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REGIONAL RESEARCH PLANNING ON THE TEXAS COAST

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INTRODUCTION

In considering regional research strategies on the upper and central Texas coasts and adjacent areas, concern should first be given to some definitions. I would especially like to point out the differences between plans and models. In much of the contemporary literature, regional research plans and other types of research plans are equated to testable models. This is in line with a current school of thought that feels that most archeological research should start with a series of testable hypotheses.

There is no real basis in scientific methodology for giving undue emphasis to the deductive method of preformulated testable hypotheses. In scientific investigations, both inductive and deductive methods are used as appropriate, along with a good deal of intuitive guessing. In many cases, there is no basis for formulating a detailed archeological research plan until available resources are assessed.

On the primary level of investigation, a regional research plan is simply a list of actions to be taken to address a series of fundamental questions. In this case, research designs become action plans for data gathering. Testable hypotheses are then generated during the course of investigations. The preformulation of models for subsequent testing may have little relationship to actual available data, and this becomes a completely theoretical exercise with little relationship to the real world.

What I will suggest in the following discussion is the use of action plans for gathering basic data and subsequent use of the data to solve specific problems. This may appear to be a rather self-apparent idea, but

many archeological research designs fail by adopting an inappropriate level of sophistication not relating to available data.

HIGH PRIORITY REQUIREMENTS

At the present time, the archeological resources of the Texas coastal regions under consideration have not been completely identified. Therefore, priority should be given to the execution of more uniform regional surveys and the establishment of more detailed chronological sequences, especially for the less known Paleoindian, and Early and Middle Archaic time periods.

I (Patterson 1979a) have previously published a detailed discussion on the need for intensive uniform surveys on the upper Texas coast. This represents the most basic step in data gathering and should be given high priority. More detailed work at specific sites lacks orientation if it can not be related to a regional data base. Many people discount the value of surface surveys. However, it has been demonstrated for one area of Harris County that conclusions reached from intensive surface surveys (Patterson 1976) were completely verified by later formal excavation work (Patterson 1980). Uniform regional surveys not only provide a meaningful context for specific problem oriented research, but also provide much of the basic data needed for many types of specific problems.

In doing survey work, proper publication and recording for state records is essential (Patterson 1979b). It does little good to report archeological site locations if related available data is not recorded, also. Much of the value of surveys can be lost by poor site recording. Both amateurs and professionals have at times done poor site recording work in Texas.

The need for regional syntheses as a basis for further regional research planning should be apparent, but there is surprisingly little interest in this subject (Patterson n.d.). Patterson (1979c) has published a general summary of the upper Texas coast, and Aten (1979) has given a detailed discussion of a smaller area of the upper Texas coastal margin. There are also related publications by Shafer (1974, 1975) and Story (1976) for east Texas. For the central Texas coast, there is only an older publication by Campbell (1958) and related work by Hester (1980) for south Texas. There is a bibliography for the prehistory of the upper Texas coast (Patterson 1979d), but nothing complete for the central Texas coast.

The development of more detailed chronological sequences should also be given high priority. This type of data is necessary for most types of more specific problems. The occupational sequences of the Paleoindian, Early Archaic and Middle Archaic time periods are not well established due to the small data base and lack of datable remains. However, recently there has been a significant increase in sites having projectile point types usually associated with these early time periods. Some examples of this are Plainview points from the Late Paleoindian period, San Patrice points from the Early Archaic, and Carrollton and Trinity points from the Middle Archaic. The development of better chronological sequences can be achieved by excavation of some key sites. Priority should be given to excavation of stratified sites with long occupation sequences, such as was found at site 41HR315 in Harris County (Patterson 1980). The Houston Archeological Society is actively pursuing this strategy, in addition to broadening survey work on the upper and central Texas coasts.

In assigning priorities to regional research plans, a high priority should be given to areas experiencing high rates of site destruction. These areas are usually associated with land development in urban expansions.

Harris County is a good example of a high rate of archeological site destruction due to private land development. HUD has given practically no cooperation in this matter.

SPECIFIC PROBLEM ORIENTED RESEARCH

As the regional data base for the upper and central Texas coasts becomes more complete, it will become possible to do more research related to specific problem areas. Here again, however, basic data must be developed before testable hypotheses can be given. A highly theoretical approach is of little value without a proper data base.

At this point in time, the best thing to do is to simply list some of the worthwhile potential areas for future research. Some of these areas are:

1. improved regional syntheses
2. external relationships
3. trade and diffusion patterns
4. settlement patterns
5. seasonal subsistence patterns
6. intra-regional interactions
7. demographic estimates
8. possible migration patterns
9. non-utililarian cultural patterns
10. detailed subsistence studies
11. cultural and technological changes

External relationships is a good example of a promising area for future research. Published data by Hall (1978), and Patterson and Hudgins (1980) show strong indications of contacts by Indians of the upper and central Texas coasts with the Edwards Plateau area of central Texas.

Another example of an area for future research is possible increasing intraregional cultural differences in later time. Both Aten (1979) and Patterson (1976, 1979c) have noted intraregional differences in ceramic type sequences on the upper Texas coast, which could indicate cultural differences.

IMPLEMENTATION OF PLANS

It is easier to propose broad research plans than to implement them. All interested parties have limited resources. For example, it would be logical for the state to do a uniform county-by-county survey of archeological resources, but financial resources are not available. There has been significant progress in the last ten years in defining the archeology of the upper and central Texas coasts even without a research plan, because of work by dedicated individuals. Contract archeology for environmental studies has also made a contribution, but on a somewhat random geographical basis, as locations are chosen on the basis of construction projects rather than by archeological research needs.

In view of the continuing state of limited financial and manpower resources, I can only suggest that available resources be used as efficiently as possible for all of the practical possible areas of research, and that abstract theory building not be given undue emphasis in overall expenditures.

One area that has not been properly emphasized is the obtaining of public cooperation. Local people are in the best position to find archeological sites, and constitute a virtually untapped resource for archeological research. They should be encouraged to report and protect archeological sites. After all, archeological resources represent everyone's cultural heritage,

and should be developed by and for the benefit of the general public, as well as by more specialized investigators.

CONCLUSIONS

The main theme of this paper has been to suggest that the highest priority in regional research planning at this time should be given to overall basic data gathering. More specific problem oriented research can be done, but data gathering should not be limited to this type of goal. Many of the archeological sites in the regions being considered are multi-component sites. Much valuable data can be lost if data gathering and interpretation is limited by undue emphasis on specific problems. In other words, the ideal situation would be to do both overall basic data collecting and more specific problem oriented research. Certainly activities should not be limited exclusively to either of these two areas, but problem oriented research should not outrun the availability of basic data. The ultimate goal should be to provide a detailed interpretation of regional prehistory for all sectors of the public domain. The accumulation of knowledge may be done by specialists, the results are ultimately for the benefit of the general public.

REFERENCES

Aten, L.E.
1979 Indians of the Upper Texas Coast: Ethnohistoric and Archeological Frameworks. doctoral dissertation, University of Texas at Austin

Campbell, T.N.
1958 Archeology of the Central and Southern Sections of the Texas Coast. Bulletin of the Texas Archeological Society 29:145-175

Hall, G.D.
1978 Investigations at the Ernest Witte Site: A Retrospective Summary. paper presented at the annual meeting of the Texas Archeological Society, Corpus Christi

Hester, T.R.
1980 Digging into South Texas Prehistory, Corona Publishing Co.

Patterson, L.W.
1976 Technological Changes in Harris County, Texas. Bulletin of the Texas Archeological Society 47:171-188

1979a Archeological Surveys and Settlement Patterns on the Upper Texas Coast. Houston Archeological Society Newsletter 65:2-8

1979b Archeological Site Reporting. Texas Archeology 23(1):14-15

1979c A Review of the Prehistory of the Upper Texas Coast. Bulletin of the Texas Archeological Society 50:103-123

1979d Bibliography of the Prehistory of the Upper Texas Coast, No. 4. Houston Archeological Society, Special Publication

1980 The Owen Site, 41HR315: A Long Occupation Sequence in Harris Co., Texas. Houston Archeological Society, Report No. 3

n.d. Regional Synthesis in Texas, in press in Texas Archeology 24(4)

Patterson, L.W. and J. Hudgins
1980 Preceramic Sites 41WH2 and 41WH7, Wharton Co., Texas. Houston Archeological Society Newsletter 66:34-39

Shafer, H.J.
1974 Archeology and Indians of Southeast Texas. in Participants Handbook, The Big Thicket, Contemporary Science Seminar, University of Houston and Houston Museum of Natural Science

1975 Comments on Woodland Cultures in East Texas. Bulletin of the Texas Archeological Society 46:249-254

Story, D.A.
1976 The Archaic of East Texas, in T. R. Hester (ed.), The Texas Archaic: A Symposium, Center for Archaeological Research, University of Texas at San Antonio, Special Report No. 2

Nottingham, Galveston Island
History of a Late 19th Century Lace Factory

Shirley Wetzel

Introduction

In the March, 1980 HAS Newsletter, 2 articles appeared concerning the Nottingham Lace Factory, Galveston Island. This paper is derived from the same project, and will discuss the history of the planning of the factory and associated townsite, its construction and operation, and the people involved in the project.

Nottingham is located on the west end of Galveston Island, which, until very recently, has largely been undeveloped ranching and farming land. Most historical information on Galveston pertains to the city itself, on the east end of the island. Much of the material on the factory and the Nottingham community has come, therefore, from legal documents - land and tax records, archival documents, local City Directories and newspapers. An important primary source was the manuscript written by Walter Grover, a pioneer resident of Galveston and a contemporary and friend of many of the people involved with Nottingham. This unpublished work is housed in the Rosenberg Library Archives in Galveston. A third important source of information came from the oral history told by local residents who were either living while the factory was in existence or who had relatives who told them stories about it in the past. The latter source is summarized in a separate appendix. In some cases, details of informant stories is not born out in the documentary or archeological evidence, but these stories were valuable in filling in gaps in this evidence and in explaining or expanding on what we learned through other means. The following abbreviations will be used in the paper for the most extensively used sources: GDN - Galveston Daily News; GCD - Galveston City Directory; W.G. - Grover's manuscript; GCLR - Galveston County Land Records; GET - Galveston Evening Tribune. "A Souvenir of Galveston."

History of Nottingham Lace Factory

Nottingham is a manufacturing and residence suburb of Galveston, situated between Galveston and South Galveston on Section 2, Galveston, and on the line of the Galveston and Western Railroad. The suburb is so named owing to the fact that it is designed to make of it a second edition of Nottingham, Eng., famous for its lace curtain industries (GDN, Dec. 15, 1891.)

The above quote is an excerpt from an interview with Frank Dana, trustee of the Nottingham interests, and Raphael Behrens, who initiated the project. It is the first significant discussion of the lace factory; after this date, activities associated with the scheme began to develop rapidly. This article will be discussed in more detail after briefly tracing the land transactions preceding the establishment of Nottingham.

The Nottingham land is in Section 2 of the Trimble and Lindsay survey of 1837. This survey divided all the land west of the Menard League (site of the city of Galveston) into 10 acre lots, to be sold at auction by the Republic of Texas, beginning in 1837. The factory land was first owned by Levi Jones, who transferred it to Cephas Adams in payment for debts in 1872 (GCLR, Book 6:439.) The land remained in the Adams family until June 7, 1889, when Martha, widow of Cephas, and Dora and Charles, his children, conveyed it to Walter Gresham, a prominent Galveston businessman (GCLR, Book 72:94.) On November 6, 1890, Gresham sold it to the Galveston and Western Railroad (GCLR

Book 93:509) which in turn deeded the property to M.F. Mott on December 30, 1891 (GCLR Book 96:115.) The following day Mott transferred the land to Frank Dana, trustee for the Nottingham Company, for $10,000. Dana was to plat the land into blocks and lots, which were to be sold, the proceeds bei used to build the lace factory (GCLR Book 96:116.)

The above-named men are all closely linked with the factory project. Gresham, who was instrumental in obtaining funds for Galveston's deep water port, constructed in the late 1880's, was associated with the Galveston and Western Railroad, first as manager, then as president (GDN, April 10, 1966.) Frank Dana, who has worked with Gresham on the deep water committee, came to Galveston in 1891 to become the secretary of the Galveston Chamber of Commerce (GCD, 1891-92:163,) a position he soon left to become associated with Mr. Behrens and the Nottingham Company (GET, March, 1893:44.) Elmer Dana, Frank's brother, was first listed in the GCD in 1891-92 (p. 163) which gave his occupation as clerk for the Turnley-Lufkin Real Estate Co.; he was later to become factory manager. Col. Mott's connection with the project is not entirely clear, the first business listing for the Nottingham Company refers to him as president of the corporation (GCD, 1894:347.)

