

PRELIMINARY SURFACE SURVEY
OF THE
FREDERICA BY-PASS

DELDOT ARCHEOLOGY SERIES NO. 3

By

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DELAWARE ARCHEOLOGY BOARD

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Division of Highways

1963

reprint

PRELIMINARY SURFACE SURVEY
FREDRICA BY-PASS, May 12th 1963

Persuant to directions given at the meeting called by Dr Allen G Schieck, Pres. of the Delaware Archeological Board, may 11th at Alexander's Resteraunt, at which were present- Dr Schiek, Mr John L. Ludlow, Pres. the Archaeological Society of Delaware, Warren Callaway, Pres of the Sussex Society of Archeology and History, Harold W.T. Purnell, Vice Pres. S.S.A. & H. Wm W. Harrison of the American University. Geiger Omwake, Henry H Hutchinson and

On May 12th a Surface Survey was made by Warren Callaway, Frank Donovan and Henry H. Hutchinson, (all experienced surface hunters) of the accessible fast lands included in the lands to be used within the right-of-way of the proposed Frederica Highway By-Pass. Due to the limited time and leg-power available, only those lands between the surveyors right-of-way stakes was surveyed. (or hunted)

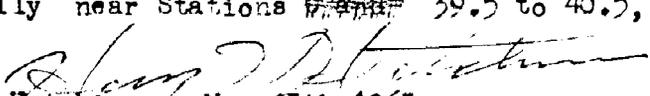
For the purpose of this report the right-of-way was divided into several sections begining at Station 14.75 and ending at approximately Station 91. The Stations are as indicated on the unofficial highway map of the proposed Frederica By-pass as examined and studied at the meeting above. The findings in the several different Sections are listed on the accompanying sheet.

Attention is called to the owner of the land on the south side of the Murder Kill River and included Section E. Mr Clifford Coverdale, who has a very large collection of artifacts includeing probably several hundred stone axes, celts, gouges, atlatl weights etc. and many projectile points all of which were found on his lands. A study and classification of these would be of value. However he says that he cannot recall that many of them were found in the area of the right-of-way covered by Section E. The majority were found further up stream nearer his house and the present highway.

It is the opinion of the writer that the surface finds recovered in our survey of May 12th, do not pin-point any spot that has any definite ^{reason} for "test-pits" or trenching. However we feel that the removal of the top soil in several six or eight foot strips across the south end of Section E might reveal disturbed virgin soil indicating burials of middens.

The ground was too hard to probe successfully. There were few remains of shell on the surface, though they were sparsely scattered over all sections surveyed. There was broken glass and china and cheap glazed white-man's pottery sherds also in all sections. The general intensity of artifacts was no greater that what we believe would be found in any cultivated field near navigatable water (canoe) in Sussex County. The two soapstone (steatite) sherds were the only uncommon artifacts found.

We suggest that a small scraper be obtained and permission gotten to scrape strips of top-soil; especially near Stations ~~39.5 to 40.5~~ 39.5 to 40.5, and 43 to 44 it might be rewarding.


Henry H. Hutchinson. May 13th 1963

Get some more tests

reprint

Surface Collection Frederica By-Pass
May 12th 1963

SECTION Conditions & Artifacts

1400 ft ±
A Station 14.75 to Aprox. Sta. 28.7, in a hedge-row and a probable property line.
Surface recently cultivated, no vegetation.
Trade pipe stem frag. ----!
Projectile point, lanceolate, flinty chert, base broken off.,,1

1100 ft ±
B Station aprox. 28.7 to Station approx 39.5, freshly cultivated surface no
vegetation.
No ancient artifacts.

1000 ft ±
C Station approx 39.5 to 49.6 at the south edge of a wooded and overgrown "gut"
or small valley with water (fresh) in bottom.
1 Soapstone sherd abt 2"x2"x 3/8" to 7/8" thick
1 jasper crude round point convex base (7-A-3) point
5 jasper flakes
1 flint "
1 Crude scraper abt 2-3/4"x 1-3/4" micaceous quartz.
1 Shell Temp. plain potsherd.
1 " " " rimsherd.
NOTE Sec. C is about 1/2 newly cultivated no vegetation, and balance
overgrown with underbrush etc.

300 ft ±
D Station aprox 40.6 to Sta. approx. 43. Overgrown small valley or gut
with fresh water. NOT SURVEYED.

200 ft ±
E(1) Station approx 43 to #45. Freshly cultivated land no vegetation.
on the north side of the small valley above mentioned.
1 soapstone sherd 1-3/4"x2"x 1/2" thick, well finished one side.
Proj. Points
1 yellow quartz, shape- willowleaf (shape 5-A-4) 3"x7/8"x 1/2".
1 white Quartz, didmond shape (8-D-3) 1-3/8"x1"x 3/8".
1 Jasper flake
1 questionable flake.
1 Shell temp. plain potsherd
1 crushed quartz and sand temp. cord marked potsherd.

