

THE ARCHAEOLOGICAL SITUATION
AT
THE WILLIAM PACA GARDEN, ANNAPOLIS, MARYLAND:
THE SPRING HOUSE AND THE PRESUMED PAVILION HOUSE SITE

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April, 1975

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Prepared for Historic Annapolis, Inc., Annapolis, Maryland

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INTRODUCTION

Historic Annapolis, Inc. requested us to conduct an archaeological investigation of the Pavilion House site and the Spring House site located on the eastern edge of the William Paca Garden, 186 Prince George Street, Annapolis, Maryland. The purpose of the investigations was to provide data for use in reconstructing the interior of the Spring House and the Pavilion House; the site of the former having been located, and the exterior reconstructed, but the location of the latter still being unknown. The archaeological investigations included excavations, analysis of previous digs, and consultations with Mr. Orin M. Bullock, Jr. F.A.I.A., the architect in charge of reconstructing these garden out buildings. The work was carried out from March 19 through April 15, 1975.

The present investigation follows two earlier excavations (Figure 1) whose primary purposes were the reconstruction of the garden as a whole. In August, 1966, B. Bruce Powell, Archaeologist, cut a series of trenches, 2½ to 5 feet wide, with a back-hoe machine. The surface of the garden at that time was at the level of King George Street, some 6 feet above the present surface. In the course of the 1966 dig a 3 foot section of a low brick wall (Structure 2) and a brick rubble area nearby to the south were discovered.

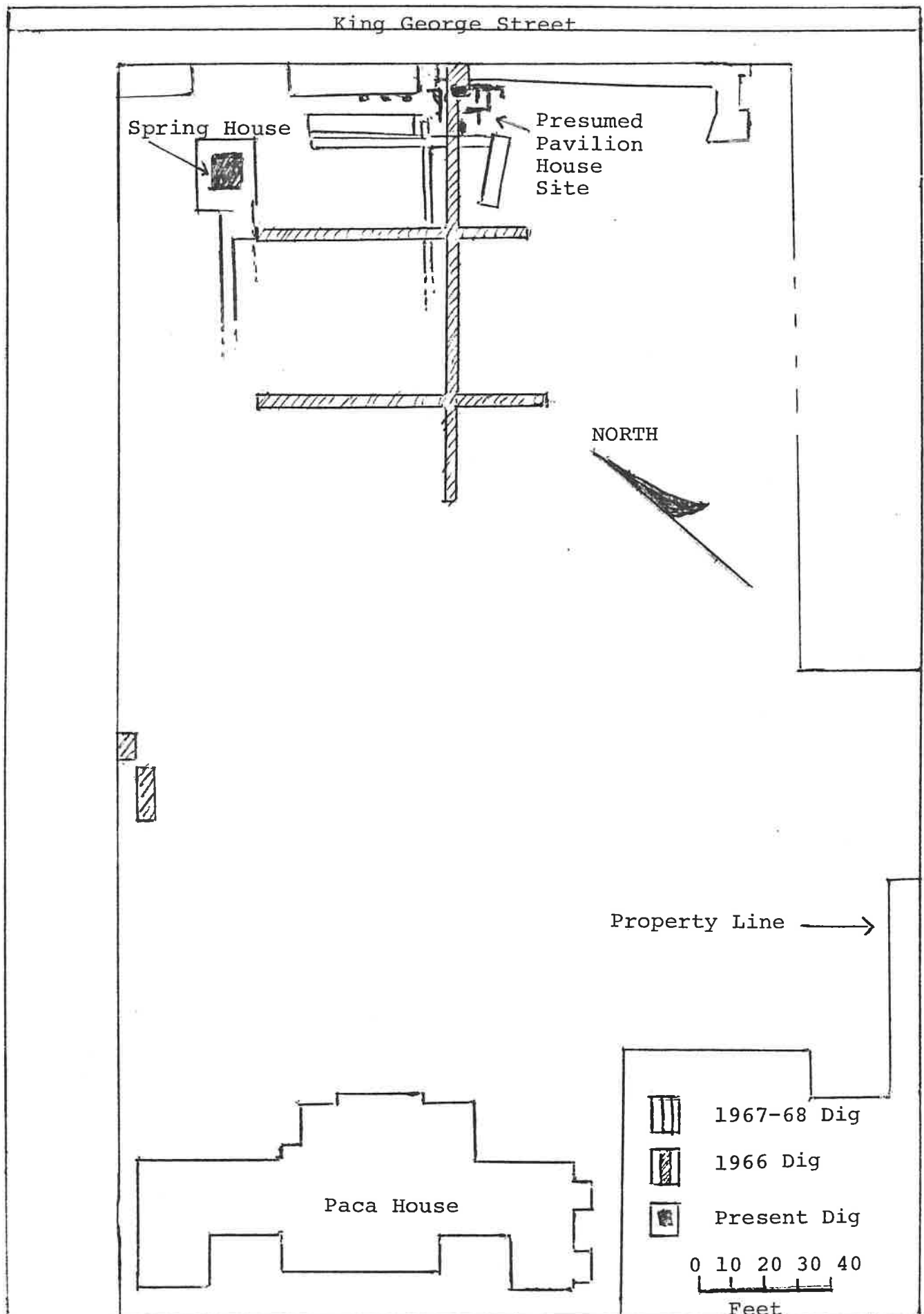


Figure 1. Archaeological digs in the east Paca Garden area.
(After Powell)

Although the function of Structure 2 was unknown it occupied the site presumed to be a possible location of the Pavilion House.

The second excavation was carried out by Contract Archaeology, Inc. Alexandria, Virginia - Mr. Glen Little, President - during 1967 - 1968. These investigations were more extensive than the 1966 dig and included trenching of the garden to expose a number of features, including the Spring House which was excavated. In 1967 an archaeological investigation was carried out by the same organization at the site of the Paca House.

The records of the previous archaeological excavations mentioned above includes Powell's report of the 1966 dig (Powell, N.D.), a series of 11 large charts giving plans and field notes of the 1967-1968 investigations of Contract Archaeology, Inc., and a manuscript on the Paca House dig by Stanley South, Archaeologist (South, N.D.). A number of color slides and black and white photographs were also available from the two previous digs.

