AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED RIVERFRONT PARK
IN THE CITY OF BEAUMONT (JEFFERSON COUNTY), TEXAS

Antiquities Permit 864

By

William E. Moore

Brazos Valley Research Associates

Contract Report Number 5

1989
AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED RIVERFRONT PARK

PHASE II IN THE CITY OF BEAUMONT

JEFFERSON COUNTY, TEXAS

Principal Investigator

William E. Moore

Prepared for the City of Beaumont, Texas

By

Brazos Valley Research Associates
813 Beck Street
Bryan, Texas 77803
ABSTRACT

An archaeological survey was conducted at a 1.5-acre tract in the city limits of Beaumont, Texas on the site of the proposed Riverfront Park, Phase II, by Brazos Valley Research Associates. Fieldwork was carried out on December 14, 1989. A pedestrian survey, accompanied by shovel testing, auger probing, and visual examination of exposed areas along the river, failed to produce evidence of a prehistoric or historic site.

A review of historic maps and aerial photographs revealed the project area had been heavily utilized by waterfront industry since 1900. Personal communication with city officials familiar with the area indicated that much of the project area was once a slope built up by fill to accommodate the needs of industry.

The disturbed nature of the site was verified during the field survey. It is highly unlikely that undisturbed cultural materials exist anywhere within the project area.
ACKNOWLEDGMENTS

I am appreciative of the help I received during this project. David S. Pettus, Geologist, assisted during the field survey and subsequent archival research. His knowledge of geology was a valuable asset to the completion of this project. Kevin McReynolds is thanked for his search for Jefferson County sources in the Sterling C. Evans Library, Texas A&M University.

Kirt Anderson, Planning Director for the City of Beaumont, provided my link with the city and was very cooperative. He made it possible for me to obtain copies of aerial photography of the project area that was extremely useful.

Conversations with persons knowledgeable of the area were productive, and they are acknowledged for taking time to talk with me. My thanks to Wilbur Balmer, retired City Works Manager, for describing past conditions of the project area and how it has been altered by construction; Charles N. Bollich for his information concerning local Indian sites and reviewing the draft report; and John H. Walker for telling me about the Hickory Street Ferry and the river in general.

The hours we worked at the Tyrrell Library were time well spent. My thanks to the Director and his staff for their help and for making my work they’re pleasant and productive.

Mark Denton of the Texas Antiquities Committee (TAC) helped with the research design for this project and the paperwork necessary for acquiring a permit. The cooperation of Carolyn Spock and Rosario Casarez of the Texas Archeological Research Laboratory (TARL) is also appreciated. Finally, thanks to my wife, Ann Moore, for reading the manuscript at the last minute for mistakes I overlooked.
INTRODUCTION

The City of Beaumont plans to construct a city park on a tract of land approximately 1.5 acres in size. Its location in Jefferson County on the Beaumont East USGS quadrangle map is depicted in Figure 1. The UTM coordinates for the approximate center of the project area are Northing 3328470 and Easting 394400. The site is situated on the west bank of the Neches River overlooking the floodplain to the west at an elevation of approximately 20 feet.

Due to the location of the park site in an upland setting overlooking a major drainage, the Neches River, and its close proximity to the confluence of Brakes Bayou at its north end, it was considered a likely place for an archaeological site. Site records at TARL revealed the presence of prehistoric sites along the river at lower elevations, sometimes less than five feet; and, according to Charles N. Bollich, at least three unrecorded sites are known in the uplands not far from the project area. The park will be constructed on a tract of land in an area that represents the closest high ground to the river for several miles, and this project may be the only opportunity to conduct a cultural resources survey in this setting.

Also, as of December 1989, according to TARL site records, Jefferson County had only 65 recorded prehistoric and historic sites, a low figure when compared to other regions of Texas. According to a statistical overview of the state, reflecting data collected through 1983-1984 (Biesaart et al. 1985:23), the region encompassing Jefferson County contained only .67 of the total number of sites known for Texas. At the time of this project, only 55 prehistoric sites and 10 historic sites are known for the county (two prehistoric sites have minor historic components). Because of these reasons and the fact that part of the funding will be provided by the Texas Parks and Wildlife Department (TPWD), a cultural resources survey of the proposed park area was considered prudent.

