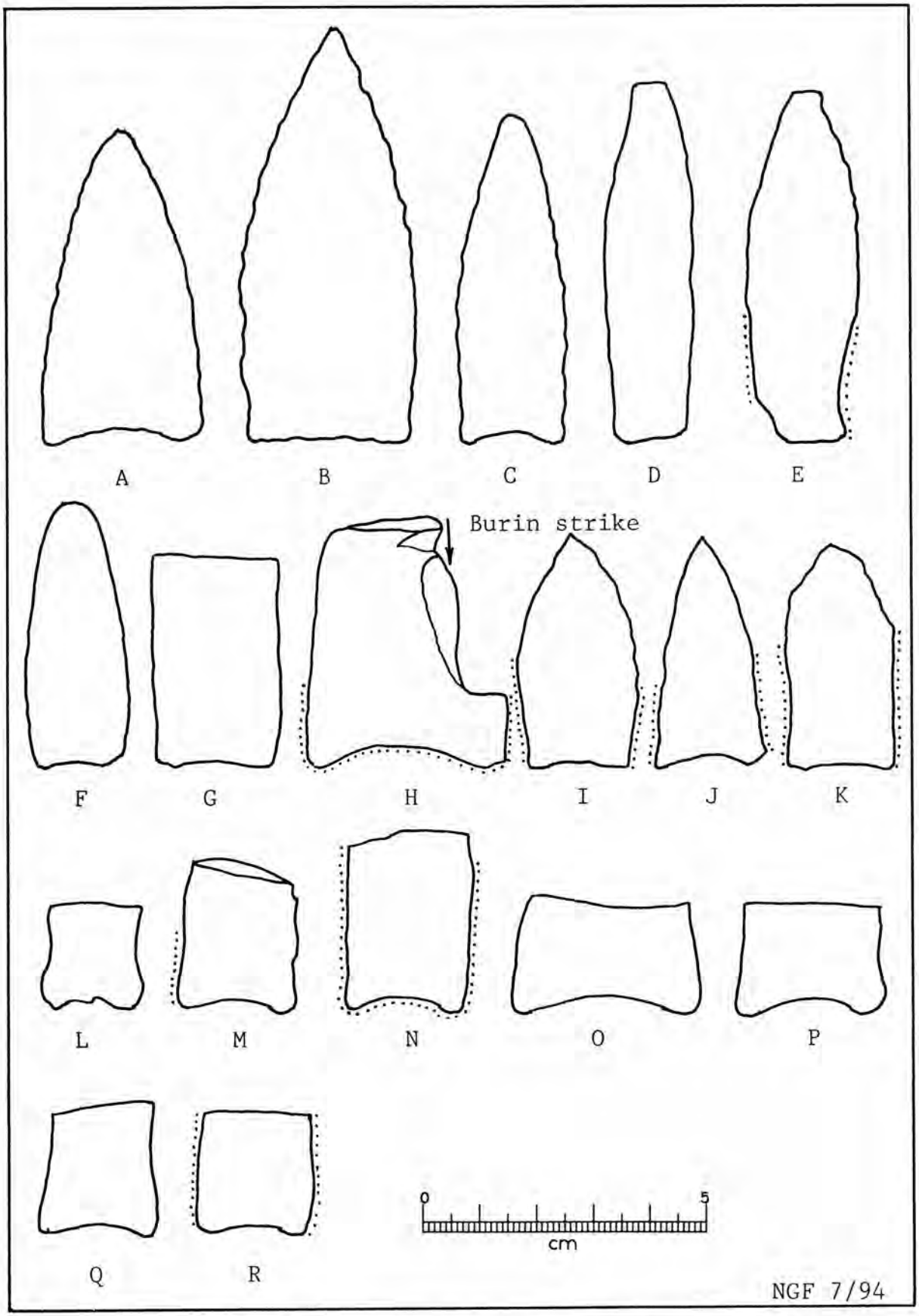

Figure 8a. Outlines of unclassified concave-base points (dotted lines indicate areas of smoothing).