2600 ft ±
B(2) Station approx 45 to aprox 71 the end of fast land on the south side of
the Murderkill River and adjacent swamps.
Freshly cultivated land no vegetation.
1 possible red-sand-stone hammerstone.
1 flint Core. 6 Jasper and flint flakes. 2 quartzlike flakes. 1 small conch shell.
1 crushed quartz tempered cord marked potsherd.
3 shell tempered fabric impressed potsherds.
1 " " plain

1600 ft ±
F Station approx 71 to aprox station 87. Marsh and river. Not surveyed.

400 ft ±
G Station approx 87 to 91. in crop of barley about 2 ft high. poor hunting cond.
1 Trade pipe stem frag. 1 broken tip of a jasper projectile point.
6 jasper flakes, 2 quartzite flakes or chips.
1 Shell Temp. Fab. Imp. Incised potsherd. 2 small unidentifiable potsherds (shell T

H Station 91 to end, in high grain, so not surveyed.

HHH 5/13/1963

FREDERICA BY-PASS
SURFACE SURVEY

May 18, 1963

Participants: H. H. Hutchinson, Terry Ludlow, and John L. Ludlow

Area: Section E, Stations ~43 to ~45 (see Survey Summary of May 12, 1963 by H. H. H.), also the screened material from the plow zone area from Feature 1.

Artifacts:

- 3 White clay pipe fragments.
 - bowl + stem, 1.7" long
 - bowl fragment, 1.1" long
 - stem fragment, 1.1" long

- 14 Potsherds
 - 1 fine grain steatite, 1.2 cu. in.
 - 3 horizontal cord markings, 1 rim
 - 1 dense, unmarked - white man?
 - 1 unmarked, .4 cu. in.
 - 1 unmarked, .4 cu. in.
 - 4 small pieces

- 1 Worn oyster shell, 1.4 sq. in.

- 4 Projectile points
 - 1 - 1.7" long, brown ~~gaining~~ jasper? double triangular
 - 1 - 1.35" long, argillite, contracting stem
 - 1 - 1.15" long black flint lanceolet
 - 1 - 1.2" long, triangular base corners broken
black flint
 - 1 - chip light amber ~~exotic~~ flint (from gun flint?)
- 1 Chip light amber exotic flint (from gun flint?)

- 1 Broken projectile point? chip

- 8 Jasper flakes < .75 sq. in.

- 4 Gray flint flakes < .75 sq. in.

- 2 White quartz chips < .75 sq. in.

- 1 Jasper plate, .2 cu. in.

- 1 Jasper scraper?
 - 1 Jasper? scraper?, 1" x 1.7"

- 1 Basaltite? chip, 1" x 1"

- 1 Flake fine sandstone?

- 1 Piece "ironstone", .4" x 1.5" x 1.8"

- 1 Piece micaceous sandstone, .5 x 1.5 x 1.5

- 3 Broken white quartz pebbles
- 5 Jasper? pebbles - 4 broken
- 1 Broken sandstone boulder
- 1 Crockery sherd - glazed inside
- 1 highly patternized green glass fragment
- 1 green glass fragment

JLL/ndf

FREDERICA BY-PASS SURVEY
May 18, 1963

Feature #1

North (along right of way) of east stake No. 43 (Highway Contract Map #2058), 36' and 17'6" (west) from side. This feature was found by probing with a 3/8" round probe. The soil was a plowed sandy loam. The probe easily penetrated through the plow line (8-9") but met some resistance below this point with penetration below 12-15" being difficult. At the feature area it was relatively easy to insert the probe its full length, 37". A "soft area" of ~48" x ~60" was readily defined by probing. This area is shown on Figure II. The disturbed soil in the plow zone was removed over the soil area, and clearly defined dark spots were evident in the subsoil. The darkest soil was near the surface with the color fading near the bottom of the excavation. The general soil is a sandy loam with subsoil being slightly reddish. More clay in the soil was evident at the bottom and in the walls of the pit.

All of the artifacts in the plow zone were recovered from screening through a 1/2" screen and included with the material collected during surface hunting.

The "soft area" was dug by troweling and shoveling. The wall was well defined as harder, compacted sand during troweling. All of the excavated sand was screened through a 1/2" screen, or a 1/4" screen in areas where there were apparent concentrations of cultural material. No cultural material was found on the 1/4" screen which would not have been held by the 1/2" screen, except for smaller fragments of charcoal.

The artifacts from the pit were not kept separately by layers. The location of several large sherds was recorded.

Pottery was found from the plow zone to at least 35" down in the pit. Charcoal was found throughout the pit to its very bottom. There was no other cultural evidence except for four broken pebbles. In the entire excavation there were no pebbles of similar size and few (~10) pebbles of < 5/8" diameter.