Mr. Behrens seems to have acted as the promoter for the project. He was first mentioned in the Daily News article of Dec. 15, 1891, which stated that he had recently come from Germany to propose the idea of a lace factory to the Galveston Chamber of Commerce. It was claimed that he was a "lace-curtain maker of life-long experience." For the first several months of the project was highly visible, presiding over ground-breaking ceremonies (GDN, Jan. 1, 1892,) giving an interview to the paper about the factory layout (GDN Dec. 19, 1891,) digging the first wells at the site (GDN, May 8, 1893.) His first listing in the City Directory was in 1893-94, when he was President of the Nottingham Lace Factory (p. 101). He was listed again in the separate 1894 City Directory; there are no more listings after that time, and his name was no longer encountered in the newspapers. It is probable that when the venture failed, he moved on.

There are many references to Nottingham in the Daily News in late 1891-early 1892. The article on Dec. 15, 1891 contains the background for the proposed project. Mr. Dana stated that 200 people would be employed, that only Texas cotton and ramie would be used, and that it would be the first factory of its kind in the United States. Mr. Behrens announced that the land had been obtained, through the efforts of Mr. Dana and himself, and that subscriptions were being taken. He said that the building would be 250 feet wide, and would cost about $120,000. A later story, written after the factory was completed in 1893, changed the dimensions to 300 by 50, which agrees with the archeological evidence.

The project was accepted by the Chamber of Commerce, and promoted by this organization. Excursions and land sales took place frequently (GDN Dec. 20, 1891; Jan. 5, 13, 17, 24; Feb. 14, 17, 28, continuing into March and April, 1892.) These events were taking place in the atmosphere of land speculation and promotional businesses which prevailed on the island after the construction of the deep water port.

On Jan. 14, 1892, there was an elaborate corner-stone laying ceremony, presided over by the Grand Master of Texas Masons, John Watson. 200 people rode to the site in the open cars of the Little Susie, the Galveston and Western train. The cornerstone, which is still at the site, contained a copper bos with several newspapers, documents, letters, a silk handkerchief from Nottingham, England, and coins donated by the ladies in the audience

(GDN, Jan. 14, 1892.) When the cornerstone was located, at the bottom of the pit designated N110, the cavity was empty.

Col. Mott gave a dedication speech, following which an auction was held and 300 lots sold, out of 800 offered. By this time, 2 weeks after the ground-breaking, the east, south and north walls had begun to rise above the ground. There were piles of brick, sand, lime, lumber and other building materials scattered around the grounds, and several workmen were employed (GDN, Jan. 14, 1892.) The Daily News of Jan. 25, 1892, reported that a boarding house for the workers had been completed. This building, while not positively identified through the records, may have been associated with N107, the trash midden described in the March, 1980 HAS Newsletter.

On February 17, 1892, it was reported that a telephone office had been installed at Nottingham, and a post office applied for. The first story of the factory building was complete (GDN.) It is not clear if the telephone office was installed within the factory, or as a separate building, but tax records do not show another structure for this period.

Land transactions continued to be reported throughout the spring of 1892, but at a slower pace than previously. On May 3, 1892, the Nottingham Company incorporated under the charter of the State of Texas (GCLR Rook 109:256-59.) Bonds were issued in November, 1892, held by the Texas Guarantee and Trust Company, with Walter Gresham as trustee (GCLR Book 114.) An advertising booklet published in March, 1893, stated that the factory building was complete, and that machinery was being placed, with the beginning of production to take place at once (GET.) As this information was known at the beginning of our project, the papers for the last several months of 1892 were skimmed, with attention concentrated on February through November of 1893 as well. Mr. Behrens had stated that the factory would be in full operation by July, 1892 (GDN, Dec. 15, 1891.) There is a gap between that date and the actual opening of the factory on May 4, 1893, which remains to be explained.

On May 3, 1893, a brief announcement was made that the Nottingham lace curtain factory would be started up the following day (GDN May 3, 1893.) The day after the opening, an account was printed. Col. Mott, D. D. Henderson, James Spillane, George Anderson, and Mr. and Mrs. William Selkirk, all of whom had some connection with Nottingham or the Galveston and Western Railroad, were on hand to see the first lace curtain come out of the machine. The curtain was cut into small pieces so that all could have a momento of the occasion (GDN, May 5, 1893.)

An excursion to the factory was made by stockholders on May 7, 1893. On May 8, the Daily News reported on this, and described the lace-making process being employed at Nottingham. The article also stated that Mr. Behrens dug 20 wells, 8 feet deep, around the factory. These were connected to 1 pump, and were to supply pure water for all factory needs. Power was supplied by a small, high-speec engine. The factory was to be completed in a few weeks, and a thread factory was to be built in the fall of 1893. Two flags flew over the building; that of the United States, and the Nottingham flag, a lace curtain with a blue star in the center (GDN, May 7, May 8, 1893.

The next significant item to appear was printed on July 22, 1893. It is an advertisement for girls to work in the finishing room of the lace curtain factory; they were to apply to Mr. Behrens. On July 30, 1893, a large advertisement by Ikelheimer and Company, a local department store, states that they had the first offering of lace curtains made at Nottingham, Galveston, and that the patterns were made and controlled exclusively by the store. The curtains ranged in price from 70 cents to $4.85 per pair, and could be supplie

both to the trade and to the consumer (GDN, July 30, 1893.) No other such advertisements were found in a search of later papers.

Several articles on the national situation may shed some light on what eventually happened to the factory. On June 7, 1893, Ikelheimer's advertised that they had bought out several manufacturers who had been hurt in the money panic in the north and west. Included in the inventory were lace curtains (GDN). On June 7 there was a run on Illinois banks, on July 11 there was a heavy real estate failure in Denver, on July 17 the National Bank of Kansas failed, banks closed in Denver on July 19 (GDN 1893.) A story on July 21, 1893, reported that the widespread closing of cloth mills in the northeast was "not serious, that it was just a necessary measure to prevent overloading of the market". Soon after, an article entitled "Spindles Stopped" reported that 1/3 of the cloth mills in Fall Rivers, Massachusetts had shut down due to a light market and lack of currency (GDN, July 21, 1893.) The Galveston City Directory obliquely refers to the financial crisis which was gripping the nation, in saying that "the terrible financial troubles which have disturbed the whole country have prevented much growth or expansion, but there has been no falling back or contraction" (GCD, 1893-94:3.)

A few more articles appeared about Nottingham. On August 5, 1893, a small notice stated that the lace factory was running quite busily, and that the one machine was straining to fill all the orders. Also, despite the recent drought, the wells at Nottingham were producing plenty of water for the community (GDN.) An excursion to the factory was advertised for Sept. 3, when the factory would be open to all. The machinery was to run for 3 hours, making curtains ready for market. Another excursion took place on Sept. 7, and the next day the spectators reported that they were well pleased with the factory (GDN Sept. 3, 7, 8, 1893.) During the latter part of Sept., 1893, Galveston played host to 10,000 visitors from all over Texas, as the Katy Railroad celebrated its entrance into Galveston. The visitors toured all the factories, wharves, jetties and beaches, and had oyster roasts and all the other pleasurable events associated with a Galveston excursion. Nottingham was open for spectators on Sept. 24 (GDN Sept. 24, 1893.)

Skimming of the newspapers for the next 3 months revealed no further information on Nottingham. The land records show that the Nottingham Co. defaulted on its bonds, principal and interest, and on Jan. 3, 1894, the trustees sold the factory and land to James Spillane, secretary of the Nottingham Company (GCD, 1893-4:347) for $5,000 (GCLR Book 113:244.) The 1895 City Directory lists the Nottingham Lace Curtain Factory, with James Spillane as proprietor and Elmer Dana as Superintendent (GCD, 1895.) There is little evidence that Mr. Spillane ever had the factory in full operation. On January 29, 1896, he sold the property to George Anderson, manager of the Nottingham Land Department (GCD 1893-94:347) for $500 and "other considerations. (GCLR Book 136:572-75.) The newspaper for this period does not record this sale, or the reason for it. The City Directory no longer listed the factory after 1895-96. Mr. Spillane died shortly after this (GCD, 1897 has a listing for his widow) and George Anderson became associated with the Galveston Maritime Association (GCD 1896-97.) Frank Dana was listed in the Houston City Directory in 1894-95 as a "promoter", and again in 1895-96, with no occupation listed (Houston CD 1894-95:178; 1895-96:134.) The written evidence for the factory ends at this point, or at least becomes very elusive. What happened afterward has been, in part, revealed through study of the archeological record and through the oral history.

Walter Grover remembered the machinery being moved out, with the building being torn down and the bricks sold sometime after Anderson bought the factory (Grover n.d.:27.) The tax records for 1895 show that the largest lot

owner at Nottingham was W. H. Pollard & Co., a local brick supplier. The factory was built with his materials (Grover ibid.:26.) Possibly he had been paid with lots rather than cash, and retained a lien on the bricks. This is the only mention of the sale of the bricks, and it has not been verified. An alternate explanation of their removal is contained in the information given by Mr. Hamilton in the Appendix.

The papers presented on Nottingham to date must be considered preliminary, with many questions and problems still to be dealt with through further, more intensive research.

APPENDIX

ORAL HISTORY

Maury Darst, history professor, Galveston Community College:

Mr. Darst was born in Galveston, and has lived there all his life. He has done extensive research on the history of the island, particularly the railroads. His knowledge of Nottingham comes through his research, and through his questioning of the residents who were living at the time the factory was in existence. His information indicates that there were 2 saloons in the vicinity of the old community, although he did not know the exact location. He mentioned that the factory building was damaged in the 1900 storm, and torn down soon after. Several of the locals told him that they remembered the smokestack of Nottingham still standing until after the 1915 storm. He was fairly certain that there was not a train depot on the Nottingham townsite.

John Musick, former Grand Master of the Masonic Lodge in Galveston, keeper of the Masonic records:

Mr. Musick, also a native Galvestonian, said that it was a common practice in the late 19th century for the Masons to conduct cornerstone-laying ceremonies. He recalled hunting rabbits on the Nottingham grounds in 1912, as a young boy. The building had been damaged by the 1900 storm, but large segments of the walls still stood, and pieces of machinery were scattered around the building. He remembered the vats on the north side of the building, and believed them to be cisterns. He could not recall any other structures on the property. He is of the opinion that when the factory went out of business the owners debated for a few years over trying to re-open in another location, and that in the 1920's a cotton and lace factory was built in the city of Galveston.

Mr. Hamilton, owner of the Hamilton Kennels, located 1 mile west of Nottingham on the right side of Stewart Road:

Mr. Hamilton bought his property from the original owners, a German family named Wern, and has lived there for 30 years. He said that Mr. Wern told him the factory building was toppled in the 1900 storm, and that he and a group of other local farmers and ranchers carried wagon-loads of the bricks back to the Wern property. A large cattle pen was built with them, to be used to protect their livestock in the event of another major storm. The pen had been torn down by the time Mr. Hamilton bought the property, but he showed us a large mound in his pasture which he said is filled with the hand-made Nottingham bricks. There were several scattered on the surface, and he gave us 2 for comparison with those from the site. The bricks are very similar.

Elizabeth Runge, retired medical librarian, niece of Julius Runge, prominent banker and merchant in the late 19th century:

Miss Runge remembered taking wagon rides with her family to the west end of the island in 1913, passing the factory ruins. She said that the building was destroyed in 1900, but that there were still several brick columns standing a few feet above ground. She did not remember a smokestack.

Hannah Jenkins, retired school teacher, who taught at the Nottingham School in the 1920's:

Mrs. Jenkins remembered the ruins of the factory, which were across Stewart Road and a few hundred yards west of the school, but recalled no other structures. She was certain that the factory operated for awhile, and said that she had once had a clipping from the Galveston Daily News which showed pictures of the lace that had been made there. The article was written in the 1930's, and was presumably a historical account. She said that the Nottingham school building was moved to another location when the district merged with the island system.

Willie Oystermayer, owner of the Lafitte Grove property adjacent to Nottingham, member of a pioneer Galveston family:

Mr. Oystermayer, who has a cattle lease on the Nottingham land, was born after the factory was destroyed, but recalled his father's stories about the storm and the destruction which devastated the whole west end of the island. He said that large sections of the walls were still standing until 1915. Sometime after that, in the 1920's and 1930's, the land was used for canteloupe farming.

