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The Newsletter is published four times per year by the Houston Archeological Society. Contributions of news items, short articles and information of archeological significance should be sent to the Editor - Alan R. Duke, 1706 Oaks Drive, Pasadena, Texas 77502.

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HAS Programs - 1976

April 1976 - "This Land" a film on the geological formation of our continent, was shown. Rufus LeBlanc, Shell geologist, and contributor to the filming of "This Land", was the speaker.

May 1976 - Barbara Burger will present a report on the Mitchell Ridge Site in Galveston.

June 1976 - A movie on the Snaketown site (Arizona) will be shown. Two excellent reports on Snaketown are available thru the University of Arizona Press.

July 1976 - A review of the 1976 HAS Field School will be held.

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Coming Events

May 29, 30, and 31, 1976 - In Ridgecrest, Calif., Rock Art Research Assoc. will hold it's 1976 Symposium on Rock Art.

June 12-19, 1976 - Texas Archeological Society Field School to be held east of Iraan, Texas.

June 13-19, 1976 - Archeological Society of New Mexico Rock Art Field School to be held in Chaco Canyon.

July 11-24, 1976 - Archeological Society of New Mexico Field School to be held in cooperation with SMU Field crew working on the Los Esteros Dam Project on the Pecos River north of Santa Rose, N.M.

Sept. 6-11, 1976 - Archeological Society of New Mexico Archeological Seminar at Ghost Ranch.

Oct. 29-31, 1976 - Texas Archeological Society Annual Meeting being hosted by Houston Archeological Society with headquarters at the Astroworld Hotel, Houston, Texas.

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PRELEMINARY REPORT OF THE HOUSTON ARCHEOLOGICAL SOCIETY PROJECT: ARCHEOLOGICAL SITE SURVEY OF THE ARMAND BAYOU NATURE CENTER, INCORPORATED NATURE TRAIL SYSTEM.

William L. Fullen, Project Director April 11, 1976

Project Goal: To develop expertise in employing a new archeological tool "The New Phosphate Field Test" as described by Eidt (Eidt 1973) and Woods (Woods 1975).by investigating suspected anthrosoils along the West and South Nature Trails at Armand Bayou Nature Center, Houston, Harris County, Texas and to correlate the phosphate test data with vegetation maps produced during the survey, previous archeological data and remote sensing data in order to improve on the ability to utilize remote sensing data in predicting the location of archeological resources. Another goal was to perform a much needed archeological survey of the trail system before opening of the Center and trails in July of this year.

The phosphate field test was first employed by the "Super Soil Lab Team" directed by Elaine Burleigh and assisted by Shirley Thompson during the 1974 Texas Archeological Society Field School at McKinney Falls State Park, Austin Texas. Similar tests were also conducted by the team at 41 GV 66, The Mitchell Ridge Site, Galveston, Texas during initial testing of the site by the author in 1974 and during the investigations directed by Barbara Burger from 1974 to the present. Burleigh and Thompson also conducted phosphate tests for the author at 41 CH 54, The Second Location of Mission Nuestra Senora De La Luz, Wallisville Reservoir, Chambers County, Texas. These tests were conducted following the recommendations of Eidt and were judged to be a most useful field test to determine limits of sites, locate features such as mission walls and particularly useful in locating burials. During the testing at 41 GV 66,the greatest problems of interpretation were apparent,probably due to the twenty five acre size of the site and the apparent seasonal occupation by nomadic people. Soil from one of the six burials was tested by the author and both the head and stomach area produced very high phosphate reactions. Woods' thesis which came to our attention only a few weeks ago is a thorough treatment of the subject and contains a great deal of data that helps us understand some of our previous errors in interpretation.

The field work of investigating fourteen knolls and 41 HR 81 along the West Trail at Armand Bayou was completed on schedule. Soil samples were first taken with probes that produced an 8 mm hole and captured a soil sample in a hollow portion on the end of the probe. This was judged to be extremely time consuming and the possibility of missing thin habitation zones was great. After the first day the standard procedure was to employ a thin wall stainless tube to extract 10 cm long cores, 6 mm in diameter. This proved to be much more satisfactory and it is believed that we were able to stratigraphically test the features in a satisfactory manner. Several cores were saved in order to perform the laboratory controlled tests that Woods recommends and this testing is now in progress. One knoll