After the excavation, probing showed the bottom (~20" diameter) to be still soft while the wall and the areas below ~~the~~ were dense. There were several dark circular molds in the soft area, and they resembled root casts. Troweling for six inches below this spot revealed no cultural material.

The approximate cross section of the pit is shown on Figure I.

The artifacts recovered are as follows:

- 51 Pieces of pottery (after assembly) - largest single piece 4.4 sq. in., part of 9 sq. in.
- 7 - Horizontal cord marks -
 - 5 cord bands on one rim piece - 4.3" rim section with estimated OD being 11-17" - tempering leached out
 - 2 pieces leached out temper
 - 5 pieces sand (or quartz) temper, cord marked
- 1 - Fractured brown jasper pebble - volume ~.7 cu. in.
- 1 - Broken white quartzite (?) pebble - .7 cu. in.
- 1 - Sandstone boulder - 3.5 cu. in.
- >40 Pieces charcoal up to .06 cu. in. in volume
- 2 - Quartz pebble fragments
- 1 - Jasper pebble - snowflake pattern

It would appear that, as a minimum, two or maybe three pots, are represented.

This feature would appear to have been a storage or rubbish pit which had the partial fragments of at least two, or possibly three, pots and charcoal discarded in it. The material was found throughout the pit's confines. It is difficult to explain the lack of other cultural material. It is unlikely that the feature was made by an animal's burrow.

J. L. Ludlow

JLL/ndf

FREDERICA BY-PASS
SURVEY

May 26, 1963

Surface Survey - Terry, Chris, David and John Ludlow and
Francis, Connie and Mike O'Shaughnessy

Additional chips, flakes, and potsherds were found in Section E1. At Station 65 East side of R/W was found a red jasper contracting stem point (2"). At East side of Section 63 was found a straight stem gray quartzite (?) point (1.25"). Numerous shells and white man refuse (pipe stems, bricks, clay pottery, etc.) at about Station 50.

Materials recovered:

- 2 - 1/2" clay pipe stem sections
- 1 - pipe bowl fragment
- 1 - 1-1/2" argillite? contracting stem point
- 4 - highly corroded green glass fragments
- 4 - jasper fragments
- 1 - jasper flake
- 1 - quartz flake
- 2 - smooth quartz tempered sherds
- 1 - quartz tempered sherd - cross marked pattern
- 1 - basanite flake
- 1 - corroded copper clip

FREDERICA BY-PASS
SURVEY

May 26, 1963

Probed a large portion of the area within R/W and ~65' north of Station 43. Found ~~two~~ soft spots which were excavated as "features" and a trench.

Trench

38' north of Station 43 and perpendicular to R/W, 50' west of east side and extending 40' (90' from R/W). Trench dug in 3 sections: (1) 50'-70' west to depth of plow line (9"); (2) 70-90' west to depth of plow line and 70-80' 9" below plow line. Excavation stopped because material collected did not appear to be interesting and other features were examined. Trench 10-12" wide, screened through 1/2" screen.

Section 1

- 5 - jasper flakes
- 1 - piece of coal
- 2 - quartz flakes
- 1 - brick
- 1 - broken jasper pebble
- 1 - glazed white man pottery
- 1 - china fragment

Section 2

- 1 - broken quartzite pebble
- 1 - weathered quartzite pebble
- 1 - glazed white man pottery fragment
- 1 - argillite? flake
- 2 - jasper flakes
- 1 - clam shell fragment
- 1 - burned coal fragment?
- 1 - section (1-1/2" wide) of blade - rhyolite?

Section 3

- 2 - broken quartzite pebbles
- 1 - broken deteriorating quartzite (sandstone?) pebble
- 1 - broken black jasper pebble

FEATURE #2 - 52'3 west from and perpendicular to east R/W at Station #43. There was an obvious soft spot to the probe at this point. At about the plow line (~9") was found an aggregation of stones 6-10" away from "soft spot". Parts of stones isolated are photographed. Dug to depth of ~24" and found nothing more below the stones on screening through 1/2" screen. Stones in almost a pile and not spread out as in a large fireplace. They were found within an area of 18'6" square. Several flecks of charcoal were present near the stones.

