1986

Pennsbury Manor: A Study in Colonial Revival Preservation

Carol G. Weener

University of Pennsylvania

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PENNSBURY MANOR:
A STUDY IN COLONIAL REVIVAL PRESERVATION

Carol G. Weener

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MASTER OF SCIENCE

1986

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My most special thanks must go to Richard Walton, Keeper of the Collection of The Welcome Society, who spoke to the Society on my behalf and received permission to open the collection in the name of scholarship.

To Michael Thomas - thank you for being able to read my scrawl. To Stan and Christa - thank you for caring.
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INTRODUCTION

William Penn, the Quaker activist and political figure was determined to found a haven for his co-religionists who were persecuted in England and Wales.¹ In 1681, King Charles issued a charter of some 16,000 pounds to William Penn, in payment of a debt that was owed to the late Admiral Sir William Penn, Penn's father. This charter became the instrument by which William Penn became the sole proprietor of the Colony of Pennsylvania. Although Penn was the proprietor, he determined that religious tolerance should prevail, and that the colony should be governed by the popular will.

Penn encouraged the settlement and emigration to the colony by marketing both parcels of land and the policies under which people buying the land could look forward to being governed. The marketing of Pennsylvania was important to Penn, because he needed the money raised by the sale of his land. The 16,000 pound Charter was a gift of land, not actual monies.²

² Soderlund, p. 5.
It was Penn's belief that he and his family would emigrate to Pennsylvania and take up permanent residence there. However, political disputes, boundary, and territorial problems, and his family's preference for England made his plans for permanent settlement a dream rather than a reality. But, in 1682, unaware of the difficulties that lay ahead, Penn bought a large tract of country property intending that part of it be used for his manor house, or country seat. In July of 1682, Penn's cousin, who was the Deputy Governor of the Colony, Governor Markham, acting for Penn bought a large tract of land on the Delaware River including the major part of what is now Bucks County.³ It was on this parcel that Penn erected his country house, Pennsbury Manor, which is the subject of this paper. The house was begun sometime during the years 1682-83, and was not finished until Penn's second and last visit to his Colony in 1699.⁴

After William Penn, his second wife Hannah, and their children returned to England in 1701, the house which was only partially occupied by servants, fell into disrepair, and by the beginning of the next century only the foundations remained.

Although there is some correspondence regarding the construction of the house, first between Penn and his steward James Harrison, and later


null
between Penn, Hannah Penn, and their Secretary James Logan, no drawings or plans for this house have ever been found. Thus, although some information exists regarding Pennsbury Manor, no one actually can point to a document and know with certainty that it provides a clear picture of what the house looked like either in elevation or in plan.

Despite this lack of information a movement arose in the 1930s to rebuild Pennsbury Manor. It is the reconstruction, or recreation of the manor house which is the subject of this paper. I will not be dealing with the subject of the Bake and Brew House, or of any of the other outbuildings which have also been reconstructed on the Pennsbury Manor site.

The concerns raised at the time of the re-creation, which included the lack of adequate documentation versus the desire for a fitting memorial to the Commonwealth's founder William Penn, are still with the preservation community today, 50 years later. They speak to the basic questions of what are the roles of the preservation consultant, the historian, the archaeologist and the restoration architect. What place do private interest groups have in public projects? In short, how can historic preservation be encouraged, while keeping projects in the bounds of historical and documentary reality?
CHAPTER I - History

There is no disputing the fact that William Penn built a house on the Delaware which he named Pennsbury Manor.

The actual land on which the house sat was purchased by Deputy Governor Markham for William Penn from a man named Thomas King. The land was not undeveloped at the time of purchase, and contained a corn crib, and a house or barn. The property had fenced fields, and a peach orchard—all of which had been built or planted by this previous owner, Thomas King.¹ We know that the property had been acquired for Penn by July 21, 1683, because Penn issued a commission from Pennsbury on that date. He also held a Bucks County Court Session there on March 11, 1684.²

In 1684, William Penn wrote to James Harrison requesting him to consider employment as steward of the manor property. From this letter we infer that a house was built. That it was probably not finished is apparent because of the ongoing correspondence regarding various details of the house. The letter which follows indicates that the house was probably a sizable one, which needed not only the services of a steward, but of

² Dunn and Dunn, p. 524-525.
other servants as well. There was lodging, but we do not know how grand or simple, for the Harrisons, the Penn family, as well as servants and guests. In the light of present scholarship we are aware that sleeping quarters in the seventeenth century were usually crowded, and that personal privacy was not an issue at this time, with parents and children often sharing beds as well as chambers.

July 1684

Dear Frd: J. Harrison

My desire is, & I offer to the consideration of thee and thy wife [whose satisfaction, Thou art carfull of] that thou shouldest be the Steward of my household to over see, servants, building & wt relates to the place where I live, to receive & pay, take and putt away serv to....except where my express mind is declared to the Contrary; to receive all strangers, to place them as to Lodgings. thy wife to over look the maids in dary, Kitching & Chambers, with the Charge of Linnen & Plate; & to have the maids accountable for inferior matters to her. If you are willing to (being only over sight) I shall allow you a couple of chambers, & a horse & give you besides meat drink washing and lodging forty pound the first year & fifty ever after, wch I conceive will be a clear subsistence. I have truth &... virtue in my eye for my family. pray lett me Know your answer as soon as you well can. I am as thou knowst.

Thy True Frd,

W. Penn3

James Harrison accepted this offer and became Steward of Pennsbury Manor on August 15, 1684.4

3 Dunn and Dunn, p. 568-569.

4 Dunn and Dunn, p. 569.
The recreated Pennsbury Manor stands facing south on a bank of the Delaware River. It is a large 2 1/2-story, five-register center hall plan house built of brick and capped with a hip roof of tile, and a wood cornice. The house, which is sixty by forty feet, has a symmetrical front facade of English bond brick. The facade is marked by a brick water table and a belt course at the second floor. There are two large interior chimneys which rise from the roof. The first floor lights are multiple light casements set in wood surrounds, with brick segmental arches. The paneled front door is set in a plain wood surround with a wood lintel which reads "W 1683 P". There are three rectangular stone steps which lead up to the front door. The symmetrically placed second floor windows are sash with leaded lights on the upper sash and sixteen lights on the lower sash. These windows are set in wood surrounds. The attic story is lit by hip roofed dormers. Four metal down spouts are placed on the front facade and read as a strange kind of pilaster on the symmetrical facade. A 1 1/2 story kitchen ell extends to the East. It has a brick facade and is capped by a tile gable roof and large brick chimney. The four front windows of the kitchen ell are symmetrically placed with regard to the door. The rear facade of the main house is covered with clapboard and is symmetrical. It contains a rear door with stone steps. The windows on the facade are symmetrical, and three dormers light the attic level. The cladding of the west elevation is vertically divided with clapboard to the rear and brick toward the front. The brick facade has a segmentally arched window on the first floor, and a sash window with leaded lights over sixteen lights on the second floor. The wood facade has windows set
in wood surrounds, leaded lights over sixteen lights.

The interior appears to be a transitional style from a hall, parlor plan to a center hall plan Georgian house. The first floor has a central front hall which acts both as hall and room, and bears the name "Great hall" on the 1939 blueprints. It contains a fireplace at the northeast corner. The hall is lit by two large recessed windows placed on either side of the front door. This room is wainscotted to chair rail height, and then finished with plaster walls. There are two parlors placed on either side of the hall which are of equal size; both having fireplaces, wainscotting and plaster walls. The west parlor has a door on the north wall which leads to the withdrawing room. Behind the great hall is a central stair hall with a fine, wide wood staircase which rises to the attic level. The hall contains a rear exit door, and doors to the withdrawing room, and to the "Great Room" to the east. The "Great Room" on its west wall has a doorway which leads directly to the kitchen ell. The second floor has a large center hall, four large chambers with fireplaces, and a smaller chamber placed over the area of the front door which is called the "nursery" on the blue prints. The attic floor has four cham-

5 The original 1939 plan did not have a doorway from the stair hall to the withdrawing room. This was installed later for the purpose of museum circulation, so that visitors could view the room without going through another room and disturbing the display. Telephone interview with Alice Hemenway - present Historic Site Director, Pennsbury Manor. Oct. 1985.
bers. The basement level under the east parlor has a flagstone floor and an arched over brick area of wall which purports to be the original foundation wall of old brick. The stone floor is said to be the original floor of this part of the basement. In addition to an interior passageway, constructed to look like a closet between the great hall and the east parlor, there are many contemporary closets in the house.

The question which must be asked, and then answered, is how was the present Pennsbury Manor built, from what data and research is this recreation derived?

At a meeting of the Pennsylvania Historical Commission in May, 1932, Charles Henry Moon, a member of the commission, suggested that an attempt be made to locate the foundations of Penn's manor house. The suggestion was taken up and passed by the commission. With the permission of the Warner Company, who owned the property, archaeological tests began, with the use of volunteer workmen on July 23, 1932. Seven days later parts of the foundations were located. As a result of these findings, the Warner Company agreed to deed to the state a portion of their holdings which were believed to contain the Pennsbury Manor Property. The formal presentation

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6 Pennsbury Manor Blue Prints. Archives, Pennsbury Manor
7 Pennsylvania State Archives, Pennsbury Memorial MG303, Okie Justification. p. 4.
8 Charles Henry Moon was a birthright Quaker, and a member of the Fallsington Meeting. He was a surveyor by profession.
was on October 23, 1932 by Charles Warner, as part of a William Penn Commemoration. However, the deed was recorded four months earlier in July of 1932. The property deeded contained eight acres, with a river frontage of 500 feet. Beginning in 1932, the Historical Commission's archaeologist Dr. Donald Cadzow excavated the site for a period of two years. The majority of the labor for this project was supplied by the Bucks County Relief Bureau.

The commission report stated that: "The stone and brick cellar walls of the house have been carefully dug out, and amongst many interesting objects found, and classified, are pieces of hardware, casement windows containing bits of glass; seven-inch hearth bricks, five-inch glazed green and yellow tiles of the fireplaces, etc...."

The commission obviously felt that the excavation was a successful first step in the re-construction of the actual manor house, and empowered the Pennsbury Committee with the private support of the Friends of Penns-


bury, headed by a Committee of the Welcome Society, to prepare architectural plans.\textsuperscript{13}

Mention is made in the report of archaeological reports which contained "accurate charts and drawings, on which elevations, cross-sections and walls were carefully located..."\textsuperscript{14} However, these reports do not appear in the State Archives' Pennsbury Memorial Files, and there was no complete archaeological report of the site ever written or submitted to the commission.\textsuperscript{15}

The final decision of the Commission was to amass data regarding the Manor House so that ".... Reconstruction of Penn's buildings..." could commence as "An interest has been aroused throughout the Commonwealth in preserving the site as a memorial to William Penn."\textsuperscript{16}

Thus armed with sketchy archaeological evidence and a drive to create

\textsuperscript{13} Pennsylvania State Archives, MG303, Pennsylvania Historical Commission 1931 - 34, p. 42.

\textsuperscript{14} Pennsylvania State Archives, MG303, Pennsylvania Historical Commission 1931 - 34, p. 45.