THE ARCHIVES

Historic references to the garden buildings are found as follows in the archives of Historic Annapolis, Inc.

1. A background detail in the Charles Wilson Peale portrait of William Paca (1772) depicts what is believed to be the central portion of the eastern section of the garden. Included in the detail is the garden stream, a Chinese Chippendale bridge, a two-story pavilion building with an octagonal upper story surmounted by a cupola, and a square building with a pyramidal roof. The latter is thought to be the Bath House located on the south side of the eastern wall which is believed to be similar to, though distinct from, the Spring House. (South, N.D., Plate 116).

2. Rosalie Stier, visiting the garden in the latter part of the 18th century mentioned the presence of "...a spring, a cold

bath house well fitted up, and a running stream." (Hoyt, 1943 in South N.D., p.186)

3. Elihu Riley, who had doubtless seen the garden many times wrote in 1887: "This garden, perhaps, more than any other spot, indicated the delightful life of Annapolis a century ago. The spring house, the expanse of trees and shrubbery, the octagonal two-story summer house, that represented "my lady's bower," the artificial brook, fed by two springs of water, that went rippling along to the bath house that refreshed in the sultry days, and gave delight to the occupants, form a picture tradition loves to dwell upon to this day." (Elihu S. Riley, 1887 in South, N.D. p. 189).

4. A notice in the Evening Capital in March 1905 describes the property to the northwest of the Paca House lot "... from which it is separated by a stone and brick boundary wall, which wall begins at King George street, and running in a southwest direction, joins the rear wall of the wing of the Paca dwelling, which wing is part of the boundary line... On the ground before mentioned is a spring of flowing water, highly valued, being an original feature of the place, having existed from time immemorial, having a right of way through an arch in the boundary wall before mentioned, through the Paca estate for a water course over the surface of said estate to King George street, and on." (South, N.D., p.187).

5. The Sachse print of Annapolis (c. 1856) shows the garden at that time period. Tall trees blanket out details of the garden structures with the exception of a cylindrical structure centrally located on the east wall. Although vague in detail this could be the Pavilion House.

THE SPRING HOUSE SITE

A review of the 1967-68 archaeological record and the current excavation leads to an interpretation of the archaeological evidence which reveals five possible phases of the history of the site. Recommendations are made for reconstructing the interior on the basis of this data.

1967-68 Excavation (Figures 2, 3)

The Spring House was excavated inside and outside by Contract Archaeology, Inc. in 1967-68. The results were recorded in a chart titled "Plan of Spring House and Archaeological Features Recorded

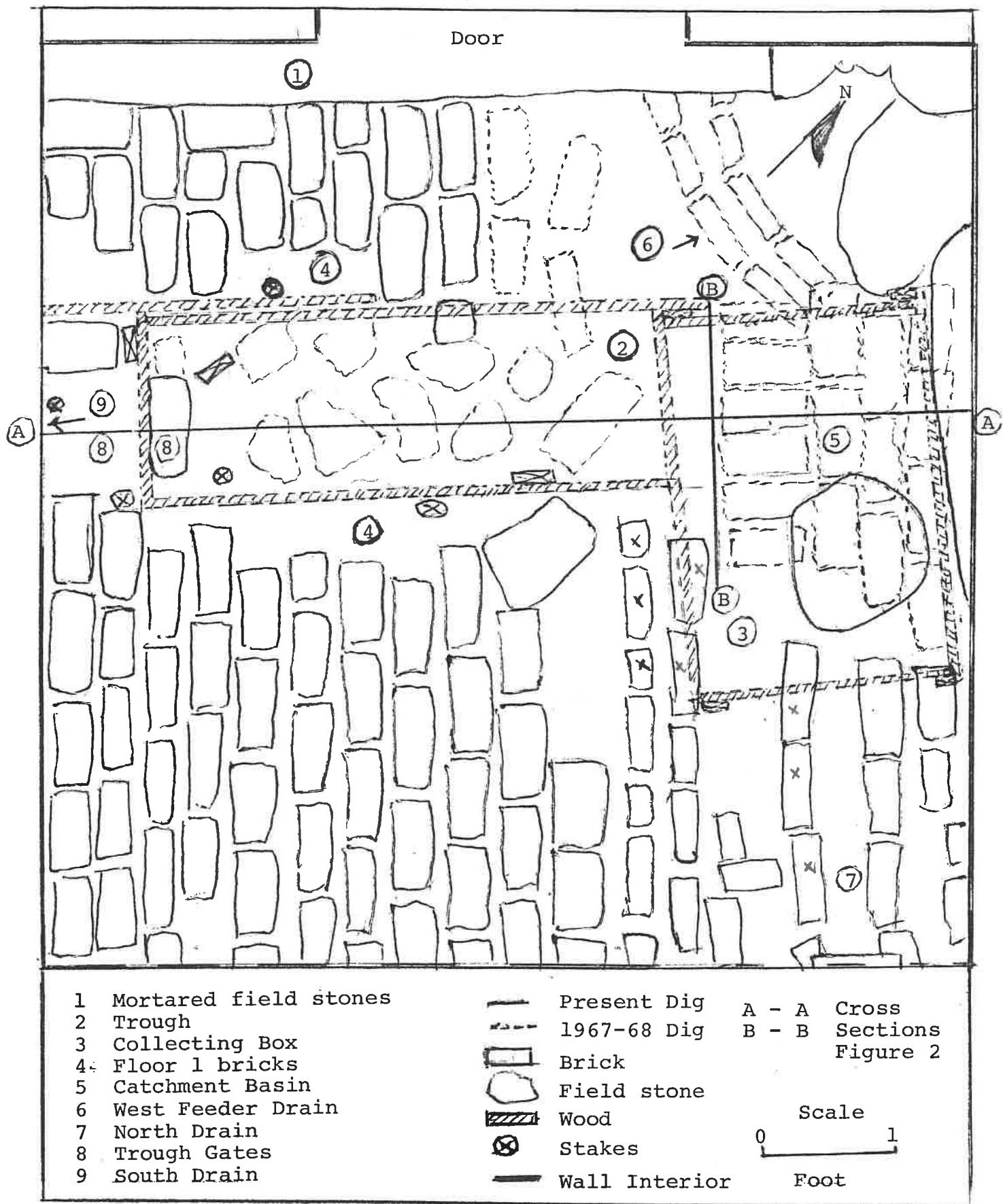


Figure 2. Interior of Spring House at Floor 1 level, with Trough and Collecting Box at Floor 3 level, Feeder Drain at Basin Level. (after 1967-68 Dig Charts, Contract Archaeology, Inc.)