Materials recovered (78 pieces):

- 4 - quartz tempered sherds - < 0.5 sq. in., one cord marked
- 1 - black flint flake
- 1 - cracked basanite pebble
- 1 - worn shell fragment
- 1 - china fragment
- 1 - glazed crockery fragment
- 1 - worn brick fragment (?)
- 1 - burned limestone fragment (?)
- 1 - coal fragment
- 1 - fire cracked rock, sedimentary - iron base ~3.9 cu. in.
- 1 - chip of above type
- 5 - jasper (brown, red, and white) flakes
- 3 - broken jasper pebbles < .5 cu. in.
- 2 - jasper pebbles < .9 cu. in.
- 5 - broken and cracked fine sandstone pebbles < 2.2 cu. in.
- 6 - broken and cracked coarse sandstone pebbles < 5.1 cu. in.
- 8 - broken sandstone pebbles < 5.2
- 3 - sandstone or quartzite pebbles < 2.4 cu. in.
- 7 - badly disintegrating, broken sandstone or quartzite pebbles < 1.9 cu. in.
- 9 quartzite pebbles, 7 cracked, < 4.2 cu. in.
- 1 - porphory (large quartz pieces in matrix) pebble ~2.6
- 15- quartz pebbles, 4 broken, < 2.9 cu. in.

Many of the above pieces were broken, cracked, and disintegrating. Several showed outer areas of a different color; 33 pieces appeared to have been in a fire. The evidence for fire did not appear as "recent". Only 8 pieces (1 jasper, 1 basanite, 2 quartzite, and 4 quartz) would appear to have any possible utility as stone for chipping a tool such as a point.

Thus, it would appear that the stones were primarily associated with heat (as a fireplace or for heating food in pots). The stones are of such a size (< 5.2 cu. in.) that a large fireplace was not involved. The close proximity of the pieces bears this out. The flakes (6), potsherds (4), and shell (1) are secondary features.

DUG BY TERRY & JOHN COOPER

FEATURE #3 - Dug by Terry and John Ludlow, 64" north of Station #43 and in center of R/W. Found a soft spot by probing. Probe went to its length (37"). Hole about 2' x 3' and 20" deep dug. Screened through 1/2" screen. Bottom of hole still soft by probing.

Only material recovered:

broken quartzite pebble - both discarded
small jasper pebble

FEATURE #4 - Dug by Mr. and Mrs. F. O'Shaughnessy. 71'3" west of eastern R/W and 55'5" along R/W. Found as a soft spot by probing. Essentially no stones or cultural material on screening through 1/4" screen. Dug the soft spot as a 17" x 24" hole to a depth of 36". By probing the surface the soft spot was found to extend to an area of 28" x 40". Found charcoal throughout 17" x 24" to depth of 34-1/2".

Material recovered:

- 1 - quartzite flake
- 1 - sandstone pebble fragment
- 1 - quartz pebble
- 1 - jasper pebble
- 1 - quartz flake
- 2 - jasper flakes
- 1 - small piece coal?

FREDERICA BY-PASS
SURVEY

June 1, 1963

Surface Survey - Terry and John Ludlow

Area: Stations 39 to 40 + 50¹ from west side of R/W to wooded portion on East.

Probed part of area, found soft spots at 32' N of Sta. 40 and 6' E. of W R/W. Dug trench across spot (plow line at ~9") to depth of 20", found nothing except one sherd in plow zone. Material not screened.

Material on surface:

- 1 sandstone hammerstone - pitted one side
- 1 sandstone possible hammerstone
- 1 reddish brown badly weathered, soft surface, ~~siltstone~~ **SHALE (7)** (K)
chopper or hoe - 6.2 sq. in.
- 1 siltstone five sided point blank (?)
- 1 black **grAINY** flint (?) straight based lancelet point - 1.6"
- 1 gray argillite point - 2.1" possibly had contracting stem barbed shoulders (one missing)
- 1 siltstone (?) point of projectile point - .5"
- 1 tan jasper scraper .5" x 1" x 1.5"
- 1 black chert scraper or chip .4" x 1.2" x 1.2"
- 1 gray argillite flake - possible tool (?) .4" x 1" x 1.8"
- 1 gray argillite flake - possibly broken tool - .2" x 1" x 1.4"
- 1 black (**grAINY**) flint point or knife - broken .9" x 2.1"
- 3 basalt flakes
- 1 sandstone flake
- 6 tan jasper flakes
- 1 red jasper flake
- 1 tan jasper core - 1" x 1.5" x 1.9"
- 1 gray jasper flake
- 2 quartz flakes
- 3 quartz flakes
- 6 fine steatite sherds
 - 1 - with partial lug (.5" x 1.0") x 1.7" x 2.3"
 - 1 - .4" x 1.3" x 1.8"
 - 1 - rim .5" x 1.1" x 2.0"
 - 1 - ~~rim~~ .4" x 1.1" x 1.6"
 - 1 - ~~rim~~ .7" x 1.0" x 1.2"
 - 1 - ~~rim~~ .6" x 1.4" x 1.8"
- 11 potsherds
 - 1 - cord ? impressed, quartz tempered - .5" thick - scraped inside
 - 3 - shell tempered ? (leached out) fabric or cord impressed
 - 1 - steatite tempered

- 2 - quartz tempered
 - 1 - perpendicular markings
 - 1 - possibly fabric or cord impressed
- 2 - rim - sand tempered
- 3 - sand tempered (?)
- 1 - bleached, burned, bone fragment

Area: About Station 65

Surface Material Recovered:

- 1 - argillite fragment - possibly part of an ax -
.8" x 2" x 2.6"
- 1 - brown jasper flake
- 1 - gray flint flake
- 1 - broken brown jasper pebble
- 1 - red friable sandstone - fire burnt
- 1 - argillite ? flake
- 1 - worn flat pebble 5" x 1.3" x 1.5"

Outside of the "ax" the other material is not unusual.