\textsuperscript{15} Telephone interview with Alice Hemenway Oct. 1985.

a memorial, the first part of the process of re-construction began in Pennsylvania. 17

On May 11, 1936, the Pennsylvania Historical Commission minutes recorded that Mr. Okie "...be now requested to prepare a plan or scheme for the general development of the Pennsbury Memorial ... in conference with the Welcome Society of Pennsylvania... The plan... to be submitted for the approval of the State Art Commission and Pennsylvania Historical Commission. When so approved...this plan to be the basis for the future development of the Pennsbury Memorial under the supervision of the architect as above named as and when money for the purpose becomes available." 18

On Thursday November 4, 1937, the front page of the Morrisville Herald read: "237,000 Needed for Purpose - Water Tank on Roof Caused Wreck of Building. The $237,000 would rebuild 'Pennsbury' just the way it was when Penn left it for the last time in 1701. The money has been allotted by the State Authority and the project awaits approval of

17 Charles B. Hosmer, Jr., Preservation Comes of Age, (Charlottesville: University Press of Virgina, 1981), p. 31 - Hosmer suggests that the sketchy archaeological findings were due to archaeologists inexperience in interpretation of the Colonial Period, and that they were not interested in sites that could be betrayed through historical documentation.

18 Pennsbury Manor Archives, 106.404008. - Pennsylvania State Historical Comission Records, 1936.
the Public Works Administration in Washington...The present house, which extends about 10 feet over the site of "Pennsbury" will be moved ...

Thus we see both from the Commonwealth's records and the public record that the plan was to reconstruct Pennsbury. The hiring of R. Brognard Okie, a noted Colonial Revival architect was a key step in the carrying out of these plans. Mr. Okie assembled a research team for the purposes of historical accuracy consisting of Charles B. Montgomery and John M. Okie. He also enlisted the aid of Warren Powers Laird, the


20 John M. Okie, who was R. B. Okie's brother was, according to his nephew, Charles Okie, a history buff. He helped with the research for Pennsbury because of his interest in Pennsylvania history, and as a favor to his brother. He was employed by the Girard Trust Company for most or all of his professional career. Charles Okie states that John M. Okie never published any papers and was not a professional historian. (telephone interview with Charles T. Okie, March 20, 1986)

Charles Berwind Montgomery who was born in 1889 was a gentleman farmer who was interested in Pennsylvania history. He was a member of the Chester County Historical Society, and became curator of the Berks County Historical Society in 1929. His special field of interest was the iron industry in Pennsylvania. In 1936 he was appointed Curator of Business Records at the Historical Society of Pennsylvania. His research on Pennsbury was published in The General Magazine and Historical Chronicle, University of Pennsylvania, July 1939.

Illustration No. 1 - 1736 Survey Map of Pennsbury Manor
former dean of The School of Architecture at the University of Pennsylvania, who acted as a consultant to the architectural part of the project.21

The archaeologist found cellar walls 60 feet in length which were parallel with the river and a central wing 14 feet wide extending to the north 19 feet 2 inches which made a T-shaped cellar. In his description of the work done at Pennsbury, Mr. Okie referred to this excavation as "...making a T-shaped cellar 60' 0" long x 40' 0" deep all over." He continued "The excavations also revealed very definite evidence of a foundation or pier at the outer angle formed by the continuation of the west cellar wall and the north cellar wall, but all traces of a corresponding pier at the other outer angle had been obliterated by the erection of a later house over the north eastern portion of the manor house site. In other words, although a T-shaped cellar was found, a rectangular building evidently had been erected, but without a cellar under the north east and north west rooms of the original structure... The cellar walls of the rear portion of the building on the stem of the T were lighter or thinner than the main cellar walls, indicating a lower building at the rear or one of different construction."22 (See Appendix F)

21 Pennsylvania State Archives, MG303, Okie, p.2.
22 Pennsylvania State Archives, MG303, Okie, p.3.
The survey drawing of Charles Henry Moon shows a T shaped cellar extending forty feet in depth by 60 feet in length.23

As the plans show Pennsbury Manor's rear and front elevations rose to the same height. (see appendix E) However, the rear of the building may have been clapboard which required less foundation than a masonry facade. William Penn's son Thomas noted in a 1737 letter that only one-half of the house was built of brick.24

The archaeological data was integrated with a survey ordered by Thomas Penn of the property in 1736 which showed a small drawing of the front facade of a building taken to be Pennsbury Manor. This sketch shows a five register house with rectangular steps and two chimneys which appeared to rise almost flush with the ends of the roof. (see Illustration 4)

In his report, Mr. R.B. Okie continued "From a careful study of all data, letters from William Penn, his contemporaries and others of subsequent date, we are convinced a rectangular building was erected over the T shaped plan".25

23 Pennsbury Manor Archives - Map Case - Charles Henry Moon 1934.
25 Pennsylvania State Archives. MG303, Okie, p. 3-4.
The above excerpts are from a report that R. Brognard Okie prepared at the request of Major Frank W. Melvin, the Chairman of the Pennsylvania Historical Commission during the period of the Pennsbury construction. The full text of the report appears in Appendix A. The major part of the report dealt with the manuscript information found in the Penn papers and the Logan papers at the Historical Society of Pennsylvania. There is no doubt that William Penn gave specific instructions regarding the details of the house, although no complete description for any one room has ever been found. Unfortunately, Harrison's letters to Penn which may have been more clearly detailed as to what had been accomplished have never been found. In the case of scant specific references, it became the job of the architect to decide where to place rooms. In Vol. 9 p. 10 of the Penn Papers William Penn writes, "I would have a kitchen, two larders,..." Okie stated that the larders have been placed on each side of the passage from the kitchen to the Great Room or Dining Room.26

There are of course some very specific references, and these were followed to the letter in the reconstruction."24th 2nd pro '86 - Vol. 10 p. 26 Penn Papers. Robert Ripsy, J. Bradberry, Thomas Russell are pretty fellows, middlemost a rare joyner, he will make sash windows and I would have my middle floor sasht, if thou could sell or use elsewhere the

windows yt ar in, for they ar ye best a hindrance." It is not known if any of the manuscript references referred to the King House.

The interior and exterior door sizes were taken from a letter which Penn wrote regarding a house for a friend.

"24th 2nd mo. '86 - Vol. 10. p. 26 Penn Papers

Let ye doors be three feet-half broad & light high at entrance at least, ye rest within two foot ten inches and seven foot high as myn are." 28

The combination of clapboard sheathing plus brick was deduced from a letter which Thomas Penn wrote in 1736.

....no person has lived in the big house for near twenty years so you must conceive it is much weatherbeaten, and one-half which is brick built with oyseter shel is in many places cracked.

When I came here I found the house at Pennsburry was very near falling, the Roof open as well as windows, and the woodwork almost rotten... 29

From the Logan papers an inventory dating from 1701 at the time the Penn Family returned to England gave a fair estimate of the number of rooms that the house contained, but this number was less than the number of rooms in the present manor house (See Appendix B for inventory.) This

discrepancy is explained by the following: "We believe furnishings of certain of the rooms had been sent to Mr. Penn for his use in England which accounts for the above enumeration of rooms not being complete." 30

Another feature of the house which was replicated was the cistern on the roof referred to in Watson's Annals of Philadelphia published in 1857. 31 "...A leaden reservoir on the top of the house, kept there for retaining water as security against fire got to leaking, and caused the building to fall into premature decay ..." 32 William Penn referred to the need for a plumber in his letter to James Logan dated 3rd 7... 1700 "...the house suffers in great rains for want there of. If Lassel dare undertake the mending of the leads, per first (opportunity) send him up." 33 It is not known if this refers to the lead roof or the lead of the windows, or the water tank.

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31 John Watson who wrote "Watson's Annals of Philadelphia" was a nineteenth century historian of Philadelphia and its environs. He was, at one time, during the nineteenth and early twentieth centuries, considered to be an accurate source for materials regarding sites and events in Philadelphia. In the light of present scholarship his accuracy must be weighed with regard to his own sources. It is probable that much of what he wrote was unverified oral history.


Illustration No. 2 - Detail of 1736 Survey Map - showing the small drawing upon which Okie based the facade of the Pennsbury Manor House.
"The place was constructed in 1682-3 at great expense for that day, having cost 7000 (pounds) and having considerable of the most finished or ornamental materials brought out from England. The mansion was sixty feet in front, by forty feet in depth; the garden an ornamental and sloping one, lay along the river side in front of it ... All that now remains is the house occupied by Robert Crozier."

Certainly the search for documentation did not stop at the manuscript records available in this country. Mr. Montgomery went to England where he researched English hardware of the period of the original house. Okie also had a correspondence with William Helburn, a book seller in New York, and had requested books on seventeenth century architecture. In one letter to Mr. Helburn dated June 15, 1938, Okie referred to Stenton - perhaps Mr. Helburn had suggested Stenton as a model in a previous letter. Okie wrote as follows:

The illustrations of the Logan Mansion here in Philadelphia, at Stenton, are as you know a little too late for our purpose, but I cannot help but feel that Mr. Logan in having his house carried out, was influenced to an extent at least, by what Penn had and had used at Pennsbury.

In the above letter already cited to Charles Montgomery, Okie revealed that he had decided to copy the staircase of the Biles house, a

34 Watson, p. 101.


house with a 1700 date stone situated fairly close to Pennsbury.\(^37\) His thinking apparently was that the Biles house stairs may have been copied from Pennsbury, or that they were a common type that would be acceptable for the reconstruction. There are no photographs or drawings of the Biles house in existence today.

The tile roof which Okie specified for the house has no archaeological justification. Of all the objects unearthed at Pennsbury, there was not one roof tile.\(^38\) There is no question that Mr. Okie was not diligent in his search for historical justification for the work which he planned at Pennsbury. It is interesting that all the available data regarding Pennsbury was identical on three different occasions by three different teams of researchers. The first research was done by the Quaker historian Albert Cook Meyers, who unearthed the 1736 survey of the Manor of Pennsbury. His records are available at the Chester County Historical Society.\(^39\) When Mr. Montgomery and John Okie researched the project for R. Brognard Okie, the same data came to light as revealed in the records at Pennsbury Manor, and the Pennsylvania State Archives in


\(^38\) Telephone interview with Nancy Kolb former Site Director, Pennsbury Manor. Present Assistant Executive Director Pennsylvania Historic and Museum Commission, Nov. 7, 1985.

\(^39\) Chester County Historical Society - Albert Cook Myers Collection - Appendix D, boxes 104, 105, 106.
Harrisburg. The former director of Pennsbury Manor asked for a third search by the team of researchers engaged in the ongoing publication of the Penn Papers. Up to this date no further information has been unearthed.

Okie had hoped that funds would be made available so that he himself could travel to England to research Penn's residences there, but the funding was not made available to him.

Another conspicuous lack in documentation is that there were few financial accounts from the period of the original house's construction. Many reconstructions or rehabilitations of historic houses are aided by bills for lumber, nails, bricks and hardware. The type of materials used can be justified by such accounts, as well as the quality of workmanship if the builders, carvers, joiners, and brick makers are known from other buildings and records.

