ARCHEOLOGICAL INVESTIGATION
OF THE EAST AND WEST BARRACKS
AT FORT FREDERICK STATE PARK,
WASHINGTON COUNTY, MARYLAND

PREPARED BY
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ABSTRACT

Under the auspices of the Maryland Department of Natural Resources and in joint effort with other state agencies, the State of Maryland is preparing plans for the partial restoration of 18th Century Fort Frederick. The present archeological investigation, sponsored by the Maryland Bicentennial Commission, was designed to assist architectural and historical research in the investigation, documentation and evaluation of the east and west barrack ruins, the subject of the first rebuilding phase.

Excavation showed that the east barrack reflected authentic 18th Century fort construction. The barrack foundation is both intact and consistent in height and width. Also, all the fireplace footings are H-shaped. In contrast, the west barrack foundation is irregular in height and width, and stone breasts (hearth supports) were added to the H-shaped fireplaces. The difference between the designs of the east and west barrack foundations is attributed to the 1930's Civilian Conservation Corps (CCC) modification of the west barrack's fireplaces and foundation walls were altered by capping to a new standard grade.

The excavation revealed a natural sloping terrain laid beneath the present day landscaped cosmetic raised grade. The new grade was placed in the 1930's by the CCC archeological and restoration projects. Evidence was also found of the 18th Century occupation lenses (strata) and surface grade elevations.

No new information was uncovered from archival, architectural or archeological research, to date, regarding the materials, height, or
appearance of the buildings. A 1778 letter describing the Fort buildings in need of repair does not specify the barracks' construction materials or design.

Recommendations were made for preserving the stone foundations and regrading the west barrack. From 50 to 75 percent of the 1756 stone foundation can be preserved in the barracks' reconstruction. Secondly, a partial restoration of the 18th Century sloping grade can be accomplished by lowering the south portion of the west barrack's present grade. Hopefully, these recommendations, if performed, can contribute toward a more authentic restoration of Fort Frederick.
The major portion of the funding for the present investigation was provided by the Maryland Bicentennial Commission (Department of Economic and Community Development) through the good offices of General C. E. Hutchin, Jr., Director. The Maryland Geological Survey funded two additional weeks of excavation. I am indebted to the Maryland Park Service for providing part of the field crew. Tyler Bastian has been instrumental in providing assistance from the beginning to the conclusion of the study.

Fort Frederick State Park Superintendent, Paul Sprecher, Rangers Jim Rogers and Guy Mullinux and Mary Bishop and Tony Blackburn, members of the Maryland Park Service, were always willing to assist, and to provide the needed field tools and laboratory space in the park.

I owe thanks to Robert Bushnell, Ross Kimmel, Emil Kish, James E. Mallow, and Gerald J. Sword for their cooperation in the field and for sharing with me their knowledge and studies of Fort Frederick.

A special thanks is owed to Joan Hull, Betty Cosans, George Crozier, and Paul Schoenwettier who gave of their free time to assist in the field and countless hours of valuable discussions. The author, as investigator, is indebted to many individual volunteers and members of the field crew whose efforts made the excavation successful: Julie Allison, Norma Baumgartner, David Chapin, Randy Fishbein, Gerry and Harry Graybill, Bill Lynch, Joseph Martin, Steve Mills, Doug Moore, Cedric Poole, Bob Cox, Jeff Crozier, Richard Davis, Charlie Dawson, and Ricky Silberstein.
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INTRODUCTION

Under the auspices of the Maryland Department of Natural Resources (including the Maryland Park Service, the Capital Programs, and the Maryland Geological Survey) and in joint effort with the Maryland Bicentennial Commission, and other state agencies, the State of Maryland has been preparing plans for the reconstruction of the colonial east and west barracks at Fort Frederick (18 WA 20). Architectural research was carried out by Emil Kish, historical research by Ross Kimmel and a program for archeological research was proposed by Tyler Bastian, State Archeologist. In the Spring of 1974, an archeological contract was awarded by the Maryland Bicentennial Commission to the author to investigate, document, and evaluate the east and west barracks sites for architectural information needed for interpretation of the colonial barracks.

The contract developed by Mr. Tyler Bastian and the investigator, involved excavating and evaluating trenches over a period of 4 weeks. However, the trenches in the west barrack area encountered deeper fill than was at first suspected. As a result, the cleaning of the trenches' walls and floors for features required more time than had been anticipated. Additional field work was recommended to clarify further the nature of the barrack foundations and of the Civilian Corps (CCC) restoration work.

The Maryland Geological Survey agreed to fund the excavations for two weeks beyond the original four week contract with the Maryland
Bicentennial Commission. This field work encompassed (1) excavation of the brick and stone features on the parade ground side of both barracks, (2) expose the corners of the 1756 foundations of the west barrack, (3) expand the exploration for porch supports and other ancillary features which may have been adjacent to the barracks and (4) extend one 5 foot wide trench from the west barrack to the west curtain wall.
Preliminary preparation for the field work was handled by Tyler Bastian. A short term excavation was anticipated, since the construction of the east and west barracks was expected to begin within a few weeks. This condition necessitated the investigator's immediate attention to the field excavation, permitting only a cursory review of the research manuscripts and photographs.

The principal manuscripts reviewed were Ross M. Kimmel (1973), Tyler J. Bastian (1970 and 1971), George Schindel (1934), Charles Porter (1936), Washington Reed (1934), and CCC archeological and reconstruction projects. A letter dated January 15, 1778, from Samuel Hughes, a contractor employed by the provincial government in repair work, sheds light on the barrack's appearance (Hughes 1778).

Samuel Hughes' letter tells us that both barracks were 2 stories high, 120 feet in length and 17 feet in width in the clear, with eight fireplaces and four stacks in each story. The letter goes on to say that the barracks..."wants 32 winders and 24 doors plank'd up...and the upper story a little better closed to the roof." The joists which project six feet over the walls on one side are likely a reference to a pitched porch roof on the parade ground side of each barrack.

In the 1930's the CCC objective was the uncovering of the building foundations and their eventual restoration (Porter 1936:4). However, the CCC's method of removing the top soil and stripping a few inches of topsoil failed to yield pertinent architectural and archeological evidence. Unsuccessful in locating the original plans of
Fort Frederick, the CCC decided to limit their restoration to capping the original foundation and raising the ground to a new and attractive grade (The Daily Mail, July 16, 1934). The CCC capped the 1756 stone foundations with cut stone, in order to display the Fort ruins on the new grade (Schindel 1934: 3, Porter 1936: 4, and The Daily Mail, July 16, 1934). Furthermore, we learned that the CCC trenched both barrack areas with a series of criss-crossing trenches, 1 foot wide, 2 feet deep, and 8 feet apart (Schidel 1934: 2). Artifacts were saved, but inadequate records and storage arrangements allowed most of these colonial implements to become lost.

In July 1971, Tyler Bastian dug a single 30 x 5 foot trench across the width of the east barrack (Fig. 1). The test trench disclosed a shallow, disturbed backfill, 9 to 12 inches deep to the exterior of the barrack. Below the top soil, on the parade ground side, a thin brown loam soil lens (stratum) contained a heavy concentration of brick specks and stone rubble. Abutting the exterior foundation walls were trenches 1 1/2 feet deep and 1 foot wide. The interior fill consisted of two clay types. These clay types are a mottled yellow, orange, and brown gravelly clay and a red gravelly clay 9 to 15 inches deep.

Review of the above Fort Frederick manuscripts, maps and on the site examinations raised a number of questions which the present field investigation attempted to explore. How did the CCC excavation and landscaping projects effect the 1756 foundations and former 18th Century occupation lenses (strata)? What ancillary architectural features and structures remain, such as the porch supports (Schindel 1934: 3)? Why are the two similar and contemporaneous barrack foundations different as reconstructed by the CCC? Why are the 1934 and the 1973 topographic


surveys of Fort Frederick contradictory? These questions were raised in order to focus attention on what areas this excavation could add to the general understanding of the barracks.