next to a stream near the Nature Center construction site and the Jimmy Martyn Ranch site contained significant amounts of phosphate as well as large multicolored sand grains and historic materials of rusty iron fragments and possibly a painted film of a white background, with a red stripe and small blue lettering. These materials were recovered with a core tube from a zone starting at 25 cm from the surface and ending at 35 cm from the surface. It should be noted that the other thirteen knolls tested did not contain significant amounts of phosphate but they may be important sites such as hunting stations where human activity may not have produced significant depositions of phosphates. 41 HR 81 was sampled on a grid pattern and found to be an extensive Rangia shell midden with with heavy phosphate concentrations over most of the site. This site was first reported by Gramley, Sharp and Fullen during their 1968 survey of Armand Bayou and later briefly tested by Mike O'Brien and other members of the Houston Archeological Society during the 1970 field work (Hole 1974). A proposal to utilize this site as an outdoor classroom to teach archeology is being prepared.

The goal of testing the twenty six knolls along the fresh water stream and the South Trail was not achieved. These features are more likely to be habitation sites than those on the West Trail due to their larger size, better drained soil and their proximity to a fresh water supply. A project proposal to investigate these knolls and to conduct test excavations on several of the knolls on the West Trail will be prepared at the conclusion of the final report of this project. It is planned that this next testing program be conducted by The Texas Archeological Survey, The University of Texas assisted by volunteers from The Houston Archeological Society.

Fourteen members of the Houston Archeological Society participated in the field work and contributed a total of 177 hours of their time to the project. Along with this contribution of time and talent the Society has funded the necessary expenses of supplies, materials, postage and telephone calls necessary for the Director to conduct the project. A final report of the project will be filed with The Texas Antiquities Committee, Armand Bayou Nature Center, Inc. and The Houston Archeological Society by May 4, 1976 in accordance with the Texas Antiquities Permit issued to the Director. I want to express my sincerest thanks to all the people participating in this project.

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A Late Transitional Site in Harris Co., Texas - L. W. Patterson

This article describes a small prehistoric archeological site, 41HR248, in inland Harris County, Texas, with artifacts which appear to be transitional between the Woodland and Late Prehistoric periods, or perhaps simply early Late Prehistoric. A surface collection has been made from an exposed road cut, with artifacts found over an area of approximately 100 feet in diameter. The collection described here represents artifacts found up to December 1975. The site is located about 150 feet from an old bayou stream bed, now bypassed by channel rectification for flood control. There are no apparent archeological features on the surface. This site is located in a flat, sandy, wooded area.

Using Aten's (1971:fig.10) chronology, a Woodland period can be defined with dart points and pottery, but few befacial arrow points, lasting over a period of approximately AD 200 to 600. A Late Prehistoric period then starts, with dart points phasing out and bifacial arrow points becoming predominant. The projectile points found on this site seem to fit the transitional period from Woodland to Late Prehistoric. One crude Cliffton point, weighing 1.2 grams and 4 mm thick, was found, which is typical of the Late Prehistoric period. Three unusually large Perdiz points were recovered, which could have served either as arrow points or small dart points. One Perdiz point weighs 1.7 grams, one weighs 2.3 grams, and a fragment representing under 90% of one weighs 2.5 grams. Thicknesses range from 4 to 5 mm. As a comparison, most Perdiz points found by the writer on other sites in this general area weigh about 1 gram and have thicknesses of 2 to 3 mm. Since there is a more or less continuous grading of size between Gary dart points and Perdiz arrow points in Harris County (Patterson 1973), the large Perdiz points on this site might represent a transitional period between dart and arrow points. Suhm and Jelks (1962:283) show a wide range of sizes for Perdiz points, ranging from 15 to 60 mm in length. The Perdiz points from 41HR248, shown as actual size in Figure 1, range from 40 to 50 mm in length. One asymmetrical triangular point was found, 6 mm thick and weighing 2.7 grams, which could also have been used as eigher an arrow point or a dart point. This point has selective heat treating of the tip (Patterson 1975). As a published example of arrow point weights, Suhm (1959:table 1) shows all Scallorn arrow points at a Texas hill country site to be under 2 grams. Recent work by the writer in weighing arrow points and dart points from Harris County shows two definite statistical groupings at 0 to 2 grams and 2 to 3 grams, which could represent arrow points and dart/arrow transitional points, respectively. Most points definitely classified as dart points weigh above 4 grams and are over 5 mm thick. One larger biface was also found on this site, which could be a knife or a dart point preform. If this beface is a dart point preform, this is another indication of the mixed Woodland/Late Prehistoric nature of this site.