The ways in which Okie coped with these gaps in documentation will be considered in the next chapter, which deals with the effect of Williamsburg and the Colonial Revival on the Pennsbury project.

40 Pennsylvania State Archives. MG303.
41 Telephone interview with Nancy Kolb, Nov. 7, 1985.
Illustration 4A - Front stairs - detail
Chapter II - Pennsbury and the Colonial Revival

1. The Colonial Revival

Architecture in America has gone through many changes since the settlement of the country in the 17th century. Many of these changes have been "revivals" - styles which have appeared and then reappeared at later times - such as the Greek revival, Gothic revival, and of course the Colonial revival. There were proponents of the Colonial revival style, as we shall see, who thought of it not just as an architectural fashion, but as a key to a better, purer American way of life.

In 1922, Fiske Kimball wrote in his book Domestic Architecture of the American Colonies and of the Early Republic that:

For fifty years and more admiration and study of Colonial architecture have grown, stimulating each other, until today, a vast literature and a wide-spread revival testify to the high appreciation of this phase of American Art.

It is hard for us to realize that this must not always have been the case, and that like the other styles, the Colonial had to pass through its day of Contumely and neglect at the hands of the generations immediately following its creators.

He continued:

The first historical account of American buildings, included by Mrs. Tuthill of Philadelphia in her almost forgotten "History of Architecture" (1848), speaks of the old New England meeting houses as 'outrageous deformities to the eye of taste' and of the houses as 'wooden enormities'.

Illustration No. 5 - rear facade showing clapboard siding and kitchen ell
Illustration No. 6. Front facade of kitchen ell, showing what is believed to be the original cellar way, kitchen well, and the kitchen porch.
The Centennial Exhibition of 1876 where the state buildings of Connecticut and Massachusetts were reproductions of Colonial houses gave birth to the widespread interest in Colonial Revival Architecture. However, five years earlier in 1869 Richard Upjohn had read a paper before the 3rd Annual A.I.A. Convention entitled "The Colonial Architecture of New York and the New England States". This paper was probably the first positive consideration of Colonial Architecture by a professional architect. Before this paper Colonial buildings were thought to be functional, and interesting for historical ties, but were not considered valid architectural ideas. Upjohn used his paper to measure the progress of American Architecture since Colonial times. As Rhoads put it, the paper "Planted the...seeds of the approaching Colonial revival...a lack of confidence in the quality of modern work coupled with admiration of the Old American Product." Upjohn was fearful that the Colonial buildings would be lost to future generations, and asked painters of the National Academy to record a visual record of such buildings in their paintings. Interestingly, he did not feel that these buildings were worthy of measured architectural drawings. No other architects or architectural historians at this time made measured drawings of old buildings.

Interest in the Colonial Revival grew, and perhaps was nurtured by the events of the first years of the twentieth century. War and

2 Kimball, p. XVIII
revolution in Europe, and the exposure of thousands of Americans to the old world re-kindled a love for America and its early heritage. Public understanding of Colonial architecture was that it stood for "A generous hearth, broad beams, and a spinning wheel -- a comfortable home."\(^5\)

Among the various popular sources used, the White Pine Series of Architectural Monographs, which sought to expand the architectural use of white pine as a structural wood, drew on Colonial homes as its architectural models. It suggested that Colonial homes are the only real American homes, and in its first publication stated:

The monograph series will present classified illustrations of wood construction, critically described by representative American Architects, of the most beautiful and suggestive examples of architecture, old and new, which this country has produced...The first Monograph on Colonial Cottages inaugurates the series, and records some of the remaining examples of the last period in American architecture which evidences the dignified beginning and basic strength of design of our later and more refined Colonial Architecture.\(^6\)

In this same issue Joseph Everett Chandler, commented on early Colonial cottages which still existed in good condition, even without paint. He stated that this "is extraordinary testimony to the durability of the materials used in their construction."\(^7\)

\(^5\) Rhoads, p. 48.


\(^7\) White Pine, p. 3. Early colonial construction was often of heavy, hard woods like oak which may have accounted for the survival of the buildings which Mr. Chandler spoke of. As the hard woods became scarcer over the centuries, because of the lack of reforestation, softer woods were often used for construction, thus accounting for the differences in durability.
Interest in the Colonial Revival encouraged Fiske Kimball and other architects and architectural historians to write about, photograph, and measure whole buildings in plan, and include the interesting interior Colonial details of wainscotting, moldings, chimneys and the like. Indeed in the decade following World War I many historic house museums sprang up around the country, most run by local amateur enthusiasts whose aim it was to educate and teach patriotism to tourists who arrived by automobile.8

A.J. Downing in *The Architecture of Country Houses* set the style in the 1850s for what the contemporary American of that time should aspire to, when building a house. Authors as late as the 1930s such as Rexford Newcomb, continued to write architectural pattern books; his book was *The Colonial and Federal House, How to Build an Authentic Colonial House*. This book was part of the Lippincott Home-maker series, and gave great attention to the motifs and construction of homes of Colonial America (1607-1776), which included Early American (1607-1720), and American Georgian (1720-1776), and homes of the Federal period (1776-1820).9 It was hoped that the homeowner would read this book and plan his house according to the details that Mr. Newcomb presented. Probably what happened was that the new home owner picked various details that he liked from all of the above areas and combined them so that he ended up with a clapboard house of the early period, and pilasters detailing the frontis-

8 Hosmer, p.1.

piece of the door with elaborate lintels and fan lights. Revival styles, were in the main pure, when one hired an architect who understood the purity of each period and paid strict attention to the plan and mass of the buildings, as well as to its construction details and embellishments. In any case no house would be duplicated absolutely, because of the need for introducing new technological comforts such as bathrooms, central heat, modern kitchens, and the like.

The public interest in the Colonial Revival was further enhanced by the Williamsburg restoration project, which fired the minds and imagina-
tions of both professionals and laymen alike. However, it is important to note at this juncture that the vernacular building styles throughout the country from the eighteenth century to the twentieth century remained Colonial in aspect. Center hall plan houses with fireplaces flush with the gable ends in Pennsylvania and Virginia, or central fireplace masses in the New England states remained the norm. These basic homes were often embellished with classical, gothic or Victorian detail, but many remained essentially the same house type which had existed from the early 18th century.

2. Williamsburg

Dr. W.A.R. Goodwin, the Rector of Bruton Parish, Virginia had a dream to restore the City of Williamsburg to its former Colonial glory. In 1927 Dr. Goodwin approached John D. Rockefeller Jr. regarding the restoration
of the Colonial Area of Williamsburg. Although in 1927 Williamsburg showed little memory of its place in American history Mr. Rockefeller undertook the challenge, and underwrote the costs of the restoration. As Fiske Kimball stated in the Architectural Record of December 1935:

The Capital, the Palace, had long been razed to the ground, the original College buildings had been completely denatured by successive fires and rebuildings. Many of the oldest houses had been transformed out of recognition. Small wonder there were voices raised to doubt the value of attempting its restoration, and to question why some more grateful choice had not been made for such an undertaking.

The sage of memories of Spottswood and Botecourt, of George Wythe and Patrick Henry, of Washington and Jefferson, of Lafayette and Rochambeau - had its physical setting been of a corresponding architectural interest? If indeed it had been so in their day, did enough evidence remain to rebuild it except in an imaginary and theatrical way, without valid relation to the original reality.

Kimball reported that the project's architects happily subordinated their creative abilities in order to give a true interpretation of the archaeological evidence found at Williamsburg.

Charles Hosmer felt that Williamsburg became an architecturally oriented project because architects in the 1920s were "history-minded." They measured old buildings and copied old details. He suggested that the

12 The Architectural Record, Vol. 78, No. 6, p. 359.
publication of the **White Pine Series** was a manifestation of the interest in old buildings.\(^\_1\)\(^\_3\) In Williamsburg, according to Hosmer, the philosophy of restoration was one where the academic problem versus the artist's conceptions meant that when in doubt the artist had to sublimate his ideas to those ideas which had proven and proper precedent.\(^\_1\)\(^\_4\)

As the chief project architect Mr. Perry stated, "Supposition must have support. A part of the wall of the original portion of the Palace is extant showing a single system of gauging. Documents are extant which appraise the value of the interior work. Fragments of stone and marble mouldings, carvings and flagging have been excavated from the site in sufficient quantity to indicate clearly its general character."\(^\_1\)\(^\_5\)

In Williamsburg more than four hundred modern buildings were torn down and eighteen more were moved outside the Colonial Area. Sixty-six Colonial buildings were repaired or restored, and eighty-four were reproduced on Colonial foundations.\(^\_1\)\(^\_6\)

In spite of the number of reproductions noted above Mr. Perry held firm in his conviction that all was done with sufficient scholarship. He wrote, "Restoration based upon research, and faithful to fact opens many

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13 Hosmer, p.31.

14 Hosmer, p. 962.


16 Kimball, p. 362.
alluring avenues, but it closes ruthlessly many others just as alluring.... The temptation to philander with exceptions and concessions to convenience is overcome by the increasing opportunity to apply workable principles to cope with the insistent demand for such concessions."17

In order to maintain the integrity of the project a Board of Advisory Architects of the Restoration laid down ground rules in 1928.18 (See Appendix C)

In spite of the ground rules and reliance on documentation, Perry admitted that the architects played a vital role in the project which sometimes lead to interpretation of data in order to create a whole which was not quite authentic. Charles Hosmer quoted Perry: "only through architecture could the picture be recreated. While the picture was to be as authentic as possible, nonetheless it was the creation of that picture and its educational and inspirational value for the American public that was more significant than the architecture itself."19

The re-created Colonial Williamsburg made a stunning impact upon the country. Here for all to see was a "real" Colonial town peopled by costumed inhabitants who went forth about their eighteenth century tasks

18 Perry, p. 370.
19 Hosmer, p. 954-955.
for all to see. For the layman, it meant a standard Colonial color palette of Williamsburg blue, etc., and lines of furniture such as Kittinger's Williamsburg Collection of fine furniture. For the architects of the period it must have meant that they could use Williamsburg as a reference point, and feel that their own designs when looking toward Williamsburg were truly Colonial in nature. The unfortunate part of this reference was the time period that the Williamsburg group had decided to return to - the Georgian period - thus fixing in everyone's mind the Georgian house type as the one true Colonial, and therefore Colonial Revival motif. As Perry noted in the *Architectural Record*, "The fortunate thing is that American history (the revolutionary part of it) was enacted in the Georgian scene....This architecture in its simplicity and breadth possesses strength that is robust and articulate, scale that is imposing and generous, and dignity that is calm and eloquent. As such it speaks to us plainly as the life of a people."20

Williamsburg had a powerful effect on the preservation movement in the 1930s and many states and cities must have wished for their own Williamsburg, both for the prestige such a place brought, and for the revenues which accrued when tourists visited. However, there were two schools of thought beginning to emerge regarding the Williamsburg experience. Apparently after Fiske Kimball contributed to the *Architectural Record* 1935 issue on Williamsburg he began to have doubts

20 Perry, p. 363.
Illustration 6A – Staircase detail, stairs are said to be copied from the Biles house, now demolished
about restoration. Charles Hosmer reported that Kimball said "Better preserve than repair, better repair than restore, better restore than reconstruct."—which is similar to what John Ruskin wrote in the "Lamp of Memory". At the same time in 1936, in Pennsylvania Frank Melvin who was the new Chairman of the State Historical Commission showed a greater interest in historic properties and historic research than in archaeology. He was eager to push the cause of history in Pennsylvania and believed that "...building's publicity 'attract' people to the cause of history. To him tourism was vital; he believed historic sites would pay for themselves. He confided in S.K.Stevens, State Historian, that emphasis on archaeology as a major Commission concern is fatal....It arouses no enthusiasm except among the rare souls who know no better. Our appropriations are not upped by archaeology and cannot be sustained by it."—

Thus we see the seeds of conflict which would continue to dominate discussions of Pennsbury Manor from the beginning of its reconstruction to the present day. On the one hand we have those who were interested in scholarship, archaeology and documentation, but who felt at the same time that education and ambiance must sometimes take precedence over strict interpretation, as Perry felt in Williamsburg. The other camp, like Melvin, felt that people would come to a site to enjoy it, no matter what

21 Hosmer, p. 954.
22 Hosmer, p. 441 -42.
its authenticity, that it was better to have something for tourists than nothing at all.