In order to fulfill this obligation, the City of Beaumont contracted with Brazos Valley Research Associates (BVRA) of Bryan, Texas to conduct the fieldwork and prepare a report documenting the results of the survey to be submitted to TPWD and TAC. This work was conducted under Texas Antiquities Permit 864 with William E. Moore serving as Principal Investigator.
Figure 1. Location of the Project Area on USGS Beaumont East Quadrangle
A variety of improvements, some of which will affect the subsurface, are planned for the park. These improvements (with maximum depth of disturbance for each given in parentheses) include: sidewalk (6''); berms (4''); creative playground with concrete border, two interior drains (12''), six-inch PVC pipe drain enclosed in a single ditch (24''); tables on slab (4''), light poles on concrete slab (24''); pilings along river for dock and pier (4'-5' on shore); pilings for observation tower (5'-6''); and large trees (3'').
RESEARCH DESIGN

The research design for the proposed Riverfront Park, Phase II, conforms to guidelines outlined by the Texas Antiquities Committee (TITLE 13, Part IV, Chapter 41.3).

As mentioned above, the project area is situated in the uplands on the bank of the Neches River near the confluence of Brakes Bayou, a setting conducive to utilization and/or habitation in prehistoric or historic times. Prehistoric sites are common along the Neches River at lower elevations, often five feet or less. These sites are typically shell middens, probably occupied seasonally for the exploitation of *Rangia cuneata* as a food source.

At least three sites are known to exist in the uplands near the project area. They are unrecorded and have not been assessed by an archaeologist. It is feasible that these sites represent more permanent occupation of the area, possibly base camps for those groups who exploited the nearby shell middens. Two of the sites have produced pottery similar to *Tchefuncte* and *Marksville*, early ceramic types for the region. The potential exists to gain important data for prehistoric utilization of an area that has received little attention by professionals in an upland setting where few sites have been recorded.

In order to determine if any prehistoric or historic sites have been recorded in the project area, as well as the kinds of sites known in the area and where they are likely to occur, site records and files at TARL, TAC, and the Texas Historical Commission (THC) were checked. Maps and other historical documents were reviewed at the offices of the City of Beaumont; the Jefferson County Courthouse; the Beaumont Public Library and its branch, the Tyrrell Historical Library; and the Sterling C. Evans Library, Texas A&M University. A list of maps examined during this project appears as Appendix I.

In the field, a 100% pedestrian survey, shovel testing, and auger probing were utilized to examine surface and subsurface deposits. A geomorphologist was present and recorded his observations concerning the geology and geomorphology of the project area. The fieldwork was documented by notes and color slides which will be permanently curated at TARL. A report following guidelines recommended by TAC will be prepared and submitted to TPWD, TAC, and the City of Beaumont. Copies of the report plus all records and notes documenting this project will be permanently curated at TAC and TARL.
FIELD METHODS

The project was divided into three phases - background and archival research, field reconnaissance, and report writing. Prior to commencement of the field survey, the files at TARL, TAC, and THC were checked for previously recorded sites in the project area and vicinity.

The field crew consisted of William E. Moore (Principal Investigator) and David S. Pettus (Geological Consultant). A 100% pedestrian survey of the 1.5 acre tract, accompanied by shovel testing and limited auger probing, was conducted. Due to the small size of the proposed park site, normal transects were not followed. Instead, it was possible to wander over the entire area in an informal manner. During the survey we relied on a USGS map (Beaumont East) and aerial photography provided by the City of Beaumont for locational data.

Six shovel tests were excavated and four auger probes were conducted. Due to the disturbed condition of the area, auger probing was considered not productive. The presence of clay in some tests made screening impossible. In these areas clay was separated by hand. Only those tests containing recent fill were screened through 1/4” hardware cloth. The approximate location of all shovel tests and auger probings are plotted on aerial photographs and project area maps. The disturbed condition of the area precluded the need for Munsell readings.

Because of the absence of archaeological sites or features, only general pictures of the project area were taken. The use of photography was intended to document the area surveyed and the disturbed nature of the project area with emphasis on recent intrusions such as pilings, concrete rubble, and fill. Project notes containing more detailed accounts of the field survey, including shovel test data and photography forms, are on file at TAC and TARL.
PREVIOUS INVESTIGATIONS

As of December 19, 1989, sixty-five archaeological sites in Jefferson County have been recorded at TARL. Of this number, 55 are prehistoric and 10 are historic. Two prehistoric sites (41JF15 and 41JF41) have minor historic components. A listing of known sites in the county appears as Appendix II.