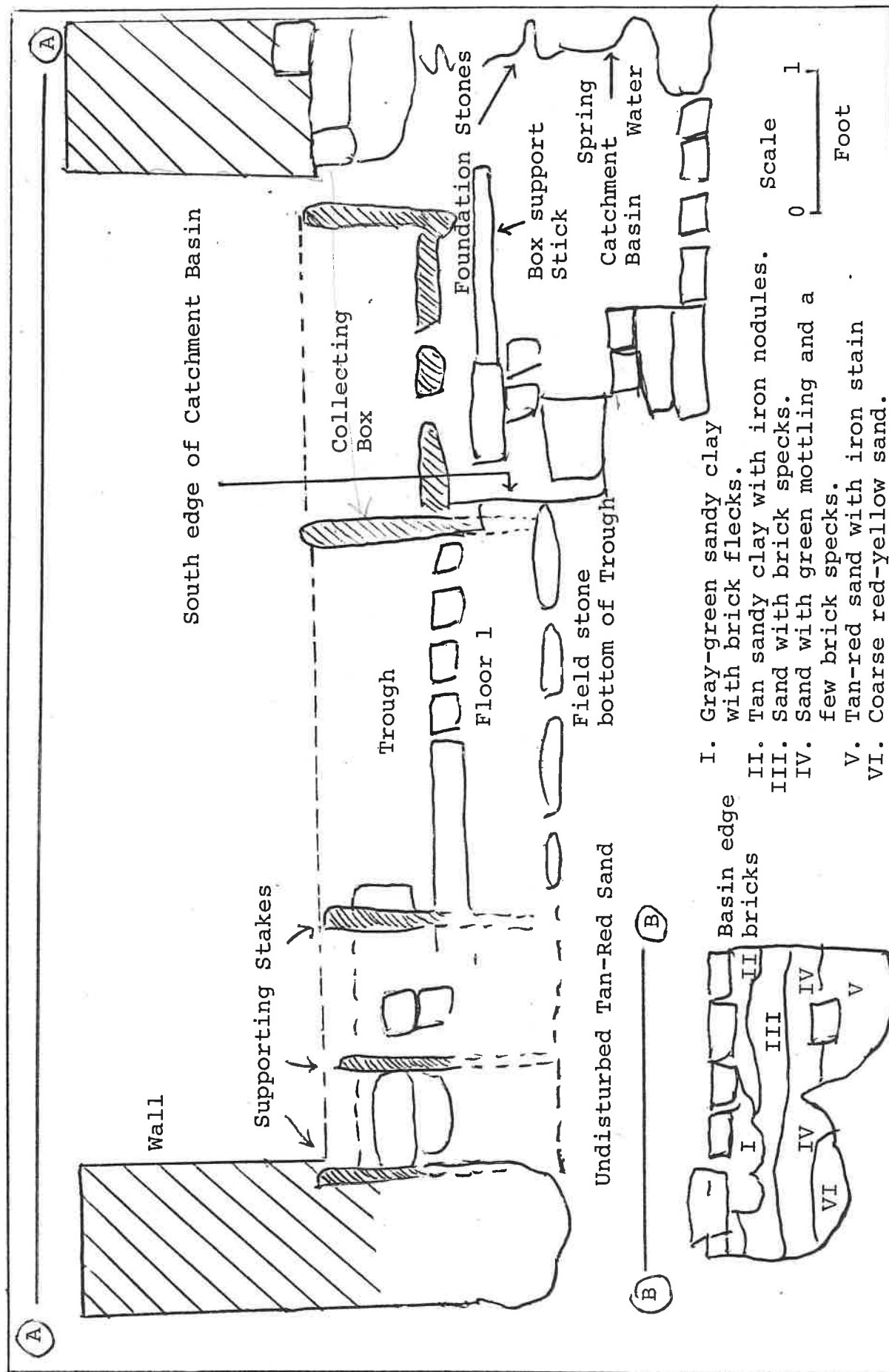


Figure 3. Cross-sections of Spring House (after 1967-68 Dig Charts, Contract Archaeology, Inc.)

during Excavation under Phases 1, 2, and 3, 1967-68". The chart and photographs of the dig show the base and interior of a brick-walled structure measuring nine feet square with one foot-thick walls. The door opening was determined to be in the middle of the west wall. Outside the door was a "stoop" (walk), the bricks of which were found in place.

The recorded stratigraphy consisted of three superimposed brick floors with intervening soil strata. The fill above the floors was not recorded. The top floor, Floor 3, was dated "ca. 1840". It was separated by an inch or less of soil "roots, and water deposited sand, coal and glass fragments" from Floor 2. Brick Floor 2 was dated "ca. 1825" and was separated from the bottom-most floor, Floor 1, by six inches of soil in two strata. The top stratum was "loosely deposited sand stained a dark gray from organic decomposition, one glass fragment and a sherd of white procelain ca. 1840". The bottom stratum was "red-tan sand mottled with ferrous material and organic strains." Also, "a piece of coal was recovered in the sand fill and base between Floor 2 and 1, dating the floor (Floor 2) post 1825".