This ambivalence was the essence of preservation theory in the 1920s and 1930s; to make a project as close to reality as the documentation allowed, but at the same time to do without documentation if it was not available, cost too much, or interfered with the stated educational, cultural or patriotic goals of the project's committee or directors. Charles Hosmer quoted an article written in 1940 by Aubrey Neasham which stated the dilemma clearly.

The argument is put forth by some that the visiting public goes to an historic site to get as full a picture as possible. From that standpoint, many consider it necessary to restore and reconstruct the historic setting in full. What results is an illusion. The illusion not only affects those who will see it today, but also those who will see it in the future, even to the extent that what we have reconstructed and restored may be the work of our predecessors. Such reconstruction and restoration is not only artificial and unreal, but scientifically unsound. No matter what we do, we cannot supply in exact detail or spirit that which was done before us.23

Writing in the October 1985 issue of *Historic Preservation*, William Olmert addressed this issue. "...Colonial Williamsburg remains the creation of a special mindset - Colonial Revivalism ... What Rockefeller and W.A.R. Goodwin did tells us as much about them and their time as it does about the 18th century, just as the history we do today will tell our

23 Hosmer, p. 953.
great-grandchildren a great deal about us." Williamsburg was created in the first surge of interest in historic preservation in America which coincided with the large European immigration to this country during the period of World War I. Olmert described the preservation movement as "...a reaction, a figurative circling of the wagons in an attempt to protect pure (read English) heritage from other European and Mediterranean influences."25

In the case of the Pennsbury restoration, what the Welcome Society, the Pennsylvania Historical Commission, and the architect R. Brognard Okie did, also tells us as much about their outlook toward preservation and the Colonial Revival, as the Williamsburg experience tells us. Because the actual job of restoration was given to an architect it is necessary to look at the architect, R. Brognard Okie, in order to more fully understand the Pennsbury Manor Restoration.

3. The Architect, Richardson Brognard Okie

R. Brognard Okie was born on June 26, 1875 in Camden, New Jersey where he grew up. He enrolled in Haverford College in the civil engineering department, but after two years transferred to the University of Pennsylvania where he enrolled in the architectural program, from which

25 Olmert, p. 27.
he was graduated in 1897. After graduation he was employed by Arthur Stanley Cochrane, and subsequently he formed a partnership with Herman Louis Duhring and Carl Ziegler which lasted for twenty years until World War I. According to a published report in 1949, the partnership ended in friendship: in fact the partners functioned without a written agreement of partnership during all of their years together. The firm of Duhring, Okie and Ziegler won acclaim for their extensive work in the architecture of Colonial Revival country houses. Okie was said to have traveled the Pennsylvania countryside extensively in order to measure and collect details of old farmhouse buildings. This resulted in a working knowledge of early American architecture which was reflected in his Colonial Revival country houses. His knowledge of Colonial details stood him in good stead, and in 1925 he was appointed by the Women's Committee of the Philadelphia Sesquicentennial as the architect for the High Street construction. The strength of Okie's design was in the eighteenth century Pennsylvania farmhouse. It was said that when Okie made an addition to an old farmhouse, it was often difficult to distinguish the old from the new. Because of this skill he was considered to be the primary restoration architect of his time in Pennsylvania. Okie was not only interested in the forms of colonial architecture, he was also


27 Koyl, p. 24.


29 Rhoads, p. 626.
interested in reproducing colonial carpentry and masonry.\textsuperscript{30} Much of what Okie built was built according to historical precedent. "The detailing of the unseen but important rafters of white oak usually tapered, fishtailed, halved and oak-pinned without ridgeboards, the rabbeted, tapered and beaded clapboards...," were usual in Okie houses, and expressed his interest in Colonial construction as he saw it and understood it.\textsuperscript{31}

It was because of this attention to detail, his reputation for accurate Colonial Revival houses, and his High Street restoration that he was chosen in 1936 as the architect for the restoration of Pennsbury Manor.

As we have seen in the first chapter, Okie was determined that the restoration of Penn's Manor house would be as accurate as possible. He was aware that questions would be asked regarding the accuracy of the restoration and met these questions with his previously cited "Justification". Okie was recommended as the project architect by a nominating committee of the Philadelphia Chapter of the A.I.A. consisting of: Dr. Warren P. Laird, a famous architect who specialized in services to corporate and institutional clients and a former Dean of the School of Architecture at the University of Pennsylvania, John P.B. Sinkler, and

\textsuperscript{30} Rhoads, p. 393.

\textsuperscript{31} Koyl, P. 221.
The Welcome Society underwrote the cost of the original plans without any cost to the Commonwealth. This was done with the understanding that the plans be submitted to the State Art Commission and the Pennsylvania Historical Commission. When these two groups approved the plans, and monies became available, then the Pennsbury Memorial would proceed under the architectural direction of R. Brognard Okie.

Dr. Warren Powers Laird was famous for his commitment to fair architectural competitions. His notes regarding the competitions which he supervised can be found in the Rare Book Room of the Furness Library, the University of Pennsylvania.

John P.B. Sinkler received his B.S. in Architecture from the University of Pennsylvania in 1898. He also attended the Pennsylvania Academy of Fine Arts and the Ecole des Beaux Arts in Paris. He was a partner in the firm of Bessell and Sinkler, and was the Philadelphia City Architect from 1920 - 1924 and again in 1932. He was involved in many projects for Fairmount Park. His interest in historic buildings led him to participate in an early attempt at the restoration of Independence Hall. He was a president of the Philadelphia Chapter of the A.I.A.

Sandra L. Tatman and Roger W. Moss, Biographical Dictionary of Philadelphia Architects, 1700 - 1930, (Boston: G.K. Hall & Co., 1985), pp. 227-729. Paul Davis received his B.S. in Architecture from the University of Pennsylvania in 1894. He attended the Ecole des Beaux Arts in Paris. He was employed by John Windrim and Wilson Eyre. Davis was a partner in the firm of Davis and Davis, Dunlap and Barney, and Davis and Dunlap. He was committed to the Beaux Arts method of teaching Architecture and served as a design critic at the University of Pennsylvania during the years 1903 - 1934. He was president of the Philadelphia Chapter of the A.I.A., 1923-1926. His design work was in the main for schools and commercial buildings. He was one of the people who was responsible for bringing Paul Cret, the Beaux-Arts Architect, from Paris to Philadelphia where he became Dean of the School of Architecture at the University of Pennsylvania. Cret was the Architect who designed the Parkway in Philadelphia, based on the design of the Champs-Elysees in Paris.
nominating committee felt that Okie was the suitable architect for this project because of his painstaking care and fidelity to colonial design and craftsmanship and because of his "...not unimportant quality of good taste."34

4. The Reconstruction

Pennsby Manor house was rebuilt under the direction of R. Brognard Okie, and the Chairman of the State Historical Commission, Frank W. Melvin. Okie had thought that the archaeological report by Dr. Cadzow and the detailed research into the property done by Albert Cook Myers would be made available to him. Unfortunately Dr. Cadzow never presented a completed archaeological report to anybody connected with the project. The data available were field lists of excavated materials and survey maps of the excavation done by Charles Henry Moon.35 On November 17, 1932 the committee which had planned the 250th Anniversary of William Penn's landing in Pennsylvania met. It was noted that some $1400 in surplus was left over from the cost of the celebration. Among the suggestions for the use of this windfall was one from Dr. Albert Cook Myers, that he be paid for the use of his research time and his materials on William Penn. This suggestion met with disagreement from most of the members of the committee. The result of this incident was that Dr. Myers voted against


35 Field Lists & Survey Maps - Pennsby Manor Archives
Illustration No. 7 - Kitchen ell and well - I. Wistar Morris House - designed and built by Okie in 1924
the work at Pennsbury being continued under the auspices of the Welcome Society. He left the meeting feeling that both his time and his collection had been treated unfairly. Four years later when Okie needed the research on the Manor House, it had to be done again by his research associates because Dr. Myers refused to part with any of his materials. In a letter dated July 31, 1936 written to Frank Melvin by Henry Paul Busch, President of the Welcome Society, Mr. Busch noted that payments were made to Dr. Myers, by the Society in 1934, for his reports, but that in spite of the payments he had not seen fit to give copies of his materials to either the Welcome Society or the Historical Commission. In spite of this problem, the research done by Mr. Okie and Mr. Montgomery as previously cited was quite as complete as that done by Dr. Myers.

Today in the 1980s a professional preservationist would not consider the research that was done by John M. Okie and Charles B. Montgomery to be sufficient for the type of restoration which was attempted at Pennsbury Manor. Their failure to produce drawings and plans of the house, and more extensive manuscript documentation, would today, result in a decision not to rebuild the manor house. In the light of the scholarship of their time there was of course, a great controversy regarding what was felt to be a lack of sufficient documentation regarding the project. However,

36 Welcome Society Collection MSS - Philadelphia Inquirer Nov. 17, 1932.


38 Welcome Society Collection MSS - Letter to Frank Melvin from Henry Paul Busch, July 31, 1936.
there were those persons and groups like the R.B. Okie and Welcome Society who felt comfortable with the amount of documentation and research that was done.

