CAPSULE SUMMARY - PLUMER-CRANFORD BARN 'A' (CT-1028)

Plumer-Cranford Barn 'A' is located on Broomes Island Road in Port Republic, Maryland. The barn is privately owned. This c. 1830 structure is oriented on a north-south axis and originally consisted of the twenty-by forty-foot main section and the west and south sheds. The main section is laid out with a cross-axial plan and four foot rooms. This section was originally sheathed with narrow, riven horizontal siding and a wood shingle roof, remnants of which remain on the barn today. The barn is associated with a farm that presently includes two other tobacco barn, the ruins of a 19th century house, and a mid-20th century one and one-half story farmhouse.

pjm/12-1992

Survey No. CT-1028

Magi No.

DOE __yes __no

Maryland Historical Trust
State Historic Sites Inventory Form

1. Name (indicate preferred name)

historic

and/or common Plumer/Cranford Barn A

2. Location

street & number Broome's Island Road (MD 264) ___ not for publication

city, town Port Republic __X vicinity of congressional district

state MD county Calvert

3. Classification

Category	Ownership	Status	Present Use	
___ district	___ public	___ occupied	__x agriculture	___ museum
__X building(s)	__X private	__x unoccupied	___ commercial	___ park
___ structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	__X in process	___ yes: restricted	___ government	___ scientific
	___ being considered	___ yes: unrestricted	___ industrial	___ transportation
	___ not applicable	___ no	___ military	___ other:

4. Owner of Property (give names and mailing addresses of all owners)

name Mr. Edgar Craaford c/o Mrs. Plumer

street & number P. O. Box 515 telephone no.:

city, town La Plata state and zip code MD

5. Location of Legal Description

courthouse, registry of deeds, etc. Calvert County Courthouse liber A.B.E 297

street & number Prince Frederick Main Street (MD 765) folio 89

city, town Prince Frederick state Maryland

6. Representation in Existing Historical Surveys

title n/a

date ___ federal ___ state ___ county ___ local

depository for survey records DEPT. OF PLANNING & ZONING COURT HOUSE

city, town PRINCE FREDERICK MD 20678 state

7. Description

Survey No. CT-1028

Condition		Check one	Check one
___ excellent	___ deteriorated	___ unaltered	___ original site
___ good	___ ruins	___ altered	___ moved date of move _____
___ fair	___ unexposed		

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

See Attachment.

8. Significance

Survey No. CT-1028

Period	Areas of Significance—Check and justify below			
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science
1500–1599	X agriculture	___ economics	___ literature	___ sculpture
___ 1600–1699	X architecture	___ education	___ military	___ social/ humanitarian
___ 1700–1799	___ art	___ engineering	___ music	___ theater
X 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	___ transportation
X 1900–	___ communications	___ industry	___ politics/government	___ other (specify)
		___ invention		

Specific dates **Builder/Architect**

check: Applicable Criteria: __A __B __C __D
and/or
Applicable Exception: __A __B __C __D __E __F __G

Level of Significance: __national __state __local

Prepare both a summary paragraph of significance and a general statement of history and support.

See Attachment.

9. Major Bibliographical References

Survey No. CT-1028

10. Geographical Data

Acreage of nominated property _____

Quadrangle name Broomes Island, MD

Quadrangle scale 1:24000

UTM References do NOT complete UTM references

	Zone	Easting	Northing		Zone	Easting	Northing
A				B			
C				D			
E				F			
G				H			

Verbal boundary description and justification

List all states and counties for properties overlapping state or county boundaries

state	code	county	code
state	code	county	code

11. Form Prepared By

name/title Tora L. Williamsen-Berry

organization c/o Calvert County Historic District Commission Dept. of Planning and Zoning date June 30, 1990

street & number Courthouse telephone 535-1600

city or town Prince Frederick state MD

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
Shaw House
21 State Circle
Annapolis, Maryland 21401
(301) 269-2438

CT-1028

THE CRANFORD-PLUMER TOBACCO BARN

Introduction

The Cranford-Plumer Barn is located on the north side of Broome's Island Road approximately one mile west of the intersection with Maryland Route 2/4. The barn is associated with a farm that extends on both sides of Broome's Island Road. Buildings worthy of note on the farm in addition to this barn include two other tobacco barns and the ruins of a 19th century house that was destroyed by fire about ten years ago.

The house ruin is located at the north end of the large open field on the north side of the road; the two barns are on the south side of the road in close proximity to a one-and-a-half story house built in 1950. These barns have not yet been surveyed but are believed to date to this century and were probably built by Mr. Cranford, now 93 years old. Additional fieldwork and an interview with Mr. Cranford are planned.