Potsherds found that are over 15 mm square include 7 Goose Creek sandy paste type and three bone tempered sherds. Bone tempering is usually considered a fairly late trait on the upper Texas coast, although McClure (1975:16) seems to have found bone tempered pottery in association with dart points as well as arrow points. Three small amorphous shaped clay balls, approximately 20 mm in diameter, were found. Clay balls are not usually found on Late Prehistoric sites in inland Harris County. Other non-lithic materials found were some miscellaneous marine shells, which seem to be the result of intrusive historic period dumping.

This site is probably a hunting and gathering type seasonal campsite. Pottery and clayballs possibly are examples of food storage and cooking. Projectile points show hunting activity. Flint cores and fine lithic debris

are evidence of lithic tool manufacturing, and retouch patterns on flint flake edges are evidence of lithic tool use. Flint nodules and miscellaneous cores give evidence of importation of primary lithic raw materials to this site.

Lithic materials recovered, other than flakes, include 2 medium size flint nodules and three miscellaneous flint cores for the production of irregular shaped flakes. No hammerstones were identified. Eight small smooth flint pebbles, under 20 mm diameter, were found which might have been used in turtle shell rattles, although there was no preservation of faunal materials. Three larger smooth flint pebbles may have had use for pottery smoothing or even as hammerstones. Tan flint was predominant, with some grey flint and red jasper present. Reddish discoloration of tan flint and some surface pitting shows that heat treating of flint was commonly used.

The collection of flint flakes is as follows, not including 136 flakes found that are under 15 mm square in size:

	No.	%
irregular flakes		
15 to 20 mm square	39	49.4
20 to 25 mm square	13	16.5
25 to 35 mm square	2	2.5
over 35 mm square	1	1.3
prismatic blades		
5 to 10 mm wide	2	2.5
10 to 15 mm wide	9	11.4
15 to 20 mm wide	2	2.5
blade-like flakes	2	2.5
possible unifacial side blades	6	7.6
possible unifacial end blades	3	3.8
total	79	100.0

A large number of flake edges show wear patterns from use as tools for cutting and scraping. Most of the utilized flakes can not be given formal tool classifications, other than using the term all-purpose tools, although a few have points that could have been used as gravers. One possible example of an oblique burin blow on a flint flake is present, but can not be positively identified as a true burin.

There is evidence of a complete prismatic blade industry. Some of the prismatic blades show use wear on the lateral edges. Some retouched blade segments may have been used as hafted unifacial tools, either as arrow point elements, or as cutting and graving tools (side blades and end blades). Two blade cores were found. One is a fragment of what appears to be a fairly narrow tabular form. The other is a rather unique example of a discoidal shape, which has blade facets showing use of four different striking platforms, two for each of two different faceted surfaces. This core is similar to one illustrated by Montet-White (1968:fig.6) for the early to middle Woodland Period in Illinois.

The size of this site and the type of artifacts are typical of what would be expected for a site in this general area in the proposed time period. A nomadic lifeway is probable. Much detail is possibly lost by lack of preservation of bone, wood, and other vegetable matter. Enough data is now being accumulated on Harris County archeology that problem oriented studies should be considered, as well as the simple straight recording of archeological finds.

