Preliminary Archeological Investigations at Fort Dorchester (38DR4)

Richard F. Carrillo
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PRELIMINARY ARCHEOLOGICAL INVESTIGATIONS AT
FORT DORCHESTER (38DR4)

by

Richard F. Carrillo
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Prepared by the
INSTITUTE OF ARCHEOLOGY AND ANTHROPOLOGY
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INTRODUCTION

The town of Dorchester, established in 1696 by Massachusetts Congregationalists and named after its namesake in Massachusetts, is one of the earliest established settlements in the state of South Carolina. At the period of the Revolutionary War it was the third largest settlement in the state, but as a result of the war, was reduced to ruins (Walker 1941: 55). The land encompassing the original town limits was acquired by the State, thereby, preserving from destruction the remaining architectural remains by the establishment of Dorchester State Park.

The State Park includes the ruins of the town, the standing church tower and the ruins of a tabby fortification known as Fort Dorchester. The Department of Parks, Recreation and Tourism plans research and excavation for the entire site over a period of years. The first season of this research was accomplished in 1972 and several additional seasons are planned. The present report details the excavations and study conducted in 1972. This study concentrated on the tabby structure of Fort Dorchester. The tabby structure was selected for the initial study primarily due to its significance to the Revolutionary War Bicentennial.

Since plans for the structure included possible reconstruction and interpretation of certain architectural features, any plans for development would have to be based upon historic accuracy and authenticity. This could be accomplished only through the most complete combination of archeological and documentary research. Such research was deemed essential at the initiation of development in order to avoid false
starts and thereby necessitating reinterpretation after the development was underway.

As a result, an agreement was entered into between the Institute of Archeology and Anthropology, University of South Carolina and the Department of Parks, Recreation and Tourism on April 10, 1972 for an initial season of archeological research at Dorchester State Park. The agreement stipulated that the Institute would conduct certain archeological and historical research with regard to Fort Dorchester.

Prior to initiating the archeological research, an analysis of available data was made to gain as much knowledge, as possible, relevant to the archeology.

The archeological research was conducted from April 3 to May 21, 1972, with the assistance of John Jameson, Crew Chief, and individuals from the Summerville and Charleston area. Four students from two colleges; Baptist College in Charleston, and Wilmington College in Wilmington, Ohio also participated in the excavation.

The time from June 1 to January 31 was spent at the Institute of Archeology and Anthropology, with the assistance of Institute staff members and Patti Smith, Historical Researcher for the Department of Parks, Recreation and Tourism, devoting considerable time to detailed documentary research in Columbia and Charleston. This period was simultaneously occupied with the incorporation of presently conducted documentary research to the first phase of the exploratory archeological research and culminating in the preparation of this report.

The essential elements outlined in the research proposal were achieved. The exploratory excavations revealed evidence of architectural features heretofore unknown. A considerable quantity of artifacts
were recovered which, temporally, are representative of the mid-eighteenth century and continuing up into the late eighteenth century. The sub-surface architectural features are discussed in detail in the body of this report. A detailed analysis of the artifactual material recovered at Fort Dorchester is presently being prepared to be distributed under separate cover.

A plan (Fig. 1) of the area of archeological research is contained in an envelope in the back cover of this report which shows the relationships between the archeologically derived exterior and interior features, and their positioning with regard to the tabby fort.
ACKNOWLEDGEMENTS

The staff members of the Department of Parks, Recreation and Tourism through the efforts of Janson Cox, Chief Historian, are to be highly commended for their insight and awareness into the importance of archeological research which is a primary essential for assuring a proper interpretation of historic sites.

Dr. Robert L. Stephenson, Director of the Institute of Archeology and Anthropology, University of South Carolina who was responsible for overall supervision and administration of the project; John D. Combes, Assistant Director; Stanley South, Staff Archeologist; Leland G. Ferguson, Staff Archeologist; Richard Polhemus, Laboratory Supervisor; Gordon Brown, Photographer; Susan Thomas and James M. Frierson, Illustrators; Susan Coynor, Myra Smith and Joni Rader, Typists; and the rest of the Institute staff are acknowledged and thanked for their efforts, and especially for providing the technical assistance vital to the completion of this report.

I wish to extend my special thanks to the following individuals for their participation and work performed during the course of the excavation: John Jameson, Crew Chief, and the individuals from the Summerville and Charleston area; William C. Smith, Willard B. and Joyner B. Hoffmire, Phyllis J. Pringle, Emily Tannenbaum; and Catherine Rubenstein and Leroy Humpheries, students at Baptist College at Charleston; also to two students from Wilmington College in Ohio, William L. Jackson and Dana G. Dunsieth, who were able to participate in the excavation through an off-campus field term offered by Wilmington College.
The historical research relating to Fort Dorchester is presently undergoing an extensive study in a joint effort by the Department of Parks, Recreation and Tourism and the Institute of Archeology and Anthropology. The documentation presently available was utilized in the interpretation of the eighteenth century structure, but for the purpose of this report need not be detailed here as it will appear in a larger report of future work conducted on the site. For the present purposes, a capsuled historical description of the entire site of Dorchester, as well as data primarily concerned with the archeological aspect relating to architectural detail, is presented here.

Considerable research has been done concerning the overall historical events that occurred at or around the vicinity of the town of Dorchester (Walker 1941). The initial phase of a planned long-term program is being concentrated upon a proper interpretation, both historically and architecturally, of the tabby-constructed structure known as Fort Dorchester. A certain amount of controversy has been elicited over this structure through the years mainly focused on the date of construction. By use of archeology as an essential supplement to documentary sources, an attempt has been made to clarify some of the controversial aspects, as well as encompassing other essential criteria relevant to this structure, in this initial study.