In addition to the questions raised by the documentation, Okie was also concerned about the quality of the construction of the house and its materials. It was the general practice of the State Authority to open all of its proposed buildings to bids. Okie was concerned that this process would lead to shoddy construction, twentieth century techniques - in short a modern construction instead of a Williamsburg - type reconstruction. His views were shared by Frank Melvin, the Chairman of the State Historical Commission, who made the necessary arrangements to side-step the bidding process in favor of contractors, sub-contractors, and suppliers who knew and understood Colonial Craftsmanship. Okie thanked Melvin directly for the hand-made brick used throughout the construction. He said "A decided saving would have resulted had a cheaper machine made brick been used for all interior walls...but in this as in all other portions of the construction, old methods, duplications of old materials have been used and no substitutions have been employed."³⁹

Handmade hardware and nails were used throughout, and all window and door frames were mortised and tenoned and built of white oak. The roof rafters are solid oak and pinned with oak pins.⁴⁰ Much of the wood used

³⁹ Okie, p. 5.
⁴⁰ Okie, p. 11.
Illustration No. 8 the kitchen well - Pennsbury Manor
Illustration 8A - The "necessary" Pennsbury Manor
in the reconstruction was taken from old buildings and re-cut for Pennsbury Manor. Indeed all of the framing as seen in the blueprints shows heavy timber construction, with brick interior walls covered with wood and plaster. One could say that Okie over-built the second Pennsbury Manor; certainly if it had been built so sturdily the first time it might never have fallen down, despite its leaky cistern on the roof. The usual room partitions common in Colonial houses were rough board partitions about one inch by eight inches nailed against each other. Both sides were then lathed and plastered so that the finished thickness was usually not more than two inches wide. The interior partitions that Okie designed vary from six inches to twelve inches in width. The interior wood trim and panelling matches that of the Biles house, (since demolished), the same house that the staircase was copied from. It is also similar to the A. Wistar Morris house which Okie designed circa 1924. (See Illustration 10)

41 Welcome Society Collection - MSS - undated memorandum.
42 R. B. Okie's decision to use old timbers, torn from existing structures was correct in the context of his time. Today, however, preservation professionals, as well as archaeologists would never strip old buildings to build a new building. Destruction of extant buildings for use in restoration is definitely not in keeping with the preservation theory of the 1980s which is to preserve the built environment and not to use it for salvage for new buildings.
44 Welcome Society Collection MSS - Revised Address by President Henry Paul Busch 1942, p. 17.
R. Brognard Okie was insistent that the construction of the manor house and the outbuildings at Pennsbury be consistent with his knowledge of Colonial craftsmanship and building techniques. The story of how he obtained the craftsman to carry out his wishes is an interesting one.

In the early 1930s Okie designed a home for Mr. and Mrs. Behrend, in Erie, Pennsylvania, called Glenhill Farm. Mr. Behrend's corporation was the Hammermill Paper Works. The contractors for the construction of this home were Sessinghaus and Ostergaard of Erie, Pennsylvania. According to Mr. Christian Ostergaard, who at 92 years old, is the Chairman emeritus of the firm, Sessinghaus was a fine carpenter and craftsman who understood colonial building techniques. Mr. Sessinghaus, now deceased, had a fine working relationship with Okie, and when the bidding on the Pennsbury project was announced, Okie was insistent that the firm bid on the project. Both Sessinghaus and Ostergaard were reluctant to enter into the bidding because they usually did not build residential property, and they felt that it would be too difficult to work on a project as far from Erie as Pennsbury. Mr. Ostergaard related that Okie continued to insist and finally the firm produced a bid of $155,000 which they felt was so high that they would not get the contract, but would satisfy Okie by making a bid. Mr. Ostergaard said that they were quite dismayed to learn the they had been the low bidder on the project and were awarded the contract.

Mr. Sessinghaus took his finest foreman from Erie and lived close to the site for most of the time of construction. Carpenters and laborers were hired from union halls in the Pennsbury area. Mr. Sessinghaus and
his foremen taught the workmen the methods of colonial building techniques; those who failed to learn were dismissed and others were hired in their place.

The shop drawings which are still in the firm's possession show how painstaking the work must have been. Each piece of lumber had to be finished on the site with adzes instead of saws. Since much of the timber used was salvaged from old buildings it had to be re-cut to fit the Pennsbury site. Oak pins and dowels were made by hand on the site. Mr. Ostergaard said that the firm travelled some 11,000 miles in order to buy the lumber and other building supplies that met Okie's specifications. In one instance he bought an entire saw mill in West Virginia because the mill contained a large work table with timbers suitable for use at Pennsbury. The owner wouldn't part with the table, but was willing to sell the entire mill. Mr. Ostergaard bought worn paving blocks from Philadelphia alleys and replaced them with new pavers. He travelled through the countryside and bought rubble stone quoins from old barns and stables, for the Pennsbury stable, and replaced what he had bought with new stone quoins. Whenever he saw a building with old glass windows, he would bargain with the owners to buy the old panes, and replace them with new glass so that Pennsbury would have old glass windows. According to Mr. Ostergaard the lintel over the front door was found on the property, but when interviewed in 1986 he could not recall if it was inscribed when it was found, or whether it was merely an old board that was newly inscribed at the time it was put in place. The specifications show that the board was newly inscribed.
Illustration 8B - Exterior of Kitchen Oven
The only deviations from Colonial craftsmanship that Mr. Ostergaard could recall were the use of metal straps on the roof trusses, where they were needed to reinforce the old beams for the weight of the tile roof. He feels that some small steel reinforcing may have been used in the fireplaces for safety. Mr. Ostergaard also mentioned that Okie's practice of using the finest exterior bricks for the interior of bearing walls, was costly and unlikely to be have been done in Penn's day, where cheaper materials would have been used. All of the interior mill work was supplied by the A. Wilt Company of Philadelphia.

Although Mr. Ostergaard did not have as close a relationship with Okie as his partner Sessinghaus did, he remembers him a strong willed individual and a perfectionist in his work. When asked if he thought that Pennsbury resembled the original Pennsbury of 1683, Mr. Ostergaard commented that "Pensbury probably looks like Okie thought it should look, whether it was exact he could not say."^45

Once the front facade of the building was designed, the interior had to be planned and the number of rooms made to fit the manuscript description of the house, and the dimension of forty by sixty feet. As was consistent with the architectural practice of the time, when dealing with restoration, Okie looked to extant sources for that part of his design that was undocumented; as previously mentioned the Biles house for

the staircase and panelling. It is also probable that he looked at Stenton, the home of Penn's secretary James Logan. Although Pennsbury is different in some respects from Stenton, the two houses bear an uncanny resemblance to each other - and Pennsbury does resemble an 18th century house type, such as Stenton, more than it resembles any 17th century house. In a letter to John Rankin of the W.P.A., Fiske Kimball remarked on the proposed Pennsbury plans that Okie asked him to study. He stated that the design is very similar to Stenton which was built after 1720.  

Stenton is a large 2 1/2 story, 6-register center hall plan early Georgian house built of brick, and capped with a hip roof and wood cornice with modillions. The house, which is 51 feet by forty feet, has a symmetrical front facade of Flemish bond brick. The facade is marked by brick pilasters at the corners and at either side of the central register. There is a belt course at the second floor. These are elements which mark the early Georgian character of the house. There are two large interior chimneys which rise from the roof. The first floor lights are 12/12 sash set in wood surrounds, with brick segmental arches. The paneled front door has a multiple light transom and two narrow 6/6 light windows on either side, which serve as side lights. There are three cut stone semi-circular steps at the front door. There are six symmetrically placed 12/12 wood sash windows on the second floor which meet the architrave of the cornice. The attic story is lit by plain pedimented dormers. In contrast to the symmetrical front facade, the side facades are

46 Letter from Fiske Kimball to John Rankin April 18, 1938
Pennsbury Manor - Alice Hemenway's personal file.
Illustration No. 10 - Panelling - I. Wistar Morris House - 1924
asymmetrical and are faced with less expensive English bond brick. A strange anomaly is the porch which spans the rear facade and whose roof bisects the second story windows with no regard for light or view. A service ell extends to the left rear of the house and contains kitchens and store rooms.

The interior is, I think, a transition from the hall/parlor plan to a true cold passage, center hall plan Georgian house. The first floor has a central front hall which acts both as hall and room, and which is closed off from the two side parlors and the rear hall by doors. It has a fireplace and a brick floor. The parlor to the left is the only fully panelled room in the house and was probably meant to be the best parlor, or receiving room. It has carved cabinets on either side of the fireplace, window seats and interior shutters, which mark all the windows at Stenton. The room to the right of the center hall is partially panelled and has a fireplace. The rear hall contains a fine wide wood staircase which rises to the second floor. There is also an exit door which leads to the rear service ell. The room to the right of the rear hall was the original kitchen at Stenton, and has a large cooking fireplace and bake oven. To the left of the rear hall is a small chamber which contains an underground passage to the service ell.

Upstairs, the front of the house contains a large double chamber which runs the width of the house, and is separated by tri-fold doors.
This double chamber contained James Logan's library and bed chamber. There are two smaller rooms which were used as bed chambers.  

Stenton, built by James Logan from 1723-30, is significant for several reasons. It is, of course, one of the earliest Georgian style country houses to be built in Germantown, and thus marks the transition of this symmetrically classical style from England to the colonies. Originally planned to be built of stone from Logan's quarries, it was built of brick because Logan's quarries did not have enough stone, and it was cheaper to build in brick than to buy stone from another quarry.  

The builder of this house, James Logan, was a significant person in Pennsylvania. Logan was born in 1674 in Ireland to Scottish Quakers. The family moved to England and Logan was well educated -- he could read Latin, Greek, and Hebrew -- entered the textile trade in 1698. In 1699 he was hired by William Penn to be his secretary, and sailed for Pennsylvania with Penn and his family. In 1701 when Penn and his family returned to England, Logan stayed and became Penn's manager in the colony, a job he held until his death in 1751. His connection with the family led him to find favorable financial schemes for himself, as well as to becoming a prominent and powerful political force in the colony. In addition to his management of personal property, rents, and other business of the Penns, he held various offices, such as Secretary of the Province, Commissioner  

47 Visit to Stenton, July 1, 1985 - Docent's talk.  
48 Visit to Stenton, July 1, 1985 - Docent's talk.
of Property, and Chief Justice of Pennsylvania. In addition, he acquired a large library, which was willed to the people of Philadelphia upon his death, and formed the basis for the Library Company's Collection. He also was the first in the colonies to translate Cato Major into English, which was printed by Benjamin Franklin in 1744. His interest in farming won him recognition from Linnaeus for his breeding of hybrid corn.49

Stenton was said to be one of Okie's favorite houses. In a Pennsbury Furnishing Committee Report dated 1948 the similarity of the two houses was commented on. "Logan became deputy governor and official trustee of the Penn family's holdings, and rose to be a great power in Pennsylvania affairs. Years later he built the Logan House in the Stenton section of Germantown, which dwelling strongly reflects the influence of Pennsbury on his youthful imagination."50 To date no one knows if this influence is true, and indeed unless some heretofore unknown drawings of Pennsbury appear, we will never know if Logan based his home on his memories of Pennsbury. But it is fairly obvious that Okie based his Pennsbury Memorial in large part upon Stenton. This was done in good faith and fitted with the preservation beliefs of the day that felt one could deduce design from precedent. Okie's mistake, if it was a mistake, was to design a seventeenth century house after one built some forty years later in the eighteenth century. In the same vein Okie used contractors and suppliers


Illustration No. 11 - Panelling - Pennsbury Manor - Grille Detail, copied from "Stenton", Closet detail similar to "Stenton", especially the hinges.
who had worked at Williamsburg, because Williamsburg gave them a validity in his mind -- that their work would be appropriate for Pennsbury, because it had been used at Williamsburg. The John Lucas Company was chosen to supply all paint materials because it had done so at Williamsburg.\textsuperscript{51} L.J. Houze Glass Company was hired to furnish antique glass, its reference was "Several buildings in the Williamsburg Restoration Program."\textsuperscript{52} Okie wrote to Marcellus E. Wright who had been active in Williamsburg: "Horace Lippincott tells me, from your connection in the Restoration Williamsburg, you could give me some most valuable suggestions as to what colors would likely have been used in the interiors of Pennsbury...We have to date, not been able to find any definite reference in the Penn Correspondence as to what colors, if any, were used in the ... house."\textsuperscript{53} There is even a request for furnishing cattle hair where specified for plaster, even though this is not documented as being done at Pennsbury in the seventeenth century.\textsuperscript{54}

Thus we see that R. Brognard Okie, in planning the restoration of Pennsbury Manor, created a melange of the authentic documentation of the manor house, and the scholarship of the seventeenth century which said

\textsuperscript{51} Pennsylvania State Archives MG303 Request for subcontractor Aug. 16, 1938.