Testpits:

70' West of E R/W and 10' N of Station 55 & 50'.

Soft spot to probe but stones at about 33" deep. Dug 12" x 12" x 36" pit and hand sifted, found nothing.

60' West of E R/W and 24' North of Station 65. Probe revealed stones at 12". Pit to 12" showed nothing but gravel in sand.

34' West of E R/W at Station 66 + 50'. Probe indicated soft spot. Dug a 12" x 12" x 30" pit and found charcoal to depth of at least 20". 10-12" trench extended N from pit for about 6' to a depth of 20". Sand hand sifted. Nothing found beyond charcoal - < (.3" x .5" x .7"). Further excavation possibly worth while to remove plow zone sand and re-examine surface below.

JLL/jec
6/7/63

FREDERICA BY-PASS
SURVEY

June 8, 1963

Surface Survey: Terry and John Ludlow

Area: Stations 39 to 40 + 50', from west side of R/W to wooded portion in East.

Material Recovered:

- 1 Sandstone pitted (one side) hammerstone
1.3 x 2.3 x 2.5"
- 6 Steatite sherds
 - .5-.9 x 2.3 x 3"
 - .6 x 1.8 x 2"
 - .5 x 1.5 x 2.2
 - .6 x 1.0 x 1.7
 - .7 x 1.0 x 2
 - .5 x .8 x 1.3 - rim
- 1 large argillite chip .6 x 1.6 x 2.2
- 1 shale blank? .9 x 2.1 x 2.7
- 1 sandstone disk .35 x 1.7 x 2.5"
- 1 red shale "point" .3 x 1.7 x 2.1
- 1 brown unique jasper knife - .8 wide blade - 1.5" long
- 1 broken brown jasper point - side notched - 1.4"
- 1 grainy flint? side - corner notched point - 1.8"
- 1 basanite?, broken, corner notched point - 1.2"
- 1 argillite contracting stem point - 1.5"
- 1 green jasper? broken point - 1"
- 8 white quartz chips and flakes
- 9 brown jasper flakes
- 3 brown jasper chips
- 2 red jasper flakes
- 1 piece coal
- 2 flint flakes
- 5 basanite flakes
- 2 argillite chips
- 1 sandstone flake
- 3 shale flakes
- 1 red sandstone chip
- 2 unknown chips
- 2 gray jasper flakes
- 5 chert? chips and flakes
- 1 weathered flat bone
- 1 glazed china sherd
- 25 pot sherds
 - 16 quartz tempered - fabric (cord?) or unmarked
 - 5 no temper - leached-out?
 - 2 dark, friable tempering
 - 2 sand? temper

Feature #5:

In probing the area of the surface survey a soft spot in the soil was located. This was outlined fairly sharply with the probe (37") because in the soft areas it was usually easy to insert 37" while in the hard area resistance was met at about 20-24". The soft area was roughly defined to about + 6" (across the demarcation) and a plot was made of the area. See Figure III. In the interior of the feature was found a harder area (21" x 27") with a center at (14' and + 3.3'). In the area between 12' and 16' and + 5' and + 8.5' was found a hard spot surrounded by a soft area which was surrounded by the outside hard area.

An 18" wide trench was dug at roughly 90° to the zero line from + 110" to - 67" at a distance of 13'1" to 14'7" from 0. The trench was carefully dug to just below the dark plow zone. A light tan sandy loam was underneath. All this material was screened through a 1/2" screen. Recovered material listed below. After brushing the trench floor with a whisk broom, 3 possible post molds (dark areas) were found. Since these molds were within 6-12" of the perimeter of the area the trench was extended and two other possible molds were found within 6" of the perimeter. The distance between these three spots was 34-34.5". The distance for the two at the other end of the trench was 18". These three had major and minor axes of: (from left to right on graph) 1.5" x 2.75" (not as dark as others), 1.3" x 1.9" and 2" x 2.3". No further digging was done to explore below the plow line. No demarcation of color or texture was shown in the trench at the edges of the feature or at the "hard" areas out by the trench.

Considerable further work will have to be done to define this feature but a hypothesis could be that it was a house (~10' x 28') that covered middens or burials.