The excavation began June 24 and continued through August 4th. Three trenches: A, B, and C were opened by hand in the first week, across the width of the west barrack (Fig. 2). Each trench extended 30 feet in length and 5 feet in width, but later were enlarged.

In the second week, a trench was mechanically dug through the north-south axis of each barrack: Backhoe Trench B extending 145 feet through the east barrack and Backhoe Trench A extending 141 feet through the west barrack (Figs. 1 & 2, a-a, a'-a', and d-d). In addition, five more trenches were opened on the parade ground side of the west barrack area (Backhoe Trenches A-8 through 12) and four more in the east barrack (Backhoe Trenches B-8 through 11). Time did not permit the cleaning of Backhoe Trenches A-8, A-10, B-8, B-9, B-10, or B-11. In the field, Backhoe Trenches A & B were identified as Graded Strips A & B.

The remaining five weeks were spent in enlarging, cleaning, mapping, drawing, photographing, and evaluating the trenches and architectural features. The backhoe trenches extended down to the undisturbed beige-tan sandy clay; 10 to 12 inches in the east barrack and 30 to 36 inches in the west barrack and 56 inches in Trenches A-6 and H (Figs. 3 & 4).

Shovels were used to dig Trenches A, B, C, D, E, F, G, and H. The disturbed soils were removed as rapidly as possible. Mechanical equipment (a Case 350 backhoe with a 36-inch wide bucket) was employed to
remove the disturbed lenses in Backhoe Trenches A-1 through 12 and B-1 through 11. Thereafter, the trench floors and walls were carefully checked for interpretive stratigraphy, barrack architecture and evidence of building materials. Mortar, soil, and brick samples were taken and bagged, anticipating their usefulness in future studies. All the artifacts and field notes were deposited with the Maryland Geological Survey with the exception of a 6 lb. iron cannon ball left with Superintendent Sprecher at Fort Frederick State Park.

The writer returned to Fort Frederick during the weekend of October 19th and 20th, to excavate two fireplace footings in the west barrack (Figs. 2, 3, and 4). In addition, a thick cover of moss was found growing on the lower lenses of the opened trenches. This moss is believed to reflect the high organic content of former occupation lenses (strata). The moss was absent in the upper gravelly clay fill.
STRATIGRAPHY

EAST BARRACK

Backhoe Trench B-1 through 7 and Trenches E and F revealed shallow fill soil lenses characterized the whole north-south length of the barrack (Figs. 1 & 3, a-a, a'-a', and c-c). In the exterior Trenches B-1 and 7 the disturbed soil lenses appeared 6, 9, and 12 inches deep, dropping to 18 to 24 inches where trenches were found abutting the barrack foundations. In Backhoe Trench B-7, the present top soil laid directly on the undisturbed mottled yellow, orange, and brown gravelly clay and red gravelly clay fill laid sharply upon a thin black humus lens 12 inches below the present grade (Figs. 3, a-a; Plate Vb). In contrast, this black humus lens blended with the undisturbed beige-tan clay beneath, indicating a prolonged exposure, e.g., a former top soil.

Within the interior of the barrack the disturbed soils were 15 to 18 inches deep and consisted of mottled yellow, orange, and brown gravelly clay and red gravelly clay. Their sharp base demarcation denotes a rapid filling. Our archeological trenches abutting the fireplace footings disclosed modern cement sloppily placed over the entire face of the exposed footings. These sloppy cement slabs are the same 15 to 18 inch depth as are the fill lenses. Artifact recovery in these disturbed lenses, although scattered, did reflect the 18th Century (Table III).

Several previously excavated trenches were uncovered in the exterior Backhoe Trenches B-1 and 7, Trench E, and in Bastian's 1971 trench (Figs.
1, 3, and 4; a-a', a'a', b-b, and c-c; Plate Vb). These 1 foot wide trenches were 10 to 18 inches deep, and filled with a mixed assortment of former top soils, red gravelly clays, and brown loams. These trenches were likely dug by the CCC in an attempt to trace the outline of the barrack foundation. CCC photographs (copies on file in the Maryland Geological Survey, negative #485B and 487A) show comparable CCC exploratory trenches abutting the Officer's barrack. The 1756 builder's trench appears to be either non-existent or obliterated by the 1930's CCC excavation. The only artifacts found in these narrow trenches were a 1940 U.S. penny, an earthenware sherd, 2 square nails, and a glass vial base.

In Trenches E and F, a slightly meandering elongated brick feature was re-exposed having been earlier detected in the 1930's (Reed 1934). This brick feature is 10 feet long and two bricks abreast. The bricks in each row laid end to end and sloped toward each other so that the transverse cross section of the top of the feature forms a broad V. The two rows are 1 1/2 inches apart. Several bricks exhibit early mortar binding. Most, however, are laid in position without a mortar agent. Washington Reed, Jr., architect, inferred that this east barrack brick feature, and its west barrack counter-part (pp. 19 & 20), were brick drains. Built 5 1/2 to 6 1/2 feet out from the barrack, "the drains" were located on the edge of porch roof (Hughes 1778). There is a discrepancy between the December 1934 survey reading of 473.15 and the July 1973 survey elevation of 474.3 for this east barrack brick feature. These two different elevations are unresolved, in as much as these tapered bricks appear to be in their authentic 18th Century position 3 inches below the present grade.
In Backhoe Trench B-4, a 9 x 9 inch post hole was found. Below the disturbed fill the post hole is 11 inches deep and tapers to a 4 inch diameter. The post hole noted in the 1971 test trench was not reopened (Fig. 1; Bastian 1971).
STRATIGRAPHY

WEST BARRACK

Trenches A, B, C, D, and Backhoe Trenches A-1 through 12 revealed a fill 15 to 30 inches deep (Figs. 2, 3, & 4; Plate IVa). On the exterior of the long sides of the barrack, the top soil and underlying yellow, orange, and brown gravelly clay and red gravelly clay lenses cover a brown sandy loam and shale lens. The latter soil lens and the 1756 stone foundation denote contemporaneity, for the lens abuts the stone wall and its high organic content typifies an occupation lens. Scattered cultural refuse was recovered in this brown sandy loam and shale lens (Table III). Beneath the above disturbed and fill soil lenses lies an undisturbed beige-tan sandy clay subsoil.

Inside the barrack foundations, the CCC stripped the soil down to the base of the fireplace stone breasts (hearth supports) (Figs. 3 & 4). Yet the bottom of the fill is 8 to 10 inches above the base of the H-shaped fireplace footings and barrack foundation footings which appear to be submerged in the undisturbed beige-tan sandy clay subsoil.

Trench A measured 30 x 5 feet and was dug across the west barrack and later extended to the west curtain wall (Figs. 2 & 4, e-e). Below the top soil this trench contained 18 to 25 inches of yellow, orange, and brown gravelly clay and red gravelly clay. Also, this clay is generally clean and free of debris. The clay lies sharply upon a brown sandy loam
and shale lens 15 to 18 inches in depth on the parade ground side, and 27 inches on the curtain wall side.

Trench A was extended to the west curtain wall to explore for catwalk posts, latrine trenches, and log retaining wall posts which would have been present if there was an earthen wall 16 to 17 feet thick (Bastian 1970: 4 and Kimmel 1973: 17-18). However, no evidence was found delineating these conjectured features of the Fort. Instead, two CCC trenches were found 1 foot wide, 1 1/2 feet deep, 7 1/2 feet apart and at a depth of 36 to 45 inches (Figs. 2 & 4, e-e). These two trenches are parallel to the curtain wall. Whether these trenches were dug by the CCC or merely cleared of log retaining wall posts was not described in the CCC records.

Photographs taken of the Trench A floor at 36 inches revealed a mottled brown clay loam lens approximately 24 inches square. This thin square lens (possibly made from an impression of an object) overlies a narrow CCC trench but because of their similar backfill soil matrix, contemporaneity is conjectured (Fig. 2).