A wooden water collection box measuring 2 by 2.5 feet and a trough with wooden sides measuring 1.1 by 4 feet were found in an "L" formation centrally located within the interior of the Spring House. The tops of these containers were flush with the top of Floor 3. Each was held in place by stakes placed at the corners of the box, and strategically along the sides of the trough. The trough cut through Floor 1 and its base, located 2 feet below the top, was paved with field stones. Below the trough was "undisturbed tan-red sand with ferrous content". Continuing the trough to the south was a 1.75 foot extension, also of plank wood held by stakes, which comprised two "gates" through which the water flowed through a small drain cut in the top of foundation stone (the "south drain"). Each gate had two superimposed bricks lying flat.*

The collection box had a wooden bottom, 1 foot below its top, which had two parallel slots to admit water from an underlying catchment basin. The catchment basin measured 2.5 by 2 feet and was paved with a brick floor, 2.75 feet below the top of the box. Underneath the brick was "tan-red sand", presumably the subsoil. A brick step began in the middle of the basin and extended .5 foot high. It supported a flat stone containing a brick feature which held by wedging a squared rod 2.2 feet long which appeared to support the base of the box.

A second note on stratigraphy came from a view of the south face of the basin step. A row of bricks in header position (the step) was the top stratum of six strata, 1.25 feet thick in all. The strata were described as follows: (1) "gray-green sandy clay with brick flecks

* Little reports that the trough and box were constructed with machine cut nails "Thus, the wooden feature in the brick drain is not of the Paca period; and, in fact, probably relates to a period ca. 1840-4 to 1860" (Letter to Mrs. Charles W. Williams, Nov. 8, 1967).

and organic matter", (2) "tan sandy clay with iron nodules", (3) "light gray-green sand with small amount of brick specks", (4) tan sand with green mottling and a few brick specks, (5) tan-red sand with iron stain, and (6) coarse red-yellow sand. These strata rested on a curiously irregular subsoil which appeared to have been dug into.

The north wall of the catchment basin (2 feet high) was composed of a "loosely battered stone foundation to collect spring water from the northwest corner of the garden". A profile of the north wall showed more than a dozen large stones ranging in size from .5 feet to 1.5 feet in diameter. One stone measured 2.5 by .5 feet. The stones extended the length of the north wall and also functioned as the foundation on which the north wall was built. A similarly massive stone was shown for the south wall foundation (through which the south drain proceeded) and "field stones" are indicated for the west wall. The east wall was not excavated due to the presence of a large tree stump. It should be noted that a note on the profile of the interior south wall stated "below this line (7.10 feet elevation) is struck mortar joint same as on main house (the Paca House)."

A "feeder drain" made with brick top, sides and base placed together without mortar was shown curving into the northwest corner of the Spring House. This was noted as the "west feeder drain from canal to Spring House". The drain is shown lacking top and base bricks extending toward the catchment basin over a "splash stone" and an area in which "no brick bottom was found". The canal referred to is the "artificial brick stream which began in the west garden wall at "Ruin No. 5, which was presumably a second spring house.

The functioning of the Spring House was explained as follows: "water is collected from the spring to the northwest and the west (feeder) brick drain, underneath the box and raises to the top by pressure". This force obviously provided water for the adjacent trough also. The chart continued - "the overflow exited through the north brick drain." This drain, made of bricks also, extended to the east across the garden for over 80 feet. The drain then splits, part going to the south to an area of cobble stones (the pond), the other continuing to the east. A further projection of the north drain (not found) connects it with a drain segment located at Ruin No. 3, presumed to be the location of the Bath House (also not found.)

The Present Excavation (Figure 4)

The purpose of our excavation was to uncover the remains of the Spring House interior prior to its reconstruction. The exterior had already been reconstructed and consisted of a 9 foot square brick house with alternate header and stretcher courses, surmounted by a pyramidal roof. We started by removing the fill which had been thrown back by the 1968 dig to cover the interior. It was about 3 feet in thickness and contained quantities of field stones, brick fragments, pieces of wood (many being thin boards showing flaking on

the surface as from long emersion in water), sherds and glass fragments of the 19th and 20th centuries, and recent debris of the 1967-68 excavation. Included in the later debris was a "San Miguel" beer bottle, plastic straws, and aluminum cans. The fill stood at 7.07 feet elevation. Note that all our vertical alignments are in terms of the 1967-68 dig elevations which are presumed to be absolute elevations.

The presence of the water table at 5.97 feet elevation required the opening of drains to tap off the water before excavation could proceed. This was accomplished under the direction of and with the good help of Mr. Bullock, the architect. We located and opened the north drain from the outside, finding the brick "housing" as shown in the chart. A hole was made in the side of the brick drain and a ditch dug to carry the water to a gravel zone where it drained into the pond. The pond had been lowered to accommodate the run-off. A second drain was opened at the south drain, but this opening proved too high to drain the interior water to the level of Floor 1 (5.07 feet elevation). A hole dug outside the wall at the south drain did not improve matters since the water table was too high at this point to drain by gravity. The drain was therefore plugged up again.

We unearthed what appeared to be the west wall field stone strip at 6.85 feet elevation, noting that the bricks of Floor 3 were supposed to rest on it. The field stones were mortared or cemented together, possibly as a support in the reconstruction process. Floors 2 and 3 had been completely removed by the 1967-68 dig along with the soil strata between the floors. We continued to excavate the fill down to floor 1 at the 5.07 foot level. A wooden stake, an inch square, extended from the east wall about 2 inches, near its juncture with the south wall. This stake could have supported the top floor, in part, being at that elevation.

When the floor (1) was uncovered we clearly saw the trough and collecting box areas outlined as pools of muck. None of the original boards remained but a few stakes used to support those boards were still in position. It was noted that the bricks of Floor 1 surround the trough and box area in a ragged, non-conforming manner which gave no support to an idea that the trough and box had been in use during the Floor 1 period. It appeared as if the trough cut through Floor 1. Floor 1 bricks, however, extended in an orderly manner to the north drain which appeared to be functional during Floor 1 period. A brick was tentatively removed from Floor 1 to test the strata underneath. A layer of dark green-gray sand was encountered. The brick was replaced without further testing since excavation in the water-filled zone would be difficult, if not impossible, at this time. It also appeared clear that the south drain tapping off water from the trough could not have functioned in Floor 1 times since it was too high. The north drain worked fine keeping the water just below the level of Floor 1.

