HOUSTON ARCHEOLOGICAL SOCIETY NEWSLETTER

NUMBER 46 SEPTEMBER 1974

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.

# # # # # #

New HAS Officers - 1974-75 (Effective September 1974)

Chairman - John Herbert, 5935 Dellfern, Houston, Texas 77035

Sec.-Treas.- Janet Alkire, 10315 Greenwillow, Houston, Texas 77035

Directors - Alexander Macnab, Shirley Thompson, Jack Klatt

Our thanks to Alex Macnab, Shirley Thompson, David Salzar, Leland Patterson and Barbara Kuether for a fine job in 1973-74.

# # # # # #

Past and Future HAS Programs - 1974

August 1974 - Two movies, Visiting the Indians with George Catlin and Earth Lodge People were shown.

September 1974 - Plans for a joint Rice University - Houston Archeological Society investigation of 41GV66 (Galveston Island) were discussed. Members of the HAS are encouraged to participate in this project. Most of the work on the site will be carried out on week-ends but if you have an opportunity to work during the week, arrangements can be made. Contact Lou or Margie Fullen at 479-3748 for details, directions, etc.

October 1974 - To be announced.

Coming Events - 1974

Sept. 25-28 - American Association for State and Local History annual meeting, Austin, Texas.

Oct. 3-6 - National Trust for Historic Preservation,Portland, Oregon

October 8 - Mountain-Plains Museum Conference, Abilene, Kansas

Oct. 25-26 - Texas Historical Commission annual meeting, New Braunfels, Texas

Nov. 1-3 - Texas Archeological Society annual meeting. Love Field Ramada Inn, Dallas, Texas

Nov. 20-24 - American Anthropological Association 73rd annual meeting, Hotels Maria Isabel and Fiesta Palace, Mexico City.

Dec. 28-30 - Archeological Institute of America annual meeting. Chicago, Ill.

# # # # # #

Activities of Other Societies

The Southern Texas Archeological Association held its September meeting at the Witte Museum in San Antonio on September 14 and 15. The tentative program included several short papers, a demonstration of flint chipping and an archeological film on Saturday and excavation at the St. Mary Hall site on Sunday. Future plans include a site survey in the Wimberly area.

The Midland Archeological Society held its annual meeting in Midland, Texas on September 3, 1974. Program included a talk on mollusks as environmental indicators and a covered dish supper.

The El Paso Archeological Society plans a second Rock Art Symposium hosted by the El Paso Community College in 1975. On October 12, 1974, the EPAS will host a "Museum for a Day" in Bassett Center where collections of artifacts will be displayed.

The Houston Metropolitan Archives and Research Center, consisting of a computer-indexed catalog of all discoverable historic printed and manuscript materials on the area and records of local institutions and other organizations will be established - initially with Rice University as original repository. Ultimately the Houston Public Library will house the archives.

# # # # # #

More on 41GV66

This Galveston Island site may be the most important site on the isle. The potential for uncovering artifacts that may answer long unanswered questions is tremendous. Is this a contact site where the Karankawa Indian and European met? Excavations of other Galveston sites, Jamaica Beach and Shell Point, have not revealed any positive evidence of early contact. Will the site contain the remains (post molds) of the Karankawa hut or "ba-ak"? Finding such a feature will bring joy to the hearts of archeologists since such evidence is rare indeed in the area.

Finally, work on the site under the direction of Barbara Burger, PhD candidate in archeology at Rice University, will give inexperienced and experienced amateur alike the opportunity to assist in a major archeological effort, learn more about archeological techniques and in general, enjoy the camaraderie of folks with a common goal and interest.

If you have any special talents - geologist, chemist, botanist, paleontologist, photographer or if you are just very good with shovel, screen or trowel, let Barbara know so she can utilize your specialty.

# # # # #

In Memoriam

We are very sorry to announce the recent death of Society member Raymond Vinson of Pasadena, Texas. He was a member of the HAS for over 10 years and was intensely interested in Gulf Coast archeology. We will miss him!

