ANCIENT ECHOES

VOLUME 3 2005

JOURNAL OF THE HILL COUNTRY ARCHEOLOGICAL ASSOCIATION

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Bryant Saner, Jr., Editor

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ARCHEOLOGICAL INVESTIGATION AT THE BURKHALTER-WITTERS HISTORIC LOG HOME SITE, 41GL303, GILLESPIE COUNTY, TEXAS

Bryant Saner, Jr, and Robert R. Rector

ABSTRACT

The Burkhalter Witters site was a German rural occupation site that began 1850s. Surface survey and excavation revealed prehistoric features and artifacts. Historic structures, features and artifacts were discovered as well. Data was obtained through the studies of all the artifacts, features and structures. Interviews with individuals familiar with the area, and search of the Gillespie County records, provided insight into the time line and events of the historic past.

IN'IRODUCTION

In the late spring and early summer of 2000, an archeological investigation was conducted at the Burkhalter-Witters Log Home Site, 41GL303, in Gillespie County, Texas. The owners contacted the Hill Country Archeological Association (HCAA) to assist in determining what could be done to collect data on the site prior to remodeling the structure as a bed and breakfast. The HCAA is a nonprofit avocational group of archeologists from the Kerrville, Texas area.

The Burkhalter-Witters Site was located in southeast Gillespie County on 60.63 acres of land encompassing both sides of South Grape Creek. The existing structure when the Hill Country Archeological Association prior to the started of the investigation was on the west bank approximately 1.0 mile southeast of Blumenthal (Fig 1). The Creek meanders approximately 2.0 miles to where

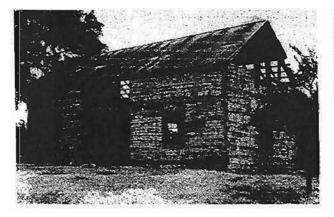


Figure 1: Structure when HCAA began work.

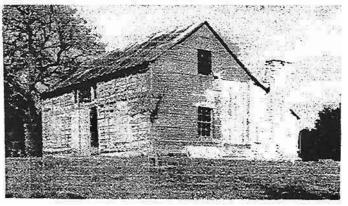


Figure 2: Structure severals month prior to when HCAA began work.

empties into the Pedemales River.

When HCAA started the field work the log structure consisted of a dogtrot style log home. This type of cabin consists of two separate rooms with a space between them, all covered by a common roof. It was built by Henry Basse circa 1860 and possibly as early as 1852. The dogtrot had

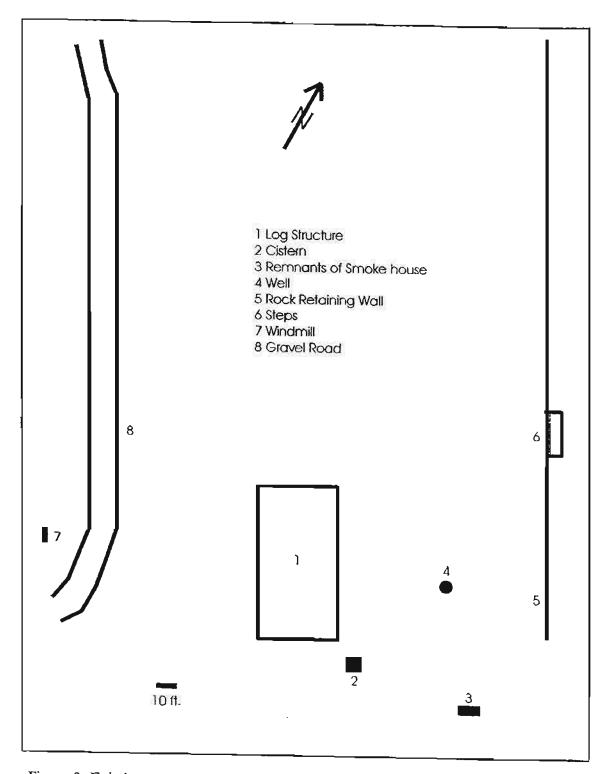


Figure 3: Existing structures at the start of the archeological investigation.

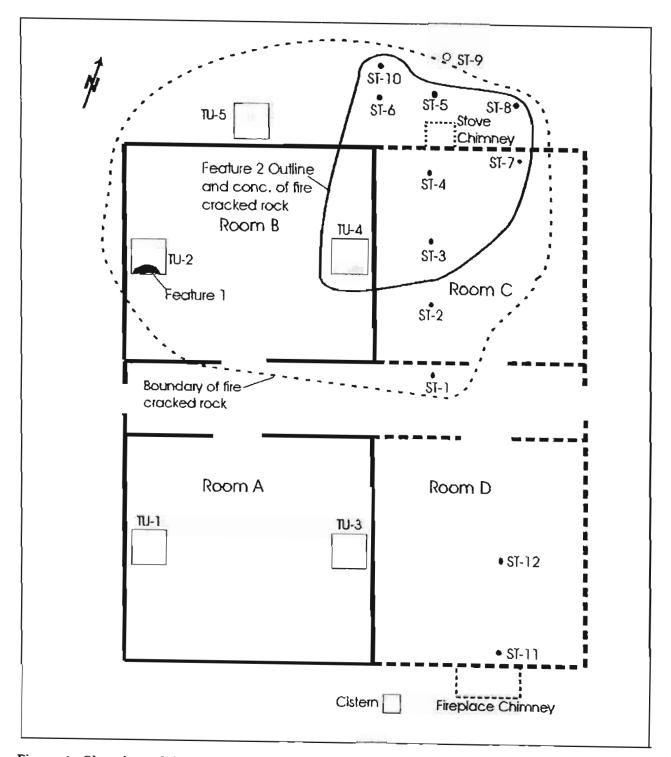


Figure 4: Plan view of site with test units, shovel tests, features, cistern and approximate location of rock addition

been enclosed, but the wall at either end was removed prior to the start of the project. The old flooring, tin and board siding were gone. The log walls were completely exposed inside and out. An unstable rock addition on the east side had been removed prior to the start of the project (Fig. 2). A cistern near the southeast corner of the cabin had been filled in. The well was visible east of the log structure and a windmill was to the west. Remnants of the smoke house floor were seen southeast of the cabin. A rock retaining wall on the east side of the site was still intact (Fig. 3).

A prehistoric component was found beneath the cabin floor on the east and northeast side. Temporal diagnostic artifacts dated it to approximately 4,500-3,000 years old or 2,500 to 1,000 BC. It consisted of a well preserved burned rock midden and a rock hearth (Fig. 4).

SITE DESCRIPTION

The site was on the third terrace of South Grape Creek and was 300 feet west of the current channel. The log structure was on a naturally level portion of the terrace that was not in the flood plain. The terrain sloped to the south and southwest. The natural surface sloped to the east before the compound portion of the site was built, but the rock retaining wall/foundation on the east side of the site was filled with soil and gravel to create a level building surface. Elm, live oak and post oak were seen on the site and in the area. A drainage ditch was seen south of the compound leading to the creek.

ENVIRONMENTAL

Gillespie County, Texas was within the Balconian Biotic Province described by Blair (1950). The common fauna found in the area are racoon, opossum, several types of squirrel, jack and cottontail rabbits, deer and armadillo. Cedar, live oak, post oak, elm, pecan and mesquite were seen in the area. Cactus, sotol, succulents and agarita were also found here.

The average rain fall is 30.00 inches per year. May, June, September and October are the months that usually receive the most rain, while January and December get the least. The mean maximum high temperature is 93 degrees F in July with high record being 109 degrees F. The mean maximum low temperature is 35 degrees F in January with the lowest temperature recorded being -5 degrees F. The first freeze is about November 6 and the last freeze is usually about April 1 (Ramos 2001).

The majority of Gillespie County is on the Edwards Plateau, with the northern portion in the Central Mineral Region (Barnes 1981). Soils found on the site are Altoga silty clay with 3-5% slopes. This soil is deep on uplands. They are formed in calcareous clayey and loamy sediments several feet thick. This soil is seen on old high terraces next to flood plains. Soil surfaces are smooth to convex (Allison, et al 1975).

RESEARCH DESIGN

The goals of this investigation were to determine the age of the existing structure, the number

of original buildings on the site, who built them and provide a description of the structures. The investigation included a search for occupational time period material. An examination of the archival literature included a search of the deed records, tax records and other Gillespie County material. Artifacts recovered at the site provided data to help determine age. Items produced during certain time periods have characteristics that associate them to those periods. The artifacts complimented dates from the archival research. The history was supplemented by oral history from an individual who lived on the site during the 1920s and 1930s. Many of the buildings in the compound were destroyed in the 1950s. The oral history given by Mr. Albert Meier provided significant data unavailable from the archival record and archeological material.

METHODOLOGY

A search of the deed records back to the patent of the land was done to determine owners, age and history of the structure. An examination of the Gillespie County tax records from 1852 through 1887 was not possible. They had been destroyed by a fire (GCTR).

Five one meter by one meter test units were excavated in 10 cm levels. Unit one was excavated in Room A under the window in the middle of the west wall. Unit two was excavated in Room B under the window in the middle of the west wall. Unit three was excavated in Room A in the middle of and next to the east wall. Unit four was placed in Room B in the middle of and next to the east wall. Unit five was placed outside under the window in the middle of the north wall. The primary purpose of the test units was to examine the footing of the existing structure and determine if there was a prehistoric component to the site. Eleven shovel tests were done outside on the east and northeast sides of the cabin to determine if there is evidence of historic structures or a prehistoric component in this area (Fig. 3). Data from the shovel tests were used to determine the extent of the prehistoric cultural material. Artifacts recovered from the excavation were used to determine the period of occupation and use of the historic and prehistoric components. Artifacts were cleaned, examined, identified and used to identify chronology at the site. All artifacts were returned to the owner when the investigation was completed. An interview with a man, Albert Meier, that lived on the site during the 1920s and early 1930s was completed. An architectural analysis of the structure was done. A photographic record was maintained. The results of the investigation are found in this report.

PREVIOUS HISTORIC INVESTIGATION

Several log structures have been studied in Gillespie County, Texas. Tunnell and Jensen (1969) investigated the Behrens, Sauer and Danz house site and a log cabin at the Lyndon B. Johnson State Park. David Ing (1970) investigated another log cabin at the Lyndon B. Johnson State Park. Terry G. Jordan (1978) conducted extensive research on the architecture of log structures in Texas. He divided Texas into regions by types of log structures found in them. Gillespie County is in the Hill Country German Region. Northern Bexar, southern Blanco, Comal, Kendall, extreme northeast Kerr, southwest Llano and most of Mason Counties were also included in this region.

HISTORIC BACKGROUND

Historic archeology has several advantages over prehistoric archeology. Known events, records and documents exist that provide complimentary data. These data can be compared to artifactual data to arrive at a better understanding of the chronology of events, way of life and living condition of inhabitants. In the case of the Burkhalter-Witters Site, the investigators were looking for evidence of outbuildings other than the existing structures. The artifacts and data obtained during the investigation was compared to the records, such as, deed, tax and court records. An interview with Mr. Albert Meier, a gentleman who lived on the property in the 1920s and early 1930s, proved invaluable in this investigation.

The research of the deed records indicates two individuals influential in the history of Texas were involved with the tract of land that was investigated. Juan N. Seguin was an important figure in the Texas Revolution. He served in various roles during the revolution and commanded a small group at the Battle of San Jacinto (Hardin 1994).

John "Jack" C. Hays was a well known Texas Ranger from 1836-1849. He fought in many battles with the Indians. The most famous ones were Plum Creek in August of 1840, and Bandera Pass in 1841. In 1849 he went to California, lured by the gold rush (O'Neal 2000).

On July 19, 1837, Francisco de Leon was issued an order granting him a certificate for 4605.525 acres. This was one league, 4428.4 acres, and one labor of land, 177.125 acres as recorded in Vol. 1, pg 3, Transcribed Records of Bexar County, Texas. This tract of land includes the area of the investigation. On the same day Francisco de Leon transferred this certificate for the land to Erasmo Seguin for \$100.00 as described in Vol. 1 pp 56-59, Transcribed Records of Bexar County, Texas.

On April 30, 1838, Erasmo Seguin transferred his certificate to the tract of land to his son, Juan N. Seguin for \$1000.00 as described in Vol. 1, pp 66-68, Transcribed Records of Bexar County, Texas. On June 18, 1838, Juan N. Seguin transfer the certificate for the one league and one labor to John R. Cunningham \$1000.00 as shown in the Transcribed Records of Bexar County, Texas. The tract was also described as Survey No. 19.

Gillespie County was created on February 23, 1848. Prior to this date it was part of Bexar County with San Antonio serving as the county seat (Biesele 1930). Prior to 1848, records were kept in San Antonio. When Gillespie County was formed, legal records kept in San Antonio were copied/transcribed and taken to Fredericksburg to be on file in the county courthouse.

In 1843, John R. Cunningham died. In accordance with his will he left his entire estate, less one-third of a league in the above mentioned tract, to his brother Hugh M. Cunningham. The will stated that one-third of a league was to be bought for \$1200.00 by Perry E. and G. Duncan (Transcribed Records of Bexar County, Texas, Vol. 2, pp 168-169). It appears that between December 29, 1845 and February 25, 1848 Hugh M. Cunningham died. He left various tracts of land, including Survey No. 19, to Andrew Cunningham of Talledaga County, Alabama. On January 8, 1853, Andrew gave John T. Story of Caldwell County, Texas, power of attorney to act on his behalf (GCDR Vol. D pp 416-417).

On May 17, 1847, John C. Hays gave power of attorney to Henry M. Lewis of San Antonio to conduct business for him as described in the Transcribed Records of Bexar County, Texas, Vol F, pp 228-229. On Nov. 9, 1850 Hays and Lewis gave power of attorney to Joel L. Ankrim of Gillespie

County, Texas (GCDR Vol. B, 267). On January 10, 1852, Ankrim, as attorney-in-fact for Hayes and Lewis, sold four tracts out of the above described tract. On January 16, 1852, a deed was filed for the sale of 290 acres for \$950.00 to Erasmus Frandtzen (Vol. C, pp. 198-199,GCDR). On February 10, 1852 a deed was recorded for a sale of 150 acres to Peter Burg for \$187.50 (Vol. C, pp. 228-229, GCDR). On February 12, 1853 two deeds were filed for the sale of 100 acres to Henry Kirchner for \$125.00 (Vol. C, pp. 230-231, GCDR) and the sale of 250 acres to Henry Basse for \$317.00 (Vol. C, pp. 232-233, GCDR). The site investigated is located on part of the original Basse property. Ankrim sold a total of eleven tracts of land, including the four mentioned above, and signed for Hayes and Lewis.

When the these tracts of land were sold, Hays and Lewis may not have owned them. No instrument was found that indicated this property had been sold or deeded to Hayes, Lewis or Ankrim. The only tie found was a note by J. Devine and John C. Hays to John R. Cunningham for \$213.00 subject to a credit of \$40.00 due July 2, 1846, listed in the inventory of his properties dated February 25, 1848 in Vol. 2, pp 173-174, Transcribed Records of Bexar County, Texas. It is possible that Hayes may have been unaware of these land transactions in his and Lewis' name. However, on June 19, 1856, Hayes signed a quit claim deed for ten individuals Ankrim had sold land to using his power of attorney and one Lewis had sold (GCDR, Vol. F, pp. 509-510). The quit claim deed transferred any and all rights to the land Hayes possessed.

On July 18, 1853, certificate No. 1091/1190 in Survey No. 19 for two-thirds of a league and a labor of land that issued on February 22, 1849 and transferred to John R. Cunningham was filed in Gillespie County, Texas (Vol. D, pg. 414, GCDR). This created a problem for all who had purchased the land from Hays and Lewis, and invested time and money to improve the land. Cunningham wanted the land back including all improvements made by the occupants (Table 1).

To settle the issue, a "Tresspass to try Title" jury was held in Gillespie County District Court during the October Term in 1855. It was Case No. 38; A. Cunningham (plaintiff) vs. Frandtzen, et al (defendants) and described in Vol B, pg 26b, Minutes District Court, Gillespie County, Texas. There were nine defendants in this case including Henry Basse. It was on Basse's land that the cabin described in this report was built. The result was in favor of Cunningham with the stipulation that the occupants vacate the property within one year and Cunningham would pay the defendants for the improvements or they could stay on the land and pay the plaintiff for the land at \$1.25 per acre (Table 1). One defendant was to vacate his land immediately, while the rest had one year to be off the land or pay \$1.25 per acre to the plaintiff. This is stated in Vol. B, pg. 26b et sep., Minutes District Court, Gillespie County, Texas.

This was a large sum of money in 1855. The defendants were not satisfied with this judgement and appealed for a new trial. A new trial was granted and this time the decision was in favor of the defendants. The parties involved agreed to declare the patent for the land issued to John Cunningham null and void. This was described in Vol. B pg. 64, Minutes of the District Court of Gillespie County, Texas.

Andrew Cunningham was unhappy with this decision so the case made its way to the Supreme Court of the State of Texas. In a "Mandate and Opinion" dated November 7, 1866, the Supreme Court of Texas to the Gillespie County District Court, found in favor of the defendants. Henry Basse and the other land owners were able to retain their land.

Henry Basse, his wife Charlotte and children Bertha, Emma, Carl, Olga and Oscar arrived in

Settler	Acres of Land	Cost of Land at \$1.25/Acre	Cost of Improvements	TOTAL
E. Frantzen	290	\$362.50	\$2475.00	\$2837.50
P. Burg	150	\$187.50	\$802.50	\$990.00
H. Basse	250	\$312.50	\$1375.00	\$1687.50
W. Foeller (Feller)	200	\$250.00	\$1177.50	\$1427,50
F. Gellermann	300	\$375.00	\$1078.00	\$1453.00
J. Blank	100	\$125.00	\$1440.00	\$1565.00
J. Weber	100	\$125.00	\$947.50	\$1072.50
F. Topperwein	125	\$156.25	\$1217.50	\$1373.75
F. Scharnhorst	150	\$187.50	\$515.00	\$702.50
TOTAL	1665	\$2081.25	\$11, 028.00	\$13,109.25

Table 1: Evaluation of Land and I	improvements for Nine of the Defendants for Settlement of the
Judgement.	

Galveston, Texas from Erndtbruck, Westphalia, Germany on October 23, 1846, on board a ship named the York. The ship was at sea for 70 days with 136 people aboard. Basse was a pastor and served as the ship's pastor during the trip. He traveled to Gillespie County, where in 1847, he was given lots number 91 and 174 in Fredericksburg. He served as a minister for a few years. There were no salaries for ministers at that time so Basse opened a store. The 1850 census listed him as a merchant (Gillespie County Historical Society 1960). In 1848 he signed the petition to form the county. On November 27, 1849, Basse declared his intention to file for citizenship. On April 12, 1855 he was granted citizenship. In April 1858, Henry Basse is listed as one of the School Examiners (Roots web site <u>www.rootsweb.com/%7Etxgilles/</u>

A log cabin was constructed on the 250 acres owned by Basse. A compound of buildings was associated with the cabin at one time. It is thought the cabin was constructed circa 1860. However, the law suit filed in 1855 described the cost of the land and improvements indicating the cabin may have been built earlier, between 1852 and 1855. No data was available in the tax records for Gillespie County from 1852 through 1887. They had been destroyed in a fire (GCTR). There is no indication in the records that Henry Basse ever lived in the cabin.

Henry Basse died on January 8, 1865. His will was probated on April 26, 1865 as seen in Vol. C, pg 311, probate minutes, Gillespie County, Texas. In the will Charlotte, his wife, received the entire estate. On December 23, 1867 a sales contract for \$1200.00 for the 250 acres from Charlotte Basse to Peter Heep was filed In Vol. J, pp 123, Record of Gillispie County, Texas. Heep paid Mrs. Basse \$400.00 at the signing of the sales contract, \$400.00 at 10 % interest on October 1, 1868 and \$400.00 at 10% on December 25, 1868. The sale was described as being for the 250 acres, all houses, outhouses and appurtenances. The term that described the buildings was plural. This could be a clue that the compound and buildings were in place prior to this sale. On May, 6, 1868, a deed from Charlotte Basse to Peter Heep was filed for this property in Vol. J, pg. 201-202, Deed Records, Gillespie County, Texas. Peter Heep paid the note off prior to the due date and the deed was recorded.

Table 2: Inventory of Community Property of Anna Maria Heep filed on October 21, 1895 in Vol. 3, pp. 88-89 Probate Court Records, Gillespie County, Texas.

