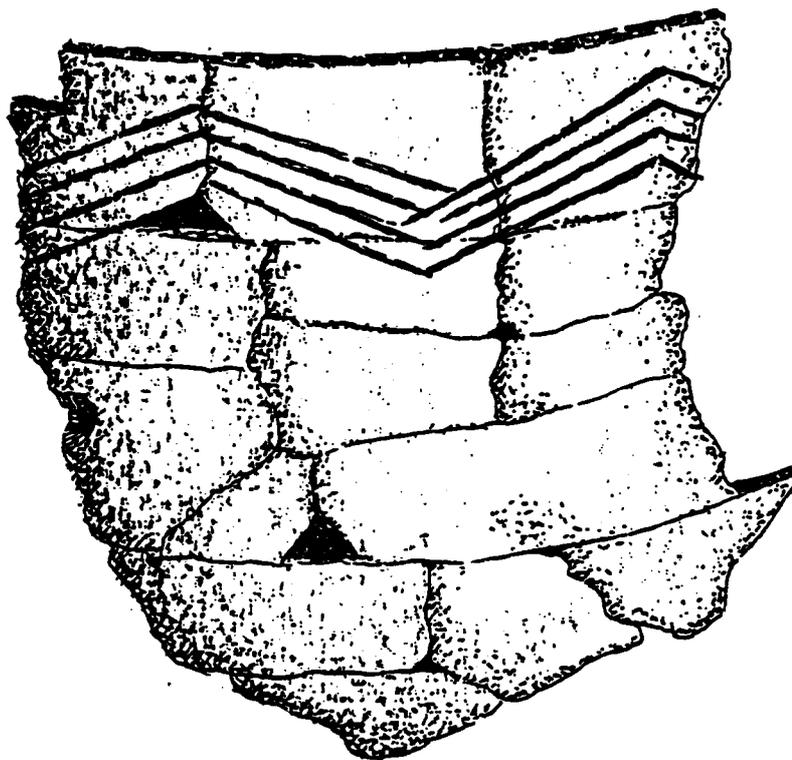


**A STUDY OF DECORATIVE DESIGNS ON GOOSE CREEK
AND SAN JACINTO POTTERY OF
SOUTHEAST TEXAS**

W. MARSHALL BLACK



**Report No. 8, 1989
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INTRODUCTION

Nearly 2000 years ago, the archaic inhabitants of Southeast Texas began to make pottery. They adopted a distinctive style in regard to paste compositions, vessel forms, and decoration, which is known, broadly, as Goose Creek Ware (Wheat, 1953; Suhm and Jelks, 1962).

The origins are uncertain, but if one believes in diffusion (as opposed to independent invention) the ideas most certainly came from the east and spread westward (Aten, 1983). The extreme range of the Goose Creek pottery tradition is from western Louisiana to the Colorado River and inland as much as 100 miles. Northern Galveston Bay appears to be the focal point.

The taxonomy proposed by Aten (1983) includes two major types based on temper. The classic Goose Creek type is untempered but there is a more pervasive, temporally and spatially, Goose Creek type that is heavily sand tempered. Around 1000 AD grog (crushed postherd) temper began to be used. This is called San Jacinto ware. This type became dominant in the Galveston Bay area by around 1400 AD, then diminished in favor of the Goose Creek types. Coincident with the advent of grog temper there was a marked increase in variety and complexity of decorative designs (Aten, 1983).

Goose Creek ware vessels are austere, utterly lacking in any form of appendages (Amber, 1967; Black, 1987). The "pot" vessels are wide-mouthed and somewhat egg-shaped, pointed end down. A "median" size might be 20 cm in diameter and of a like or somewhat greater height, with a wall thickness of four to five millimeters.

Some of the pottery is decorated by (usually) incising an elementary geometric design, or better, a geometric "construction" around the exterior rim. The quality of execution is generally poor if precision is the measure.

The objectives of this work were (1) to catalog as large an assemblage of decorated sherds as could be conveniently accessed, i.e., to record the constructions in a systematic way, and then (2) to examine the catalog to see if there are clues to answering the following often heard questions:

- o Is there any diagnostic geographical variation of the constructions?
- o Is there any temporal variation that would be of value in dating?
- o Were certain constructions restricted to certain vessel sizes (functions)?
- o Do frequently occurring constructions have symbolic meaning?
- o Did individual potters or their lineage have their individual constructions?

Obviously, there can be no certain answers, particularly to the last two questions, but some arguments for conjectures might be found. And there remains some merit to publishing a catalog of specimens drawn largely from private collections. The author is unaware of any synthesis that focuses directly on these primitive efforts of a people to express and to please themselves to the best of their ability - if indeed, that was the motive.

The author would like to extend his thanks to the following for their assistance with this publication: The Brazosport Museum, Houston Museum of Natural Science, Texas A & M University, Allen Badget, Alan Duke, Blaine Ensor, Joe Hudgins, Mike Marshall, and Johnny Pollan.

ABOUT THE CATALOG

The Collections

The author was able to access several private and museum collections. Such examples from the literature as could be recalled were also included to increase geographic coverage, although no effort was made to be exhaustive. In addition, prepublication data was obtained from Texas A & M University on a major excavation of an inland site. Appendix A lists the sources. In total, 241 specimens are included in this first catalog. An additional 21 specimens were examined but not cataloged to reduce duplication in a "Horizontal Line Only" Family (See Below).

Recording Method

Much thought was devoted to the selection of a method of capturing the design which would provide the following flexibilities:

- * Each example, together with its documentation, should be independently mobile and of the same size. This is to permit filing and then sorting according to some attribute.
- * The method should be suited to "away from home" preparation.
- * The originals should be suited to direct and cheap reproduction when arranged on panels.

Photography was rejected out of hand. Experiments with ways of "lifting" the design by rubbing, or dusting and lifting proved unsatisfactory. It came down to the time honored way: drawing, really, cartooning. Cartooning has many merits when the immediate intent is to focus on the design and not the overall aspect of the sherd.

A very workable solution was to use business cards. These were printed in format suitable to the minimum of documentation, leaving space for the cartoon. The completed cards were filed in notebook size transparent card holders, ten to the page. This afforded constant visibility of specimens in the growing catalog which led to recognition of a scheme for classification into manageable groups or families according to "line elements" that are present. The pages were reproduced by reducing Xerox (80%) without need to remount.

Elements of Design Construction

The basic element of the "Goose Creek" geometric design is a horizontal line, i.e. parallel to the rim. The horizontal line usually extends around the rim and thus has no beginning or end. It could be regarded as the simplest or the most sophisticated motif. It often constitutes the entire decoration either singly or in closely spaced multiples or, as a pair or so, more widely spaced. If the construction is more complex, a horizontal line is usually the "clothes - line" from which the motif is hung, and often its boundary(s). A horizontal line must be regarded as a primary line, in all probability the one that is executed first. Even so, there are exceptions in which there is no horizontal line.

The diagonal line is taken here as the next most important primary line. This is because the triangle was a much favored figure. The triangle results from use of short, touching diagonals of opposite slope, usually bounded on the third side by a primary horizontal line. Diagonals are also important as secondary lines in the form of cross-hatching parallel to one of the diagonals or horizontals. Many constructions use diagonals having one slope; the opposing diagonal is not present.

Vertical lines, i.e., perpendicular to the horizontal lines, are usually primary lines. For example, if a number of uniformly spaced, bold, primary horizontals are crossed by vertical lines of equal boldness, the construction becomes a grid; thus, the verticals assume more importance than secondary cross-hatches. Also, two closely-spaced horizontals connected by more closely or equally spaced verticals become a denticulate or ladder-like motif which may be the sole decoration.

Curved lines are rare. They usually are undulations across an axis parallel to the rim. Possibly the rarity is due to the difficulty of execution. The extreme case, a circle, is extremely rare (nonexistent?) as an incised figure, but does occur as formed by reed stamping.

Zig-zag (lightning bolt) lines are also known but are extremely rare. Otherwise, such would be considered as a compound primary line.

The concept of primary lines and secondary lines was put forth at the outset in that it might have diagnostic utility. Often the construction itself signals secondary lines by less bold, sometimes careless execution; this is often the case in cross-hatching. Another test is the question: If a certain group of lines were omitted would the main idea still be there? If so, the catalog cartoons indicate secondary lines by a less bold pen.

This is illustrated in Figure 1. Figure 1a shows a complete construction. Figure 1b shows the primary lines. This is not to say that secondary lines are unimportant. For example, Figure 1c illustrates the more sophisticated use of alternation as a design feature, and this involves secondary lines.

Punctuation - closely spaced rows of small circular or triangular pits alongside or on a primary line give a distinctive touch to constructions otherwise composed of continuous lines. Sometimes a single or double row of punctuation is present in lieu of a continuous line. Punctuation is reminiscent of motifs on the older Tchefuncte and related types of Louisiana (Shenkel, 1980). Simple punctuation is not used herein as a separate Family criterion.

Curiously, examples are known where the primary construction itself is changed as many as five times around the rim. This is not alternation; there are no repeats. There are other examples of this trait (Suhm and Jelks, 1962).

Design Classification

To say that the decorative constructions found on Goose Creek pottery are composed of straight horizontal, vertical, and diagonal primary lines (purposefully to exclude curved lines) has not contributed much in that this group of lines is exhaustive - there are no others. The number of geometric border designs that could be created from use of any one or two is all but infinite, absent constraints.

Examination of decorated sherd collections over a period of time does create an impression or feel for line combinations that "look right" and "look wrong" for the Goose Creek assemblage. For example, Figure 2a and b are simple (and classic) line combinations that to the experienced eye look wrong, while Figure 1 looks right. The catalog has no Goose Creek constructions in the Figure 2 styles, but many in that of Figure 1.

The idea of reducing geometric design constructions into "Families" is used herein to provide a systematic order of presentation of the specimens found in the study assemblage. More importantly, this is a device for coarse grouping of the designs according to common construction attributes, or degrees of complexity, so that examination for temporal or spatial variations can be simplified, indeed, made possible, in view of the immense variety. The parallel to typology of lithics is obvious.

The following Families were recognized and used for sorting:

I. Horizontal only - lines parallel to the rim. This is numerically the largest group. The number of horizontal lines range from one to twenty or more.

II. Horizontal plus one diagonal - lines parallel to the rim, as above, plus diagonals having one slope. The slope is preponderantly "up to the right" (natural for a right-handed person). This is a large group.

III. Horizontal plus opposing diagonals - lines parallel to the rim plus diagonals of opposite slope, i.e., up "to the right" and also "up to the left." The triangle is a resultant motif within this large group.

IV. Horizontal plus vertical - lines parallel to the rim plus vertical lines. This is, numerically, a smaller group, which includes the narrow, denticulate band motif.

V. Horizontal plus opposing diagonals plus vertical - this small group has constructions that include all possible straight line classes.

VI. Opposing diagonals - primary lines consist of two diagonals. This Family includes specimens having a pair of continuous, parallel lines that alternately slope upward, then downward, then upward, etc.; closely spaced, nearly vertical lines also may be present.

VII. Curve - any construction having a curved or undulating line.

VIII. Vertical only - some of these may be fragments of a more complex construction. A few appear to be complete.

IX. Miscellaneous - specimens having stamped fields or other exotic elements.

These Families are based purely on design geometry without regard to taxonomy, vessel size, locale or other attributes. The germ idea of such a classification scheme was tried by Hole (1974, Table 4) for a small collection from a single site.

DOCUMENTATION

Method of Design Application

Replication experiments (Black, 1988) suggest that there were several techniques of marking. These will be generalized herein as incised (Inc), drawn (Drw), stamped (Stm), and impressed (Imp).

Incising is best done using a thin, sharp, flint chip in a cutting motion when the matrix has dried to the semi-hard or "leathery" state and the vessel may be safely handled. A fine line of uniform depth results. If such a tool is used on soft clay, the line, though fine, becomes a cut having a varying depth.

"Drawing" is done with a sharply pointed stick or bone when the matrix has firmed - much as one uses a pencil. The line will be much bolder and furrow-like than is the case for incising. The line appears to have been produced more by dragging than by cutting or scoring. This distinction is not to invent a new category, but to recognize a decided difference in aspect.

Stamping involves pressing a shaped tool repeatedly into a firmed matrix to produce discrete marks as opposed to continuous lines. The tool can be a blunt stick, hollow reed, or fingernail. This technique is taken here to include use of a pointed tool to produce "punctuation" marks which may be small round pits or triangular indentations that preserve the direction of the thrust. It would include use of multi-pointed tools or "rocker" stamps. Stamping was a primary method of decoration of the older Tchefunete ware of Louisiana (Shenkel, 1980).

Impressing is done by pressing a textured item, such as a woven fabric or a twisted or braided cord, into soft matrix.

The cartoons are annotated to indicate which method(s) appear to have been used, roughly as abbreviated above.

Rim Notching

The peculiar practice of cutting vee notches, usually into the inner edge of the rim, can be disassociated from the design construction in that some plain ware is notched, and some decorated ware is not notched. The cartoons are annotated to indicate presence of notching: FN = fine notching (spacing less than 5 mm, and CN (spacing greater than 5 mm and less than 10 mm) and VCN (spacing greater than 1 cm). A "-" indicates absence of notching. The notching typically is not visible in a direct side view of late period Goose Creek ware rims, while it is visible in the neighboring Rockport ware to the west (Suhum and Jelks, 1962) and also in early period (Goose Creek?) specimens. See below.

Shape of Rim Section

This attribute was given only casual attention in making the design catalog. A non-scaled rim section sketch is given when there is some aspect of the design or sherd that seemed to warrant such. Inside is usually to the left.

Other Documentation

Catalog Number (Cat. No.): This number was assigned in the order that sherds were examined; thus the numbers are not sequential after sorting according to Family.

Location: The county is always given, together with a brief topographic locator such as: HR, upper Greens Bayou. A standard site number is given where such is known.

Diameter and Thickness (D and T): Vessel diameter, measured in centimeters by a template, is given where possible. Many of the sherds were mounted or so small that diameter could not be measured. In this case, an estimate may be given using the symbols Sm (small), less than 14 cm; Md (medium), between 14 and 30 cm; Lg (large), greater than 30 cm. Thickness is that measured to the nearest millimeter.

Type: Only two taxonomic types based on matrix are used: Goose Creek (G.Cr.) for untempered, or Goose Creek, Sandy Paste (S.P.) if sand tempered, and San Jacinto (S.Jac.) if tempered with coarse grog. Frequently, the type had to be an estimate - the sherds were never broken as is often necessary to distinguish the San Jacinto type. Its presence is definitely understated; therefore, no analysis was made in which involved the distinction.

Refer: An Arabic numeral references the collection source Appendix A.

"Frag" beside a cartoon indicates fragment of an unknown larger design. The cover drawing illustrates sherds that contain only a fragment of a large construction. "R" indicates the rim.

DISCUSSION

Chronological Aspects (Aten, 1983)

Aten's extensive excavations in the Trinity Delta (Aten, 1983) established the beginning of the ceramic (or prehistoric) era in the Galveston Bay area at 100 AD. The ensuing 1700 years is divided into periods based on ceramic variations -relative ebb and flow of matrix types, i.e., temper. His Figure 12.2 gives attention to design constructions in the "Galveston Bay" area (Trinity River delta ?). Cartoons of the constructions for each period are shown. The use (or misuse) to be made of Aten's Figure 12.2 herein really has no justification other than that it is the only other synthesis known. The author has no idea whether the illustrations are exhaustive, or what governed his selections other than the implicit "found in this time period" aspect. Even so, the distribution of his illustrated constructions among the Families agrees well with the distribution for the cataloged specimens, as will be shown.

Table I is a matrix in which the 76 constructions of his Fig. 12.2 are classified into the Families used in the catalog. The tabulation shows statistically what his figure suggests visually: that the complex Families first appear in the Round Lake Period, beginning around 950 AD; that the relative distributions remain essentially constant thereafter; and that the single or multiple Horizontal Line Family is the most common (39 percent), followed by the Horizontal Line plus Opposing Diagonals Family, (25 percent). It should be recalled that the Round Lake and Old River Periods correspond respectively to the ascent and decline of the grog tempered Baytown or San Jacinto matrix type.

Aten's Figure 12.2 also suggests that punctation went out of style by the beginning of the Old River Period, around 1300 AD. Thus, we might tentatively conclude from Aten's Figure 12.2 that decoration composed solely of one to a few horizontal lines is not time diagnostic, that a large number of horizontal lines or more complex construction is diagnostic of the "second half" of the ceramic era, and, tentatively, that punctation is an early as opposed to late indicator. The figure also implies that decoration was very rare during the first few hundred years.

Chronological and Spatial Aspects - Catalog Collections

Baytown Area

The majority of the cataloged designs come from Source Collection 2 and 2a. These are marked "Baytown"; however, nearly all came from the shell middens surrounding Burnett Bay and the Brownwood Peninsula in particular. The Houston Archeological Society obtained one radiocarbon date on Rangia shell from the base of a "typical" midden 41 HR 618. This was 1500 AD + 40. When corrected to charcoal equivalent (Aten, 1983) this becomes about 1300 AD and is right for the beginning of Aten's Old River Period 1350-1800 AD, or, say, the final 500 years.

While Aten probably did not contemplate statistical use of the data in his Figure 12.2, it is of interest to compare the percentages of specimens in the various catalog Families from Source Collection 2 and 2a and from Figure 12.2 for the Old River Period. This is shown in Table II.

The relative presence of the Families agrees surprisingly well; the major exception is that Family II, Horizontal plus one diagonal, is under-represented in Aten's selections, 3 percent vs. 22 percent. One wonders if this is significant? The tabulation also shows that Family I, Horizontal, is strongly represented in the final 500 years. Also, 14 specimens (11 percent) of the Baytown group, have punctuation, and 8 of these are in Family I, Horizontal. This tends to confirm that the Horizontal Line, Family I, is very much a part of the late repertoire, and also that punctuation is not necessarily an early indicator.

Lower Brazos Area

A total of 26 specimens from the Lower Brazos area, Source Collection (6), were cataloged, of which 12 were from the Dow Cleaver Site 41 BO 35. Aten (1971), found (somewhat tenuously) that pottery was introduced there about 500 AD. He placed the appearance of decoration very late, 1300 to 1800 AD, coincident with the final, Old River Period in the Trinity Delta. The percentage distribution of cataloged specimens among the Families for this site plus 6 specimens from the general area (Shy Pond, Oyster Creek) is given on Table III. The distribution of this small sample agrees well with that of Table II, for the same period at Baytown; however, the variety is more limited. Punctuation was present on 3 specimens out of 18.

One specimen from the Dow Cleaver site is particularly noteworthy (Family IX, Cat. Nos. 188 A, B, C, pg. 27). This is a partially reassembled rim on which the design construction changes at least five times, of which four are present as follows:

<u>Family</u>	<u>Construction</u>
I Horizontal	Five lines
III Horizontal plus opposing diagonals	Horizontals are punctations
I Horizontal	Entirely horizontal punctuation rows
I Horizontal	Four lines

Thus, we see on one vessel, presumably from the final period, two of the three most frequently occurring Families including much punctuation. Just how often this multiple design phenomenon occurs is thought provoking in that nearly all of the cataloged specimens are based on one sherd usually only 2 to 4 centimeters wide. Was the potter making a statement?

Addicks Area

The Addicks area, just west of Houston, is important for spatial representation. Major excavations were done in 1947 (Wheat, 1953). Thirteen specimens copied from photographs in the report are cataloged; seven more were tabulated, Table III, when clearer copy became available. The relative distributions correlate well with both the Baytown, Table II, and Dow Cleaver (Lower Brazos) table III collections except

for the strong presence of Family VII, Curves, at Addicks (60 percent of all curves). Might this be a temporal feature? Aten's Figure 12.2 shows only two definite curves; one is in the earliest Clear Lake Period, 100-350 A.D. Further, Wheat's estimate for the ceramic period at Addicks, 600-1600, was based largely on presence of Tchefuncte sherds at a level where ceramics were already established. This beginning date now seems too late (Shenkel, 1980; Aten, 1976). Aten places similar finds in his Clear Lake period. Unfortunately, Wheat did not give a clear provenience for sherds; the curve specimens might have occurred in upper, late, levels. Even so the author has a suspicion that the Addicks pottery is at least in part earlier than the Baytown and Lower Brazos collections. There was a strong archaic horizon in the Addicks excavations.