A third CCC trench extended approximately at a right angle from the west foundation wall to within 3 1/2 feet from the west curtain wall. This 20 foot long trench terminated at a black humus and crushed mortar lens abutting the curtain wall and extending 3 1/2 feet out from the wall. This 8 inch thick lens contained a single post-Civil War period glass bottle base. Also, the top elevation of this lens matches the base of the capped stone of the adjacent west barrack foundation, possibly denoting the pre-1930 ground grade.
A 1 foot wide, 13 inch deep trench was found abutting the barrack foundation west exterior face. No artifacts were found other than brick and mortar specks. It is suspected that, in the 1930's, the CCC trenched the exterior face of the foundation. On the interior side of the barrack foundation the CCC deposited a thick stone and mortar rubble lens abutting both the 1756 wall and 1935 stone capping (Fig. 4, e-e; Plate IVb).

On the parade ground side a thin black humus lens blends with the undisturbed beige-tan clay 21 to 24 inches below the present grade, indicating a prolong exposure and development of a former top soil. This thin black humus lens is absent on the curtain wall side. No artifacts were recovered from this thin lens. On the curtain wall side, a brown sandy loam, shale, and gravel lens 24 to 30 inches thick contained a scattering of 18th Century refuse of earthenware rimsherds, glass bottle sherds, and square nails (Table III).

Trenches A and B exhibit comparable soil strata. There is a general uniformity in Trenches A, B, and C with their thin black humus and brown sandy loam and shale lenses on the parade ground side and a thick brown sandy loam, shale, and gravel lens on the curtain wall side.

Trench B was dug 30 x 5 feet across the west barrack; later extended 6 feet to uncover the south face of a rectangular stone foundation east of the west barrack (Figs. 2 & 4, f-f). A CCC trench runs beneath the stone feature. This trench is below the gravelly clay fill. Also, no relationships or clues to the rectangular stone foundations' 18th Century origin were found. The foundation seems to have been completely rebuilt in the 1930's with modern cement and lying in undisturbed clay subsoil.
Trench C measured 33 1/2 x 5 feet and contained over 100 square nails and bone refuse 6 feet east of the foundation wall. The nails occurred singly and in clusters of 2 to 6. This concentration of square nails and bone refuse, 14 to 17 inches deep in a brown sandy loam, shale, and gravel lens, is not fully understood. No intrusion or dip in the lenses was noted. The CCC may not have disturbed this particular area. On the west curtain wall side a trench within a trench was disclosed abutting the foundation exterior wall (Fig. 4, g-g). The absence of artifact associations complicates its explanation. Possibly the CCC intrusive trench did not abutt the original foundation in this area, leaving a small remnant of the 18th Century builder's trench.

Backhoe Trench A-1 dug south of the barrack measured 11 x 3 feet (Figs. 2 & 3, d-d). Beneath the 7 to 9 inch deep topsoil a 20 to 23 inch deep orange, yellow, and brown clay and a red gravelly clay was found. The sharp base demarcations indicate rapid filling. See (Plate IVa, Fig. 3, d-d, and Table II) for conjectured depth of CCC excavation and subsequent 1930's 25-inch stone capping laid upon the original 17-inch high foundation wall.

A thin black humus lens 1 to 2 inches thick and 36 inches deep contained wine bottle glass, square and wire nails, and a brass strip. Its blending base demarcation with the undisturbed beige-tan clay below denotes an extended period of exposure to the weather. Abutting the south foundation is a thicker black humus lens dipping down 9 inches. Its sharp demarcation and undulating nature indicates a rapid deposition.
Backhoe Trench A-2 dug adjacent to the south foundation measured 8 x 3 feet. Beneath a 6 inch top soil, 9 to 18 inch yellow, orange, and brown gravelly clay and red gravelly clay fills, a stone and mortar rubble lens was found (Figs. 2 & 3, d-d). This rubble lens abuts the CCC capping of the south foundation wall. Lying on the undisturbed beige-tan clay subsoil is a 1 to 2 inch thick deposition (fill). A scaffold hole measuring 2 x 1 inch found at a 36 inch depth is evidence of the 1930's CCC foundation restoration. (See Plate Ib which shows wooden scaffolding in the south end of the west barrack).

Backhoe Trench A-3 measured 19 1/2 x 3 feet. Beneath a 6 inch top soil 23 to 29 inches of yellow, orange, and brown gravelly clay, red gravelly clay, and stone and mortar rubble lenses were found lying upon a black humus lens 1 to 2 inches thick. The latter lens thickened to 6 inches at the north end of the trench. The top soil contained artifacts which were mainly 18th Century, except for a few wire nails and expended cartridge shells (Table III). The black humus lens at the bottom of the trench exhibited sharp edges and contained iron fragments, brick and mortar specks, square nails, a pewter knife handle, brass shoe buckles, queensware, saltglaze, flat glass bottle sherds, and kaolin pipe stem fragments suggesting an 18th Century context.

Backhoe Trench A-4 was dug 20 x 3 feet. The soils between the two fireplace footings exhibit disturbed lenses to a depth of 27 inches. The fill stratification is identical to that of Backhoe Trench A-3. At the base of the trench, two small pockets of black humus were disclosed. Each was filled with brick and mortar specks. The black humus lens tapers
for it is present on the west face of the trench, but absent on the east face (Fig. 3, d-d). Artifacts from the top soil include a 22 cartridge, and wire and square nails. Refuse from the lower black humus lens, 24 to 27 inches beneath the surface, reflects an 18th Century contexts including bone buttons, bone button plaque, earthenware sherds, glass bottle sherds, kaolin pipe stems, and iron fragments.

Backhoe Trench A-5 was dug 20 x 3 feet. Beneath the top soil, a 24 to 33 inch thick disturbed yellow, orange, and brown gravelly clay and a brown clay loam, shale, and gravel were found. This trench lacked the black humus lens and cultural refuse typical of the west barrack interior trench strata. The sharp demarcation of the base of the disturbed fill denotes a rapid deposition.

Backhoe Trench A-6 dug adjacent to the north foundation measured 8 1/2 x 3 feet (Figs. 2, 3, & 4; d-d). Below a 6 inch thick top soil were found a deep lens of yellow, orange, and brown gravelly clay 18 to 23 inches thick, overlying a red gravelly clay and a 30 inch thick gravelly brown, shale, and sandy clay lens. A sharp demarcation of these lenses implies a rapid deposition. Only a single square nail and a bottle glass fragment were retrieved in cleaning the walls of this mechanically dug trench.

Trench H was dug at right angles to the Backhoe Trench A-6 to expose the east and west dimensions of a 56 inch deep excavated feature described below. Trench H contained a 6 to 9 inch top soil and a 22-inch thick yellow, orange, and brown gravelly clay lens lying sharply
upon a 1 foot thick black humus, stone and brick-rubble lens with a concentration of 18th Century refuse (Plate Vb; Table III). This refuse and rubble lens overlaid a one-foot thick compact yellow, tan, sandy clay fill containing scattered refuse.

The excavated feature has a flat floor 8 x 8 feet across which lies on a compacted brownish pale, yellow, and light gray clay in the west half of Trench H. The west half of the feature was destroyed in the digging of the initial backhoe trench. The remaining lenses rise upward to a shallow shelf along the east foundation wall (Fig. 4, h-h). The excavated feature extended down 19 inches below the west foundation wall. The rock rubble in the feature's fill suggests that it is rubble derived from a fallen foundation. One such wall is the adjacent north foundation wall which apparently the CCC completely rebuilt.

Backhoe Trench A-7 was dug north of the barracks and measured 11 1/2 x 3 feet. Beneath the top soil the disturbed lenses extended 18 to 21 inches below today's grade. A 1 1/2 inch thick modern cement slab was uncovered 13 inches below grade. The top of the brown, gravelly lens of shale and sandy loam is uneven and may reflect the CCC stripping. A black humus lens 1 to 3 inches thick lies on the undisturbed beige-tan clay lens. Its blending demarcation denotes an extended exposure.