Suervey No.	Original Grantee	Acres	Value
893	Beaty Seale & Forwood	376	\$380.00
12	Justa Flores	678	\$1200.00
19	Fr. de Leon	250	\$1500.00
278	Fr. Vater	160	\$160.00
534	Peter Heep	293	\$300.00
636	Peter Heep	160	\$160.00
274	J. A. & C. A. Luckenbach	140	\$140.00
710	F. Loudon	140.5	\$140.00
One half of lo	t 307, Blk. 33 in Town of Fredericksbur	g	\$700.00

Personal Property

55	head of cattle		\$275.00
8	horses		\$120.00
4	mules		\$100.00
6	hogs		\$6.00
1	wagon		\$25.00
1	carriage		\$15.00
1	threshing machine		\$25.00
1	reaper		\$10.00
1	selfbinder		\$50.00
P	lows and Harness		\$100.00
H	lousehold furniture		\$200.00
C	ash on hand		\$200.00
T	DTAL	2198.5 Acres	\$5806.00

Peter Heep had three sons; Joseph, George and William. William died leaving four grandsons of Peter. Peter's wife, Anna Maria Heep, died on Nov. 14, 1894 leaving her estate to her husband according Vol 3, pp. 59-63, Probate Court Records, Gillespie County, Texas. At the time of her death Mrs. Heep held land, livestock, equipment, furniture and cash as community property with her husband (Table 2). In his will, Peter stated he would leave the land to his son Joseph, on the condition that Joseph would pay \$1200.00 for the land to Joseph's brother George, and his grandsons, Richard, Max, Eugene and Chester as their inheritance. The 250 acres was sold to Joseph for \$1.00 on Oct. 30, 1911 with the stipulations mentioned above (Vol. 17, pp. 26-27, GCDR. Peter died on February 16, 1916 according to records for the South Grape Creek Catholic Cemetery on *The TxGenWeb Project* at <u>www.rootsweb.com/~txgilles/sograp.htm.</u> On January 23, 1925 Joseph Heep sold 130 acres on the east end of the 250 acres to his children, Mrs, Alma Reichenau, nee Heep, Felix Heep, Adolph Heep, Willie Heep and Herman Heep. Each of his children paid \$5.00 for a one-fifth undivided interest in the 130 acres (Vol. 33, pg. 292, GCDR). On March 28,1930 Joseph sold 130 acres on the west end of the original 250 acre tract to Harry Reichenau, husband of Alma (Vol. N, pp. 568-569. Deed of Trust Record, Gillespie County, Texas). The log cabin was located on this tract of land. On June 9, 1932 Harry Reichenau sold the 130 acres he owned to his wife (Vol. 44, pp. 253-254, GCDR).

*Between 1933 and 1937 Felix Heep bought the one-fifth interest that Herman, Adolph and Willie owned in the 130 acre tract described in Vol. 33, pg. 292 Deed Records of Gillespie County, Texas. He now owned a four-fifths undivided interest in this acreage. Alma owned the other undivided one-fifth interest. On October 22, 1937 a petition deed was filed to designate the parcel of land each owned. Alma received 26.4 acres adjacent to the land she purchased from her husband (Vol. 49, pp. 514-515, GCDR). Mrs. Reichenau now owned 156.6 acres. On April 5, 1948 Alma Reichenau sold 130 arces to Erwin Kusenberger (Vol. 64, pg 39, GCDR). Erwin Kusenberger conveyed title for the 130 acres to Levy Kusenberger by a deed on 9-30-1950, (Vol. 67, pg. 403, GCDR). On 2-8-1977, Levy Kusenberger sold 157.58 acres, including the 130 acre tract, to Xandau Enterprises Inc. (Vol. 119, pg. 424 GCDR). On 2-9-1981 Xandua Enterprises Inc. sold the 157.58 acres to Irmgard Muller (Vol. 140, pg. 730 GCDR). Irmgard K. Muller died on 8-18, 1988 and left the 157.58 acres to her children, Frank G. Muller and Helen Muller Davis (GCPR, No. 6249). Frank G. Muller and Helen Muller Davis sold 60.63 acres to Eddie Burkholder and Fred Witters on 9-13-1999. (Vol. 380, pg 362 GCDR).

ARCHITECTURAL DESCRIPTION

Log structures were probably introduced in America by people from Sweden and Finland in the early to mid 1600s. The first log buildings were in southeastern Pennsylvania, Delaware and parts of Maryland. The people of this area taught others how to construct log buildings. As these people and their ancestors moved out to settle new land they took this technology with them (Jordan 1978).

Log structures may have been built in Quebec about the same time they were introduced in the area mentioned above. They were common to the parts of France near the area where the Canadian immigrants originated. The French may also be responsible for the first European log structure in Texas. In 1685 Rene-Robert Cavelier, Sieur de La Salle expedition constructed Fort Saint Louis in present day Victoria County, Texas. One building was described as being constructed of logs in the "Canadian Style". The Canadian style of building was to have the logs laid on the surface of the ground without benefit of footing or foundation. The corners were joined by a technique known as "French Dovetail" with log pegs inserted in the corners to hold the joints together (Weddle 2001).

The Anglo-Americans who immigrated to Texas in the early part of the 1800s commonly constructed log structures. Stephen F. Austin established a colony in Texas in the early 1820s and these settlers brought with them the knowledge and ability to build with logs. The Austin settlement became a focus of log construction during this time period. By the mid to late 1800s, log buildings had spread across the eastern half of the state. Log construction diminished in popularity as settlers moved west across Texas. Trees were scarce in this part of the state and logs had to be hauled if the builder was determined to have a log structure (Jordan 1978).

Comal, Gillespie, Mason Counties, a small portion of Kerr County and the southwest portion of Llano County comprised the Hill Country German Region. The majority of the log structures in this region have characteristics found no other place in the state (Jordan 1978). The Hill Country German Style of structure consisted of two rooms with an open area between them. The two rooms and open walk way were covered by a single roof. This is a dogtrot style structure. The logs did not touch, except at the corners and mortar and rocks were placed in the open space. This was called chinking. The logs were joined at the corners by a technique know as "V" notching (Fig. 5). There was no fire place. There was no ridge pole or board that the rafters leaned against at the peak of the roof (Fig 6). It was not uncommon to have a cut stone addition on the cabin. These were usually added later.

41GL303 was located in area settled in the 1840s mostly by immigrants from Germany. A society known as the Adelsverein (Association of Noblemen) was established to help the Germans settle in Texas. In 1844 the name was changed to Society for the Protection of German Immigrants in Texas (Biesle 1930). The immigrants landed in Galveston and Indianola on the Texas coast and

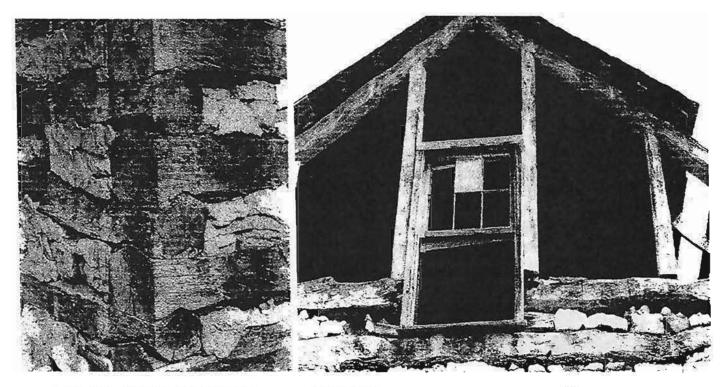


Figure 5: "V" notching of corner log joints and chinking

Figure 6: Inside of roof with no ridge pole.

proceeded to the Hill Country to start a new life (Edwards 1969). The area the Germans settled in the Hill Country corresponds to the Hill Country German Region for log structures. These immigrants came from areas of Germany that were not familiar with building log structures. This skill was acquired from Anglo-American settlers that had come to Texas from the east and southeast areas of the United States. In a short time the Germans mastered log construction and modified techniques to meet their needs (Jordan 1978).

The log cabin at 41GL303 may have been built between 1852 and 1855 on the third terrace above South Grape Creek. It was constructed of post oak logs. There was a cut limestone addition joined to the east side of the log cabin with a chimney on the north and one on the south end of the structure. This rock addition was removed just prior to the archeological investigation. Albert Maier (2000), presently living in Stonewall, lived in the cabin as a youth in the 1920s and early 1930s. He stated that the area to the west of the cabin was covered with large post oak trees. The trees have since been removed to make an orchard and fields. This was the probable source of logs that were used in the construction of the cabin and structures of the compound.

The structure was a dogtrot style cabin. The room on the south end of the structure was designated Room A. The room on the north side was designated Room B. The length of the west wall of Room A was 16 ft. 4 in., the south wall was 18 ft. 5 in., the east wall 16 ft. 5 in. and the north wall was 18 ft. 4 in. The length of the west wall for Room B was 14 ft. 3 in., the south wall was 18 ft. 2 in., the east wall was 14 ft. 6 in. and the north wall was 18 ft. 3 in. The space between the rooms, the dogtrot, was 9 ft. 7 in. on the east end and 9 ft. 4 in. on the west end. The entire length of the west side of the structure was 39 ft. 11 in. and on the east side it was 40 ft. 6 in. in length.

When the archeological investigation began only the original log structure was present. Pictures taken by the owner prior to the start of remodeling showed the dogtrot was close on the west side. There was a door on this end to enter the dogtrot. Doors to the rooms opened from the dogtrot. Each room had two windows in the middle of the walls. Room A had a window facing south and one facing west. Room B had a window facing north and one facing west.

There were rooms upstairs also. The outer log walls rose 4 ft. above the ceiling of Rooms A and B to create half story. It was similar to an attic. The ceiling joist of the first story had boards nailed on top of them to form the floor of the upper rooms. A stairway started at the east end of the dogtrot on the north wall and went up going west to the upper floor. They were attached to the outer wall of Room B in the dogtrot.

The footing was made of rock and mortar on the ground surface on the west side and went slightly subsurface on the east side 5-10 cm. On the inside the footing was into the ground 5-10 cm.



Soil brought in the room as part of the flooring buried portions of the rock footing. The footing provided a solid base for the logs. When the first logs were placed on the rock footing and joined at the corners the east and west side logs were higher that the north and south logs. To accommodate for this the footing was built higher so the first logs placed were supported by the rock (Fig. 7).

Small logs were placed on a bed of gravel as floor joists. Boards were placed over the joists and nailed in place to create flooring. This was see in Room A, Room B and the dogtrot (Fig 8).

Figure 7: Stone footing supporting the log walls.

The logs used in the wall were flat on the sides facing inside and out. The bark was left in place on the upper and lower part of the log. The bark was in contact with the chinking. The trimmed, inside part of the log had small chunks removed. This was to allow the plaster/mortar to hold better to the log.

A chalk line was used to mark the depth to which the trimmed side would be cut. The log was

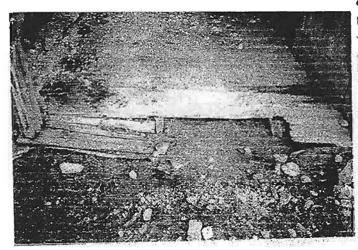


Figure 8: Floor joist protruding from under flooring.

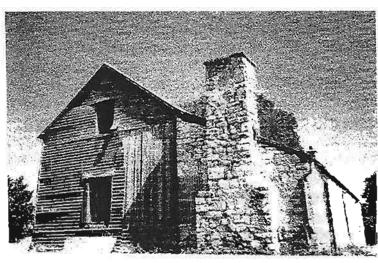
covred to this depth. A foot adze was used to trim the logs to the desired thickness. The score would

prevent the adze from going too deep into the log. Score marks were seen in some of the logs.

The logs were joined at the corners with a technique known as "V" notching. This type of notching does not allow the logs to touch, except at the corners. The space between the lengths of the logs was filled with mortar and rock chinking. The joists for the first floor ceiling were placed upright between the logs. and chinking placed around them. The rafters were attached were attached to the top of the

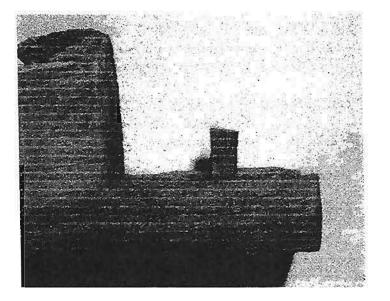
log wall in the upper story and slanted over to form the peak. The top of the rafters on the east side were attached to the rafters from the west side at the peak. There was no ridge pole.

Photographs taken by the owner prior to the start of remodeling show the exterior wall had saw cut boards placed over the logs. When this was done is unknown. Narrow boards were nailed to



the logs and the boards nailed to them. Subsequently tin was nailed to the boards (Fig.9). The window and door jams were made of logs hewn on four sides and set in the walls. These logs were held in place by wooden pegs driven into holes drilled in the ends of the cabin logs. The vertical hewn log jams were attached to the cabin logs at the top and bottom of the window. The horizontal hewn logs were attached to the vertical part of the jam by wooden pegs Fig. 10). The logs on top had rocks between them and the cabin logs. The one on the bottom was set into a shallow trimmed of the wall logs. The structure at the time of

Figure 9: Tin siding on top of cut board siding. Logs are beneath the boards. Rock addition on right.



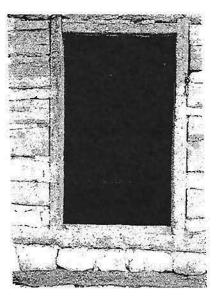


Figure 10: Peg use to hold door jam logs together.



of the archeological investigation had windows on the south and west sides of Room A. Room B had windows on the north and west sides. The vertical window jams were square hewn logs approximately 6 in. by 8 in. and about 6 ft. in height. The 6 in. sides of the hewn logs were facing to the inside and outside of the rooms. The 8 in sides were facing toward the end of the logs and the window opening. The vertical jams were about 4 ft in length. The upper horizontal jams were approximately 4 in. by 8 in. and 3 ft. in height. The lower jams were about 2 in. by 8 in. and 3 ft. in length. and set about an inch into the cabin logs (Fig 11).

The second story window jams were approximately 6 in. by 8 in. by 5 $\frac{1}{2}$ ft. long. They sat on the highest wall log and supported the roof. The north facing window of the second story had a space with the 4 in. by 3 ft. long piece of wood between the vertical jam at the top. The south windows did not have a similar piece of wood. None of the windows in Room A or second story south window had the piece of wood. All of the windows in the north side of the structure had the piece of wood above them.

At the time of the investigation glass was present in both upper and lower windows on the south side and in the west side of Room A. There was evidence that glass had been in the remaining windows, but had been removed. Photographs taken by the owner prior to remodeling show glass panes in all the windows of the log structure. The glass in the window was probably added later after the construction of the cabin. The original window openings probably had sets of wooden shutters that could be opened and closed as the occupant desired.

The door jams in Room B appeared to be original. The vertical part of the main jam was on the log that was the bottom wall log. The vertical jam extended upward to a log that goes horizontally from the east to west wall log. The top of this wall log was even with the floor of the second story. The wall logs were joined to the vertical jam with wooden pegs. The vertical main jams were approximately 8 ft. 4 in. tall. The doors had an opening of 6 ft. in height and 3 ft. in width. There was a square cut piece of wood placed horizontally across the top of the door opening that was 4 in. by 8 in. by 36 in. The door opening was lined with 1 in. by 10 in. boards on all sides. Two vertical pieces

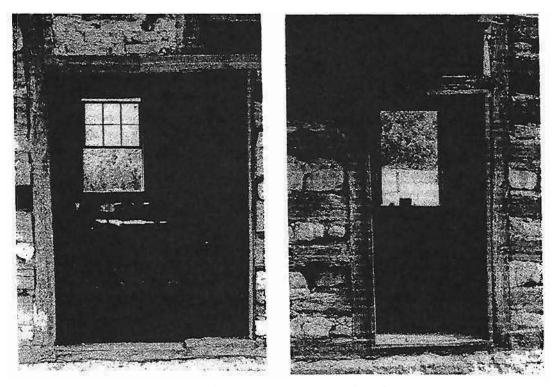


Figure 12: Door to Room A, right. Door to Room B, left.

of square cut wood were on the inner side of the main jams and on top of the larger horizontal piece of wood on top of the door opening that were 1 ft. in height. There was a 10 in. space between the wood and the wall log that was level with the floor of the second story. In the upper east portion of the opening was another square cut piece of wood to hold the top of the stairs leading from the dogtrot to the second story. Pictures taken by the owner show a ladder on the north wall of the dogtrot that went to the second floor where the stairs joined the second story.

The door leading into Room A had been widened after the original construction. The thin boards around the opening of the door had been removed. The vertical jam on the west side of the opening was removed. The wall logs on this side were cut about 12 to 15 in. A tongue and groove board had been placed vertically on the west side of the open and nailed to the remaining wall logs. The upper jam was extended to a wall log and was nailed in place. The original 1 in. by 36 in. cut into the bottom wall log can be seen. It is not known when the door was enlarged (Fig. 12).

The beam for the gabled roof had the lower end resting on the top wall logs on the east and west sides of the structure. This made the second story rooms low at the edge and high in the center. The ceiling of the first floor was the floor of the second story. The floor joists for the second story sat on the log that were the top of the wall of the first floor rooms. The top log of the first floor wall were cantilevered and protruded over the dogtrot about 15 in. The ends of these logs was cut at an angle. A square logs with an angle cut at the end was placed between the cantilevered wall logs. Each end of the logs were held in place by two wooden pegs (Fig 13). This was the support beam for the floor joists on the east and west end over the dogtrot. The floor joists for the second-story were made of machine cut, rough lumber.

The roof was built without a ridge pole. A ridge pole was a board or log that ran the length of

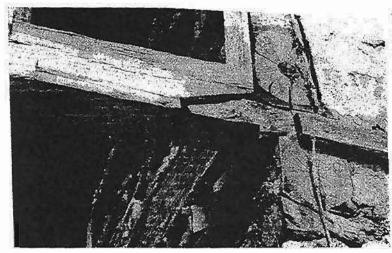


Figure 13: Joint on the cantilevered portion of the second story floor joist.

the peak of the roof to hold the rafters in place at the peak. The rafters on either end of the roof were hewn logs. The lower part of this rafter was attached to the top wall log on the east and west side of the structure. The upper end was joined to the upper end of the rafter from the opposite side. Vertical hewn log studs were attached to the top wall log and the bottom edge of the rafter for support. There were two hewn studs supporting each of these rafters. One was about 1 1/2 ft. from the peak and the other half way between this stud and the lowest edge of the roof. The lower portion of the longer studs formed the vertical jams for the windows of the south and north end of the second story.

The interior rafters were machine cut rough lumber. They joined end to end at the peak and extended over the wall logs at the lower end. Machine cut rough boards, smaller than the interior rafters, were nailed to the upper side of the rafters perpendicular to the rafters. Tin was nailed to these boards to make the roof. This is probably not the original roof. Wooden shingles would have been used at the time of the original construction.

In one of the owner's pictures all the interior log walls were stuccoed. The upper story had stucco on the log walls, but not on the wall above them on the north and south ends. Beneath the stucco on the log wall of the second story clay was found being used to patch the chinking and the stucco.

In 1868, Peter Heep purchased the 250 acres, including all the buildings, from Henry Basse's widow Charlotte. Heep may have built an addition made of cut limestone blocks in the late 1870s. Unfortunately, the rock addition was dismantled prior to the archeological investigation. A description of the rock addition was created from the photographs taken by the owner before the removal of the addition. Interviews with the owner and a tenant that lived on the property in the 1920s and early 1930s contributed greatly to the description of the property.

The east wall of the rock addition was about 40 ft. 6 in. in length while the north and south walls were about 18 ft. 6 in. long. The west side joined the cabin. The dogtrot was extended from the east end of the cabin to the eastmost wall of the one story addition. There was a room on the north and south side of the dogtrot. Each room had a door that entered from the dogtrot. At the east end was a door that opened to the outside. The room on the north side was designated Room C and the room on the south side was Room D. The owner's photographs show a chimney on the north side of Room C and one on the south side of Room D. The chimney on the north side of Room C was small, about 3 ft. long x 2 ft. wide at the base. At 5 ft. above the base it became square and rose to about 5 ft above the addition roof. A round ceramic tile pipe extended about 1 ft. above the top of the chimney. This chimney was used to vent a wood burning stove in Room B and one in Room C. There was a round hole exiting the north end of the east wall of the cabin that could accommodate a stove pipe. This was the original vent for a stove in Room B. When the addition was made the stove pipe went through the

northwest corner of Room C and joined the chimney. The wood stove in Room C vented directly into the small chimney. The chimney on the south end was larger and vented the fireplace in Room D. This fireplace was used for cooking as well as heat. Room A had no Fireplace or wood stove (Meier 2000).

There were three windows in the addition. One was on the north wall of Room C near the cabin, one in the middle of east wall of Room C and one on the south wall of Room D at the edge of the cabin. The windows appeared to be the same height, but slightly narrower than those in the log structure. Two doors to the outside were seen in the addition, one at the east end of the dogtrot and one in the middle of Room D. Rooms C and D had interior doors that allowed passage to and from the dogtrot. The window and door jams appeared to have been made of cut lumber, some of them may have been planed.

The roof of the addition was attached at the east side of the cabin roof at a height of 12 ft. The slope on the addition was slightly less than the log structure. The low end, east side, of the roof of the addition was about 7 ft. in height. At time of the archeological investigation the exterior roof was a continuation of the corrugated tin roof on the cabin. The original roofing was probably wood shingles. Metal flashing around the chimneys was seen in the owner's photographs. A gutter was placed along the eastmost edge of the roof to direct rainwater to a cistern near the southeast corner of the of the addition.