In 1696 a grant of 1,800 acres was obtained by a colony of Congregationalists from Dorchester, Massachusetts. This same acreage had previously been granted to a John Smith in 1676, but Smith died in 1682 and, apparently having left no heirs, the land appears to have sub-
sequently fallen back into the trust of the colonial government. A portion of the acreage included in the grant consisted of a peninsula of high land located between the Ashley River and a creek referred to by the name of Boo-shoo-ee (now Dorchester Creek). It was on this peninsula that the Massachusetts colonists chose the site for the location of the town of Dorchester (Walker 1941: 50).

Although very little is known regarding the history of the early years of Dorchester except that the surrounding land was continually being settled and Dorchester, located at the navigable head of the Ashley River, became a locus for trade and distribution (Walker 1941: 51).

In 1719, Dorchester became a part of St. George's Parish, after a division of parishes had been effected. A church was also directed to be built at this time in the town. By this time the parish had 115 families totaling 500 persons and 1,300 slaves. As the population in the village expanded, roads and bridges were constructed. In 1723, an Act was passed establishing a fair and markets in the town. A subsequent Act was passed in 1734 for the founding and erecting of a free school (Walker 1941: 53).

Between the years 1752-56 conditions of overcrowding at Dorchester and the vicinity effected a mass exodus to Georgia by members of the Congregationalist Church. In spite of this, Dorchester continued to serve as a place of trade and distribution of supplies for the number of families in the surrounding countryside.

As the period of the exodus of the descendants of the initial founders of Dorchester came to a close in 1756, it also marked the culmination of hostilities in both Europe and North America resulting from disputes over territorial boundaries on the American continent. The
French and Indian War wrought considerable turbulence and anxiety in South Carolina as well as in the entire southeastern region of the provinces. Although the war was primarily waged in the northeastern sections of the provinces and in Canada, at the onset of the war, considerable preparations were being made in South Carolina to develop fortifications and additions to existing coastal defenseworks at Port Royal, Winyaw, Fort Johnson and Dorchester (Journal 1755-1770).

The French did make attempts at inciting the Cherokees in the backcountry to make war against the province. The resulting effects were limited to local incidents and the South Carolina frontier never resulted in becoming a factor of importance in the war (Meriwether 1940: 211).

Although the realities of the French and Indian War never attained a solid foothold in the southern provinces, the effects were considerably felt. There was considerable anxiety in South Carolina that the French were going to launch an attack upon the coastal areas of South Carolina through Charleston harbor. A committee was formed comprising the Commissioners of Fortification in 1755 to supervise the construction of defenses primarily along the coast, and in 1756 the construction of defenseworks was fully effected (Journal 1755-1770).

The prevailing tense atmosphere resulted in a direct effect on the village of Dorchester. On February 24, 1757 a letter from the Governor to the Commissioners of Fortifications read:

Gentlemen:

I do hereby authorize & direct you to proceed forthwith to take the necessary measures to construct a Powder Magazine in the Village of Dorchester to be properly Inclosed & Strengthened the [illegible] To secure it against an Enemy and to that end you are
to cause Plans to be prepared with an Estimate of
the Expence which may attend the Execution of the
same to be laid before me. I am.

Gentlemen
Your most humble Serv·

WILL· Henry Lyttelton (Journal 1755-70)

There is mention of some architectural details regarding the
magazine and wall. At the Commissioner's meeting of July 12, 1757 one
account reads as follows:

...agreed that the Magazine to be Build at Dorchester
be made 22 by 18 feet in the Clear... (Journal 1755-70).

At the January 26th, 1758 meeting it was agreed:

...that the Wall round the Magazine in Dorchester
be Eight feet to the top (from the level [illegible]
the highest part of the ground) on the outside...
(Journal 1755-70).

On August 7, 1768 in a letter written by Governor Lyttelton to the
Board of Trade and Plantations in London he indicated that he was sending
a set of plans, among which were included those of the magazine at
Dorchester. The ship never reached London as it was purported to have
been captured by the French. No record has been found indicating the
existence of the plans in France (Salley 1935: 60).

The construction of the magazine and wall at Dorchester continued
up until May 8, 1760 after which work progress appears to have ceased
as the last mention in the Journal concludes with the following account:

...The Commissioners agreed to apply the balance of the
fund for building a magazine in Dorchester to the use of
Fortifications [in Charleston] as that work has exceeded
the money in the said fund and thereupon passed an order
on the Treasurer for the same... (Journal 1755-70).

One apparent cause of ceasing construction at Dorchester may be attri-
buted to the decline of the anxieties which had initially plagued the
southern provinces.

-8-
Although there are numerous accounts in the Journal concerned with monetary expenditures, work force, material, and other related logistical aspects of the construction, the above mentioned accounts are the only ones which directly pertain to specific architectural detail.

The following reference to Fort Dorchester occurred on June 1, 1768 in the will of John Skene in which he bequeathed:

...to the Commissioners of the Fortifications all my great guns for the use of the Magazine and Fort at Dorchester reserving to the officers (for the time being) of the St. George troops the liberty of using them on any publick Day, especially on his Majesties Birthday, and the 23rd of April... (Will 1767-71).