Houston Area

Nineteen specimens were cataloged from the Alabanson Road site 41 HR 273, courtesy of Texas A&M University. These sherds are securely radiocarbon dated between 400 and 800 AD. Cartoons were made from TAMU's excellent drawings in order to show the designs in the same style as used for the rest of the catalog. The drawings do suggest that this group is different in aspect. The walls are thicker and rim notching (4 examples) are angular to and across the rim, i.e., visible in side view. Several specimens may be from the same vessel. Fifteen specimens fall into the Family I, Horizontal; nine of these are cord impressed with predominantly right hand twist, two-strand cords. One is in Family II and one is in Family III. Two are in Family VI, Double Diagonals. See Cat. Nos. 207 and 212, pg. 22 and 23. Specimen 212 is one of the most interesting in the entire catalog in that it appears to be an unbounded, free-form motif. The fabrics are all Goose Creek Sandy Paste or O'Neal.

The large presence of horizontal line decoration is entirely consistent with Aten's Figure 12.2 for the earliest pottery, and the cord impression method is confirmed as being used very early. The presence of sherds with both incised and cord impression suggest that cord marking may be a precursor of incising. There are only three other clearly cord-marked specimens in the catalog (Family VII, Cat. No. 3, 223, pg. 24, and Family I, Cat. No. 112, pg. 4), all of uncertain age.

Summation - Chronological and Spatial Aspects - Catalog Collections

What has been ventured is that the cataloged specimens from the Lower Brazos and Baytown/Galveston Bay collections are temporally "late" and the Addicks collection is "middle" or possibly early to the period 100-1800 AD. However, these mid to late time specimens fall into nearly all of the classification Families. The Alabanson Road specimens are definitely early and confirm that horizontal lines were a favored early motif. Even so, this Family also exemplifies the late period, though cord impressing may be an early method of application.

Thus, we cannot say, for example, that Family II was earlier than Family III or otherwise interpret the catalog classification scheme based on line elements present in terms of an "evolutionary" chronology. Neither do the catalog Families show significant differences in occurrence spatially, aside from the possible rarity of Family II in the Trinity delta and strong presence of Family VII at Addicks.

In short, absent a context, the gross sorting done for sake of organizing presentation in the catalog does not appear to have any diagnostic utility either spatially or temporally. The degree of resolution afforded by the Families is perhaps too coarse. The sameness over so long a time period is perplexing. Yet, in a larger sense it is enlightening.

Distribution by Families - Entire Catalog

Table IV shows the percentage of specimens in the nine Families for the entire catalog. The individual collections are placed as being early or late relative to about 1000 AD. Distributions for these two periods are shown. The Addicks (tenuously) and White Oak Alabanson collections were considered early, the remainder late. The high percentage of Family VII, Curves, in the early category may be a spatial bias from the Addicks collection. Also shown for comparative purposes is data from Aten's Fig. 12.2 for combined Goose Creek and San Jacinto wares for his (late) Round Lake and Old River Periods (post 950 AD). In general, the catalog data-set distribution correlates well with Aten's sampler. The one point of divergence is that Family II is under represented in Aten's sampler from the Trinity delta.

Distribution of Design Families by Vessel Sizes

Vessel diameter could be measured or estimated into size ranges on 169 specimens. The category "small" includes diameters through 14 cm (5.5 in.), "medium" includes greater than 14 cm through 30 cm (11.8 in.), and "large", greater than 30 cm. Surprisingly, only 9 percent of the decorated vessels are small, 45 percent are medium, and 46 percent are large. See Table V. One could have a field day making conjectures about the significance of this except that we do not have a statistical vessel size distribution for all vessels, i.e., plain plus decorated.

Family I, Horizontal Lines, is the most used for all sizes. Family III, Horizontal Plus Two Diagonals (often triangles) is next most popular for the medium size, and Family II, Horizontal Plus One Diagonal, is next most popular for large vessels. Large or medium vessels are significantly represented in all Families.

Some General Observations

Upper exterior designs nearly always have a margin between top of the decoration and the rim. About a dozen specimens have line elements that "bleed off" the rim. This is not peculiar to any geographic area.

Of all specimens having a rim, only 34 percent were notched. This proportion is approximate for all design Families, having a significant number of specimens. While not cataloged, many plain sherds examined were notched. One can conclude that the stimulus for the curious practice of notching was different from that for applying an exterior rim decoration.

Only four examples of interior incising were observed. One (Family VI, Cat. No. 175, pg. 22) consists of five diagonal lines near the rim of a sherd that is decorated with an alternating diagonal, four-line band around the exterior. Another (Family IX, Cat. No. 26, pg. 26) appears more organized and is in an odd, severely concave inward, peripheral segment of the vessel wall. A third (Family IX, Cat. No. 217, pg. 26) is puzzling in aspect. The first specimen is from the Lower Brazos (Dow Cleaver); the second is from the Lower San Jacinto River (Lost Lake), the

third is from San Jacinto Bay, and the fourth, Cat. No. 27, pg. 26, is from Burnett Bay. Interior incising has been reported for sherds from Sabine Lake, Bolivar Peninsula, and Upper Galveston Bay (Neyland, 1971).

An atypical mode of decoration appears on one sherd from the Lower Brazos Area (Family II, Cat. No. 192, pg. 12). An overall textured effect was achieved by scraping with a deeply serrated tool in alternating directions or else the closely-spaced, broad lines may have been drawn. A somewhat similar treatment is shown in Wheat, 1953, Plate 33,m, and in Hall, 1981, Figure 52, Group 5. Significantly all three examples are from the northwestern frontier of the Goose Creek ware range.

The "Potter's Mark" Question

The idea is sometimes put forth that the designs represent potters' marks, i.e., identified the craftsman. There is no way to prove or disprove this conjecture. Suppose that all of the designs in the catalog were very similar; we would have to conclude that a great many potters in many locales over a thousand years or more used the same ideas. This is the case in the broadest sense. Suppose a few examples of a certain specific motif from different vessels in the same locale were present. Then we might suspect that one potter was using a favorite design, or one to identify her band, or her lineage, provided other attributes of the sherd compared favorably. But, aside from the non-diagnostic horizontal line, there is no convincing evidence of this. (The Family II specimens on page 9 of the catalog are suspect. This motif, within Family II, is peculiar to the Baytown area.) Further, over one-third of all the cataloged designs consist only of horizontal lines. Thus, it seems unlikely that a given design construction was an individual's or band's mark.

On Symbolic Meanings

The Goose Creek designs are not pictorial. It is impossible to read any resemblance into them of something that exists in nature. With one exception, there are no true motifs incorporated into the designs as recognizable, separable entities, possibly symbolic of something. The exception is the triangle; however, the triangle is not used as an unattached motif, i.e., free from a common horizontal.

The author believes the triangle was a discovery, a figure that emerged from attempts to embellish by adding an opposing set of diagonal lines. Thereafter, it was used premeditatively, if indeed not symbolically.

The triangle clearly appears in over forty specimens in the catalog. (Families III and V). It is usually equilateral in form with one corner down; the other two corners usually touch those of similar triangles on either side so as to form a continuous repeat. In one style there is a horizontal line bounding the downward points, thus forming a second set of corner upward triangles, but it is usually the base upward triangles that are singled out for hatchuring. In another style the lower horizontal line is not present so that the triangles appear to be pendant to the upper base line. See catalog pgs. 14 through 17.

This is not to say that simple geometric constructions cannot be symbolic. The Christian Cross and the Swastika are notable examples of highly symbolic geometric constructions if one is in on the secret. Nevertheless, there is nothing to suggest, beyond a reasonable doubt, that there is any symbolism in the Goose Creek constructions.

SUMMARY

Indians of Southeast Texas made a distinctive pottery, broadly known as Goose Creek ware, for nearly 2000 years. Some vessels were decorated. Decoration usually consisted of linear geometric constructions incised around, but seldom touching, the upper exterior rim. Present evidence suggests that initially the most common construction consisted of a few horizontal lines (parallel to the rim). The lines were formed by pressing a twisted fiber cord into soft clay and by incising. Beginning around 1000 AD, coincident with the ascent of grog tempering, the incised border designs became more complex, largely through an increase in the number of parallel horizontal lines and also the addition of diagonal lines either of one slope or of opposing slopes. Vertical lines, while used, were much less common as were curved lines. The equilateral triangle was recognized and became a common construction. As a motif, the triangle encloses a field which was often filled with secondary hatchures. Punctuation was sometimes used, both early and late, to embellish a straight line or in substitution for a scribed line. Use of shaped tools for texturing by stamping was a very minor trait. The inner edge of the rim was often treated by radial notching, but this practice was not confined to pieces otherwise decorated. Plain ware was also notched. It is interesting that decoration appears to have been more commonly applied on large vessels than small.

The variety of repetitive border patterns that can be created with just the line classes "horizontal" and "diagonal" either singularly or in combination is very large. Indeed, when one is confronted with a large random selection of decorated Goose Creek potsherds the automatic eye scan process of searching for similarities becomes frustrating. Each specimen is distinct from the others yet there is a sameness. A way was sought for grouping of specimens that would enhance similarities for catalog presentation. Some success was achieved using the criteria of "line classes", i.e., solely horizontal line(s), horizontal line(s) plus diagonals of one slope, horizontals plus opposing diagonals, etc. Nine "Families" were defined. A sense of order appeared when the specimens were sorted into Families and then arranged within each in increasing order of complexity. This gross sorting method revealed sub-families; however, a finer sorting was not done except by association.

After the specimens were sorted according to this purely mechanical criteria, it was found that the Families were not spatially or temporally diagnostic. The percentage distribution of specimens among the various Families was similar for collections from several geographic areas.

It was ventured to place some collections temporally as being pre- or post-1000 A.D. When so separated, without regard to locale, the percentage distributions among the "most used" Families was as follows (see Table IV for complete data):

Family	Pre 1000 AD	Post 1000 AD
I Horizontal lines only	56	35
III Horizontal plus opposing diagonals	8	21
II Horizontal plus one diagonal	10	16
VII Curves	15	2
Percent of total represented:	89	74
(Number of specimens):	13 (35)	(172)

The summary tabulation shows the dominance of the "horizontal lines only" decoration both early and late. It also shows the tendency to retain the horizontal line as the primary "clothes line" for the design construction. There appears to have been a growth in popularity of constructions using horizontal plus diagonal(s) at the expense of horizontal lines alone. The possibly early popularity of curves may really be a spatial bias from the Addicks collection.

If it is concluded that the decoration per se, as considered here, admittedly without attention to the many other attributes of a sherd, is not diagnostic of time or place, then what further may we speculate? First, it is obvious that there was no major artistic breakthrough. Throughout over a millenia the potters were satisfied to use and exchange a very limited set of basic ideas. These were not a sedentary agricultural people. They were hunters and gatherers to the end, and much occupied with matters of survival. Pottery decoration was probably not regarded as a creative outlet. Was it just a perfunctory thing to do, in an accepted manner, without premeditation - a final step in the toil of forming pots?

Author's Note

I see now that when this project was begun, I subconsciously thought that in prehistoric time Houston would have been a vast distance from, say, Freeport, and that there should be clear differences in the way "artistic" things like pottery decoration were done over such distances! Now I see that Southeast Texas was really a small place and the inhabitants were well integrated - internally. I also was prepared to see stronger indications of an evolution - after all 1700 years is a very long time. But that is too much to ask absent some way to date a sherd found on eroding beach.

The catalog offers little to be distinguished in terms of miles or years. But it is a good sized sample of what to expect in the western Akokisa territory.

W.M.B.
December, 1989

Appendix A - Collection Sources

Reference (1)

Houston Museum of Natural Science. This is a surface collection made in the 1930s and early 1940s from sites in Harris County most of which are now destroyed. "Lower San Jacinto" means an extensive area of shell middens along Old River Bay and the former Lost Lake, west of the San Jacinto River.

Reference (2)

Private Collection. This surface collection, designated "Baytown", comes largely from the eroding and subsiding shell middens surrounding Burnett Bay. Site 41 HR 618 is typical. A radio carbon date of 1500 AD was obtained on shell from the base of this midden. Constant monitoring has resulted in a large recovery of both ceramics and lithics, some of which are Archaic.

Reference (3)

Private Collection. This surface collection comes from shell middens south of the Houston Ship Channel from Peggy's Lake and eastward to the Bay; also, San Jacinto Bay, Cedar Bayou, and Lake Stevenson (Smith Point). This collection included 21 specimens in the Horizontal Family which were not cataloged to avoid more extensive duplication.

Reference (4)

Wheat, J.B. (1953), River Basin Surveys Papers, No. 1. The Addicks Dam Site. Smithsonian Institution. Most of the cartoons were made from photographs on Plates 32 and 33, where the design construction was clear. These plates include several specimens in the Horizontal Line Family similar to Catalog Nos. 11, 12, 50, and 74 which were not cataloged separately. Site 42 HR 2 is typical.

Reference (5)

Aten, L.(1983), Indians of the Upper Texas Coast. Cartoons were made from photographs on Figures 12.4, 12.5, and 12.6. It is not clear whether these specimens come from the Trinity Delta or Clear Lake (41 HR 84-85), in that some of the same sherds are included in a publication on the latter (Aten, 1976). Accordingly, the location is designated "Galveston Bay". Cartoons are made from the cartoons in Fig. 12.2. not

Reference (6)

Brazosport Museum, This collection is largely from the Dow Cleaver site, 41 BO 35, on the lower Brazos River. This site is believed to be pure Karankawan, but the pottery type is Goose Creek in nature as opposed to Rockport (two Rockport Incised were cataloged). The collection also includes specimens from Shy Pond, lower Oyster Creek, and Big Creek, a tributary of the Brazos, all within 10 miles or so.

Reference (7)

Texas A & M University, Department of Anthropology. This collection is from the extensive excavation of Site 41 HR 273, located on White Oak Bayou, near the Alabonson Road crossing. Drawings of the decorated sherds, to be included in a forthcoming report, were provided by Blaine Ensor, (TAMU).

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- 1988 Experiments in Replication of Goose Creek Pottery. Journal Houston Archeological Society, No. 90.

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- 1981 Allens Creek, Research Report No. 61, Texas Archeological Survey, University of Texas, Austin.

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- 1974 Archeological Investigations along Armand Bayou, Harris County, Texas. Houston Archeological Society, Report No. 2.

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- 1962 Handbook of Texas Archeology: Type Descriptions. The Texas Archeological Society, Special Publication No. 1.

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- 1953 An Archeological Survey of the Addicks Dam Basin. Smithsonian Institution, Bureau of American Ethnology, Bulletin 154.

**TABLE I - Examination of Aten (1983) Figure 12.2
In Terms of Design Families Used in Catalog
(Goose Creek and San Jacinto Combined)**

Calendar Yr. AD:	<u>Clear Lake</u> <u>100-350</u>	<u>Mayes Island</u> <u>350-600</u>	<u>Turtle Bay</u> <u>600-950</u>	<u>Round Lake</u> <u>950-1350</u>	<u>Old River</u> <u>1350-1800</u>	<u>Orcoquisac</u> <u>Post 1800</u>	<u>Total</u>
Family	Number of Specimens						(Pct)
I Horizontal only	2	1	3	11	12	1	30 (39)
II Horizontal plus one diagonal	-	-	-	2	1	-	3 (4)
III Horizontal plus opposing diagonals	-	-	-	11	8	-	19 (25)
IV Horizontal plus vertical	-	-	-	5	4	-	9 (12)
V Horizontal plus opposing diagonals plus vertical	-	-	-	1	2	-	3 (4)
VI Opposing diagonals	-	-	-	-	3	-	3 (4)
VII Curves	1	-	-	1	1	-	3 (4)
VIII Vertical only	-	-	-	-	-	1	1 (1)
IX Miscel.	-	-	-	1	4	-	5 (6)
	3	1	3	32	35	2	76 (100)

**TABLE II - Examination of Source Collections 2 and 2a
In Terms of Design Families Used in Catalog
Old River Period 1300[±]-1800**

Family	Baytown Collection 2, 2a *		Old River Period Aten's Fig. 12.2 (Table I)	
	No.	(Pct)	No.	(Pct)
I Horizontal only	36	(29)	12	(34)
II Horizontal plus one diagonal	27	(22)	1	(3)
III Horizontal plus opposing diagonals	25	(20)	8	(23)
IV Horizontal plus vertical	10	(8)	4	(11)
V Horizontal plus opposing diagonal plus vertical	3	(2)	2	(6)
VI Opposing diagonals	8	(7)	3	(8)
VII Curves	2	(1)	1	(3)
VIII Vertical only	5	(4)	-	-
IX Miscellaneous	7	(6)	4	(11)
	<u>123</u>	<u>(100)</u>	<u>35</u>	<u>(100)</u>

* Includes specimens from Source Collection 1 marked "Lower San Jacinto". Only a few miles separate the areas.

**TABLE III - Examination of Source Collection 6 (Dow Cleaver)* and Addicks Collections 1, 4
In Terms of Design Families Used in Catalog**

Family	Dow Cleaver Collection 6*		Addicks Collections 1, 5**	
	No.	(Pct)	No.	(Pct)
I Horizontal only	5	(31)	7	(35)
II Horizontal plus one diagonal	3	(18)	2	(10)
III Horizontal plus opposing diagonals	4	(25)	3	(15)
IV Horizontal plus vertical	2	(13)	1	(5)
V Horizontal plus opposing diagonals plus vertical	-	-	-	-
VI Opposing diagonals	-	-	1	(5)
VII Curves	-	-	6	(30)
VIII Vertical only	-	-	-	-
IX Miscellaneous	<u>2</u>	<u>(13)</u>	<u>-</u>	<u>-</u>
	16	(100)	20	(100)

* Includes Shy Pond and Oyster Creek specimens.

** Tabulation contains seven additional specimens not in Catalog:
I + 3; II, III, VI and VII + 1 each.

**Table IV Distribution of All Cataloged Specimens
Among Classification Families**

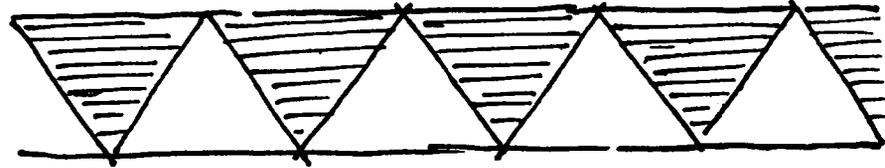
Family	Catalog				Aten's Figure 12.2	
	Pre-1000 AD		Post 1000 AD		Post 950 AD*	
	No.	(Pct.)	No.	(Pct.)	No.	(Pct.)
I Horizontal only	22	(56)	81**	(35)	24	(35)
II Horizontal plus one diagonal	3	(8)	38	(16)	3	(4)
III Horizontal plus opposing diagonals	4	(10)	49	(21)	19	(28)
IV Horizontal plus vertical	1	(3)	16	(7)	9	(13)
V Horizontal plus opp. diags. plus vertical	-	-	5	(2)	3	(4)
VI Opposing diagonals	3	(8)	15	(6)	3	(4)
VII Curves	6	(15)	4	(2)	2	(3)
VIII Vertical only	-	-	6	(3)	1	(1)
IX Miscellaneous	-	-	17	(7)	5	(7)
	39	(100)	231	(100)	69	(100)

* Post "Turtle Bay". Pre 950 AD distribution is: Family I 6 (86%) and Family VII 1 (14%).

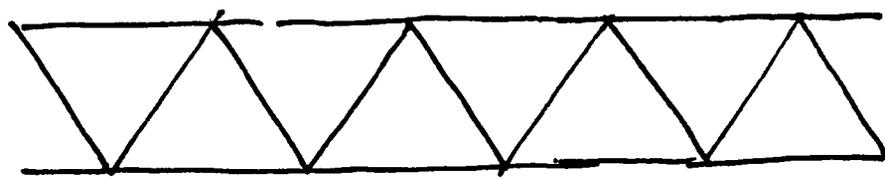
** Includes 21 specimens from Reference 3 which were observed but not cataloged to reduce duplication.