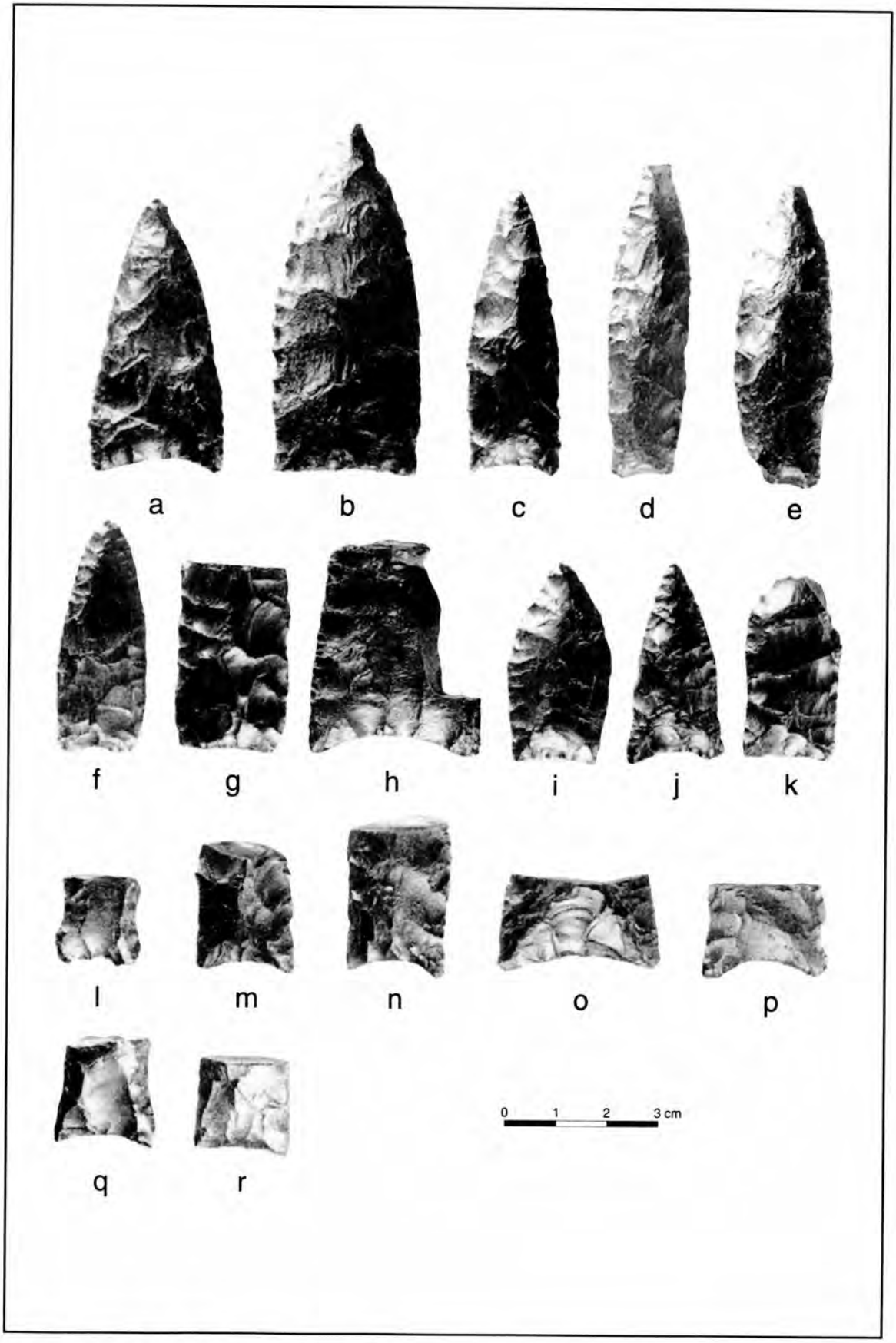

Figure 8b. Unclassified concave-base points.

similar to that of Andice and Bell points, but the smoothing of the stem edges and base are not. The specimen is made of a yellowish brown, opaque chert.

OTHER ARTIFACTS
Miscellaneous Points

Ten points, all of Archaic origin, are classified as miscellaneous points. Their dimensions are given in Table 14, and they are illustrated in Figures 9a and 9b. Each specimen is described individually in the following paragraphs.

Artifact 9A is a complete point made from a brownish gray, opaque chert. It has moderate, unequal, sloping shoulders that lead to a rectangular stem. The stem edges are ground but the base is not. The base is beveled and was formed by the removal of numerous short flakes on both faces. Strong beveling is present on the right edge of both faces of the blade, but the stem is not beveled. The flaking pattern is random and somewhat crude. The point best fits the description of the Darl type (Prewitt (1982:96), and most of its attributes favor the Hoxie variety. Hoxie points are thought to be of Early Archaic origin. According to Hester (personal communication 1994), Hoxie points have not been reported for this area of the coastal prairie.

Artifact 9B is a long, slender point made from a blade of brown chert that is translucent on thin edges. The left blade edge is convex, the right blade edge is recurved, and both are moderately serrated. The right stem and blade edges are beveled, with the strongest beveling at the distal tip. The shoulders are slight and sloping to form a short stem that is slightly expanding and about 16 mm long. The base is concave, but the depth of the concavity and the type of basal thinning are indeterminate because of a snap fracture that removed most of the right ear. The flake pattern is parallel oblique on the obverse face and mostly random on the reverse face except for the left distal edge, where it is parallel oblique. The characteristics of this point suggest that it is a Darl point of the Mahomet variety. The wear on the tip suggests that it may have been used as a perforator. The luster, the slick feel, and the color changes at the tip suggest heat treatment. The Mahomet variety of Darl points is believed to be associated with Late Archaic times.

Artifact 9C is a proximal section of a stemmed, leaf-shaped point that was terminated by a diagonal hinge fracture. It is made of a brown chert with tan inclusions that is slightly translucent along thin edges. The left shoulder is moderate and slopes to form a stem that is about 15 mm long on that edge. The right shoulder is sloping also, but it has a biconcave outline probably caused by a mis-strike while the stem was being shaped. This makes the stem appear about 18 mm long on that edge. The basal concavity is formed by unifacial beveling with short lunate flakes. The stem edges and base are unsmoothed. The point has a plano-convex cross section, suggesting that it was made from a blade. The flake pattern is random and crude. This specimen is best designated as an unclassified stemmed point.