Willeva MacInerney, daughter-in-law of Catherine Dana Malloy, and vice-president of the Moody National Bank:

Mrs. MacInerney, who has been researching the Dana estate, reported that Frank Dana died in Houston not long after the factory went out of business. When she married Catherine Malloy's son, Catherine was quite elderly, and could remember few details of the factory. She came to Galveston to live with her father, Elmer Dana sometime after 1900.

Laura Miller, niece of Frank and Elmer Dana:

Mrs. Miller, who lives in Seal Beach, California, has never been to Galveston. She knows a great deal about the Dana family, and furnished some interesting background, tracing the family back to the 1600's, when they left England to settle in New England. She stated that Frank and Elmer's father was a friend and business partner of Abraham Lincoln. She did not believe that the Danas had any lace-manufacturing experience prior to their move to Galveston. Her father, Henry, was the brother of Frank and Elmer.

Dana B. MacInerney, grandson of Elmer Dana, retired military officer:

Mr. MacInerney visited his grandfather at his west end Galveston residence as a child, early in the 20th century. From his grandfather's stories, as well as family information, he has pieced together the reasons for the Danas coming to Galveston. He said that Frank and Elmer were involved in a family business in Springfield, Illinois (he is not sure of the nature of the business.) Elmer's wife died in 1892, at Catherine's birth. Elmer, distraught at this tragedy, left Illinois, and, Mr. MacInerney reports,

"ended up in Galveston, without knowing how or why." Frank came to Galveston to try to persuade him to return to Illinois, but he refused. Frank decided to stay on, taking a job with the Chamber of Commerce, and later became associated with the lace factory. Mr. MacInerney believed that Elmer was never too interested in the business, and seemed to feel some bitterness about the circumstances surrounding it. He preferred ranching, and he went into that field after the factory went out of business, He was a popular man, and many of the prominent Galvestonians of the time came out to his residence regularly for meals and conversation. Mr MacInerney had heard that Frank Dana was presumed drowned in the 1900 storm. Elmer died in Galveston in 193 .

Bibliography - Economic Background of Galveston

Fornell, Earl Wesley - 1961 The Galveston era, Austin, University of Texas Press.

Galveston City Directory - 1886-1896

Galveston Daily News - 1891-1894 - Feb. 24, 1933 - April 10, 1966

Galveston Evening Tribune - March, 1893 - A Souvenir of Galveston

Graham, Samuel B. and Ellen Newan, eds. - 1945 - Galveston community book Galveston, A. H. Cawston

Hardy, Hon. Dermot H. and Major Ingham S. Roberts - 1910 Historical review of southeast Texas, Vol. 1. Chicago, The Lewis Publishing Co.

Houston Daily Telegraph - June, July 1874

McComb - 1969 Houston, the bayou city. Austin, The University of Texas Press.

Meinig, D. W. - 1975 Imperial Texas. Austin, The University of Texas Press

W.P.A. - 1940 Texas, a guide to the lone star state. Compiled by the Workers of the Writers' Program of the Work Projects Administration in the State of Texas.

Ziegler, Jesse A. - 1938 Wave of the gulf, San Antonio, Texas, The Naylor Company

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Odyssey Series

Public Broadcasting Associates, producers of the Anthropology series, Odyssey, announce that PBS will repeat the series January thru March 1981.

Sixteen new documentaries are planned for the second season of Odyssey and are scheduled to premiere on PBS in the fall of 1981. The new series will include a review of the life and work of Margaret Mead. Others will probe the myth of The Maya, shipbuilding techniques of The Ancient Mariners, The Last Cowboy of Montana, and Some Women of Marrakech.

SOURCE ANALYSIS OF OBSIDIAN ARTIFACTS IN TEXAS: NEW RESULTS*

Thomas R. Hester, Frank Asaro, and Fred Stross

Abstract

During the past several years, a number of obsidian artifacts from sites throughout Texas have been subjected to a trace element analysis aimed at determining their geologic source. These analyses, using x-ray fluorescence and neutron activation techniques, have been done in collaboration with Drs. Frank Asaro and Fred Stross at the Lawrence Berkeley Laboratory, University of California, Berkeley. Although this is a continuing project and the final results for all specimens are still awaited, some important data on the sources of specific obsidian artifacts at Texas sites have already been obtained. Sites in Central Texas (e.g., Kincaid Rockshelter), South Texas, the Texas panhandle (and adjacent southern New Mexico) and North Central Texas (Aquilla Lake) have yielded obsidian artifacts that can be linked to geologic sources of obsidian Mexico and New Mexico.

The status of this research project, and its implications for studies of prehistoric trade contacts, are outlined in this paper.

This paper constitutes a progress report on a continuing project dealing with the trace element analysis of obsidian artifacts from Texas and southern New Mexico. This project, which began in 1971, seeks to link artifacts to their geologic source, utilizing the techniques of nuclear chemistry, especially x-ray fluorescence and neutron activation analysis. By obtaining the obsidian artifact's "fingerprint"--its chemical characterization based on the identification of rare trace elements in the parts-per-million range--we can compare this with the chemical composition of recorded geologic obsidian flows. It is a methodology which has seen repeated successful use in Mesoamerica, South America, the Western United States, the Near East and in other regions where ancient populations had access to obsidian that could be fashioned into artifacts.

The geologic source of obsidian in Texas is of great interest. There are no aboriginally used geologic sources of obsidian of which we are aware of in Texas. Glen Evans informs Hester that he has seen a couple of obsidian flows in the Big Bend area. These have not been confirmed in terms of chemical analysis of the source nor is it known if the reported obsidian is of artifact quality. Because of the absence of obsidian sources--or at least extensively exploited obsidian sources--in Texas, it is apparent that obsidian artifacts from sites scattered across the state must have originated elsewhere and this has implications for studies of prehistoric trade and exchange patterns.

In 1973, Hester presented a paper at the Texas Archeological Society annual meeting in Lubbock and discussed the initial results of this obsidian source analysis project. The project began through collaborative efforts with Robert N. Jack, then with the Department of Geology at UC-Berkeley. Dr. Jack utilized rapid-scan x-ray

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*This is a slightly revised version of a paper presented at the Annual Meeting, Texas Archeological Society, Austin, November, 1980.

fluorescence techniques and had worked extensively with Prof. Robert F. Heizer and Hester in the trace element analysis of hundreds of archaeological obsidians from sites in Mexico and Guatemala. The 1973 paper noted that about 40 Texas obsidian specimens had been analyzed. Several specimens from south Texas and one from west Texas (Terrell County) appeared to be derived from obsidian sources in central Mexico. These results were published in papers in 1975. Two south Texas arrow points from a site in McMullen County were derived from an obsidian source in western New Mexico, and these data, too, were subsequently published. Other artifacts, especially a sizable group from Travis, San Saba and Llano Counties in central Texas, had diverse origins: some from Mexico, a group derived from Obsidian Cliff, Wyoming, and a large group of specimens whose geologic source could not be identified.

Beginning in 1977, the project revived, with the collaboration of Drs. Frank Asaro and Fred Stross, of the Berkeley Lawrence Laboratory, University of California, Berkeley. Twenty-eight additional specimens of obsidian, from Texas and southern New Mexico, were analyzed using x-ray fluorescence and neutron activation analysis. The Lawrence Laboratory group was fortunate to have new and improved x-ray fluorescence equipment. When the probable sources of an obsidian artifact assemblage have been measured chemically, and can be distinguished by x-ray fluorescence (XRF) measurements, their general procedure was to make XRF measurements for Ba, Rb, Sr and Zr to obtain initial assignments. They then measured by an abbreviated neutron activation analysis (NAA) technique, when possible, a representative member of each chemical group in the assemblage and in addition any sample of unknown or uncertain provenience. This served to confirm the XRF assignments. For any artifact whose provenience is still unknown, the NAA measurements are completed (if possible) to add to the data of obsidian sources.

They obtain the best XRF results when able to destroy a portion of the specimen and prepare pills of constant size. If they run a sample by a non-destructive XRF mode, the precision of measurement is about 10% although the ratios of Rb/Zr and Sr/Zr may be better.

These approaches, and the more costly neutron activation analysis, proved to be somewhat more effective than Dr. Jack's rapid scan XRF techniques of 5-6 years earlier. Asaro and his colleagues rechecked some of the samples analyzed by Jack, confirming some of his identifications and invalidating some of the others. For example, they feel that some of his identifications of south Texas obsidians as derived from central Mexican sources are possibly in error. It has not yet been possible to recheck all 40 samples originally analyzed by Jack; however, many of those fell into then-unidentifiable chemical groups. The data were still available, some of the new specimens in 1977 fell into the same groups, and some important progress has been made toward the source identification of certain groups.

Let us start then, with an example which combines Jack's earlier analysis and the more recent studies of Asaro and Stross. Ten specimens in the 1977 study--6 from the Radium Springs areas of southern New Mexico and four from Texas--fell into a chemical group which was characterized by a high Niobium content. Jack's earlier data had led to recognition of this group and could be correlated with that of Asaro and Stross. In January, 1979, when Asaro and Stross finally completed the analysis of the Texas and New Mexico specimens, they suggested that this High Niobium obsidian type was derived from a source (exact location unknown) in the Valles Caldera area of New Mexico. This was based on detailed neutron activation measurements that they had done on a source sample available to them and on one of the New Mexico archaeological obsidians.

In July and August of this year, Cathy Cameron of the National Park Service Chaco Canyon Research Center in Albuquerque kindly made available 6 geologic source samples from known obsidian sources in the Jemez Mountains of northern New Mexico. Four of these are 13 miles southeast of the Valles Caldera and two are from 6 miles to the north. They all have the same chemical composition, indicating that archaeological obsidian from outcrops in the Valles Caldera region of the Jemez Mountains will consistently have the same trace element make-up.

This group--the High Nb or Valles Caldera group--has 6 specimens collected from the Radium Springs area near Las Cruces, collected by T. C. Kelly and a University of Texas at San Antonio survey crew in 1976. They are all from separate sites of Mogollon tradition, A.D. 900-1400, generally 200 miles south of the Jemez Mountains.

Two of the Texas specimens are from the Texas panhandle and were made available by J. L. Mitchell. One is from site 41 RB 2 in Roberts County, and the others, from the Tarbox Creek site (41 HC 2) in Hutchinson County. These sites date to the Panhandle Aspect, A.D. 1200-1450. A third Texas specimen came via Alan Skinner and was from site 41 HI 170 at Aquilla Lake in Hill County. It was collected from the surface of a multicomponent site. The fourth specimen in this group comes from Dimmit County in southern Texas. It is one of the specimens originally studied by Jack and published by Hester and others in the Texas Journal of Science in 1975, and which was not linked at that time to any identifiable source. It, too, was a surface found from a multicomponent site.

In reviewing Jack's earlier data on unidentified obsidians, we find that 7 additional specimens fall into the High Nb/Valles Caldera group. Two are from Central Texas (41 TV 39 and 41 WM 56) and four are from the Andrews Lake Locality (A.D. 1200-1450) studied by Collins (41 AD 2, AD 9(2), and AD 8). The seventh also comes from 41 RB 2 on the Canadian River (a Panhandle aspect site), submitted by J. L. Mitchell.

It is apparent, then, that the Valles Caldera obsidian outcrops are a major source of the archaeological obsidians studied thus far. We are confident in attributing 17 specimens from Texas and southern New Mexico to the source; this is 28% of the archaeological obsidian we have studied thus far.

Let us look very briefly at other major sources--identified or still unidentified--of Texas obsidian artifacts.

Two specimens were originally attributed to an unknown type. One specimen is from Radium Springs, but the other is from site 41 CJ 4 in Comanche County, Texas. The latter specimen was collected from the surface of this multicomponent site by Ralph Robinson. These two specimens can now be linked to an obsidian source known as Polvadera Peak, in the Jemez Mountains of New Mexico and north of the Valles Caldera. Polvadera Peak is known to have been extensively exploited for obsidian in prehistoric times (Helene Warren, personal communication to Hester).

Another group comes from the Olmos Basin in San Antonio (Bexar County). These three specimens (one a crude polyhedral blade core) were collected in the 1920s by C. D. Orchard of Lake McQueeney, Texas. They form a coherent group, but a group which cannot yet be linked to any source. Given the presence of the blade core (similar to Mesoamerican forms) we suspect that this group will eventually be linked to a source in Mexico.

Many other specimens fell into groups to which we have given identifying labels but for which we have no identifiable source. These include two specimens from Willacy County in the Rio Grande Delta, collected and submitted by Robert J. Mallouf. They are from the same source, but we cannot presently identify it. Given the trade interaction between the Brownsville Complex of the Delta and the Gulf coast area of Mexico during Late Prehistoric times, we suspect it is a Mexican source.