**Table V Distribution of Design Families
Among Vessel Sizes**

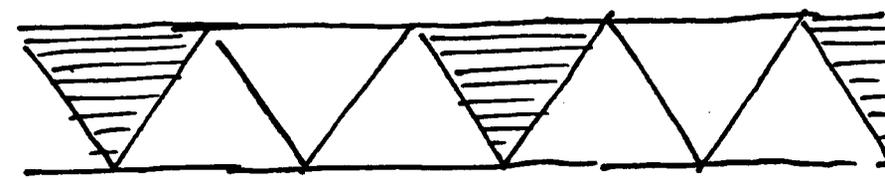
Family	Vessel Size		
	Small 14 cm. D <u>No.</u>	Medium 14 to 30 cm. <u>No.</u>	Large 30 cm. <u>No.</u>
I Horizontal only	6	22	25
II Horizontal plus one diagonal	1	11	17
III Horizontal plus opposing diagonals	6	23	12
IV Horizontal plus vertical	1	4	6
V Horizontal opposing diagonals plus vertical	-	2	2
VI Opposing diagonals	-	3	9
VII Curve	-	3	-
VIII Vertical only	1	1	3
IX Miscellaneous	<u>1</u>	<u>7</u>	<u>3</u>
TOTAL	16 (9%)	76 (45%)	77 (46%)



a

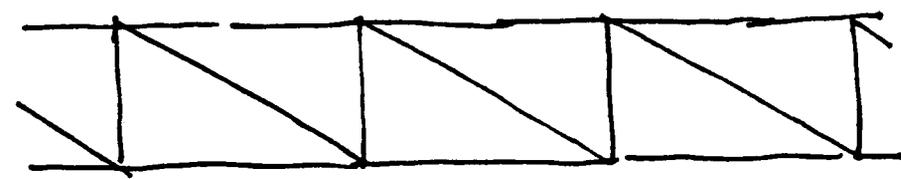


b

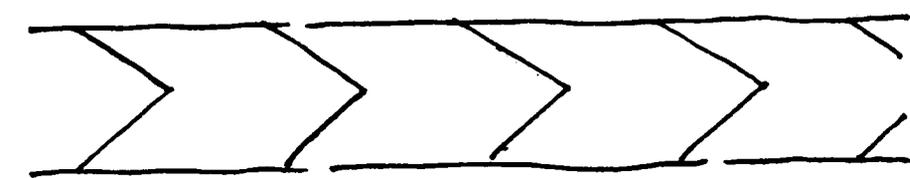


c

Fig. 1 Primary and secondary lines and alternation



a



b

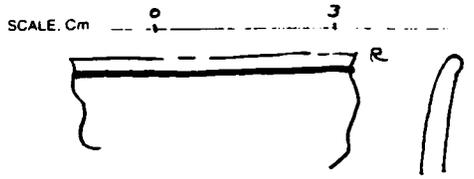
Fig. 2 Examples of unused motifs

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HORIZONTAL ONLY

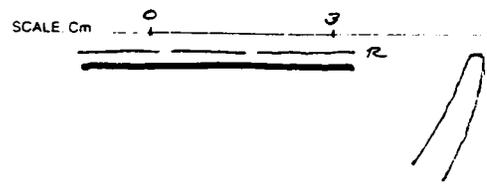
CATALOG



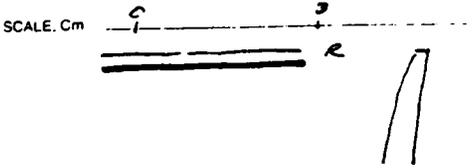
FAMILY I
HORIZONTAL ONLY



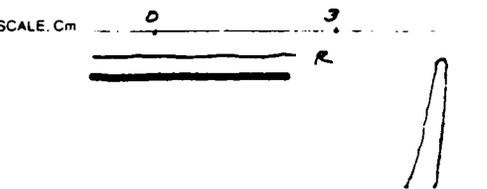
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METHOD DCW NOTCH - REFER 2



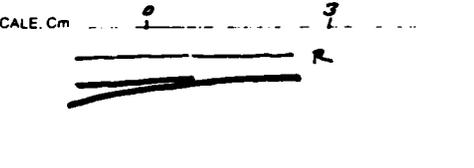
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TYPE G. Cr. DIA 18 Cm T.mm 6+
METHOD Inc NOTCH FN REFER 1



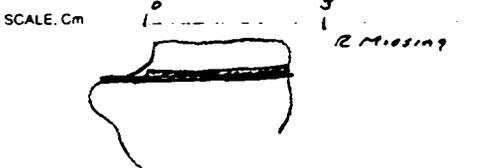
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METHOD Inc NOTCH - REFER 1



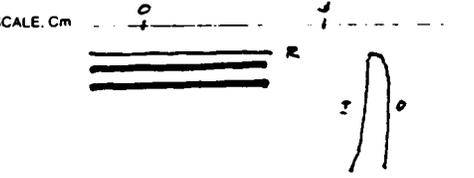
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METHOD Dr NOTCH - REFER 1



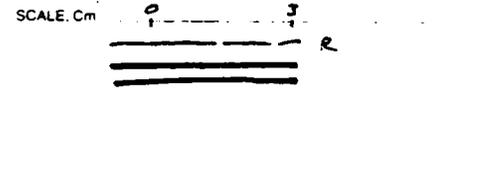
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METHOD INC NOTCH - REFER 2



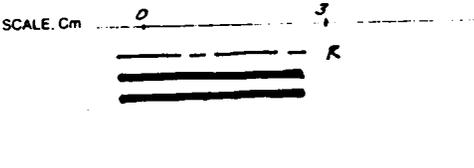
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METHOD Deep Cut NOTCH - REFER 2a



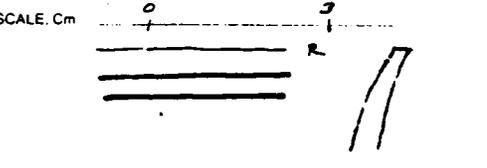
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TYPE S. Lac? DIA 69 T.mm 6
METHOD Inc NOTCH - REFER 2



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LOCATION Gold Bay (Trinity Delta?)
TYPE G. Cr. DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5

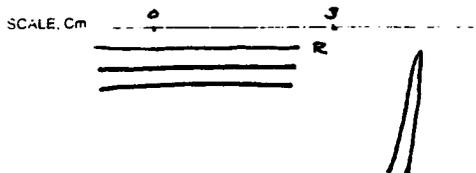


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METHOD Dr NOTCH - REFER 2

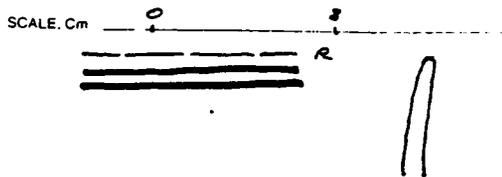


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TYPE G. Cr. DIA 14 Cm T.mm 4
METHOD Inc NOTCH - REFER 4

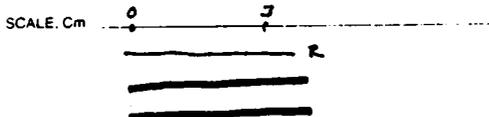
FAMILY I
HORIZONTAL ONLY



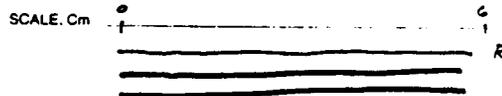
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METHOD Inc NOTCH - REFER 2a



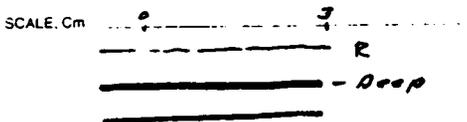
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METHOD Dr? NOTCH - REFER 2



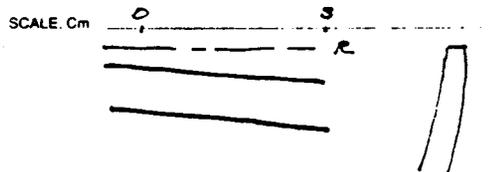
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TYPE Sandstone DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5



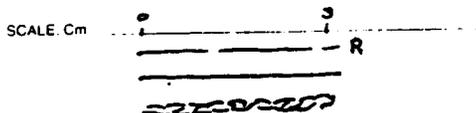
CAT NO 133
LOCATION HR Baytown
TYPE G.Cr DIA 19 T.mm 5
METHOD Inc NOTCH - REFER 2a



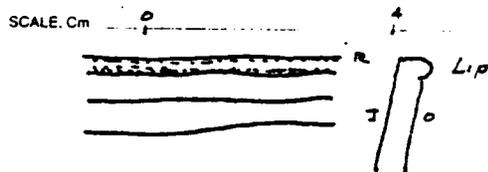
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TYPE Sandstone? DIA 28 cm T.mm ?
METHOD Cut NOTCH - REFER 2a



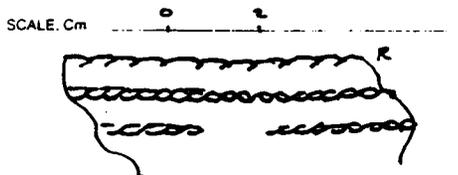
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METHOD Dr NOTCH - REFER 1



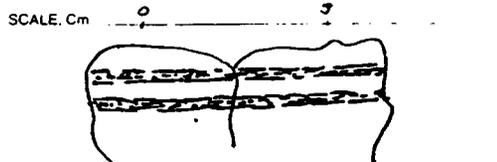
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LOCATION HR White Oak (Alabamson)
TYPE S.P. DIA ? T.mm 6
METHOD Inc/C.I. NOTCH - REFER ?



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TYPE G.Cr DIA 19 T.mm 5
METHOD Inc NOTCH - REFER 2a

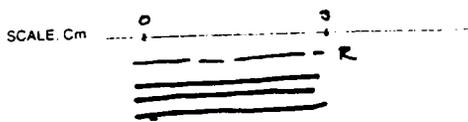


CAT NO. 212
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TYPE SP DIA 19 T.mm 5
METHOD Card I NOTCH FN REFER ?

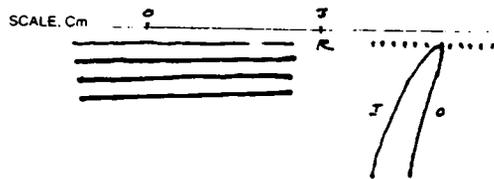


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TYPE S.P. DIA ? T.mm ?
METHOD Card I NOTCH - REFER ?

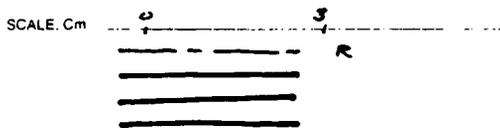
FAMILY I
HORIZONTAL ONLY



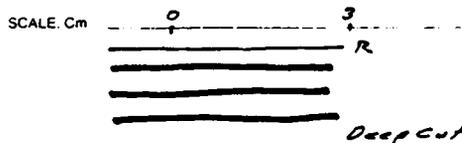
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TYPE S.P. DIA ? T.mm A
METHOD Inc NOTCH - REFER 7



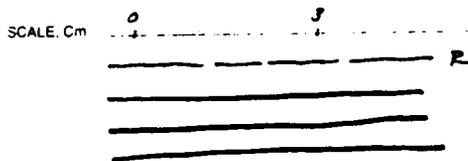
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METHOD Inc NOTCH VEN REFER 2a



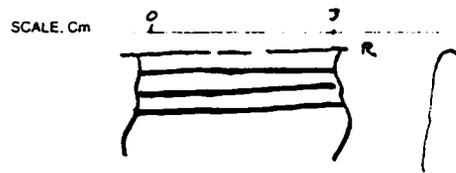
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METHOD Inc NOTCH - REFER 2, 5



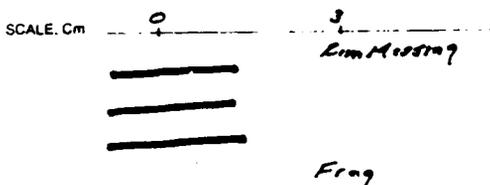
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METHOD Inc NOTCH - REFER 2a



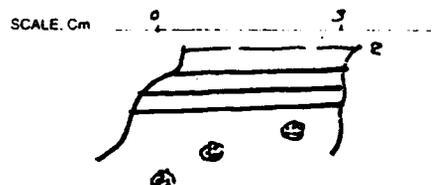
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TYPE S.P. DIA ? T.mm A
METHOD Inc NOTCH - REFER ?



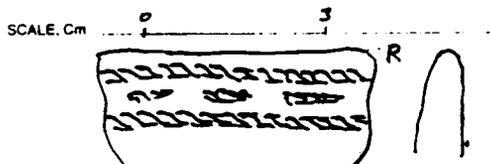
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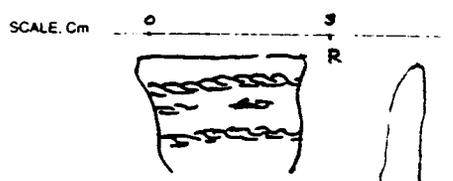
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TYPE S.P. DIA Med. T.mm 5
METHOD Dr NOTCH ? REFER 2



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METHOD Inc NOTCH - REFER 7

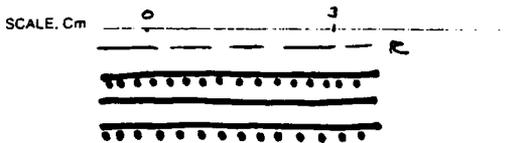


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TYPE S.P. DIA ? T.mm ?
METHOD Card I. NOTCH - REFER ?

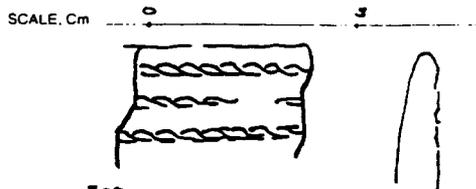


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TYPE S.P. DIA ? T.mm 6
METHOD Card I. NOTCH - REFER 7

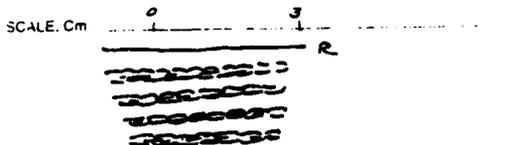
FAMILY I
HORIZONTAL ONLY



CAT. NO. 133
LOCATION BO Oyster Creek
TYPE S. Jac DIA 30 cm T. mm 6
METHOD Dcw NOTCH - REFER 6

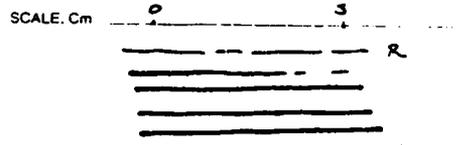


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TYPE S.P. DIA ? T. mm 6
METHOD Cord I NOTCH - REFER 7

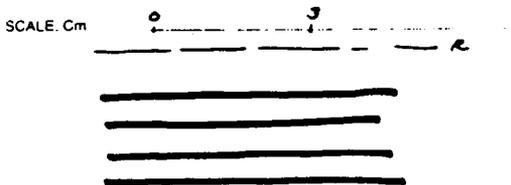


CAT. NO. 112
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TYPE G. Cr DIA ? T. mm ?
METHOD Inc NOTCH ? REFER 5

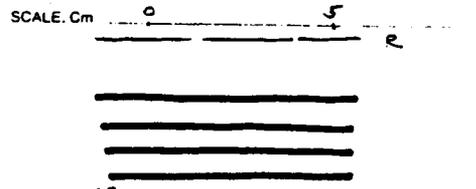
Cord Impr



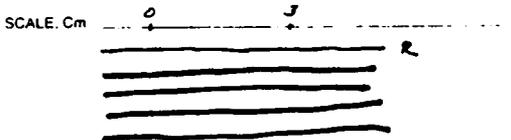
CAT. NO. 210
LOCATION HR White Oak (Alobanson)
TYPE S.P. DIA ? T. mm 5
METHOD Inc NOTCH - REFER 7



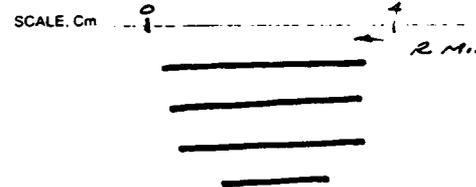
CAT. NO. 176
LOCATION BO Lower Brasas (Dow - C)
TYPE S. Jac DIA 22 cm T. mm 4
METHOD Dcw NOTCH - REFER 6



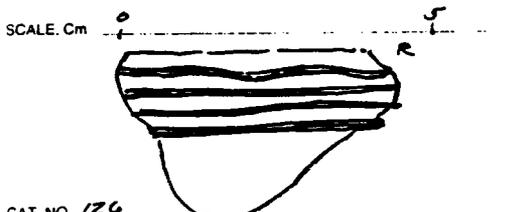
CAT. NO. 18
LOCATION BO Lower Brasas (Dow C)
TYPE S. Jac DIA 30 cm T. mm 4
METHOD Dcw NOTCH - REFER 6



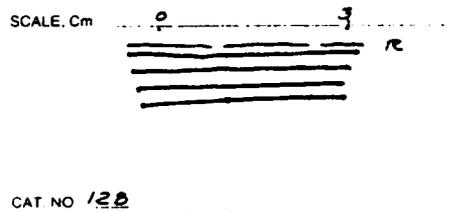
CAT. NO. 122
LOCATION Galt Bay (Ternby Delta?)
TYPE Sandae DIA ? T. mm ?
METHOD Inc NOTCH ? REFER 5



CAT. NO. 6
LOCATION HR White Oak B. (11th St.)
TYPE G. Cr J.P. DIA 49 T. mm 6
METHOD Dcw NOTCH ? REFER 1

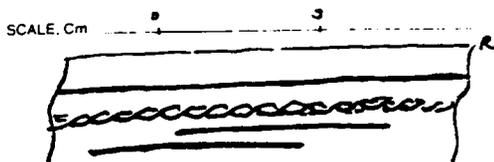


CAT. NO. 124
LOCATION HR Baytown
TYPE G. Cr DIA 49 T. mm 5
METHOD Deep Ent. NOTCH - REFER 2a

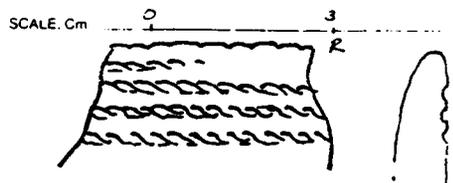


CAT. NO. 128
LOCATION HR Baytown
TYPE G. Cr DIA 49 T. mm 5
METHOD Inc NOTCH - REFER 2a

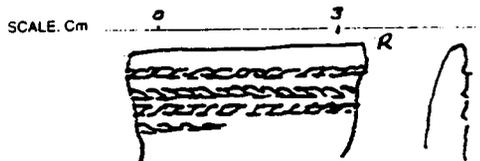
FAMILY I
HORIZONTAL ONLY



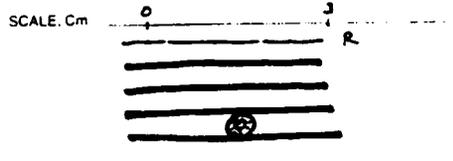
CAT NO 201
LOCATION HR White Oak (Alabamson)
TYPE J.P. DIA ? T.mm 6
METHOD Inc/Gr. NOTCH - REFER 7



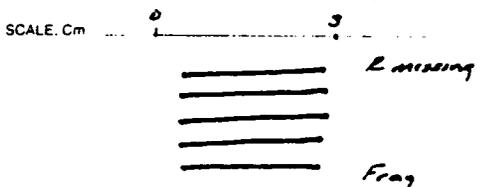
CAT NO 196
LOCATION HR White Oak (Alabamson)
TYPE J.P. DIA Lg T.mm 6
METHOD Card T. NOTCH FN REFER 7



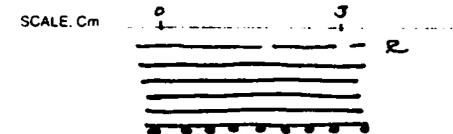
CAT NO 153
LOCATION HR White Oak (Alabamson)
TYPE J.P. DIA ? T.mm 5
METHOD Card T. NOTCH - REFER 7



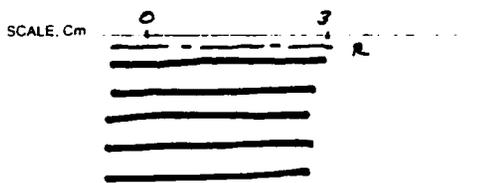
CAT NO 174
LOCATION BO Lower Brazos (Dow-C.)
TYPE San Jac DIA 26 cm T.mm 5
METHOD Inc. Cut NOTCH - REFER 6