The flat cement slab might have been a mixing platform used by the CCC. Six feet north of the north foundation wall, a shallow pocket of mottled brown clay loam and beige-tan clay measuring 10 x 12 inches in diameter and 3 inches deep was uncovered at the bottom of the disturbed lenses. The feature's uneven bottom suggests a plant bed.
Backhoe Trench A-9 was dug in two portions, 11 1/2 x 3 feet to the north and 10 1/4 x 3 feet to the south of the brick octagonal raised platform (Fig. 2, i-i). The CCC records indicated that they uncovered a 6 x 6 foot diamond-shaped brick platform (Reed 1934 archaeological plan), but the present structure, which the CCC presumably built, is a 15-inch high cement and stone support capped with a brick octagonal-shaped platform. Extending south from the platform is a 6 1/2 foot long brick feature which lies on a 24-inch high cement support. This extension is comprised of three parallel rows with the bricks in each row laid end to end. The tops of the bricks in the outer two rows slope.

A series of eight 2 x 1 inch scaffold holes were uncovered 24 to 27 inches below the surface where they penetrated the undisturbed beige-tan clay subsoil. The scaffold holes were found in alignment with the octagonal brick and elongated brick feature (Fig. 2) and represent the CCC restoration wooden props for raising the 18th Century stone and brick features.

The west face elevations of Trench A-9 reveal disturbed lenses dipping down 15 to 21 inches on both sides of the octagonal brick platform. The blending of the brick humus soil lenses with the undisturbed beige-tan clay beneath implies that the depressions were there prior to the 1930's, and that the CCC conceivably raised the brick platform without disturbing the adjacent soils. A loose mortar, brick, and rock rubble lens in the southern end of the trench contained a clasp iron knife and a 1723 English halfpenny.
Another trench is indicated by a 1 foot wide x 1 1/2 foot deep lens in the west elevation. Its shallow depth below today's top soil implies a post-CCC date (Fig. 4, i-i). Yet the black humus lens below blends with the undisturbed clay suggesting a former ground grade. Whatever the explanation for this narrow trench, it is difficult to believe that the CCC didn't strip this location.

**Trench D** was dug to obtain a front elevation of the 6 1/2 foot elongated brick feature. The north wall profile shows the raised brick feature mounted on a 24-inch high mortar support. The upper half of which was poured into a wooden mold and the rough lower half poured into an open trench (Fig. 4, j-j). Six feet to the east is a concentration of crushed brick previously noted in the CCC excavation (Reed 1934). These shallow pockets of crushed brick vary from 9 to 14 inches deep. The disturbed soils in the north wall elevation are 15 inches thick.

**Backhoe Trench A-11** measured 10 1/2 x 4 feet, was dug on the parade ground side of the west barrack to check for porch supports. Beneath the top soil and yellow, orange, and brown gravelly clay, a 9 to 15 inch thick mottled beige-tan clay and black humus rubble pocket was found 21 to 35 inches deep (Fig. 4, k-k). The sharp demarcation of this lens implies a rapid deposition. The rubble pocket fill may mark the approximate location of the loose stone cited in the 1934 archaeological plan. Artifacts retrieved from this lens included a saltglaze tea pot lid sherd, delftware sherd, wine bottle sherds, and square nails. A black humus lens in the west half of the south face blends with the mottled soil beneath, complicating interpretation, because the east half shows a sharp demarcation.
Backhoe Trench A-12 was dug in the parade ground area and measured 12 x 4 feet (Figs. 2 & 4, m-m). The red gravelly clay fill demarcation is sharp. Abutting this fill lens is a 36 x 18 x 30 inch deep stone foundation, whose modern cement testifies to its complete re-building in the 1930's. It is thought to be a stair support (Kish 1974: #2 drawing of Fort Frederick barracks). A 30 to 36 inch deep lens lying on the undisturbed beige-tan clay subsoil may be comparable to the lower mottled rubble lens noted in Backhoe Trench A-11. This lens contained only a delft plate rimsherd, and begins 6 feet out from the barracks wall. A post hole 11 x 9 inches in diameter and 3 inches deep was found on the floor of the undisturbed beige-tan clay. The post hole is slightly offset from the barrack's southeast corner.

A thin black humus lens abutts the east wall of the barracks and blends with the undisturbed beige-tan clay beneath. Our partial excavation of the mottled black humus and tan sandy clay rubble lens in Trench A-12 area made its 18, 19, or 20th Century association uncertain. This black humus lens was one of the many lenses covered with the moss (see page 6).
EAST AND WEST BARRACK FOUNDATIONS AND GROUND GRADES

In the 1930's the Civilian Conservation Corps (CCC) uncovered the east and west barrack stone foundations and, as shown by our research, subsequently modified the west barrack foundation. These barrack foundations were only briefly mentioned by CCC investigators (Schindel 1934: 3; Porter 1936: 4-6; The Daily Mail, July 16 and August 14, 1934 and Reed's archaeological plan). Samuel Hughes in his 1778 letter, describes the barracks as being 2 stories high, 120 feet in length and 17 feet in width in the clear, with 4 stacks and 8 fireplaces in each story.

Prior to our excavation, the most apparent differences between the east and west barrack foundations are the shape of the fireplace footings. Those of the east barrack are H-shaped and measure 6-6 1/2 x 8 1/2 feet in planview. The west barrack fireplaces with their stone breasts (hearth supports) measure 9 1/2 x 8 feet (Figs. 1 & 2).

Excavation of 2 west barrack fireplace footings showed that the stone breasts were added in the 1930's and built with modern cement, and are 6 to 8 inches higher at the base than the 1756 H-shaped fireplace footings. Also, the stone breasts are not attached to the latter below the CCC 15 inch deep capping.

Further differences between the east and west barracks CCC modifications include the west barrack uneven thickness of the stone capping varying 15 to 27 inches in height, 21 to 30 inches in irregular width,
and the completely rebuilt north foundation wall (Table II; Plates IVa and IVb). In contrast, the thickness and width of the capping on the east barrack was more uniform.

The difference in construction of the two elongated brick features or drains on the parade ground side of both barracks is not understood. The east barrack feature is ten feet long today with two rows of inward sloping brick which appear to be in situ (Plate VIa), whereas, the brick feature adjacent to the west barrack is 6 1/2 feet long and consists of three bricks abreast with a gentle inward slope and lying on a 24 inch high modern cement support. Betty Cosans (personal communication) suggests that if these brick features were originally drains, they were likely supports to a wooden trough.

The CCC also uncovered a diamond-shaped brick feature on the parade ground side of the west barrack (Reed 1934). Without specifying why, the CCC capped it with an octagonal-shaped brick cover. This brick platform lies on a stone and cement support 15 inches high. Whether the former diamond-shaped platform was originally 15 inches below today's octagonal platform could not be determined; nor could its purpose be established. The CCC stripping destroyed the original stratigraphy.

Two types of mortar were noted throughout the barracks excavation. A soft, earth, sand, and lime matrix was found on the lower foundations and disturbed fill lenses and a modern gray cement was found on the stone capping on the east and west barrack foundations, fireplace footings and ancillary features associated with the capping, landscaping, and modification activities of the 1930's.
The east barrack foundation is less modified, more intact and in keeping with the authentic 18th Century fort construction. The foundations are consistent in widths, 18 to 21 inches vertical (straight walls), and maintain a constant 13 inch height (Table II). The four, 6-6 1/2 x 8 1/2 foot fireplace footings are H-shaped. Also, it is uncertain whether the 1935 seven-inch stone capping on the foundation was merely mended with cement or added at this time.

Reed, in his December 1934 archaeological plan, briefly illustrates a "typical section" of the east barrack, including the 7-inch stone capping. Questions are raised regarding the condition in which the CCC found the east and west barrack foundations. Also, was the east barrack foundation more intact than the west barrack?