\textsuperscript{52} Pennsylvania State Archives, MG303, Request for Approval of Materials Jan. 11, 1939.


\textsuperscript{54} Pennsylvania State Archives, MG303, Request for sub-contractor July 28, 1938.
that wood was mortised and tenoned, and plaster was mixed with animal hair, and what has previously been cited as his own "not unimportant good taste". This was consistent with restoration in the Williamsburg Colonial Revival tradition. As Warren Powers Laird, who was chosen by Okie to review all of the plans as to their validity states in 1937:

After a careful study of the design and the historical data upon which it is based I can say that I believe your conclusion to be sound and that when the restoration is made in accordance with this design, and under your guidance, it will produce a revival of Pennsbury, consistent not only with the known facts but also with those probabilities which are best supported by the available evidence.

In thus testifying I beg to especially emphasize a further quality of this design; one without which any restoration must fail to be convincing, whatever its fidelity to fact and probability. This quality is an element of character and personality which is not shown in written documents or crumbling walls...

Warren Powers Laird had made his mark on the architectural world as Dean of the School of Architecture at the University of Pennsylvania. He is especially remembered as a fair and honest man, and was particular about keeping architectural competitions fair and honest. He believed that the Okie restoration at Pennsbury Manor was a fair and honest rendition of the original manor house and its outbuildings. Because the restoration was and is known as the Pennsbury Memorial, and as such

planned as a memorial to William Penn, it was felt that some "artistic"
leeway could exist with reference to the house. Indeed if such leeway did
not exist the house could never have been rebuilt, because it was not a
fully detailed or documented restoration.

This of course was the basis for the great amount of controversy
which arose around the Pennsbury Restoration. On the one side we have R.
Brognard Okie, the Welcome Society and the State Historical Commission who
felt that a restoration with little documentation was better than no
restoration at all, and on the other side those who felt that no
restoration was better than one with incomplete documentation.

The Pennsbury Memorial is true to the Williamsburg theory of the
1930s. It created an educational and inspirational site, while not
adhering to strict authenticity. Wherever possible Okie used early
construction techniques, old wood, handmade bricks, and glass that imitated
the excavated glass on the site. He also copied the hardware found on the
site. He followed what he believed to be sound judgements regarding use
of all of the available evidence. It is known that he wanted more time
and had hoped to be able to travel to England to look for further sources
and documentation, but no money was available for this kind of research
trip. Okie borrowed motifs from Stenton, such as a wood grille on the top
of a closet in Stenton's stairhall. This grille can be seen in several of
the Pennsbury closets. He borrowed the staircase design from the Biles
house. Indeed, he borrowed the actual construction of the Manor House
from his own vast knowledge of colonial building techniques.

One wonders why some things were done the way they were - for instance why did Okie design closets for many of the rooms? We can only guess at the answer - that he felt that a person such as Penn would have had closets if they had been common during his lifetime, or that he used them to give added interest to the somewhat square rooms he was designing, or even that the old homes he based his designs on had had closets built into them when it became fashionable, and Okie did not realize that they were later additions. Or perhaps Okie was building a Pennsby which in his mind had stood for 300 years, and built some contemporary additions into his plans in order to show the passage of time in the house itself. We can speculate endlessly about the decision making process, but unfortunately - we can only speculate. Although the blueprints and specifications for Pennsby Manor exist both in Harrisburg and at the house itself, Okie has not left, other than his "Justification", any record of how he arrived at his design decisions. Thus just as we speculate about the original Pennsby Manor, we must also speculate about the present Pennsby Manor and its architect R. Brognard Okie.
Illustration No. 12 - Excavation of foundations
Oct. 29, 1934

Illustration No. 13 - Excavation of foundations
Oct. 29, 1934
Chapter III - Controversy - Political and Scholarly

Today, almost fifty years after it was built, the Pennsbury Memorial stands as an isolated historic site, one among many in the Commonwealth of Pennsylvania and in the nation as a whole. As one stands on the grounds and looks at the manor house, its outbuildings, the horses peacefully looking over the paddock fences, and the sheep grazing, there is little to remind even the most sophisticated visitor of the controversy that swirled around the site just before and during the reconstruction.

The controversy was rooted in the rising consciousness for the need for complete documentation when dealing with an historic site. This was coupled with the growing awareness of the number of important buildings which were standing, neglected because of the lack of funds for their repair and continued maintenance. The Historic American Buildings Survey which began in the early 1930s as a program of the Works Projects Administration made both historians and architects aware of the wealth of extant historic building fabric in the United States.

Leicester B. Holland, Chairman of the Committee on Preservation of Historic Buildings for the American Institute of Architects, made his feelings known to Albert Cook Meyers as early as 1934. He felt that reconstruction, whatever the available results, was:

.....a work of the imagination...they inevitably falsify history, by leading the public to believe that an imaginary reconstruction is a veritable historic monument,...by deforming or concealing the real archaeological evidence that remains;...they foster a sentimental love of fake
Illustration No. 14 - Excavation Oct. 31, 1939
Original brick walls - and cellar way to the right

Illustration No. 15 - Excavation, Oct. 31, 1939
Original brick wall to the left, original paving stones which fixed the cellar level - the Crozier house before it was moved
antiques, a vicious tendency to which Americans are all prone...The result is that while we constantly allow fine old landmarks of our early history to be destroyed, we spend much more than would be needed to preserve them, in setting up artificialities, as shrines for dedication ceremonies and pilgrimages so that the public can picture our ancestors sitting in brand-new rooms. We like to shatter history to bits and then rebuild it nearer to the heart's desire.\footnote{Pennsylvania State Archives MG303, Box 3, Letter from Leicester B. Holland to Albert Cook Myers, March 16, 1934}

Mr. Holland had been close to the HABS project, therefore his negative feelings about reconstruction were based on the number of fine buildings which were found in deplorable condition because of lack of proper funding.\footnote{Hosmer, Vol.I pp. 446-7} This view was of course a direct contradiction of those views held by the Pennsylvania Historical Commission, the Welcome Society and the Pennsbury Committee.

There were others who shared Holland's point of view. Charles A. Ziegler, Okie's former partner, applied to Leicester Holland stating that the Philadelphia A.I.A. Committee felt that too little evidence existed for a reconstruction at Pennsbury. He felt that the Welcome Society should be held to their plan of building the memorial near to, and not on the existing foundations, so that the foundations could be studied. Again in 1938 Ziegler pleaded with the Secretary of the Interior Harold L. Ickes to prevent the expenditure of public funds on Pennsbury.\footnote{Hosmer, Vol.I p. 448}

In March of 1938 a reporter from The Philadelphia Inquirer contacted
Henry Paul Busch of the Welcome Society, stating that he had received information that there was no "authority" or real material knowledge of the original Pennsbury upon which to base the restoration. The reporter, Mr. Donohue, refused to name his source, and Mr. Busch refused comment. R. Brognard Okie also received a communication from Mr. Donohue regarding this point. Okie understood that the memo was sent to the Inquirer by Charles A. Zeigler. According to Okie the dissolution of his partnership with Duhring and Ziegler had resulted in "hard feelings toward Ziegler". It was Okie's comment on the matter that Ziegler was not acting on his own behalf, but had written the memo on behalf of Albert Cook Myers, whose quarrel with the State and the Welcome Society had not been resolved. Mr. Busch's comment on this matter was that it was of little importance.  

Whether Mr. Zeigler was speaking for himself or for Albert Cook Myers is of little importance. He sounded a clarion call which was to be picked up at the A.I.A.'s National Convention in New Orleans in the Spring of 1938. The resolution of the convention published in the May Issue of The Octagon dealt with the use of relief funds for public buildings. It read:

Whereas: The popular interest in architecture of Colonial America, coupled with a natural hero-worship of the prominent figures of our past history, sometimes includes the reconstruction of early American buildings without sufficient insistence on historical certainty; and

Whereas, such reconstruction may not only deceive the public, but render impossible careful examination of the remains and later correct rebuilding; and

4 The Welcome Society - MSS Memo, March 22, 1934
Whereas, the use of Federal funds for relief purposes facilitates hasty or ill-advised undertaking of this nature, therefore, be it resolved, that the American Institute of Architecture believes it the part of wisdom to devote relief funds to the preservation, repair and restoration of existing historic buildings rather than to the reconstruction of such as have in large part or wholly disappeared;...^5

The A.I.A. resolution spoke to the major issues of scholarship, the neglect of existing buildings, and public funding, particularly the use of relief funds.

As previously cited, work began at Pennsbury with volunteer labor, but between the years 1932 and 1936 much of the excavation and grading of the property was accomplished with laborers paid with public relief funds, both state and federal in origin. In April of 1934, Donald Cadzow, the archaeologist, was authorized to set up a State Work Relief project at Pennsbury in order to complete excavation and grading of the property. Approximately six thousand dollars was spent on this project. In October of 1935 a federal grant under the Works Project Administration, a federal program, was authorized to complete the work of excavation.^6 A further WPA grant was given for building a road to the Pennsbury site.^7

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^6 The Welcome Society MSS, Memorandum of Minutes from the Pennsylvania Historical Commission.

The use of relief funds for such projects was common during this era. The great depression was upon the nation, and such projects provided salaries for both skilled and unskilled labor. The WPA projects were specifically meant to provide employment, which in turn not only paid peoples' rent and food bills, but also put money back into the economy. Those in government saw these projects as part of the Roosevelt Administration's package for dealing with the economic crisis which was overwhelming the nation; they did not see them as answers to specific interest groups needs -- such as the Pennsylvania Historic Commission, the Welcome Society and the Pennsbury Committee's need to build a memorial to William Penn. The manipulation of a large sum of federal money for this project produced as much ire as the fragmentary scholarship upon which the restoration was based.

The Williamsburg restoration, which cost many millions of dollars, did not have this problem, because the dollars were private, the gift of John D. Rockefeller, Jr. Mr. Holland could denounce Williamsburg as a scholarly fantasy, and he could wish that the money had been spent elsewhere, but he could not abuse the project for misuse of public funds.