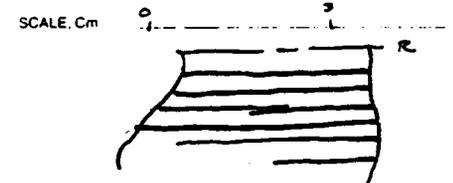
CAT NO 40
LOCATION HR Baytown
TYPE G.C. DIA 9 cm T.mm 1
METHOD Inc NOTCH ? REFER 2



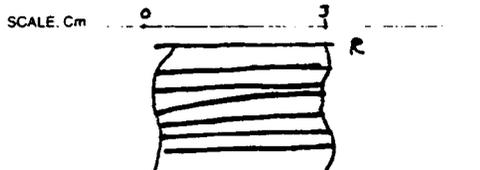
CAT NO 224
LOCATION HR Peggy Lake
TYPE G.C. DIA 13 cm T.mm 2
METHOD Inc NOTCH - REFER 3



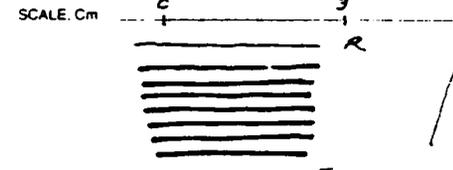
CAT NO 40
LOCATION HR Baytown
TYPE G.C. DIA Lg T.mm 7
METHOD Inc NOTCH FN REFER 2



CAT NO 202
LOCATION HR White Oak (Alabamson)
TYPE J.P. DIA ? T.mm 6
METHOD Inc NOTCH - REFER 7



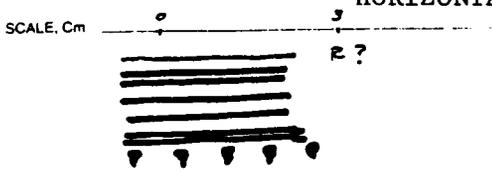
CAT NO 192
LOCATION BO Lower Brazos, Sky Pond
TYPE G.C. SP DIA ? T.mm 3
METHOD Inc NOTCH ? REFER 6



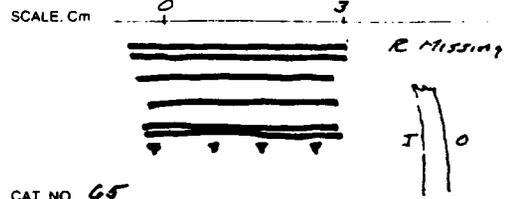
CAT NO 12
LOCATION HR Unknown; Also Addicks
TYPE G.C. DIA Lg T.mm 7+
METHOD Inc NOTCH FN REFER 1, 5

FAMILY I

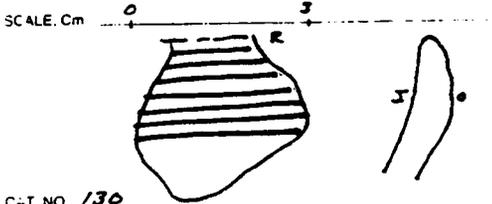
HORIZONTAL ONLY



CAT. NO. 72
 LOCATION HR Baytown
 TYPE GCC DIA Lg T.mm 6
 METHOD Zac NOTCH ? REFER 2



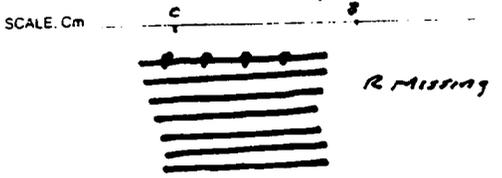
CAT. NO. 65
 LOCATION HR Baytown
 TYPE GCC DIA Lg T.mm 6
 METHOD Zac NOTCH ? REFER 2



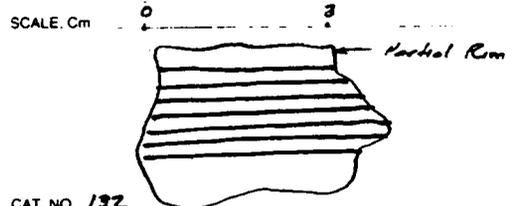
CAT. NO. 130
 LOCATION HR Baytown
 TYPE GCC DIA Lg T.mm 6
 METHOD Zac NOTCH ? REFER 2a



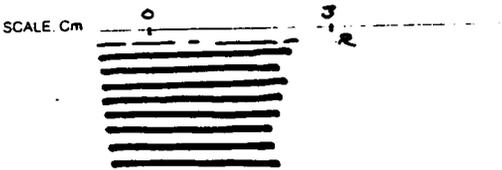
CAT. NO. 8
 LOCATION HR Lower Sand. R.
 TYPE GCC DIA Md T.mm 6
 METHOD Zac NOTCH FN REFER 1



CAT. NO. 11
 LOCATION HR Baytown
 TYPE GCC DIA Lg T.mm 4
 METHOD INC NOTCH ? REFER 2



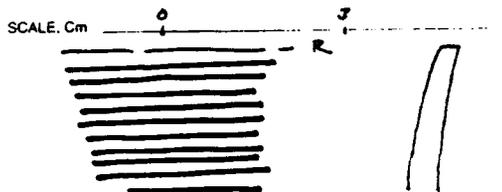
CAT. NO. 132
 LOCATION HR Baytown
 TYPE GCC DIA Md T.mm 5
 METHOD Cut NOTCH ? REFER 2a



CAT. NO. 19
 LOCATION HR Baytown
 TYPE GCC DIA Md T.mm 4
 METHOD Zac NOTCH - REFER 2



CAT. NO. 16
 LOCATION HR Baytown
 TYPE GCC DIA Lg T.mm 4
 METHOD ? NOTCH ? REFER 2

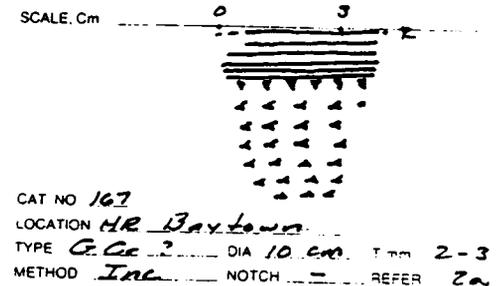
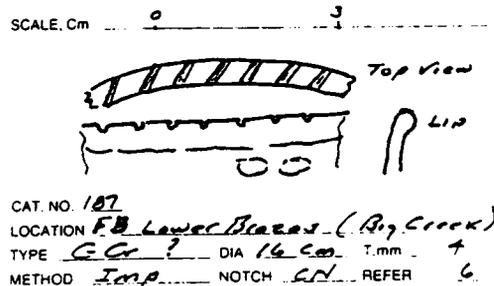
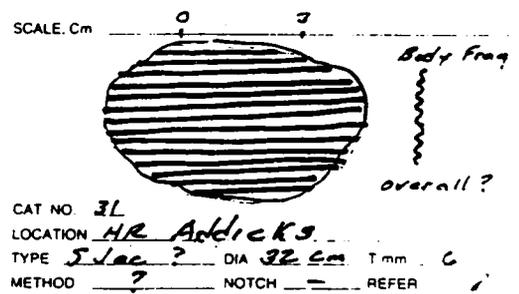
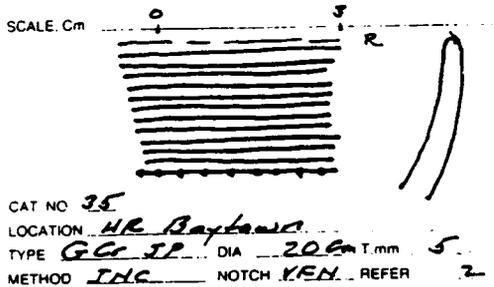
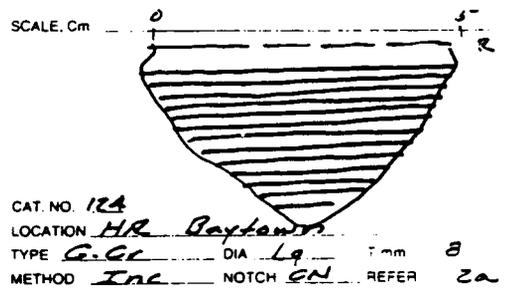
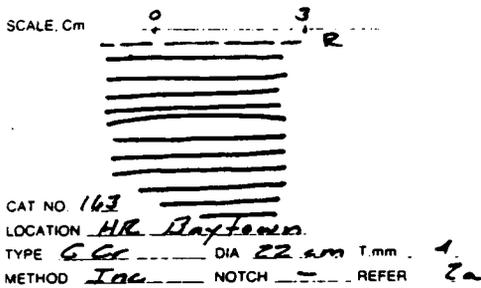
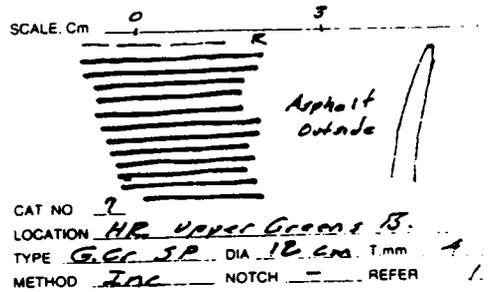
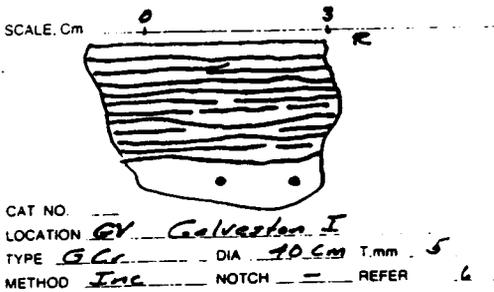
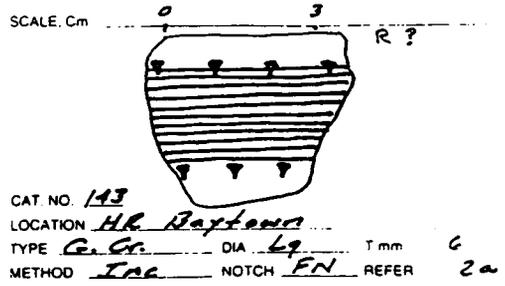
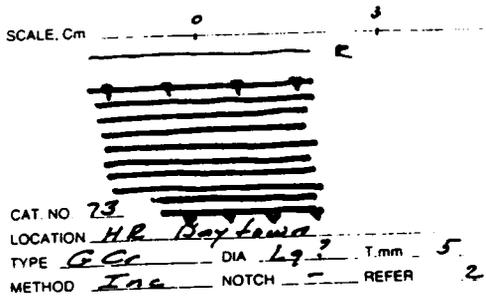


CAT. NO. 20
 LOCATION HR Baytown
 TYPE GCC DIA 20 cm T.mm 5
 METHOD INC NOTCH FN REFER 1

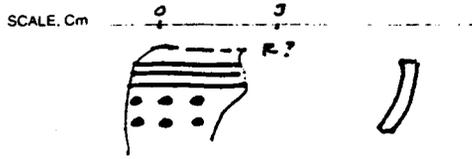


CAT. NO. 107
 LOCATION Galv. Bay (Trinity Delta?)
 TYPE GCC DIA ? T.mm ?
 METHOD Zac NOTCH ? REFER 5

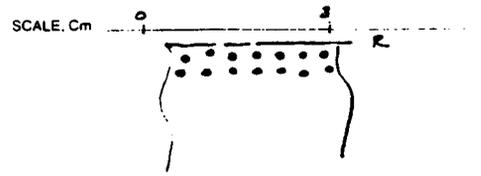
FAMILY I
HORIZONTAL ONLY



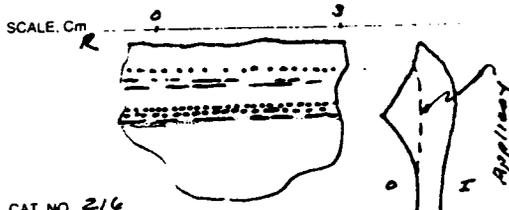
FAMILY I
HORIZONTAL ONLY



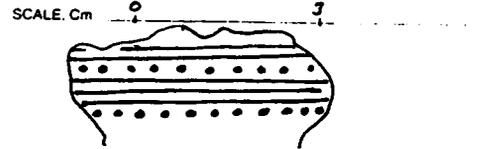
CAT. NO. 159
 LOCATION HR Baylona
 TYPE G.Cc DIA 1.4 cm T.mm 3
 METHOD Inc NOTCH ? REFER 2a



CAT. NO. 233
 LOCATION HR San Jacinto Bay
 TYPE G.Cc DIA 1.8 cm T.mm 5
 METHOD Punct NOTCH FN REFER 3



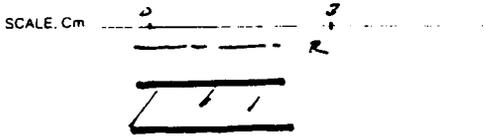
CAT. NO. 216
 LOCATION CH Lake Stevenson
 TYPE G.Cc? DIA 2.8 cm T.mm 5
 METHOD Punct NOTCH ? REFER 3



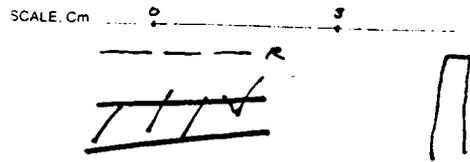
CAT. NO. 190
 LOCATION BO Liverpool
 TYPE G.Cc DIA 1.6 cm T.mm 4
 METHOD Inc NOTCH ? REFER 6

FAMILY II
HORIZONTAL + ONE DIAGONAL

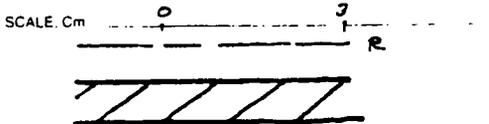
FAMILY II
HORIZONTAL + ONE DIAGONAL



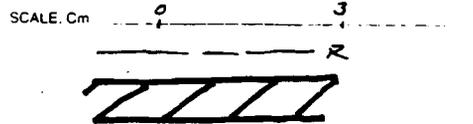
CAT NO 36
LOCATION HR Baytown
TYPE Sandlac DIA 1.8 cm T.mm 7
METHOD Dr? NOTCH ? REFER 2



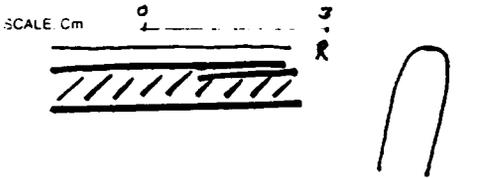
CAT NO 28
LOCATION HR Baytown
TYPE Sandlac DIA 3.6 cm T.mm 7
METHOD Inc NOTCH - REFER 2



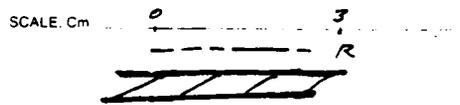
CAT NO 132
LOCATION HR Baytown
TYPE G.Cc DIA 1.9 T.mm 6
METHOD Inc NOTCH FN REFER 2a



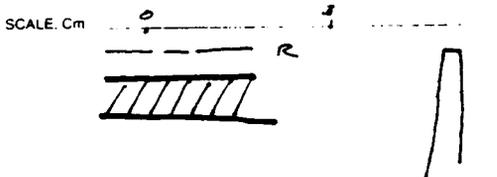
CAT NO 68
LOCATION HR Baytown
TYPE G.Cc DIA 1.9 T.mm 5
METHOD Inc NOTCH - REFER 2



CAT NO 155
LOCATION HR Baytown
TYPE Tahaf? DIA 3.8 cm T.mm 8
METHOD Inc NOTCH - REFER 2a



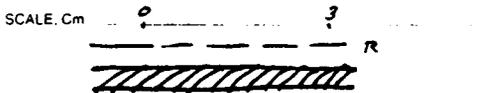
CAT NO 45
LOCATION HR Baytown
TYPE G.Cc DIA 1.9 T.mm 5
METHOD Inc NOTCH - REFER 2



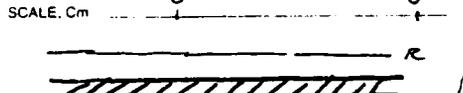
CAT NO 22
LOCATION HR Unknown
TYPE GL SP DIA ? T.mm 5
METHOD Inc NOTCH FN REFER 1



CAT NO 145
LOCATION HR Baytown
TYPE G.Cc DIA ? T.mm 4
METHOD Inc NOTCH - REFER 2a

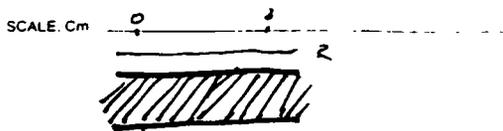


CAT NO 156
LOCATION HR Baytown
TYPE G.Cc DIA 2.0 cm T.mm 4
METHOD Inc NOTCH ? REFER 2a

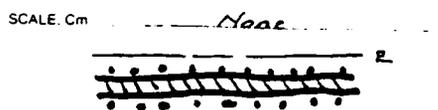


CAT NO 4
LOCATION HR Lower Sandoc. R.
TYPE GL SP DIA 1.8 cm T.mm 4
METHOD Inc NOTCH FN REFER 1

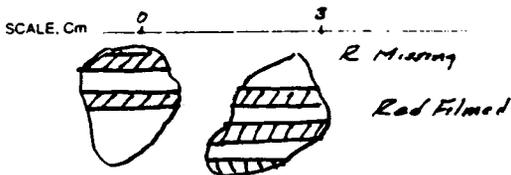
FAMILY II
HORIZONTAL + ONE DIAGONAL



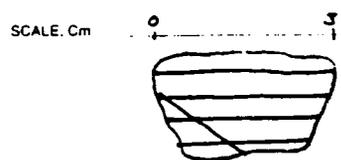
CAT NO 121
LOCATION Galt Bay Tce. Delta?
TYPE Fad. Lg DIA ? T. mm ?
METHOD Inc NOTCH ? REFER 5



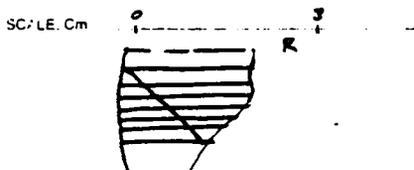
CAT NO 93
LOCATION MR Addicks
TYPE G. Cr DIA ? T. mm ?
METHOD Dec? NOTCH ? REFER 4



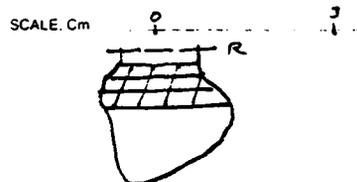
CAT NO 67
LOCATION HR Baytown
TYPE G. Cr DIA ? T. mm 2
METHOD Inc NOTCH ? REFER 2



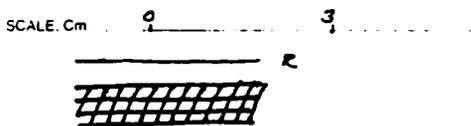
CAT NO 168
LOCATION HR Baytown
TYPE G. Cr DIA Lg T. mm 5
METHOD Inc NOTCH ? REFER 2a



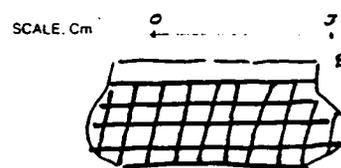
CAT NO 160
LOCATION HR Baytown
TYPE G. Cr DIA Lg? T. mm 5
METHOD Inc NOTCH - REFER 2a



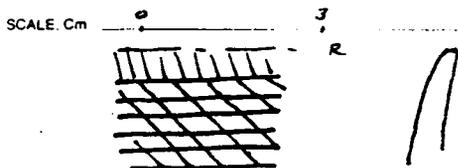
CAT NO 123
LOCATION HR Baytown
TYPE G. Cr DIA Lg T. mm 3
METHOD Inc NOTCH - REFER 2a



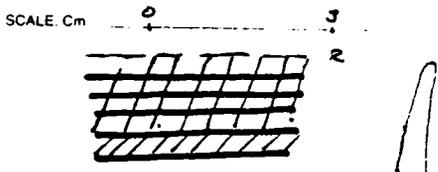
CAT NO 141
LOCATION HR Baytown
TYPE G. Cr DIA Lg? T. mm 2
METHOD Inc NOTCH V.F.M. REFER 2a