The first systematic efforts at locating and recording cultural resources in Jefferson County occurred in 1940-1941 when G. E. Arnold of the University of Texas surveyed portions of Jefferson and Orange counties. This work was conducted under the auspices of the Work Projects Administration (WPA) and the University of Texas at Austin. Arnold succeeded in recording 23 sites (41JF1-41JF23) during this time. Except for a minor historic component at 41JF15, all are prehistoric sites such as camps or shell middens. At five sites (41JF10, 41JF18, 41JF20, 41JF27, and 41JF62) burials have been reported. No formal report was written by Arnold and the only documentation of his work exists in TARL records and a thesis by Im (1975).

No additional sites were added to the record until the 1960s when ten prehistoric sites were recorded, primarily through the efforts of a local avocational, Charles N. Bollich, who personally recorded eight sites (41JF27-41JF34).

The Gaulding site (41JF27), selected by the Texas Archeological Society for the third annual field school, was excavated by its members in 1965. This represents the first site in Jefferson County to be formally excavated. Gaulding is a Late Prehistoric site with a deep (1.2 m) shell midden containing a flexed burial, pottery, arrow points, dart points, and faunal remains of turtle and alligator (Richmond, Richmond, and Greer 1985:Table 2, 133-134). The results of this project have yet to be published. The only accounts of Gaulding is a paper presented to the Society by Bollich (1965), a short article by E. Mott Davis (1965), a review of TAS field schools (Richmond, Richmond, and Greer 1985), and TARL site records.

In addition to Gaulding, at least two prehistoric sites have been tested. Sites 41JF26 and 41JF31, pimple mound earth middens, were tested by Aten and Bollich (1981). Data from these sites have not been formally published (Aten 1983:202).

Only one historic site has been excavated in Jefferson County. Site 41JF46, the 19th Century home and trading post of John J. French was investigated by THC in 1975. No formal report has been written documenting this work, but notes are on file at the Beaumont Heritage Society.
Of the remaining 32 sites, 17 (41JF25, 41JF35-41JF50) were recorded in the 1970s while 15 (41JF51-41JF65) were recorded in the 1980s. Numerous small surveys conducted by private contractors and federal and state agencies such as the United States Corps of Engineers (COE), the Texas Archeological Salvage Project (TASP), Texas Archeological Survey (TAS), Texas Parks and Wildlife Department (TPWD), and the Texas State Department of Highways and Public Transportation (TSDHPT), have been conducted in the county. Most of these endeavors have resulted in negative findings. A comprehensive listing of work done in the county is contained in a recent bibliography published by THC (Moore 1989).

Larger surveys conducted in the county which resulted in new site recordings include an assessment of sites in the Taylors Bayou River Drainage by TASP (Aten 1972) in which one site (41JF35) was located; a cultural resources survey of the Big Hill Storage Complex Pipeline by Coastal Environments (Pearson et al. 1982) which located one site (41JF60); a survey of the Jefferson County Beach Park site by TPWD (Lorrain 1973) which resulted in six new sites (41JF37-41JF42); a study of prehistoric and historic resources along the Lower Sabine and Neches rivers by TAS (McGuff and Roberson 1974) which produced two new sites (41JF43-41JF44); and a survey of the proposed Neches River saltwater barrier and discharge canal near Beaumont by the Research Institute, Northeast Louisiana University, (Heartfield and Madden 1981) which documented five historic shipwrecks (41JF55-41JF59).

Several syntheses and overviews of Southeast Texas and the Upper Texas Coast have been written by a number of researchers. Notable among these are three works by Aten which include his unpublished Ph.D. dissertation (Aten 1979a), a report for TASP (Aten 1979b), and a scholarly book (Aten 1983). In addition, he authored an article about determining seasonality of *Rangia cuneata* from Gulf Coast shell middens (Aten 1981) and co-authored two articles with Charles N. Bollich discussing a ceramic chronology for the Sabine Lake area of Texas and Louisiana (Aten and Bollich 1969) and archeological evidence for pimple mound genesis (Aten and Bollich 1981). Other works include efforts by Patterson (1979a, 1985, 1987) and Shafer (1974, 1975).