The interior walls of the addition were stucco, except for a portion of the wall that separates Rooms C and D from the dogtrot extension. These walls were wood. A stucco wall extended from the easternmost wall of the addition about 4 ft. and joined the wood walls. The doors from Rooms C and D were placed in the wood portion of the wall.

The stucco interior walls of the addition were light green and/or light blue in color. This was shown by pieces of stucco found on the ground and in shovel tests where the addition once stood. One of the owner's photographs also indicates this fact.

The floors in the cabin and the rock addition were wood. Logs or boards were placed on the ground in the rooms and then boards placed over them. The style of floor construction is similar in the cabin and the addition. It is likely that the floor in the cabin was put in place, or at least replaced, at the same time the floor was placed in the addition.

The dogtrot style log structure was first constructed in Texas in the early 1800s and continued in use through the mid 1930s. At the time the cabin at 41GL303 was built, the cost was about \$25-\$75 depending upon what amenities the owner wanted. The dogtrot, or breeze way, was usually left open providing a direct breeze through the structure to cool it. Cooking was done on a wood stove year-round. This made the cabin a hot place to be in the summer (Jordan 1978).

The cabin was built in a style typical of the Hill County German Region of Texas as described by Jordan (1978). It was a dogtrot style structure. The logs were joined at the corners by a technique known as "V" notching. Spaces left between the log were filled with mortar and hewn rock. This was called as chinking and was most popular in Gillespie County as compared to other counties in this region. It is possible that this technique developed in Gillespie County. The structures were usually one and half stories in height. The cabin had no fireplace. They were rarely seen in log structures in the German Hill County Region because wood stoves were more efficient. The German people that built these cabins felt a fireplace wasted wood (Meier 2000). There was no ridge pole for the rafters to rest against at the peak of the roof. Additions to the cabin at later dates were common. These were also know as sheds. Rock was the most popular building material used in their construction. The term "shed" did not refer to an out building used to store equipment and tools. The shed was used as living quarters

COMPOUND

The description of the compound is taken from the narrative of Albert Meier. This gentleman lived here between the early 1920s and early 1930s. He provided many important details of all of the structures during that time period.

The first survey of the site revealed a rock containment wall about 150 ft. in length and about 3 ft. in height going north to south with steps at 50 ft. north of the south end. The south end of the retaining wall was about 48 ft east of the southeast corner of Room A. The area west of the wall was filled with dirt and gravel to level the compound (Fig.**).

The cabin and rock addition were in the southwest portion of the compound. The first building in the southeast corner of the compound was the milk preparation room. It was board and batten type construction from the ground to about half way up. The upper half was screen wire with a roof on top. When the milk was brought from the milking shed, which was north of the compound, it was cooled, cream skimmed off and butter was made. The next room to the east was a workshop. Small farm and household items were brought here for repair. Large items in need of repair were taken to the blacksmith shop located west of the living quarters. The workshop was made of logs.

The workshop was the southeast corner of the compound. The log buildings went north from here. Living quarters and wine storage room went all the way to the corrals. The south end of the living quarters joined the north side of the workshop. It had two doors, one on the west side that opened into the compound. The second door was on the outer side of the living quarters about 50 ft west of the east end of the retaining wall where the steps were seen. The outhouse was located east of the compound. Peter Heap had a crippled relative, George Heep, who was allowed to live in these quarters. The door on the exterior side allowed George easier access to the outhouse.

The room north of George's room was the quarters for a helper or farm hand room. Next to the helpers quarter's was a room used for storage. Mr. Meier (2000) mentioned that, among other things, wine was stored in this room. Next to the storage room was a stable for horses and other livestock. The corner at the northeast portion of the compound was a corral made of split rail fencing.

The north side of the compound, going east to west, was of log construction. The east end that joined the corral was used to store farm equipment and grain. On the west end of the northernmost portion of the compound was a structure used to store the tractor/wagons. Above it was a grain storage area. When the wagons pulled into the barn through large double doors their contents could be unloaded from above.

There was a wood fence that extended from the southeast corner of the rock addition east to the southwest corner of the milk preparation room. Another wooden fence extended about 20 ft. west from the northwest corner of the barn with the double doors. It made a 90 degree turn to the south and attached to the northwest corner of the Room B at the cabin. There was a gate about half the distance between the 90 degree turn, west of the barn, and the cabin.

East of the milk preparation room was a smoke house. The blacksmith shop was located west of the western edge of the cabin. A windmill was beyond the blacksmith shop. A short distance north of the north exterior edge of the compound was a chicken coop and beyond this was the milking barn. A well was located a short distance west of the workshop. A cistern was located within a few feet of the southeast corner of the rock addition.

The majority of the compound was torn down in the mid 1950s. All that remained was the cabin, rock addition and retaining wall. The rock addition to the east side of the cabin was torn down

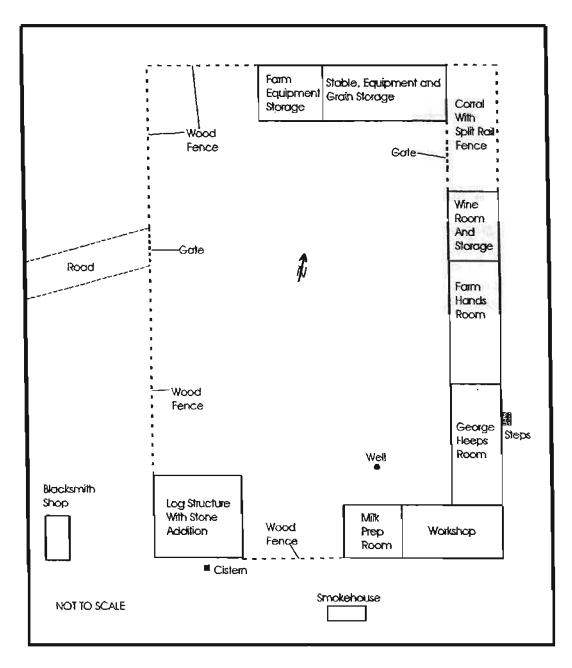


Figure 14: Plan view of compound in the 1920s and early 1930s as described by Mr. Albert Meier. Doors to structures not shown,

because of its deteriorated, hazardous condition prior to the start of the archeological work. The rock retaining wall, the surface portion of the cistern, windmill, chicken coop, milking barn and a small portion of the foundation of the smoke house were all that could be seen. The milking barn was being used as a garage.

Electricity came to this location in the late 1940s. It 1936, the South Grape Creek/Blumenthal area received electricity. However, the log cabin and compound were not connected until 11 years

later. On February 26, 1947, the first electric light came on at the cabin and compound. The Reichenau family was the first to have electricity available (Duecker and Moreno 2002).

EXCAVATION

Five one meter by one meter units were excavated, four inside the structure and one outside. They were placed next to the wall to evaluate the rock footing and fill dirt inside the structure.

The footing was constructed of flat stones up to 30-40 cm long, 30 cm wide and up to 20 cm thick. The height was 30-40 cm. It appears that most of the footing was placed on the existing surface. Along the west and north wall of Room B some shallow trenching, 10 cm, was done. The height of the footing was adjusted to create a level surface for the logs to be placed on. Gravel was brought into the rooms and place on the original ground surface to create the floors.

HISTORIC ARTIFACTS

CONSTRUCTION MATERIAL

CHAIN

A piece of chain that included three long, slender links was found on the ground surface on the east side of the cabin. The chain was worn, especially were the links make contact. The age and use of the artifact was unknown.

ELECTRICAL

Three electric related items were recovered. Electricity was first connected to this location in 1947. The artifact related to the age of electricity, for this area, would be dated after 1947. It is highly likely that the electrically related artifacts would be from the late 1940s or early 1950s.

The first artifact found was a piece of electrical wiring. It had two copper wires each wrapped in a cloth-like material. Both of these were wrapped in a similar cloth-like material. This type of wire is known as Romex. It was used for indoor electrical wiring from the early 1950s to the early 1960s (Crawford 2002).

The other two items are parts of light fixtures. The first was a round band of metal with two Lshaped pieces of metal attached to the band. There were screws extending from the metal that attached to a light fixture. Three holes in the band were for the screws that held the glass globe. The other piece was a dome-shape metal object with a hole in the center of the dome. A threaded pipe was placed into the hole on the dome and electric wire was inserted and went to the light socket. A small round piece of metal protruded on the inside running directly from the threaded hole. It held a glass globe over the light bulb

HINGE

A metal shutter hinge was recovered from Unit 5, Level 1. This hinge was designed to keep the shutter from being blown by the wind. It was capable of being locked in the open or closed position (Fig. 15 A).

MORTAR/PLASTER

Samples of mortar, plaster, concrete and adobe-like material were collected. They were collected from various locations across the site. Native clay mixed with straw was recovered from the upstairs interior of the cabin. It was used to patch small areas of the wall. It had been covered with plaster and mortar after it was applied.

Hard concrete was recovered from Shovel Test 11, Level 2 and various areas on the surface. Samples of mortar with plaster were collected. Several specimens of plaster were painted. In some of the samples there were multiple layers of plaster with each layer having a different color. Light blue was the most common color followed by blue, white and red.

NAILS

Cut and wire nails were recovered during the investigation. The most common were cut or square nails (n=90). Wire or round, nails were rare. Many cut nails had been pulled from the logs and placed in a bucket by the remodeling crew. A few remained in the logs. Others were found on the surface. All these nails are machine cut with a machine-made head. They are cut from a flat sheet of steel and the head is mechanically hammered. Until the late 1700s all nails were forged. A piece of round steel was hammered into a square nail. In the late 1700s, the nails were machine cut, but the head was made by hand. By the 1820s, a machine had been developed to make the heads. In the 1860s, wire nails became available. These were made from long strands of wire that were cut at the desired length, sharpened on end and a head created on the other. In the 1880s wire nails were being used commercially. By 1900, they were more popular than cut nails in the United States. By the 1920s they comprised the vast majority of nails on the market(Wells 1998).

The square nails from the site were common square machine cut nails with machine made heads. The size of the nails found were 4, 8, 16 and 50 penny nails (Fontana 1968). The 4 penny nails (n=14) were 1 $\frac{1}{2}$ inches long and were used for roofing (Fig 15 B) The 8 penny nails (n=29) were 2 $\frac{1}{2}$ inches in length and are used for shingles and siding (Fig 15 C). The 16 penny nails (n=15) were 3 $\frac{1}{2}$ inches in length and were generally use for batten, doors and framing (Fig. 15 D). The 50 penny nails (n=2) were 5 $\frac{1}{2}$ inches in length and were used for nailing heavy timbers (Fig. 15 E) (Tremont nd).

WINDOW GLASS

A total of 166 fragments of window glass, also known as flat glass, were recovered during the investigation. The pictures provided by the owners showed glass in some of the windows in the log cabin and rock addition. Approximately 40% of the fragments were heat damaged. Most of these came from the units in Room A and B. This indicates fire in these rooms or material containing heat damaged glass was used for fill in the floors of Room A and B.

MISCELLANEOUS

A piece of metal, 2 in. by 7/8 of an inch with a small nail in one end was found on the surface near where the smokehouse was located. The age and use were unknown. A small brass washer was found on the surface on the east side of the cabin. The age and use were unknown. A 6 in. long brass piece was recovered in Test Unit 5, Level 1. It has a flat area on one end with a small hole in the center and a hinge-like movement in the middle. On the end opposite from the flat area, there was a small groove. There were small rusted fragments of metal on it (Fig. 15 F). It was suggested that this may be part of a carpenter's tool, the age of which is unknown (Fox 2002).

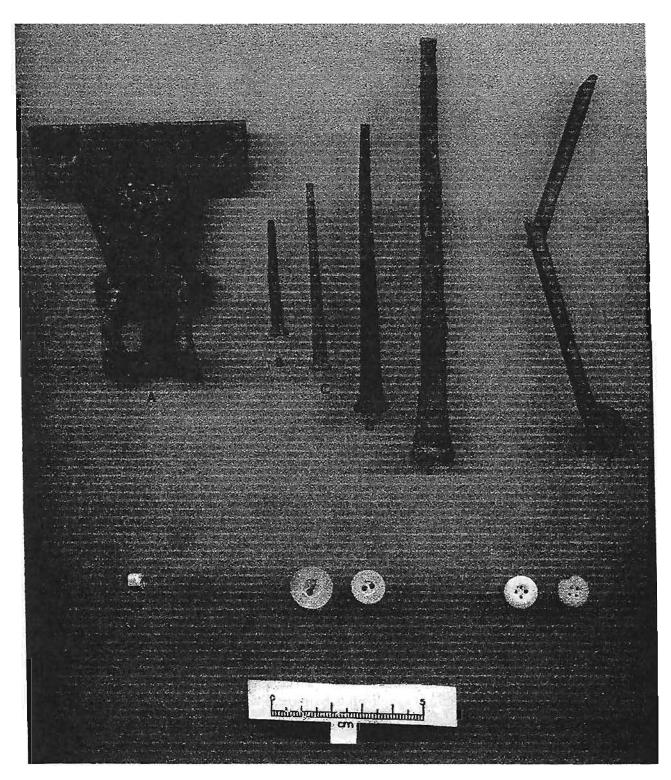


Figure 15: A, Shudder Hinge, B, 4d cut nail, C 8d cut nail, D 16d cut nail, E 50d cut nail, F, Unidentified brass object, G Six sided glass bead, H, Shell buttons and I Ceramic buttons.

HOUSEHOLD MATERIAL

BEAD

A small yellowish, six-sided glass bead was recovered from Test Unit 2, Level 1. It is 1/4 of an inch in diameter, 3/16 of an inch in length and had a 1/8 inch opening. The surface is covered with white patina. The origin and age is unknown. (Fig. 15 G).

BUTTONS

Seven buttons were recovered during the investigations. Four were made of shell and three of ceramics. Several sizes of shell buttons were recovered. Two were $\frac{1}{2}$ inch wide. One was 1/8 inch thick and the other was 1/16 inch thick. Both had two holes. The other shell button was 7/16 inch wide, 1/16 thick and had two holes. The last shell button was 5/16 inch wide and 1/16 inch thick and had four holes (Fig. 15 H & I).

The process of making shell buttons was old. It was refined in the early to mid 1800s. By the early 1850s machines were available to cut the buttons. They were mass produced until World War I. Plastic buttons, actually celluloid, came into use in the later part of the 1800s. The refined celluloid buttons became popular during World War I. In the 1940s, after World War II, modern plastic became available in large quantities (Whittenmore 1992).

There were three ceramic buttons recovered. All were 7/16 inch wide, 1/16 inch thick and had four holes. They were all the same style (Fig. 19).

Ceramic as a material for buttons was used sparingly until the 1850s because they had to be hand made. In the 1850s Richard Prosser, of Birmingham, England, developed a die stamp to produce these buttons. He sold the process to the Minton Company and soon England and France were producing large quantities of ceramic buttons. Soon after this the United States began production of ceramic buttons. They remained popular until the early 1900s (Albert and Kent 1971).

CERAMICS

A total of 59 ceramic shards were recovered during the investigations. Forty-four were undecorated white ware, three of which were molded (Fig. 16-A) The type of raised design was made by placing the paste or clay in a mold before firing. Undecorated white ware was common among the middle class after the Civil War (Fig. 16-B) (Fox et al. 1989). Molded white ware was common in the late 1800s (Wetherbee 1980).

Four specimens of blue sponge ware were recovered. The sponge ware design was made by dipping a sponge in paint and applying it to the surface of the vessel before firing. Cutting a sponge into designs and then applying paint to the vessel was called cut sponge ware. Various types of sponge ware was available in the 19th century and into the early 20th century (Fox et al. 1997).

Three specimens of blue and one green edge spatter ware were recovered. Spatter ware was a form of sponge ware. This was popular from the early 1820s to the early 1850s (Robacker and Robacker 1978).

Three specimens of blue slip ware were recovered (16-C). This type of ceramic was made by mixing clay to a creamy consistency and placed on the vessel before firing. Slip could be produced in many different colors and applied as a wash or with a brush in various designs (Labadie 1988).

One specimen of hand painted ceramic was present in the recovered artifacts (Fig. 16-D).

It appeared to be a floral design of dark green, red and blue. This type of ceramic was know to have been in use from the late 1880s to the early 1900s (Cox et al. 1990).

One piece of gilded ware was recovered. Gilding was a process where gold, generally suspended in oil, was applied to the surface of a vessel and then suspension was burned off leaving the gold design. (Meissner 1996). This process started in the early 1700s and by the 1870s it was in wide spread use in England (Miller 1991). Gilded ware has been recovered at a site in San Antonio, Texas that dated from the late 1800s to the 1900s (Fox et al. 1997).

One sherd that was maroon in color was recovered. This type of ceramic was from the first part of the 20th century and may have been a precursor to Fiesta Ware (Fox 2002).

One sherd of Bristol glaze stoneware was recovered. It had a light tan glaze on the interior and exterior. Bristol glaze had a light color on the exterior surface and a dark brown Albany glaze on the interior surface until about 1920. At that time the light glaze was seen on both interior and exterior surfaces. Stoneware vessels were used for storage and served as a utilitarian vessel (Fig. 20), (Greer 1981).

CLOTH

A small piece of soiled cloth was recovered from the material dumped in the cistern. It was white with a red and green floral design. It may be a fragment of a cloth feed sack. Feed was put in cloth sacks as heavy as 50 pounds until about 1960. The feed sack material was often used to make bonnets and clothing.

GLASS

The methods of manufacturing bottles have changed over the years. The changes in shapes, techniques, color and material used to make glass allow investigators to determine age, use and sometimes location of manufacture. This makes glass a valuable tool in historic archeology.

Prior to the mid 1800s, many bottles were hand blown. In the mid 1800s glass manufacturing techniques improved and demand for bottles increased. At that time, glass bottles were made with a two-piece mold. The neck and lip were molded separately and applied later to the body. They were also known as applied neck and or lip. Prior to 1860 the mold seam extended to just above the shoulder. The mold seams on bottles made between 1860 and 1880 went about half way between the shoulder and the lip. Bottles made between 1880 and 1900 had seams that went to the lip. The automated bottle machine was in use in the early 1900s. The bottle made with this machine had seams that went through the lip (Polak 2000).

Color is another good indicator of the age of a bottle. Iron slag was added to glass prior to 1860 to produce dark olive green or dark olive-amber colors called "black glass". Bottles made prior to the mid 1880s were generally amber, aqua or dark green. The color was determined by the natural minerals in the sand used to make glass. Certain minerals could be added to glass to achieve a desired color. Cobalt or copper makes glass blue, sulfur or iron creates yellow and green, manganese and nickle turns it purple, nickle or carbon can also create brown, chromium or copper can create greens, copper or gold turns glass red and zinc and tin were used to make milk glass (Munsey 1970).

Iron slag was used to make "black glass. It was not really black, but very dark olive green. It was generally used for wine and beverage bottles until the 1860s (Polak 2000). In the 1860s a method

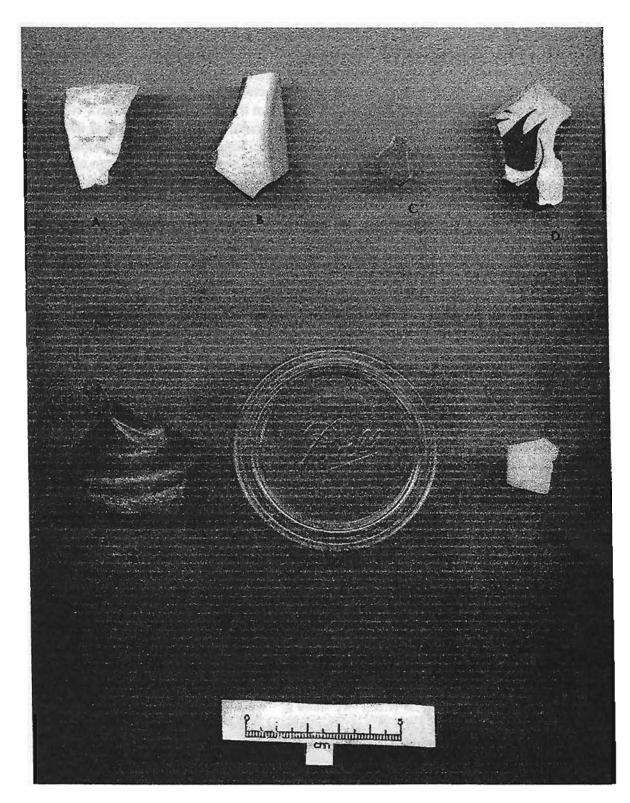


Figure 16: Ceramics and Glass. A, Molded white ware, B, White ware, C, Blue slip, D Hand painted, E Ink bottle fragment, F "Ball" jar lid and G, Milk glass.

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was developed to preserve food in bottles. Methods to make clear glass were created so the buyers could see the food they purchased. About 1880 manganese was added to glass so it was clear (Munsey 1970). Germany provided large quantities of manganese to glass makers in the United States until 1914 when World War I started. At that time the Germans cut off the manganese supply.