CAT NO 134
LOCATION HR Baytown
TYPE G. Cr DIA Lg T. mm 4
METHOD Inc NOTCH - REFER 2a

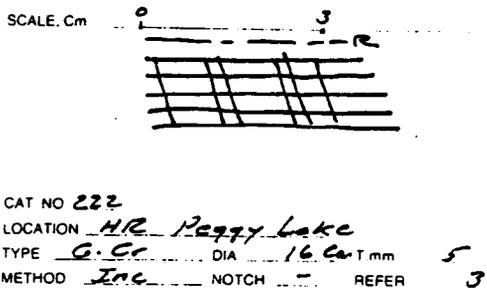
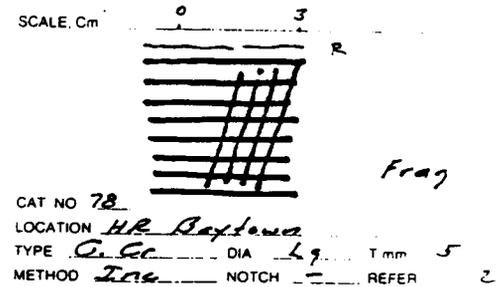
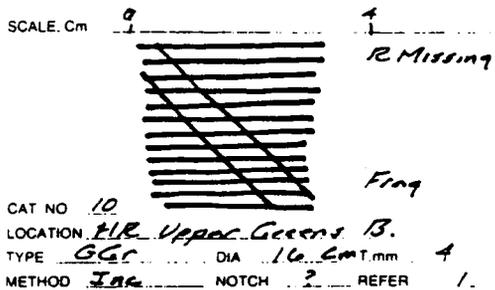
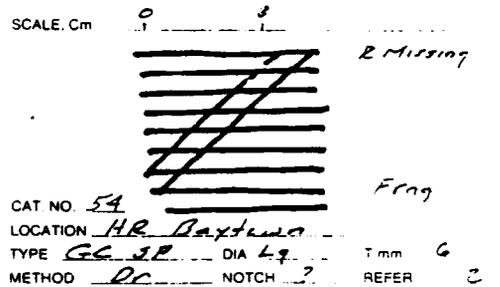
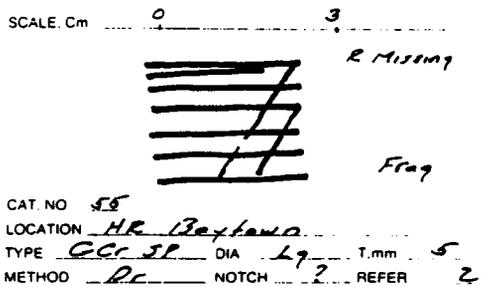
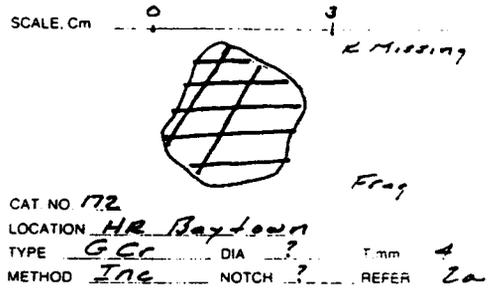
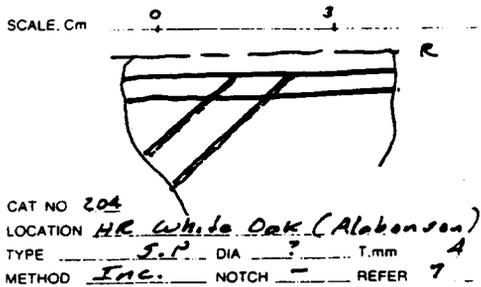
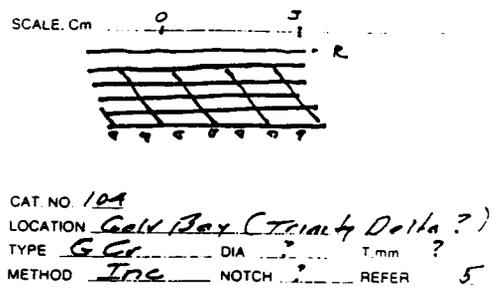
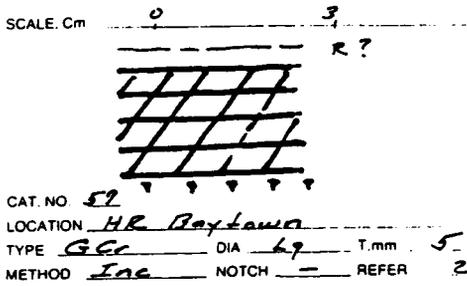


CAT NO 52
LOCATION HR Baytown
TYPE G. Cr DIA Lg T. mm 5
METHOD Inc NOTCH - REFER 2



CAT NO 24
LOCATION HR Baytown
TYPE G. Cr DIA 22 cm T. mm 4
METHOD Inc NOTCH FD REFER 2

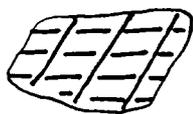
FAMILY II
HORIZONTAL + ONE DIAGONAL



FAMILY II

HORIZONTAL + ONE DIAGONAL

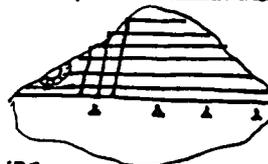
SCALE. Cm 0 3



Vary Precise

CAT NO. 228
 LOCATION HR San Jacinto Bay
 TYPE G. Cr DIA ? T. mm 6
 METHOD Imp.? NOTCH ? REFER 3

SCALE. Cm 0 3



2 Missing

CAT NO. 129
 LOCATION HR Baytown
 TYPE G. Cr DIA 49 T. mm 5
 METHOD Inc NOTCH ? REFER 2a

SCALE. Cm 0 3



R

CAT NO. 150
 LOCATION HR Baytown
 TYPE G. Cr DIA 20 cm T. mm 4
 METHOD Inc NOTCH - REFER 2a

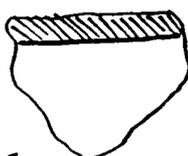
SCALE. Cm 0 6



I

CAT NO. 230
 LOCATION HR San Jacinto Bay
 TYPE G. Cr DIA 10 cm T. mm 6
 METHOD Inc NOTCH - REFER 3

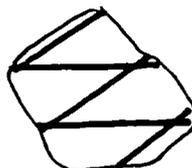
SCALE. Cm 0 3



2 Missing

CAT NO. 184
 LOCATION LB Lower Brazos (Big Creek)
 TYPE G. Cr DIA 10.2 T. mm 5
 METHOD Inc NOTCH ? REFER 6

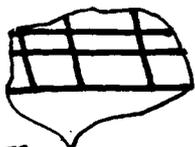
SCALE. Cm 0 3



Flag

CAT NO. 89
 LOCATION HR Baytown
 TYPE I. Lac? DIA ? T. mm 9
 METHOD Dec NOTCH ? REFER 2

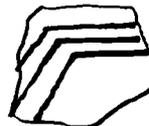
SCALE. Cm 0 3



Frag

CAT NO. 159
 LOCATION HR Baytown
 TYPE G. Cr DIA 20 cm T. mm 0
 METHOD Cut NOTCH ? REFER 2a

SCALE. Cm 0 3



Frag

CAT NO. 70
 LOCATION HR Baytown
 TYPE G. Cr DIA ? T. mm 4
 METHOD Inc NOTCH ? REFER 2

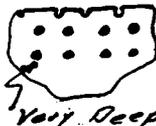
SCALE. Cm 0 3



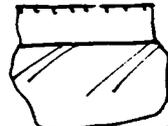
Frag

CAT NO. 192
 LOCATION LB Lower Brazos
 TYPE ? SP DIA 10 cm T. mm 8
 METHOD Dec? NOTCH ? REFER 6

SCALE. Cm 0 3



Very Deep

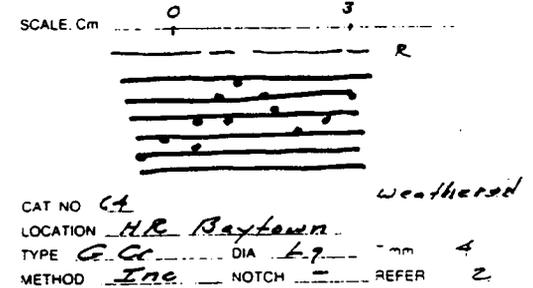
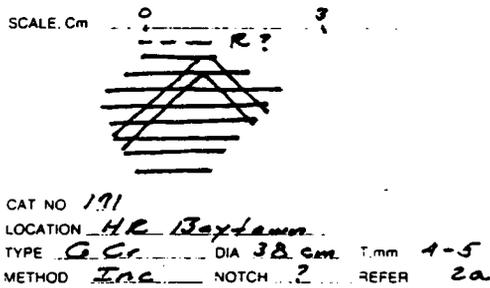
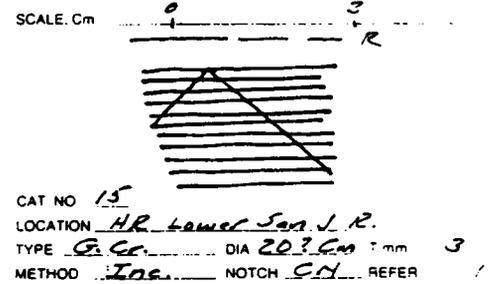
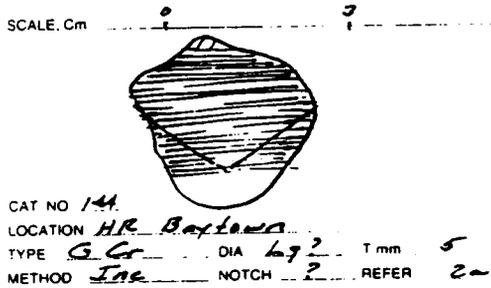
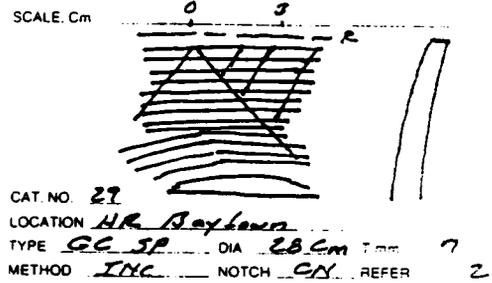
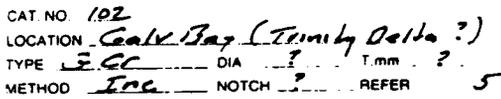
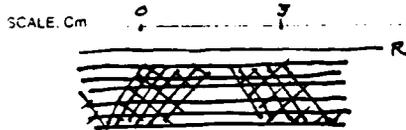
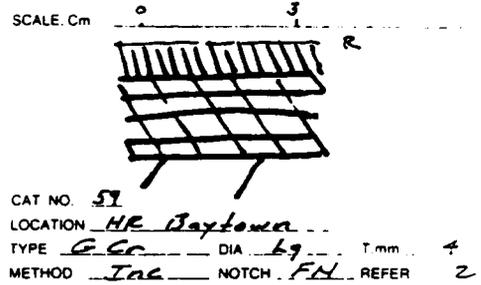
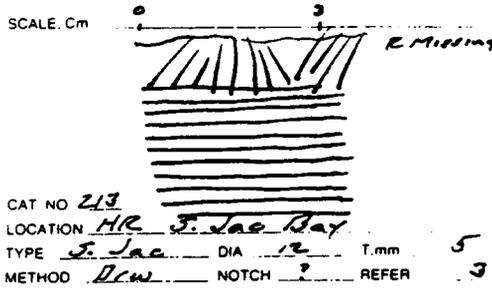
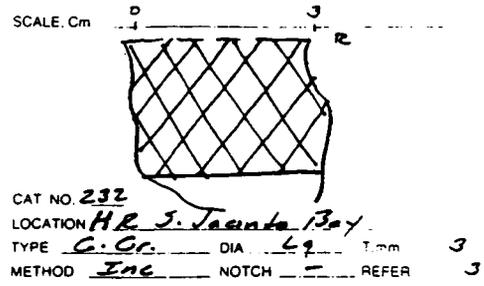
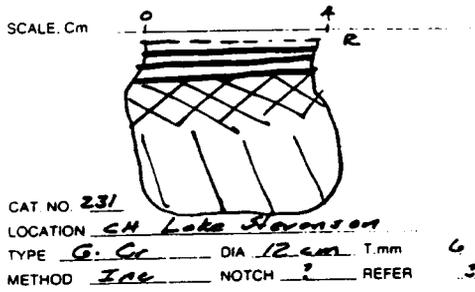


Two Frag

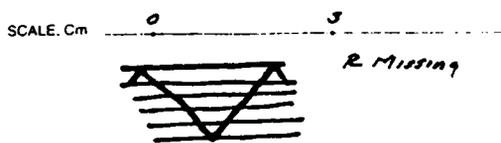
CAT NO. 191
 LOCATION LB Lower Brazos, Sky Pond
 TYPE Rockport DIA 20 cm T. mm 5
 METHOD Inc NOTCH FM REFER 6

FAMILY III
HORIZONTAL + OPPOSING DIAGONALS

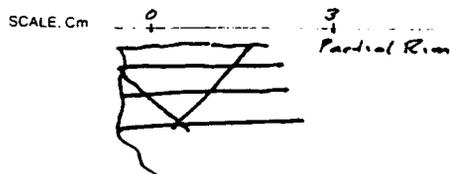
FAMILY III
HORIZONTAL + OPPOSING DIAGONALS



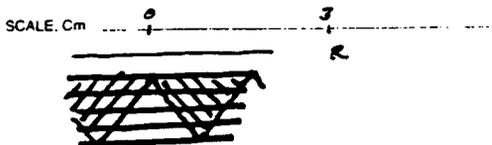
FAMILY III
HORIZONTAL + OPPOSING DIAGONAL



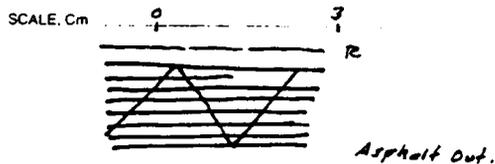
CAT. NO. 32
LOCATION HR Baytown
TYPE GCC SP DIA 9 cm T.mm 3
METHOD INC NOTCH 2 REFER 2



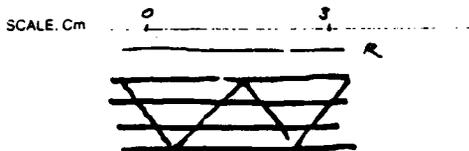
CAT. NO. 153
LOCATION HR Baytown
TYPE Inc DIA 6.9 T.mm 4
METHOD Inc NOTCH 2 REFER 2a



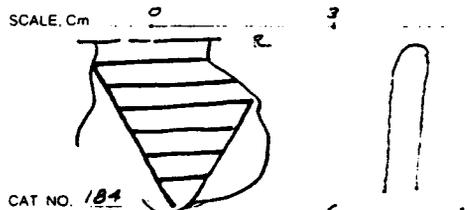
CAT. NO. 88
LOCATION HR Baytown
TYPE GCC DIA MD T.mm 4
METHOD Dec NOTCH - REFER 2



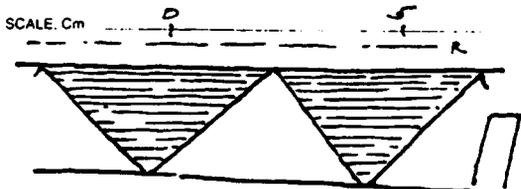
CAT. NO. 163
LOCATION HR Baytown
TYPE GCC DIA 28 cm T.mm 4
METHOD Inc NOTCH - REFER 2a



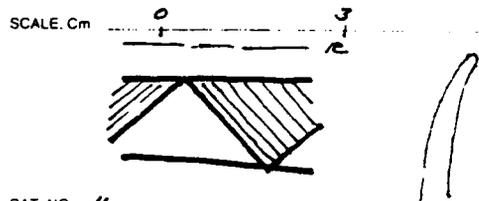
CAT. NO. 62
LOCATION HR Baytown
TYPE G.C. DIA MD T.mm 5
METHOD Dec NOTCH - REFER 2



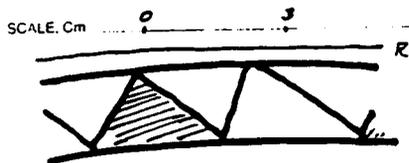
CAT. NO. 184
LOCATION FB Lower Brasas (Big Creek)
TYPE G.C. DIA 54 cm? T.mm 6
METHOD Inc NOTCH ? REFER 6



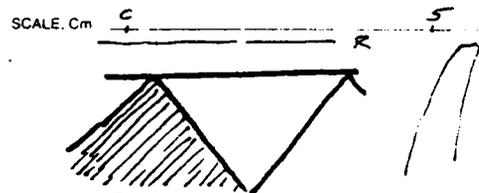
CAT. NO. 1
LOCATION HR Upper Greens Bayou
TYPE GCC, SP DIA 26 cm T.mm 7
METHOD Inc NOTCH FN REFER 1



CAT. NO. 46
LOCATION HR Lower San L. R.
TYPE GCC SP DIA 18 cm T.mm 6
METHOD Inc NOTCH - REFER 1



CAT. NO. 115
LOCATION Gale Bay (Security Delta ?)
TYPE I. Inc DIA ? T.mm ?
METHOD Inc NOTCH 2 REFER 5



CAT. NO. 13
LOCATION HR Lower S. Inc. R.
TYPE GCC DIA 28 cm T.mm 6
METHOD Inc NOTCH - REFER 1

FAMILY III

HORIZONTAL + OPPOSING DIAGONAL

SCALE. Cm 0 3
R Missing

CAT NO. 135
LOCATION HR. Baytown
TYPE G.Cc DIA Lg T.mm 6
METHOD Inc NOTCH ? REFER 2a

SCALE. Cm 0 3
R

CAT NO. 117
LOCATION Gulf Bay (Tomb by Delta?)
TYPE Sandac DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5

SCALE. Cm 0 3
R

CAT NO. 120
LOCATION Gulf Bay (Tomb by Delta?)
TYPE Sandac DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5

SCALE. Cm 0 3
R Missing

CAT NO. 122
LOCATION DO Lower Finnes (Dow C)
TYPE G.Cc DIA 2.1 Cm T.mm 6
METHOD Inc? NOTCH ? REFER 6

SCALE. Cm 0 3
R Missing
1?