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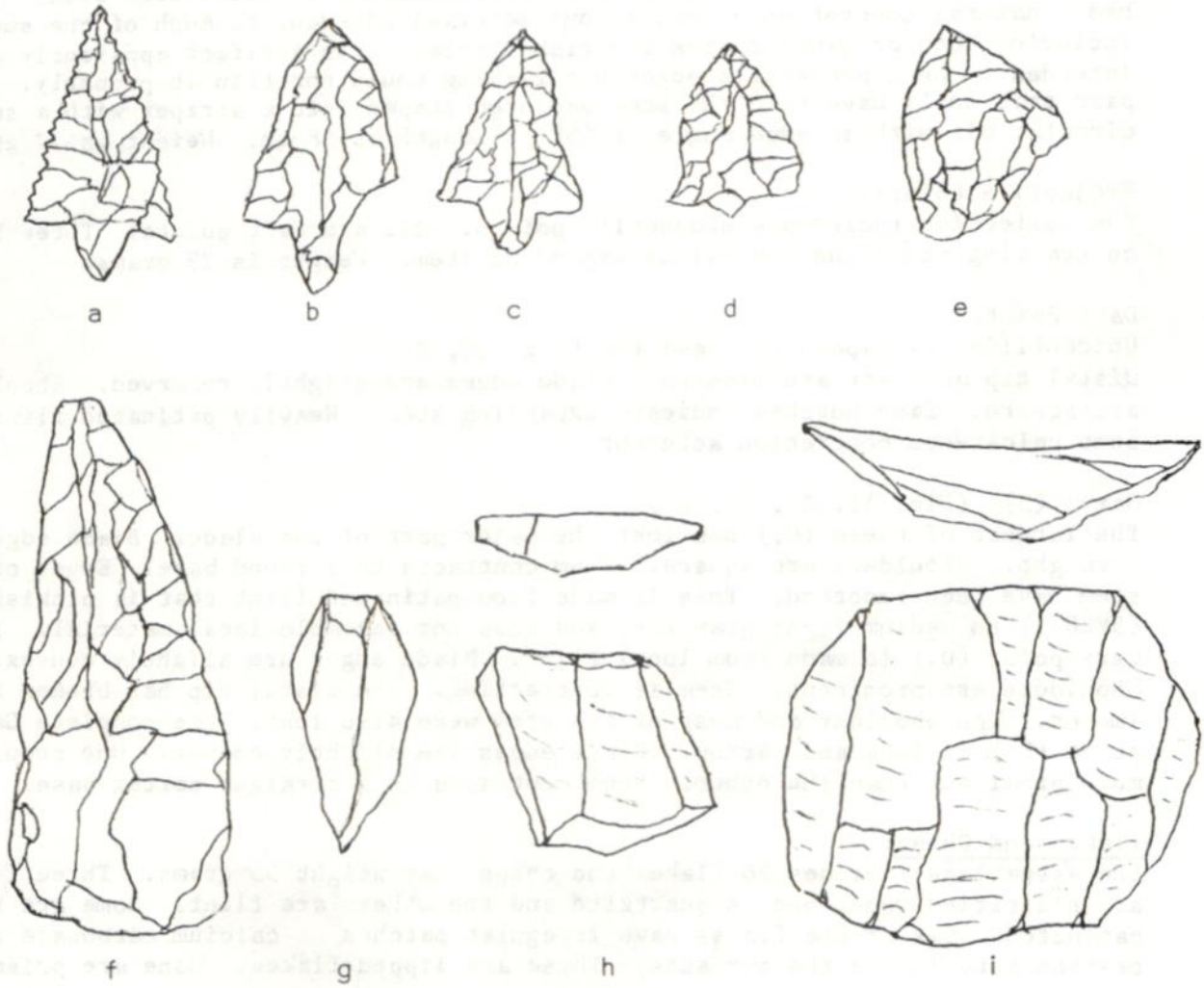
FIGURE I

LITHIC ARTIFACTS, 41HR248



a, c - Perdiz points; b - Perdiz fragment; d - Cliffton point; e - Unclassified point; f - Knife or preform; g - Prismatic blade; h, i - Blade cores

41 HR 258
This site is on the east bank of White Oak Bayou directly across from 41 HR 259. It is on the inside of a curve in the bayou. Dumping of modern debris has obscured much of the bank of the bayou. Where it is exposed, the soil appears comparable to that at 41 HR 259. Artifacts have been exposed by erosion along about 100 feet of the bank. Extent of the site away from the bayou is unknown.

No biological or ceramic material was found that could be related to the site.

LITHICS:
Unmodified Pebbles:
Three unmodified pebbles of flint and quartzite were found. Size is from 12 mm. to 45 mm. Weight is 57 grams.

Modified Pebbles:
Four heat-fractured pebbles of flint and quartzite were found. Size is from 16 mm. to 41 mm. Weight is 42 grams.

Bifaces:
Stage 'B' Biface: (1) (Fig. 16, A.)
One stage 'B' biface is in the collection. Material is silicified wood. It has a natural concretion of calcareous material adherent to much of the surface including both original cortex and flaked area. This artifact apparently was intended to be a projectile point but flaking could not thin it properly. The part that would have been the stem has been shaped into a scraper with a semi-circular bit with an edge angle of 45°. Length is 58 mm. Weight is 27 grams.

Projectile Points:
The collection includes 4 projectile points. All are dart points. Three have contracting stems and one has an expanding stem. Weight is 29 grams.