Material Recovered:

- 6 broken sandstone pebbles
- 1 red broken quartzite pebble
- 1 brown jasper scraper (core?) .6" x 1.1 x 1.5
- 5 brown jasper flakes
- 1 red jasper flake
- 2 black flint flakes
- 1 clear quartz flake
- 1 shale quartz chip flake
- 7 potsherds
 - 1 cord marked? - leached-out temper
 - 3 leached-out temper
 - 3 quartz tempered

Test Trench:

In center of R/W from 40 + 54.12 to 40 + 64.12 station.
Trench to depth of 12" - plow zone 10-11".

Material recovered:

- 1 black flint flake
- 4 sherds
 - 3 quartz temper
 - 1 sand temper
- 2 quartz chips
- 1 broken quartz pebble - 1.2"
- 1 broken jasper pebble - 1.2"

Trench taken to depth of 16-20" and one quartz tempered sherd recovered. Trench revealed nothing of importance in going from plowed zone North in wooded area.

JLL/jec
6/12/63

FREDERICA BY-PASS SURVEY
JUNE 15, 1963

Participants: H. H. Hutchinson, Mr. and Mrs. William Harrison,
Merrill Dunn, Nancy Crane, Christy, Terry and
John Ludlow

Feature #5:

The left hand area on Figure 3 of the Feature was removed and screened through a 1/2" screen. Possible post molds were found as indicated on Figure 3A. Bill Harrison was of the opinion that a possible house was indicated when molds 1 through 5 were evident. All these molds except #5 were clear and about 1.8-2.5" in diameter. #5 was indicated as a faint discoloration only. Molds 1-7 were on a radius of between 10 to 11" (Figure 3A). Only the area about one foot to either side of the line of molds was carefully trowelled and brushed.

The distances between mold centers was:

1-2	37"	4-5	44"
1-2A	34	5-6	37
2-3	36	6-7	32
2A-3	29	7-8	37
3-4	46.5	7-8A	45.5

This spacing is not too regular but is reasonable (32 to 46.5") if the 2A and 8A molds are neglected. This would give: 1 space at 32-35", 4 at 36-39" and 2 at 44-47".

At the top of the cleared area (Figure 3A) was a disturbed area which had dark streaks in it and there were many flecks of charcoal below the plow zone.

The somewhat irregular spacing of the molds and the fact that they were only traced over an area which was cleared to follow the outline of the probed area detract from the possibility that these molds are part of a structure.

Material recovered:

- 3 broken sandstone boulders -
 - 1.5 x 1.7 x 2.5"
 - 1.5 x 1.8 x 3.5"
 - 1.5 x 1.8 x 2.4"
- 36 broken and cracked sandstone (or similar material) boulders (chips)
- 1 basanite chip
- 5 chert flakes
- 6 jasper flakes
- 2 shell fragments - 1 clam shell
- 2 broken quartz pebbles
- 3 quartz flakes
- 2 shale flakes

7 pieces coal? (anthracite)
29 potsherds
 4 quartz temper - cord impressed
 11 quartz temper
 8 leached temper - shell?
 6 unknown temper
9 pieces charcoal and charred wood - probably recent

Surface Material - at Stations 39 to 40 + 50':

1 steatite sherd - 1" x 1.2" x 1.3"
1 pink jasper? chip
1 quartz temper sherd
1 basanite flake
1 quartzite chip
2 shale chips

JLL/jec
6/24/63

FREDERICA BY-PASS SURVEY

JUNE 22, 1963

Participants: H. H. Hutchinson, Mrs. Haggy?, Merrill Dunn,
Mr. and Mrs. John Watkins, Lynn Bunch, Terry
and John Ludlow

Feature #5:

The left hand area of Figure 3B was trowelled and brushed and photographed twice. There were two areas which showed irregular staining which could represent middens or fireplaces and possible post molds which were not measured because of lack of time. Three quartz pebbles (discarded) were found in trowelling the area within +5 - 7' and 8-11'.

Molds 1 and 6 were sectioned vertically and photographed in color and BW. There was a clear demarcation at the bottom of each mold. Mold #1 was 2" across (WNS) and 1" below the trowelled level. A stake was marked with the surface level next to the mold so level measurements can be taken later. Mold #6 was 1.5" across (WNS), ~2 1/4" in the EW direction, and 1 5/16" below the surface.

The trowelled level is 9-10" below the top of the plowed surface which is at least 6" below the surface of the nearby wooded area. Therefore the bottoms of these molds are at least 16-17" below the present untilled ground level.

The tentative hypothesis is that Feature #5 as far as it has been excavated represents a circular? house structure over at least three areas which are middens or fire areas.