Several bibliographies relevant to the area have been published. These include a recent comprehensive work for the Southeastern Region of Texas published by THC (Moore 1989), a bibliography of historical sites in Texas (Moore and Moore 1986), and several updated versions of a bibliography of the Upper Texas Coast by Patterson (1975a, 1975b, 1976a, 1979b, 1982, 1986).
At least five histories of Jefferson County have been published. They are a pictorial history of Beaumont (Walker 1983), a history from Wilderness to Reconstruction (Block 1976), the history and progress of Jefferson County (East 1961), first settlers of Jefferson County (White 1984), and a volume by Adams (1971). Other works germane to the area include WPA guidebooks to Beaumont (Federal Writers' Project n.d.) and Texas (Federal Writers' Project 1986), a cultural geography of Texas (Meining 1988), a book of family profiles (1840-1900) compiled by the History Research Department, Jefferson Carnegie Library (1981) which includes Jefferson County, and a review of Texas Indians (Newcomb 1986).
CHRONOLOGY

Paleo-Indian Period

The common conception of this period is that time following the last ice age (Pleistocene) in North America when man wandered about the continent in pursuit of megafauna such as mammoth, mastodon, and earlier species of bison. Although not much is known about their diet, plants and other smaller animals probably were as important to Paleo-Indians as an occasional mammoth or other large animal. Paleo-Indians are also known for the manufacture of unique projectile point types such as Clovis and Folsom, sometimes found in direct association with the remains of animals now extinct. Descriptions of these artifacts are found in Suhm and Jelks (1962) and Turner and Hester (1985). Although dates for this period remain tentative, Paleo-Indians may have occupied the general area between 7000 and 12,000 years ago (Aten 1983; Patterson 1979c).

Evidence of this period in southeast Texas is often confined to surface finds of projectile points resembling types found at Paleo-Indian sites in other parts of the country. McFaddin Beach (41JF50), in Jefferson County, is unique for the area. Here, systematic surface collecting by Long (1977) has recovered at least ten Clovis points and other Paleo-Indian point types on a modern (Holocene) beach after washing up by wave action from a Pleistocene coastline now underwater (Meltzer 1987:45). This is the only site of this type recorded in Jefferson County and may represent a long-term occupation by Clovis groups in the area.

Archaic Period

The general consensus among archaeologists is that the Archaic period lasted from about 7000 B.P. until the introduction of pottery around 1900 B.P. Subsistence practices during this period are characterized by seasonal occupations of local environments which exploited the various flora and fauna at their time of greatest yield. According to Patterson (1979a:30), "Slightly more information is available on the next Early Archaic occupation period of approximately 7,000 to 4,000 B.C., although little information exists on the cultural transition to this later period." Dating is primarily accomplished by comparing projectile points with other regions, a problem of defining narrow time ranges as projectile points can be used for long time periods.

One researcher (Patterson 1979a) has divided the Archaic into three periods, Early (7000 B.C. to 4000 B.C.), Middle (4000 B.C. to 2000 B.C.), and Late (2000 B.C. to A.D. 100). Projectile points attributed to the Archaic include Plainview, San Patrice, Angostura, and Dalton for the Early Archaic; Carrollton, Trinity, and Williams for the Middle Archaic; and Gary, Kent, Elam, Ellis, Palmillas, Ensor, Refugio, and Yarbrough for the Late Archaic (Patterson 1979a:31).
Dalton points, usually regarded as transitional Paleo-Indian/Archaic have been reported from the McFaddin Beach site (41JF50) by Long (1977) along the coast. Four additional sites in the county (41JF15, 41JF47, 41JF49, and 41JF50) are listed as Archaic on TARL site forms.

Woodland Period

Also referred to as the "Ceramic Archaic," this period represents that length of time from the introduction of pottery to the predominant use of bifacial arrow points, and dates from approximately 1850 B.P. to 1350 B.P (Patterson 1979c:108). Most Late Archaic dart point types seem to continue into the Woodland period and some, Gary and Kent, tend to become smaller (Patterson 1979c:108). Ceramic sequences relevant to the project area have been proposed by Aten et al. (1976:Figure 16), Aten and Bollich (1969), and Ambler (1967). Pottery present during this period in various parts of Southeast Texas include Goose Creek Plain, Goose Creek Stamped, Tchefuncte, Conway Plain, and San Jacinto types.

Based on TARL records, at least 30 sites in Jefferson County are listed as containing ceramics with no mention of arrow points. It is not known at this time how many of these sites belong to the Woodland Period. According to a recent conversation with Charles N. Bollich, three unrecorded sites with ceramics exist in the uplands near the project area. Two of these sites have produced pottery types similar to Tchefuncte and Marksville. These sites may represent Woodland occupations.

Late Prehistoric

This period is characterized by the predominant occurrence of small, bifacial arrow points. Typical arrow point types found in this region include Perdiz, Scallorn, Fresno, Catahoula, and Cliffton. Other types occurring with less frequency are Alba, Bassett, and Bonham. Gary and Kent dart points have also been recorded in this period. Many inland sites exhibit less use of pottery in the Late Prehistoric than in the Woodland period (Patterson 1976b:Figure 3).