When glass with manganese in it is exposed to the sun it turns purple. The ultra violet rays of the suns cause the manganese to oxidize creating the purple color. The amount of time the glass is exposed to the sun and the amount of manganese in the glass dictated how dark the purple color will be (Munsey 1970).

Drug or medicine bottles with a flat, embossed label were used in America from the late 1860s until about 1900. These bottles were made from molds for the various size bottles. A flat plate, known as the "slug plate", containing a customized label for each customer was placed in the bottle mold prior to making the bottles. These bottles have two wide flat sides and two narrow sides. The embossing was placed on the wide sides. About 1900, automated bottle machines took over the manufacture of the drug bottles. (Polak 2000).

Four pieces of black glass were recovered. The specimens were well preserved which was a characteristic of black glass (Meissner 1996). This glass was some of the earliest artifacts from the historic component of the site.

An embossed flat aqua glass fragment was recovered. "DRUG C ST. L" was seen on the portion of the label that was recovered. This was a pre-1900 drug bottle. A light purple bottle fragment was recovered that had a script "?" with a horizontal line through the upper curl and "ss" next to it. The symbol "?ss" stands for ½ ounce. Three clear glass fragments were recovered. One fragment was part of a broad sloping collar above a beveled ring. Two fragments were part of the flat side of a drug bottle. On one of the fragments there was an embossed "O" with a small underlined "<u>R</u>" next to it. The second flat fragment had some unidentifiable embossing on it. There was a period near this symbol. The had an applied lip. This type of bottle was made before 1900.

Three fragments of thick brown glass were recovered. Two were slightly curved body fragments while the third was a large neck fragment with a portion of the lip. There was a seam in the neck portion. However, the portion of the neck with the remainder of the seam was missing. This fragment was from a bottle made before 1900. Thick brown bottles from that time period were usually used to hold beer or whiskey (Fox 2002). Two fragments of thin wall amber glass were recovered. They were modern beer bottle fragments.

A fragment of a glass ink bottle was found (16-E). It was aqua in color and has a seam that went to the bottom of the lip. This indicates a bottle made in the late 1800s.

A glass jar lid with "Ball" in script was recovered (16-F). This type of lid was placed on the opening of the jar with a rubber seal. The seal was placed between the lid and the mouth rim of the jar. A metal screw type cap was placed over the glass and tightened to create an air tight jar. This lid was seen pre WWII. At the beginning of WWII the metal lids were abandoned so the metal could be used in the war effort (Brantley 1975). A small narrow, curved piece of hardened rubber was recovered. It was a seal for a Ball jar similar to the one described above.

Three small fragments of milk glass were recovered (16-G). This type of glass was used for medicine, cosmetics, toiletries and food containers (Fig. 21), (Cox, et al 1990).

Fragments of rusted crown caps were recovered. These were similar to the caps on modern beer bottles. This type of sealer for bottles was invented by William Painter in 1897 and has been in use since that time (Polak 2000).

KITCHENWARE

A spoon with proximal half of the handle missing was found on the east side of the cabin. A similar spoon was shown in a reprint of the 1900 Sears, Roebuck and Co. catalog (Sears Roebuck 1970).

METAL

A metal item that was used to protect the corner of a wooden container was found on the east side of the cabin on the surface. It had three prongs and is at a ninety degree angle. It may have been used on the corner of a steamer truck.

MISCELLANEOUS

A small eyelet, $\frac{1}{2}$ inch across, was found on the surface east of the cabin. It was made of metal. The age and use are unknown.

Fragments of slate and a small portion of a slate pencil were recovered. The slate is flat and thin. They were part of a slate tablet used to write on. The pencil was used to write on the tablet. The slate pencil was not found when the analysis of the artifacts was done.

TOYS

DOLL

One item related to dolls was recovered. It was a small plastic faded pink clothes hanger with

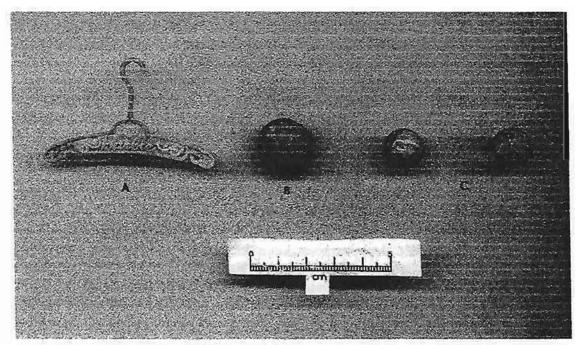


Figure 17: Modern Barbie Doll accessory, B Bennington Brown marble, C Modern marbles.

"Barbie" in script in the center. Barbie dolls and accessories came on the market in 1959 (Fig 17 A) (Wolf 2000).

MARBLES

Three marbles were recovered during the archeological investigation. The first was 3/4 inch in diameter brown glazed marble known as a "Bennington Brown" (Fig 17 B). This type of marble is made of clay and glazed. They were made in Germany in the 1800s, with top production during the last twenty years of the 1800s (Fox et al 1997). The other two marbles were glass and 5/8 inch in diameter. One was an opaque blue to light blue swirl pattern. The last one was translucent light green with the swirl pattern. The last two marbles were manufactured in the last 40 to 50 years (Fig. 17 C), (Zapata 2002).

PREHISTORIC BACKGROUND

Humans have resided on the Edwards Plateau for about 11,000 years (Turner and Hester 1999). The first inhabitants of the area may have arrived about 12,000 to 13,000 years ago. When Europeans came they found the area inviting. It was not uncommon for them to have settled locations the Indians had inhabited thousands of years earlier. Site 41KR533 in Kerrville, Texas had a late 1800s home site on a prehistoric burned rock midden (Rector 1996). Site 41KR131 had a circa 1910 home built on a burned rock midden. It was recorded in 1977 (Hall 1977).

The time period from about 11,000 to 8,500 years BP (before present) is called the Paleoindian period. It is characterized by the hunting of large extinct animals such as: mammoth, mastodon and large buffalo know as *Bison antiquus*. Clovis and Folsom are common projectile points of the early part of this period. Unfluted Plainview, Golondrina and Barber are seen in the later part of this period (Turner and Hester). Most of the Paleoindian period was much cooler and more moist than today. In the late stages the climate became warmer and drier (Toomey 1993).

The Early Archaic period was after the Paleoindian period. It started about 8,500 years BP and ended about 4,500 years BP (Turner and Hester 1999). It was characterized by a general shift from a cool and moist climate to a warm and dry climate. A short period that was slightly cooler and more moist was noted from about 6,500 to 6,000 years BP. The climate became very dry and warm by the end of this time period (Toomey 1993). Gathering plants for food became more important during this time. Hunting shifted from large to small and medium sized animals. (Prewitt 1981).

The Middle Archaic period lasted from approximately 4,500 to 3,000 years BP (Turner and Hester 1999). The initial climate was dry and warm shifting to cool and moist by the end of the period (Toomey 1993). An increase in the number of sites and lithic artifacts are seen suggesting an increase in population. Cemeteries make an appearance late in the period signaling some territorial tendencies among the Indians. Trade networks were in use by this time (Turner and Hester1999). The number of burned rock middens increased indicating an increase reliance on plants for food. The large number of projectile points seen in the Middle Archaic shows that hunting continued to be an important food source. Nolan Travis and Bulverde dart points characterized this period. Lange, Langtry, Marshall, Pedernales and Williams were common dart points of this period also. (Turner and Hester 1999).

The Late Archaic period lasted about 700 years from about 3,000 to 2,300 years BP (Turner and Hester 1999). The climate was generally cool and moist for all of this period (Toomey 1993). An

increased emphasis was placed on gathering of plants for food. Bison were present for most of this period, but began to disappear toward the end (Prewit 1981). Large dart points such as; Castroville, Marcos and Montell dart points were noted during this period (Turner and Hester 1999).

The Transitional period lasted from about 2,300 to 1,300 years BP. This period was cool and moist until the later part when the climate began to shift to drier and warmer (Toomey 1993). The dart points began to decrease in size during this period. Edgewood, Ensor, Fairland and Frio were common in this period (Turner and Hester 1999).

The Late Prehistoric period began approximately 1,300 years BP and lasted approximately 1,600 years. It was divided into early and late portions. The early portion lasted from about 1,300 to 900 years BP and was known as the Austin Phase (Prewitt 1981) and (Turner and Hester 1999). During the very early part of the this phase, the bow and arrow made an appearance and the atlatl and dart points fell out of favor. Burned rock middens continued in use, especially in the western Edwards Plateau. However, the middens accumulated at a slower rate. Edwards and Scallorn arrow points are common in the Austin Phase (Collins 1995).

The later portion of the Late Prehistoric period was known as the Toyah Phase. It lasted from about 900 to 500 years BP. This phase was somewhat cooler and more moist (Toomey 1993). The buffalo returned to the region and once again became an important food (Turner and Hester 1999). Perdiz arrow points, large, thin bifaces, end scrapers, prismatic blades and locally made pottery, loosely know as Leon Plain, were seen during this time (Collins 1995). Individuals found in burials with arrow points as the probable cause of death increase in the Late Prehistoric period over other time periods. This indicates an increase in warfare. This may have been caused by increased populations (Johnson 1995).

The Historic period started when Europeans arrived in Texas and made contact with the Indians. The exact time has not been agreed upon because contact occurred at different times in different places. The effect of this contact varied with each group. No definite date can be given for contact. There was a sub-period subscribed to by some called the Protohistoric period. This was the time between when the Europeans arrived in the region and before they had an effect on the native inhabitants (Turner and Hester 1999)

PREVIOUS PREHISTORIC INVESTIGATION

Prehistoric investigations have been conducted in Gillespie County since the 1940s. One of the earliest was excavation at the Lehman Rock Shelter in the west portion of the county. It was conducted by J. C. Kelly in 1947. This site contained some unique pictographs (Kelly). Unfortunately, some of the pictographs have been vandalized in the interim. A study to better understand the effect of climatic changes on culture in the Gillespie County was undertaken in the late 1970s (Gunn and Mahula 1977). Two sites, 41BC63 and 41BC71, at the east end of the Lyndon B. Johnson State Historic Park were investigated in the summer of 1982. These sites were able to shed light for the region on settlement patterns and climate in the early Holocene (Gunn and Kerr 1986). The "No-Name Creek Site" was excavated in 1973 when Highway 16 north of Fredericksburg was widened. A possible relationship between Middle Archaic Pedernales and Marshal dart points was discussed in this report (Denton 1976).

EXCAVATION

Five one meter by one meter units were excavated in 10 cm levels inside and outside of the cabin. These units were used to determine footing of the structure and if prehistoric cultural material was present. Unit 1 was against the middle of the inside west wall of Room A, Unit 2 was in middle against the inside west wall of Room B, Unit 3 was in the middle against the inside east wall of Room A and Unit 4 was in the middle against the inside east wall of Room B. Unit 5 was below a window outside on the north end of the cabin.

Twelve shovel tests were planned, but only eleven were excavated outside on the north, northeast and east portion of the cabin. Time constraints did not permit the last shovel test to be excavated The shovel tests were used to search for previous unknown historic structures and remnants of prehistoric cultures occupying this site.

Unit 1 had some historic nails, a piece of historic ceramics, glass, wood fragments, mortar fragments, modern bone and charcoal recovered. There was dirt and gravel mixed to 15 cmbs (centimeters below the surface). The stone footing for the cabin rests on the existing surface. Five pieces of debitage were recovered. No fire-cracked rock was seen. The unit was ended at 15 cmbs.

Unit 2 had metal fragments, nails, charcoal, glass, wood fragments, rabdotus snail shells, many pieces of debitage, two biface fragments and a Langtry dart point proximal fragment. A portion of a stone hearth was seen in the southern portion of this unit. The stone footing was 5-8 cm below the existing surface (Fig. 23). The unit ended at 20 cmbs.

Unit 3 had wood fragments, charcoal and a rabdotus snail shell recovered. The footing for the cabin rested on the existing surface. The soil was dirt with gravel to 10 cmbs. Two pieces of debitage were recovered. No fire-cracked rock was seen. The unit was halted at 10 cmbs.

Unit 4 had charcoal fragments, nails, glass, household items, mortar, wood fragments, biface fragments, cores and many pieces of debitage mixed with fire-cracked rock. There was a prehistoric midden with fire-cracked rock (FCR) at approximately 10-12 cmbs. Footing for the cabin in this unit was at 5-8 cmbs. The unit ended at 20 cmbs.

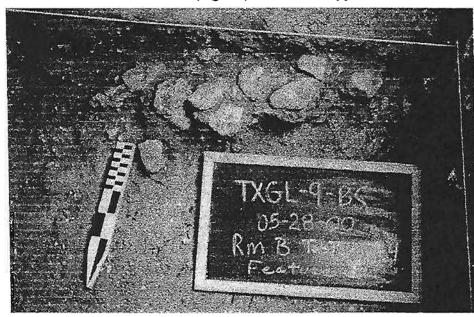
Unit 5 had glass fragments and ceramic fragments. There were several flint flakes and one conjoined FCR between 0-10 cmbs.

Shovel Tests 1 through 8 and 10 were positive for prehistoric material starting in Level 1. All shovel tests with prehistoric cultural material were on the east side and the northeast corner outside Room B. These shovel tests hit FCR between 8-12 cmbs, except Shovel Test 6 first encounter FCR at 15 cmbs. In these shovel tests no FCR was found below 30cmbs, except in Shovel Test 10 where it ended at 40 cmbs. Historic debris was found in Level 1 of all shovel tests. The prehistoric material was encountered starting in Level 1 and generally increased as the shovel tests went deeper. Historic debris was rare below Level 1. Historic and prehistoric material were both found in Level 1. This indicates this level was disturbed or this was the original ground surface prior to construction of the cabin. Some historic material was recovered below Level 1. It was highly likely that the historic material fell from Level 1 to the lower levels. All except one shovel test were stopped between 20-30 cmbs. Shovel Test 10 was excavated to 40 cmbs. Shovel Tests 11 and 12 contained historic material, but no prehistoric material. Shovel Test 9 was not excavated due to time constraints. Remodeling was to start two week from the day the archeological investigation started. The remodeling was delayed giving four weekends to work. This still did not allow enough time to finish the work that was planned.

PREHISTORIC FEATURES

Two Prehistoric features were found at 41GL303. The first was a small concentration of fire-cracked rock in Test Unit 2 in Room B. This unit was located next to the middle of the west wall. The feature extended from the south wall of Unit 2 to the north about 30 cm and was about 70 cm. It was encounter about 8-10 cmbs and ended at 20 cmbs. It is a portion of a hearth.

Feature 1 is a hearth or bake oven. It was a concentration of fire cracked rock extending from the south wall of Test Unit 2 (Fig. 18). When this type of feature is encountered in an archeological



context it indicates that rock was being intentionally heated. The hot rocks could be used for cooking food, boiling liquids or as a source of heat. The most common use was as an oven for baking. Archeological experiments and investigations indicate that a hole was dug in the ground, a fire built in it, then rock were placed in the fire and heated. When the rocks were white hot a layer of vegetation was placed over the hot rocks. The food was placed on top of the vegetation and covered with

Figure 18: Feature 1, a hearth discovered in the south portion of Test Unit 2. Photo board shows this was Test Unit 4. This is incorrect it was Test Unit 2.

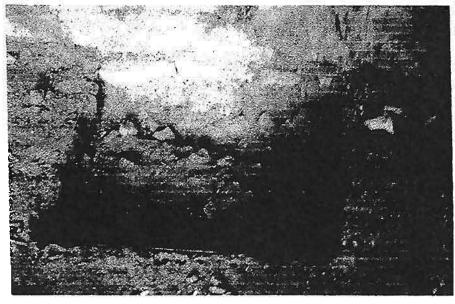
dirt. If a steam oven was desired a hole was placed in the top and water poured in and the hole covered. Sotol, yucca type plants and small bulbs were commonly cooked in such ovens (Black et al 1997). These plant foods contained carbohydrates known as complex polysaccharides. Humans were unable to digest this type of carbohydrates. Several kinds of plant can cause severe illness if eaten raw. The plants must be heated in the oven for up to two days to break down the complex polysacchrides to simple sugars. The simple sugars can then be absorbed in the human digestive tract (Mauldin 2003).

The rocks that were heated will retain heat for a much longer period of time than charcoal of a wood fire. The amount of time a rock can retain heat depends on its size, type and how long it was heated. Multiple episodes of heating and cooling caused rock to fracture into smaller pieces. The smaller rocks were unusable because they retained heat for a shorter period of time. The small, inefficient rocks were discarded and replaced by large ones (Black et al 1997). Limestone was the most common rock used in ovens and hearths in the Hill Country because of availability.

An experiment to estimate the rate of burned rock discard was conducted at the Center for Archaeological Research at the University of Texas at San Antonio. During this experiment temperatures were measured in several locations inside a rock oven that was 130 centimeters in diameter and 30 centimeters deep. The limestone rocks used in the study averaged 3.5 kilograms (7.7 pounds) and were from 16-25 centimeters in maximum length (Leach et al 1998). Sotol heart was one of the plants placed in the oven. The experimental data showed the rock immediately after heating had an average temperature of 567 degrees C (1055 degrees F), and the average temperature of the food to be cooked was 37 degrees C (97 degrees F). The average temperature of the rock 17.5 hours from the start was 163 degrees C (324 degrees F) and the food was 98 degrees C (208 degrees F). At the end of the experiment, 39 hours after the start, the rock had an average temperature of 94 degrees C (201 degrees F) and the average temperature of the food was 81 degrees C (178 degrees F). When the hearts of the sotol were removed from the oven it was reported to be "sweaty brown (somewhat caramelized), and sweet smelling" (Leach et al 1998). The sweet smell indicates the complex carbohydrates had been broken down to simple sugars. The baked sotol had a sweet taste (Dering 1999).

Several types of wild bulbs and tubers have been recovered from burned rock middens in Texas. Charted remnants of camas bulbs were found in ten sites in southern Brown County, Texas. Eastern Camas (Camassia scilloides), wild onion (Allium sp.), and dog's tooth violet (Erythtronium mesochoreum) were the most common remains recovered (Mauldin et al 2003). Brownlow (2003) identified carbonized bulbs of eastern camas in open camp sites in Williamson County, Texas. It is possible meat was also cooked in the ovens.

Feature 2 was first discovered in Test Unit 4 and seen in most of the shovel tests. This unit was located at the mid-point of the inside east wall of Room B (Fig 19). It was composed of fire-cracked rock. This feature extended outside of the cabin to the north and east. Concentrations of FCR were seen between 10-30 cmbs in Shovel Tests 3-8 and between 10-40 cmbs in Shovel Test 10. Shovel Tests 1 and 2 had less FCR that were small in size compared to the other units and shovel tests.



Feature 2 was a burned rock midden.

Burned rock middens were accumulations of fire cracked rock as they were discarded from cooking features, such as hearths and bake ovens. The rocks were heated and cooled causing the rocks to break into smaller pieces. The smaller rocks were not efficient at retaining heat for the necessary length of time required for cooking. Middens were formed by the small rocks being discarded around the cooking feature. In west Texas they

Figure 19: Feature 2 in Test Unit 4, facing east.

formed a circle around the feature. These were called annular middens (Black et al 1997). In some areas of the Edwards Plateau middens had a slight depression on top. This usually indicates that a large

PREHISTORIC ARTIFACTS

DART POINT

A dart point fragment was recovered in Test Unit 2, Level 1. This point was made from light gray chert with white inclusions (Fig. 20-A). There was some patina seen on the lateral edge of the stem. It was a type known as Langtry and was used during the Middle Archaic time period which lasted from about 2500 BC to about 1000 BC (Turner and Hester 1999).

BIFACE FRAGMENTS

A thinned biface fragment, fragment 1, was recovered in Test Unit 2, Level 1. It was planoconvex, flat on one surface and curved on the other. It was made from brownish gray chert with patina on the flat surface and on broken edge. This was the proximal end of a preform (Fig. 20-B).

Thin biface fragment 2 was recovered in Test Unit 4, Level 1. It was made from brown chert and was plano-convex (Fig. 20-C).

Thin biface 3 was recovered in Test Unit 4. Level 1. It was made from brown chert. It appears it was a flake being reduced into a biface. Remnants of the bulb of percussion and platform were present (Fig. 20-D).

Thin biface 4 was recovered in Test Unit 4, Level 1. It was an edge portion of a plano-convex mid-section. It was made of brown chert with patina on both sides and the broken surfaces Fig. 20-E).

QUARRY BLANKS

A quarry blank was a crudely flaked, thick chert biface. It often still had cortex, non-chert material such as limestone, on the surface. The sites where chert was gathered to use in making tools is called a quarry or procurement site. These were sometimes far from camp. The tool maker would remove several flakes with a hammer stone to test the quality of the chert. If it was good material it was partially reduced on the spot by removing large flakes with a hammer stone. This reduced the weight of the useful chert that was taken back to the main camp.