Henry Paul Busch reacted to the New Orleans meeting by writing to Leicester Holland. Busch felt that the motion was aimed directly at the Pennsbury Memorial, and that it was unfair because "...Those responsible for Pennsbury believe...that there is authentic information to warrant it,...and that the architect who was selected by a committee of eminent architects is without peer in his knowledge of this period and locality."
He felt that to build or not to build Pennsbury was a matter of opinion not a question of technical judgement.8

Holland replied that the A.I.A.'s statement was not aimed at Pennsbury primarily, but at a "harmful general policy of promulgating as historic shrines, more or less fanciful reconstructions." He ended his letter by stating that: "If you can for a moment forget your particular interest in the reconstruction of Pennsbury, I am sure you will agree that ill considered re-buildings based on popular sentiment rather than strictly critical examination may do great harm, and that all public bodies in providing funds for such work should temper enthusiasm with caution."9

In May of 1938, Fiske Kimball wrote to Leicester Holland endorsing the A.I.A.'s resolution with particular regard to Pennsbury. He mentioned that Okie had come to him with his plans for Pennsbury, and that Kimball had told him that he felt negatively toward the project because it resembled Stenton. He, Kimball, was concerned because from newspaper articles on the subject he saw that Okie had not modified the plans. Kimball wanted the funding and grant for the project to be reviewed and

8 The Welcome Society, MSS, Letter from Henry Paul Busch to Leicester B. Holland, April 22, 1938

9 The Welcome Society, MSS, Letter from Leicester B. Holland to Henry Paul Busch, April 27, 1938
Illustration No. 16 - Oct. 5, 1938 workmen preparing large timbers

Illustration No. 17 - Oct. 5, 1938 timbers ready for use
withdrawn by joint action of the Works Project Administration and the National Park Service.10

Four days later Kimball received a letter from John Rankin of the Works Project Administration which stated that the WPA had nothing to do with the funding for Pennsbury. The funding was coming from the General State Authority which received funds from the federal government.11

The Pennsbury Memorial was funded by what we today would call creative financing. Frank Melvin, the Chairman of the State Historical Commission, was a champion of the Pennsbury project. The commission, under Melvin, drafted a bill for $250,000, to pay for the restoration of the house. This was turned down by the Governor who presided over a Republican Senate and a Democratic House.12 It was then discovered that the "...General State Authority Act called for building programs for State institutions, using up to 80 percent federal funds. Melvin convinced the Superintendent of Public Instruction that Pennsbury was a potential "public institution" while it appeared to be a pile of rubble." In 1937 the commission got a favorable ruling which permitted the Historical Commission to turn Pennsbury over to the General State Authority for the period of its construction. A $250,000 grant was again sought and was

10 Pennsbury Manor Archives, Alice Hemenway's file, Letter from Fiske Kimball to Leicester B. Holland, May 12, 1938.

11 Pennsbury Manor Archives, Alice Hemenway's file, letter from John Rankin to Fiske Kimball, May 16, 1938.

12 Melvin, p. 148.
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\textsuperscript{10} Pennsbury Manor Archives, Alice Hemenway's file, Letter from Fiske Kimball to Leceister B. Holland, May 12, 1938.

\textsuperscript{11} Pennsbury Manor Archives, Alice Hemenway's file, letter from John Rankin to Fiske Kimball, May 16, 1938

\textsuperscript{12} Melvin, p. 148.
granted this time under the auspices of the General State Authority. Melvin clearly states that the General State Authority's building program was financed by federal funds.

In June of 1938 Arthur Demeray of the National Park Service informed Secretary of the Interior Ickes that the money for Pennsbury had come from the Public Works Administration. The officials of the PWA, unschooled in evaluating historic projects, had believed Okie's proposal for Pennsbury, and felt that all the documentation necessary for such a project was available. Demeray questioned the use of relief money for such a project, but felt that the work at Pennsbury had progressed so far that it would be unfair to cut off the funds that would complete the project. He did make the point that, Pennsbury aside, all future relief programs had to be protected from this type of encroachment. It was at this point that Secretary Ickes made sure that all such public works proposals, those concerned with historic sites, be cleared through the Branch of History at the National Park Service.

In April 1939, Chairman Melvin apparently applied to the federal government for funds to complete the restoration project. Secretary Ickes

13 Hosmer, Vol. I., p. 445
14 Melvin, p. 148.
15 The Public Works Administration was in existence from 1933 - 1939. It existed to provide employment by providing for the construction of highways and public buildings such as: courthouses, schools, city halls, subways, bridges, and sewage treatment plants.
16 Hosmer, Vol I., p.450
Illustration No. 18 - Oct. 5, 1939 Interior brick walls - main floor - stair case framing

Illustration No. 19 - Oct. 5, 1939 - Second floor - joists.
responded that same month. He denied the application for funds on the basis that: "Leading authorities in the field of architectural history have taken the position that the proposed restoration, in the absence of early descriptive or pictorial evidence, must be hypothetical restoration which varies considerably from the original structure." He further stated that if the Federal Government contributed to Pennsbury it would be in violation of the established policy of the Historic Sites Act of August 21, 1935 (49 Stat. 666). Ickes ended his reply with a suggestion that the funds be requested from such organizations as the Colonial Dames.17

Still later in 1941 a further request for funds from the Federal Works Project Administration for improvements of grounds and facilities at Pennsbury was refused for the same reasons as the 1939 request.18

This policy is still in effect today in 1986. No federal funds are available for any historic project where there is insufficient documentation to assure the absolute integrity of the project. This documentation would have to include details of the superstructure, photographs, measured drawing, and other evidence so that the rebuilt building would be an exact copy of the original. This criteria is so demanding

17 Pennsylvania State Archives, MG303, Box 3, Letter from Harold L. Ickes to Frank W. Melvin, April 27, 1939.

18 Pennsylvania State Archives, MG.303, box 3 Letter from E.R. Patterson, District Director of Operations WPA to John H. Lynch District Manager, Manager district 2 W.P.A. Nov. 21, 1944.
that it is doubtful that it could ever be fulfilled, thus making it an almost absolute policy that no federal monies be available for reconstruction of demolished buildings.

Today, looking at the budgets of renovation and restoration projects which reach millions of dollars, it is interesting to note that a $250,000 dollar project had so much impact on preservation in this country. The political and economic machinations of Frank W. Melvin and the Pennsylvania Historic Commission in the 1930s have had a lasting affect on the preservation community nationwide. There are those who feel that the Federal Government, in being forced to make this decision, because of Pennsbury, has saved the country from the excesses of hypothetical historic recreations. But, there must be many local, private, and perhaps governmental preservation groups in this country, who feel that they have valid restoration projects which cannot be brought to fruition because of the Federal Government's refusal to fund such projects.19

On a more local level, criticism continued to be leveled at the Pennsbury project. In 1939, Carl A. Zeigler was quoted in the Evening Public Ledger - Philadelphia Inquirer as saying: "There's something rotten in (or near) Philadelphia". He was referring to the Pennsbury project which he characterized as a "dream concept of what the original really was." Ziegler stated that he did not want to be unfair to the commission or its architects, who he felt acted in good faith, but the

19 Hosmer, Vol. I, p. 450
Illustration No. 20  Oct. 5, 1939. Wall plate which supports a roof plate and roof rafters

Illustration No. 21 - Workmen framing the roof
the only thing that the recreated manor had in common with the original was the foundation. Strangely enough, Ziegler felt that though the exterior was a fantasy, the interior was probably accurate. How, we wonder today, could he make such a definitive statement regarding the accuracy of the interior? Ziegler contended that the public should not be asked to regard Pennsbury as a shrine unless it was perfect in every detail. He also felt that the building resembled Stenton. The article stated that Pennsbury's completion was scheduled in time to draw visitors from the World's Fair in New York, it ended: "Dream or nightmare, correct or inaccurate, it is likely to be a much-visited memorial to William Penn for many decades."20

The Albert Cook Myers Collection contains two hand written notes on Dr. Myers stationary dated successivly May 6, 1943 and May 7, 1943, in which he called Pennsbury a "monstrosity" a waste of enormous sums of public monies "...to be paid for by our long suffering tax payers not only of the quick and the dead of this generation but of those to come."21 We do not know if these broadsides were ever sent or meant to be published, but they certainly tell of the long smoldering resentments generated by the Pennsbury project.

20 Chester County Historical Society. Albert Cook Meyers Collection, Box 104 Evening Public Ledger - Philadelphia Inquirer, Philadelphia, March 18, 1939.

21 Chester County Historical Society, Albert Cook Myers Collection, Box 105
On January 23, 1986 Mr. Christian Ostergaard, the contractor who built Pennsbury, was approached by a representative of Alice Hemenway, the director of Pennsbury Manor. His initial reaction to any discussion of his associations with Pennsbury was to ask if the current interest in Pennsbury was connected with any sort of litigation. He was assured that this was not the case, and he then consented to be interviewed regarding his recollections of the period of construction of the Manor House.22

What survives for most of us as an interesting period in the history of the preservation movement is obviously still alive for those persons who participated in the Pennsbury project.

Charles T. Okie, R. Brognard Okie's son, discussed the Pennsbury project with this writer in July 1985. He felt that Okie's real love was the country, residential houses he was known for throughout Pennsylvania, but that he was charged with carrying out the Pennsbury commission and did so: "to the best of his ability according to the documentation," and also feels "that Pennsbury is more authentic in construction and detail than Williamsburg." Mr. Okie said that R.Brognard Okie used colonial construction techniques wherever possible such as mortise and tenon joints with wood pins throughout the construction. Animal hair was used for the plaster, and slaked lime was mixed for the plaster on the site as it would have been done in Penn's time. Mr. Okie's summary of his father's work at Pennsbury was: "That he did the best he could with what he had."23

22 Interview with Alice Hemenway, Jan. 23, 1986.

Today we are not specifically concerned with the controversy regarding the funding of this project, but we are concerned with the discussion of the controversy regarding the documentation of the Pennsbury memorial. It is unlikely that the Historical Commission today would consent to rebuild Pennsbury based on the documentation available, but it is not enough for preservationists to cry sham - and castigate the project. We must look at the two sides of the controversy in their own time so that we can understand and learn the lessons of the Pennsbury controversy. Those critics of Pennsbury like Leicester Holland and Fiske Kimball were in the forefront of contemporary preservation theory of their time. Their sophistication with regard to proper scholarship and documentation laid the basis for the critical analysis of sites and buildings of the present era of preservation. Pennsbury was a project caught between two eras, that of the Williamsburg-Colonial Revival Era, and that of the newer and more sophisticated era which sought to preserve the built environment that existed, not fabricate a false environment. How, indeed, can we judge the correctness of current preservation projects if we do not look at the past and learn from it - both the good and the bad.
Illustration No. 22 - Interior Pennsbury Manor, 1986 showing re-interpreted "grained" panelling.
CONCLUSION

Today, in the 1980s, the foundations of the ruin that was Pennsbury Manor would be left uncovered or protected so that scholars and archaeologists could study and learn from the site. If a building was proposed, it might be built like "Franklin Court" in Philadelphia - the mere outline of what the building was "thought" to look like. Exhibits of archaeological evidence on the site would be presented to the public, and demonstrations of early colonial life - farming and building techniques - would be part of the exhibit. But, no one is going to demolish Pennsbury Manor, because of its uncertain origins. It will remain standing as a memorial to William Penn. What we need to understand is what the memorial nature of the site means, and how best to interpret the house and grounds to those visitors, which consist of the average tourist, the history buff, and school children who come to Pennsbury to fill out their curriculum on Pennsylvania and early Colonial history.