According to Patterson (1979c), many Late Prehistoric sites do not show much variety in material remains. Sherd temper in ceramics has been reported at some Late Prehistoric sites. Other researchers (Wheat 1953:Figure 73; Aten 1971:Figure 10) have assumed that the predominant occurrence of small projectile points during this period demonstrates the introduction of the bow and arrow in this region. Others (Patterson 1979:109) believe the bow and arrow may have started much earlier on the Upper Texas Coast. He (Patterson 1979c:109-110) argues that the large number of limited types of small, bifacial arrow points that predominate from the start of the Late Prehistoric indicate greater emphasis on use of the bow and arrow and use of more uniform technology.
According to site records at TARL, three sites in Jefferson County have produced arrow points. An additional thirty-two sites are recorded as having ceramics (In Appendix II all sites known to have ceramics and/or arrow points are listed as Late Prehistoric [some may be Woodland]). At least one of the unrecorded sites in the uplands near the project area (Charles N. Bollich, personal communication 1989) has ceramics that may belong to the Late Prehistoric period.

Proto-historic Groups

Archaeologically, the Galveston Bay and Rockport foci represent the two cultural traditions in existence at the time of initial European contact. The Galveston Bay Focus, which includes the region between the Brazos and Sabine rivers, is relevant to the project area. This focus represents the Atakapan cultural tradition and dates from about A.D. 500. According to Newcomb (1986), groups during this time were primarily hunters, gatherers, and fishermen.

No sites in Jefferson County have been identified as Proto-historic at this time.

Historic Indians

Various Indian groups occupied parts of Southeast Texas until their elimination and/or removal by the combination of Anglo-American settlement and introduced diseases. Members of the Atakapan linguistic family were the dominant peoples occupying the southeastern Texas coast at the time of historic contact (Swanton 1946). The Atakapa are said to have shared the area of the lower Neches River peacefully with the Akokisa during the eighteenth century (Aten 1983:38). Some accounts indicate that the Atakapa had two villages on either side of the Neches River near Beaumont. Aten (1983:38) states it may have been these villages from which the French recruited two Atakapa headmen (Tamages and Boca Floja) and their warriors, in 1759, to go to Orcoquisac to expel the Spanish (Bolton 1913:370). Other tribes and groups near the project area in historic times are given by Aten (1983:Figure 3.2) as Karankawa (circa 1815), ?Nacazil (1820), Tensas (circa 1803), Louisiana Atakapa (circa 1806), Akokisa (circa 1820), and Choctaw? (circa 1820).

No sites attributed to the Historic Indian period have been identified in Jefferson County.
European Settlement

Throughout much of the 18th Century, Spain and France contested the ownership of present day east Texas. Spain based her claim on the expeditions of Panfilo de Narváez and Hernando de Soto, while France relied on the voyage of LaSalle. When Mexico won independence from Spain in 1821 at the Treaty of Cordova, Texas became a state within the Mexican Republic. In 1829, the Mexican government authorized Don Lorenzo de Zavalla to introduce 500 families into a large area of east Texas. The project area is located within the Zavalla grant (Meining 1988:Map 4). Reputed by some to be the first settlers in the region was the Noah Tevis family who took possession of a tract of land on Tevis Bluff about 1825, the site of present-day Beaumont (Federal Writers’ Project n.d.:36). Part of the north end of the project area is located in the original Tevis Survey.

In 1835, Henry Millard purchased 50 acres from Tevis and the town was laid out. The new settlement prospered, and in 1838 it replaced Jefferson as the county seat of Jefferson County (Federal Writers' Project 1986:195).

During the 1840s, lumbering was one of the most important industries, and timber was being exported as early as 1842. Rice was also planted during the early days of Beaumont's history. Imports and exports were transported up and down the Neches River from Sabine Pass to Beaumont. Following the Civil War, farmers began to grow rice for market and irrigation was introduced into local cultivation.

In 1875, the United States Army Corps of Engineers began construction of port facilities and by 1897 Beaumont was considered a deepwater port. At the turn of the century oil was discovered at Spindletop and Beaumont was turned overnight into the leading oil producing center in the country.