CAT NO. 63
LOCATION HR. Baytown
TYPE G.Cc DIA Md T.mm 4
METHOD ? NOTCH ? REFER 2

SCALE. Cm 0 3
R Missing
Frag

CAT NO. 51
LOCATION HR. Baytown
TYPE G.Cc DIA Lg T.mm 7
METHOD Gr? NOTCH ? REFER 2

SCALE. Cm 0 3
R

CAT NO. 152
LOCATION HR. Baytown
TYPE Sandac? DIA Lg T.mm 6
METHOD Inc NOTCH - REFER 2a

SCALE. Cm 0 3
R

CAT NO. 60
LOCATION HR. Baytown
TYPE G.Cc DIA Lg T.mm 5
METHOD Inc NOTCH - REFER 2

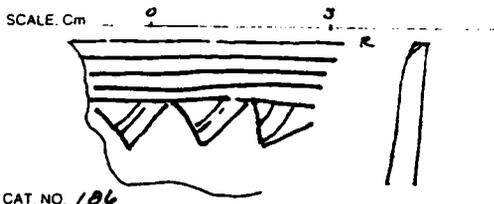
SCALE. Cm 0 3
R Missing
Frag

CAT NO. 5
LOCATION HR. Lower San Jac. R.
T. G.Cc DIA Md T.mm 6
METHOD Inc NOTCH ? REFER 1

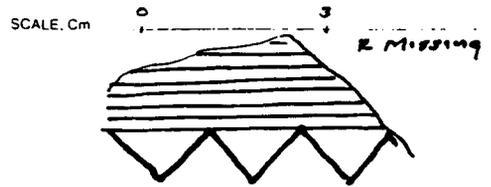
SCALE. Cm 0 3
R

CAT NO. 9
LOCATION HR. Lower San J. R.
TYPE G.Cc DIA 1.6 Cm T.mm 5
METHOD Inc NOTCH ? REFER 1

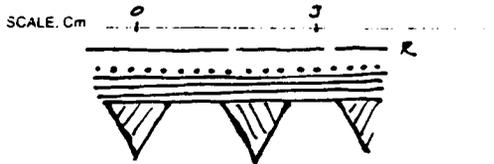
FAMILY III
HORIZONTAL + OPPOSING DIAGONAL



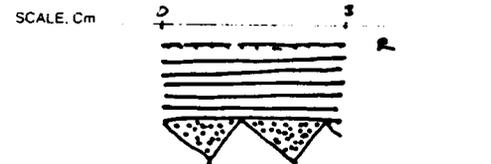
CAT NO 186
LOCATION FB Lower Brazos (Big Creek)
TYPE G.C. DIA 20 T.mm 5-
METHOD Inc NOTCH CN REFER 6



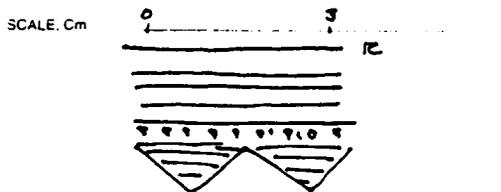
CAT NO 229
LOCATION HR San Jacinto Bay
TYPE G.C. DIA 18 T.mm 5
METHOD Inc/Dow NOTCH ? REFER 3



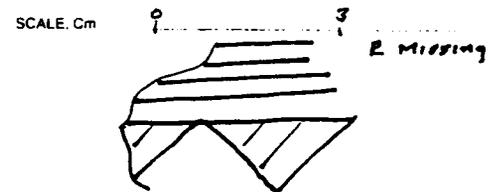
CAT NO 189
LOCATION BO Lower Brazos (Dow-c)
TYPE J. Jac DIA 10 cm T.mm 5
METHOD Inc NOTCH - REFER 6



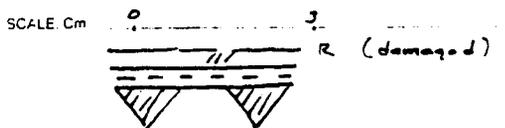
CAT NO 225
LOCATION HR Peggy Lake
TYPE G.C. DIA 20 T.mm 2
METHOD Inc NOTCH VEN REFER 3



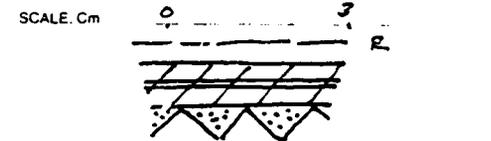
CAT NO 221
LOCATION HR Peggy Lake
TYPE G.C. DIA Md? T.mm 3
METHOD Inc NOTCH FN REFER 3



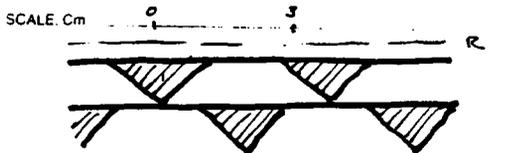
CAT NO 215
LOCATION HR J. Jac Bay
TYPE G.C. DIA 12 T.mm 6
METHOD Inc/Dow NOTCH ? REFER 3



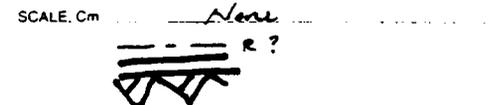
CAT NO 177
LOCATION BO Lower Brazos (Dow-c)
TYPE G.C. DIA 10 cm T.mm 5
METHOD Inc NOTCH ? REFER 3



CAT NO 170
LOCATION HR Baytown
TYPE G.C. DIA 18 cm T.mm 4
METHOD Inc NOTCH - REFER 2a

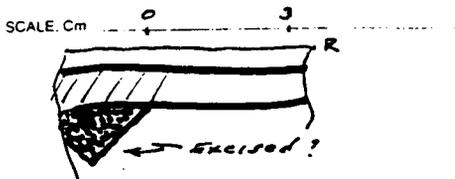


CAT NO 99
LOCATION Galveston Bay (Trinity Delta?)
TYPE G.C. DIA ? T.mm ?
METHOD Inc? NOTCH ? REFER 5

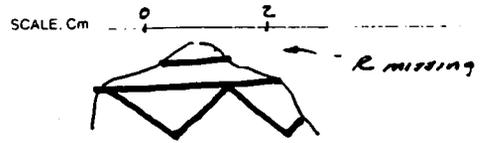


CAT NO 96
LOCATION HR Addicks
TYPE G.C. DIA ? T.mm ?
METHOD Dow? NOTCH ? REFER 4

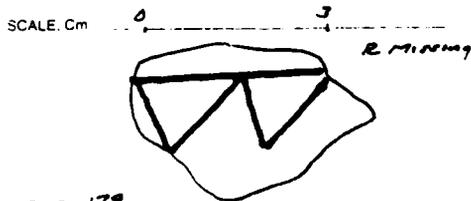
FAMILY III
HORIZONTAL + OPPOSING DIAGONAL



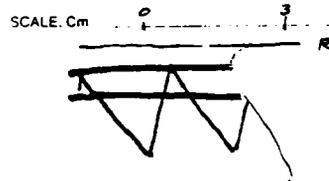
CAT NO 109
LOCATION Gale Bay (Trinity Delta?)
TYPE G.C. DIA ? T.mm ?
METHOD Dow/Ine NOTCH ? REFER 5



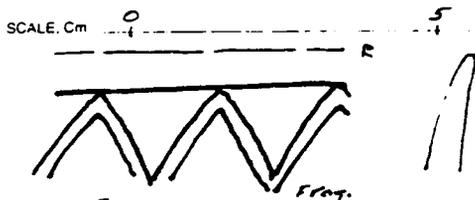
CAT NO 25
LOCATION Upper Greens Bayou HR
TYPE G.C. DIA 26 cm T.mm 5
METHOD Dr? NOTCH ? REFER 1



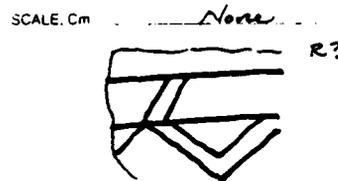
CAT NO 179
LOCATION BD Lower Brasos (Dow-C)
TYPE G.C. DIA 16 cm T.mm 5
METHOD Dow NOTCH ? REFER 6



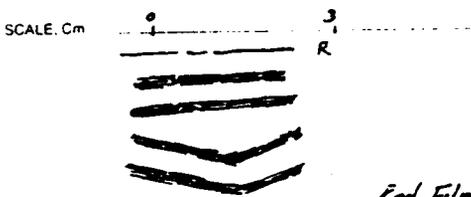
CAT NO 106
LOCATION Gale Bay (Trinity Delta?)
TYPE G.C. DIA ? T.mm ?
METHOD Ine NOTCH ? REFER 5



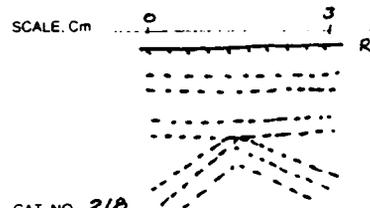
CAT NO 2
LOCATION HR Lower Ine Ine R
TYPE G.C. DIA 22 cm T.mm 7
METHOD Ine NOTCH - REFER 1



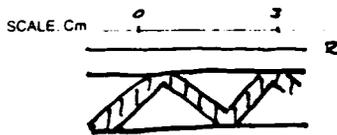
CAT NO 99
LOCATION HR Adlocks
TYPE G.C. DIA ? T.mm ?
METHOD Dow? NOTCH ? REFER 4



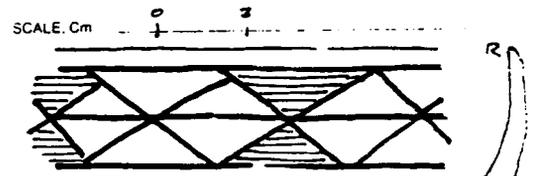
CAT NO 208
LOCATION HR White Oak (Alabamson)
TYPE S.P. DIA ? T.mm ?
METHOD Dow NOTCH - REFER 6



CAT NO 210
LOCATION HR Ine Ine to Jay
TYPE G.C. DIA 18 cm T.mm ?
METHOD Ine NOTCH FM REFER 3

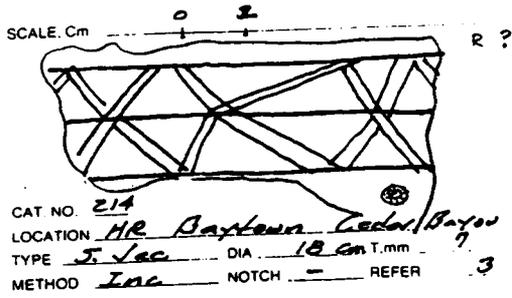


CAT NO 112
LOCATION Gale Bay (Trinity Delta?)
TYPE S.Ine DIA ? T.mm ?
METHOD Ine NOTCH ? REFER 5



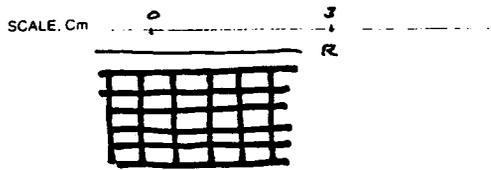
CAT NO 01
LOCATION HR Baytown
TYPE S.Ine DIA 14 T.mm ?
METHOD Ine NOTCH - REFER 2

FAMILY III
HORIZONTAL + OPPOSING DIAGONAL

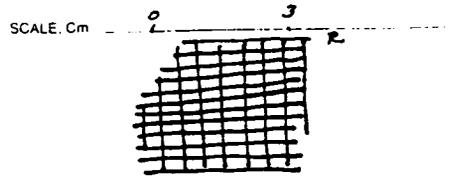


FAMILY IV
HORIZONTAL + VERTICAL

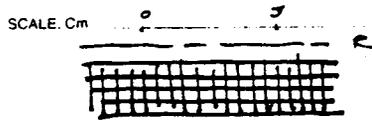
FAMILY IV
HORIZONTAL + VERTICAL



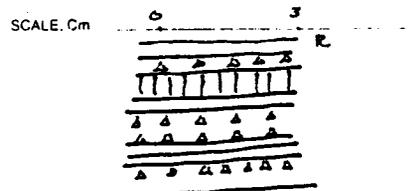
CAT. NO. 80
LOCATION HR Baytown
TYPE G.Cc DIA Lg? T.mm 5
METHOD Inc NOTCH FN REFER 2



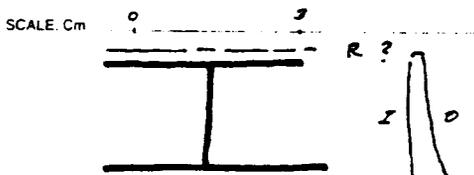
CAT. NO. 116
LOCATION Cde Bay (Trinity Delta?)
TYPE Inc DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5



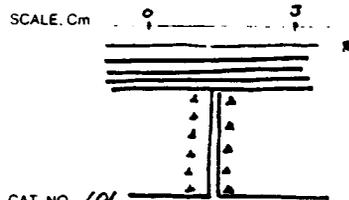
CAT. NO. 102
LOCATION Galk. Bay (Trinity Delta?)
TYPE G.Cc DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5



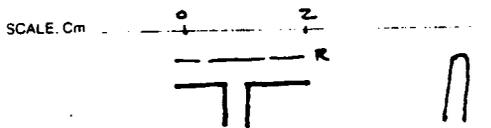
CAT. NO. 100
LOCATION Galk. Bay (Trinity Delta?)
TYPE G.Cc DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5



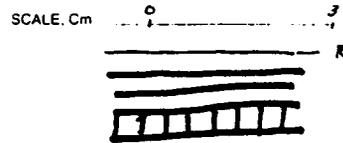
CAT. NO. 58
LOCATION HR Baytown
TYPE G.Cc DIA Sm T.mm 4
METHOD Inc NOTCH - REFER 2



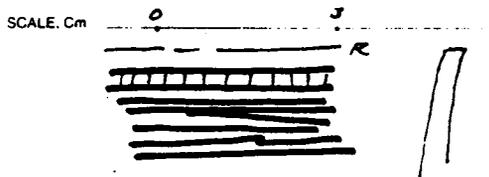
CAT. NO. 101
LOCATION Galk. Bay (Trinity Delta?)
TYPE G.Cc DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5



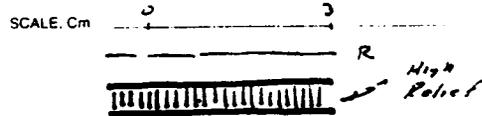
CAT. NO. 23
LOCATION HR Unknown
TYPE G.Cc DIA ? T.mm 5
METHOD ? NOTCH ? REFER 1
Frag, Weathered



CAT. NO. 29
LOCATION HR Baytown
TYPE G.Cc DIA Lg? T.mm 4
METHOD Inc NOTCH FN REFER 2

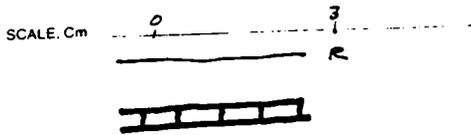


CAT. NO. 41
LOCATION HR Baytown
TYPE G.Cc DIA 18 Cm T.mm 4
METHOD Inc NOTCH - REFER 2

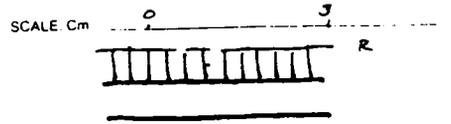


CAT. NO. 85
LOCATION HR Baytown
TYPE G.Cc DIA 1.4 T.mm 5
METHOD Inc NOTCH FN REFER 2

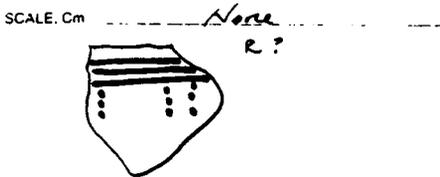
FAMILY IV
HORIZONTAL + VERTICAL



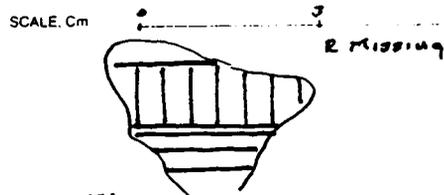
CAT NO 87
LOCATION HR Baytown
TYPE G Cr DIA Md T.mm 6
METHOD Draw NOTCH - REFER 2



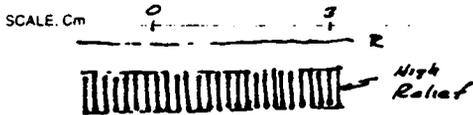
CAT NO 69
LOCATION HR Baytown
TYPE G Cr DIA Lg? T.mm 5
METHOD Inc? NOTCH - REFER 2



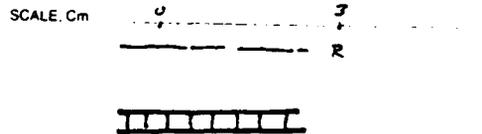
CAT NO 98
LOCATION HR Addicks
TYPE G Cr DIA ? T.mm ?
METHOD Draw? NOTCH ? REFER 4



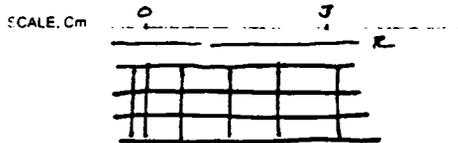
CAT NO 131
LOCATION HR Baytown
TYPE G Cr DIA Lg T.mm 5
METHOD Inc NOTCH ? REFER 2a



CAT NO 149
LOCATION HR Baytown
TYPE G Cr DIA 30 T.mm 3
METHOD Inc/Temp NOTCH VFM REFER 2a



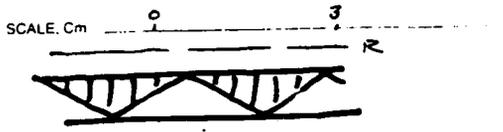
CAT NO 141
LOCATION HR Baytown
TYPE G Cr DIA Lg T.mm 5
METHOD Inc NOTCH - REFER 2a



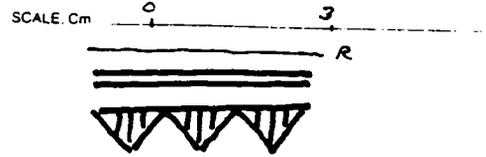
CAT NO 210
LOCATION HR Peggy Lake
TYPE G Cr DIA 20 T.mm 4
METHOD Draw NOTCH - REFER 3

FAMILY V
HORIZONTAL + OPPOSING DIAGONALS + VERTICAL

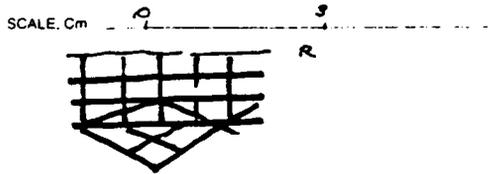
FAMILY V
HORIZONTAL + OPPOSING DIAGONALS + VERTICAL



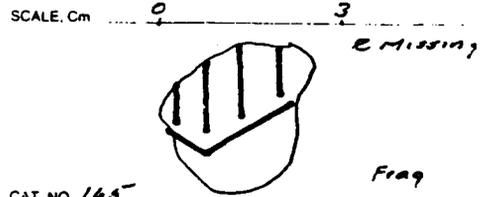
CAT NO 61
LOCATION HR Baytown
TYPE G.Cc DIA Lg T.mm 6
METHOD Dc NOTCH FN REFER 2



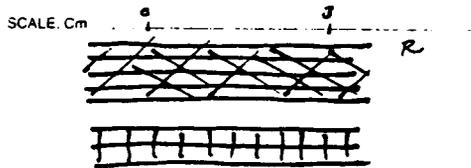
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TYPE G.Cc DIA MU T.mm 4
METHOD DCW NOTCH FN REFER 2



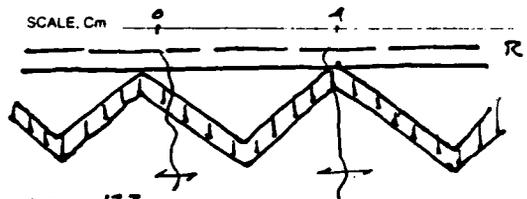
CAT NO 66
LOCATION HR Baytown
TYPE G.Cc DIA Lg? T.mm 1
METHOD Inc NOTCH FN REFER 2



CAT NO 165
LOCATION HR Baytown
TYPE G.Cc DIA ? T.mm 3
METHOD Inc NOTCH ? REFER 2a