Surface Material - At Station 40, center of R/W:

1 gray chert - brown jasper triangular projectile point
base (sl. concave) 1.2"
sides 1.1"

JLL/jec
6/24/63

Frederica By-Pass Survey
July 4, 1963

PARTICIPANTS: H. H. Hutchinson, Marion Tull, Merle Dunn,
Mr. and Mrs. Peter Clarke, Tony, Annette and
Hillary Clarke, Mr. and Mrs. Donald Ketner and
2 children, Terry and John Ludlow

FEATURE # 5: The plow zone material was removed to expose the
approximate area shown on figure 4. Molds
9, 10, 21, 22, 23, 24 and 25 were exposed
by careful trowelling just at the plowed subsoil
zone. The top area as well as the lower rectangular
area was not trowelled.

Material Recovered:

Prod. Points

- 1 - brown jasper - corner notched, straight stem 1.1"
- 1 - broken red, gray jasper, straight stem 1.4"

- 1 - broken (unfinished) red, gray jasper straight stem
1.3"
- 1 - center section chert? Knife or spear .95 x 1.25"
- 1 - shale point or scraper convex base 1.95"

Sandstone arrow smoother (Broken)

2 grooves .3 and .45" in diameter .9 x 1.6 x 1.9"

Pot sherds - 64

Quartz temper - 36

- 1 - rim-edge marked
- 16 - ~~cord~~ impressed
- 5 - net? impressed
- 12 - unclear markings or none
- 2 - rim-unclear marking
- Leached out temper - 18
- 2 - cord impressed
- 13 - rough impression
- 3 - unclear markings

Steatite Rim Sherd - Porous .4 - .5 x 1.6 x 2.2"

Chips and Flakes

- 4 - Argillite Chips
- 5 - shale chips
- 8 - shale flakes
- 7 - gray flint chips

- 4 - gray-black basanite flakes
- 3 - gray chert chips
- 2 - gray jasper chips
- 4 - white quartz flakes
- 6 - quartz chips
- 1 - dark brown jasper chip - broken piece?
- 5 - red jasper chips
- 14 - red jasper flakes
- 6 - brown jasper chips - 1 poss. knife or scraper
- 27 - brown jasper flakes

- 1 - quartz boulder 1.5 x 2 x 2.6"
- 1 - broken chert pebble
- 5 - broken red jasper pebbles
- 3 - broken brown jasper pebbles
- 3 - broken basanite pebbles
 <1 x 2.2 x 2.5
- 2 - red jasper pebbles
- 15 - fire broken, or reddened sandstone pieces
 .6 x 1.2 x 2" → 2 x 2 x 3"
- 1 - broken sandstone boulder - 1.8 x 2.4 x 2.7"
- 7 - broken sandstone rocks
 .5 x 1.5 x 2.3 → 1.5 x 1.5 3.6
 1.5
- 45 - broken sandstone pebbles and chips
- 5 - broken quartz pebbles
- 5 - broken quartz boulders ~ .7 x 1.3 x 1.9"
- 14 - broken quartz pebbles
- 6 - broken quartz chips
- 13 - pieces coal? (anthracite)
- 1 - piece red brick

Pebbles and boulders of useful size (discarded)

- 2 - chalk
- 2 - quartzite <1.8 x 2 x 3.2"
- 1 - quartz
- 1 - basanite
- 3 - jasper

Small pebbles (Discarded)

- 23 - jasper
- 24 - quartz
- 1 - basanite

FREDERICA BY-PASS SURVEY

July 6, 1963

Participants: H. H. Hutchinson, Marion Tull, Merle Dunn,
Dr. David Marine, Mr. Austin, Terry & John Ludlow

FEATURE #5

Top area of circle (Figure #5) was trowelled. Some material recovered from plow zone (See below). Molds #8A, 10, 12, 23, 24, and 25 were sectioned and found probably to be root molds. The following appear to be post molds: Mold #7 (1.7" x 2.25" - .5" deep with a rounded bottom), Mold #8 (1.5" x 2.1" by 2.2" deep with a rounded bottom), Mold #11 (2.1 x 2.1 by 1.6" deep with bottom tending to be pointed) and Mold #13 (1.75 x 2.3 by 2" deep).

The 5 x 5' square (Figure 5) was partially excavated to a depth of 3-4 inches, but the work was discontinued because the ground was concrete-hard and nothing was found. The 2 x 2' square was trowelled to a depth of ~12" (below trowelled level) and no artifacts or features were found.

Material recovered from plow zone:

- 2 broken jasper flakes
- 1 broken chert point or scraper
- 1 small potsherd
- 1 rosequartz chip
- 3 chips of ashed coal?
- 1 irregular quartz pebble < 2.3"
- 1 broken quartzite pebble

Material from bottom of plow zone and below:

- 1 broken sandstone pestle?
- 1 broken fire reddened sandstone fragment
- 1 broken argillite drill or chip
- 1 red jasper flake (knife?)
- 1 red jasper flake
- 1 broken red jasper pebble
- 4 black flint flakes
- 8 brown jasper flakes
- 4 " " chips
- 2 chert flakes
- 1 argillite? flake
- 3 small grit tempered sherds
one cord marked?
- 2 small shell tempered sherds

Frederica By-Pass Survey
July 13, 1963

PARTICIPANTS: H. H. Hutchinson, Dr. David Marine, Mr. Austin, Paul Porter, Warren Callaway, Mr. Simpson, Terry and John Ludlow.