Artifact 9D is the proximal section of a point broken by a transverse hinge fracture. It is made of a brown chert that is translucent on thin edges. Its broad, sloping shoulders contract to an expanding stem that is about 15 mm long. The stem varies in width from 12.0 mm at the neck to 14.6 mm at the basal edge. The stem edges are smoothed but the base is not. The base is strongly beveled on one face by two short, broad flakes that form a biconcave outline. Numerous retouch flakes complete the treatment on that face. The opposite face of the stem base has very little bevel, and most of that is formed by small retouch flakes. The base thinning is virtually unifacial. The stem edges have some beveling on both faces. This unusual stem is a diagnostic attribute of the Zorra type (Turner and Hester 1993:198; Davis 1991: 186). Zorra points are thought to be of Early to Middle Archaic origin.

Artifact 9E is a complete artifact made of an opaque tan chert with small brown inclusions. The shoulders are slight and gently sloping to form a stem about 19 mm long. The stem is 13.2 mm wide at the narrowest point and expands to a width of 18.1 mm at the base. The concave stem edges are ground, but the slightly convex base is not. The stem edges are bifacially beveled, but the basal edge is mostly unifacially beveled. The blade edges are convex and slightly serrated. Beveling of the blade is mostly restricted to the right obverse edge. It is not clear whether this beveling was intentional or the result of trying to convert a long, thin blade into a bifacial artifact. The outline of the point best fits the Zorra type, but the treatment of the stem edges seems to be too bifacial, although the shaping of the base seems intended to be unifacial. This specimen is best designated as an unclassified stemmed point. The wear pattern is interesting, in that one edge of the tip is

Table 13. Dimensions of Unclassified Concave-Base Points.

Specimen	Dimensions (mm)							Flake Pattern		Smoothing		Bevel	Serra-tion	Basal Treat.	Therm. Alter.
	Length	Width	Thick	HDIST	HPROX	BCON	Stem Length	Obv.	Rev.	Haft	Base				
Fig. 8A	54.7	27.1	6.5	26.6	27.1	3.2	?	R	R	No	Yes	RES	Slight	2	Maybe
Fig. 8B	71.7	31.0	8.4	29.2	28.6	1.1	12	OP?	OP?	Yes	No	LES	Moder.	1	No
Fig. 8C	57.2*	19.0	7.0	18.1	18.4	2.1	23	R-OP	R	No	No	LES	Slight	3	No
Fig. 8D	63.3	16.6	7.7	13.8	12.6	0.8	14	OP	OP	Yes	No	LES	Yes	?	No
Fig. 8E	61.2	20.2	9.0	16.1	13?	1.1	22	R	R	Yes	No	LES	Yes	3	No
Fig. 8F	46.5*	17.6	8.0	17.6	16.0	1.2	?	R	R	No	No	RES	Slight	2	No
Fig. 8G	38.0*	22.6	8.6	22.4	21.0	0.7	?	HP	HP	No	No	No	No	3	No
Fig. 8H	43.2*	34.6	5.7	34.4	34.4	4.2	?	HP	HP?	Yes	Yes	No	Slight	1	Yes?
Fig. 8I	40.6	21.0	6.4	19.4	17.4	1.4	21	R	R	Yes	No	No	No	3	Maybe
Fig. 8J	40.2	20.7	7.2	16.9	20.7	2.3	21	OP	OP	Yes	No	LES	No	3	Maybe
Fig. 8K	40.1	20.1	7.1	18.1	18.5	0.8	23	HP	HP	Yes	No	No	No	3	Maybe
Fig. 8L	18.4*	17.3*	4.7*	14.4	17.3	1.4	?	?	?	No	No	No	?	1	No
Fig. 8M	25.7*	20.3	7.7	19.1	20.3	2.4	?	HP?	HP?	No	No	No	No	2	Maybe
Fig. 8N	31.4*	21.5	7.8	20.8	21.0	2.5	28	HP?	R	Yes	Yes	RLE	No	3	No
Fig. 9O	19.7*	32.6	5.8	30.9	32.6	3.3	?	R?	R?	No	No	No	No	3	No
Fig. 9P	20.3*	25.5	6.3	23.4	25.5	3.5	?	HP?	HP?	Yes	Yes	No	No	1	No
Fig. 9Q	23.1*	21.0*	6.7*	17.0	21.0	2.2	?	?	?	Yes	No	?	No	1	No
Fig. 9R	20.1*	19.3	6.4	19.3	18.5	1.3	?	?	?	Yes	Yes	No	No	1	No

* = incomplete; OP = oblique parallel; HP = horizontal parallel; R = random; RES = right edges; LES = left edges; RLE = reverse left edge; Basal Treatment: 1 = long, narow, vertical scars, 2 = short lunate scars, 3 = irregular (mixture of short and long scars).

Table 14. Dimensions of Miscellaneous Points.