Seven years later, at the onset of the Revolutionary War, the First Council of Safety for the Province South Carolina was formed on June 16, 1775 by the Provincial Congress to direct the affairs of the province on the eve of the Revolution. One of the initial orders of the Council, dated July 3, stated:

...Resolved, that Mr. Drayton, Mr. Brewton, Mr. A. Middleton, and Mr. Heyward [commissioners on the council] be a committee to survey the village of Dorchester, and report a plan and estimate for making it an armed post (Collections 1858: 31).

The Second Provincial Congress met in November, 1775 and elected a new Council of Safety (several orders were issued involving Dorchester by the council; those extracted are primarily of an architectural nature). On December 9, 1775 the Council issued an order to Colonel Joseph Glover of the Colleton County Regiment stating that:

...We desire you will issue an order immediately to a field officer from your regiment, to repair forth­with to Dorchester, and there to take upon him the command of the troops and militia at that post for protection of the magazine of gunpowder, the artillery and public records. (Collections 1859: 70)
There was considerable general dissatisfaction at Dorchester caused by lack of supplies and suitable facilities for housing the troops. On December 25, 1775 Henry Laurens, President of the Council sent a letter to the Commissioners for fortifying Dorchester stating:

Gentlemen:

Referring to former applications and directions by the Congress, and by this board; we again request that you will take such orders, as may be effectual for repairing, and fitting up the stores in Dorchester, hired by the public for accommodating the troops doing duty there, for repairing the present guard room, building one, if necessary, with a proper room for confinement of persons, and in general, for performing such repairs and buildings as shall appear to you to be necessary for this service...

(Collections 1859: 115).

The plan approved January 15, 1776 for the fortifying of Dorchester also included:

...a proper plan for fortifying around the church there... (Collections 1859: 184).

Dorchester was twice occupied by the British during the latter years of the war. The town was sacked and burned on December 1, 1781 when the British learned of an impending attack and retreated to Charleston (Smith 1905: 84). Within five years after the war Dorchester decayed rapidly (Smith 1905: 86). One final reference to the fort during this period was found in the minutes of The United Independent Congregational Church of Dorchester and Beach Hill, in the parishes of St. George and St. Paul dated September 2, 1799 stating that:

...It appearing by the Plan of Dorchester that Lot No. 13 (whereupon a fort has been erected and magazine thereon, now in the possession of John Carr and Isaac Walter by them converted into a Tile-yard or Manufactory)...

In 1836 the Congregationalist Church at Dorchester authorized the
removal of the brick from the fort to be used in the construction of a parsonage in Summerville (Walker 1941: 85).

The historic record is sparse concerning the historical events of the initial construction phase of Fort Dorchester in 1757-58. Thus, the importance of the single document, The Journal of the Commissioners of Fortification, 1755-70, which contains the accounts of the construction of Fort Dorchester, is most instrumental in placing the period of construction of this structure within the temporal span of the French and Indian War rather than attributing its construction to the Revolutionary War period as has been the case to date.

Although Fort Dorchester was built 18 years earlier than has been previously believed, it appears to have played its most significant role during the American Revolution, since the events which caused its construction in 1757-58 did not penetrate into the southern provinces to any great extent. Approximately 18 years later when turmoil was erupting throughout all the provinces, the opportunity was afforded for the fort and magazine to belatedly achieve the purpose of its construction; although ironically against the forces of the government which had ordered its construction.
DESCRIPTION OF FORT SITE

The location of the former village of Dorchester is situated in Dorchester County approximately six miles from the town of Summerville. The original village site is now under the protection of the Department of Parks, Recreation and Tourism as Dorchester State Park.

Fort Dorchester is situated upon a rise or bluff on the north side of the Ashley River in the area which comprised the extreme southern portion of the village. It encompasses most of what was Lot No. 13, and a portion of Lot No. 14 to the north, and including the road adjacent to Lot No. 13 (see Fig. 1). From this location, the fort served to command the view and the bridge, as well as enclosing a powder magazine.

A gradual slope in the topography toward the river floodplain occurs along the east and south walls. The distance to the river from the east wall in an easterly direction is approximately 368 feet; from the south wall the river is 198 feet distant. The southwestern slope is considerably steeper comprising a portion of the north bank of the river. The southwest bastion is located in this area, and is approximately 40 feet from the river. The south and east bastions were presumably utilized to defend the river access to the town, including the bridge located 343 feet south-southeast of the east bastion. The topography in the area north of the fort, where most of the town lots were located, is relatively level.
The architectural design of Fort Dorchester is unique in that it is the only structure of its kind known to have been constructed in North America. The design of Fort Dorchester bears a rather strong resemblance to a siegework referred to as a "flanked redoubt" located at Stoke Lodge, Scotland, and used during the sieges of Newark on Trent in Nottinghamshire during the Civil War in the mid-seventeenth century (RCHM 1964: Foreword). The example at Stoke Lodge is similar to an illustration published in 1639 in *Animadversions of Warre* by Robert Ward. This type of fortification was one of three elaborate types used by the Scots, and were emplaced near a river where a continuous line was not necessary, as well as being used as isolated strong points at strategic places (RCHM 1964: 51).

In outline, the design of Fort Dorchester (Fig. 1) resembles a pinwheel having four straight or slightly angling sides, with one end portion of each side also encompassing or being a part of the corner bastion. This results in a demi- or half bastion being produced. The other half of the bastion is angled inward to allow fire to be directed at the adjacent wall. The bastion is completed by the third section of wall which angles outward slightly and connects to the main wall. The bastions formed by this design resemble exact halves of the more common lozenge-shaped bastions.