One Mexican source has been conclusively identified in our Texas sample and this is a most interesting case. During the excavations conducted by the Texas Memorial Museum at Kincaid Rockshelter, Uvalde County, the basal fragment of an obsidian projectile point of Paleo-Indian style was found in Zone 4 near the base of the deposits. The specimen was the only point in Zone 4, immediately above an ancient rock pavement, and containing some traces of extinct fauna. The earliest diagnostic materials at Kincaid are Folsom in age. This specimen does not fit neatly into any type; it is a broadly lanceolate point that somewhat resembles Plainview and it is wider and heavier than most Texas Angostura specimens.

The initial non-destructive x-ray fluorescence analysis of the specimen indicated that it was very similar to three closely spaced obsidian sources known in the Mexican State of Queretaro, about 100 miles northwest of Mexico City. However, this identification could not be confirmed without more detailed analysis. Permission was obtained from Dr. T. N. Campbell and the Texas Memorial Museum to remove a piece of the specimen (after it had been photographed in black and white and in color); the piece weighed about .10 gram and had to be powdered for neutron activation analysis. Although the trace element data for the Kincaid specimen did not fit exactly any of the three Queretaro sources (Cadareyta, San Martin and El Paraiso) it was established that the three sources vary somewhat and do indeed bracket the Kincaid specimen. This links the specimen to that geologic obsidian outcrop zone some 600 miles from the Kincaid Rockshelter site. We probably should look to Mexico, then, for the typological placement of this specimen. This is difficult to do at present, although it is somewhat similar in morphology to a lanceolate projectile point found with one of the Valley of Mexico mammoth kill sites (the 2nd mammoth found at Santa Isabel Itzapan). That specimen is, however, made of chert.

Two other obsidian projectile points, also lanceolate and of Paleo-Indian style, were submitted via J. L. Mitchell. They had been collected from the surface of a site in Val Verde County. Unfortunately, they cannot be linked to any identifiable source.

Closing Remarks

The patterns of known obsidian distribution--that is, the distribution of artifacts whose geologic sources are known--are still too ill-defined to offer much in the way of reconstructing the mechanisms through which the obsidian was distributed. One pattern does seem to be emerging, and that is in the distribution of Valles Caldera/Jemez Mountains obsidian--the High Nb group. Krieger, in 1946, ventured the hypothesis that obsidian was being distributed into sites in north central Texas and on the Llano Estacado by Puebloan trade networks sometime in Late Prehistoric times, ca A.D. 1400-1600. If we review the proveniences of the 17 specimens identified from the Valles Caldera source thus far, we see 6 from the Mogollon sites of the Radium Springs area, dating A.D. 900-1400, 3 from the sites of the Panhandle Aspect, with known Puebloan influences and dating ca. A.D. 1200-1450, four from the Llano

Estacado at sites where Collins found Puebloan and Mogollon ceramics dating A.D. 1200-1450, and one from the Aquilla Lake area, well within the range of the trade contacts hypothesized by Krieger. Even the specimen from deep southern Texas, in Dimmit County, may fit into this puzzle, in that El Paso Brown, a Mogollon pottery type, has been found in the same area. In a paper to be published in the forthcoming Bulletin of the Texas Archeological Society, Mitchell and the authors, have speculated that a trade network which involved obsidian, and probably other commodities, existed between A.D. 900 (at the earliest) to ca. A.D. 1400, and was apparently centered on the northern Jornada Mogollon area of eastern New Mexico. This was a trading sphere perhaps which extended either directly or indirectly, through intermediary groups to several widely dispersed areas of Texas.

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Editor's Note:

Tom Hester's hard cover edition of "Digging Into South Texas Prehistory" is available now from the Corona Publishing Company, 1037 So. Alamo, San Antonio, Texas 78210. Clothbound $15.50 - Paperbound $9.95.

Special Report No. 11 (1980) "Papers on the Archeology of the Texas Coast", co-authored by Lynn Highley and Thomas R. Hester is available from The Center For Archeological Research, University of Texas at San Antonio, San Antonio, Texas 78285. Price is $6.00 plus 33 cent tax. This report includes the following papers:

- A Survey of Paleo-Indian Archeological Remains Along the Texas Coast (T. R. Hester)
- 41HR206, A Major Site in Harris County, Texas (L. W. Patterson)
- A Preliminary Study of the Shell Ornaments of the Texas Coast Between Galveston Bay and the Nueces River (Beverly Janota)
- Notes on Conch Shell Adze Technology, Texas Coast (E.R. Mokey, Jr.)
- Archeological Materials from the Alazan Bay Area, Kleberg County, Texas (Lynn Highley)
- Geological and Archaeological Notes on the Investigations of the La Paloma Mammoth Site, Kenedy County, Texas (R. W. Suhm and T. R. Hester)
- Changing Salinity in Baffin Bay, Texas and Its Possible Effects on Prehistoric Occupations (T. R. Hester)

White Oak Bayou Sites
(Continued from HAS Newsletter No. 67)

W. I. McClure

41 HR 240 The Louise and Bill Caskey Site

This site was first located in 1960 by Mr. and Mrs. W.P. Caskey and is named for them. The material they collected is on deposit at TARL. In 1973, the Texas Archeological Survey conducted an investigation of White Oak Bayou at the request of the U.S. Corps of Engineers prior to anticipated flood control modifications. W.G. Payne conducted the survey and reported his results in November, 1973, in "UPPER WHITE OAK BAYOU AND COLE AND VOGEL CREEKS, HARRIS COUNTY, TEXAS: Archeological and Historical Resource Inventory and Evaluation", Research Report No. 34 of Texas Archeological Survey, The University of Texas at Austin. Payne relocated the site and indicated that cultural material was exposed along 150 feet of the bank of the stream.

The above report recommended that this site be systematically tested before implementation of the flood protection project. In spite of that recommendation, the channel was widened and deepened soon thereafter, without testing. Evidence of the site in 1975 consisted of a few flakes and pebbles. Visits during the next four years yielded very little in the way of additional material.

The site is on the north bank of the bayou, between two small gullies. The topsoil is about one foot in depth and is buried under about two feet of new fill dirt. Below the topsoil is stratum of gray sandy-silt containing many calcium carbonate concretions in the upper part. Artifacts found in 1975 were exposed by erosion just above the calcium carbonate deposits.

Surface elevation is about 93 feet above sea level.

BIOLOGICAL MATERIAL:
Payne reported finding burned bone but the collection at TARL includes only one bone which is from the carapace of a turtle, probably *Chrysemys* species. A nearly complete skeleton of a box turtle, *Terrapene carolina* was found in the clay, just above present usual water level. The bones were impregnated with organic matter, probably since the new channel excavation. Several bones of an extinct turtle, probably *Geochelone* species, were found about 100 feet downstream at the same level as the flakes. It appeared to have been redeposited by channel work. It is probable that neither of these turtles are associated with the human occupation.

LITHICS:

Unmodified Pebbles:
Fourteen small pebbles were found. Size varies from 10 to 30 mm. There is no indication of use. Most are patinated and one has caliche deposits on its surface. Total weight is 27 grams.

Core:
One flint cobble has had several large flakes removed and may be a core. It is 125 mm. long and weighs 230 grams.

41 HR 240

Projectile Points:
The collection includes a base and two nearly complete dart points. Dee Ann Story identified the types. Phyllis Wolf made the sketches.

Angostura: (1) (Fig. 46, A.)
The distal tip was broken. Material is flint that has turned white from patination. Maximum thickness is 7 mm. Weight is 7.8 grams.

Meserve: (1) (Fig. 46, B.)
One corner of the base was broken. The flint has turned grayish-white from patination. Maximum thickness is 8 mm. Weight is 12.7 grams.

Unidentified Dart Point--Contracting Stem: (1) (Fig. 46, C.)
This is the stem only of a dart point. The sides are slightly contracting. The brown flint fragment weighs 1.9 grams. Thickness is 7.5 mm.

Flakes and Chips:
Only 6 flakes are available. None are larger than 20 mm. All are heavily patinated flint. Three show some indication of cutting or scraping use. One is fire popped.

DISCUSSION:
This site was probably one of the very few in this part of the State where late Paleolithic artifacts were not mixed with later material. It is very unfortunate that the site was not investigated thoroughly before it was destroyed.

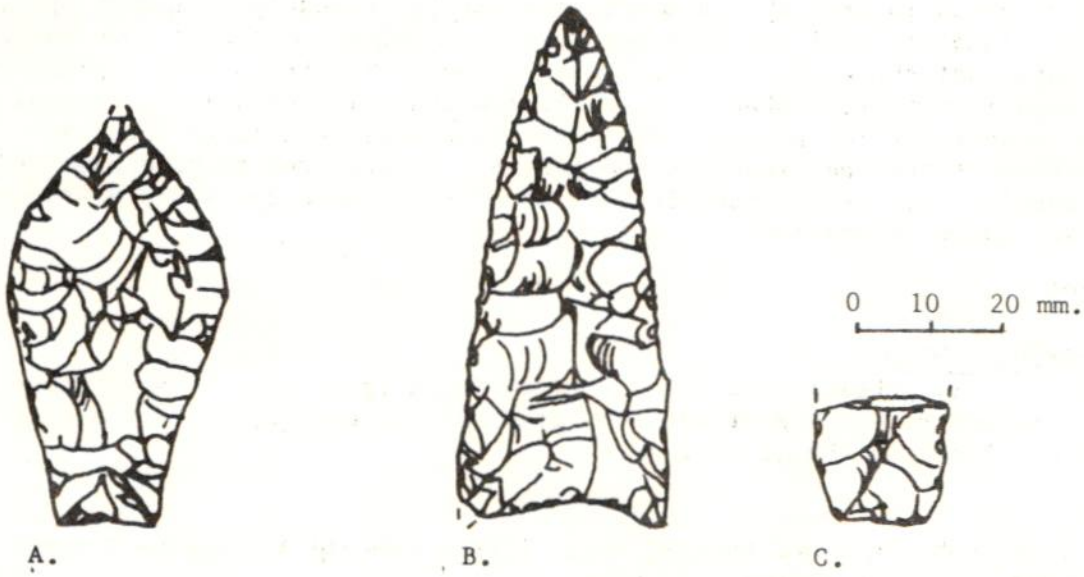

Figure 46

THE 1850-52 TOPOGRAPHIC MAPS OF THE GALVESTON BAY AREA

by Richard L. Gregg

In 1850-52 a topographic survey of the Galveston Bay area was made by J. M. Wampler of the U. S. Coast Survey. The maps he produced contain much information of potential interest to archeologists and historians.[1] They are on a scale of 1:20,000, somewhat better than the 1:24,000 scale of modern topographic maps, and show individual buildings, barnyards and fields, as well as usual topographic features such as woods, bluffs, swamps and streams. However, elevation readings are rare. These manuscript maps contain much more detail than the published maps which were produced from them.[2] Similar manuscript maps were made for the entire coastline; the coverage in the Galveston Bay area is shown in Figure 1. As is evident, the maps extend over only the low-lying areas adjacent to the coastline or adjoining bays. Thus, within the Galveston Bay area, only two towns, Galveston and Anahuac, were mapped; see Figure 2.

To facilitate the use of these maps, we have appended a list of the various names and descriptive terms which appear on the eight maps of the Galveston Bay area. They are arranged in order as they occur along the shoreline, from east to west. Along Bolivar Peninsula and Galveston Island, this east-west ordering is maintained, with appropriate notation for locations not on the mainland. It is thought that this arrangement will be more useful than an alphabetized list. Not every name or term is included in the list; those omitted include some title information, the few elevation readings, and some notation added later, such as the 1929 datum.

Each of the five maps made in 1851 or 1852 has a table of latitude-longitude measurements for selected, named points which were apparently used in surveying. These points are usually denoted by small circles or triangles on the maps; such markings are noted in our list. Where spellings are different between table and map, the one in the table is given in parentheses. Also, all names associated with buildings are so indicated. Large named features such as the Gulf of Mexico are listed separately for each map. A table of abbreviations is given below.

It should be emphasized that this list is only an aid in the use of the maps, since only a very few of the buildings shown are associated with a name. Copies of the maps may be obtained from: National Ocean Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20852.