Specimen	Dimensions (mm)				Smoothing		Bevel		Flake Pattern	Therm. Alt.	Serra-tion
	Length	Width	Thick.	BCON	Haft	Base	Blade	Stem			
Fig. 9A	58.7	23.7	7.4	1.5	Yes	No	RES	No	R	No	No
Fig. 9B	82.3	22.1	7.5	3?	No	No	RES	RES	OP-R	Yes	Mod.
Fig. 9C	58.9*	27.0	8.5	3.0	No	No	No	No	R	No	No
Fig. 9D	42.6*	21.4	6.8	1.0	Yes	Yes	No	Unif.	R	No	No
Fig. 9E	84.2	22.9	8.3	+	Yes	No	RES	No	R	No	Slight
Fig. 9F	53.8*	43.2*	8.6	?	No	?	LES	?	R	No	No
Fig. 9G	61.3*	36.1*	10.5	0	No	No	No	No	R	No	No
Fig. 9H	53.5	27.0	7.6	3.8	No	No	No	No	R	No	Slight
Fig. 9I	66.1	18.6	8.5	0.5	Yes	No	LES	RES	R	No	No
Fig. 9J	52.4*	20.5	8.2	2.3	No	No	No	No	R	No	No

* = incomplete; RES = right edges; LES = left edges; R = random; OP-R = oblique parallel, random.

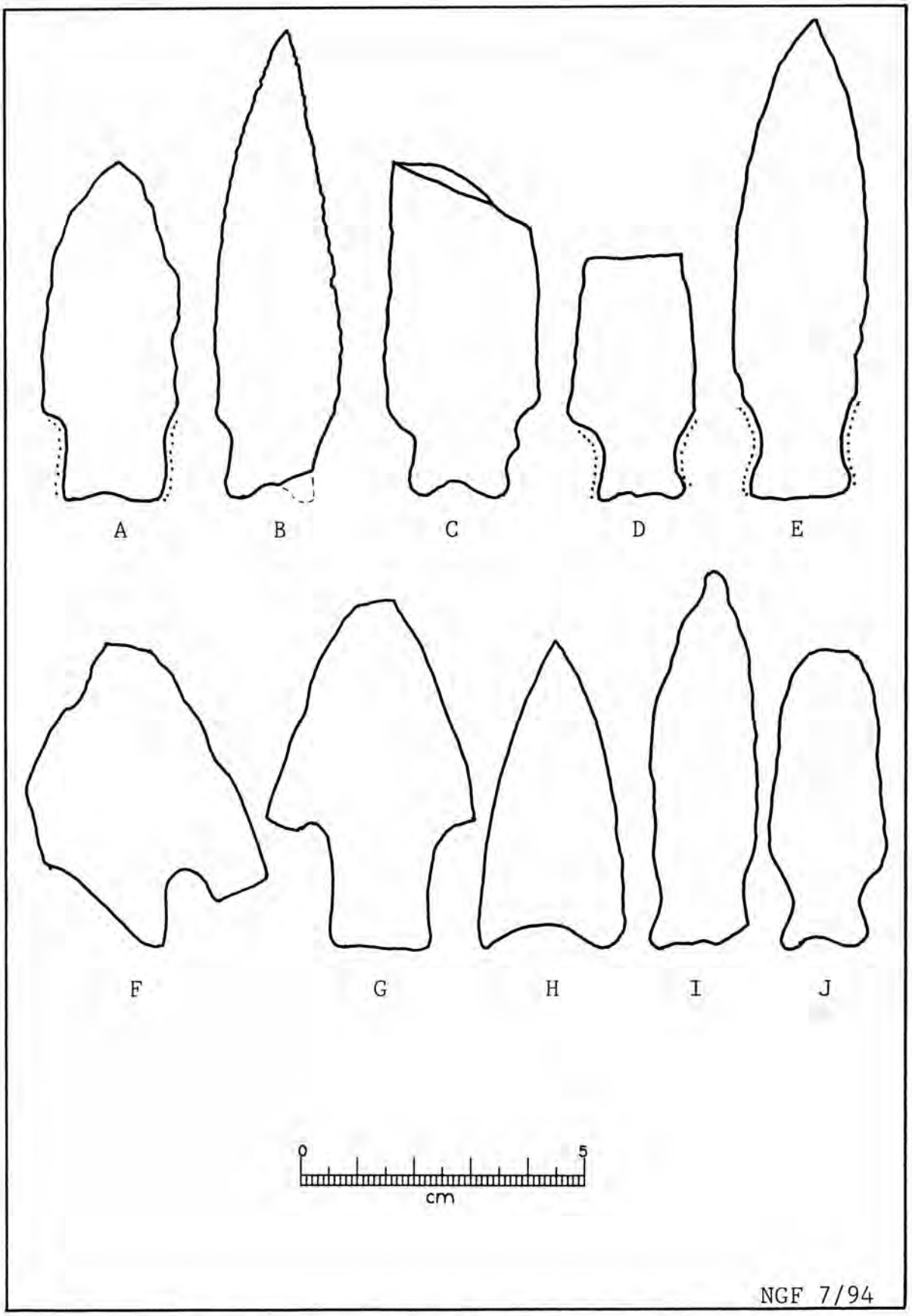

Figure 9a. Outlines of miscellaneous points (dotted lines indicate areas of smoothing).