# # # # #

Harris County Flint Sources

L. W. Patterson

Some time ago, an attempt was made to start an extensive study by the HAS of flint sources for Harris County and adjacent regions. Nothing much came of this, as there was little response from HAS members. In an effort to stimulate new interest in this subject, a summary of some information for Harris County is presented.

Although Harris County does not contain flint resources, there are several potential nearby sources, within 30 miles. On the west, the Brazos River contains flint and petrified wood. To the north, New Caney has extensive gravel operations, and creeks in this area are known to mineral collectors for petrified palm wood. To the east, the San Jacinto River has most flint types used in Harris County, according to members of the Houston Gem and Mineral Society; after examination of a representative flint flake collection.

A random sample of flakes, and all projectile points, from site 41 HR 184 were classified, with the following types of materials represented:

	percent	
	flakes	points
petrified wood	0.5	14.8
quartzite	0.8	0.0
pink flint	1.3	3.7
jasper	17.7	3.7
gray flint	8.2	16.7
dark brown flint	16.7	18.5
medium brown flint	25.8	18.5
light tan flint	29.0	24.1
	100.0	100.0
sample size	390	54

The above collection includes 3 Perdiz arrow points, and 51 dart points, including: Abasolo, Bulverde, Carrollton, Ellis, Ensor, Gary, Kent, Meserve, Palmillas, Pedernales, Yarbrough, and several unclassified.

It may be seen that the use of flint types for flakes and projectile points is about the same, with some exceptions. There seems to be some preference of gray flint for projectile points, although this could vary with other samples. The most definite conclusions are: (1) that petrified wood was used preferentially for dart points, in much greater frequency than its general occurence for flake tools, and (2) that jasper was seldom used for dart points, although widely used for flake tools. These conclusions about petrified wood and jasper are confirmed by inspection of 40 other site collections in Harris County, and Wheat's collection at the Texas Archeological Research Laboratory. Jasper is used with greater frequency for arrow points than for dart points in Harris County.

A small quantity of coarse grained white quartzite pebbles occurs on Harris County sites, but does not seem to be used for flake tools or projectile points. This material was perhaps used for hammerstones and boiling stones. J. B. Sollberger has informed me that this type of material was seldom used in the Dallas area, either, although locally available. There is a finer grained quartzite available in the Dallas area which was used extensively for projectile points, but this material is found only in negligible quantities on Harris County sites.

It is judged that most of the flint used by Harris County Indians came from nearby sources. Infrequently, a piece of blue and red flint turns up, which may be of the Alibates type. Also, there are occasional pieces of dark flint with white banding, generally found west of San Antonio.

It is necessary to move only slightly farther from the nearest flint sources for Harris County to find almost unlimited supplies. A diagonal line drawn through La Grange and Trinity across Texas is the approximate boundary of the next inland geological zone, where large quantities of flint and petrified wood are found.

If a new flint source study is started, it is recommended that work mostly include sample collecting and physical inspection. Both petrographic and spectrographic analysis methods are probably beyond the means of the HAS.

While on the subject of the analysis of flint, an interesting side comment can be made. Techniques are now being developed for the dating of burnt flint (Goksu, et al, Science, Vol.183, Feb.15,1974, pp.651-654) which will offer an alternate method to carbon 14 dating, and extend the possible time range to older dates than radiocarbon dating.

# # # # # #

Items of Interest

Among the Houston structures added recently to the National Register of Historic Places are the Pillot Building and the Sweeney, Coombs and Fredericks Building (Burgheim Drug Store). Texas now has 218 structures and districts registered.

The city of Galveston authorized $17,000, in July 1974, to begin a photographic and documentary survey of historic architecture in the city.

Four pioneer log buildings located on 3.28 acres of wooded land on Barton Creek, southwest of Austin, on the west side of Highway 71, are being offered for sale. These are Civil War era log cabins and are said to be the best group of cabins in Travis Co.