FEATURE # 5: The following possible post molds (Figure 5) were sectioned with the indicated conclusions:

Probable Root Mold # 2A	1.25 x 1.75"	not distinct - Prob. not Post
# 3	1 x 1.4"	Definitely a Root
# 5	Reddened area trowlled vertically -	nothing found
# 9		Definitely a Root
#22	1.5 x 1.75" by .75"	indistinct probably not a post mold
Probable Post Mold # 2	1.5 x 1.5" by .75" deep	Clean-cut, rounded bottom
# 4	1.4 x 1.5" by .25" deep	clearly defined mold - a post mold or a smudge
#21	1.6 x 1.6 by 2.7" deep	not as distinct as mold # 1 but clear enough

The circle drawn at radius of 10.4¹ from coordinate 14, + 7.3 falls precisely on molds # 13, 21, 1, 2, 4, 6, and 8 and misses mold # 7 by - .6 foot. Mold # 11 is 4.4 feet from this center. The precision with which the 7 molds (includes # 7 but not # 4) falls on this circumference would indicate this feature represents a structure such as a house.

A level traverse was made as shown on Figure 5. The "0" level was the top level of the wooded section immediately adjacent to the feature. The traverses are shown on Figure 6. It can be seen that to the North and West the plow zone was considerably deeper than at the South and East ends, N-13", W-15", S->9" and E-8". This may explain why post molds were not found in the western part of the feature. Thus, the deeper plowing had destroyed the molds.

This was the final work on Feature 5.

Warren Callaway scraped North of the gut between the White and Coverdale properties. The material recovered in three areas is indicated below:

Perpendicular to R/W and over Feature # 2

- 1 - brown jasper chip
- 2 - brown jasper flakes
- 1 - red jasper flake
- 2 - pieces of coal?
- 1 - broken flint nodule
- 3 - small pieces shell
- 1 - crude shale blade 2.2" long
- 4 - historic sherds
- 1 - broken quartz pebble.
- 2 - quartz flakes
- 7 - small pot sherds
 - 6 grit tempered
 - 2 leached temper
- 25 - broken pieces of sandstone - 5 firereddened?
- 8 - broken pieces of quartz
- 1 - chalky boulder
- 1 - quartzite spall
- 15 - misc. pieces, pebbles, boulders discarded

Parallel to R/W and East of Feature # 1

- 2 - cracked chert pebbles
- 1 - quartzite chip
- 1 - broken edge of a hammerstone
- 1 - fab. impressed, quartz tempered sherd
- 1 - unmarked sherd
- 1 - brown jasper flake
- 1 - basaltite
- 1 - fragment of clamshell
- 5 - firecracked? Sandstone pebbles

Parallel to R/W and West of Feature # 1

- 5 - Cracked sandstone boulders
- 1 - sandstone hammerstone?
- 1 - sandstone boulder-worked
 - flat on top and bottom - possible anvil
 - 1.7 x 3.2 x 4.5"
- 3 - broken brown jasper pebbles
- 1 - ~~worked~~, worked argillite pebble
- 1 - cracked basaltite pebble
- 3 - quartz chips
- 2 - red jasper flakes
- 2 - flint flakes

Surface material - Station 39?

- 1 - dense white pot sherd
- 1 - grit tempered sherd-fabric impressed

Frederica By-Pass Survey
August 18, 1963

Surface hunting on R/W and soil piled at sides of
R/W by Jane, Terry and John Ludlow and Nancy Crane.

Material recovered on Coverdale side of gut. (Northside)

- 6 - brown jasper flakes
- 2 - brown jasper chips
- 1 - quartz chip
- 1 - red jasper flake
- 1 - basaltite flake
- 3 - shale chips - 1 large
- 1 - grit tempered sherd
- 1 - fragment of white pipebowl
- 1 - white quartz proj. point - 1.3"
no point - triangular base
- 1 - piece green glass - not old

Material recovered on ~~White~~ side of gut (South side)

- 1 - crude brown jasper triangular point .9 x 1.5"
- 1 - broken brown jasper *PEBBLE*
- 10 - brown jasper flakes
- 3 - red jasper flakes
- 2 - basaltite flakes
- 5 - shale chips
- 1 - white quartz chips
- 1 - broken white crystalline quartz pebble
- 3 - leached tempered sherds
- 2 - pot sherds - heavy quartz temper
- 1 - pot sherd grit temper