An identical construction can be discerned for the west barrack before the CCC modified the foundations. The barrack's contemporaneity is pointed to by (1) the similar dimensions, (2) the 4 H-shaped fireplace footings (measuring 7 x 8 feet in planview), and (3) its vertical wall foundations 12 to 23 inches in height below the capping. Like the east barrack, the base of the west barrack slopes upward 1 foot from south to north. Only the north foundation wall of the west barrack deviates from this pattern, being 2 feet above the south foundation wall (Fig. 3, d-d).

In the north end of the west barrack, a 5 foot deep, excavated feature was exposed and excavated. The feature has a 8 x 8 foot flat floor with vertical walls except for the sloping east wall (Trench H, h-h and
Backhoe Trench 1-6, d-d). The flat floor is 19 inches below the base of the original west foundation wall and 28 inches below the modern cement slab. The floor is a compact brownish pale, yellow, and light gray clay.

The feature's lower lenses contained many loose building stones and late 18th Century refuse. A 1780-1810 deposition date is surmised. Is it plausible that the CCC found no standing north foundation wall because it had collapsed?

At the south end of the west barrack, the 1756 foundation is 17 inches high and 12 inches wide. The 1930's stone capping, above, is 25 inches high and 24 inches wide at the base, tapering to the uniform 17 to 18 inch top width (Fig.3). The capping of the east and west walls of the west barrack vary from 18 to 24 inches in width with the stone capping frequently irregular and not closely aligned with the 1756 vertical walls.

The excavations found a few scattered post holes on the exterior of the barracks (Backhoe Trench A-7, A-12, D, and B-4; Figs. 1 & 2). The scaffold holes were created by the CCC 1930's restoration work (Fig. 2). Evidence of original building material, such as chinking and iron spikes, was not found. However, following the extensive 1930's trenching and stripping, the absence of such evidence in 1974 cannot be a convincing factor in determining the barrack building materials.

Flat glass sherds were minimal, and were concentrated in the excavated feature of Trench H. Square nails were widely scattered throughout the disturbed excavated lenses, except in Trench C, parade ground side, where some 100 nails were found in a brown sandy loam, shale, and gravel
lens, 14 to 17 inch depths, in clusters of 2, 3, 4, 5, or 6. Further evidence that this was an undisturbed 18th Century occupation lens is the artifact clustering of the square nails and bone refuse (Table III).

The present grade surrounding the west barrack was laid in 1935-1937. Re-establishment of the 18th Century grade is problematical because of the extensive trenching and stripping by the CCC. The 1974 trench elevations and CCC photographs attest to the new 1930's cosmetic grade denoting a 18 to 30 inch raised fill. Thus, the west barrack 18th Century grade is conjectured to have been 15 inches lower at the north end, to 30 inches lower at the south end of the barrack (Figs. 3 & 5). In sum the combined evidence supporting this opinion encompasses the depth of the stone capping and fill, the sharp demarcations of the fill lenses denoting rapid deposition, CCC photographs, and the contrasting 1934 and 1973 topographic surveys. The difference in grade is clearly depicted in the CCC photographs showing the early and final stages of CCC alteration activities of the west barrack (Plates Ia, Ib, and II).

Like its foundation, the ground grade of the east barrack appears less modified than that of the west barrack. The exact 18th Century level and grade are not known but they apparently approximate today's grade (Fig. 5). This view is supported by the shallowness of (1) the disturbed soils surrounding the east barrack (Figs. 3 & 4, a-a, b-b, and c-c), (2) the elongated brick feature (Plate VIa) and (3) the cement platform surrounding the well, said to have been built in the early 1930's.

Nevertheless, Fox & Associates' 1973 survey assigned a 15 inch higher elevation to the overall east barrack grade, in contrast to the 1934 survey. The evidence shown in 1974 does not support this higher grade.
Possibly the CCC trenches and stripping activities destroyed the explanation, but for reasons discussed above, the author senses more validity in the east barrack's unmodified grade. The 1934 and 1973 topographic elevations conceivably have a certain degree of error. Also, the 1934 elevations possibly are less accurate following the CCC alterations. Only in the southeast corner of the west barrack do the 1934 and 1973 survey elevations match: the 1934 elevation is 471.2 and the 1973 is 473.3 (Table II). The 2.1 tenths difference is in the stone capping height. In the northeast and northwest corners of the west barrack and all corners of the east barrack, there are differences of more than one foot. The east barrack top elevations are recorded in 1934 as 473.0 and 473.7 and the 1973 elevations are 474.5 and 475.0 respectfully. The height of the CCC capping does not account for these differences.

Further uncertainties are in the height of the two northernmost west barrack fireplaces. The 1934 top elevations are 479.1 and 474.2 and the 1973 both are 473.6. The 479.1 elevation given for the northern fireplace footing is assumed to be an error because early photographs do not reveal relief of such magnitude (Reed 1934). The elevations of the two southern fireplace footings match: 473.1 and 473.5 in 1934 and 473.4 and 473.5 in 1973.

The possibility of an uneven grade along the longitudinal axis of the west barrack is suggested in photographs taken during the CCC excavations (copies on file in the Maryland Geological Survey, negative #482, 484A, 484B, 485A, and Plate 1a). The above photographs suggest that the west barrack fireplaces may have protruded slightly above the pre-1930's ground grade. Excavation of two west barrack fireplace footings (Fig.2)
showed this to be true. The two exposed fireplaces show the original 1756 footings 1 foot higher than the adjacent barrack walls beneath the cosmetic stone capping.

Evidence of occupation lenses around the east barrack have been destroyed, except possibly for the stratigraphy south of the barrack in Backhoe Trench B-1. In the area of the west barrack occupational-like lenses were found to the east and west sides of the barrack. These latter lenses of brown sandy loam, shale, and gravel reveal a scattering of 18th Century refuse (Table III). What is not known is how much of the top of the 18th Century occupation lens did the CCC strip off.

The base elevations of the foundations are our most consistent, intact, and reliable elevations to work with in determining the 18th Century foundation and ground grades. While the east barrack 1756 stone foundation is consistently 13 inches high the west barrack 1756 foundation varies from 7 to 23 inches in height. The foundations of both the east and west barracks slope upward one foot at the base from south to north (Tables 1 & 2).

Today's east and west barrack ground grade obtained from Fox & Associates, Inc. Survey, July 1973

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Elevations of intact bases of 1756 foundations obtained August 1974

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<td>469.9</td>
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A substantial sloping terrain is suggested in studying the uneven CCC fill, stone capping, CCC photographs, and the 1974 archeological trench elevations. The south foundation base of the west barrack is 3 feet lower than the south foundation base of the east barrack 469.9: 472.9 (Table I). Similarly the north foundation base of the west barrack is 2 feet lower than the east barrack north foundation base 471.11: 473.25. Another contemporary French and Indian War frontier fort, Fort Ligonier, located 80 miles to the northwest of Fort Grederick was also built on a slope in hilly terrain (Grimm 1970:7).
RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Results  The project's general objective was to seek information that would help assure the authentic reconstruction and interpretation of the east and west barracks. The June-July 1974 excavation uncovered the 1756 barrack foundations, fireplace footings, and 4 ancillary foundations. Barrack and ground grade elevations were defined along with remnants of the 18th Century occupation lens.

No new information was uncovered from archival, architectural, or archeological collaborated research to date, regarding the building materials (stone, hewn log, planked, or frame), appearance, height, or how roofed. Hughes's 1778 letter describing the fort buildings in need of repair, does not specify the barrack's construction materials or designs. Hughes's, however, does imply plank construction as he writes "...which will be cheaper than laying plank over head..." Also Hughes's description of the barrack's design is limited to describing the barracks as being 2 stories high, with 32 windows, 24 doors, and with 4 stacks of chimneys and 8 fireplaces in each story.