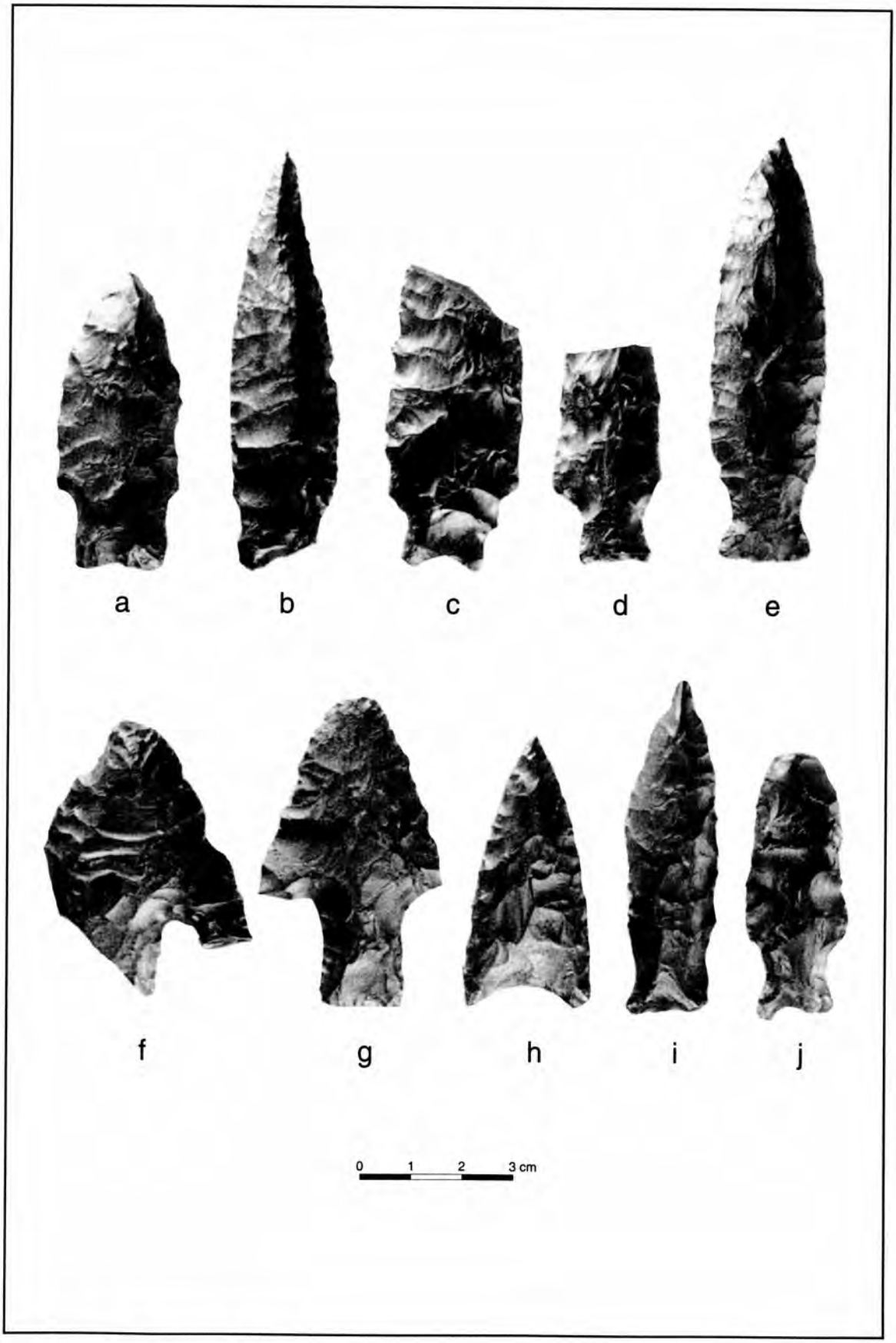

Figure 9b. Miscellaneous points.

well rounded, while the other is sharp as the result of the removal of a flake that seems to have been caused by a twisting action. Blade edges exhibit step fracturing and light wear. This specimen may have been an all purpose tool used for perforating and cutting.

Artifact 9F is a thoroughly battered remnant of a thick, stemmed dart point fashioned from a dark gray chert. The overall shape is suggestive of the Andice type, but the specimen is too thick and too crudely flaked for that type. The workmanship, flaking, and thickness suggest a later Archaic type.

Artifact 9G is a long-stemmed remnant of a once strongly barbed point made of a yellowish tan chert. The stem is rectangular, about 21 mm long and 17 mm wide. The stem edges and base are unsmoothed. Basal thinning was accomplished with a combination of long and short flakes on both faces, resulting in a long wedge-shaped stem. The flake pattern is random and rather crude. The shape, thickness, flake pattern, and stem treatment all fit the Bulverde type.

Artifact 9H is a complete triangular point made of a brownish gray chert. The basal concavity measures 3.8 mm. Blade edges are convex and slightly serrated, and the flake pattern is random on both faces. According to Thomas R. Hester (personal communication, 1994), this point best fits the Kinney type description.