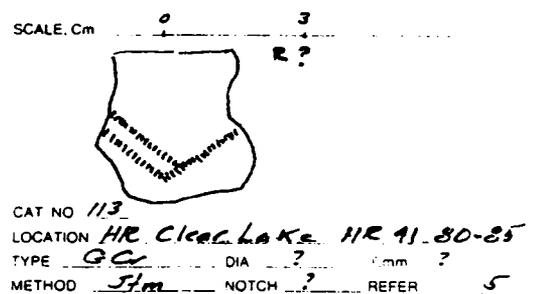
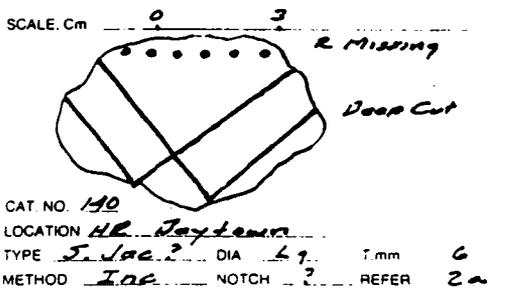
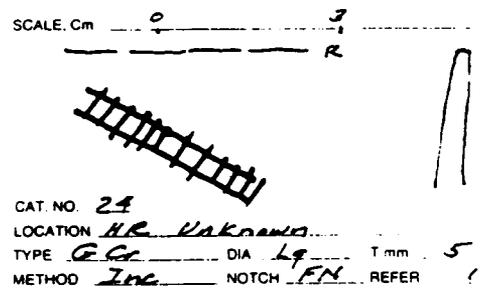
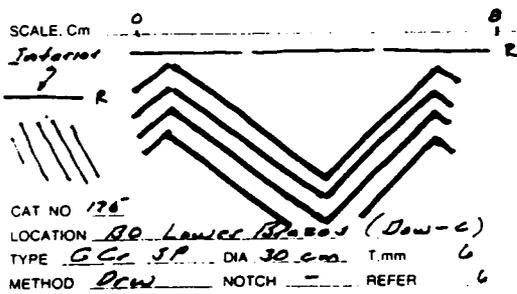
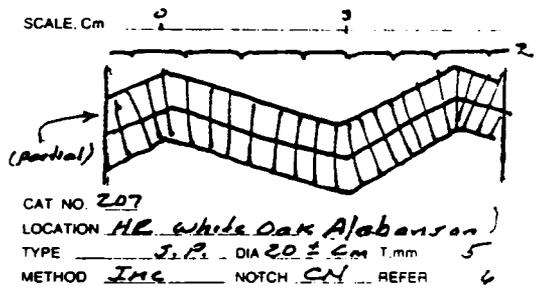
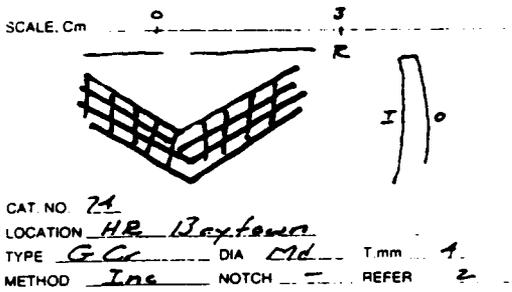
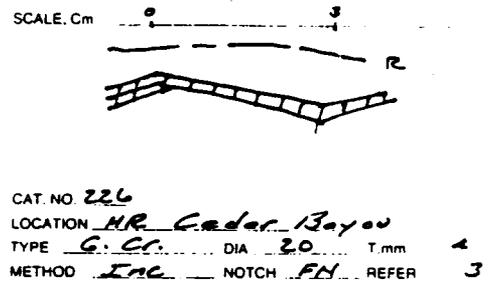
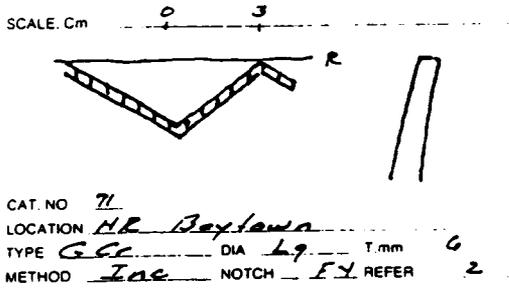
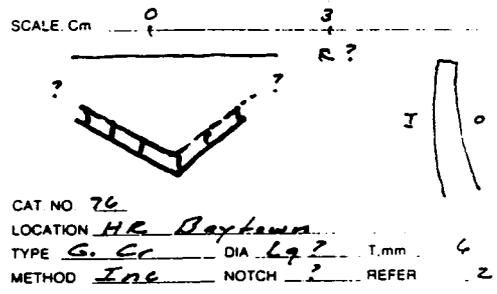
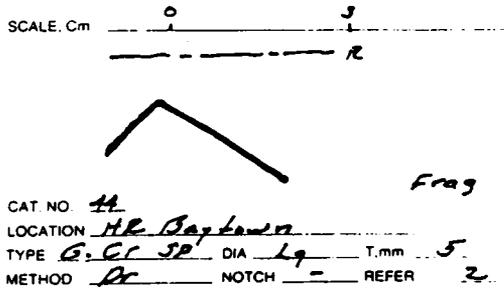
CAT NO 219
LOCATION HR Cedar Bayou
TYPE G.Cc DIA 1B T.mm 4
METHOD Inc NOTCH VFN REFER 3



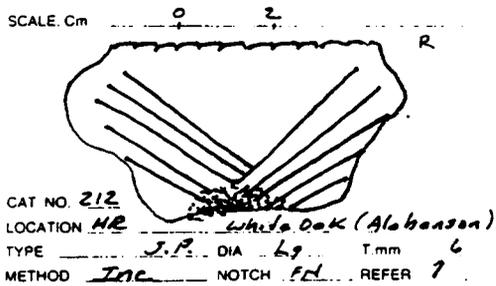
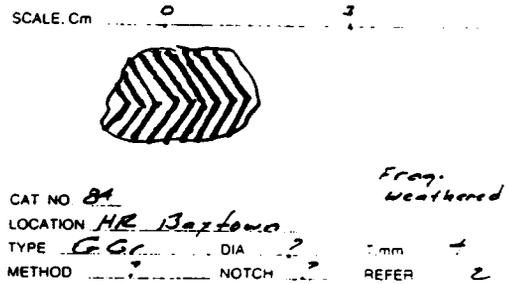
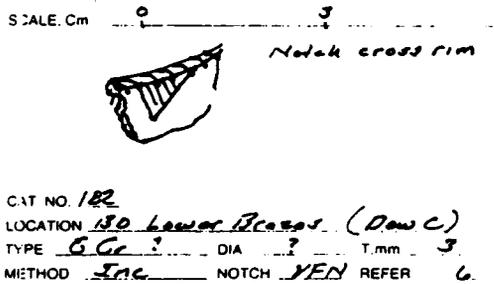
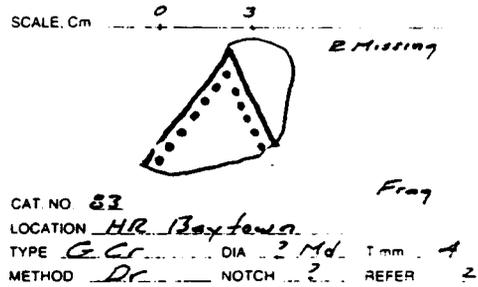
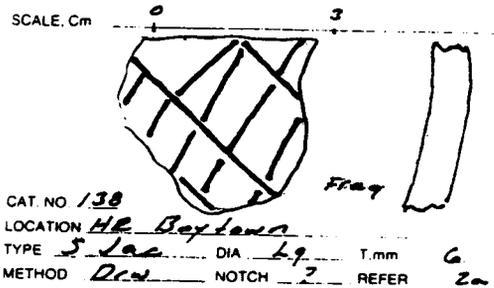
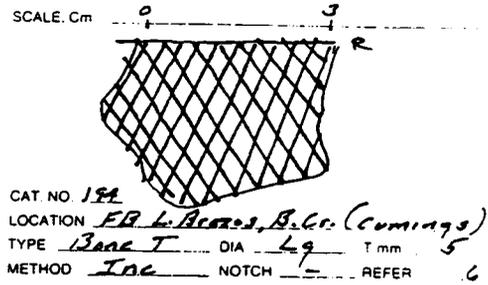
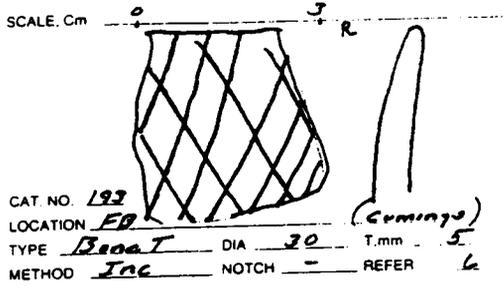
CAT NO 132
LOCATION HR Baytown
TYPE G.Cc DIA Lg T.mm 1
METHOD Inc NOTCH FN REFER 2A

FAMILY VI
OPPOSING DIAGONALS

FAMILY VI
OPPOSING DIAGONALS



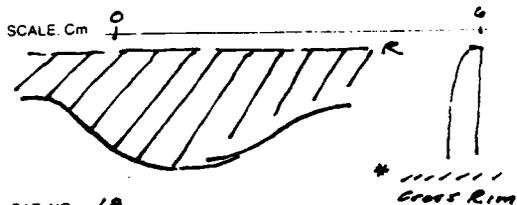
FAMILY VI
OPPOSING DIAGONALS



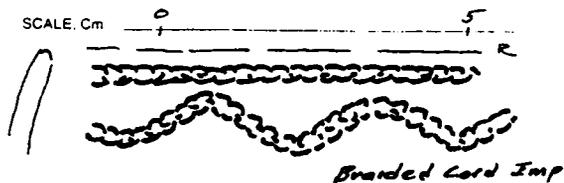
FAMILY VII
CURVES

FAMILY VII

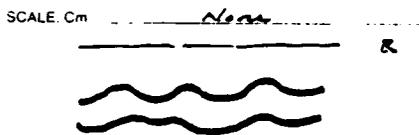
CURVES



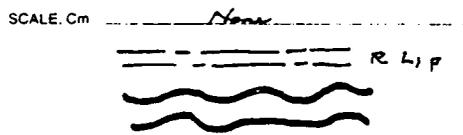
CAT NO 18
 LOCATION HR Lower Sav. L. R.
 TYPE G.C. DIA 18 Cm T.mm 5
 METHOD Inc NOTCH FN REFER 1



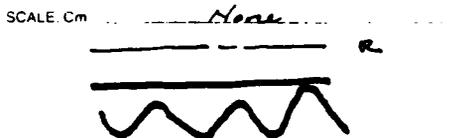
CAT NO 3
 LOCATION HR Lower Sav. L. R.
 TYPE GG SP DIA 16 Cm T.mm 5
 METHOD Cord Imp NOTCH - REFER 1



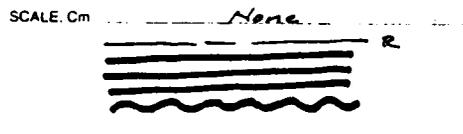
CAT NO 24
 LOCATION HR Addicks
 TYPE G.C. DIA ? T.mm ?
 METHOD Draw? NOTCH ? REFER 4



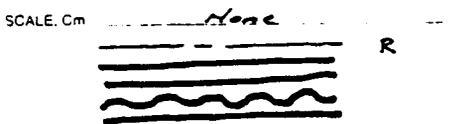
CAT NO 2
 LOCATION HR Addicks
 TYPE G.C. DIA ? T.mm ?
 METHOD Draw? NOTCH ? REFER 4



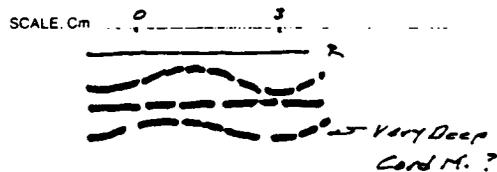
CAT NO 95
 LOCATION HR Addicks
 TYPE G.C. DIA ? T.mm ?
 METHOD Draw? NOTCH ? REFER 4



CAT NO 71
 LOCATION HR Addicks
 TYPE G.C. DIA ? T.mm ?
 METHOD Draw? NOTCH ? REFER 4



CAT NO 90
 LOCATION HR Addicks
 TYPE G.C. DIA ? T.mm ?
 METHOD Draw? NOTCH ? REFER 4



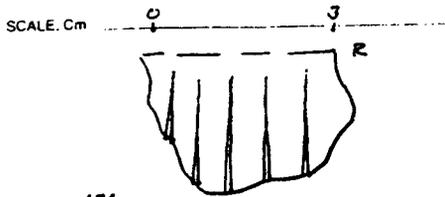
CAT NO 105
 LOCATION HR Clear Lake 11 HR 80-85
 TYPE G.C. DIA ? T.mm ?
 METHOD Imp? NOTCH ? REFER 5



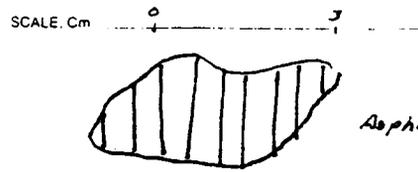
CAT NO 223
 LOCATION HR Cedar Bayou
 TYPE G.C. DIA 20 T.mm 5
 METHOD Cord I. NOTCH FN REFER 3

FAMILY VIII
VERTICAL ONLY

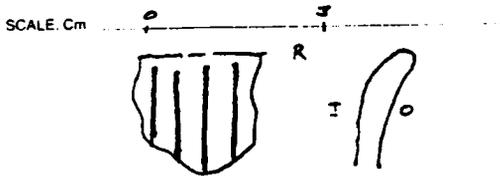
FAMILY VIII
VERTICAL ONLY



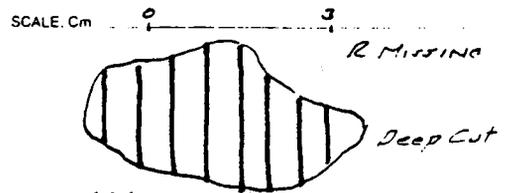
CAT NO. 136
LOCATION HR Baytown
TYPE G. Cr DIA Lg T.mm 5
METHOD Deep Cut NOTCH - REFER 2a



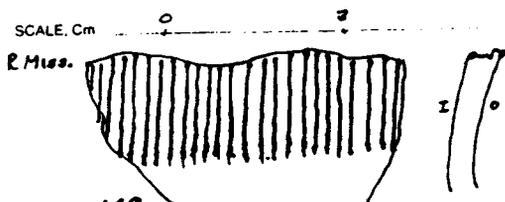
CAT NO. 138
LOCATION HR Baytown
TYPE Base? DIA Lg T.mm 4
METHOD Inc NOTCH ? REFER 2a



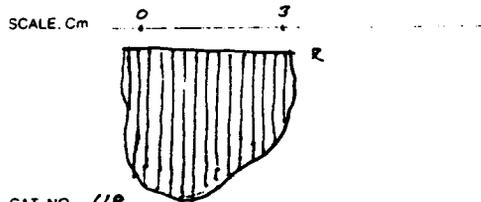
CAT NO. 146
LOCATION HR Baytown
TYPE G. Cr? DIA Lg T.mm 5
METHOD Inc NOTCH - REFER 2a



CAT NO. 144
LOCATION HR Baytown
TYPE G. Cr DIA 22 cm T.mm 6
METHOD Cut NOTCH ? REFER 2a



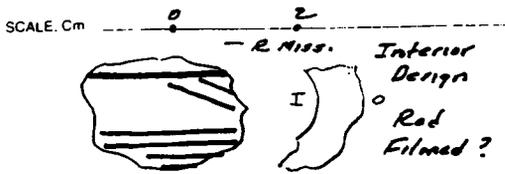
CAT NO. 149
LOCATION HR Baytown
TYPE G. Cr DIA 1.5 cm T.mm 4
METHOD Inc NOTCH ? REFER 2a



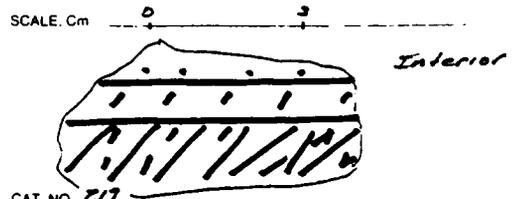
CAT NO. 118
LOCATION Gulf Bay County Delta?
TYPE Inc DIA ? T.mm ?
METHOD Inc NOTCH ? REFER 5

FAMILY IX
MISCELLANEOUS

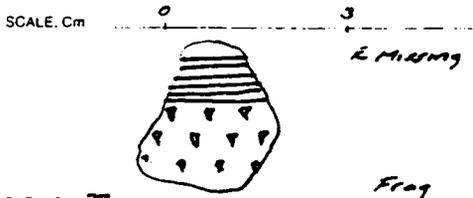
FAMILY IX
MISCELLANEOUS



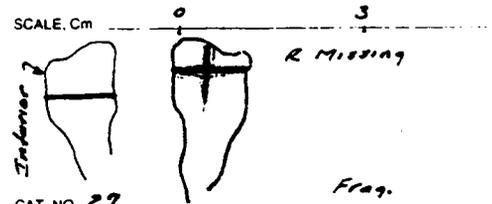
CAT NO. 26
LOCATION HR Lower San J. R.
TYPE G.Cr DIA 12.6 T.mm 6
METHOD DR/HR NOTCH ? REFER 1



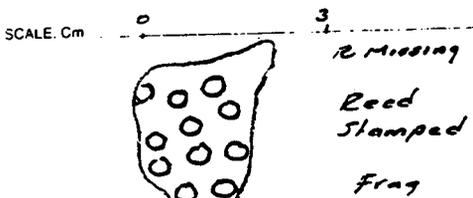
CAT NO. 217
LOCATION HR San Jac. Bay
TYPE G. Cr DIA 20.4 T.mm 8
METHOD Dcw NOTCH - REFER 3



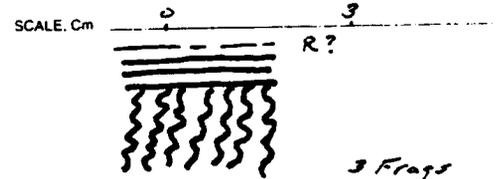
CAT NO. 77
LOCATION HR Baytown
TYPE G. Cr DIA ? T.mm 3
METHOD Ina NOTCH ? REFER 2



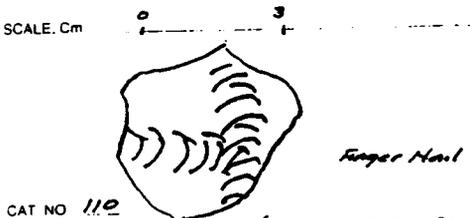
CAT NO. 27
LOCATION HR Baytown
TYPE GC SP DIA ? T.mm 4
METHOD Stm NOTCH ? REFER 2



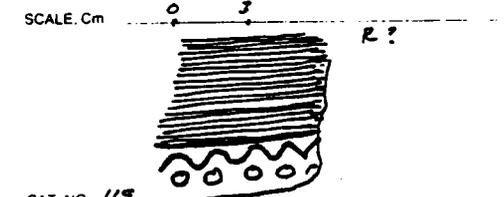
CAT NO. 53
LOCATION HR Baytown
TYPE G. Cr DIA 4.9 T.mm 6
METHOD Stm NOTCH ? REFER 2



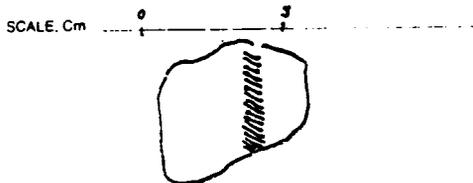
CAT NO. 13
LOCATION HR Baytown
TYPE GC SP DIA 4.9 T.mm 5
METHOD Dc NOTCH ? REFER 2



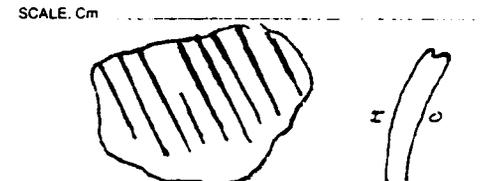
CAT NO. 110
LOCATION HR Clear Lake AHR 20-85
TYPE G. Cr DIA ? T.mm ?
METHOD Stm NOTCH ? REFER 5



CAT NO. 129
LOCATION Calv. Bay (Trinity Delta?)
TYPE San Jac DIA ? T.mm ?
METHOD Dcw? NOTCH ? REFER 5

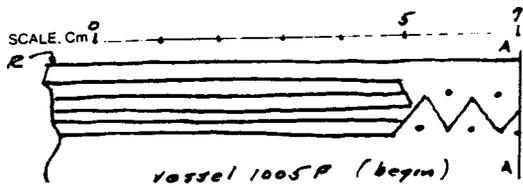


CAT NO. 111
LOCATION HR Clear Lake AHR 2085
TYPE G. Cr DIA ? T.mm ?
METHOD Stm NOTCH ? REFER 5

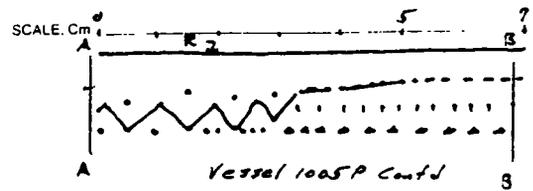


CAT NO. 169
LOCATION HR Baytown
TYPE G. Cr DIA 22.6 T.mm 4
METHOD Ina NOTCH ? REFER 2a

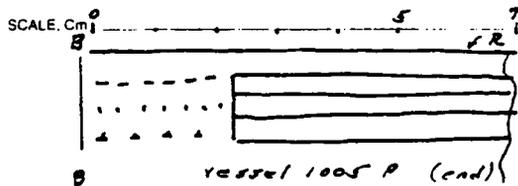
FAMILY IX
MISCELLANEOUS



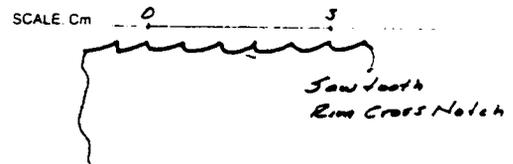
CAT NO. 188
LOCATION RD Lower Brazos (Dow c.)
TYPE G Cr DIA 16 cm T.mm 4
METHOD Inc NOTCH - REFER 6



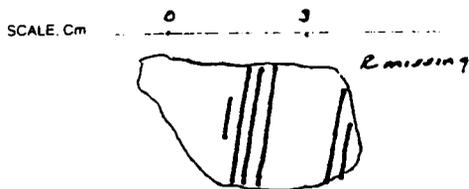
CAT NO. 188
LOCATION RD Lower Brazos (Dow c.)
TYPE G Cr DIA 16 cm T.mm 4
METHOD Inc NOTCH - REFER 6



CAT NO. 188
LOCATION RD Lower Brazos (Dow c.)
TYPE G Cr DIA 16 cm T.mm 4
METHOD Inc NOTCH - REFER 6



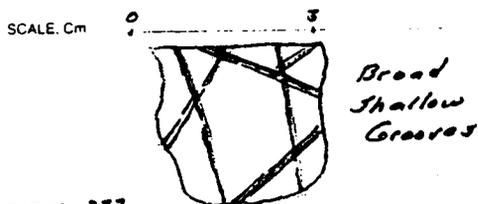
CAT NO. 183
LOCATION RD Lower Brazos (Dow c.)
TYPE G Cr DIA 23 cm T.mm 5
METHOD Plain NOTCH CH REFER 6



CAT NO. 180
LOCATION RD Lower Brazos (Dow-c.)
TYPE G Cr DIA 20 T.mm 6
METHOD Inc NOTCH ? REFER 6



CAT NO. 82
LOCATION HR Baytown
TYPE G Cr DIA 19 T.mm 4
METHOD Inc/Str NOTCH ? REFER 2



CAT NO. 227
LOCATION CH Trinity Delta
TYPE G Cr DIA 20 cm T.mm 4
METHOD Dow NOTCH ? REFER 3

SUPPLEMENT NO. 1

SUPPLEMENT NO. 1

After the foregoing study had been compiled two additional collections became available. One, Collection 9, is from surface in the Trinity delta. The other, Collections 8 and 10, are from excavations largely in the San Bernard River drainage. These are cataloged in the following pages intermixed by Families.