Dart Points:
Unidentified -- Expanding Stem: (1) (Fig. 16, B.)
Distal tip and base are missing. Blade edges are slightly recurved. Shoulders are square. Side notches indicate expanding stem. Heavily patinated flint has some calcareous concretion adherent.

Gary: (3) (Fig. 16, C., D., E.)
The largest of these (C.) has lost the major part of the blade. Blade edges are straight. Shoulders are square. Stem contracts to a round base. Edges of the stem have been smoothed. This is made from patinated flint that is pinkish gray (5YR8/1) to medium light gray (N6) and does not resemble local material. The small Gary point (D.) is made from local flint. Blade edges are slightly convex. Shoulders are prominent. Stem is contracting. The distal tip has broken from impact. The shoulder and most of the stem were also lost. The complete Gary point (E.) is long and narrow. Blade edges are slightly convex. One shoulder is more prominent than the other. Stem contracts to a straight cortex base.

Flakes and Chips:
The assemblage includes 28 flakes and chips that weight 55 grams. Three flakes are silicified wood, one is quartzite and the others are flint. Some are heavily patinated. Six of the flakes have irregular patches of calcium carbonate concretion adhering to the surfaces. Three are lipped flakes. None are prismatic blades.

41 HR 258

Evidence of use is found on 18 (64%) of the flakes. Sixteen have been used as cutting tools. One has been shaped into a small notched scraper and one has been shaped into what may be called a beaked tool (Fig. 16, F.). One flake that is white from patination was altered by shaping retouch to produce a straight edge.

		Utilized				Unutilized				Totals			
Size	Material	P.	S.	I.	total	P.	S.	I.	total	P.	S.	I.	total
0 to 10mm.	Flint		1	1	2	1	1	4	6	1	2	5	8
10 to 15mm.	Flint		1	3	4						1	3	4
	Sil.wood			1	1	1			1	1		1	2
	Quartzite							1	1			1	1
	total		1	4	5	1		1	2	1	1	5	7
15 to 20mm.	Flint		1	3	4		1		1		2	3	5
	Sil.wood			1	1							1	1
	total		1	4	5		1		1		2	4	6
20 to 25mm.	Flint		2	1	3	1			1	1	2	1	4
25 to 30mm.	Flint		2	1	3						2	1	3
Totals			7	11	18	3	2	5	10	3	9	16	28

Table 7

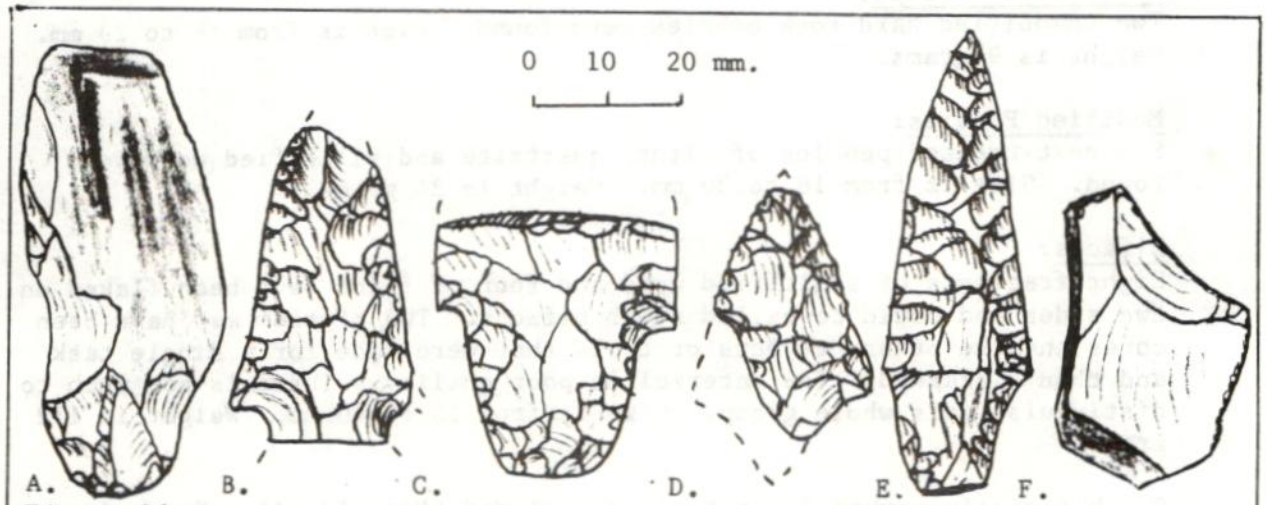


Figure 16

DISCUSSION:

One of the main benefits of this small assemblage is the comparison with 41 HR 259 which is just across the bayou. This site, 41 HR 258, has a predominance of contracting stem dart points (75%), whereas HR 259 has only 3% of this style. Occupation of HR 258 apparently continued into the late Archaic Stage after HR 259 was abandoned. The Gary dart points include the large, well made types that are usually considered early as well as the smaller types that were in use until late prehistoric times.