The brick of Floor 1 was uniformly salmon-red in color, soft (it can be scratched with one's fingernail), and measured $8\frac{1}{2}$ by 4 by $2\frac{1}{2}$ inches. Most of the bricks in the walls are the same as Floor 1 bricks in size and paste characteristics. However, some were larger and some were cherry-red in color. There were a few bricks scattered about on the top of Floor 1. These were narrower and thicker than the Floor 1 bricks, and were also a dark red color. It may be assumed that they were remnants of the Floor 2 and 3 bricks. They measured $8\frac{1}{2}$ by $3\frac{3}{4}$ by $2\frac{1}{3}$ inches.

Several upright stake fragments and two short board sections were associated with the gate area to the immediate south of the trough and connected to it. Several bricks were found in the gates in superimposed position as depicted in the chart. The bottom of the trough was relocated by probing with an iron rod. It appeared to be at 4.27 feet elevation. Most of the field stones appear to have been removed but the subsoil provided a firm base. Probing also located the bottom of the catchment basin at 3.17 feet elevation. The brick is apparently in position judging from the sound of the probing but water and muck prevented our seeing them. A large field stone rested against a channel course of bricks leading to the north drain. This was possibly the stone used to support the rod which steadied the collecting box.

Nothing was seen of the west feeder drain in the northwest corner of the Spring House. The cemented field stone bar across the west wall below the door opening probably screened this drain. The battered stone foundation could be seen under the sagging north wall. It is believed that a lot of the original muck is still in the basin. A bottle base fragment of dark glass with conical hollow base and globular body came from the basin muck - a clearly 18th century artifact, this could have been associated with the Paca House period. Further excavation of the basin muck must await stabilizing the water flow to avoid under-cutting the foundations.

Archaeological Phases of the Spring House Site

The evidence unearthed to date in the archaeological excavations suggests the following phases in the history of the site:

Phase 1. The Prehistoric Spring. The spring which fed the Spring House undoubtedly was in use in prehistoric times. The stratigraphy of the catchment basin step indicates this. The irregular subsoil suggests scooping out to facilitate the collecting of water. The red-yellow and red-tan sand, .5 foot thick, indicates water deposited sand. The strata lacks artifacts of the Colonial Period. Although not conclusive, the suggestions are that the Indian population used the spring earlier. Excavation of the lower strata

zone could reveal Indian artifacts to substantiate this hypothesis.

Phase 2. The Early Colonial Period Spring. The catchment basin step stratigraphy, strata 3 and 4, indicated tan and gray-green sand with small amounts of brick specks, suggesting that the spring was open and depositing sand in addition to particles of bricks - indicating Colonial construction in the vicinity.

Phase 3. The Paca Garden Spring House. The brick of the house wall and Floor 1 are the same and resemble those of the Main House (Paca House) both in style of brick and mortar (there are other kinds of brick in the house also). The presence of the middle 18th century bottle base from the basin muck further supports the connection. The trough and box were not in operation at this time since their tops are well above the floor 1 level, and the south drain tapping off the trough overflow does not drain at Floor 1 level but above. During Floor 1 times the catchment basin with its brick floor and brick step served to collect the water. The step was probably used (as the trough later) to accommodate jars and bottles for cooling. The north drain was functioning at this time period and carried water to the pond, and possibly the Bath House, as yet undiscovered.

Phase 4. The Early 19th Century Spring House. Sometime after 1825 (the presence of coal giving the date since it was introduced in this area about that time), the floor was raised to the Floor 2 level by throwing in about a foot of soil, mainly from the tan-red clay subsoil. The trough and collecting box arrangement was introduced at this time, possibly as an improvement on the earlier open catchment basin. The west feeder drain bringing in additional water from the second spring house at the west garden wall was probably constructed at this time. This may have been necessary to provide the water pressure necessary to force the water into the collecting box and the trough.

Phase 5. Final Period of the Spring House. The Spring House continued to be more or less operative until the latter part of the 19th century. A photograph taken at that time appears to show the Spring House still largely intact though somewhat delapidated. Soon afterwards the level of the garden was raised to that of King George street and the site was preserved under a layer of fill.

Conclusions and Recommendations

On the basis of the archaeological evidence and in conjunction with the archival data, the following recommendations may be made

in regard to the restoration of the Spring House interior:

1. The interior of the Spring House should be reconstructed into a functioning exhibit that would enable the visitor to view the operation of an important early American institution, in accordance with the above understandings.
2. It is suggested that the exhibit show the various phases of the history of the Spring House site, as analysed herein. The rock face of the north wall facing the spring could be viewed through clear water along with the basin and step. Floor 1 could be reconstructed to show its largest (east) section with the north drain and channel showing. The trough and collecting box could be reconstructed with water tight containers to show the 19th century phase. Floors 1,2,3 with soil strata would show the basic stratigraphy of the site with a "cut-away" technique utilizing Floor 3 brick mainly for the west floor section. The "stoop" at the entry of the Spring House should also be cleared off - with a section of the feeder drain exposed.
3. It is further recommended that following stabilization of the water table situation in the interior of the Spring House, further excavation be undertaken on the strata between Floor 1 and the subsoil, and the bottom layer of the basin step stratigraphy. This could contribute substantially to the early history of the site. The muck in the trough and basin areas should also be excavated and screened for possible artifacts missed in the 1967-68 excavation.

THE PRESUMED PAVILION HOUSE SITE

The area presumed to contain the Pavilion House as depicted in Peale's portrait of William Paca (1772) was shown to us by Mr. Bullock, the Architect. It was an area measuring approximately 15 feet square adjacent to and in the middle of the east garden wall. Our job was to relocate the features found in this area by B. Bruce Power, Archaeologist, in the 1966 dig, and then to test the area by trenches so as to reveal the presence or absence of features which might be associated with the Pavilion House.