The walls of Fort Dorchester are comprised of a burned oyster-shell and sand matrix, having a cement-like quality and called tabby. Forms were constructed, and the wet tabby poured into them to form the
walls. The height of the walls, from the present surface to the top is eight feet, complying to the specifications requested by the Commissioners of Fortifications in 1757 (Journal 1755-70). The width of the wall averages approximately 2.0 feet at the top and 2.8 feet at the base.

North Wall and Northeast Bastion

The north wall of the fort faces in the direction of the village location. The eastern end of the wall also serves as the north wall of the northeast bastion. A sally port, 6.5 feet wide, is located 47.15 feet from the northeast end of the wall, and 47.35 feet from the point where the wall turns to form the east wall of the northwest bastion. The frame for the sally port gate was set in place prior to the wall being poured, as the impression of beams, is evident on both sides of the sally port entrance. From the impression, the gate frame appears to have been constructed by using two vertical, upright beams with three horizontal top beams (Fig. 2).

The east face of the northeast bastion is angled slightly inward toward the east wall and measures 32.0 feet. The south face angles slightly outward and is 17.6 feet long.

East Wall and Southeast Bastion

The length of the east wall is 85.0 feet where it abruptly stops. The entire south face wall of the southeast bastion is missing, although a brick foundation occurs in its place barely exposed. It is evident that the brick foundation was constructed prior to the tabby wall as a portion of the northern corner of the brick foundation is situated beneath the tabby wall (Fig. 3). It seems that the Commissioners of Fortifications had initially decided to have the fort built of brick,
SALLY PORT
FORT DORCHESTER
(38DR4)

TOP VIEW

SIDE VIEW
(EAST)

CONCEPTUAL INTERPRETATION

FIGURE 2
FIGURE 3
East face of southeast bastion wall and brick foundation. View to the north.

FIGURE 4
Section of brick capping along west wall. View to the west.
but a change was finally effected as is discerned by the following notation in the Journal dated June 23, 1757 in which the Commissioners:

...Agreed that the Wall around the Magazine to be built in Dorchester be of Tappy Work...
(Journal 1755-70).

The brick foundation does not follow the same linear constructs attributable to its counterparts, but rather is positioned in an opposite manner. That is, where the similar walls on the three bastions are angled inward to allow for firepower directed toward the adjacent wall, the south wall is angled away from the adjacent wall.

Since the discussion regarding the type construction material to be used was first mentioned in February, 1757 and the go-ahead was given in June to begin construction, it appears that the brick foundation along the south wall of the east bastion may represent the initial effort at constructing the wall. This is the only location along the entire extent of the tabby wall where brick serves a similar function.

The disappearance of the brick which constituted the actual south face of the southeast bastion may be attributable to the same fate by which the destruction of the magazine was effected.

The west face of the bastion wall is 14.5 feet long.

South Wall and Southwest Bastion

The south wall is the longest of the four main walls having a dimension of 102.0 feet. At the east end of the wall, 3.8 feet west of the corner, or the convergence of the west face of the southeast bastion, an opening, 4.0 feet wide, exists in the wall which has been interpreted as a second sally port. The opening lacks most of the characteristics of the sally port in the opposite wall, and appears rather to have been
placed at a later date, probably during the period when the fort served as a tile factory.

The west face of the southwest bastion is 35.0 feet in length. This face is different from its counterparts, in that the angle towards the west wall is considerably more acute than is the case with the corresponding faces of the northwest and northeast bastions. The north face is 17.5 feet long.

The West Wall and Northwest Bastion

The west wall is 101.0 feet in length. The north face of the bastion is 31.0 feet in length, angling inward toward the north wall. The east face has a length of 18.0 feet.

Along the northern three-fourths of the west wall, brickwork was utilized as a capping. It appears that the last course of tabby necessary to bring the wall to the same height as the other walls, was initiated at the northern end of the wall, and extended southward for approximately ten feet before abruptly ending. Brickwork was then used as a filler to extend the wall to the desired height (Fig. 4).

Interior

The interior of Fort Dorchester forms an irregular square approximating nearly 100 feet square in the main portion, not including the bastions. The interior dimensions of this area are 101 feet N-S by 100 feet E-W.

A few above-ground ruins were in evidence prior to the archeological investigations, the main feature being the powder magazine, located in the center of the principal area. This structure was represented by a protective sand mound with traces of brick courses protruding from under
the sand at various places. A section of the south wall was also in evidence.

Other visible architectural features were vestiges of brick flooring in the east and south bastions.

The interior of the fort is relatively level with the exception of the northeast and southwest bastions which appeared to have been filled to within two to three feet of the top of their respective walls. The southeast and southwest bastions showed traces of brick flooring. Evidence of erosional activity can be seen between the opening in the south wall, which acts as a drain and an area immediately east of the magazine. The erosional feature is approximately 10 x 30 feet.
THE ARCHEOLOGY OF FORT DORCHESTER

The initial phase of the archeological investigations of Fort Dorchester was begun by mapping the dimensions of the structure, and establishing a ten-foot grid system within the interior of the structure. The resulting map provides a precise record of the dimensions of the existing structure. In addition, the grid system establishes a horizontal control of the artifacts recovered. The overall effect is to correlate exterior and interior, archeologically derived, architectural features with the artifactual data, enabling relationships to be established between the surface and sub-surface remains.

A total of nine datum points was utilized. Datum Number 1 serves as the main hub from which all dimensions were initiated and was used as a temporary bench mark upon which all elevations were based. Datum Number 1 was tied into the permanent U.S.G.S. Bench Mark Pt 54, Number 1 (1935) located approximately 150 feet north of T.B.M. Number 2 and having an elevation of 19.27 feet above sea level.