Artifact 9I is a complete projectile point made of a yellowish tan chert. The specimen has weak shoulders leading to an expanding stem that is about 18 mm long. Stem edges are very slightly smoothed, but the base is not smoothed. The cross section of the artifact is plano-convex at the distal end, unequally biconvex at mid-blade, and sub-rhomboidal at the stem end. The specimen has the pronounced twist and shape associated with the Pandale type. Pandale points are thought to be of Early Archaic age, probably 4000 to 2500 B.C.

Artifact 9J is a nearly complete point made of translucent brown chert. A hinge fracture removed several millimeters of the distal tip. Broad, sloping shoulders lead to an expanding stem that is about 18 mm long. The stem edges and base are unsmoothed. The flake pattern is random on both faces and mostly of percussion origin. The base is beveled and formed by the removal of numerous short flakes on the obverse face and by one short, broad flake on the reverse face. This point best fits the description of the Uvalde type, an Early Archaic dart point.

Bifaces

Seven artifacts in the collection are classified simply as bifaces. They are illustrated in Figures 10a and 10b.

Artifact 10A is a large biface whose edges show rounding and polish suggestive of cutting soft materials. It is made of a yellowish brown chert and exhibits good workmanship in both percussion and pressure flaking. The broad end is truncated by a hinge fracture that squared off that end. The remaining artifact is 116.5 mm long, 50.6 mm wide and 12.2 mm thick. The flaking pattern is random.

Artifact 10B is a small lanceolate-shaped tool with a thin haft area and a very thick distal tip. It is 56.4 mm long, 20.4 mm wide and 11.0 mm thick. The blade edges are convex and moderately serrated. The unsmoothed edges are slightly contracting and the base is straight. The haft is about 24 mm long, and blade edges and tip show heavy use as evidenced by step fracturing, rounding, and polish. The wear suggests heavy cutting or, perhaps, a reaming function.

Artifact 10C is probably the proximal portion of a tool or projectile point that had a smoothed, contracting haft. The base has been snapped off and the blade terminated by a hinge fracture. It is made of a tan, very fine-grained quartzite that responded very well to knapping.

Artifact 10D is the rectangular end of a point or tool made of an opaque, mottled, light brown to dark brown chert. There is the suggestion of a haft about 26 mm in length. The edges and base of the haft are straight and unsmoothed. No other diagnostic features are present.

Artifact 10E is another small, stout tool with a thin haft and a thick blade and tip. It is made of an opaque, yellowish brown chert that has tan inclusions. It is 38.5 mm long, 16.0 mm wide, and 8.4 mm thick. The haft is about 13 mm long, and the haft edges and the base are unsmoothed. The base is straight. Wear is indicated by rounding, step fractures, and polish. This wear seems more indicative of a reaming than of a cutting function. Artifacts 10B and 10E are quite similar in shape and were probably used for the same purpose.

Artifact 10F is the proximal section of a nicely flaked, unidentified tool. It is made of a mottled gray and yellowish brown chert that is slightly translucent on thin edges. A snap fracture removed the remainder

of the tool. The base is strongly convex and all the edges are slightly smoothed. No other diagnostic features are present.

Artifact 10G is another basal fragment of a tool. It is made of a yellowish to reddish brown chert that is slightly translucent on thin edges. It seems to be a rectangular haft or stem with lightly smoothed edges. The base is slightly convex and unsmoothed. The luster, feel and color indicate that this piece has been thermally altered. No other diagnostic features are present.

Perforators

Artifact 10H is probably a projectile-point reject that was converted into a perforator. It is made of a yellowish gray, opaque chert. The outline resembles that of a Meserve point, but apparently flaking was abandoned in the early manufacturing stage when it became impossible to thin the tool properly because of knots on both faces. The tip was then pressure flaked to a fine point and the tool used as a perforator. It is 59.7 mm long, 28.0 mm wide, and 10.7 mm thick. Neither the stem edges or the base is smoothed. Rounding of the tip is extensive, confirming use as a perforator.

Artifact 10I is a unifacial perforator made on a very thick blade of opaque brown chert. It is 50.7 mm long, 16.1 mm wide, and 8.6 mm thick. The cross section is rectangular at the base and triangular at the tip. The arris of the blade is oriented along the tip to give the bit additional strength.

Artifact 10J is a unifacial perforator made on a thin flake of opaque, yellowish brown chert. It is 44.2 mm long, 19.9 mm wide, and 5.8 mm thick. The arris of the flake is aligned with the perforator tip to strengthen the bit, resulting in a triangular cross section at the tip. Short retouch flakes were removed to shape both edges of the tip.

Artifact 10K also is a small unifacial perforator made on a blade of opaque yellowish brown chert. It is 50.7 mm long, 12.1 mm wide, and 4.7 mm thick. The cross section of the tip is triangular, with the arris of the blade aligned to strengthen the bit. The right edge of the blade has been retouched to give it a long, narrow shape.