Mapmaker's Abbreviations

B : Bayou
Bk : Bank
C'k : Creek
Ho : House
I,Id,Isd : Island
Pt : Point
T R : Trinity River

Author's Abbreviations

BP : Bolivar Peninsula
GI : Galveston Island
-B : Bay side
-G : Gulf side
o : circle (survey point)
t : triangle (survey point)
s : survey point not marked by circle or triangle
b : building(s)

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[1]This includes coastline information. See Robert A. Morton, *Shoreline Changes on Galveston Island*, Geological Circular 74-2, Bureau of Economic Geology, Univ. of Texas, Austin (1974)

[2]*Sketch 1 Showing the progress in Section No. 9* (1850), U. S. Coast Survey, scale 1:500,000; *Preliminary Sketch of Galveston Bay . . .* (1851), U. S. Coast Survey, scale 1:200,000; *Coast Chart No. 204: Galveston Bay* (1898), U. S. Coast and Geodetic Survey, scale 1:80,000

List of Names Given on the 1850-52 Topographic Maps, Galveston Bay Area

Map T-329: "Galveston East Bay, Bolivar Peninsular [sic]," surveyed Jan.-May 1851

	E. Bay Bayou		Robinson's B	b	Parr BP
s	E. Bay Bayou	o	Marsh Pt. BP-B	b	Simpton BP
	Oyster Bayou	t	Shaw BP	s	Fredenburg BP-B
o	Muscle Pt. BP-B	t	Stevenson's	sb	Widow Yates BP
o	Shell Bk. (Bank)	o	Elm Grove BP-B	ob	Bunker BP-G
t	Rollover BP-G	t	Parr's Grove BP	t	Bolivar Pt. BP
t	Robinson ('s)		Lady's Pass [in Bay]		

Large features: East Bay, Gulf of Mexico, Hannah's Reef

Map T-330: "Galveston Bay from Lawrence Cove to Stevenson's," surveyed Jan.-May 1851

t	Stevenson's	t	Double Bayou		Brown's Pass T.R.
	Lake Surprise	t	Ash Pt.		Middle Pass T.R.
s	Long Grove	sb	Round Pt.		Main Pass T.R.
tb	Smith's Pt.	s	Fort Anahuac	s	Main Pass (S.)
	Smith's Pt.	b	Anahuac or Chambersia		Old Main Pass
	Red Fish Bar	s	Anahuac		Trinity River
s	Vantoon Islands (Id.)	s	McCarty		Old Course
	wreck		Turtle Bayou	s	Alligator Bk.
	trees	s	Wiggins	s	Lawrence Cove
s	Five Oaks	s	N.(orth) Pass T.R.		
	Double Bayou	s	van Pretlelle's (Van Predelles)		

Large features: Galveston Bay, Turtle Bay

Map T-298: Untitled, covers Red Fish Bar, surveyed 1850

t	Smith Pt.	Hannah's Id.	West Pass
	Possum Pass	Middle Pass	Edwards' Pt.

Large feature: Red Fish Bar

Map T-331: "Galveston Bay from D. Harris' to Lawrence Cove," surveyed Jan.-May 1851

	Lawrence Cove	s	Pottery		Hog Island
	wreck		Cedar Bayou	s	Shipyard
s	B's (Barrow's) Beach	t	Allen	s	Spillman's (-ns)
sb	Barrow's Ho.		[sailing ship symbol]		Spillman's Id
ob	Fisher		Dr. Ashbel Smith	sb	Morgan's Pt. (Morgans)
	Umbrella Pt.		Evergreen Pt.		Morgan's Pt.
	Chaparrel		Thumb Pt.	s	Clopper's (-rs)
s	Cedar Pt.		Goose Creek	sb	Dr. Beazely's (-ely)
sb	Houston	s	Dalton ('s)	sb	D. Harris' (-is)
s	Mezquit Knoll	sb	Dalton's (Ho.)		

Large features: Galveston Bay, San Jacinto Bay

Map T-283: "Galveston Bay from Highland Bayou to D. Harris'," surveyed Feb.-May 1850

b	Red Bluff	April Fool Point	Dollar Pt.
	Pine Gully	Lake Creek	Shoal Pt.
	Clear Lake	Dickerson Bayou	Swan Lake
	Clear Creek	Moses' Lake	Virginia Pt.
	Rock Spring	Wolf C'k	Proposed road to the Brasos
	Red Fish Bar	Shell Ids.	
	Edwards' Pt.	Miller's Pt.	Highland Bayou

Large feature: Galveston Bay

Map T-282: "Galveston Harbor and City," surveyed Feb.-May 1850

	Pelican Spit	b Camp [in Galveston]	Hitchcock's Bayou GI
	Pelican Isd.	b Galveston GI	McKinney's Bayou GI
	Fort Pt. GI	Wrecks [at Galveston wharves]	b West Bay GI-B
	Wreck GI-G	Wreck [near Galveston wharves]	Virginia Pt.

Large features: Bolivar Point, Galveston Bay, Galveston Island, Gulf of Mexico

Map T-328: "Galveston West Bay and Part of Galveston Island," surveyed Jan.-May 1851

ob	W.(est) Bay GI-B	Pass [in West Bay]	sb Settles Ho. GI
s	Eagle Grove GI-B	Deer Islands [in West Bay]	o Black Pt.
	Offatt's Bayou GI	sb Slaughter Ho. GI-G	o Caronkaway Id. [West Bay]
	Sail Ferry [in West Bay]	Large Bush GI-B	Callairn's Bayou
b	Wharf [in West Bay]	s Spillman's	sb Delesdernier's Ho. GI-G
	Burroughs' B. GI	t Id. E.(ast) Base GI	o Caronkaway Pt.
	Highland Bayou	sb Green's Ho.	t Id. W.(est) Base GI
s	Middle Deer Id. [West Bay]	Green's Bayou	

Large features: Gulf of Mexico, Galveston Island, West Bay

Map T-374: "Galveston West Bay, Galveston Island & Chocolate Bay," surveyed Feb.-Apr.1852

o	(I. West Base)* GI	Mustang Bayou	o Ayres
	Mosqeto Pond	o (Dr. Jones')* GI-G	o West End GI
	Beach GI-G	Stake [off Nymph Pt.]	s Mezquit
o	Alligator Head	Nymph Pt.	San Luis Pass
	Hall's Lake	Chocolate Bay	o Mud Id.
	Hall's Bayou	Chocolate Bayou	o San Luis
	Alligator Pt.	t Chocolate	
o	Mustang	Flat Pt.	

* : name given in table only

Large features: West Bay, Gulf of Mexico

DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Washington, D. C.

Topographic Index No. 30A.

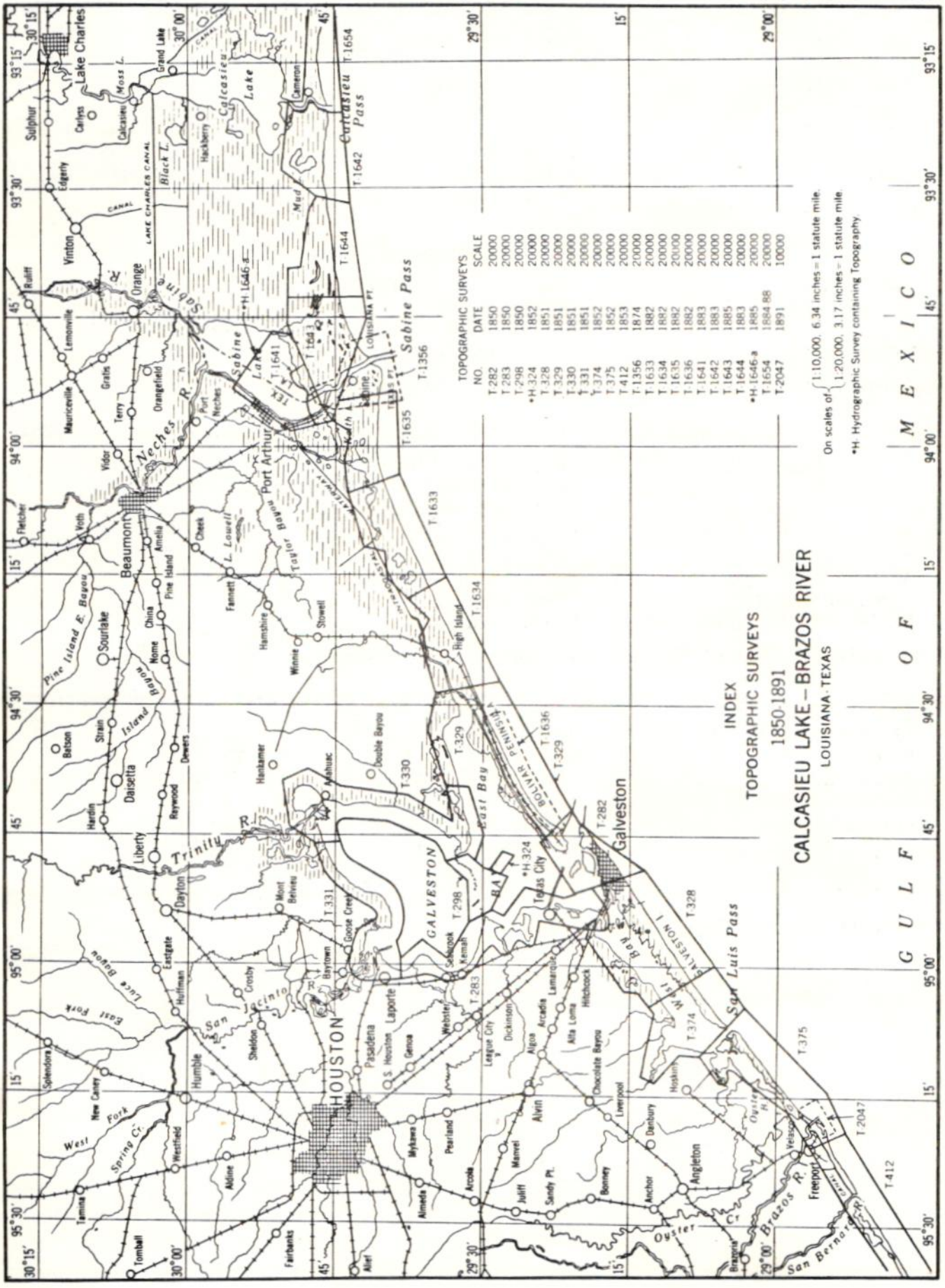


Fig. 1. Index to Topographic Surveys, 1850-1891, Upper Texas Coast

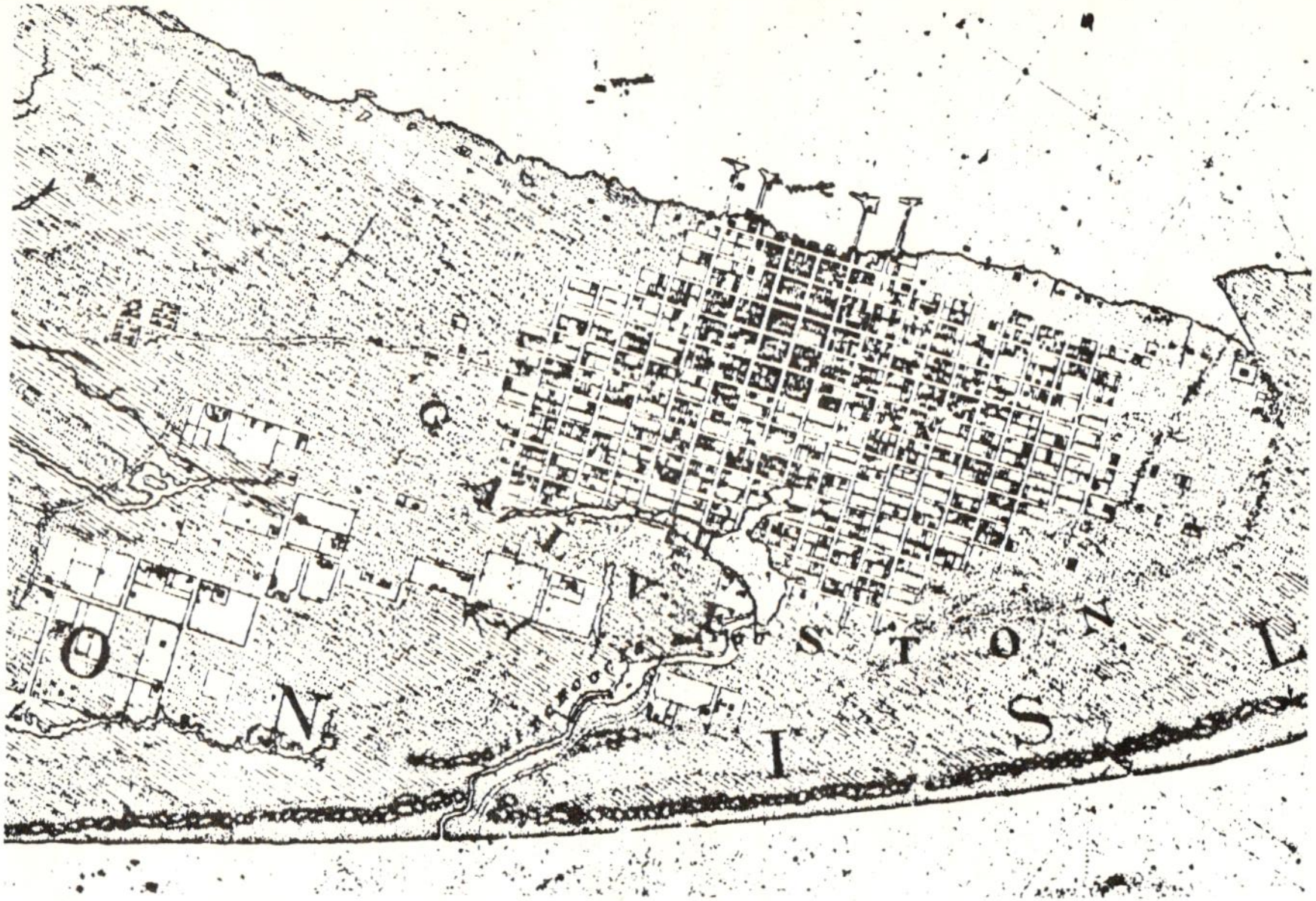


Fig. 2. Portion of Map T-282, dated 1850, showing Galveston, Texas

41HR74 - A Harris County Shell Site on Lower San Jacinto Bay
(Preliminary Report)