Quarry blank 1 was recovered on the surface northeast of the cabin. It was lenticular in cross section. It was made of brownish gray chert with cortex present on one surface (Fig. 20-F).

Quarry blank 2 was recovered in Test Unit 2, Level 1. It was plano-convex and made from a brownish gray chert. Patina was present on the flat surface (Fig 20-G).

MODIFIED FLAKE

A modified flake was recovered in Test Unit 2, Level 2. It was thick with a convex surface on one side and a concave surface on the other. A modified flake was one that has been flaked on one or more lateral edges to create a cutting or scraping tool. This specimen was made from gray chert with patina on all surfaces. Heavy patina was seen on the working edge. There was cortex on portions of the artifact (Fig. 20-H).

UTILIZED FLAKES

A utilized flake is an unmodified flake of chert that was used as a cutting or scraping tool.

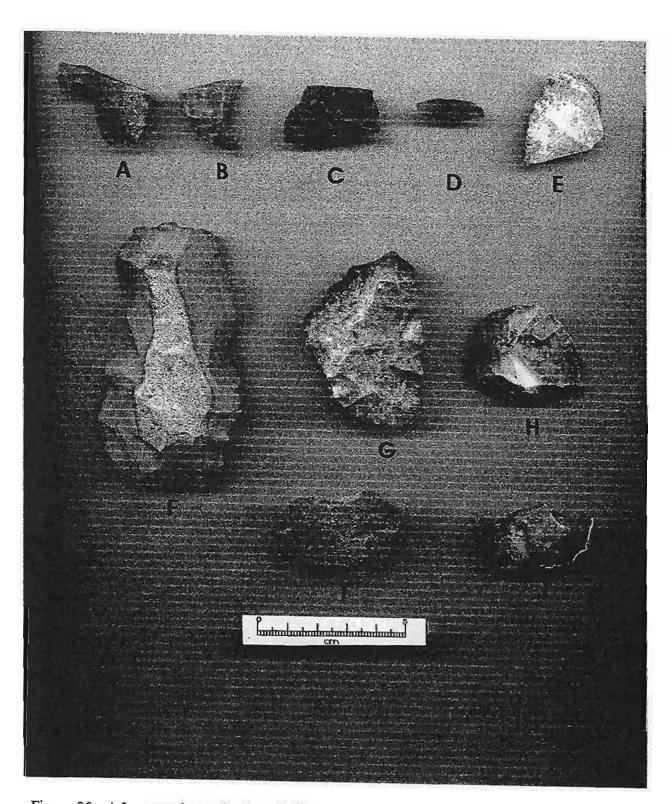


Figure 20: A Langtry dart point base, B-E, Biface fragments, F Quarry blank, G Quarry blank fragment, H Modified flake, I-J Utilized flakes.

These were often used one time then discarded. The use caused modification on the edges.

Utilized flake 1 was recovered in Test Unit 5, Level 1. It was concave on one side and convex on the other. The chert was brownish gray with some patina on both surfaces. The flake was broken on both ends. This was were the use wear is seen. There was cortex on the edge opposite of the working edge (Fig. 20-I).

Utilized flake 2 was recovered in Test Unit 4, Level 1. It was a primary flake that is convex on one side and concave on the other. A primary flake has more than 90% cortex on one surface. It was the first or one of the first flakes removed from a cobble of chert when the process of manufacturing a tool was begun. The chert was yellowish brown to cream in color. There was use wear on the edge (Fig. 20-J).

DEBITAGE

Debitage refers to flakes and refuse created as a result of chert tool manufacture (Howard et al 2003). During the excavation 496 pieces of debitage were recovered. Test Unit 2, Level 1 had 135 pieces recovered and Level 2 had 14 pieces. Test Unit 4, Level had 128 pieces recovered and Level 2 had 26 pieces. These units were in Room B. Test Unit 1, 3 and 5 accounted for 20 pieces of debitage. There was a total of 173 pieces of debitage recovered in the shovel tests. Shovel Test 5 had 31 pieces, Shovel Test 7 had 23 pieces and Shovel Test 2 had 18 pieces. The rest of the shovel test had less than 18 pieces of debitage recovered.

The majority of the debitage was small, mostly tertiary flakes, without cortex,. A few primary flakes and secondary flakes, less than 90% cortex present on one surface. This indicates that end stage of tool manufacture or sharpening of tools was taking place at this site.

The Langtry dart point fragment recovered here indicates people lived here between 4,500 to 3,000 years ago. It was possible this site was used in earlier and/or later periods. The chert tools were made from non-local stone. Large cobbles were reduced at procurement sites and brought to 41GL303 to be finished. Food was cooked in subsurface ovens. The burned rock accumulation indicates the repeated use of the site for food processing and cooking.

SUMMARY AND CONCLUSION

In the Summer of 2000 the Hill Country Archeological Association was asked to conduct an archeological investigation of a log cabin in eastern Gillespie County, Texas. The goal of this investigation was to determine the chronological events for this property. This was accomplished by recovery and analysis of historic and prehistoric artifacts. Work consisted of a surface survey, excavation of 11 shovel tests and five one meter by one meter test units. Interviews with several local individuals were conducted. One of these individuals lived on the site in the 1920s and early 1930s. The other was the owner of the property at the time of the archeological investigation. An examination of the architecture of the structures was done. A search of historical records was done.

It was found that prehistoric Indians inhabited the site as early as 4,500 years ago. The site consisted of a fire cracked rock hearth and a small burned rock midden beneath the ground surface in Room B that extended outside to the east and north. The hearth was partially exposed in the center of the south wall of Test Unit 2. A fragment of a Langtry dart point was recovered from this unit. This point was in use between about 4500 BC and 3,000 years before the present (Turner and Hester 1999).

The second burned rock feature was found in the center east portion of Room B in Test Unit 4. This burned rock feature was found 10-30 cm below the surface. The soil from 0-10 cm below the surface was disturbed. Studies indicate the fire cracked rock was probably the result of the use of rock ovens to cook vegetable material for consumption by the prehistoric occupants. Five thin biface fragments, three thick biface fragments, two flake tools and a moderate amount of debitage, chert flakes created from the manufacture of tools, were recovered during the excavation and surface survey.

The land the cabin was located on had been owned by several well known individuals in Texas and Gillespie County history. Juan Seguin, a veteran of the Texas Revolution, owned the land in 1838. Henry Basse, a prominent figure in the early development of Gilliespie County, owned the land from 1852 to 1867. In mid 1850s, the land was a lightening rod for controversy involving John C. Hayes (Capt. Jack). He was a well known Texas Ranger of this time period. In 1847, he gave his power of attorney to Henry M. Lewis of San Antonio to transact business on his behalf. In 1849, Hayes left for California. In 1850, Hayes and Lewis gave a power of attorney to Joel L. Ankrim of Gillespie County. In 1852, Ankrim began selling tracts of land out of Survey 19 in Gillespie County on Hayes and Lewis' behalf. It appears they did not own this land. In 1853, John Cunningham, the legitimate owner, wanted the people who purchased from Hayes and Lewis via Ankrim to get off his land. Several law suits followed. The dispute made it's way to the Texas Supreme Court. The people that purchased the land from Hayes and Lewis were allowed to keep the land.

Ankrim sold land neither he nor Hayes and Lewis owned. If the purchaser could stay on the land long enough and improve it without being confronted by the legal owner they would be able to obtain a title by the right of adverse possession. Eleven tracts of land were sold in Hayes and Lewis, name. In 1856 Hayes signed a quit claim deed to the ten tracts. It is not known how much Hayes and Lewis knew about the transactions Amkrim conducted in their names prior to the suite by Cunningham.

The focus of the investigation was the cabin. It may have been constructed between 1852 and 1855. Land and improvements were given separate values in the 1855 law suit. To obtain the land by adverse possession improvements must be made. The cabin, compound and other structures may have been part of these improvements.

Henry Basse was able to keep his land following the settlement of the law suit. There was no evidence that Henry ever lived on this land. However, the 1860 census for Gillespie County list his son, Carl, as a farmer. Carl may have lived and worked the 250 acres. Henry Basse died in 1865 and in 1868 his wife sold the land to Peter Heep.

The land stayed in the hands of the Heep/Reichenau family until 1948. In 1947, the Reichenau's requested and obtain electric service to the cabin. In 1948, it was sold to Erwin Kusenberger. In the 1950s, Kusenberger tore down the compound leaving only the cabin and stone addition, milking shed and chicken coop. He felt they were no longer useful.

Germans began to settle Gillespie County in the mid 1840s. The cabin was constructed in the Hill Country German style as described by Jordan (1978). It was a dogtrot structure with chinking, no ridge pole, a wood stove instead of a fire place and "V" notching to join the logs at the corners. The adding of a stone addition, or shed, was common of this style. The logs were hewed post oak. When the cabin was first built the roof was probably wooden shingles. At an unknown time the outer log walls were covered with flat, cut boards. This was probably done soon after the construction of the cabin. People that lived in log cabins were considered poor and trashy. This feeling prevailed into the 1930s, especially in east Texas.

The land changed hand several time until Burkhalter and Witters purchased it in 1999. In

recent time it was used for storage and as a barn. The structures were not in good condition. The stone addition was torn down and the cabin was remodeled. The stone was used in and around the cabin to create a bed and breakfast that retained some of the old German style country home atmosphere. It was completed in late 2000.

The archeological investigation carried out at 41GL303 provided data about the function of the compound and the people that lived there during historic and prehistoric times. The discovery of the prehistoric component indicates occupation at the site at least 3,000 to 4,000 years ago. The occupants cook plant material and manufactured chert tools at this site.

ACKNOWLEDGMENTS

A great debt of gratitude is owned to Eddie Burkhalter (deceased) and Fred Witters for allowing the Hill Country Archeological Association to investigate this historic and prehistoric site. The cooperation, hospitality and encouragement they provided was wonderful. We are thankful for the opportunity to talk with Albert Meier. Mr Meier provided information about the site that could only be obtained from a first hand witness. The hard work of Hill Country Archeological Association members; Gwen and Virgil Altwein, Von and Vonie Evans, Jose Contreras, Scott and Sue Hobbs, George Kolb, Tom Miller, Carl Moore and Kay and Woody Woodward are greatly appreciated. A thank you goes to Steve Smith, Attorney-at-law/archeologist, for his assistance in unraveling the legal aspects of this site. Thanks go to Patrick Duecker and Max Moreno of Central Texas Electric Co-op in Fredericksburg for assisting in the determining the date the first electrical service was provided to the cabin. Thanks go to Rex Crawford of Rexel Electric in Kerrville, Texas for identifying the type and age of electrical wire recovered during the investigation. Thanks go to Leola Brodbeck, RTA/CTA, Assessor and Collector of Taxes for Gillespie County, Texas, for providing past tax information for the site. Kay Woodward proof read this report and made important suggestions for its improvement. Her effort is greatly appreciated. A debt of gratitude is owed to Anne A. Fox for identifying several artifacts and providing suggestions and comments to improve this report.

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GCPR

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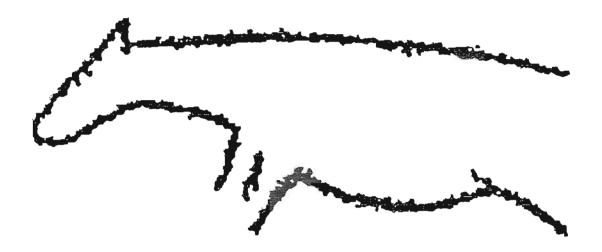
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ANCIENT ECHOES SUPPLEMENTAL TO THE PICTURES



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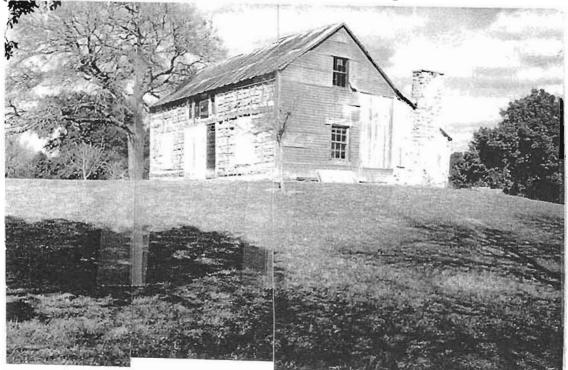


Figure 1: Structure when HCAA began work (pg 1).

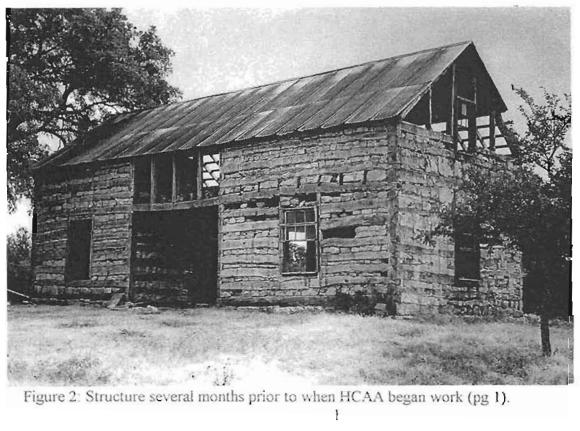




Figure 5: "V" notching of the corner log joints and chinking (pg 11).



Figure 6: Inside roof with no ridge pole (pg 11).



Figure 7: Stone footing supporting the log walls (pg 12).



Figure 8: Floor joist protruding from flooring (pg 13).

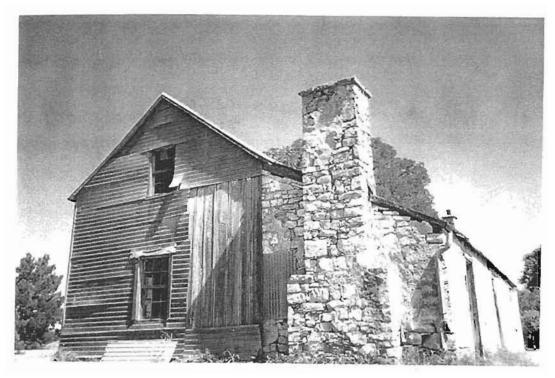


Figure 9: Tin siding on top of cut board siding. Logs are beneath the boards (pg 13).

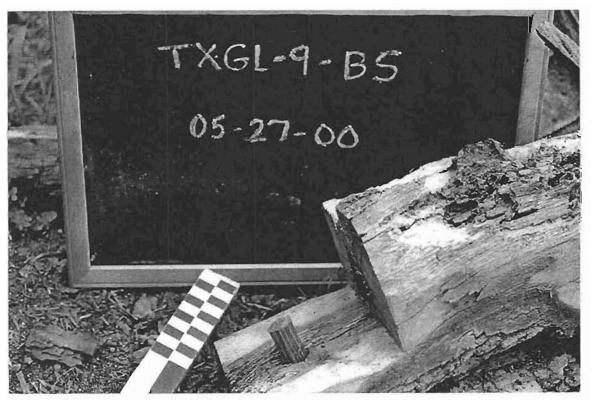


Figure 10: Pegs used to hold door jam logs together (pg 14).

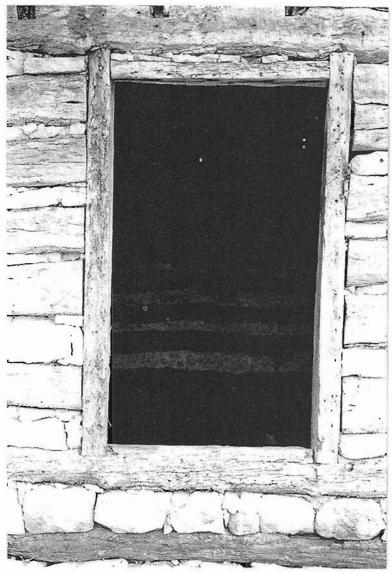


Figure 11: Window jam (pg 14).

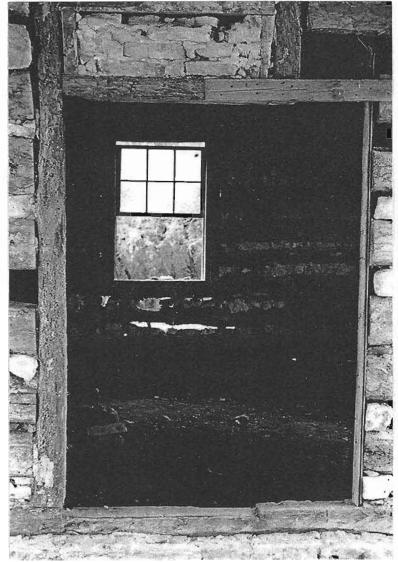


Figure 12: Door to Room A (pg15 left)

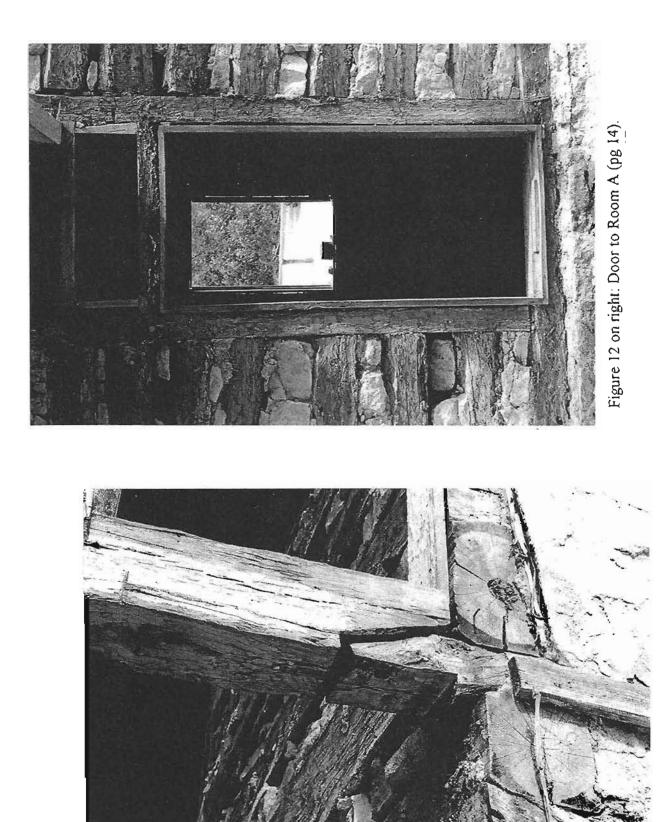


Figure 13: Joist on cantilevered portion of second story joist (pg 16).

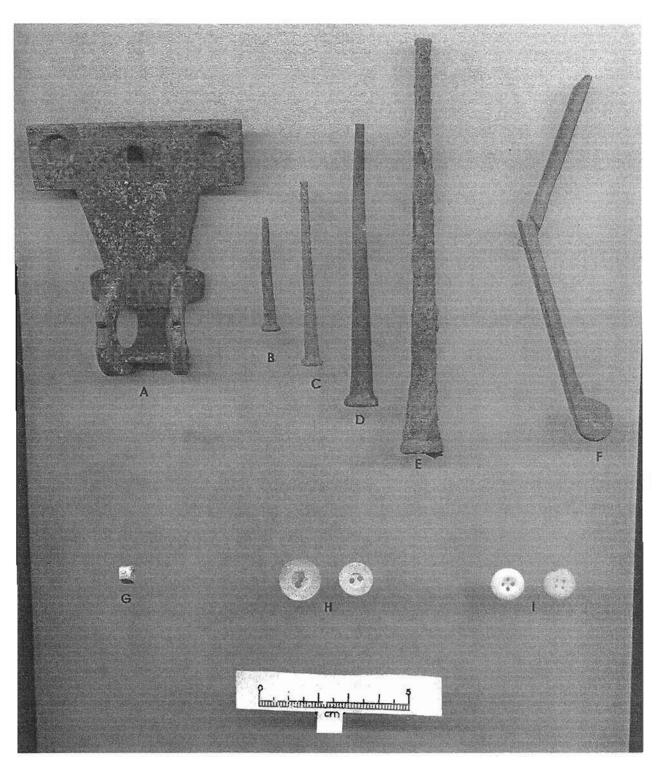


Figure 15: A, Shudder Hinge, B, 4d cut nail, C 8d cut nail, D 16d cut nail, E 50d cut nail, F, Unidentified brass object, G Six sided glass bead, H, Shell buttons and I Ceramic buttons (pg 22).