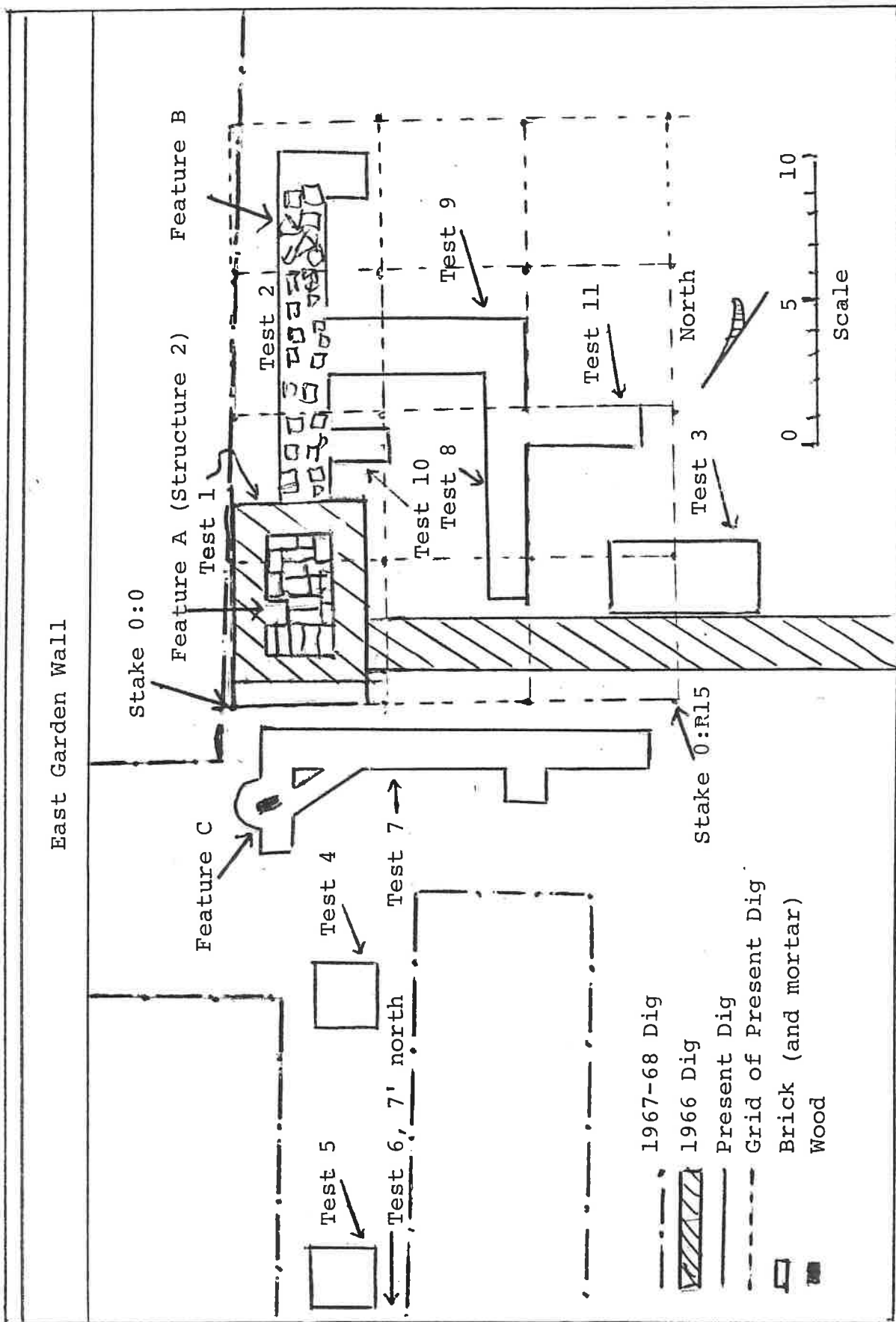
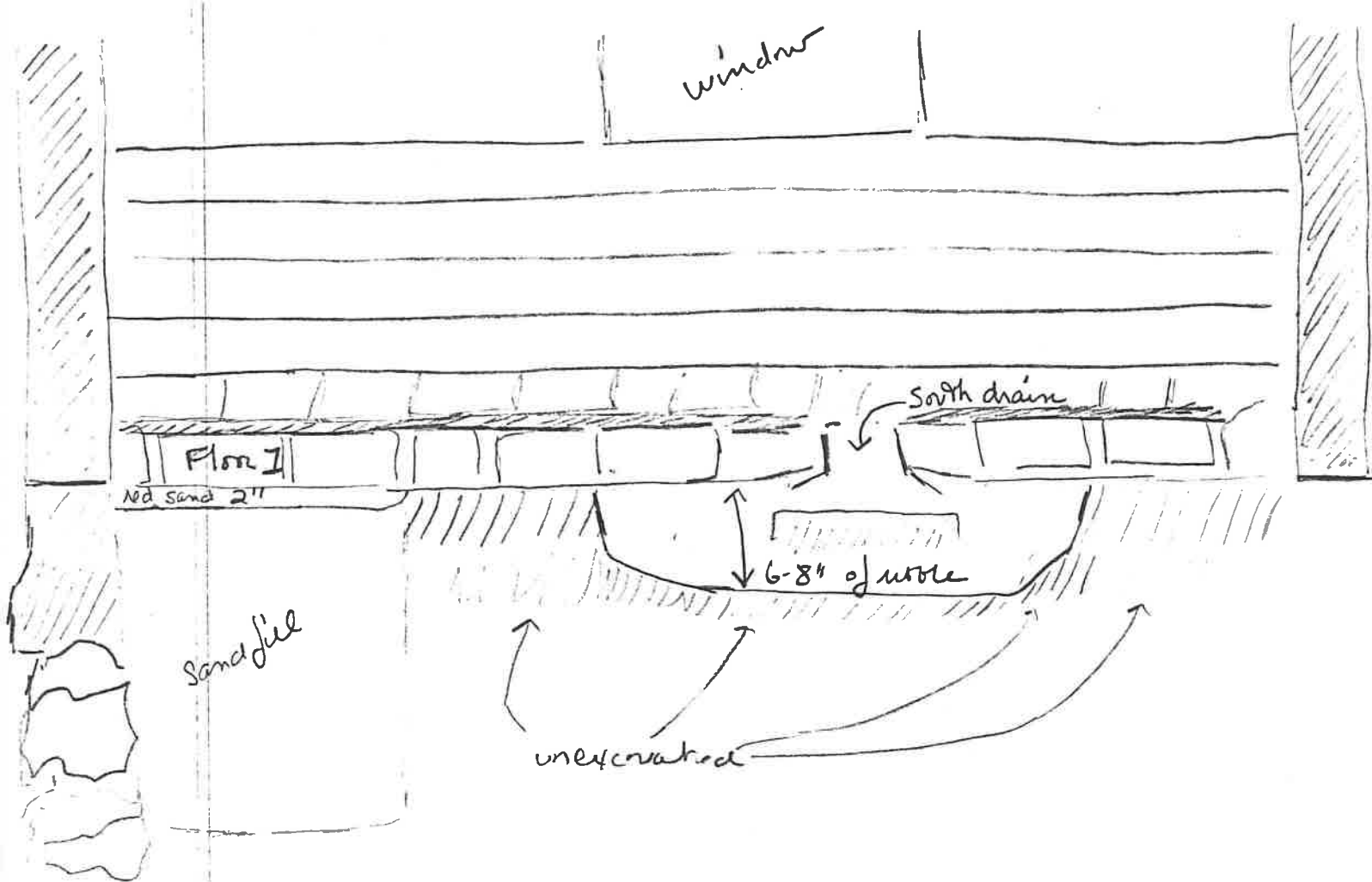