The Cranford-Plumer Barn is oriented on a north-south axis, parallel to the farm lane and perpendicular to the main road. The principal facade faces east to the farm lane; lean-to sheds adjoin the building on the other three sides. The main building is rectangular in plan, measuring 40 feet long and 20 feet deep. It is of heavy timber frame construction and is covered with horizontal siding of at least two periods; the roof is covered with wood shingles.

The lean-to that extends across the rear or west facade and the south gable appears to be original; the north shed dates to the 20th century. All of these sheds are of earth-fast post construction. They are now primarily covered with vertical board siding and corrugated tin roofing, but the original portions show clear evidence of four-foot riven clapboard siding and wood shingle roofing. The main barn was originally sided with four-foot riven clapboards as well, portions of which still survive.

Plan, Form and Use

The main barn and the original west and south shed appear to date to the 1830s or 1840s. They are constructed in a manner typical for southern Maryland tobacco houses from at least the mid-18th to the mid-19th century. The framing members are entirely of hewn and pit sawn material, standard up until the Civil War, and the nails throughout the original section are fully mature machine-made cut nails, standard in this region from the 1830s to the 1880s or later. The later north shed is constructed of circular sawn lumber in standard sizes and is nailed with modern wire nails. While it is constructed in the traditional earthfast manner, this shed is probably no earlier than circa 1920 and can presumably be dated with more certainty by Mr. Cranfield. Minor changes to the early parts of the building may also be observed, but are primarily restricted to renewal

of siding, roofing and one section of sill.

The main barn is laid out with a cross axial plan and four-foot rooms. The principal entrance is near the center of the east facade, with a corresponding door directly opposite in the west facade, opening into the rear shed. These doors were originally only four feet wide rather than the more common eight-foot openings. The east door was later enlarged to _____ feet and the sill was chopped out to permit wagons or tractors to enter the barn. A third door, also four feet wide, is centered in the north gable, now opening into the 20th century north shed. Heavy intermediate posts in the south gable could have accommodated a fourth door but instead serve only to strengthen the frame; there was never a door in this location.

The rear or west shed was always used for hanging tobacco and apparently could only be reached through the main barn. While there is now a large double door in the west wall of this shed, framing evidence indicates that this door was cut in when the original stud and clapboard walling was replaced with the present vertical siding nailed to horizontal rails. It is equally significant that the rear shed was segregated from the original shed across the south end of the building. This segregation is indicated by clear evidence of a stud and clapboard partion that shows no sign of framing for a connecting door. Part of this partition, including clapboards, survives in place. The rest has been cut out, presumably to accommodate a large horizontal tobacco prize that remains in place in remarkably intact condition.

The south shed has in recent years been used to stable cattle, and it seems highly likely that it was originally designed to serve as stabling either for horses or cattle.The evidence for this is limited but reasonably sound. Two factors in particlar should be considered. First, this shed is completely segregated from the rest of the building. There was no connecting door to either the main barn or the west shed, and the previously mentioned clapboard sheathing on the west shed partion was carried on across the south gable of the main barn, creating a solid screen between the south shed and the rest of the building. Second, the only door was in the extreme south end of the west wall. This door is framed with heavy earthfast cedar posts that have been hewn smooth on the sides framing the opening.

There may have been a door in the east wall of this shed, opening onto the farm lane, but this wall has been rebuilt up to the plate. The original framing does survive in the triangular area between the plate and the shed roof, however, and a small, original loft door opening is clearly evident. This opening would serve little purpose if the shed was intended for hanging tobacco but would be requisite if the loft was used to store hay over a stable. Equally telling, the upper row of tier poles in this shed loft area is secured with modern wire nails. It should be noted that there is no evidence of nail holes from original loft flooring in the top surface of the loft joists, but loose-laid planking is routinely used for secondary hay storage. On the basis of this evidence, livestock stabling appears to be the most likely explanation, but it is not conclusive. This example does offer useful clues to mixed use of space in tobacco barns; more definitive determinations may be possible as the sample of intensively documented buildings expands.

Framing System and Building Details

The framing system of the main barn, as previously noted, is typical of this building type in ante-bellum Southern Maryland. It employs a heavy timber frame supported on unworked pieces of a native sandstone locally known as "ironstone" due to the high iron content and consequent reddish-brown color. The wall frames are seated on heavy hewn sills and consisit of massive hewn corner posts and somewhat lighter intermediate posts topped by top plates that extend the full length of the facade walls and are joined by regularly spaced tie beams or joists. Flat false plates or "raising" plates are nailed on top of the outer ends of the tie beams. Evenly spaced rafter pairs rest on the false plates and are securely nailed in place. Each pair of rafters is reinforced with three sets of collar beams that also serve as supports for hanging tobacco.