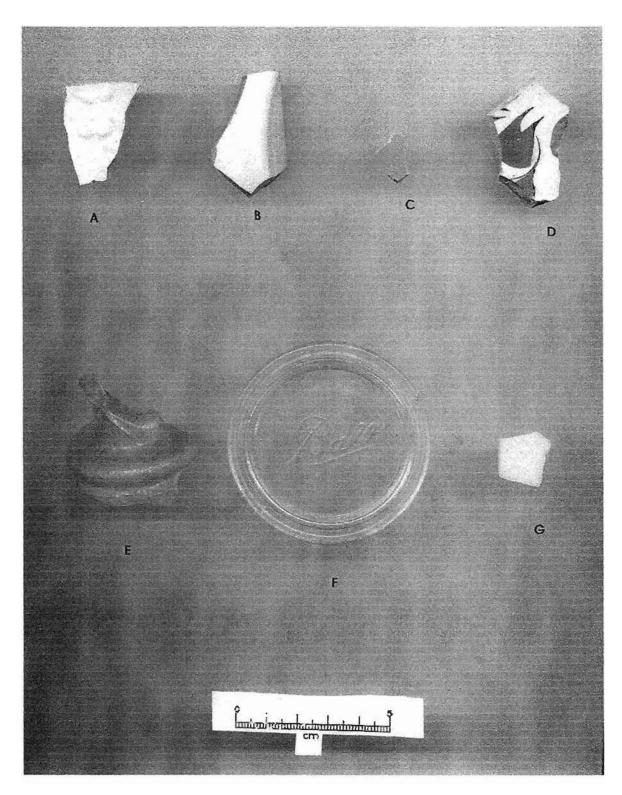


Figure 16: Ceramics and Glass. A, Molded white ware, B, White ware, C, Blue slip, D Hand painted, E Ink bottle fragment, F "Ball" jar lid and G, Milk glass. (Pg 25).

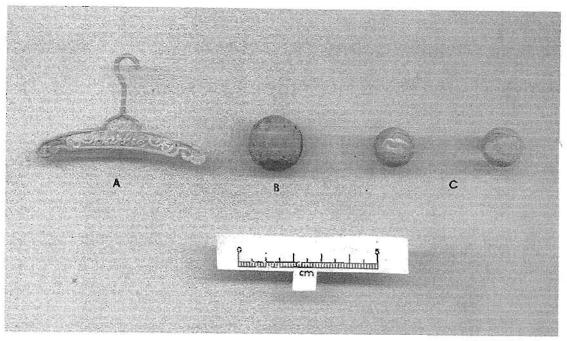


Figure 17: A-modern Barbie Doll accessory, B-Bennington Brown marble, C-Modern Marbles (pg 27).

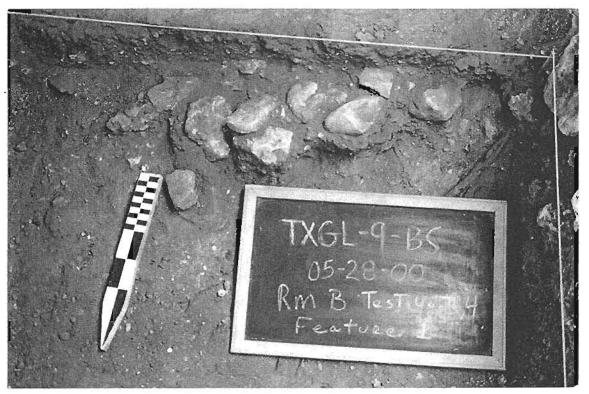


Figure 18: Feature 1, a hearth discovered in the south portion of Test Unit 2. Photo board Shows this was Test Unit 4. This was incorrect, it was Test Unit 2 (pg 31).



Figure 18: Feature 2 in Test Unit 4, facing east (pg 32).

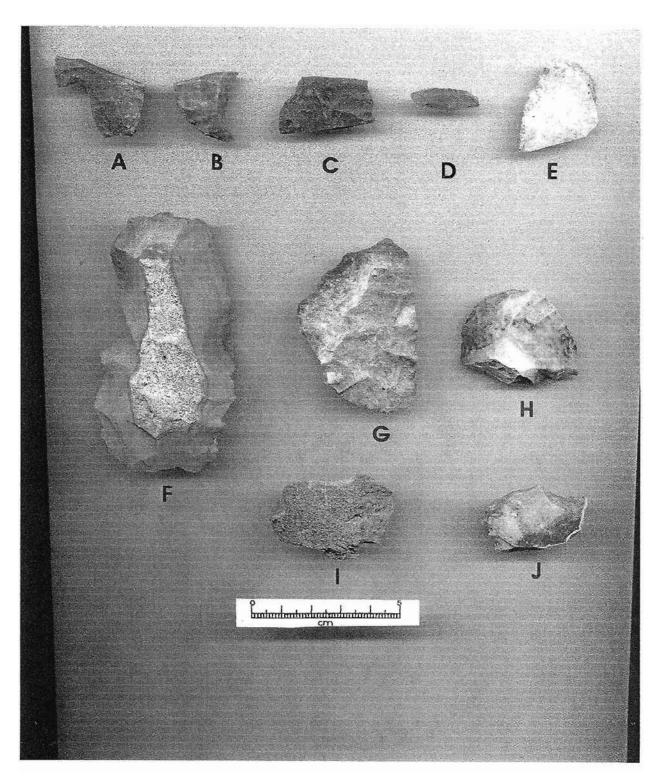


Figure 20: A Langtry dart point base, B-E, Biface fragments, F Quarry blank, G Quarry blank fragment, H Modified flake, I-J Utilized flakes. (Pg 34)



Archeological Reconnaissance of the Starkey-Saner Mill

Figure 3: Dressed limestone blocks on the upriver side of the site, facing northwest (pg 48).



Figure 4: Remnants of the northwest portion of the site, facing northwest (pg 48).

The Shepard Site

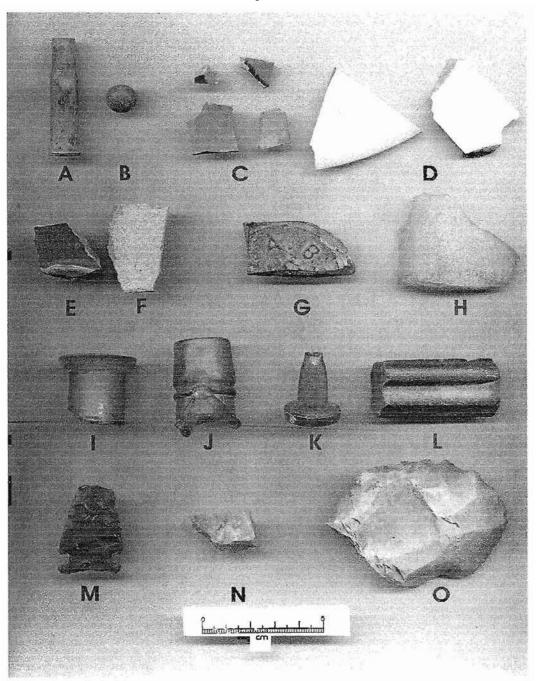


Figure 2: Artifacts from 41KR580, A .303 cal cartridge, B .50 cal. lead ball, C Galera ware, D White ware, E Stoneware with Albany slip, F Stoneware with Bristol glaze, G brown glass bottle bottom fragment, H aqua glass fragment, I, J purple lip and neck glass fragments, K purple glass stopper, L unidentified metal, M Ensor dart point, N biface fragment, O quarry blank (pg 59).

Identified Artifacts

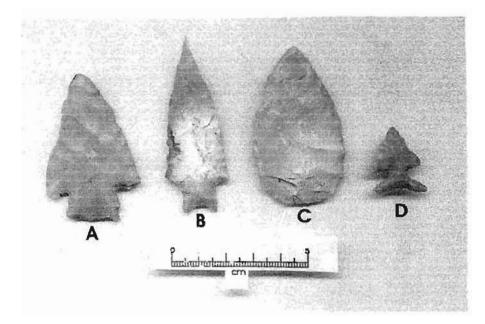


Figure: A-Marshall dart point, B-Pedernales dart point, C-bifacial cutting tool and D-Edwards arrow point. (pg 66)

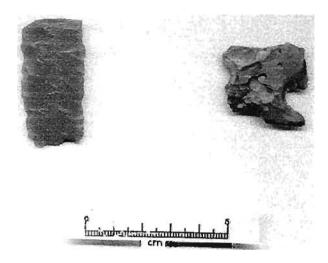


Figure 1: Possible unfinished Paleo fragment, left and Frio dart point fragment, right. (pg 68)

ARCHEOLOGICAL RECONNAISSANCE OF THE STARKEY-SANER MILL (41KR130), KERR COUNTY, TEXAS

Bryant Saner, Jr.

ABSTRACT

This report discusses the Starkey-Saner Mill (41KR130) that was located on the north bank of the Guadalupe River, approximately two miles upstream from downtown Kerrville. Cypress trees found along the banks of the Guadalupe River have been used to make lumber and shingles since the mid 1840s. Many shingle camps and lumber mills popped up throughout the area as the Upper Guadalupe River Valley was settled. The Starkey-Saner Mill was constructed in 1868 or 1869. It was the first turbine mill in the area and later it was used as a pump station for the first water system in Kerrville. It was unfortunate that the historic significance of this mill has been overlooked.

INTRODUCTION

This site was examined by the author while conducting an archeological site resurvey project for the Texas Archeological Stewards Network (TASN), which is a volunteer program under the direction of the Texas Historical Commission. Archival research done prior to the on site resurvey revealed a distant relative of the author, Thomas A. Saner, had been one of the owners of the mill. This discovery stimulated further research and the results are described in this report.

Kerr County is located in south central Texas about 65 miles northwest of San Antonio. Kerrville is the county seat and is found in the northeast part of the county. The primary river drainage system is the Guadalupe River. The river has two branches, the north fork and the south fork. The north fork headwaters are found in the extreme western portion of the county, while the south fork originates in the southwest corner of the county. The two forks join to form the Guadalupe River near Hunt in the central part of county. The flow is east to Kerrville, Center Point and Comfort, exiting the county at the middle of the east boundary (TxDOT 1987).

In 1848, Joshua D. Brown left Gonzales County, Texas and traveled to Curry Creek in presentday Kendall County, Texas. He spent time here learning to make shingles from cypress trees. Soon there was a shortage of cypress trees, so he headed west along the Guadalupe River to a site close to present day downtown Kerrville. Brown was told an abundance of very large cypress trees could be found in this area. Upon his arrival to the area, he found this was indeed true. Brown then went back to Gonzales County and married Sarah Jane Goss. While there, he persuaded a small group of people to come with him to the Upper Guadalupe Valley to establish a shingle camp. The term "shingle camp" is used to describe shingle a making site. Large trees are cut down then splint and cut into small planks and scraped with a blade to create the shingle. The process was done entirely with hand tools. It was hard work, but profitable. Living and working in this area in the mid and late 1840s was very dangerous due to Indian raids. Brown's group soon went back to safer territory. In the mean time, more settlers began arriving in the area. Brown and his group returned to rebuild the shingle camp. In the late 1840s and early 1850s, this village became known as Brownsburough. On January 26, 1856, this area of the Upper Guadalupe River Valley officially became Kerr County, named after .

James Kerr, a friend of Browns

Brown purchased 640 acres of land from the heir of B. F. Cage (Bennett 1956). Cage had received a patent (B. F. Cage Survey 116) from the State of Texas on Febuary 19, 1847, for his participation in the Battle of San Jacinto. He proposed that the county seat of Kerr County be established on his tract of land. The proposal was accepted by the county fathers and the county seat was placed on this land. On May 20, 1856, Brown donated four acres for a public square. The area around the square became known as Kerrsville, later changed to Kerrville (Watkins 1975). Note that Bennett (1956) states that Brown moved from Gonzales County to Kendall County to the Upper Guadalupe River Valley two years earlier than reported by Watkins (1975).

During the mid 1850s, the important players in the Starkey-Saner Mill came to the area. James M. Starkey arrived in the Upper Guadalupe River Valley in early 1850s. On November 12, 1855, his signature is recorded on a petition to create a new county (Kerr County) on the Upper Guadalupe River Valley. Starkey served as the first tax Assessor and Collector in Kerr County. He also served in many public offices through the years. On October 1, 1856, Starkey purchased 320 acres on the north bank of the Guadalupe River approximately 2 miles west of present-day downtown Kerrville from John C. Sheffield (KCDR Vol. A, pg. 71). Sheffield received a patent on this land on December 29, 1847, and it became known as the John C. Sheffield Survey No.121 (KCDR Vol. 1, pg. 16). The Starkey-Saner Mill would later be built on this land. Thomas A. Saner arrived here in the mid 1850s. Record show he was sworn in as one of the first Kerr County Commissioners on March 22, 1856. He was prominent in politics and the development of Kerrville and Kerr County. Alonzo Rees is listed as residing in Upper Guadalupe River Valley during the organization of the county. He also served in various political offices over the years. Miles A. Lowrance came to the area by wagon train from Arkansas on December 15 1859, Lowrance had friends in this area. Records indicate that Lowrance did not spend time in public office as his associates did. In 1885, he is listed as the supervisor for the construction of the Kerr County Courthouse and remodeling of a building for a jail (Bennett 1956).

Mills made an early appearance in the Upper Guadalupe River Valley. In the early 1850s, the first saw and grist mill in Kerr County was built by the Mormans on Verde Creek near Center Point. Center Point is located approximately 10 miles downstream from present day downtown Kerrville. They were at this location only a short time then moved to Bandera County and established a community (Watkins 1975). In the mid 1850s, Christian Dietert built the Perseverance Mill on Cypress Creek, half a mile above the confluence with Guadalupe River. A short time later the mill was destroyed by a flood. He rebuilt the mill which was then idled by lack of water flow brought on by a drought. Dietert then spend time in Fredericksburg, Texas building a mill. In 1857, he moved to Kerr(s)ville, as it was know at that time, and built a mill. This mill played an important role in the development of Kerrville. (Ellis et al 1999). Remnants of this mill can still be seen today in downtown Kerrville. In the 1850s, the Tegener Brothers built a sawmill on the banks of the Guadalupe River between present day Hunt and Ingram. This mill was abandoned at the start of the Civil War (Bennett 1956). In this same area another mill was built in the 1870s, by John Sherman. It ground corn, sawed lumber and ginned cotton. The buildings remained standing until they were destroyed by the 1932 flood on the Guadalupe River. The mill run can be seen today at the Waltonia Crossing. (Harry Crate 1999). In the 1860s, a man named S. M. Sennett built a sawmill near Comfort. An early (no date given) sawmill is reported to have been built in southeastern Kerr County on Verde Creek by Ludwig Lange. The literature indicates a steam driven mill operated on the Guadalupe River about three miles down stream from downtown Kerrville. It was built by Henry Tatum (Bennett 1956). There was

mention of a mill twenty-one miles west of Kerrville where Bear Creek flows into the North Fork of the Guadalupe River. It was operated by Charles Eller in the early 1870s (Haley 1944).

THE MILL

In 1868 or 1869, J. M. Starkey, Alonzo Rees (Starkey's brother-in-law) and Miles A. Lowrance (Rees' wife's cousin) met to discuss building a sawmill in the Kerrville area. It should be noted that Bennett (1956) and Watkins (1976) state the mill started in 1869, while J.J. Starkey (1939) states it started in 1868. They all agreed a mill was needed and would be a profitable venture since the area was growing and many houses, barns, sheds and fences needed to be built. Many large cypress trees were still available for lumber and shingles. In their discussions, the matter of capital arose and an inventory of funds was taken. Lowrance had 25 cents, Rees had 50 cents and Starkey had \$5.00. The latter was positively "affluent". J. J. Starkey (1939) takes this from a diary kept by Miles Lowrance. A good mill site was located on the banks of the Guadalupe River, approximately two miles upstream from present day downtown Kerrville. The site was on several acres out of the 320 acres Starkey had purchased from Sheffield in 1856. A partnership was formed by the men with what little capital was available. The mill and mill dam were built with a small amount of credit and lots of hard work and determination. The mill was in operation in three months sawing lumber and making shingles. Shingles were made by hand at this time. Lumber planks sold for \$40,00/thousand ft. These were sold locally and to area communities that did not have an available source of cypress. There was a market for all the lumber the mill could produce. The business prospered. At a cost of \$400.00, more equipment was added to the operation to make shingles from end cuts of lumber. In spite of the cost the business continued to profit. The mill was built and operated without the help of bank loans, bond issues or modern transportation. The hard work and determination paid-off for these pioneers of the Hill Country (ibid).

A dam was built across the Guadalupe River at an angle from the northeast to the southwest. The river flows from west to east at this location It was made of lumber attached to wooden post that were place into the bedrock river bottom. The boards were attached to the upstream side of the post. This dam was upstream from the mill. A chute or canal ran from the north end of the dam to carry water downstream to power the mill. No pictures, detailed description or drawings of the mill were found. However, Darrell Lochte (1998) provided a description of the dam as it was in the 1920-30s. The dam remained long after the mill was no longer in use. It was a popular swimming hole for the young people during that time period. It was associated with the Methodist Encampment.

The proprietors chose to install a turbine to power the mill. This was the first one in the area. The turbine is a narrow horizontal paddle wheel with a long vertical spindle or drive shaft. The turbine wheel mechanism is secured in a deep pit with a small gate on one side near the bottom. Another deep pit adjoins the turbine pit. This pit was filled with water. There is a opening near the bottom of this pit with a gate that can be controlled from the top. When the is open the water falls downward onto the slanted blades turning the horizontal wheel. The mill house is built over the pits. The spindle enters the mill house and is connected to gears, belts and pulleys that operate the saw blade, millstone and/or gin. The turbine was used because it produces more power, is more economical in water use and requires less maintenance than mills that use a side wheel for power (Jackson 1971).

Two years after the mill started operation the three partners decided it would be profitable to

construct another mill. A site in or close to present-day Center Point was chosen. This location was picked because of the large amount of agriculture in the area. The mill provided sawing of lumber along with grinding of grains. In 1870, Starkey withdrew from the Center Point mill to operate the mill northwest of Kerrville. Rees and Lowrance sold their interests in the original mill to Starkey. Rees and Lowrance became the owners/operators of the Center Point operation. During their partnership these men never had a single dispute about money and always got along well (Starkey, J. J. 1939).

The Starkey Mill was completely washed away by a flood in 1872. This did not deter Starkey and he rebuilt the mill (Bennett 1956). In this same year Starkey sold shingles at a local store owned by Charles Schreiner. Schreiner played a large role in the growth and development of this region of Texas (Haley 1944).

On May 2, 1874, Thomas A. Saner and William M. Crow purchased the mill from Starkey (KCDR Vol. D, pg. 443). Lumber continued to be cut. On October 30, 1875, Crow sold his interest to Robert Kernodle and William A. Gibbens (KCDR Vol. E, pg. 24). On May 12, 1876, Gibbens sold his interest in the mill to Kernodle (KCDR Vol. E, pg. 134). Records show that in March of 1877, Kernodle borrowed money from William Crow and put his interest in the mill as collateral. At this time the record describes the mill operation as the firm of "Saner & Kernodle" (KCDR Vol. E, pg. 291). A cotton gin and flour mill were added to the plant sometime between 1874 and 1877. This is substantiated by an advertisement in the November 3, 1877, issue of the FRONTIERSMAN, Kerrville's first newspaper. It states that Saner & Kernodle "two miles above Kerrville will grind corn and wheat, gin cotton and saw lumber promptly and satisfactorily" (Bennett 1956). On December 29, 1880, Kernodle sold his interest to Charles Schreiner (KCDR Vol. F, pg. 319). It appears that Kernodle had some problem paying back some of the money he had borrowed and deeded his part of the mill to Schreiner in order to pay his debt. Some of the old-timers thought Kernodle was a bit crazy and called him "Kernoodle" (Lochte 1998). On October 7, 1882, Saner sold the remaining interest to Charles Schreiner (KCDR Vol. G, pg. 368).

Charles Schreiner now owned the entire operation. He converted the mill to a pump station to get water to a reservoir located on a hill northeast of Kerrville behind Antler Stadium. This pump station and reservoir were part of the first water system in Kerrville (Starkey 1939). This plant supplied water to Kerrville for many years to come (Bennett 1956). This pump station is farther from . the reservoir than other potential pumping sites closer to the center of Kerrville. The Starkey-Saner mill site was chosen because of less contamination of the water by privies. At this time everyone had . an outhouse. There was a concentration of them in and around downtown. The mill site made an excellent place to obtain cleaner water for the system (Rector 1998).

On January 15, 1915, Schreiner sold his water company to the Kerrville Water Works KCDR Vol. 34, pg. 10). On September 6, 1917, Schreiner filed a right of way that had been granted on March 31, 1899 by Mrs. J. M. Starkey to Schreiner for water mains from the pumping station. The description of the property begins at the east corner of "the Old Saner Mill" (KCDR Vol. 35, pg. 427). The mill site returned to the Starkey family on December 14, 1918, when the Kerrville Water Works sold two parcels of land to A. L. Starkey, Sr. and J. J. Starkey (A. L.'s brother) one of them being the mill site (KCDR Vol. 36, pg. 532). Over the next forty-five years the mill tract changed hands among different members of the Starkey family. In the mid 1960s, A. L. Starkey, Jr. bought tracts of land. owned by other Starkey family members. The old mill site was among these (Starkey, Mrs. A. L., Jr. 1997). On August 1, 1968, A. L. Starkey, Jr. sold a nine acre tract of land on the north bank of the Guadalupe River to Lester Overstreet (KCDR Vol. 134, pg. 370). The old mill site was part of this tract of land. The Overstreet family stills owns most of this land.