The growth of calcium carbonate on some of the artifacts indicates that there was a period of deficient moisture sometime after they were fabricated. This may help to date the site with geological evidence.

Although this is a small number of artifacts it should be noted that the percentage of utilized flakes is the same as at HR 259. This may turn out to be a useful indicator for sites that have no diagnostic artifact types.

41 HR 268

This site is on the east bank of White Oak Bayou and is separated from 41 HR 258 by a former channel of the bayou that was filled in prehistoric times. The soil profile is comparable to that at 41 HR 259 except that the contact between the sand and the silt is somewhat lower. Artifacts have been exposed by erosion along about 100 feet of the bank. Extent of the site away from the bayou is unknown.

The bones of a mammoth were found within the lower level of the old fill of the former channel. The bones were apparently articulated although very much weathered. The mammoth may have become bogged down in the sand after the channel changed course and was subsequently covered by more sand fill. No artifacts were found associated with the bones. A few fragments of bones from the carapace of a large turtle were also found within the area of the site. They are of a turtle larger than that found commonly in the stream today and were probably disturbed from Pleistocene deposits.

No ceramics were found.

LITHICS:

Unmodified Pebbles:

Two unmodified hard rock pebbles were found. Size is from 18 to 23 mm. Weight is 9 grams.

Modified Pebbles:

Six heat-treated pebbles of flint, quartzite and silicified wood were found. Size is from 18 to 30 mm. Weight is 34 grams.

Bifaces:

Eight fragments of silicified wood and four of flint have been flaked on two sides and could be called rough bifaces. Two of them may have been cores and the others rejects or tools that were made for a single task and then discarded. The material is poor quality. There is not much to distinguish this whole group. Size is from 15 to 40 mm. Weight is 132 grams.

One bifacially worked flake tool is included (Fig. 17, A). Shape is an irregular oval with one edge nearly straight and the other convex. The proximal end is semicircular. Cross section is convex-convex on the proximal half and plano-convex on the distal half. Weight is 5 grams.

Projectile Points:

The collection includes six projectile points, none of which is complete. One each has an expanding and a contracting stem. The others are uncertain in this characteristic although some assumptions are made. Weight is 23 grams.

41 HR 268

Dart Points:
Shumla: (2) (Fig. 17, B., C.)
The distal tip, one barb and the stem are missing from C. However, the point is sufficiently complete to relegate it to the Shumla type. Blade edges are straight. Barbs are long with the interior edge straight and parallel to the axis of the point. The part of the notch that is present and the shape and position of the barb preclude the stem from being of the expanding type. It is made from heat treated flint that is not of local origin. Color is pale pink (5 RP 8/2) to pale red purple (5RP 6/2). Color, material, shape and method of flaking strongly suggest the "South Texas Shumlas" described by T.R. Hester and M.B. Collins in Evidence for Heat Treating of Southern Texas Projectile Points, 1974, Vol. 45 of TAS Bulletin. Patination has lightened the color of the broken facets as well as the flaked surfaces. Item B. is the barb only of another flint point that could be a Shumla type. The only difference between it and C. is the outer edge of the barb which is straight rather than convex. It is white from patination. It is on the basis of these two artifacts that the barb from HR 259 was classified as a Shumla point.

Palmillas: (1) (Fig. 17, D.)
The medial section of this dart point is missing. Blade edges are slightly convex. Shoulders are distinct. The stem expands with rounded corners and convex base. The flint is heavily patinated.

Gary: (2) (Fig. 17, E., F.)
Blade edges are slightly convex. Shoulders are distinct. The stem contracts. Not enough of F. remains to classify it by itself but because of the similarities in shape, material and workmanship it is probable that E. and F. are the same type. The similarity in the type of failure in these two points and the one from HR 258 (Fig. 16, D.) is also noted. Perhaps this is inherent in the material or shape or method of use.

Unidentified--Distal Tip: (1)
The distal tip of one flint dart point with straight edges is in the collection.