Alan R. Duke and Frank G. Muller

Introduction

This large shell site was reported to the University of Texas by A. R. Duke in January 1967 after it was called to his attention by F. G. Muller. Aside from a surface survey there has been very little work done to define the limits and depth of the occupation area. It is evident by visual inspection however that the site extends the full length of the F. G. Muller property (1150 feet) along San Jacinto Bay. There is evidence also that the occupation area may have been extended inland to the top of the bank (and beyond) which is now about 25 feet above the bay. The stump of a tree struck by lightning on top of the bank was removed years ago and shell and potsherds were found around the roots. Further testing should confirm the presence of shell and pottery along top of the bank.

Subsidence has resulted in loss of 5-6 feet of elevation since 1935 and today the water line is 80-100 feet further inland than it was in 1892. A terrace with an elevation of 8-10 feet lies just below the 25 foot bank. Portions of this terrace were leveled by a bulldozer in the 60's in order to fill in several gullies but the top of the bank has not been disturbed except where several houses and barns were constructed over the years.

Artifacts found on the beach include Goose Creek Plain and Incised potsherds, Perdiz and Gary points, flint flakes, flint pebbles, small pieces of asphalt and animal bone fragments. A fire pit containing bison vertebra and other animal bone fragments was removed recently since loss was imminent due to wave action. Location of the pit has been recorded and the feature photographed.

41HR74 is one of a large number of shell sites on San Jacinto Bay and Peggy Lake. Other sites nearby include 41HR71, 41HR72 and 41HR73. These sites were surveyed and reported by A. R. Duke over the past 15 years. Pottery, bone and lithic material found on the surface appear to be similar on all four sites. All sites including 41HR74, are being eroded by the wind and tides and large portions of the sites are slumping into the bay.

History

Aside from the prehistoric features of 41HR74, the site may have important historic aspects also. The Muller property is part of the original Enoch Brinson land grant which was given to Enoch Brinson in August 1824 by the Mexican government.

Enoch Brinson was one of Stephen F. Austin's "300" and it is believed that his first home was located near the Muller property just across what is now Highway 146. It is believed also that this house was occupied by Texas General Sidney Sherman (Sam Houston's second-in-command and for whom the town of Sherman, Texas was named) when Brinson moved to another home on Brinson's Bay or Upper San Jacinto Bay as it is called today. This original Brinson-Sherman house was destroyed sometime before 1936.

The original Enoch Brinson tract changed hands several times and was

subdivided over the years. In 1882, F. A. Staashen acquired the property now owned by the Muller family. The Staashen family lived on Spillman Island prior to moving across the bay to their newly purchased property. Norman Staashen, grandson of F. A. Staashen now resides in Morgan's Point and recalls such things as finding artifacts along the shoreline, the "carriage" road that ran along the high ground above the bay to LaPorte and Lomax, and artesian wells on the property that provided water for crops and other uses. He recalls an old cemetery nearby that his father pointed out to him while they were hunting. The possibility exists that this may be the old Brinson family cemetery. Plans are being made to try to locate this cemetery so it can be protected and preserved.

The area along this western shore of San Jacinto Bay is rich in early Texas history. Brinson, Strang, Burnett, Spillman, Sherman and McCormick were prominent names in the settlements along the bay banks. Some settled there on land grants and a number of them were veterans of the battle of San Jacinto and other battles in the fight for Texas independence. They chose to become permanent residents in this part of Texas and built homes and shops in the area. According to early accounts, Sam Houston hunted and fished in this area and on Spillman's Island and enjoyed the companionship of many of these early settlers who were his friends.

Unfortunately the information on the exact location of these dwellings is very sketchy and only careful research and field work will enable us to establish the actual sites.

Discussion

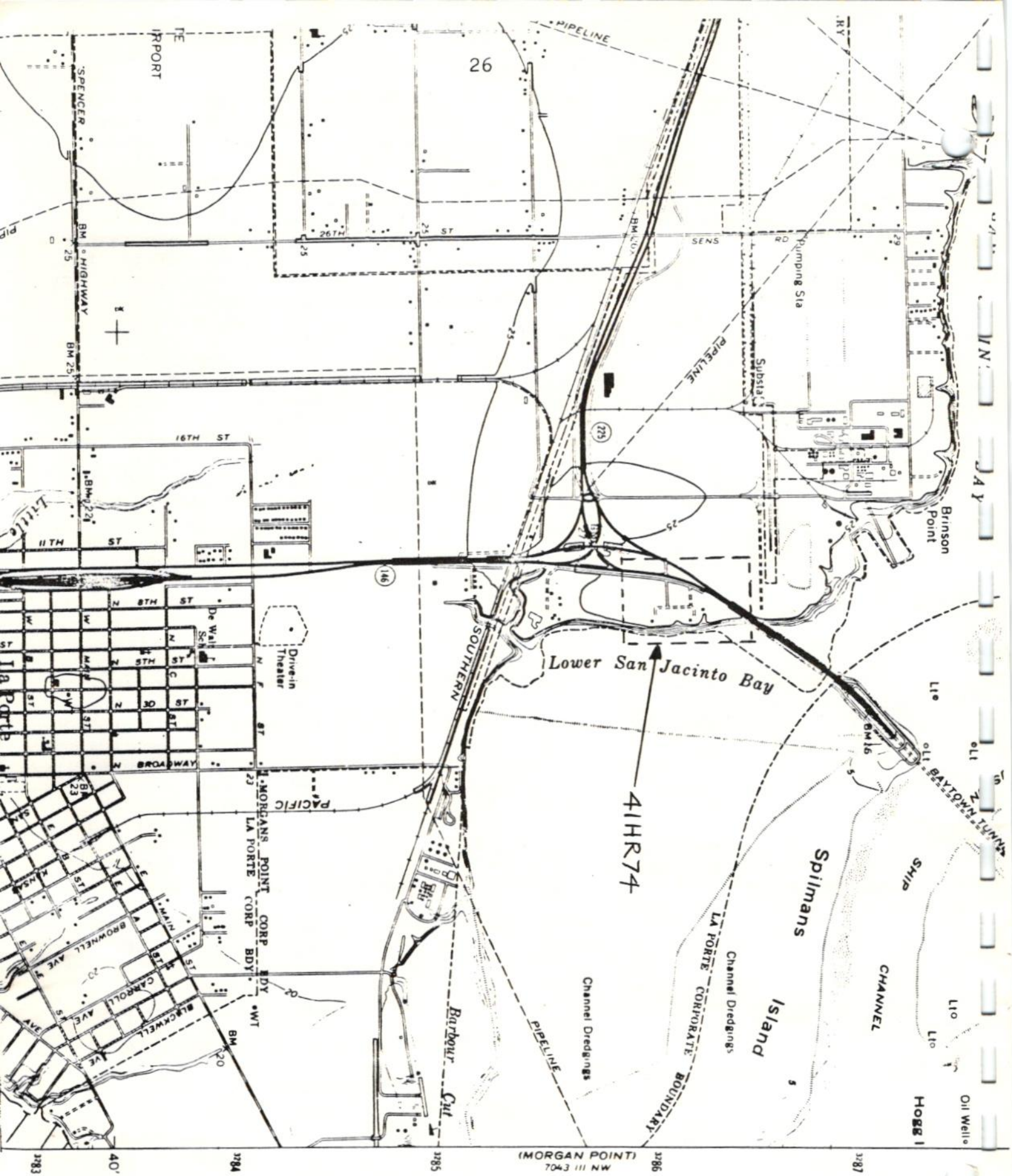
The Muller family has sold their property to developers who plan to build condominiums and office buildings on the 18.9 acres. Tentative plans call for converting the main house into a restaurant and to provide hiking trails along the shoreline. Obviously, the site will be disturbed by construction and valuable information, both on prehistoric and historic features, may be lost. Definition of site boundaries should be established, site testing should be carried out and an intensive survey and examination of the area for historic material is essential. It is not known when construction will start so time may be critical and immediate action is required. The Muller family is anxious to assist in any way possible in obtaining maximum information from the site.

The tracts of land extending south along the bay from the Muller property probably will be sold by current owners for commercial use eventually. They also must be surveyed and checked for sites. They are part of the original Enoch Brinson tract and could contain historic features needed in piecing together the early background of the area.

Future tentative plans call for the replacement of the Baytown tunnel with a high bridge on Highway 146 across the ship channel. The bridge probably would be constructed south of the tunnel and could involve some of the properties discussed here. Further damage to archeological features could result from this project.

Conclusion

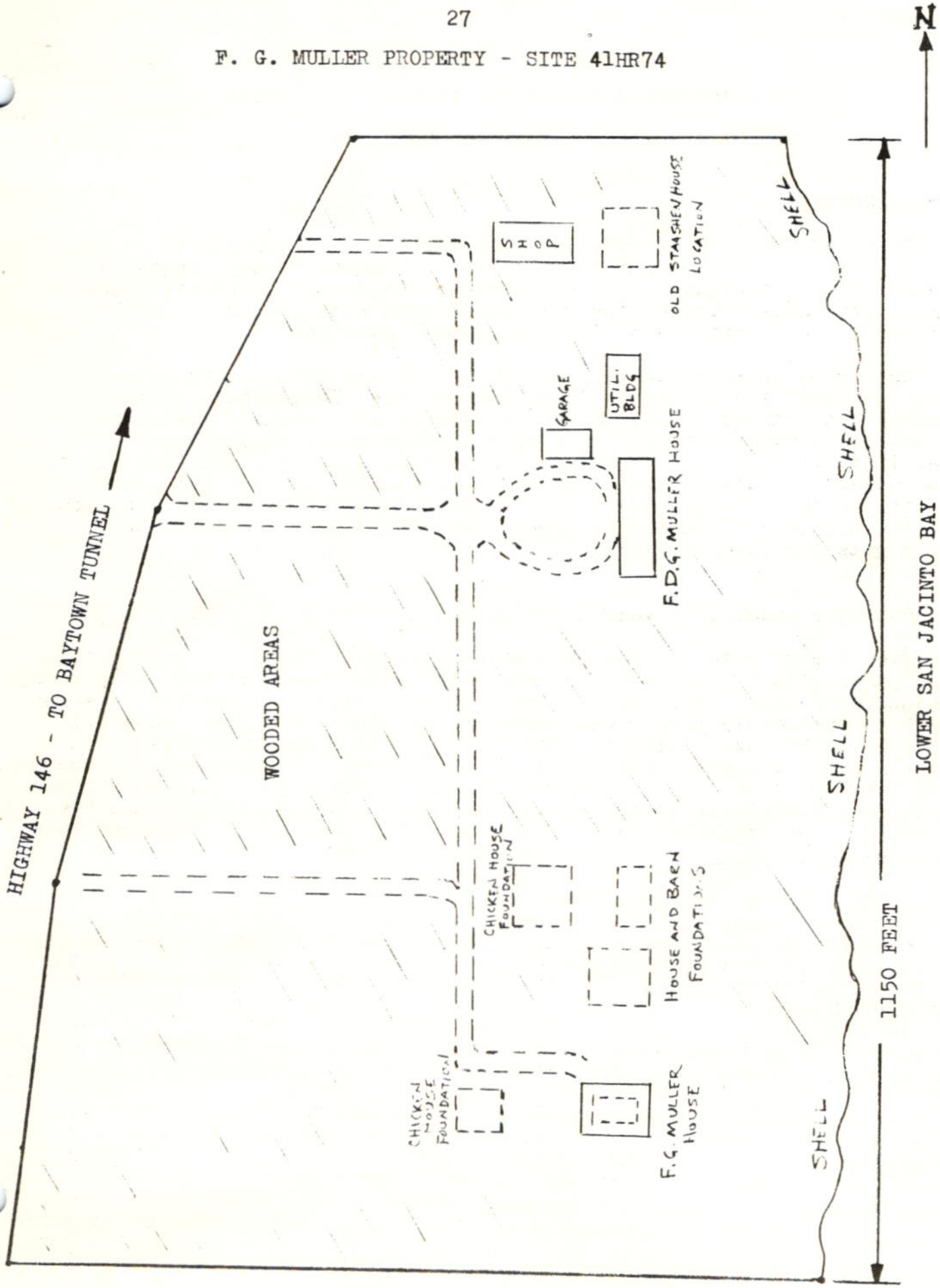
It is essential that an organized effort be initiated promptly to define and implement the work needed to obtain the maximum information from this site and adjoining properties.