In the late 1970s, the Upper Guadalupe River Authority(UGRA) built a dam on the river approximately 0.75 mile down stream from the old mill site creating a reservoir that impounds water far upstream. Prior to the building of the dam an archeological survey of the impoundment area was conducted by Grant D. Hall of the University of Texas at Austin, Balcones Research Center (now known as the Texas Archeological Research Laboratory). A letter, dated May 10, 1977, was written to Mr. B. W. Bruns, General Manager for the UGRA at the time, describing that two archeological sites were found. One was a prehistoric encampment, 41KR131, found on the south side of the river approximately 0.2 mile upstream from the dam. Very little of this site remains due a gravel quarrying operation carried on long before the dam was planned (Hall 1997b & Hall 1977c). The other site was the Starkey-Saner Mill Site (41KR130). It is described as being "two dressed limestone block walls recessed into the terrace edge above the river. The foot of the walls are at the level of the flood plain below at a depth of perhaps fifteen feet. No superstructure remains. Recommendations to the UGRA were to leave the rock walls but clear the brush and trees around them on the flood plain and terrace face (Hall 1977a). According to the present owner of the mill site the bulldozers took out everything, trees, brush and rock walls. A small portion of the mill remains today (Fig. 1 & 2). Dressed stone can

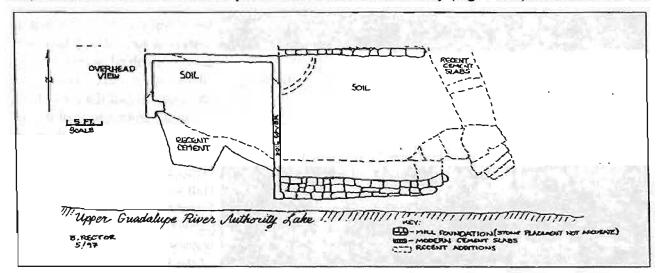


Figure 1: Plan view remnants of mill.

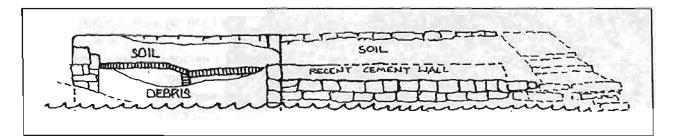


Figure 2: Profile of remnants of mill from the lake facing north.

be seen protruding above the ground. A concrete slab, believed to part of the mill is next to the dressed stone. The present owners have put in another concrete slab and made steps leading to the original slab (Fig. 3 & 4). This was done to allow easier access to the lake for recreational purposes (Overstreet 1997).

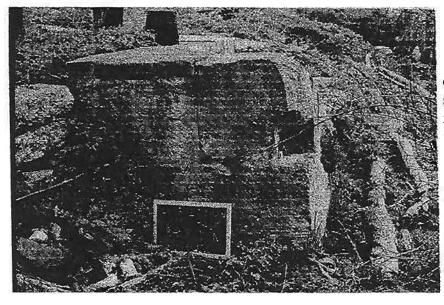


Figure 3: Dressed limestone blocks on upriver side of site facing Northeast.



Figure 4: Remnants of mill on northwest portion of the site facing northwest.

DISCUSSION

This site has gone the way of many historic and prehistoric sites by being destroyed without much information obtained about them. Very little is written in the history of Kerrville and Kerr County about this mill. The mill played a significant part in the history of the Kerrville and Kerr County. It was the first turbine powered mill in this area. It was the pump station for the first water system in Kerrville. Many of the people involved with the mill played an important role in development of the area. It is

disappointing to read that it was not considered historically significant.

In a letter to Mr. Bruns, the General Manager of the UGRA, Hall states "little evidence has been found to indicate that this mill played an outstanding role in the history of Kerr County". A member of the Kerr County Historical Commission at that time knew nothing about the mill. Hall states that the mill is not mentioned in the KERR COUNTY, TEXAS 1856-1956, by Bob Bennett (see Bennett 1956). In fact, it was mentioned several times. Several local people knew of the mill but were unable to provide any information about it (Hall 1977c).

This site and others like it must be documented, recorded and as much information as possible obtained about them before they meet the same fate as the Starkey-Saner Mill.

ACKNOWLEDGMENTS

A debt of gratitude is owed to the Overstreet family for allowing access to the mill site and for providing information about it. Thanks go to Mrs. A. L. Starkey, Jr. for providing information about the Starkey family. A thank you goes to the staff at the Kerr County Deed Records for their help and guidance during record searches. Thanks go to the staff of the Butt-Holdsworth Library for there assistance in locating needed documents. Thank you to Robert R. Rector for his assistance, advice and illustrations. Thanks go to Darrel Lochte for providing interpretation of the documents for this report. A debt of gratitude is owed to Anne Fox for the suggestion made to improve this report. Thanks go to Kay Woodward who reviewed this report and provided suggestion to improve it.

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ARCHEOLOGICAL INVESTIGATION AND SHOVEL TESTING AT THE SHEPARD SITE, 41KR580, KERR COUNTY, TEXAS

Bryant Saner, Jr.

ABSTRACT

The Hill Country Archeological Association (HCAA) conducted an archeological survey and shovel testing on the Shepard Site, 41KR580. A house was to be constructed on the site which was several miles north of downtown Kerrville. The vast majority of artifacts were historic with a few prehistoric artifacts recovered during the investigation. The site had glass and ceramics that were dated from about 1880 to early 1900s. The site may have been associated with exploded military ordnance that was found in the area. Four prehistoric artifacts were recovered. One was a time diagnostic dart point. Prehistoric artifacts were seen outside the site.

INTRODUCTION

The Shepard Site (41KR580) was part of a16.09-acre tract located in northeast Kerr County, Texas, in Kerrville Country Estates, Section Two. A portion of this tract was located in the Walter Fosgate Survey 120 while the remainder of the tract was in C.C.S.D. & R.G.N.G. RR. Co. Survey 1329 (APPENDIX A). The owners of the property invited the HCAA to survey the property. The tract was walked, and a small area with a concentration of historic artifacts was found. The artifacts seen suggested a circa 1900 time period. The concentration was in the exact spot that the owners' new home was to be built with work to start in two months. The site was buildozed to clear the brush and small trees prior to HCAA involvement. An archeological investigation was hastily arranged to gather as much data as possible prior to construction of the home.

SITE

The site is on the fourth terrace from a small stream with a man-made lake. It consisted of a concentration of historic artifacts in a 163 ft. SW-NE, 108 ft. NW-SE, 154 ft. NE-SW and 80 ft. E-W by 17 meter NW-SE area on the third terrace up from an unnamed creek that flows south. Large live oak trees are seen on and around the site. The 16.09-acre tract outside of the site is covered with cedar to the southeast. The surface is about 75% exposed. The boundary is well defined with ceramics, stoneware, and glass of various colors noted throughout. Two small areas of square nails, purple glass and a few ceramic sherds are seen to the southeast.

The remainder of the tract has widely scattered prehistoric debitage consisting of several cores, tested cobbles, a few primary and secondary flakes and a few tertiary. There are no concentrations that would be classified as a prehistoric site. Modern debris was seen on the southeast portion of the property.

The brush on the site was bulldozed prior to when HCAA started the survey and shovel testing. The brush was the only part cleared from the site as the soil was mostly intact. The ceramic and glass artifacts were susceptible to breakage from the tracks of the heavy equipment used to clear the land. Some of these artifacts had fresh breaks, and there were many small fragments.

ENVIRONMENT

The 16.09-acre tract has a variety of trees and plants. Spanish oak, live oak, cedar, persimmon, agarita, cactus, thistles, wild grape vines and native grasses are seen throughout the tract. Squirrel, rabbit, racoon, skunk, opossum and deer are the most common animals seen on the tract and in the area.

At the eastern edge of the property was a small stream with a man-made lake that appears to have water most of the year. Starting at the stream and moving northwest, there are four terraces. On the fourth terrace the terrain begins to slope up to the northwest. The stream drains southward and empties into Town Creek about a mile from the lake.

The soil in this area was reported to be ECKRANT-KERRVILLE ROCK OUTCROP that is very shallow to very deep with gently undulating to hilly and steep. The soils are clayey, loamy, cobbly and gravely. Rock outcrops are seen on the uplands (Dittemore and Corburn 1986:19-20). The predominant rock formation in the study area was the upper Glen Rose Limestone. The formation consisted of limestone, dolomite and marl in alternating resistant and recessive beds forming stair-step topography. The limestone is closed grain, invisible to the naked eye, to finegrained, hard to soft and marly, that is light gray to yellowish-gray in color. Fine-grained, porous yellowish-brown dolomite and marine megafossils are also seen (Barnes 1981).

HISTORIC BACKGROUND

One of the earliest recorded visits by Europeans to the area now known as Kerr County was in 1767. The Marques de Rubi left Nueva Viscaya, present-day Mexico, to inspect several military posts in what is now northern Mexico and central Texas. He visited the presidio in San Saba. Rubi headed south passing through the eastern end of present-day Kimble County. The expedition traveled to a creek they called "Arroyo El Canoncito," which was probably modernday Cypress Creek. They traveled down this creek to where it emptied into the Guadalupe River near present-day Comfort. During the trip down "Arroyo de Canoncito," they saw many buffalo, deer and other game. The expedition marched from the camp near Comfort to San Antonio (Wade 2003:201-202).

In 1844, Joshua Brown left Gonzales. He traveled to Curry's Creek in present-day Kendall County where he learned to make shingles from cypress trees. By 1846 the best trees were gone. He went up the Guadalupe River to an area near present-day downtown Kerrville where he found many large trees ideal for making shingles. He returned to Gonzales, gathered a small group of people, and returned to the location on the upper Guadalupe River and established a shingle camp or a location to manufacture shingles from cypress trees. A few months after the establishment of the operation, the Indians began raiding the camp. The group left the area in fear of the Indians. In 1848, they returned to the camp to continue making shingles. The camp soon became known as Brownsborough (Bennett, 1956:11). By the mid-1850s, the area around the shingle camp had grown into a small town. On January 26, 1856, Kerr County was created by the state legislature. It was named after a close friend of Brown's, James Kerr. The act that created the new county listed Kerrsville, with an "s" as the county seat. Brownsborough had become Kerrsville (Bennett 1956:6-7). On January 15, 1866, was the first time Kerrville is spelled without the "s" in county records (Bennett 1956:25).

Charles Schreiner was born in 1838 in Alsace-Lorraine. His family came to America, reaching San Antonio in 1852. In 1857, he came to Kerr County. In 1869, he opened a mercantile store in Kerrville. This store grew into a small empire through his determination, hard work and good business sense (Haley 1944). At the high point of his career, Schreiner owned over 566,000 acres of land in Kerr and five surrounding counties. He hd also acquired a 30,000 acre ranch in Presidio County. He raised sheep, goats and cattle as well as purchased cattle from area ranchers. Starting in the early 1870s, he drove cattle up the trail to Kansas. In 1874, between 1,800 to 2,500 head of cattle were sent to Kansas. In later years they were driven to San Antonio. In 1887, the San Antonio and Aransas Pass Railroad built a spur line from San Antonio to Kerrville. Cattle could be shipped by rail. A holding pen for the cattle was built on a flat area near Town Creek two miles north of downtown Kerrville. Schreiner also owned a bank, a wool and mohair house, a general merchandise store, a mill, and a waterworks (Barrett 1980;31-41).

Through the years many individuals, other than the few mentioned above, contributed to the growth of Kerrville and Kerr County. Joshua Brown and Charles Schreiner are perhaps the most important figures in the early history of the area. Brown was the brave soul that ventured into practically unknown territory to establish a small shingle camp. This business started the settlement of the area. Schreiner came along and built the foundation that contributed to rapid growth of Kerrville, Kerr County and surrounding counties. Kerrville has grown into what we see today thanks to these two men along with many other hardworking folks.

It appears Charles Schreiner owned the Fosgate Survey 120 and the C.C.S.D. & R.G.N.G. RR. Co. Survey 1329 or portions of these surveys from about 1880 to 1902. In the early 1870s he built holding pens for the cattle to be driven north to Kansas. All or part of these were probably on the Fosgate Survey.

In 1902 about 3,426 acres of land were sold by Charles Schreiner, including the two surveys where the 16.09 acres were located. The land changed hands eight times from 1902 to 1920. One transaction was a sheriff's. This sale appears to be the result of an owner unable to repay loans used to finance the purchase of the land. By 1920 the 3,426 acres were reduced to about 801 acres. The many transactions and the sale of 801 acres indicate the land was used as an investment. The 801 acres were held by the same owner from 1920 to 1962. Agricultural endeavors were most likely the reason the land remained with one owner for forty-two years. Six land transactions involving a change of ownership between 1962 and 1978 indicated the land was used as an investment. However, while the primary purpose of the land was investment, it is highly likely that agricultural endeavors were taking place as a secondary activity. In 1978, Kerrville Country Estates, Section Two, was created. It was comprised of 638.92 acres. The large tract was divided into smaller tracts and sold as home sites. Investment was also involved. Tract 17 was purchased in 1978 and held by the same owner until 1999 when it was sold. In 2001, a home was built on the tract. Tract 17, along with the home sold in 2004.

In 1767, the Spanish were the first Europeans to see and record land in what is now Kerr County, Texas. Joshua Brown and the shingle makers ventured into the Guadalupe River valley about eighty years later. The first settlement, then a small town, grew from the shingle makers' camp known as Brownsborough. Kerr County was created in 1856 and Brownsborough grew to a thriving town known as Kerrsville and later as Kerrville. The growth was boosted when Charles Schreiner came to the area in 1857. He opened a general merchandise store in 1869. An empire grew to 566,000 acres and multiple businesses in Kerr and surrounding counties. He was responsible for the early rapid growth of the region, including Kerrville. All or parts of the Walter Fosgate Survey and the C.C.S.D & R.G.N.G. RR. Co. Survey 1329 at one time were owned by Schreiner. (See Appendix A)

METHODOLOGY

A random walking survey was conducted over the entire 16.09-acre tract. Concentrations of artifacts were located and flagged with survey tape. Note was made of the prehistoric artifacts. The largest concentration of historic artifacts was given a field ID, TXKR-27-BS. A Texas Archeological Site Data Form was filled out and sent to the Texas Archeological Research Laboratory at the University of Texas at Austin. The trinomial 41KR580 was assigned by them.

The boundary of the large concentration of artifacts was set. A surface collection was conducted. Transects three feet apart were established, and all artifacts seen were collected and plotted on a site map. Shovel tests 20 feet apart were set up on a grid within the boundary of the site. The north boundary line of shovel tests was given letters A-F going west to east The west boundary line of shovel tests was given a number from 1-9 going south to north. This method gives each shovel test a unique designation, such as C-5. They were excavated in five-inch levels. All artifacts recovered were placed in bags each with the proper provenience assigned (Fig. 1).

All data and artifacts collected during the investigation were analyzed. All artifacts recovered were returned to the owner. A report of the archeological investigation was written and published in the HCAA journal, *Ancient Echoes.* A copy of the report was provided to the property owners.

ARTIFACT ANALYSIS

Artifacts, both historic and prehistoric described in this section, were collected from the surface and from shovel tests during the investigation. The vast majority of the artifacts were found on the surface. Dates of manufacture of some of the items collected can be determined. The color and thickness of the glass bottle fragments can provide clues to the time period in which they were produced. Clues to time periods can be obtained by the size, shape and material

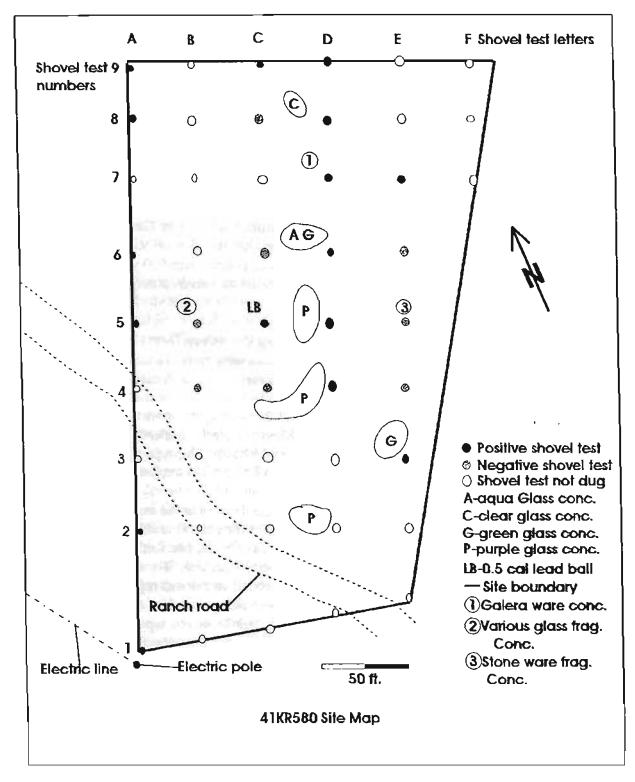


Figure 1: Plan view site map for 41KR580 with shovel test and artifact location and land marks.

used for manufacture of certain items.

HISTORIC ARTIFACTS

ARMAMENT

A .303 cal. rifle shell casing was recovered on the surface (Fig. 2, A). The head stamp had "U. M. C." on the top and ".303 S.R.A Co." on the bottom. It was manufactured by Union Metallic Cartridge Company for the Savage Rifle Company in 1895-1896 (Hoovestol 2002). Two .5 cal. lead balls were recovered from the surface(Fig. 2, B). One was found during the survey and the other by the owner. At this time the age and use of these artifacts is unknown. However, they are very similar to the shrapnel in the ordnance of a 3 in. Hotchkiss Mountain gun. Shrapnel projectiles were used to shower enemy troops with the high velocity .5 cal. lead balls. They had a timed fuse and usually were used at ranges of greater than 500 yds (Howser 2005). Exploded ordnance with the same size and shape lead balls was seen on neighboring property.

CERAMIC

Several types of ceramics were recovered during the survey. Most of these were on the surface. Galera ware, undecorated White ware and Stoneware were the three types of ceramics found at the site There was more than one vessel represented by each category of sherds.

The Galera ware was a lead-glazed, red brown to brown, fine-textured, thin-walled pottery with cream, green and dark brown linear and floral designs. It was found across the southwest United States. It was also called West Mexico Polychrome and possibly manufactured in Jalisco. It was brought north after 1750 (Schuetz 1969:50). This type or a very similar type is still being made in Mexico in very recent times and can be found in markets as a tourist item (Fox 2003).

Ten sherds of Galera ware representing two vessels were in the assemblage (Fig. 2 C). Six sherds were found on the surface in the north end of the site. One sherd was recovered in Shovel Test E-5, Level 1 (0-5 in. below the surface). Six sherds, one rim and five body with orange brown glaze on the inside, were recovered from the surface. The outside was unglazed, light red-brown. This represented one vessel. The second vessel was represented by four sherds. The inside was glazed, red-brown. One had dark brown along the edge. The outside was unglazed, very light brown in color. Two had glazed, dark brown on a portion of them.

Undecorated White ware was associated with utilitarian vessels, such as plates, bowls, saucers and cups. It came into widespread use after the Civil War (Uecker et al 1991:18). A very similar style of ceramic was seen in the 1900 Sears Roebuck and Co. Catalog No. 110 (Sears 1970:1090).

Ten sherds of undecorated White ware, representing three vessels, were recovered from the surface in the south end of the site. The first appeared to be a bowl. There was one rim, base and body, four base and body sherds, two rim and one base. The second vessel type was unknown. It was represented by one curved body shard. The third vessel type was unknown. It was represented by one small, thin rim shard and one thin, small, slightly curved body piece (Fig. 2, D). Stoneware is a term used to describe utilitarian and storage vessels. Natural clay was used to manufacture them. Local clay was sometimes used. When the vessels were fired between 2200-2500 degrees F they would hold liquids without leaking (Greer 1981:15). Stoneware most often had Albany slip with a Bristol glaze. Albany slip described a clay found near Albany, New York, that was mixed with water to create a thick liquid. This was applied to the vessel prior to firing. After the firing the results were a very dark brown to yellowish brown surface glaze (Fig. 2, E). It was in widespread use after the early 1870s (Greer 1981:170).

Bristol glaze was a chemical that created a white to gray glaze after firing (Fig. 2, F) It became popular in the United States in the mid-1880s. The combination of the Albany slip on the inside of the vessel with Bristol glaze on the outside started in the mid 1880s. Sometimes Albany slip was seen on the upper portion of the outside of the vessel on top of the Bristol glaze. It was popular until about 1915-1920 when Albany slip was used on all parts of the stoneware vessels (Greer 1981:212).

Forty-one sherds of Stoneware were recovered during the archeological investigation. Thirty-seven had Albany slip on the inside with Bristol glaze on the outside. Four had Albany slip on the inside and outside. The Bristol glaze was light gray to cream color. There were possibly four shades of the glaze. The slip was very similar on all sherds. The number of vessels that is represented was not known.