The Institute of Texan Cultures in San Antonio is preparing a traveling exhibit dealing with Texas and the American Revolution. Executive director Henderson Shuffler is looking for pictures, relics and memorabilia owned by Texas descendents and relatives of such revolutionary heroes as George Washington and Patrick Henry.

The Texas Historical Commission, under contractual agreement with the city of San Antonio, recently initiated an extensive archeological and historical survey of the area included in the proposed Mission Parkway project. This district includes Spanish missions Concepcion, San Jose, San Juan and Espada. Completion of the survey is scheduled to coinside with the national Bicentennial.

The Fort Bend County Historical Survey Committee has begun a project to transfer old and unused County records to the County museum where they can be stored under proper conditions of temperature and humidity.

# # # # # #

Prehistoric Settlement Patterns: Method and Theory

Brent W. Smith

Archeologists have been more recently interested in the ecological aspects of past cultures. The emphasis is no longer placed solely on technological aspects of prehistoric societies reflected in material culture remains. Contemporary archeologists are also concerned with the prehistoric cultural ecology, or the interrelationships of past technological exploitation and the environment, as reflected in past systems of subsistence, settlement and procurement.

Any study of prehistoric settlement patterns should be first concerned with understanding the local microenvironments as potential resource areas for past procurement systems. In this paper, the term "microenvironment" is used to describe a physiographic unit which has distinctive floral and faunal associations. Such areas offered the people economic choices which were reflected in their socio-cultural patterns. This can be best understood by modeling the present ecology and correlating it with evidence of prehistoric technological exploitation at each site.

The unit of analysis for the study of prehistoric settlement patterns is the site. "Site" is used here to mean a spatially defined locality of prehistoric activity. Within prehistoric times, each locality functioned as one spatial unit within the procurement system of each culture. Two means by which environmental exploitation during each site occupation can be determined are the archeological record and through the use of the present ecology as a model for the past ecology. Through this latter methodology, it may be demonstrated that the macroenvironment changed, or did not change, throughout the temporal span of these site occupations.

Any description of the prehistoric settlement pattern will include four features: time, space, form and function. The form and function of the macro-settlement pattern for each temporal culture period should be spatially defined. Any shifts in that pattern through time should also be explained.

This methodology will integrate two theoretical approaches used in American archeology: culture history and processuralism. Archeologists whose theoretical pre-determination was culture history have concerned themselves with the following three basic objectives (Streuver 1968: 134):

> (1) The definition of prehistoric cultures in terms of an undifferentiated list of mixed functional and stylistic-formal traits. A newly recovered archeological assemblage is attributed to one or another previously-defined culture on the basis of number of shared traits.
>
> (2) The alignment of these cultures within a chronological framework.
>
> (3) Discrete historical explanations for cultural similarities and differences. Attempts are made to show specific historical ties between different cultures through time and space; local cultural manifestations are "explained" in terms of influences emanating from other locales.

Culture history, then, is concerned with three of the four features which are pertinent to prehistoric settlement pattern studies: time, space and form. One archeologist (Flannery 1967: 120) described the difference between these two schools of thought in archeology in the following manner:

> Members of the process school view human behavior as a point of overlap (or articulation) between a vast number of systems each of which encompasses both cultural and noncultural phenomena-often much more of the latter .... Culture change comes about through minor variations in one or more systems which grow, displace or reinforce others and reach equilibrium on a different plane.... The strategy of the process school is therefore to isolate each system and study it as a separate variable.... The ultimate goal, of course, is reconstruction of the entire pattern of articulation, along with all related systems.... By these methods...they hope to explain rather than merely describe variations in prehistoric human behavior.

It is with function, the last of the four elements of prehistoric settlement pattern studies, that the processuralists have become most concerned. We can now ask, how then can each of these features be elucidated? The methodology for elucidating time is the technique of artifact cross-dating. Through this method, prehistoric cultures are defined in terms of artifact types. Archeological assemblages from each of the sites in an area can be attributed to previously-defined cultures on the basis of shared traits. Culture history is used to initially set up a local relative chronology.