Prior to the excavation, as noted above, the entire interior of the fort, including the bastions, was laid out in a grid of ten foot square units. The point of reference from which the grid was based was Datum Number 8 (see Fig. 1). Each ten foot grid was assigned a number incorporating a total of 144 units within the interior of the structure. Due to limitations of space, some of the units along the walls were not completely ten foot square units, but portions of the units.

The initial phase of excavation was intended to be exploratory. This consisted of testing the entire interior of the fort, and if time permitted, selected areas of the exterior. This would enable the sub-
surface architectural potential to be evaluated and would aid in formulating decisions regarding future excavations in areas deemed to contain a potential for revealing significant architectural details.

The excavations were carried out by use of consecutive two foot by nine foot units integrated within the grid system. By this method, relationships could be established between architectural features and the artifactual material and thereby enable interpretation to be made regarding possible use of areas for specific purposes.

Excavations were initiated along the east wall with Units 9 through 14 (Fig. 5). In addition to possibly revealing architectural evidence, these units would serve as controls for the stratigraphic sequences throughout the interior.

At a depth of 1.0 to 1.5 feet below the surface, a thin tabby paved floor averaging 1/4 to 1/2 inch in thickness was found in all of the units (Fig. 6). In Unit 9 the floor abruptly ended in the area where the east wall turns east to form the south face of the north bastion. In Unit 10, two posthole impressions, each 1.0 foot square, were located in the tabby floor. The postholes were positioned seven feet from the east wall. The tabby floor in Unit 12 was quite thin and easily decomposed.

Unit 14 was extended below the decomposed tabby floor in an effort to define earlier occupation zones. Located beneath the humus zone was a light yellowish-brown sandy soil (Fig. 7). The stratigraphic sequence in this unit represents the general sequence seen throughout most of the fort interior.

The yellowish-brown sandy soil contained non-European pottery sherds. The dark-brown humus zone is representative of the initial oc-
FIGURE 5

Initial excavations along east wall.

FIGURE 6

Section of tabby floor and post impression in Unit 10. View to the northwest.
Soil profile of Unit 14. View to the northwest.

Brick-filled feature (15, 27, 39B-1A) located along the east wall. View to the north.
cupation of Fort Dorchester. This zone also occasionally contained some aboriginal artifacts primarily pottery. The light yellow sandy fill found in Unit 14 overlying the brown humus layer was unique to that unit. In all the other units the dark humus layer, where it occurred, overlain by a tabby floor, was situated immediately beneath the floor. The layer overlying the floor, where it appeared, and the dark-brown humus zone, consisted of a uniform grayish-colored fill extending to the surface. The depth varied between a few inches to approximately one foot with the main area including the east and west bastions.

The north and south bastions were unique stratigraphically in that they had been filled to within three or four feet of the top of the wall. These are discussed in further detail in their appropriate sections.

At the south end of Unit 14 considerable brick and mortar rubble was found, in addition to a builder's trench in the dark humus layer. This unit, designated Feature 15, 27, and 38 B-1A, was completely exposed, but not excavated. It consists of a probable brick-filled linear cellar having a width of eight feet and extending from the east wall twenty-one feet (Fig. 8). At the present time, it is impossible to make any postulations as to the use of this architectural unit.

The South Wall

The surface along this area is marked by an erosional cut at the east end caused by the passageway along the wall. A gradual incline is evident culminating at the south bastion.

The excavations conducted in this area consisted of Units 81, 82, 91, 92, 101, 102, 111 and 112 located along the west half of the wall.
since most of the east portion had been destroyed by erosion.

The initial units excavated in this area were 111 and 112. A tabby floor was found in both units at a depth ranging between 1.3 in Unit 101, to 1.8 feet in Unit 102, below the surface. Two posthole impressions were found in the floor in Unit 101 having round and square configurations and dimensions of 1.0 feet. At the south portion of the unit the floor was sloped. In Unit 102 the tabby floor was quite thin with the heaviest concentration being in the east half. The unit was excavated beneath the tabby in an effort to locate the dark-brown humus zone. The stratigraphic sequence here was similar to that found along the east wall.

The tabby floor was non-existent in Units 81, 82, 91, 92, 111 and 112, and these units were excavated to the top of the humus zone.

The West Wall

A series of units was excavated along the west wall; Units 103-110 and a paralleling adjacent Units 93-100. Along this area, the stratigraphic sequence was similar to that found along the east and south areas. These units did not produce architectural evidence.

The North Wall

Along this wall Unit 53, 63, 37, 83, 93, and 103 were excavated. The excavation was primarily confined to the west half due to a series of trees along the east portion. This area, as the west area, did not produce any architectural evidence, although considerable artifactual material, primarily ceramics, was derived from Units 53 and 63, suggesting that a possible structure was located in this area.
Two additional units, 31 and 32, were excavated directly opposite the sallyport to examine the area which would have been subjected to a considerable amount of traffic. No unusual patterning was detected in this area.

In addition to the units discussed, which were excavated in the main area of the fort, additional units were excavated approximately 20 feet west of the east wall. These are Units 35, 36 and 37. The other series of units are 22, 34, 56, 66, 76, 86 and 96, situated east-west along the north portion of the main area 35 feet from the north wall.

Units 35, 36 and 37 did not reveal architectural evidence. Unit 22 was excavated to define the western units of the tabby floor initially found in Unit 10. Traces of the floor were found in Units 34 and 46. In Unit 46, considerable brick rubble was found which extended into Units 56 and 66. Unit 65 was excavated north of Unit 66 to define the northern units of the feature.