GLASS

Glass bottles were being made as early as 3,000 years ago by the Romans. Over the years the style, color and method of manufacture have changed, especially in the last 200 years. Some of these changes can be attributed to dealers in alcoholic beverages, medicine and food industry that required specific types of bottles for their products. The changes in bottles between 1840 and 1890 were well documented (Polak 2000:1-3). These changes were used to date bottles found in archeological sites.

The Shepard Site produced bottle glass fragments of various colors: amber, brown, dark olive and purple. The first four colors were created by naturally occurring chemicals in the sand used to make the glass (Polak 2000:20). Two glass stoppers were recovered, one during the survey and another by the owner. Body, base, neck and lip fragments were also found. The majority of the glass was recovered from the surface of the site.

Two body fragments of thin-wall, amber glass were retrieved from the surface. No amber glass was recovered in the shovel test. These are similar to mid to late twentieth-century beer bottles. Patina is seen on both fragments.

Twenty-four pieces of brown glass were found on the surface. Seventeen were medium thickness body fragments, two of which had mold seams. Two thick, body fragments were found. Three base fragments were found. Two of these had raised lettering on them. One had "A. B." on the bottom (Fig. 2, G). The other had two readable letters, "ER." Unfortunately, there was not enough of the base to determine the maker of the bottle. A neck/lip sliver was recovered. There was enough of the lip to determine it was tooled, flanged, with flat top and square edge (Polak 2000:17). Some patina seen on all these glass fragments. Several fragments had small bubbles in them. The thick and medium-thick, brown glass bottles were generally used for

alcoholic beverage in the latter half of the 1800s (Fox 2003).

Four pieces of aqua glass were found on the surface (Fig. 2, H). None was recovered in the shovel test. Two small pieces were flat and may have been from the flat portion of a bottle. These were very slightly pitted and had a very small amount of patina. No bubbles were seen in the fragments. The other two consisted of a medium-thick body fragment and a body and base fragment. Both of these were somewhat pitted and had some patina. The thick, aqua glass was made prior to 1900 (Muncey 1970:37).

Two fragments of dark olive glass were recovered from the surface. One was a medium-thick body fragment. The other was a thick body and base fragment. Pitting and patina was seen on both fragments. This type of glass was popular until the mid-1800s (Muncey 1970:37). However, similar glass is still used today.

One hundred and sixty-four fragments of purple glass were recovered. The shade varied from very light to very dark. The purple color in glass was caused by manganese added during the manufacture process. Manganese was added to make the finished glass clear. This process has been known for about 2,000 years, but not commonly used until about 1880. At this time manufacturers wanted buyers to see the product being sold. This chemical was used from 1880 to about 1915. The primary source of manganese was Germany. When World War I started, this source was no longer available (Munsey 1970:55).

Of the one hundred and sixty-four pieces of purple glass recovered one hundred and fortyfive were body fragments. One hundred and forty were found on the surface and from the shovel tests. One was from Shovel Test C-5, two were from E-4 and two others from E-6, all in Level 1, 0-5 in.bs.

Seven pieces of purple glass were body and base fragments found on the surface. Three of these fragments had embossed lettering on the body portion. One was an "N," one had "FU," and the last one had "ASUR." There was not enough lettering to determine the complete word. One fragment had "768" embossed on the base.

Three neck and lip sliver fragments and four neck and lip fragments broken about one inch below where the neck and lip join were recovered on the surface. The sliver fragments did not have enough remaining to make an adequate evaluation. However, some data could be derived from the more complete specimens Two of these had tooled, flanged lips with flat tops and square edges (Fig. 2, I). The other two had lips that were tooled, broad with sloping collars above the beveled ring (Fig. 2, J). Mold seams were not seen on the first two fragments and one of the second fragment. The other one had mold seams seen almost to the lower part of the lip. Mold seams that went up the neck, but did not go to or near the bottom part of the lip were made between about 1860-1880. The mold seams that go almost to or touch the lower part of the lip were made between about 1880-1890 (Polak 2000:15-17).

Three glass stoppers were found on the surface (Fig. 2, K. One by HCAA during the archeological work and two by the owner after the work was complete. They were examined by the project archeologist, but remained in the possession of the owner. Glass stoppers were made between 1850 and 1900 (Polak 2000:19).

METAL

Three metal artifacts were recovered during the archeological investigation. A short piece

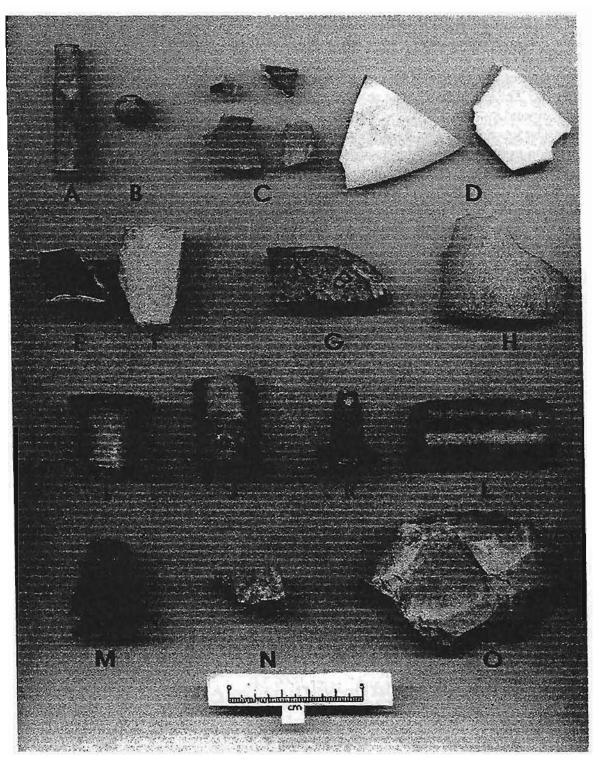


Figure 2: Artifacts from 41KR580, A .303 cal cartridge, B .50 cal. lead ball, C Galera ware, D White ware, E Stoneware with Albany slip, F Stoneware with Bristol glaze, G brown glass bottle bottom fragment, H aqua glass fragment, I, J purple lip and neck glass fragments, K purple glass stopper, L unidentified metal, M Ensor dart point, N biface fragment, O quarry blank.

of barbed wire, a fence staple and an unidentified metal fragment. The barbed wire and unidentified metal were found on the surface. The fence staple was recovered in Shovel Test C-7, Lv. 1, 0-5 in.bs.

A piece of barbed wire had two straight pieces of wire that had the barb twisted around it two times. The end of one of the straight strands was made into a loop with another looped piece of wire around it.

The fence staple was a common type staple that still can be purchased today. It was not uncommon to find these in fences and on the surface of this area. There were many ranches in the area and many fences.

The unidentified metal fragment was flat and had a seam running long ways in it. There is not enough of this item available for positive identification.

UNIDENTIFIED

One unidentified artifact was found on the surface. It appeared to be of aluminum or graphite. It was about 2 in long and 1 in wide and narrow slightly to a break on one end. The other end was also broken. There were two ridges about 1/4 in high on the top and bottom. A wider ridge about 1/8 in high was seen on either side. The age and use of this artifact were not known (Fig. 2, L).

PREHISTORIC ARTIFACTS

DART POINT

One dart point was found on the surface. It was side-notched with a slightly concave base. It had a long, triangular blade with a portion of the distal tip missing. This artifact was manufactured from a high quality, brown chert. On the dorsal side there was a slight amount of patina.

It was indentified as an Ensor dart point (Fig. 2, M) It was used by prehistoric inhabitants of central and south Texas from about 200 BC to about 600 AD or about 2,200 to 1,400 years ago (Turner and Hester 1999:114).

QUARRY BLANK

One quarry blank was found on the surface (Fig. 2, O). A quarry blank was a tabular or nodular cobble of chert that has had flakes removed from both surfaces. Sometimes cortex, limestone, may remain on one or both sides. The flaking was usually done at the quarry site or location it was procured (Turner and Hester 1999:24).

This artifact had cortex on one side. There was a broken edge on the top. Several flakes were removed after it broke. Slight amounts of patina are seen on both surfaces. On the left side there were two small areas that have been damaged by fire.

DEBITAGE

Debitage was comprised of the flakes and chips produced during the manufacture of stone tools (McNatt et al 2001:244). Throughout the world debitage was the most common artifact on

archeological sites (Andrefsky 2001:2). In the Hill Country of Texas, chert was the most common stone used to make tools. Chert debitage was the most common artifact on most of the sites in the Hill Country.

Two flake fragments, were found at the Shepard site. The first flake fragment was browngray and was found on the surface and had two freshly-broken edges. There was fire damage to one surface and some patina on the other surface. Remnants of a striking platform and a bulb of percussion could be seen on the fire-damaged surface. The brown-gray flint was seen on the surface of the breaks and the fire-damaged edges indicating the damage may be recent (Fig. 2, N).

The second flake fragment was recovered in Shovel Test E-4, Level 1, 0-5 in.bs. It had two old breaks on either end. There was fire damage to one surface and heavy patina seen on both surfaces. A narrow strip of cortex could be seen on one lateral edge. The break surfaces had patina on them indicating the patina was formed after the break. Cracks in the surface that bad the fire damage went into the patina. This indicates the damage occurred after the patina formed.

SUMMARY AND CONCLUSIONS

The historic artifacts recovered at 41KR580 provided some data that gave an idea of when the site was used. The historic material dated from about 1880 to about 1915. Several prehistoric artifacts were recovered during the investigation. One was a temporal diagnostic Ensor dart point. This particular artifact was used from about 200 BC to about 600 AD. The site was bulldozed to clear brush for home construction. The heavy equipment did damage the artifacts on the surface. However, data could still be obtained from the material collected.

The data from the historic artifacts indicated they were manufactured between about 1880 and about 1915-1920. The shell casing was from 1895-1896. This may be an isolated find dropped by a hunter. The .5 cal lead balls were similar to shrapnel material placed in the ordnance of the Hotchkiss 3 in. Mountain gun. The aqua and thick brown bottles were made before 1900. The purple glass was made from 1880-1914. The purple glass stoppers were pre-1900. Lip with neck bottle fragments were from between about 1860 and 1890. The Galera ware was made before, during and after the time period discussed. The White ware was popular after the Civil War. The brown and cream Stoneware was used from the mid-1880s to about 1915. The all brown stoneware was used after 1915. The metal staple can still be purchased today.

The dates mentioned above are the dates that the material was made. This material may have been used at or after the time of manufacture. The further into the twentieth century from 1900 the less likely it was in use. A time period between 1880 and early 1900 was the most likely period of use.

The site may have been used multiple times over this period. The purpose for which it was used each time may be different. This site may have been used for a general campsite. A campsite for cowboys working at the Schreiner cattle holding pens during the late 1870s and 1880s was not out of the question. Schreiner did own the land where the site was located. The pens were located about 0.5 mile southwest of the site. It may have been a small base for whomever fired the ordnance in the area northeast of the site. This site may have been a dump.

The exact time and purpose of this site may never be known. Further research on the military ordnance in the area may provide some answers to the questions raised by the archeological investigation.

ACKNOWLEDGMENT

A debt of gratitude is owed to the landowners, Mary and Lee Shepard, for allowing HCAA to conduct this investigation. A thank you goes to the HCAA members involved in this project. They are Deborah Bauer, Jose Contreras, Vonie and Von Evans, Florence and Jack McIntyre, Tom Miller, Edward Rendon, Paul Smith and Kay and Woody Woodward. The assistance of Anne Fox (UTSA) with the identification of some artifacts is greatly appreciated. A thank you goes to Tony Flake of Fidelity Abstract & Title Co. who assisted with the location of certain documents. Deborah Bauer critiqued and made suggestions for the improvement of this report and for this I am grateful.

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APPENDIX A

TITLE SEARCH FOR 41KR580, KERR COUNTY DEED RECORDS

The 16.09 acres, Tract 17, Kerrville Country Estates, Section II, that contained the site was located in two surveys. A portion was in the Walter Fosgate Survey No. 120, Abstract 138 and the remainder in C.C.S.D & R.G.N.G RR Co. Survey No. 1329, Abstract 502. The initials in the description of Survey 1329 stood for Corpus Christi, San Diego & Rio Grande, Narrow Gauge Rail Road Company. Below is a chronology of when the land that contained the above tract changed hands, the buyer and seller, the number of acres and the volume and page number. This information was found in the Plat Records and Deed Records of Kerr County, Texas, at the courthouse in downtown Kerrville.

2/22/1847-date issued by The State of Texas to Walter Fosgate 1476 acres known as Survey No.
120, Abstract 138. Filed 12/29/1847. Vol. 1, pg. 17 in the Bexar District. Filed in Kerr County on 12/10/1857. Vol A, pg. 230. (Kerr County was created in January of 1856.)

Note: No record was found that Fosgate sold or deeded any part of Survey 120 to anyone.

- 4/14/1880-The State of Texas to Charles Schreiner, assignee for C.C.S.D. & R.G. RR Co., a patent for 640 acres known as Script 331, Survey 1329, Abstract 502. Vol. J, pg. 32.
- 7/21/1902-Charles Schreiner to A. M. (Gus) Hopping, approximately 3,426 acres out of various surveys. Vol. V, pg. 105.
- 6/29/1910-A. M. (Gus) Hopping to P. G. Walker and A. F. Karger, approximately 3,346 acres, Vol. 30, pg. 464.
- 9/4/1911- P. G. Walker and A. F. Karger to Wm. Wehmeyer, approximately 3,326 acres, Vol. 31, pg. 403.
- 9/7/1916-A. F. Karger purchased the 3326 acres, less 9.5 acres at sheriffs sale. It appears Wehrneyer could not pay the loans he secured to purchase the land. Vol. 33, pg. 225.
- 7/18/1918-A. F. and Mary Karger to Sadie Haley, 801 acres, Vol. 36, pg. 253.
- 7/18/1919-Sadie Haley to Thomas and Martha James, 801 acres, Vol. 37, pg. 386.
- 12/19/1919-Thomas and Martha James to J. M. Lowery and L. A. Schreiner, 801 acres, Vol. 38, pg. 24.

- 1/1/1920-J. M. Lowery and L. A. Schreiner to Thomas and Martha James, 801 acres, Vol. 38, pg. 92.
- 7/12/1920-Thomas and Martha James to J. R. and Emma Harwood, 801 acres, Vol. 38, pg. 525.
- 1/31/1962-J. R. and Emma Harwood to Stanley Frank, 801 acres, Vol. 72, pg. 539.
- 12/18/1967 Stanley Frank to Fred Bell one-half interest in above described 801 acres, Vol. 131, pg. 326.
- 2-15-1973-Fred H. and Laverne Grivin Ball and Stanley R. and Mary Helen Frank to Travis Scott and Ernest C. Tousley, 904 acres. (Abstract 1349 is listed on the deed; this was an error. It should have been Abstract 1329). Vol. 161, pg. 551.
- 11/26/1973-Travis Scott and Ernest C. Toulsey to Milo H. Abercrombie, 1,310.963 acres, Vol. 168, pg. 712.
- 9/3/1975-Elizabeth Karen Abercrombie to Milo H. Abercrombie, 1,310.963 acres, Vol. 182, pg. 12.
- 4/14/1978-Milo H. Abercrombie to Kerrville Country Estates, Inc. 1016.92 acres, Vol. 207, pg. 113.
- 8/9/1978-Kerrville Country Estates to Kerrville Country Estates, Section II, 638.92 acres, Vol. 4, pg. 131 Plat Records.
- 10/27/1978-Kerrville Country Estates, Section II to Norman and Shirley Sherman. Tract 17, 16.09 acres, Vol. 214, pg. 817.
- 4/28/1999-Shirley Sherman an individual and independent executor for the Norman G. Sherman Estate to Lee A. and Mary Shepard. Tract 17, Kerrville Country Estates, Section II, 16.09 acres, Vol. 1009, pg. 64.
- 6/2/2004-Lee A. and Mary Shepard to John and Beverly Bishop. Tract 17, Kerrville Country Estates, Section II, 16.09 acres, Vol. 1360, pg. 381.

IDENTIFICATION OF FOUR BIFACIAL CHERT ARTIFACTS FROM CENTRAL TEXAS

Bryant Saner, Jr.

Specimen A in figure 1 is a Marshall dart point (Fig. 1). It is commonly found in Central Texas during the Middle Archaic period, 2500 BC to 1000 BC (Turner & Hester 1999). There is some lack of symmetry on the left lateral edge and the tip is missing. It has been damaged, possibly by a large animal stepping on the edge. A smooth, waxy surface can be felt. At the tip is a reddish-brown stain and a very light pinkish hue can be seen across the surface. These are indication of heat treatment of the chert prior to manufacture of the point. There is wear on the lateral edges, especially the right side, indicating it's use as a cutting tool. It is not uncommon to find a chert tool made for a specific use and later employed for a different purpose.

Specimen B in figure 1 is a Pedernales-like point similar to specimens found at 41MM340 in Milam County, Texas (Mahoney et al 2003), (Fig. 1). Pedernales ranged from about 2500 BC to about 1000 AD and is commonly found in the Texas Hill Country (Turner & Hester 1999). The distal tip has about a one-quarter twist, which is not a common characteristic of the Pedernales. Steve Tomka (2004), the director of the Center for Archaeological research at UTSA, states that Pedernales-like dart point is a good description of the artifact.

Specimen C is a preform used as a tool (Fig. 1). A preform is a piece of chert that has been worked to the second to the last step before completion. The next step would be to shape it, sharpen the tip and make a stem on the proximal end. The reason for not completing the last step is not evident. It was used as a cutting tool. The lateral edges show a slight crushing with very small flakes extending from the edge onto both surfaces. This wear is consistent with cutting hard material such as wood.

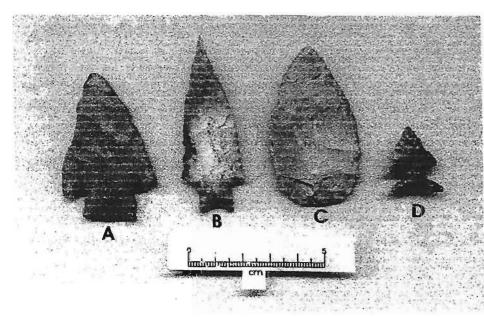


Figure: A-Marshall dart point, B-Pedernales dart point, C-bifacial cutting tool and D-Edwards arrow point.

Specimen D is an Edwards arrow point (Fig. 1). It is associated with the Austin Phase of the Late Prehistoric period, 800-900 AD to about 1000 AD (Turner & Hester 1999). This point is common to central Texas. The term "bird-point" is often associated with this type of point. It was placed on the end of an arrow and used to hunt and in warfare. It is capable of bringing down deer, buffalo and humans.

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IDENTIFICATION OF TWO CHERT BIFACE FRAGMENTS FROM WESTERN KERR COUNTY, TEXAS

Bryant Saner, Jr.

The biface fragment on the left is possibly an incomplete late Paleo point, 6000 BC to 4000 BC. Points from this period are more narrow at the stem than the center, called lanceolate form. The long, slender flake scars going from the lateral edge to the center are characteristic of points of this period. Grinding of the lower part of the point and the base are another characteristic of the period, however, it is not present on this artifact. Slight use wear is noted under 10X magnification on the lateral edges toward the broken end. This indicates it is was used for cutting, possibly after the break occurred.

The conclusion is this may be an unfinished Paleo point, a cutting tool or an unfinished Paleo point later used as a cutting tool.

The artifact on the right is the base fragment of a Frio Dart Point with a partial stem. It is commonly found in central and south Texas. It is occasionally seen in the lower Pecos Region,

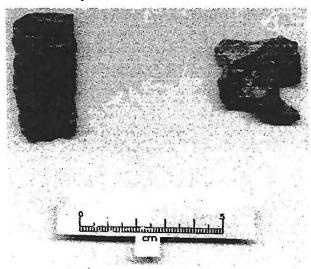


Figure 1: Possible unfinished Paleo fragment, left and Frio dart point fragment, right.

Val Verde County area. This artifact is 1400 to 2200 years old. This time period is called the Transitional Archaic from about 200 BC to 600AD (Turner and Hester 1999).

Close examination indicates it was manufactured from a large flake rather than a reduced cobble. The flat areas from the center to the right upper segment and on the left center are remnants of the original flake surface. Several small flat areas are visualized under 10X magnification on the stem. This reenforces the theory that it was made from a single flake.

The pit like areas seen on the left half are called "pot lid" flake scars. These are caused by exposure to heat. The reverse side does not have heat damage. This is a clue that the artifact may have been exposed to heat during a grass or brush fire. The undamaged side was facing the ground therefore protecting it from the heat.

In conclusion, this is a fragment of a Frio Dart point manufactured from a large flake. It has been exposed to heat on one surface possibly from a grass or brush fire.

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THE HILL COUNTRY ARCHEOLOGICAL ASSOCIATION

The Hill Country Archeological Association (HCAA) is a non-profit organization. Our purpose is to bring people together who have an active interest in the archeology and prehistory of the Texas Hill Country in an atmosphere conducive to the exchange of information and ideas. Foremost, in our activities, we promote preservation of archeological sites and offer proper training in archeological field and laboratory methods.

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