Flakes and Chips:
The assemblage includes 74 flakes and chips that weigh 79 grams. Thirty-two are silicified wood and the others are flint. Some are heavily patinated. one has irregular patches of calcium carbonate adhering to the surfaces. One is a lipped flake. One appears to have been made by the bipolar method of flaking. One prismatic blade tool is included. At least 3 are fire popped.

Evidence of use is found on 39 (58%) of the flakes. Twenty-seven have been used as cutting tools. The prismatic blade has been flaked to produce an apparent stem as if it were hafted (Fig. 17, G.). One primary flake has been shaped to produce a side scraper that is almost identical to one from 41 HR 139 (Fig. 10, A.). Three flakes have been used for light scraping and four have small notches. Two flakes have been shaped into gravers and one into a beaked tool. Edges of other flakes have been retouched to yield straight edges on two and convex edges on two.

41 HR 268

		Utilized				Unutilized				Totals			
		P.	S.	I.	total	P.	S.	I.	total	P.	S.	I.	total
Size	Material												
0 to 10mm.	Flint					1	1	2	4	1	1	2	4
	Sil.wood		3	9	12		1	7	8		4	16	20
	total		3	9	12	1	2	9	12	1	5	18	24
10 to 15mm.	Flint		2	7	9	2	4	6	12	2	6	13	21
	Sil.wood		1	2	3	1	3	3	7	1	4	5	10
	total		3	9	12	3	7	9	19	3	10	18	31
15 to 20mm.	Flint	3	2	8	13					3	2	8	13
	Sil.wood					1	1		2	1	1		2
	total	3	2	8	13	1	1		2	4	3	8	15
20 to 25mm.	Flint		1	1	2		2		2		3	1	4
Totals		3	9	27	39	5	12	18	35	8	21	45	74

Table 8

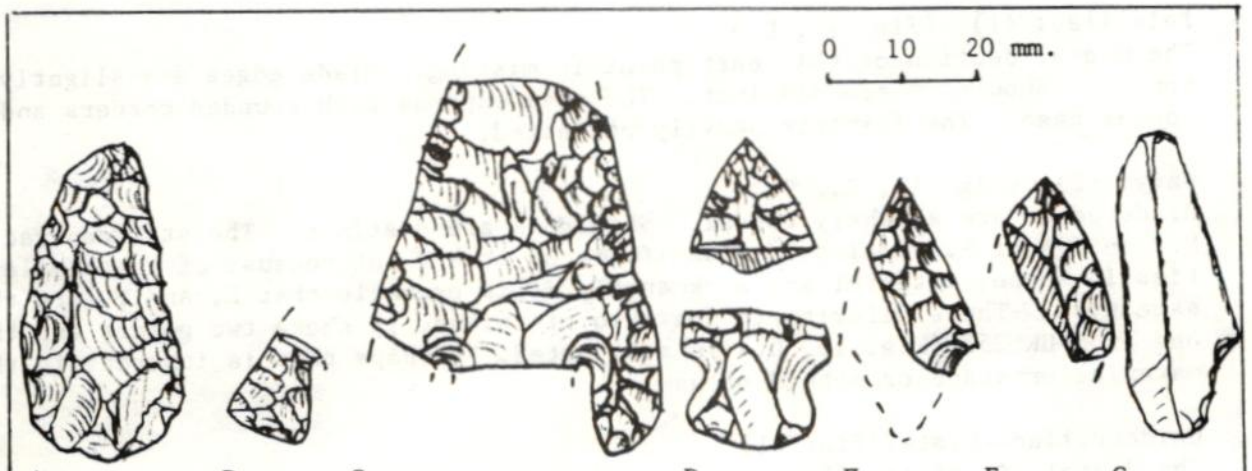


Figure 17

DISCUSSION:

It is probable that this site was occupied during the same time that 41 HR 258 was occupied and subsequent to the abandonment of 41 HR 259. These sites are separated by either the present or the previous channels of the bayou. The extinct mammoth at the bottom of the old channel fill would probably have predated the human occupation by a few thousand years. The dart points include more contracting than expanding stems and thus suggest that the site was in use in the late Archaic stage before the introduction of pottery and arrow points. The Shumla points confirm the association with HR 259 and indicate a contact with the people of South Texas.

Perhaps the heat treatment of the flint in the Shumla point would make an appropriate time indicator if it were subjected to dating through the thermoluminescence process.