CULTURAL ASSOCIATIONS

The points in this collection indicate that site 41VT6 was occupied intermittently from Middle Paleoindian times through most of the Archaic period. Because this collection is a biased sample, no conclusions can be drawn with respect to occupation intensities through time. Perhaps the best perspective on the collection can be achieved by arraying the points in their approximate temporal periods, together with their frequencies:

Middle Paleoindian	
Plainview	9
Golondrina	2
"Ang-view" (chronology unknown)	3
Late Paleoindian	
Angostura	14
Early Stemmed Lanceolate	4
Meserve	4
Scottsbluff	4
Victoria	3
Early Archaic	
Andice	3
Bell	5
Early Triangular (?)	13
Gower	4
Hoxie? (Darl)	1
Pandale	1
Uvalde	1
Zorra	2 (?)
Middle Archaic	
Bulverde	1
Kinney	1
Late Archaic	
Castroville-like	1 (?)
Mahomet (Darl)	2

The early Paleoindian points, Clovis and Folsom, are missing from the above array. This may indicate that there was no occupation at that time or that these materials have not yet been found.

DISCUSSION

The J2 Ranch collection shows that 41VT6 was occupied intermittently during Middle and Late Paleoindian and Archaic times. It is understood that additional collections from the site indicate heavy occupation during the Archaic and into Late Prehistoric times (Robert J. Mallouf, personal communication, 1994). These collections indicate that excavation

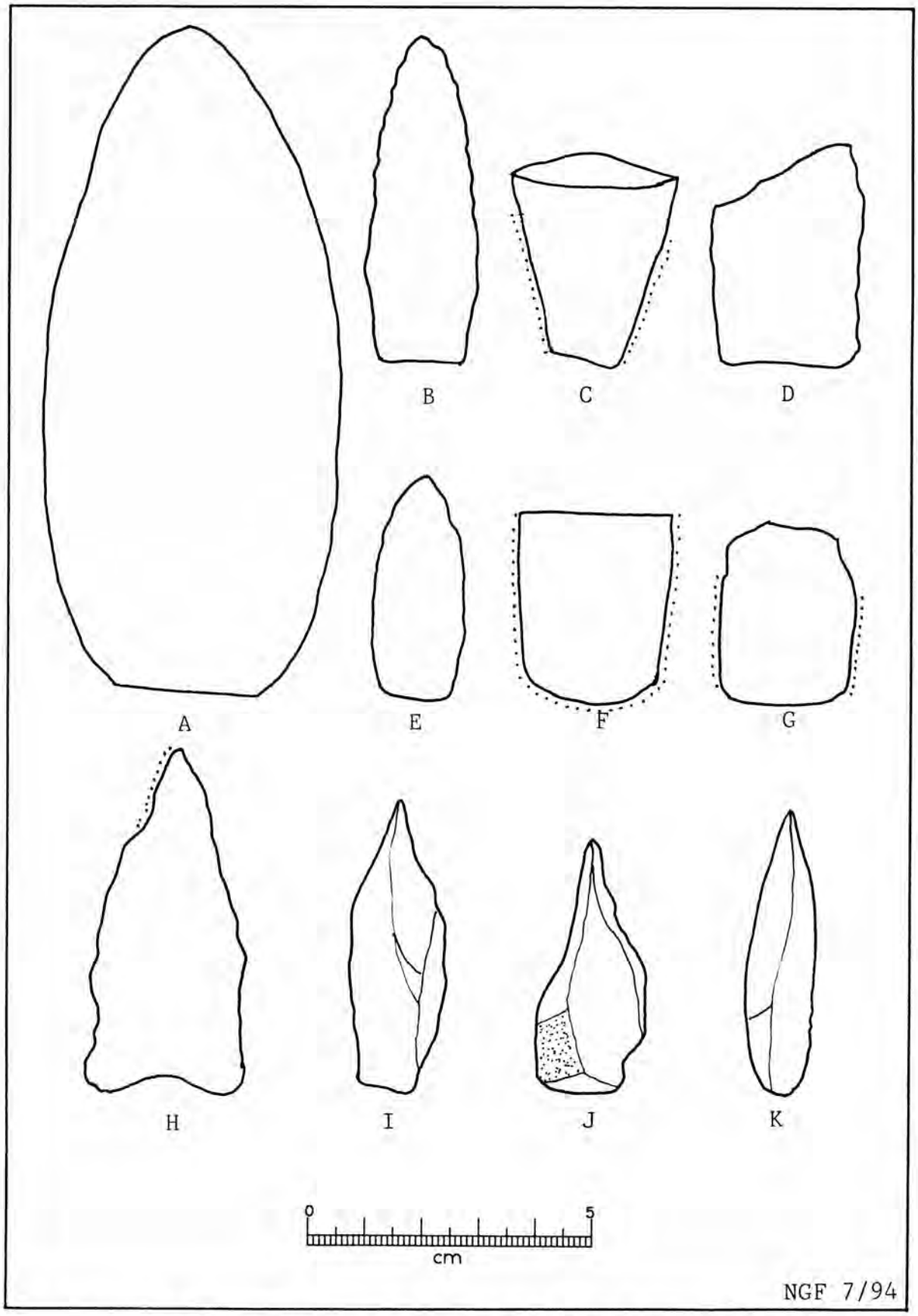

Figure 10a. Outlines of Bifaces and Biface Fragments (A-G), and Perforators (H-K). Dotted lines indicate areas of smoothing).