A map of Beaumont circa 1890-1910 (Appendix I) depicts some of the early development involving the project area. Development in the area includes the Texas & New Orleans Railroad that crosses the project area just below the confluence of Brake's Bayou with the Neches River; a spur of the railroad that parallels the river across the entire project area; and the Reliance Lumber Company which encompasses all of the project area south of Hickory Street.

Other early development in the project area is depicted on a map prepared by Beaumont Wharf and Terminal Company, circa 1900 (Appendix I). It shows a saw mill, probably belonging to the Texas Tram & Lumber Company, at the foot of Hickory Street just to the west of the project area and an ice, light & power company where the Texas & New Orleans Railroad crosses the river.
During the remainder of the 20th Century, Beaumont's economy changed from one dominated by agricultural products and lumber to one based securely on the petro-chemical industry. Today, oil refining, petro-chemical manufacturing, and shipbuilding take precedence over other industries in the area.
RESULTS AND CONCLUSIONS

An archaeological survey of the proposed Riverfront Park, Phase II, failed to locate any prehistoric or historic sites in the project area. Six shovel tests and four auger probes revealed the entire tract had been disturbed through industrial use of the area. No original topsoil was encountered, and surface and subsurface examination of the tract produced either fill or clay at the surface. No evidence of a prehistoric site was found and no intact historic deposits were observed.

Archaeological data indicate the county has been occupied during all phases of prehistory with most activity occurring during the Late Prehistoric period. The uplands, which encompass the project area, are likely areas for prehistoric site occurrence, and several unrecorded sites are known in the vicinity. The numerous shell mounds along the riverbanks may represent short-term use areas by groups from some of these upland sites.

Archival research and conversations with local residents familiar with the area indicated long-term industrial use associated with the river as a transportation route has altered the project area considerably. In addition to various buildings that once stood in the project area, it was also impacted by the Hickory Street Ferry crossing, the Southern Pacific Railroad (formerly the Texas and New Orleans Railroad) bridge, and possible levee construction. The introduction of fill to the project area may have created the bluff area on which the park is to be constructed.

According to Wilbur Balmer, Retired City Works Manager, the combined processes of erosion and landfill have both destroyed and altered the original surface in the project area to the extent it is no longer recognizable. It is believed unlikely that intact, undisturbed prehistoric or historic sites exist in the project area. Should any prehistoric sites be present, however, they would be too deep to be impacted by park construction.
RECOMMENDATIONS

Due to the absence of an intact prehistoric or historic site in the project area, it is recommended that the City of Beaumont be allowed to proceed with construction of the Riverfront Park, Phase II. It is not considered necessary for an archaeologist to monitor the construction phase of the project. However, if any archaeological deposits are discovered during development, work must stop and TAC be notified immediately.
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APPENDIX I: LIST OF MAPS EXAMINED

Beaumont Wharf & Terminal Company

City of Beaumont
1927 Official Map of Beaumont, Jefferson County, Texas. Prepared by the City of Beaumont in 1927 as approved by the City Engineer. On file with project records at TARL and Tyrrell Historical Library.


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Harland Bartholomew and Associates (continued)

1960c  Proposed Port Development, Railroad Plan A. Plate 26 in The Comprehensive City Plan, Beaumont, Texas, prepared for the City Planning and Zoning Commission. On file with project records at TARL and Tyrrell Historical Library.


International Aerial Mapping Company


United States Geological Survey


Unknown

Appendix II: Recorded Sites in Jefferson County

(Based on TARL files as of 12-19-89)

<table>
<thead>
<tr>
<th>Site</th>
<th>Date</th>
<th>Recorder</th>
<th>Site Type</th>
<th>Age</th>
</tr>
</thead>
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<td>G. E. Arnold</td>
<td>village</td>
<td>LP</td>
</tr>
<tr>
<td>41JF02</td>
<td>1940</td>
<td>G. E. Arnold</td>
<td>shell midden</td>
<td>LP</td>
</tr>
<tr>
<td>41JF03</td>
<td>1940</td>
<td>G. E. Arnold</td>
<td>camp/shell midden</td>
<td>LP</td>
</tr>
<tr>
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* Indicates minor historic component
Abbreviations used in appendix.

A = Archaic
LP = Late Prehistoric
P = Paleo-Indian
H = Historic
CE = Coastal Environments, Inc.
COE = Corps of Engineers, Galveston District
HPG = Heartfield, Price & Greene, Inc.
NWR = New World Research, Inc.
TAS = Texas Archeological Survey
TASP = Texas Archeological Salvage Project
THC = Texas Historical Commission
TPWD = Texas Parks and Wildlife Department