The distributions among Families is given in the following table, along with a recap of the Baytown Collection 2, 2a (Table II) and Aten's Figure 12.2 (Table IV) which may also be largely from the Trinity delta.

<u>Family</u>	<u>San Bernard Coll. 8, 10</u>	<u>Trinity Delta Coll. 9</u>	<u>Aten Fig. 12.2</u>	<u>Baytown Coll. 2,2a</u>
Number (percent)				
I	1 (13)	7 (32)	30 (39)	36 (29)
II	0 (0)	0 (0)	3 (4)	27 (22)
III	2 (25)	10 (45)	19 (25)	25 (20)
IV	2 (25)	2 (9)	9 (12)	10 (8)
V	0 (0)	0 (0)	3 (4)	3 (2)
VI	0 (0)	1 (5)	3 (4)	8 (7)
VII	1 (12)	1 (5)	3 (4)	2 (1)
VIII	0 (0)	0 (0)	1 (1)	5 (4)
IX	<u>2 (25)</u>	1 (4)	5 (7)	7 (6)
	<hr/> 8 (100)	<hr/> 22 (100)	<hr/> 76 (100)	<hr/> 123 (100)

The additional Trinity delta collection supports a tentative conclusion that Family II, Horizontal plus One Diagonal, was not a favored construction there, whereas it was in the nearby Baytown area. This collection included the only known "pot handle", Catalog No. 258, page S-4.

Constructions in the small "San Bernard River" collection blend in well. However, the style of rim notching does not. Both plain and decorated rim sherds are frequently double notched - on both inside and outside giving a ruffled effect. A prominent cross notch, somewhat sawtooth-like, is also common. Many sherds show texturing from slightly serrated scraper marks. (See text page 12.) This pottery would appear to be only distantly related to that of the Galveston Bay tradition (Site Nos. 41 FB 46, 49; WH 3, 83; MG 50, 52).

**Appendix A - Collection Sources
(Continued)**

Reference (8)

Collection from site 41 WH 12, in the care of Joe Hudgins. This earth midden site is on Peach Creek near Hungerford, TX. It was tested by the Houston Archeological Society.

Reference (9)

Private Collection. This collection comes from sites in the San Bernard River drainage, and Caney Creek in Wharton County, and also Matagorda County as indicated in the catalog.

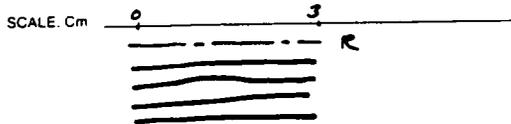
Reference (10)

Private Collection. This surface collection comes largely from sites 41 CH 20, 65, 169, 40, 87, and 36 on Old River Lake in the Trinity delta.

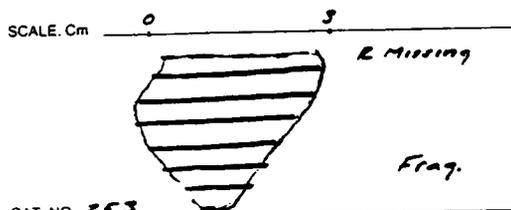
I Horizontal Only



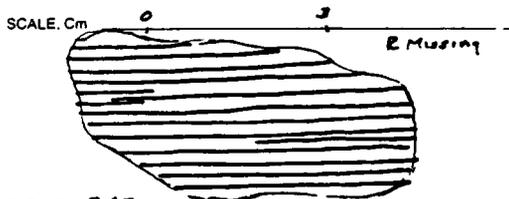
CAT. NO. 247
 LOCATION HR Trinity Delta
 TYPE G.C. SP DIA 30 T.mm 7
 METHOD DCW NOTCH VEN REFER 9



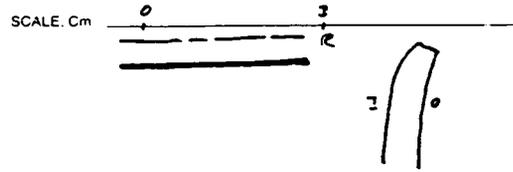
CAT. NO. 248
 LOCATION HR Trinity Delta
 TYPE G.C. SP DIA 22.5 cm T.mm 9
 METHOD INC NOTCH FN REFER 9



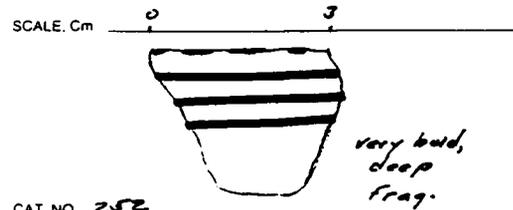
CAT. NO. 253
 LOCATION HR Trinity Delta
 TYPE S. Lac DIA 69 T.mm 7
 METHOD DCW NOTCH ? REFER 9



CAT. NO. 240
 LOCATION HR Trinity Delta
 TYPE S. Lac ? DIA 12 cm T.mm 6
 METHOD DCW NOTCH ? REFER 9



CAT. NO. 254
 LOCATION HR Trinity Delta
 TYPE S. Lac DIA 30 cm T.mm 6
 METHOD DCW NOTCH - REFER 9



CAT. NO. 252
 LOCATION HR Trinity Delta
 TYPE S. Lac ? DIA 16 cm T.mm 7-
 METHOD DCW NOTCH ? REFER 9



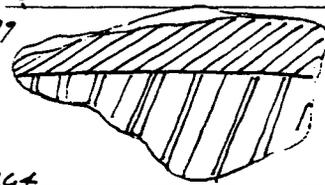
CAT. NO. 261
 LOCATION MG Candy Creek (Pledger)
 TYPE G.C. SP DIA 20.5 cm T.mm 5
 METHOD INC NOTCH - REFER 9



CAT. NO. 256
 LOCATION HR Trinity Delta
 TYPE S. Lac DIA Md T.mm 4
 METHOD INC NOTCH VEN REFER 9

II Horizontal + One Diagonal

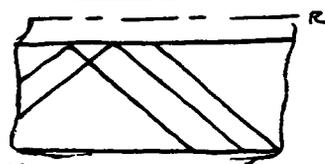
SCALE. Cm 0 8
E Missing



CAT. NO. 264
LOCATION GV Balisee Penn.
TYPE GGc S.P. DIA 10 cm T.mm 7-8
METHOD Inc NOTCH ? REFER 11

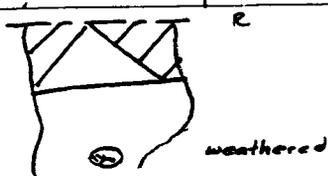
III Horizontal plus Opposing Diagonals

SCALE. Cm 0 6 R



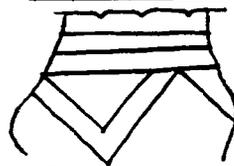
CAT. NO. 239
LOCATION HR Trinity Delta
TYPE J. Lac DIA 40 cm T.mm 7
METHOD Inc NOTCH ? REFER 9

SCALE. Cm 0 3 R



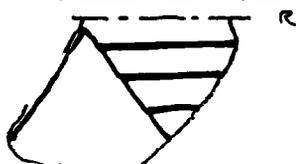
CAT. NO. 232
LOCATION HR Trinity Delta
TYPE GG S.P. DIA 201 cm T.mm 4
METHOD ? NOTCH CN REFER 9

SCALE. Cm 0 3 R



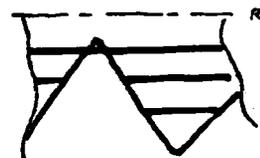
CAT. NO. 230
LOCATION HR Trinity Delta
TYPE J. Lac DIA 20 cm T.mm 4
METHOD Inc NOTCH CN REFER 9

SCALE. Cm 0 3 R

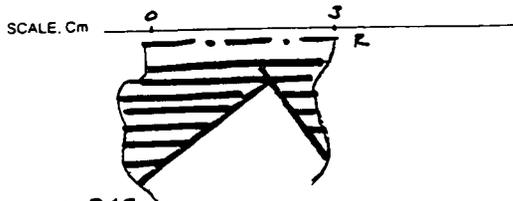


CAT. NO. 235 41 WH 12
LOCATION WH Hungerford, Peach Cr
TYPE J. Lac DIA 30 cm T.mm 6
METHOD Dcw NOTCH - REFER 8

SCALE. Cm 0 3 R



CAT. NO. 234 41 WH 12
LOCATION WH Hungerford, Peach Cr
TYPE J. Lac DIA 28 cm T.mm 7
METHOD Dcw NOTCH FN REFER 8



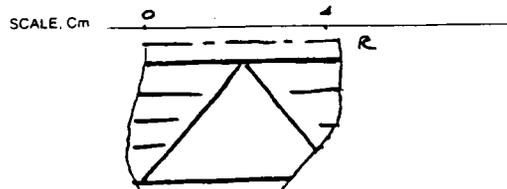
SCALE. Cm

CAT. NO. 243

LOCATION HR Trinity Delta

TYPE G. Co SP DIA 40.3 cm T.mm 7

METHOD ? NOTCH - REFER 9



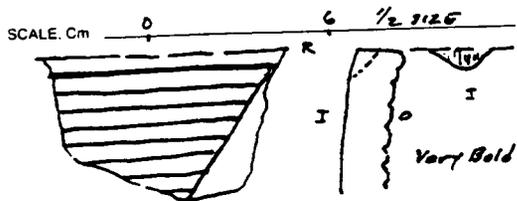
SCALE. Cm

CAT. NO. 248

LOCATION HR Trinity Delta

TYPE S. Lac. DIA 22 cm T.mm 6

METHOD Inc NOTCH - REFER 9



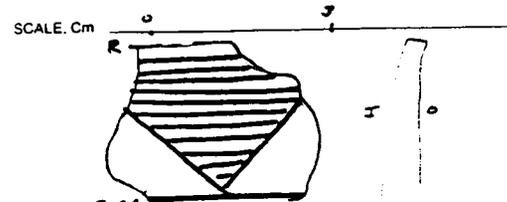
SCALE. Cm

CAT. NO. 259

LOCATION HR Baytown

TYPE S. Lac DIA 1.19 T.mm 6 to 10

METHOD Inc NOTCH VEN REFER 2a



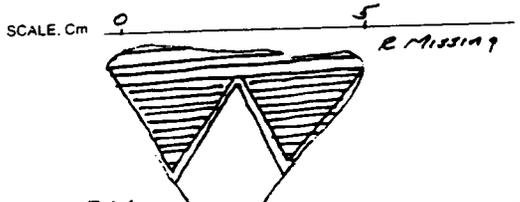
SCALE. Cm

CAT. NO. 246

LOCATION HR Trinity Delta

TYPE S. Lac DIA 30 cm T.mm 8

METHOD Inc NOTCH - REFER 9



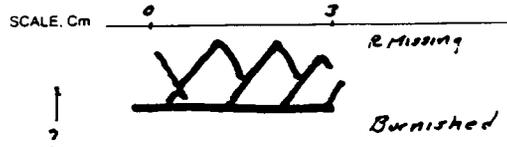
SCALE. Cm

CAT. NO. 266

LOCATION HR Baytown

TYPE S. Lac DIA 10 cm T.mm 5

METHOD Inc NOTCH ? REFER 2a



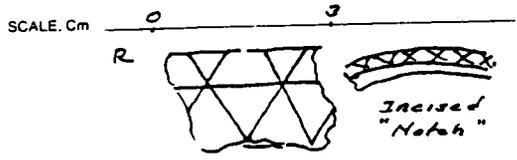
SCALE. Cm

CAT. NO. 250

LOCATION HR Trinity Delta

TYPE S. Lac DIA 19 T.mm 6

METHOD Gauged NOTCH ? REFER 9



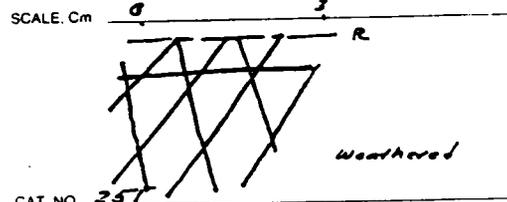
SCALE. Cm

CAT. NO. 265

LOCATION HR Baytown

TYPE G. Co DIA ? T.mm 5

METHOD Inc NOTCH FN REFER 2a



SCALE. Cm

CAT. NO. 251

LOCATION HR Trinity Delta

TYPE G. Co SP DIA 19 T.mm 6

METHOD Inc NOTCH FN REFER 9



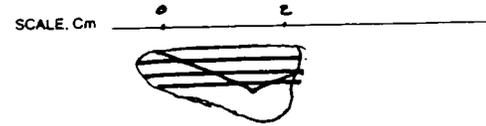
SCALE. Cm

CAT. NO. 241

LOCATION HR Trinity Delta

TYPE S. Lac? DIA 20 cm T.mm 5

METHOD Inc/st NOTCH ? REFER 9



SCALE. Cm

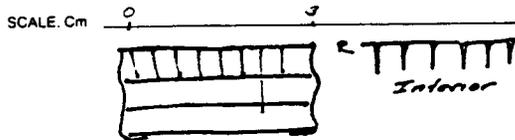
CAT. NO. 249

LOCATION HR Trinity Delta

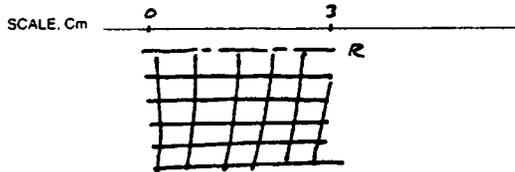
TYPE G. Co DIA 14 T.mm 3

METHOD Inc NOTCH ? REFER 9

IV Horizontal plus Vertical

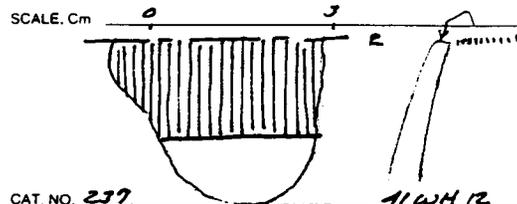


CAT NO. 262 11WH 83
 LOCATION WH Coney Creek (Wharton)
 TYPE G. Cr DIA 10 cm T,mm 5
 METHOD Drw NOTCH FN REFER ..

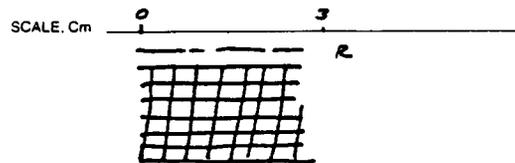


CAT NO. 255
 LOCATION HR Trinity Delta
 TYPE S. Lac DIA Md T,mm 1
 METHOD Inc NOTCH VFN REFER 9

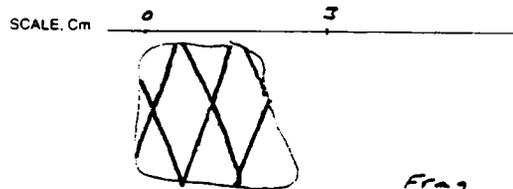
V Opposing Diagonals



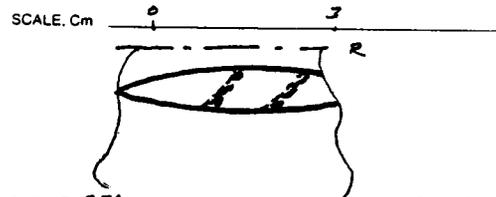
CAT NO. 237 11WH 12
 LOCATION WH Hangerford, Peach Cr.
 TYPE Reet T DIA 30 cm T,mm 4
 METHOD Inc NOTCH VFN REFER 8



CAT NO. 256
 LOCATION HR Trinity Delta
 TYPE S. Lac DIA Md T,mm 1
 METHOD Inc NOTCH VFN REFER 9



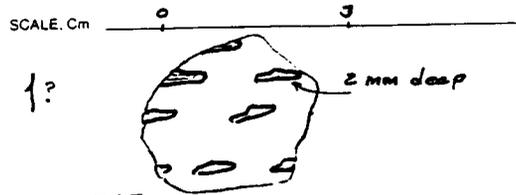
CAT NO. 257
 LOCATION HR Trinity Delta
 TYPE S. Lac ? DIA Lg T,mm 6
 METHOD Inc NOTCH ? REFER 9



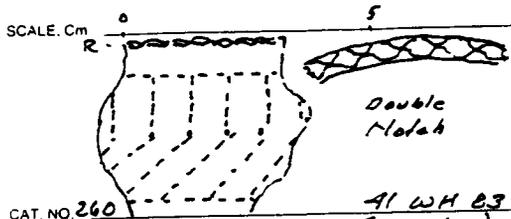
CAT NO. 236 11WH 12
 LOCATION WH Hangerford, Peach Creek
 TYPE G. Cr DIA 28 cm T,mm 6
 METHOD Drw NOTCH - REFER 2

VII Curve

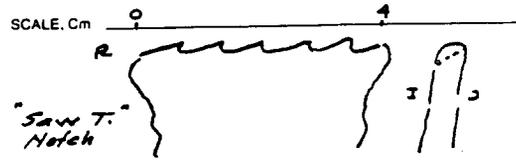
IA Miscellaneous



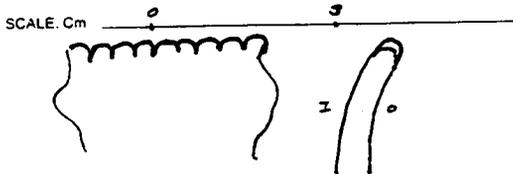
CAT. NO. 245
 LOCATION HR Trinity Delta
 TYPE G. Cr DIA ? T.mm 6-
 METHOD Flm NOTCH ? REFER 9



CAT. NO. 260 41 WH B3
 LOCATION WH Casey Creek (Wharton)
 TYPE G. Cr S.P. DIA 1.4 Cm T.mm 6-7
 METHOD Imp. NOTCH FN(2) REFER 10



CAT. NO. 233 41 WH 12
 LOCATION WH Huggard's Penon Cr
 TYPE Plant DIA 22 mm T.mm 6
 METHOD - NOTCH FN REFER 8



CAT. NO. 243 41 WH B3
 LOCATION WH Casey Creek (Wharton)
 TYPE G. Cr DIA 1.4 Cm T.mm ?
 METHOD - NOTCH FN REFER ?



CAT. NO. 258 Pat Handle
 LOCATION HR Trinity Delta
 TYPE G. Cr S.P. DIA - T.mm -
 METHOD - NOTCH - REFER 9