The dimensions of this feature are 10.0 feet by 22.0 feet. It is located directly adjacent to the north wall of the magazine. The appearance of this feature is similar to that of Feature 15, 27, 39 B-1A.

The Bastions

Text excavations were conducted within the confines of all of the bastions in an effort to ascertain a portion of the architectural detail contained within them.

Northeast Bastion

Unit 1 served as the test excavation in the Northeast Bastion. Unit 4 was initiated at the same time, but when it became evident that
the stratigraphic sequence was not conforming to that found throughout the rest of the interior, efforts were concentrated upon Unit 1.

The stratigraphy in Unit 1 did not conform to the pattern found throughout the interior until Zone F was reached (Fig. 9). It was at this level that a section of a tabby floor was found. Beneath the tabby, the same dark-brown humus level (Zone H) became evident. The distance to Zone H from the present surface is approximately six feet. The elevations of the tabby floor and the dark-brown humus layer correspond closely to their counterparts in the units located along the east wall. The zones which constituted the fill (A–F) were consistent above the tabby floor. This is possibly attributable to rapid fill. The uppermost layer, initiated at the surface, and 1.0 feet in depth, was composed of a midden of roofing tile fragments. The tile rubble appears to be concentrated in the northeastern corner area of the bastion. At the base of the tile concentration, an English half-penny dated 1775 and bearing the head of King George III was recovered. This is the best possible indicator to denote that the fill between the tabby floor (Zone G) and the base of the tile midden was post-1775. A portion of a circular feature (1H–A) was located at the eastern end of Unit 1 in Zone H, the dark-brown humus layer.

**Southeast Bastion**

Architecturally, the southeast bastion is unique. As was noted in the Architectural Section, the wall which comprised the south face of the southeast bastion is missing. The visual remains were portions of a brick foundation. As previously noted, along the east wall the brick was in place before the wall was poured (Fig. 3). The surface
FIGURE 9
Soil profile of Unit 1. Shelf indicates area of tabby floor. View to the northeast.

FIGURE 10
Brick foundation in southeast bastion.
was relatively flat in most of the bastion except where an erosional slope occurred along the area of the brick foundation. Portions of a dry-laid brick floor were visible at the west side. The top of the foundation was completely exposed (Fig. 10) and Unit 42 was excavated on the interior along the wall to obtain the wall depth, and a profile (Fig. 11). The builder's trench was not in evidence along the interior, but was located on the exterior.

The soil profile seen in Figure 11 suggests that during the 1758+ occupation, the brick foundation was at or about its present height. As was seen in the northeast bastion, considerable filling took place. The brick floor located at the present level in the southeast bastion is possibly attributable to the same time period.

It is impossible to indicate archeologically whether the wall heightened in 1775 or later as erosion has destroyed a considerable amount of the area near the interior of the wall. Although the brick floor is located within the bastion, it cannot be discerned whether it actually extended to the wall.

Southwest Bastion

The southwest bastion, as the northeast bastion, contained considerable fill within two feet from the top of the wall. Sections of a dry-laid brick floor were visible in this bastion. Units 117 and 118 were excavated to determine the depth of the fill, and to detect the original floor. At a depth of 3.0 feet below the surface, a tabby floor was found in Unit 117. A break in the tabby floor was detected. Excavations were extended down into the dark-brown humus zone, and in this zone, a postmold was found. The profile of this unit shows the
FIGURE II

FORT DORCHESTER
(38DR4)
SOIL PROFILE
WEST FACE-UNIT 42

I SURFACE (BROWN HUMUS)
II TAN SANDY
III HUMUS (DARK BROWN)
IV LIGHT TAN SANDY LOAM

FIGURE 12

FORT DORCHESTER
(38DR4)
SOIL PROFILE
SOUTH FACE-UNIT 117

I SURFACE
II LIGHT BROWN SAND
III BROWN SAND WITH OYSTER FRAGMENTS
IV BROWN TAN CLAY
V LIGHT AND DARK SANDY FILL
VI TAN SANDY FILL
VII RED CLAY FILL
VIII DARK BROWN HUMUS
IX SUBSOIL

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fill of the hole dug through the tabby floor to place the post (Fig. 12). The post may represent a station for a swivel gun.

**Northwest Bastion**

The northwest bastion was excavated most extensively as it had not been subjected to filling.

A considerable number of features were found in this area. Along the west wall, in Unit 133, a brick floor is located immediately below the present ground surface. A burned post, and traces of a postmold were found among the brick which paralleled the wall. East of the floor, in Units 130 and 133, a brick drain was located extending from the north wall south and angling east toward the center of the bastion where it abruptly stopped. The drain had two protruding arms comprised of three brick near its extreme north and south ends on opposite sides. These may have served as post supports.

Two postmolds were found at the south end below the drain, but these are believed to be earlier. The remaining features located in the east half, were found in deeper levels, and are believed to be earlier. These are a ditch in Unit 134, and including two square postmolds having dimensions of 1.0 feet square (Fig. 13). Unit 132 contained another square postmold and one with circular dimensions. The three square postmolds are in a north-south alignment. Unit 132 also contained a portion of a ditch. Two circular postmolds were located in Unit 135 paralleling the east face.

**The Powder Magazine**

From all historical sources found relative to Fort Dorchester, mention of the powder magazine is considerable. This, of course, is
FIGURE 13

Square postmolds in Unit 134 located in Northwest Bastion. View to the northwest.
expectable since construction of the magazine was the main concern of
the Commissioners of Fortifications.