LOCATION OF MULLER PROPERTY AND SITE NUMBER 41HR74

ARROW SHOWS LOCATION

F. G. MULLER PROPERTY - SITE 41HR74



MULTI-COMPONENT SITE 41WH10, WHARTON CO., TEXAS

L. W. Patterson and Joe Hudgins

INTRODUCTION

This article is a description of a surface collection made by Joe Hudgins from archeological site 41WH10 in Wharton County, Texas. A long occupation sequence is indicated by diagnostic artifacts found here. Artifacts found on the surface of this site are due to soil erosion, and no excavation tests have been made yet.

This site is approximately 150 feet wide and 400 feet long, on a sloping creek bank going up to a high terrace. The surface soil is a coarse sand. There is gravel at a deeper level, which is known from a small abandoned gravel pit on part of this site. This gravel is of fairly small size, and probably did not constitute a significant lithic raw material source. Lithic artifacts are scattered over the surface of this site, with no particular concentrations of materials. In view of the significant artifacts found here, this would appear to be a good site for further study.

CHRONOLOGY: PROJECTILE POINTS AND CERAMICS

Even though data is from an undated surface collection, some preliminary comments can be made on the possible time range of the occupation sequence of this site. The oldest projectile point (Figure 1A) appears to be a lanceolate shaped Late Paleoindian type with slight basal flare. This point has deep thinning flake scars at the base on one side, and ground basal edges, as indicated by dots in the illustration. It resembles a Golondrina type, such as shown by Hester (1980:Fig. 5.8). Johnson and Holliday (1980:Table 3) show a date range of 7,000 to 9,000 years B.P. for this point type in Texas. This point also has some resemblance to a San Patrice, goodwin variety, illustrated by Webb, et al (1971:Fig. 3i).

A San Patrice, st, johns variety, point (Figure 1B) was found with ground basal edges and other attributes shown by Webb, et al (1971:Fig 4). This point may represent the Early Archaic period of roughly 5,000 to 7,000 B.P. (Patterson 1979:106). A Bulverde-like point (Figure 1D) and a Marcos point (Figure 1C) possibly represent the Late Archaic period of approximately 3,500 to 1,900 B.P. The Marcos point type is more common to central Texas (Suhm and Jelks 1962:209). Kent, Ensor, and Darl point types were found which are common to the Late Archaic and Woodland periods of the upper Texas coast (Patterson 1980).

Two small points were recovered that may be transitional arrow points. One resembles a Darl point (Figure 1K) and the other is similar to a small, thin Kent point (Figure 1L). These two points weigh 2.6 and 2.4 grams, respectively, which places them in the category of possible transitional arrow points (Patterson 1976a:Fig. 4). These would have been used before the development of standardized small arrow point types,

which generally weigh under 2 grams. Transitional bifacial points are found in the Late Archaic and Woodland periods (Patterson 1980:Table 6). A small arrow point preform (Figure 2G) representing the Late Prehistoric period was also found here.

Ceramics start on the upper Texas coast at approximately AD 100 (Aten, et al 1976:Fig. 16). Eight Goose Creek sandy paste sherds and seven bone tempered sherds were found on this site. Bone tempered pottery was distinguished from shell tempered pottery by use of an acid test.

GENERAL LITHIC COLLECTION

The collection of general lithic artifacts is summarized in Table 1. There are several indications of lithic manufacturing activities at this site, including hammerstones, abrading stones, chert flakes, and several types of cores. Bifaces and bifacial dart point preforms are present in all stages of manufacture.

The stone tool collection indicates a variety of functional activities. Types include gravers, perforators, beaks and denticulates. There is a wide variety of perforators and scrapers, and a few choppers. The snub-nosed scrapers, end scrapers on blades, and scrapers with graver spurs found here are possible indications of the Paleoindian lithic tradition during the early period of this site (Irwin and Wormington 1970). Many of the lithic flakes show signs of use wear, with edge damage patterns typical of cutting and scraping functions. The variety of stone tools suggests a number of campsite activities here, such as butchering, hide preparation, and woodworking.

It is apparent from the flakes and cores on this site that the principal raw materials used are alluvial cherts which are available along the Colorado River. There are 5.8% primary flakes (covered with cortex), 42.5% secondary flakes (with some remaining cortex), and 51.7% interior flakes (no remaining cortex). The low percentage of primary flakes may indicate some trimming of raw materials before import to this site. A few fine pieces of flint appear to be from the Edwards Plateau region. There is evidence of heat treating of cherts in the form of reddish discolorations, potlid fractures, and waxy luster of some materials.

The collection of irregular shaped lithic flakes is summarized in Table 2, with dimensions representing side lengths of squares. This flake size distribution does not appear to be representative of the manufacture of bifaces on this site. Systematic bifacial reduction gives exponential shaped flake size distribution curves skewed toward higher percentages of smaller flakes (Patterson and Sollberger 1978:111). This flake size distribution pattern is due to the non-random collecting pattern of Hudgins, with few small flakes collected. Some of the larger flakes could be from manufacturing processes other than bifacial reduction, when making general flake tools.

Eight small, smooth chert pebbles collected are probably indicative of natural gravel occuring at this site. One egg shaped chert cobble found here was particularly distinctive because of surface smoothness and symmetry. It is 48 mm in diameter and 57 mm long, and may be an unused hammerstone or a pottery smoothing stone.

In addition to lithics and ceramics, a few faunal remains were recovered. These include 4 miscellaneous bone fragments and a possible buffalo tooth, although the tooth could be from a cow.

PRISMATIC BLADE INDUSTRIES

There appear to be two distinct industries on this site for the manufacture of prismatic blades. One is for large blades, and the other is for microblades (generally under 11 mm wide). Only one microblade of 10 mm width was collected, but this represents the non-random collecting pattern. A polyhedral microblade core (Figure 4E,F) and a microblade core fragment were found.

The width distribution of larger prismatic blades is shown in Table 3. The wide range of blade widths possibly indicates that these blades were made by direct precussion (Sollberger and Patterson 1976:527). The number of blades over 20 mm wide could indicate influences of the Paleoindian blade tradition. The manufacture of microblades and other small blades is generally connected with collections after the Middle Archaic (Patterson 1976b).

SUMMARY

Site 41WH10 appears to be a campsite at a typical type of location on a stream bank. It has a long occupation sequence, spanning the Late Paleoindian to Late Prehistoric time periods. Together with other published sites (Patterson and Hudgins 1980), this site demonstrates a long period of prehistoric occupation in Wharton County, from sometime before 7,000 B.P. continuing into historic time. Lithic artifacts from site 41WH10 show a wide range of functional activities, with a large amount of lithic manufacturing included. Further surveys and site studies should yield a clearer picture of prehistoric settlement patterns and lifeways for this portion of the Texas coastal plain.

REFERENCES

Aten, L.E, et al
1976 Excavations at the Harris County Boys' School Cemetery. Texas Archeological Society, Special Publication No. 3

Hester, T.R.
1980 Digging into South Texas Prehistory. Corona Publishing Co.

Irwin, H.T. and H.M. Wormington
1970 Paleo-Indian Tool Types in the Great Plains. American Antiquity 35(1):24-34

Johnson, E. and V.T. Holliday
1980 A Plainview Kill/Butchering Locale on the Llano Estacado- The Lubbock Lake Site. Plains Anthropologist 25(88):89-111

Patterson, L.W.
1976a Technological Changes in Harris County, Texas. Bulletin of the Texas Archeological Society 47:171-188

1976b Blade Technology in the Texas Archaic. in T.R. Hester (ed.), The Texas Archaic: A Symposium, Center for Archaeological Research, University of Texas at San Antonio, Special Report No. 2

1979 A Review of the Prehistory of the Upper Texas Coast. Bulletin of the Texas Archeological Society 50:103-123

1980 The Owen Site, 41HR315: A Long Occupation Sequence in Harris Co., Texas. Houston Archeological Society, Report No. 3

Patterson, L.W. and J. Hudgins
1980 Preceramic Sites 41WH2 and 41WH7, Wharton Co., Texas. Houston Archeological Society Newsletter 66:34-39

Patterson, L.W. and J.B. Sollberger
1978 Replication and Classification of Small Size Lithic Debitage. Plains Anthropologist 23(80):103-112

Sollberger, J.B. and L.W. Patterson
1976 Prismatic Blade Replication. American Antiquity 41(4):517-531

Suhm, D.A. and E.B. Jelks
1962 Handbook of Texas Archeology: Type Descriptions. Texas Archeological Society, Special Publication No. 1

Webb, C.H., et al
1971 The John Pearce Site (16CD56): A San Patrice Site in Caddo Parish, Louisiana. Bulletin of the Texas Archeological Society 42:1-49

Table 1

SUMMARY OF GENERAL LITHIC ARTIFACTS

Scrapers		
a. snub-nosed	5	(Figure 3B)
b. with graver spurs	5	(Figure 3E)
c. end scrapers on blades	4	(Figure 3C)
d. side scrapers on blades	3	(Figure 4C)
e. side scrapers	27	(Figure 3D)
f. miscellaneous	21	
Gravers	7	(Figure 3H)
Beaked Tools	13	(Figure 3I)
Denticulates	6	(Figure 3G)
Perforators	10	(Figure 3F)
Dart Point Preforms	8	(Figure 2)
Preform Thinning Failures	9	
Arrow Point Preform	1	(Figure 2G)
Dart Point Fragments	1	
Pebble Tool Choppers	2	(Figure 4D)
Discoidal Biface	1	(Figure 3A)
Biface Fragments	11	
Misc. Bifacial Cores	17	
Misc. Other Cores	59	
Quartzite Hammerstone Fragments	8	
Silicified Limestone Hammerstone	1	
Abrading Stones	2	

Table 2

FLAKE SIZE DISTRIBUTION

flake size, mm square	No.	%
under 10	1	0.3
10 to 15	4	1.0
15 to 20	8	2.0
20 to 25	41	10.3
25 to 30	74	18.4
30 to 35	135	33.7
35 to 40	61	15.2
40 to 50	64	16.0
50 to 60	9	2.3
60 to 70	2	0.5
over 70	1	0.3
	400	100.0