Figure 4. Ground plan of presumed Pavilion House showing present and previous excavations with features located.



sketch - profile of south wall
(not to scale)

the area of rubble beneath floor
1 has not been fully determined
it does extend closer to east wall
than 16".

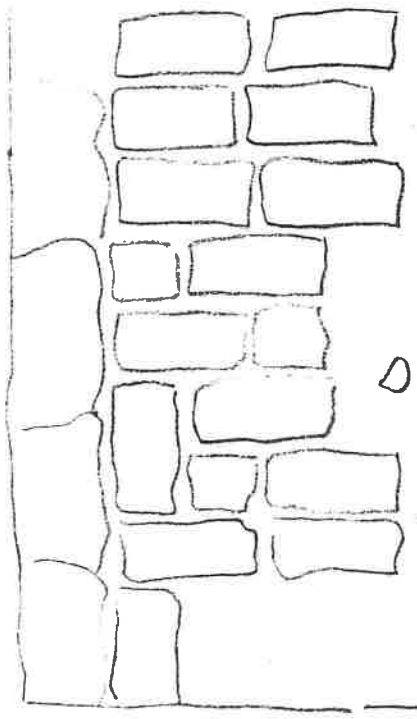
N →

area of brick - oyster shell
+ stone rubble - 19th c.
concretes

missing brick - 1982 - info.
taken from 1967-68 drawings

A --- line where floor 1 slumped
after removal of rubble

detail in N-W corner is
taken from 1967-68 drawings and
is not accurate - see sketch by Harris
new drain