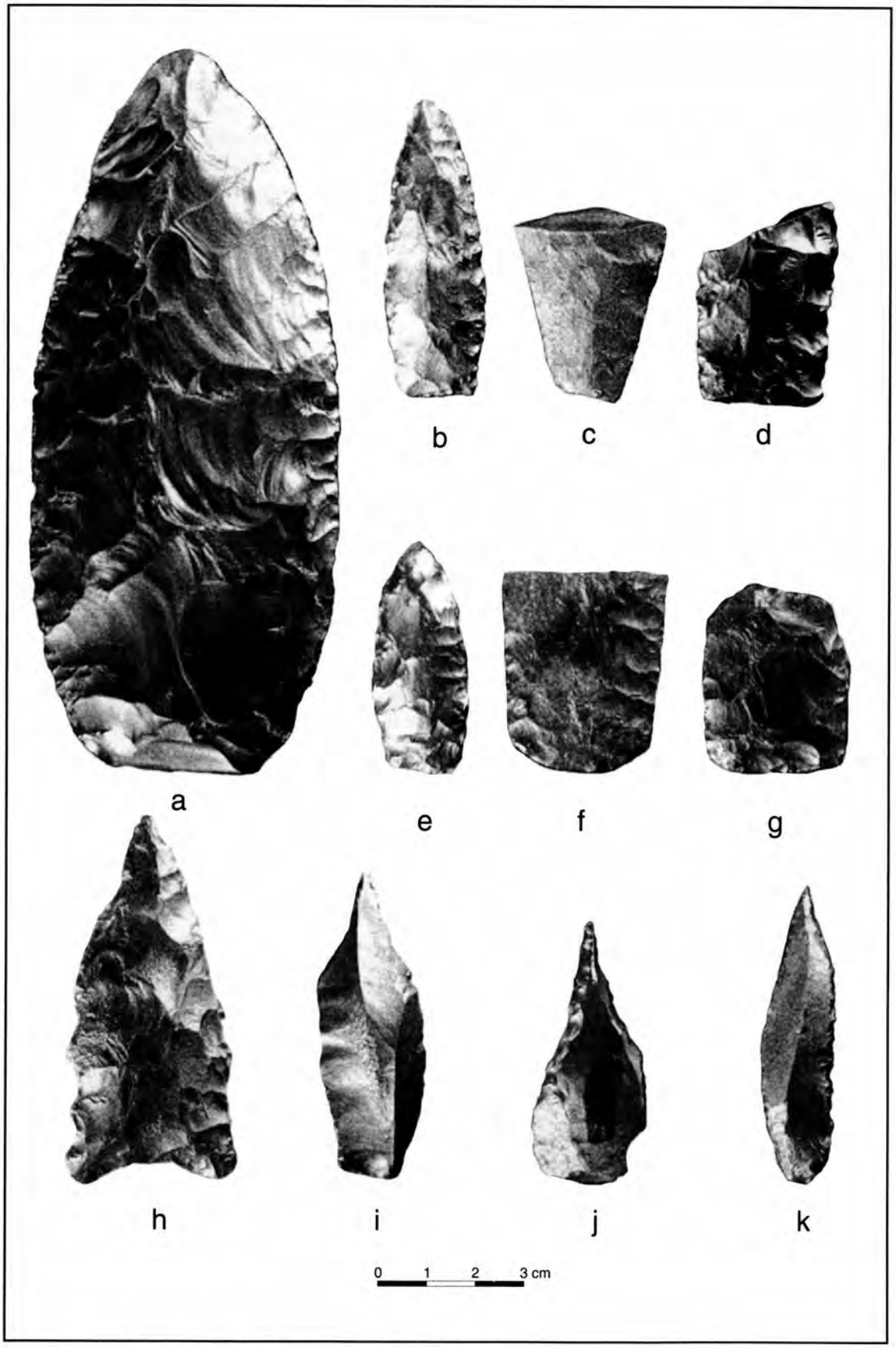

Figure 10b. Bifaces, biface fragments, and perforators.

of a complete cultural sequence may be possible if some portion of the original site remains in an undisturbed state.

Most of the artifacts in the Schmiedlin-Studer Collection are projectile points, as is to be expected in a collection of artifacts selected specifically to be diagnostic of Paleoindian and Early Archaic age. Yet some of the artifacts were probably used for other purposes as well. Three of the artifacts are perforators and probably were recognized as such at the time of collection. In addition, at least four of the "points" appear to have been used as perforators. Two artifacts, 11B and 11E, probably were designed for some special purpose, and their thin hafts and thick blades and tips seem especially suited for a reaming function. A few of the artifacts exhibit wear suggesting some use for light cutting tasks.

The points here called "Ang-view" are a puzzlement. Are they really a part of the miniaturization of types in South Texas as visualized by Kelly (1983: 28–29), or are they a separate type? The strong parallel oblique flaking is not common on Plainview points and occurs only occasionally on what are called Angostura points in Texas. That feature, combined with their extreme narrowness, makes them unique. These are artifacts that need more study and better definition.

While the identification of Hoxie points is somewhat tentative, and despite the fact that points of that type have not been previously reported for this area, several of the points in the collection have decidedly Hoxie-like traits. Artifact 9A fits the description especially well, and artifacts 8D and 8E have many Hoxie traits as well. Classification of these specimens as Hoxie points would seem to extend the geographic distribution for this type.

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