A more complete understanding of the Civilian Conservation Corps (CCC) 1930's excavation and restoration activities was achieved. The CCC was principally interested in locating building foundations. Unable to locate original plans of the Fort and its interior buildings, the CCC decided to limit their restoration to stabilizing, landscaping, and capping the barrack foundations in order to display the buildings' exact locations encourage tourist imagination, and create an attractive fort and state park (The Daily Mail, July 16, and August 14, 1934).
The stone foundations for porch supports, reported by Schindel (1934:3), were not found. Sherds of flat glass were found. The use of this flat glass can be attributed to either window glass, snuff, gin, or Dutch bottles.

The CCC apparently did not recognize the disturbed area in the north end of the west barracks. The 1974 investigation excavated an 18th Century excavated feature or storage area measuring 8 x 8 feet square and 5 feet deep. Its 1780 to 1810 conjectured fill date is based on its 18th Century refuse fill content (Figs. 2 & 4, h-h; Table III).

Conclusions The east barrack seems more in keeping with authentic 18th Century fort construction. This barrack is less modified and more intact than the west barrack. Moreover, the east barrack fireplace footings are all H-shaped and the foundation widths and heights are aligned and consistent (See pages 23-26).

The differences between the east and west barracks are attributed to the CCC restoration and modification activities. In capping the west barrack foundations and fireplace footings, the CCC made modifications in the appearance of the foundation. These changes resulted in off-set and irregular stone capping dimensions, revised fireplace shape and dimensions, a rebuilt north foundation wall, and a new ground grade. The stone breasts (hearth supports) on the north and south face of the west barrack fireplaces were added in the 1930's. Beneath the fireplace capping, the stone breasts are faced with modern cement, and are slightly higher at the base than are the original H-shaped fireplace footings and adjacent original foundation wall. Similar foundation modifications are observed in the stone stair support, rectangular stone platform, elongated brick feature, and the
diamond-shaped platform.

The lenses of raised fill in the area of the west barrack are 15 to 30 inches deep, comparable to the 15 to 27 inch stone capping height. The deepest fill and capping appears at the south end of the west barrack. This raised fill is made up of a clean, little disturbed, mottled yellow, orange, and brown gravelly clay and a red gravelly clay. Shallow remnants of the 18th Century occupation lens remain beneath the fill lenses in the parade ground and curtain wall sides of the west barrack. Further support of the above 18th Century occupational lens is the presence of scattered 18th Century refuse and green moss. The latter commonly grows upon organic materials associated with former occupational or refuse lenses (See page 6).

This thin black humus occupational lens lying on the beige-tan undisturbed clay is found only on the parade ground side of the west barrack. The same black humus is found in the west barrack north and south trenches but is less defined. It is absent on the curtain wall side in the archeological trenches.

The only trench south of the west barrack Backhoe Trench A-1, exposed a thick black humus lens lying on the beige-tan undisturbed clay subsoil. Its cultural association is uncertain. Possibly this thick black humus lenses was disturbed or deposited in the 1930's.

This author also concludes that there is more uniformity between the original east and west barrack foundations in size, design, and alignment, than the CCC modifications portray. The work of the CCC has obsured these similarities.
Recommendations  In the forthcoming reconstruction of the east and west barracks, it is my viewpoint that the new barrack buildings should retain as much of the 1756 foundation as is feasible. Thus, I recommend that 50 to 75 percent of the 1756 barrack foundations be preserved. If for budgetary reasons these preserved foundations cannot be prepared for display at the present time, they can be covered and exposed for display at a later date.

A partial restoration of the 18th Century natural sloping grade is suggested. In lowering the south end of the west barrack by 20 inches the effect would create the natural and original terrain setting of the barracks (Fig. 5) (Robert Bushnell and Emil Kish, personal Communication). I do not advise removing all 30 inches of the 1930's cosmetic raised fill. Instead, it would be wise to leave a 6 inch cushion at the base of the CCC fill. This would prevent further destruction of the archeological evidence and insure maximum recovery of information from future archeological investigations. It is also advisable to restrict the regrading to the immediate area of the west barrack. Along with regrading, a drainage system should be installed in the southwest portion of the Fort.

Still unresolved are the elevations of the west barrack fireplace footings: south to north, 473.1, 473.6, 473.3, and 479.1 feet noted in Reed's 1934 archaeological plan. Excavation showed that the 1756 fireplace footings are one-foot higher than the adjacent barrack foundations (See page 26.) Several CCC photographs taken before the foundation was capped also suggest these higher fireplace elevations (copies on file in Maryland
Geological Survey, negative N 482, 484A, and 484B. Another photograph (xerox copy just received) is in George Schindel's 1934 report; page 2 top paragraph, which caption reads, "subgrading and construction of the east barrack." Modern prints of these 1934-1937 black and white negatives possibly would give a clearer historical documentation, on the CCC modifications and new clues to the architecture, fireplace, and barrack elevations. However, these CCC negatives have yet to be found.
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29th, 1974.
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1. Foundation corner readings (taken from barrack 1934 and 1973 topographic surveys and archaeological plans).

2. Center of foundation wall readings (taken from 1974 trenches).

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### Top Elevation

- STA 1974.3
- TO 1974.5
- cnct 1974.2
- END 1974.0

### Local Elevation

- Top 1974.3
- Bottom 1974.0

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**Note:** Elevations are obtained from various surveys and measurements taken at different times.

**Sources:**
- Top Elevation obtained during landscaping and new grade in 1937.
- Bottom Elevation obtained during landscaping and new grade in 1937.
- Combined elevation obtained during landscaping and new grade in 1937.
- Stone capping height obtained during landscaping and new grade in 1937.
- Stone foundation height obtained during landscaping and new grade in 1937.
- Stone foundation height obtained during landscaping and new grade in 1937.
- Stone foundation height obtained during landscaping and new grade in 1937.
ARCHEOLOGICAL DATA UNCOVERED DURING
THE EXCAVATION OF THE ELECTRICAL LINE AND PORCH TRENCHES
IN PREPARATION FOR RECONSTRUCTION OF THE EAST AND WEST BARRACKS
FORT FREDERICK STATE PARK, MARYLAND
(18WA20)

PREPARED BY
Stephen Israel, M.A.

Sponsored by
the Maryland Department of Natural Resources
(under agreement dated, 23 April 1975)

January 1976

Western Maryland Regional Preservation Center
Department of History
Frostburg State College
Frostburg, Maryland 21532
ABSTRACT

Trenching for the electrical line at Fort Frederick revealed evidence of masonry building rubble outside the Fort to the west of the curtain wall. Inside the Fort, a 20th Century red gravelly clay fill was found overlying a brown humus occupational lens. An abrupt end of the above brown humus occupational lens, 82 feet east of the curtain wall, remains unexplained. Excepting a rectangular lens located east of the brown humus occupational lens, all the intrusive features found were by their nature associated with 20th Century activity at Fort Frederick.

No new fortification features were found near the west curtain wall during the excavations of the electrical line trench. However, the absence of 18th Century Fort construction is not conclusive, since the evidence is from the 1975 narrow and shallow construction trenches. Further exploration using archeological field techniques is recommended to confirm and verify the tentative conclusion reached from examining the narrow and shallow construction trenches.