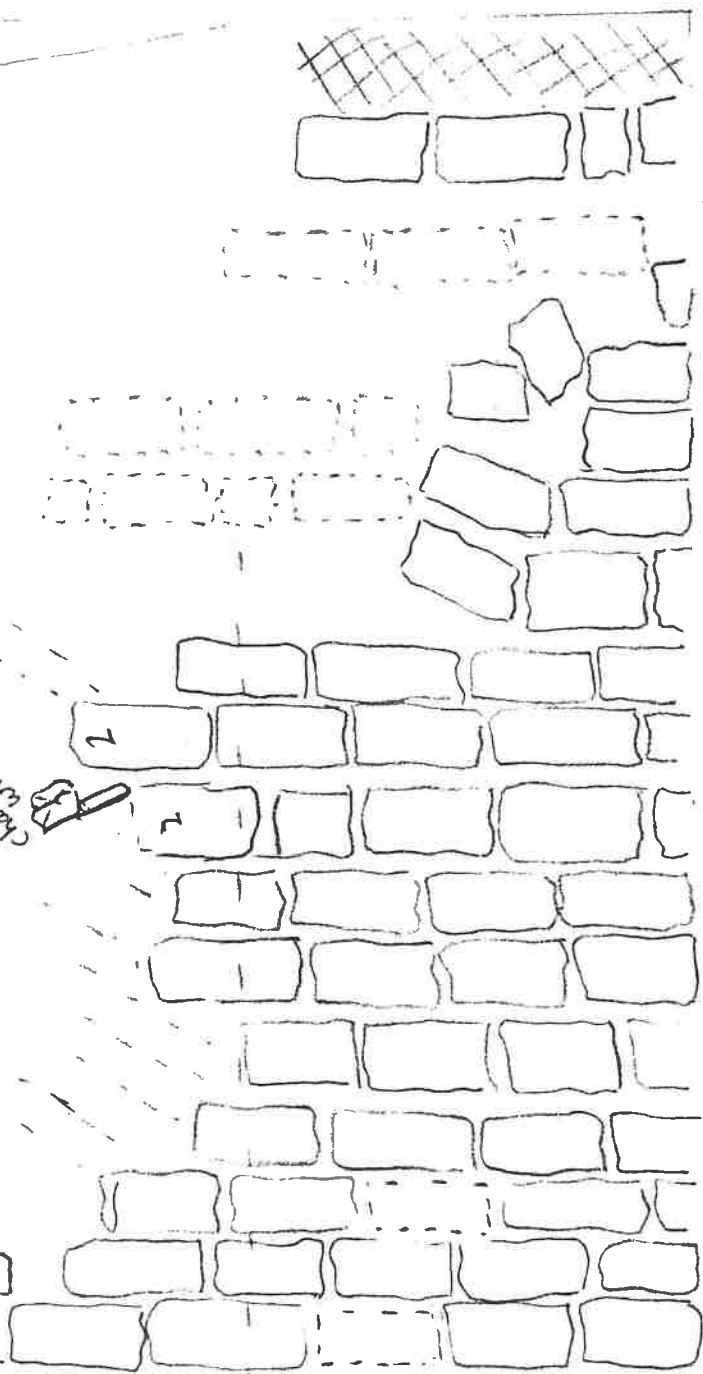


Stone
→

Chaired
rod



rain



drain

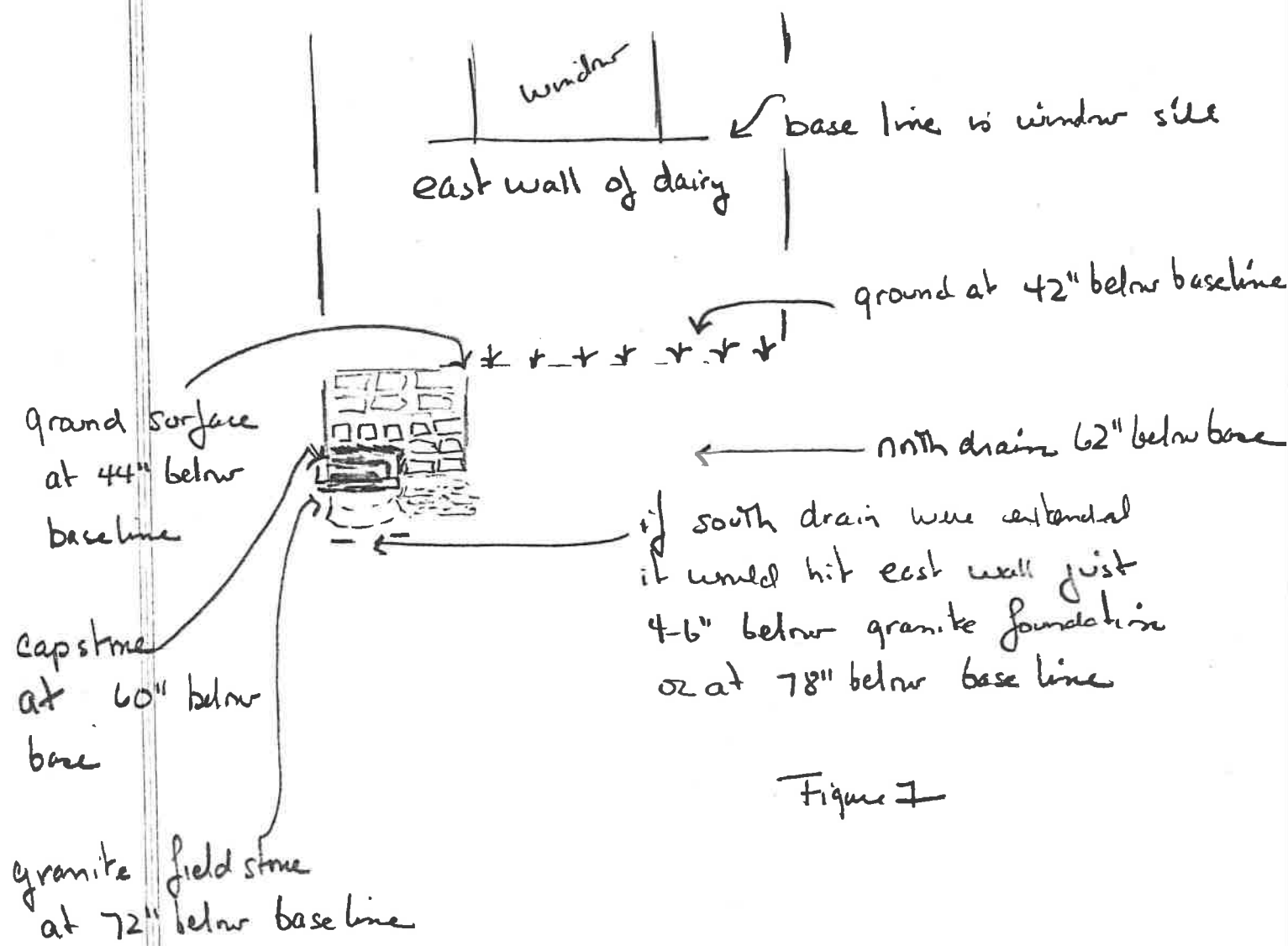
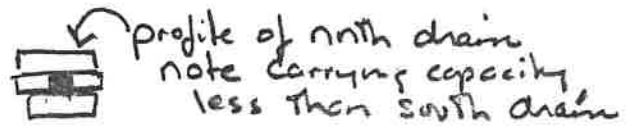
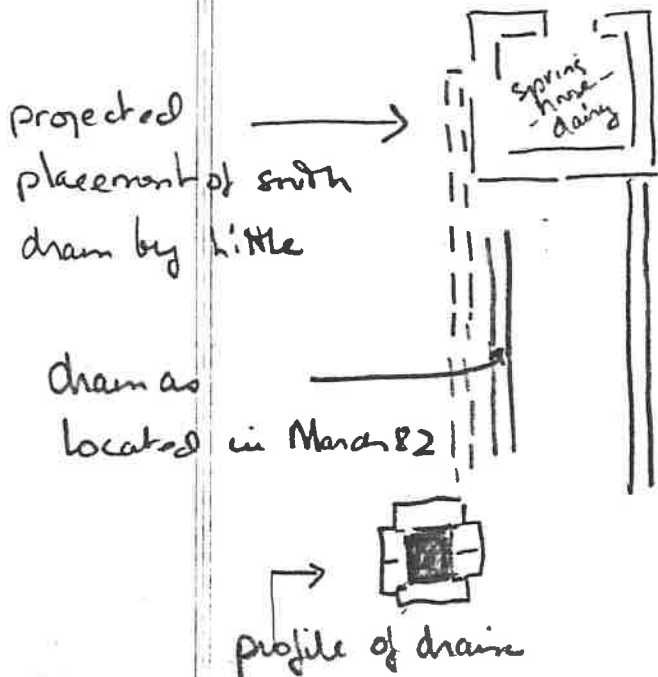


Figure 7

Figure 2



← projected placement of north drain by little — same as located north drain in March 1982

north drain is 62" below base line
south drain is 78" below base line