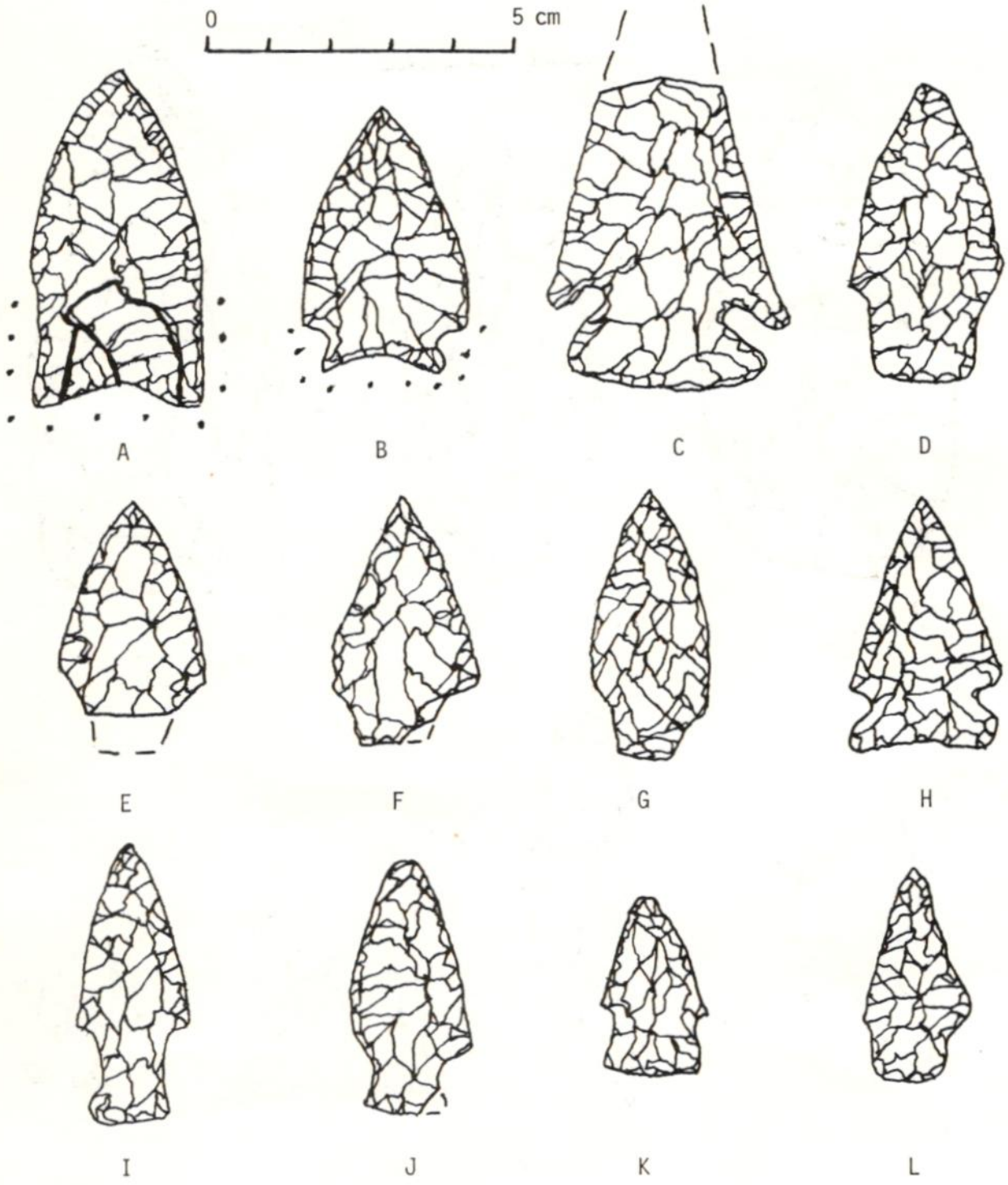
Table 3

BLADE WIDTH DISTRIBUTION

blade width, mm	No.	%
13	2	3.6
14	3	5.5
15	2	3.6
16	4	7.3
17	3	5.5
18	4	7.3
19	5	9.1
20	5	9.1
21	7	12.7
22	5	9.1
23	6	10.8
24	4	7.3
25	1	1.8
28	4	7.3
	55	100.0

FIGURE I

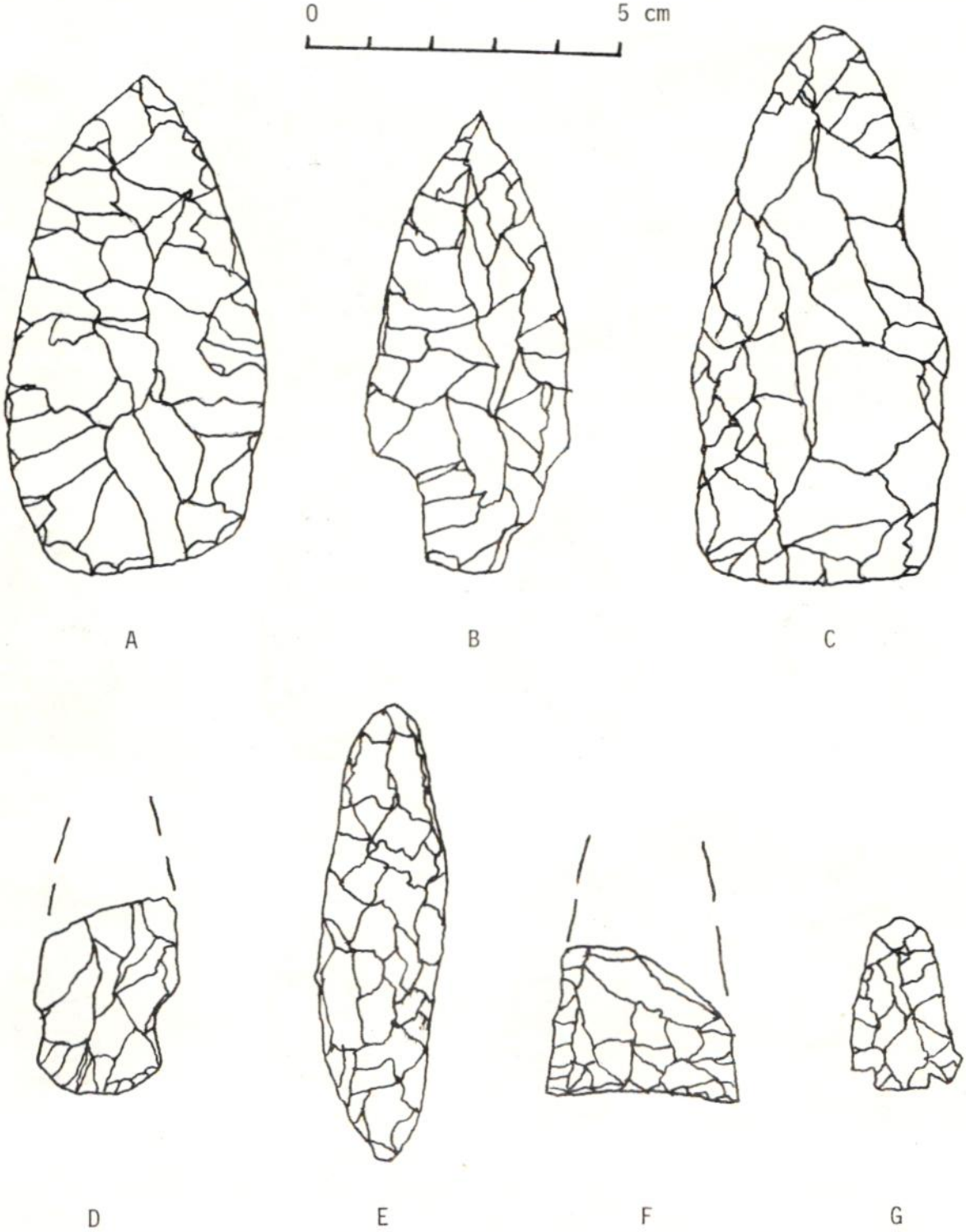
SITE 41WH10 PROJECTILE POINTS



A-Golondrina (?); B-San Patrice, st. johns; C-Marcos; D-Bulverde-like; E,F,G-Kent; H-Ensor; I,J-Darl; K-transitional Darl; L-transitional Kent

FIGURE 2

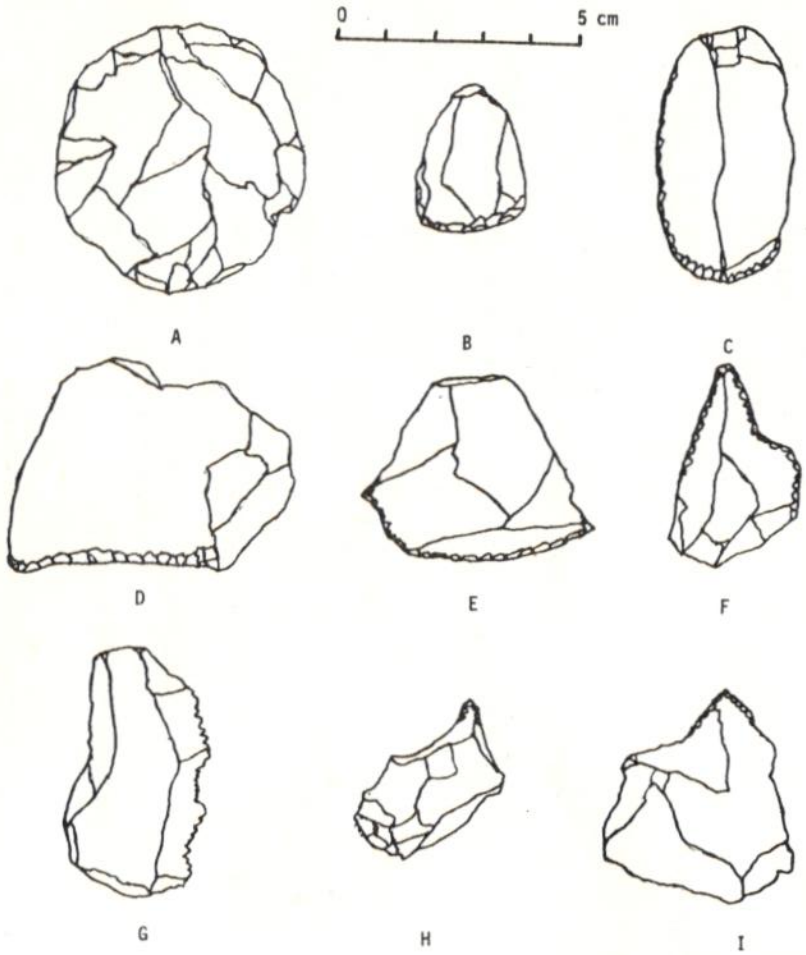
SITE 41WH10 PROJECTILE POINT PREFORMS



A to F-dart point preforms; G-arrow point preform

FIGURE 3

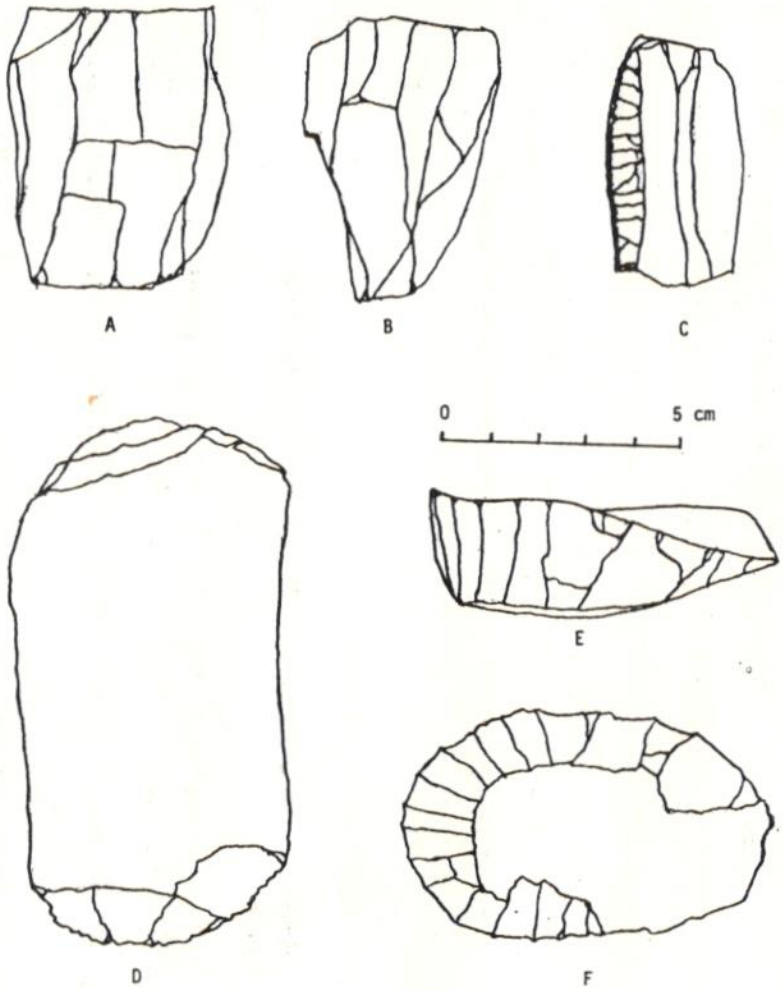
SITE 41WH10 LITHIC ARTIFACTS



A-discoidal biface; B-snub-nosed scraper; C-end scraper on blade; D-side scraper; E-scraper with graver spurs; F-perforator; G-denticulate; H-graver; I-beaked tool

FIGURE 4

SITE 41WH10 LITHIC ARTIFACTS



A-blade core front; B-blade core side; C-side scraper on blade; D-pebble chopper; E-microblade core side; F-microblade core bottom

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