The destruction of the 10 foot long brick feature west of the east barrack during the reconstruction has a lesson to be learned for future historic-site-restoration projects: either complete the excavation first or contractor must protect the ground.
ACKNOWLEDGEMENTS

The second, as well as the first, archeological phase undertaken during the restoration project was funded by the Maryland Department of Natural Resources through the offices of Mr. Robert R. Bushnell. Mr. Tyler J. Bastian of the Division of Archeology (Maryland Geological Survey) assisted in arranging the investigation. I am also indebted to Mr. Bastian for his careful reading of the manuscript. Mr. James E. Mallow, Supervisor of Interpretive Services for the Maryland Park Service, and Mr. Paul Sprecher, Fort Frederick State Park Superintendent, are to be thanked for their cooperation and assistance during the excavations. My contacts with Mr. Ross M. Kimmel, Maryland Park Service Historian, and Mr. Emil J. Kish, Architect, have been particularly helpful to me in interpreting the historical and archeological findings. Mr. Wayne Moore, Site Foreman, of the Floyd L. Culler, Inc., Construction Company, generously cooperated with the investigator in retrieving and recording the archeological data during the excavations.
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3. East-West cross section sketch of the exterior electrical line trench showing concentrations of granite, occupational, and CCC (Civilian Conservation Corps) fill stratigraphy (lenses) west of the west curtain wall

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INTRODUCTION

Under the auspices of the Maryland Department of Natural Resources, including the Maryland Park Service, Capital Programs, and the Maryland Geological Survey, the State of Maryland has funded the reconstruction of the east and west barracks at Fort Frederick State Park. Arrangements were made with the building contractor, Floyd L. Culler, Inc., of Frederick, Maryland, to have an archeologist on the site to observe, record, and recover all significant archeological and architectural data encountered during the excavation of the footer trenches for the reconstructed barracks, installation of underground utilities, and the restoration of the 1756 ground grade around the west barrack.

Phase I, excavation of the footer trenches for the barracks, was completed in March 1975 (Israel 1975b) and Phase II, excavation of the electrical line and porch footer trenches, was completed in August 1975. This report concerns Phase II.

The photographs taken at Fort Frederick during the August 1975 excavation are on file in the Maryland Geological Survey, Division of Archeology.
PROCEDURES AND RESULTS

The excavation of the electrical line and east and west barrack porch footer trenches was undertaken August 12 and 13, 1975. The electrical line trench was mechanically dug with a Ditch Witch (model R 40) using an 8 inch wide trencher. An attached 8 inch wide front end bucket was used to remove numerous large granite stones found in two locales outside the Fort (see Figure 3). The length of the electrical line trench was 300 feet, of which 200 feet extended across the interior of the Fort (see Figure 2).

On account of the narrowness of the trench only sketches were made of the trench profile utilizing metal tapes and topographical data from Kish 1974 (Restoration and Development Drawings: see Figures 3 and 4). Another complication was that the Ditch Witch left a thin film of soil upon the trench walls obscuring the stratigraphic detail; thus it was necessary to trowel the trench wall for lens clarity.

On the second and final day, two 114 foot long and 6 foot wide porch trenches were mechanically dug with a Case 850 Backhoe on the parade ground side of the east and west barrack (see Figure 2).
Outside the Fort

A 100 foot long trench was mechanically dug from the west curtain wall out toward the Park parking lot (see Figure 1). The 8 inch wide trench was dug to a depth of 30 to 36 inches. The location of the trench begins 20 feet south of the NW bastion and curtain wall juncture and ends at a point 122 1/2 feet southwest from the northwest apex of the NW bastion.

The first 3 feet abutting the curtain wall was dug in March 1975, in order to install a gray plastic pipe for the temporary electrical line which ran beneath the west curtain wall, 32 inches below the surface grade. Also, abutting the curtain wall is a 32 inch deep and 36 inch wide trench where a 2 inch diameter iron water pipe runs parallel to the curtain wall 30 inches below ground grade.

Next to the Fort curtain wall the topsoil varies from 9 to 14 inches in thickness and thins to a 6 inch thickness from 40 feet out to the 100 foot mark. Subsequent settling of the 1930s CCC pipe-trench fill lowered a thin black humus topsoil lens apparently deposited here in the 1930s. West of this thin black humus lens, 8 feet from the curtain wall, the brown topsoil lies directly on the beige-tan subsoil below.

Two distinct but loose granite rubble lenses, 6 inches thick, were found 12 to 18 inches below the ground grade. These rock rubble lenses are located from 10 to 39 feet and
67 and 71 feet west of the curtain wall (see Figure 3). An orange color stain streaked across the trench north profile below the rock rubble and the thin black humus lens.

A second 2 inch diameter iron water pipe was uncovered 73 1/2 feet west of the curtain wall and buried 23 inches deep in a 1 foot wide trench (see Figure 3).

A loose and disturbed lens or pocket was found on the north face 52 to 55 feet west of the wall. This loose tan sandy fill soil did not appear on the south face of the trench. Artifacts from this lens included: 1 heavy and flat iron mid-section (plow blade?), 1 twisted iron rod (20th Century?), 2 iron fragments (iron rods?), 1 clear glass sherd, and 1 bone fragment.

Ninety-eight feet out from the curtain wall a twisted iron rod was found, broken in two by the Ditch Witch and buried 20 inches deep (see Figure 3). The iron rod lay on the bottom of a 20 inch deep trench. The western side of the intrusive 20th Century trench was not delineated.
Inside the Fort

A 200 foot long curved trench (curved in order to go around the Officers' Quarters) was mechanically dug. The electrical line trench passes 7 feet to the north of the west barrack, passing to within 3 feet of the Officers' Quarters central bay, and abuts the east barrack 3 feet south of the northwest corner (see Figures 1 and 2). Similar to the outside electrical line trench, the interior Fort trench was 8 inches wide and between 30 and 36 inches deep. This narrow trench passed through the 1974 Backhoe Trench A-7 (Israel 1975a: Figure 1).

No artifacts or new Fort features were found in the trench nor in the loose backfill brought up by the Ditch Witch. However, a distinct change in the color of the soil occurs between 80 and 84 feet east of the west curtain wall. At this locale the brown humus occupational and red clay fill lenses thin out and terminate (see Figure 4). East of this point, the loose backfill on the ground surface is a light beige-tan reflecting the color of the subsoil clay found immediately below the 8 inch thick topsoil.

A 6 foot deep trench was mechanically dug in March 1975, abutting the curtain wall, in order to install a gray plastic pipe for a temporary electrical line (see page 3). The bottom 2 feet of this trench contained a mottled brown humus fill. No builder's trench was discerned abutting the
west curtain wall. Might the mottled brown humus lens be the backfill of the 1930s CCC curtain wall exploratory trenches?

Abutting the west curtain wall above the mottled brown humus lens is a thick red gravelly clay lens. The lens is 40 inches deep and extends 4 feet below the ground surface next to the curtain wall. It slopes up to the east so that at 4 feet east of the wall it is 20 inches thick and 27 inches deep below today's ground surface grade. This red clay lens extends 53 feet to the east, thinning out east of the 1974 Backhoe Trench A-7 to a 17 inch thickness. A brown humus occupational lens appears 25 feet east of the curtain wall below the thinning red clay fill lens and it extends eastward 52 feet where it ends. Abutting the edge of this brown humus lens is a 30 inch long and 12 inch deep rectangular-like lens. This latter lens was not investigated, although its composition was mottled and similar to the brown humus fill in the adjacent lens described above.

The beige-tan subsoil clay is first observed at the base of the electrical line trench, east of the west barrack, and remains at the base of the trench to where the overlying brown humus occupational lens thins out 75 feet east of the barrack. At this location the beige-tan subsoil clay thickens. From here to the east barrack, an 8 inch thick black topsoil displays a distinct contrast with the beige-tan
subsoil clay immediately below.

Two narrow 1 foot wide and 1 1/2 foot deep lenses appear on the north profile wall one at 91-92 feet and another at 182-183 feet east of the west curtain wall (see Figure 4, and Schindel 1934: 2, and Israel 1975b: 9). These narrow trenches were marked by mottled beige-tan clay fill. On the south profile, abutting the east barricade, a 9 1/2 foot long mottled fill 16 inches thick was exposed. The latter was the fill of the 1974 Backhoe Trench B-8.
East and West Barrack Porch Trenches

It took two hours to dig a 114 foot long by 6 foot wide trench on the parade ground side of the west barrack. The southern tip of the porch area was not excavated, for the stairway foundation was to be erected on the present ground level. The porch trench was dug 18 to 20 inches deep with a Case 850 Backhoe and was later leveled out with a New Holland L-35 light lifter bucket. The 18 to 20 inch deep trench exposed the red clay fill and the brown humus occupational lenses. The beige-tan subsoil clay below was not exposed. Beyond looking for Fort features and the stratigraphic picture, no attempt was made to draw the 114 foot long vertical but irregular profile. No narrow intrusive trenches attributable to the CCC were recognized in the 114 foot long profile (see Schindel 1934: 2).