The spatial aspect of prehistoric settlement studies is concerned with the delineation of site location and site boundaries. The concern here is with the amount of horizontal space utilized prehistorically, as well as with the local adjacent micro-environments.

The third feature of settlement patterns, site form, is concerned basically with site sedentism, or the relative permanence of site occupations. This can normally be determined through the analysis of floral and faunal remains to distinguish factors of site seasonality. Also, the analysis of activity areas and artifact densities can be used to infer relative population density.

The fourth and last feature of settlement patterns under consideration here, site function, is concerned with what specific activities were necessary at each locality to maintain local populations. Environmental exploitation can be inferred through the analysis of archeological features. One additional factor can demonstrate the function of a site: male versus female-associated artifacts. Through a simple categorization of behavioral traits as assumed male-related or female-related activities, assumptions can be made about the relative compositions of prehistoric populations. Finally, through an integration of all four of these aspects: time, space, form, and function, the prehistoric settlement patterns for each site occupation can be defined.

Acknowledgments

This paper is a result of research for my recent master's thesis at Northwestern State University: "Prehistoric Settlement Patterns of the Young's Bayou Drainage, Natchitoches Parish, Louisiana". I would like to thank everyone associated with that research, especially Dr. Hiram ("Pete") Gregory.

Bibliography

Flannery, Kent V. "Culture History Vs. Culture Process: A Debate in American Archaeology." Scientific American 217, 2: 119-22, 1967.

Streuver, Stuart. "Problems, Methods and Organization: a Disparity in the Growth of Archeology," in Anthropological Archeology in the Americas by B. Meggers. Washington, D.C.: Anthropological Society of Washington, 1968.

# # # # # # #

Another Artifact from San Jacinto

Alan R. Duke

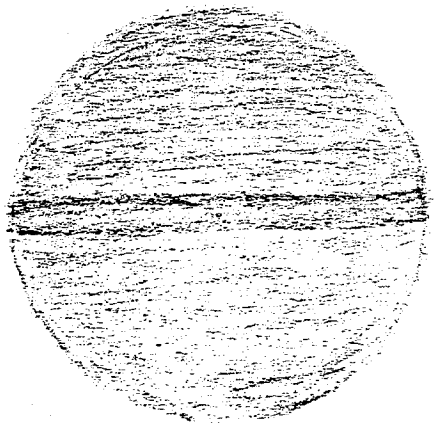
The writer requested information about other Battle of San Jacinto artifacts in HAS Newsletter No. 45 (April 1974) and while the response was not exactly overwhelming, some material did come to light. Detective work will be necessary to locate some of the artifacts uncovered during drainage projects, but at this time thanks to Gary Wiggins of Highlands, Texas, it is possible to describe another artifact that appears to be a relic of the battl

The artifact is a small cast iron cannon ball 2.06 inches in diameter and weighing 1.31 pounds. The mold mark is clearly discernable around its circumference. There are two curved indentations opposite each other which could have been made by a scissors-type mold. Any play in the hinge pin or heat distortion of the mold halves could cause these imperfections on the projectile.

A cannon ball of this type is normally considered "grape shot" - 2 to 3.5 inches in diameter and 1 to 6 pounds in weight It is known that both Mexican and Texan troops had 6 pounders or larger cannon and both used "grape shot".

The surface of the ball is pitted but not to the degree normally observed on iron objects buried in this area. However, it is high density cast iron noted for its resistance to corrosion.

Actual size



It is interesting to note that in reports from the Secretary of War, Houston, October 1838, it is stated that many old muskets taken from the Mexicans at the battle of San Jacinto had been repaired at a cost of less than $3.00 each. At that time, the Texas Republic's military stores included Mexican muskets, cannon and other armament. Perhaps this is one reason why battlefield debris is scarce.

# # # # # #