Within this generally standard system for framing tobacco barns, there were numerous opprtunities for variation, and the Cranford-Plumer Barn combines both the routine and the eccentric. The overall order of the barn complies with the usual four-foot room system, for example, but does not uniformly hold to four and eight-foot increments for the structural bays. Rather, the anonymous builder mixed four, eight, and ten foot structural bays according to independent needs. Both gable ends, for example, are divided by two intermediate posts to form a four-foot bay in the center of the gable flanked by a single eight-foot bay on either side. The narrow center bay was ideally suited for a door, and was so used in the north gable. In the south gable, no door was necessary due to the desire for a segregated stable in the adjacent south shed. Nevertheless, the framing mirrored the north gable, providing an equally strong gable frame and offering flexibility in the event a door was required at a later date.

On the facade walls, the logic is less readily evident. From north to south, the walls are divided by intermediate posts into ten, ten, four, eight, and eight foot bays. The narrow four-foot bays near the center of each facade are purposefully used to provide door openings, but they are a notable contrast to the eight-foot openings commonly employed for facade doors. In this case, the primary determinant for the bay system was the builder's desire to place a cross-sill and transverse tension braces across the barn at the midpoint of the longitudinal axis. This divided the barn lengthwise into two twenty foot increments. The facade doors were then placed immediately to the south of this central reinforcing feature, leaving an additional sixteen feet to be divided into two equal eight-foot bays. The north portion of the building did not require doors and was therefore evenly divided into two ten-foot bays.

Once the controlling bay system had been established, the intermediate spaces between the principal posts were divided into two foot increments defined by lightweight studs. The principal posts, reinforced with tension braces at the corners, therefore carried both the weight of the structure itself, and much of the weight of ~~any crop~~ that was hung in the barn to season. The primary role of the studs was to provide the rest of the framework necessary to secure the exterior siding. While a variety of choices were available for siding, the riven clapboards found on this building were a popular material and their standardized four-foot length was well-suited to the four-foot

room system used almost universally in Southern Maryland by the second quarter of the 19th century.

The necessity for uniformity dictated by four-foot rooms also influenced the design of the roof structure and indirectly influenced the choice of roofing materials. To accommodate the tobacco that would be hung in the roof, the rafters also needed to follow a four-foot bay system. The rafter pairs are therefore in line with the tie beams, are four feet center to center, and each rafter pair is joined by three collar pieces. In a normal building of this scale, only one set of collars is necessary structurally, and additional sets of collars would conflict with the desire to use loft areas as living space. In tobacco barns, these extra rows of collars are needed to provide hanging space and to counteract the added pressure the hanging crop places on the roof structure.