The thick red gravelly clay fill exposed in the 1974 west barrack excavation thins out and terminates 26 feet south of the barrack's north wall (Israel 1975a: 30 and 1975b: 9). At this point a 1 foot thick mottled brown humus occupational lens starts and extends northward. This same brown humus lens is also exposed in the narrow electrical line trench where it curves south of the Officers' Quarters and extends 41 feet east of the west barrack to the 80 to 82 foot mark (see Figure 4).

No new Fort features were found. The scattered artifacts found in the loose backfill include: 1 wine bottle base
sherd, 1 plain delftware bodysherd, and 1 brown earthenware bodysherd. Three whole bricks were found in the loose backfill in the vicinity of the diamond/octagonal brick feature (Reed 1934, Kimmel 1973: 44, and Israel 1975b: 10 and Figure 4).

The east barrack porch trench was also dug 114 feet long by 6 feet wide and dug to a depth of 16 inches. The east barrack porch trench extends through an 8 inch black topsoil lens and 8 to 10 inches into the beige-tan subsoil clay below. No new features were found. Artifacts found in the loose backfill include: 1 black earthenware bodysherd and 1 cobalt decorated gray stoneware bodysherd.

Destroyed was the 10 foot long feature, of two abreast bricks, found immediately below the ground surface 6 feet west of the east barrack (Reed 1934 and Israel 1975a: 8). The current construction project has disturbed and tossed the ground around in the locale of this brick feature. Also, no narrow CCC trenches were observed.

Several 20th Century archeological exploratory trenches were re-exposed in the east barrack porch trench, including Bastian's 1971 and Israel's 1975 (Backhoe Trenches B-8, 9, 10, and 11) and the 1975 electrical line trench (see Figure 2; and Bastian 1971 and Israel 1975a: Figure 1). As in the case of the west barrack porch trench, no attempt was made to draw the 114 foot long profile, beyond checking for Fort and stratigraphic features.
SUMMARY

This report is a summary of the archeological findings resulting from the electrical line trench excavations for the reconstruction of the east and west barracks at Fort Frederick State Park. These excavations were executed August 12 and 13, 1975.

No new fortification features were exposed in the electrical line trench excavation. Two concentrations of loose granite rock were uncovered 10 to 39 feet and 67 to 71 feet west of the curtain wall (see Figure 3). Their presence may represent either the 1756 soldiers' original building effort or CCC (Civilian Conservation Corps) 1930s reconstruction residue.

Stratigraphically, a sharp slope was exposed at the beginning of the brown humus lens 82 feet east of the west curtain wall within the Fort. Whether this slope was a natural terrace dating to the pre-1756 era is uncertain at this time in the investigation.

Additional profiles were obtained of the red gravelly clay fill which was believed to have been deposited in the 1930s by the CCC (Israel 1975a: 30). In matching the interior and exterior Fort elevations, this author realized a one foot error in the Fox & Associates, Inc., 1973 topographic map. Noting the depths of the 1975 installed gray plastic pipe beneath the interior and exterior sides of the
west curtain wall (Israel 1975b: 2), the interior ground grade of the Fort was found to be 474 feet in elevation and the exterior ground grade abutting the west curtain wall to be 471.4 feet and not 470 feet in elevation as indicated by Fox & Associates topographic map (see Figures 3 and 4 for matching corrected computations).

The destruction of the 10 foot long brick feature west of the east barrack should be avoided in future historic site reconstruction projects.

A number of 20th Century intrusive features were encountered; but it is the author's opinion that the 8 inch wide trench provided little conclusive proof regarding the soil stratigraphy critical to identification of the 18th Century Fort construction. Important stratigraphy made faint by time could have gone unnoticed in these shallow and narrow construction trenches. Archeological observation was further hampered by the thin film of soil deposited by the Ditch Witch on the sides of the trenches.

Further investigation of Strandberg's (1974) aerial photo finds and Israel (1975b: 11) photographs is urged, in order, to study the grass color anomalies found along the curtain and bastion walls exterior faces.

The 30 to 36 inch deep construction trenches revealed no recognized evidence of 18th Century Fort construction nor in the conjectured ditch area west of the west curtain wall or of a thick earthen parapet (retaining wall
and logs) east of the standing stone curtain. However, larger exploratory trenches utilizing archeological field techniques are recommended to verify the above tentative conclusions drawn from the electrical line construction trenches. A thorough and confirming archeological investigation of typical sections that would reveal ditches or other features associated with the curtain walls at Fort Frederick could be accomplished within a week's time.
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Planview of Fort Frederick & Park Grounds showing location of the (1) electrical line and (2) porch footer trenches dug August 1975. Base map from American Legion Pamphlet, Western Maryland, Area "A" District, sketch of Fort Frederick on back cover, 1960.
Surviving and Restored Features at Fort Frederick

Based on the 1934 Archeological Plan of the Fort.

1. Scarp Wall, stone, partially restored.
2. Foundations, officers' quarters and storeroom, capped to grade.
3. Foundations, enlisted barracks, capped.
4. Well, stone, restored.
5. Thin layer decayed wood.
6. Shale over decayed wood.
7. Foundation for butcher's block, brick, restored.
8. Debris brick.
9. Foundation for fireplace, inferred to be a bake oven, stone, capped.
10. Single course brick paving loose stone.
11. Footings, stone, capped.

FIGURE 2
Planview sketch of Fort Frederick showing the Restored 18th Century Features and electrical line and porch footer trenches dug August 1975.
Base map from Kimmel 1973: 44.
FIGURE 3

FORT FREDERICK

East-West Cross Section Sketch of the exterior electrical line trench (west of curtain wall) showing concentrations of loose granite, occupational, and 1930s CCC (Civilian Conservation Corps) intrusive trenches.

North Profile Sketch of 8 inch wide trench drawn August 12, 1975, site 18WA20

Topographical Data taken from Kish 1974, Restoration and Development Drawings

1" = 5' Scale
1930's CCC excavations and renovations apparently obliterated the 1755 construction trench.

- Loose granite deposit
- Beige-tan clay subsoil
- Brown topsoil
- Thin black humus lens
- Mottled trench fill
- 2 in. diameter iron water pipe
- 1975 installed gray plastic pipe

Trench fill
- Trench fill
- Beige-tan clay subsoil
- Twisted iron rod
- Pocket of loose soil, iron, and bone artifacts
- Bottom of excavation
FIGURE 4
FORT FREDERICK

East-West Cross Section Sketch of the interior electrical line trench (west curtain wall to the east barrack) showing occupational, 1930s CCC red clay fill stratigraphy, and 20th Century intrusive archeological trenches.

North Profile Sketch of 8 inch wide trench drawn August 12, 1975, site 18WA20

Topographical Data taken from Kish 1974, Restoration and Development Drawings

1" = 5' Scale
1975 construction trench

red gravelly clay fill

brown topsoil

splotte brown humus trench fill

this brown lens may represent bottom of beige-tan lens

a CCC exploratory trench fill excavation clay subsoil

1975 construction trench not found nor in the 1974 investigations (Israel 1975a: 11; Figure 4, Trench A)

gray plastic pipe

1975 installed

brown topsoil

brown humus occupation lens

rectangular trench

east barrack

northwest corner of east barrack

beige-tan clay subsoil

beige-tan clay subsoil

brown topsoil

beige-tan clay subsoil

brown topsoil

beige-tan clay subsoil

beige-tan clay subsoil

narrow trench