Of the several references pertaining to the magazine, only one
contains reference to architectural information. The reference, pre-
viously mentioned, comes from The Journal of the Commissioners of
Fortifications 1755-70. In a meeting held July 12, 1757 the Commis-
sioners:

...Agreed that the Magazine to be Build at Dorchester
be made 22 by 18 feet in the Clear... (Journal 1755-70).

The initial excavation of the magazine was a cross-section through
the structure in order to obtain information from which a further com-
plete excavation of the structure could proceed. Portions of three
walls were found. Portions of the north wall were exposed. The di-
mensions obtained for the structure are 18 feet (E-W) by 20 feet (N-S).
The walls are 4.0 feet thick. The west exterior wall was excavated
and found to extend 5.0 feet below the top of the wall. Units 57 and
67 were tests excavated through the magazine interior. Brick fragments
and mortar comprised the fill within the magazine. A thin layer of
ash-like material .10 feet thick, was situated upon a brick floor.
The interior of the magazine consisted of two interior buttresses along
the east and west walls. The floor contained two raised brick plat-
forms also situated on the long axis (see Figs. 14 and 15), which served
as possible post supports.

Exterior Excavations

Nineteen exploratory trenches were excavated outside the confines
of the tabby structure. The purpose was to find information, either
of an architectural nature, or otherwise, which might constitute extra-
Exposed portion of powder magazine. View to the southwest.
-34-
mural associations relative to the defensive functions of the fort.

A number of features were located, some of which may bear direct relationships to the fort. Along the north and west sides, a series of ditches was located. Unit 145, directly in front of the sallyport, Unit 148 and 153, located north of the northwest bastion contained ditches (see Fig. 16). Along the west side, ditches were found in Units 149, 150 and 154. Those found in Units 149 and 150 appear to be the same ditch, as appears to be the case with the ditches in Units 148 and 154. The ditches found in Units 145 and 153 do not occur in a straight line, but are offset. The ditches may represent further attempts at constructing auxiliary defenses around the tabby wall.

Along the north side, other features located consist of a circular postmold at the north end of Unit 148, a dry-laid brick floor in Unit 160 and, on the west side, portions of a brick foundation in Unit 151. In Units 161 and 164, directly south of the southeast bastion, an uneven tabby floor was located. Unit 159, located south of Unit 161 evidenced a portion of a brick floor and considerable disturbance in this area.

Below the south wall of the southeast bastion, a circular protruding feature was excavated. It consisted of a broken tile midden which resulted from tiles being tossed off the bastion. A similar phenomena had been noted above ground at the juncture of the north face of the bastion with the west wall.

The initial phase of archeological testing was completed and plastic sheeting was placed in all the units producing the features, before covering with dirt or sand. The plastic will protect the features, and allow for prompt reclearance when additional work is done.
INTERPRETATIONS OF ARCHEOLOGICAL DATA

The first phase of archeological work to be conducted in and around Fort Dorchester has provided evidence of architectural features although their complete extent is yet to be ascertained. From results obtained during the first phase of excavations, tentative interpretations can be made, subject to possible reinterpretation when the full architectural sphere of the areas tested is revealed.

In the areas along the east and south walls where tabby floors were detected, it appears highly probable that these areas served as living and/or working quarters. The northeast and southeast bastions also contained tabby floors, but these bastions contain fill within a few feet of their respective walls. As was noted in the Archeological Section, an English half-penny dated 1775 was found immediately below the tile fragments located near the surface in the northeast bastion. The coin serves to indicate that the fill was placed in the bastion in 1775 or later. It seems feasible to attribute the fill to the period of the Revolution. The probable interpretation that can be made regarding the tabby floor in the main area and in the bastions is that the suggested structures and floor are attributable to the initial period of construction or shortly thereafter in the main area and bastions. At the advent of the Revolution, the northeast and southeast bastions were filled. Archeological evidence recovered in the southwest bastion indicated that a post had been set through the tabby floor (see Fig. 12). This, too, can be attributed to the earlier period of the fort. The post was burned which may have been necessary for removal prior to filling.
The interpretation which can be made for the bastions is that during the initial construction phase of the fort, swivel guns were utilized. This necessitated a post and platform arrangement. Fort Prince George, a fort built at the same time period in Oconee County, South Carolina, also has this type arrangement at four bastions (Combes MS).

The filled bastions are situated diagonally from one another, and appear to have been filled to accommodate carriage-drawn cannons.

The brick foundation which represents the south face of the southeast bastion represents the initial period of the construction of Fort Dorchester, as was noted in the Journal of the Commissioners of Fortifications. The decision was made later to use tabby construction.

It is difficult to ascertain whether the south face was ever extended to the height of the other walls, or to suggest architectural composition in this area. This will have to await further research.

The northwest bastion was subjected to considerably more testing than its counterparts, primarily because it does not appear to have undergone so much alteration, as the present ground surface is that of the main interior area. The northwest bastion appears to have served a different function than the northeast and southwest bastions. Portions of a brick floor were found along the west wall, in addition to a brick drain. Two post impressions, one consisting of a charred post, were located with the brick floor paralleling the wall possibly serving as supports for a roof or banquette. The drain also contains two extensions upon which posts may have been situated. The above features are believed to be associated with the c. 1775 period.

Several postmolds and a feature resembling a ditch were found be-
low the brick flooring. Two 1.0 foot square postmolds have a north-south alignment. The feature and the postmolds are attributable to the 1758+ period.