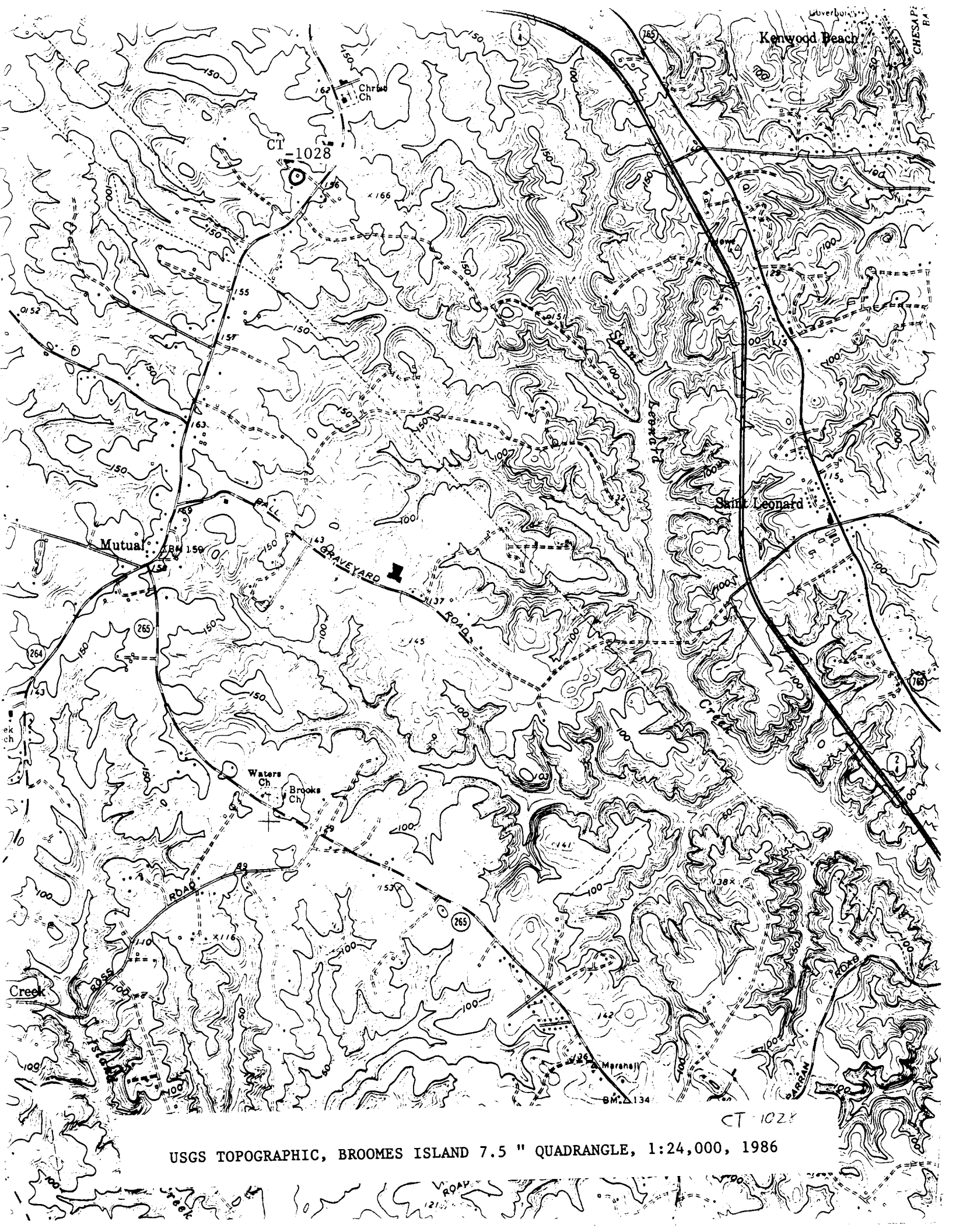
Builders generally had two choices for roof coverings. The same riven clapboards used for siding and sometimes for partition sheathing could also be employed as roofing. Alternately, wood shingles of cedar or cypress were readily available. If shingles were used, the four foot rafter bays were sufficient and light pieces of sawn or riven scantling were nailed down and used as the nailing base for the shingles. Clapboards were more economical to make than shingles but could not span a full four-foot rafter bay. When clapboards were used it was therefore necessary to add intermediate rafter pairs midway between each structural rafter pair. These secondary rafter pairs did not serve as supports for the tobacco but only as nailing supports for the roof clapboards. They therefore lacked multiple collar beams. In the Cranford-Plumer barn, the builder opted for a shingle roof and therefore set the rafter pairs on four-foot centers. The original one-inch by three-inch shingle nailers still survive in place, while the original shingles have long since been replaced.

The original sheds on this barn are built much more simply than the main structure. The walls are constructed with heavey, unfinished cedar posts set directly in the ground, generally on eight-foot centers. The tops of the posts are shaped into tenons and a hewn top plate has been mortised to drop down on the posts; the joints are then secured with wooden pins. In most recorded examples, the sheds are sheathed with vertical exterior siding nailed to horizontal rails that are in turn let into the outside face of each post.

In this case, however, mortises in the underside of the shed top plate indicate that the shed walls were constructed with studs set every two feet between the principal posts. Because the posts are set in the ground rather than on a sill, the studs either had to be seated directly in the ground as well, or were fitted to interrupted sills that ran from post to post. Both versions of this technique were practiced in early Maryland, but few examples have survived as more than documentary or archeological evidence. The principal posts in this case show no evidence of having had interrupted sills. It therefore seems plausible if truly remarkable to propose that these sheds may have had earthfast studs as well as posts. Limited archeological testing is likely to resolve this question and should be considered a priority.

In other respects, the shed construction is quite standard. The early studs deteriorated and were removed, to be replaced with horizontal rails and vertical board siding nailed with wire nails.

Similar construction was used when the north shed was added in the 20th century. Heavy earthfast cedar posts provided the principal support; siding was nailed to light horizontal rails nailed to the exterior surface of the posts. The roof of this shed is also more lightly constructed since the roofing material consists only of sheets of corrugated metal.



USGS TOPOGRAPHIC, BROOMES ISLAND 7.5 " QUADRANGLE, 1:24,000, 1986

CT-1028 Plummer/Crawford A
Fort Republic
Tova L. Williamson
Southwest
February 1990