Two brick-filled features were found; along the east wall, and between the magazine and north wall. The feature along the east wall was exposed, but not excavated. The limits of the feature adjacent to the magazine were ascertained. Further information regarding construction, usage, etc., will be determined upon excavation.

Although no architectural features were found in the northwest area of the structure, situated to the right of the northwest bastion, a considerable quantity of artifacts, primarily ceramics, was recovered from Units 63 and 73. The possibility exists of a feature being located within this area.

The most prominent architectural feature, aside from the wall, is the brick powder magazine. Information derived from historical documentation emphasizes the brick powder magazine above all other architectural features associated with Fort Dorchester.

The brick powder magazine appears to have been the primary concern of the Commissioners of Fortifications, and the reason for the construction of Fort Dorchester. This is emphasized quite emphatically in the letter dated February 24, 1757 from Governor Lyttelton to the Commissioners directing them to:

...take the necessary measures to construct a Powder Magazine in the Village of Dorchester to be properly Inclosed and Strengthened... (Journal 1755-70).

Its importance was once more manifested during the Revolution as is indicated by the following excerpt dated December 9, 1775 to:

...repair forthwith to Dorchester, and there to take upon him the command of the troops and militia
at that post for protection of the magazine of gunpowder, the artillery, and public records. (Collections 1859: 370)

The above references constitute only two of several relating to the magazine.

A limited investigation of the magazine was undertaken, to obtain preliminary data concerning its construction. The walls were revealed and found to be 4.0 feet in thickness. The overall exterior dimensions of the structure are 20 by 22 feet.

The trench dug into the magazine partially revealed a subterranean room having a brick floor and two linear brick platforms situated lengthwise between the center and the west wall. These have been interpreted as post supports. The walls of the structure were reinforced by use of buttresses located on the interior east and west walls (Fig. 14).

The test excavations conducted outside the confines of the tabby structure revealed features which probably served as additional defenses for the fort. Along the west and north walls, ditches were located which are believed to have contained a wooden stockade. At this time, it cannot be ascertained to which period these are attributable.

Other features were recovered, but interpretations will have to await further tests.
SUMMARY

The historical and archeological research of the tabby structure called Fort Dorchester has helped to place this structure in the proper temporal sequence. Historical documentation revealed that the structure was a direct result of the French and Indian War, and not of the Revolution as had previously been suggested. Although the fort was constructed during the latter 1750's period, documentary evidence indicates that principle use occurred during the Revolution.

The archeological research has served to substantiate the documentary record regarding the construction period based on the artifactual content recovered. Furthermore, it has revealed evidence of architectural details, heretofore unknown, making it possible to begin to establish relationships between architectural structures and features located within the interior and exterior of the fort. Further archeological research will bring into perspective the significance of the architectural features.
RECOMMENDATIONS

The initial archeological excavations conducted at Fort Dorchester have revealed information forming a base from which to proceed with further archeology. The archeological research has revealed the construction date of the site based on the artifactual material recovered. Architectural detail has been seen in various areas within the confines and exterior of the structure which allow for tentative, functional interpretations to be made.

The basis from which to begin detailed archeological research is now laid, and further research is necessary to fully understand and interpret the overall architectural scheme of Fort Dorchester.

Based on discussions with Stanley South, Archeologist, Institute of Archeology and Anthropology, and Janson Cox, Chief Historian for the Department of Parks, Recreation and Tourism, plans have been decided upon for the research which will be carried on during the summer of 1973. Plans are being formulated for immediate stabilization of architectural features, where necessary upon exposure. All exposed brick features will be coated with a silicone solution to prevent deterioration caused by the elements. Where deemed necessary, brick walls will also be capped with mortar and reproduction bricks.

The areas to be subjected to detailed archeological research are outlined as follows:

1. **The Powder Magazine**: This structure represents the reason for the construction of Fort Dorchester, and still comprises the most potential for interpretation. This structure will be completely exposed to reveal all architectural features, and stabilization will be effected immediately.
2. **The Bastions**: Three bastions will be tested extensively in an effort to determine the architectural function of each. The exploratory archeology indicates that the southeastern, southwestern, and northwestern bastions appear to be different in architectural content which may indicate functional differences. The northeastern bastion, appearing to have served a similar function as that of the southwestern bastion, will not be excavated at this time.

3. **East and South Interior Areas**: Extensive excavations will proceed along the east and south areas of the interior portions of the structure where a tabby floor was located. It is believed that these areas are representative of locations where living or working occurred and as such should reveal substantial architectural data.

4. **The North Wall**: Although no architectural features were found along this area, the considerable quantity of artifacts, especially ceramics, recovered in the area adjacent to the northwest bastion serve to indicate the existence of a specific use area, such as a kitchen.

5. **Cellar Ruins**: At least one of the brick-filled cellar ruins will be excavated as these structures have strong possibilities for interpretation.

6. **Exterior Excavations**: Archeological excavations will be conducted on the exterior adjacent areas of the fort which evidence features tentatively interpreted as palisade ditches. The ditches will be uncovered and followed in an attempt to determine whether they were encompassed as an integral part of the defenses of Fort Dorchester.

The areas designated for further archeological research are those which will yield the most information necessary for a proper historical interpretation of the structure to be effected regarding its use during the Revolution. Although the basic purpose of the research is focused upon the Revolutionary War aspect of Fort Dorchester, it must be stressed that archeological research will encompass the full historical, temporal range of use of the fort, from its inception in 1757 through to its usage as a tile factory after the Revolution.
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