The introduction to Pennsbury Manor should leave no doubts in the visitors' minds about the validity of the Manor House and its outbuildings. It is the job of the docents to clearly define the limitation of the documentation for the house which existed at the time it was built and which still exists today. The explanation should be given with the understanding that the researchers and the architect created the plans for the Pennsbury Memorial in good faith, and that they did not knowingly seek to create a false impression of history for the visitor. A tour of the house should commence with a statement that leaves no doubt in
the visitors' minds that the number or rooms and their plans are not historically correct, but rather an architect's interpretation of the documents. Because Pennsbury is not an historic house, but a recreation of an historic house, it can constantly be re-interpreted (funding being available) as a museum not only of William Penn's time, but also of the Colonial Revival of the 1920s and 1930s. It would be interesting for the visitor to see how some of the rooms were originally arranged, and how they are arranged now - so that one can follow the results of scholarly research both then and now. The original Williamsburg colors should remain in some rooms as well as the brighter colors and graining of the re-interpreted rooms. Pennsbury has many programs which give the visitor a view of early life in Pennsylvania; its farm facilities, Bake and Brew House, and its setting on the river all make a pleasant place to learn while paying homage to William Penn. But, the learning experience should be enhanced by a program regarding the Manor House's origins - both the ways that it may resemble the original, and the ways in which R. Brognard Okie's "good taste" filled in the gaps left by the lacks in documentation. Just as William Olmert said of the Williamsburg Restoration - the way in which the Pennsylvania Historical Commission, the Welcome Society and R. Brognard Okie went about restoring Pennsbury, tells as much about their life and times as it does about William Penn.

Pennsbury is a monument or a memorial to the founder of Pennsylvania, William Penn. J. B. Jackson explains the meaning of the word monument as follows:
A traditional monument, as the origin of the word indicates, is an object which is supposed to remind us of something important. That is to say it exists to put people in mind of some obligation they have incurred: a great public figure, a great public event, a great public declaration which the group had pledged itself to honor.

A monument can incidentally be a work of art or a public facility; it can even give pleasure. But those are secondary characteristics. A monument can be nothing more than a rough stone, a fragment of ruined wall as at Jerusalem, a tree, or a cross. Its sanctity is not a matter of beauty or of use or of age; it is venerated not as a work of art or as an antique, but as an echo from the remote past suddenly become present and actual.24

Pennsbury is not a traditional monument as Jackson defines it. Rather it is a new type of monument where people expect to see history laid out before them with plays and players upon the stage that is the Pennsbury Memorial. At its best Pennsbury should provide both experiences -- the played out view of history, and the quiet reminder that this spot -- although changed by history and circumstance once housed William Penn, the man who planned a colony that gave religious and political freedom to the people who settled there.

LIST OF ILLUSTRATIONS

1. 1736 Survey Map of Pennsbury Manor - The Historical Society of Pennsylvania
2. Detail of 1736 Survey Map - showing drawing believed to be Pennsbury's front facade - The Historical Society of Pennsylvania
4. Pennsbury Manor - front facade
4A. Pennsbury Manor - front stairs - detail
5. Pennsbury Manor - rear facade showing clapboard siding and kitchen ell
6. Pennsbury Manor - front facade of kitchen ell, cellar way, kitchen well, and kitchen porch
6A. Pennsbury Manor - staircase detail, stairs are said to be copied from the Biles house, now demolished.
   The American Architect Vol. 126 No. 2452. (April 1924) Plate 55
8. The kitchen well - Pennsbury Manor
8A. The "Necessary" Pennsbury Manor
8B. Exterior of kitchen oven
8C. Window details - Manor house
    Vol. 126 No. 2452 (April 1924), Plate 56.
11. Panelling - Pennsbury Manor
15. Excavation - Oct. 31, 1939 - The Welcome Society


17. Oct. 5, 1938 - Timbers cut, ready for use - The Welcome Society


20. Oct. 5, 1939 - Wall plate which supports a roof plate and roof rafters - The Welcome Society

21. Workmen framing the roof - The Welcome Society

22. Interiors - Pennsbury Manor 1986 - showing re-interpreted "grained" panelling.
Bibliography

All of the Richardson Brognard Okie papers and drawings have been used with the express permission of his son, Charles T. Okie.

Primary Resources

Alice Hemenway - interviews and conversations covering the months February 1985 to January 1986. Site director of Pennsbury Manor.

Telephone interview with Nancy Kolb, Nov. 7, 1985 - Assistant Executive Director - The Pennsylvania Historical and Museum Commission.

Albert Cook Meyers Collection, Chester County Historical Society, West Chester, Pennsylvania.


Interview with Christian Ostergaard - Pennsbury Contractor, Erie, Pa February 7, 1986.


Pennsbury Manor Archives, Morrisville, Pennsylvania.


Visit to Stenton July 1, 1985 - Docent's talk.

Interview with Richard Walton, Nov. 20, 1985 - Keeper of the Collections of the Welcome Society.


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The Octagon, the Journal of the A.I.A. Vol. 10. No. 5. (May 1938) p. 27.


Appendix A:

R.B. Okie's "Justification"
Appendix A - Pennsylvania State Archives MG303

THE RE-CREATION OF PENN'S MANOR


This brief description has been prepared in order that those who visit Pennsbury and are interested to know what records and information, in addition to the actual physical evidence at the site, contributed to the recreation of the several buildings.

We have gone over all data that was available to use and herewith quote all portions of letters and other documents used in the work and that had any bearing on the design construction of the buildings that have been completed.

During the preparation of the contract drawings and specifications and the early stages of construction, letters were written to the following Institutions and individuals asking that they advise us of any data they might have that would be helpful to us in our work.* There was practically nothing learned from these inquiries however that was helpful.

Henry E. Huntington Library and Art Gallery - San Marino, CA.
Yale University Library - New Haven, Connecticut
Carnegie Institution of Washington - Washington, D.C.
Library of Congress - Division of Manuscripts - Washington, D.C.
William L. Clements Library - University of Michigan, Ann Arbor, Michigan
Mrs. Caroline Davis Hall - The Chalfonte, Cape May, New Jersey
Princeton University Library - The Library, Princeton, New Jersey
William Helburn - 15 East 55th Street, New York, N.Y.
The New York Historical Society - 170 Central Park West, New York, N.Y.
The New York Public Library - 5th Ave. and 42nd Street, N.Y., NY.
The Pierpont Morgan Library - 29-33 East 36th St., New York, NY
Mrs. Warren S. Ely, Genealogist - 326 East State Street, Doylestown, PA.
Mrs. Harry Johnson - Fallsington, PA.
Commonwealth of Pennsylvania, Department of Public Instruction, State Library, Harrisburg, PA.
Friends Historical Association, Mrs. Lydia Flagg Gummere, Pres. 791 College Ave., Haverford, PA.
Mrs. Marianna Cadwallader Franklin (Mrs. Malcolm) - 3 Griffin Land, Haverford, PA.
Mr. Lowell Gable - Paoli, PA.
The Welcome Society of Pennsylvania, Mr. Henry Paul Busch, Pres. 1006 Spruce St., Philadelphia, PA.
Dr. A.S.W. Rosenback - 2006 Delancy St., Philadelphia, PA.
Mrs. Emily Campbell, Chester County Historical Society - Library Bldg., State Teachers College, West Chester, PA.
Lady Constance Milnes Gaskill - 47 Pont Street, London, S.W., England
Central Offices of the Society of Friends, Friends House - Euston Road, London, N.W. 1
Mrs. Claire Okie Cox - 12 Clarges Street, London
Department of Manuscripts - British Museum, London, W.C.1
Department of Prints and Drawings - British Museum, London, W.C.1
Historical Manuscripts Commission - Public Record Office, Chancery Lane, W.C.2. London

Public Record Office - Chancery Lane, W.C.2. London

Miss A. May Olser - 30 Museum Street, London, W.C.1

It is left to others to mention the many friends of Pennsbury who have, in one way or another, been helpful to the Architect, but we particularly wish to record the invaluable research work done by Mr. Charles B. Montgomery and his assistant, Mr. John M. Okie. We also are most grateful to Dr. Warren Powers Laird, who studied the Penn correspondence and other records and criticised the working drawings as they were prepared.

Anyone familiar with manuscripts and letters of the period, and particularly with letters in Penn's handwriting, will appreciate the difficulty of the task Mr. Montgomery has performed and in the comparatively short time the then existing conditions allowed.

At the request of Major Frank W. Melvin, who was Chairman of the Pennsylvania Historical Commission during the entire period of construction at Pennsbury, we submit the following:

**PENNSBURY MANOR HOUSE**

The main building was reputed to have been 60' long and 40' deep. Dr. Cadzow, in his excavations, found cellar foundation walls 60' - length of front parallel with the River and a central wing 14'-0" wide extending to the north or rear 19'-2", making a T shaped cellar 60'-0" long X 40'-0" deep over all.

The excavations also revealed very definite evidence of a foundation
or pier at the outer angle formed by the continuation of the west cellar wall and the north cellar wall, but all traces of a corresponding pier at the other outer angle had been obliterated by the erection of a later house over the north eastern portion of the Manor House site. In other words, although a T shaped cellar was found, a rectangular building evidently had been erected, but without a cellar upon the site of the north east and north west rooms of the original structure.

Further evidence that this was the case was found in the fact that the outer walls of the cellar foundations were toothed to receive additional masonry.

The cellar walls of the rear portion of the building or the stem of the stem of the T were lighter or thinner than the main cellar walls, indicating a lower building at the rear or one of different construction.

From careful study of all data, letters from William Penn, his contemporaries and others of subsequent date, we are convinced a rectangular building was erected over the T shaped plan. There is on file at the Pennsylvania Historical Society, 13th & Locust Streets, Philadelphia, Penn Manuscripts, a survey of Pennsbury, ordered by Thomas Penn in 1736, from the Surveyor General, who at the time was Benjamin Easburn.

The portion of Thomas Penn's letter, dated November 25, 1736 that refers to the survey is as follows:

I have orderd our surveyor general to draw a draft of the Mannor from a large one I employed Isac Pennington and the Surveyor of Bucks County to make from an actual Survey for your satisfaction, which was finished lately tho' this several years since I directed them to do it.
The survey plan or map is reproduced herewith and shows the front or River elevation of a building which we have assumed to be the Manor House, and we have followed the same as to number of windows, type of roof, location of main entrance door, etc.

By Dr. Cadzow's excavations and careful sifting of all earth as it was removed, a quantity of articles were found, some in fragments, some in their original state, except for rust, etc.

In the portion of the cellar under the west parlor, the excavations disclosed a carefully laid stone floor still in excellent condition, covering at least a third of the area of this portion of the cellar; other pieces of the same kind of stone were found under the main hall and under the stair hall. All of these paving stones were carefully saved and sufficient of them were found to entirely repave the floor of the portion of the cellar under the west parlor. The finding of these stones in an undisturbed condition definitely fixed the level of the original cellar floor. This level also agreed with the level of the footings under the original foundation walls.

A portion of the original brick cellar foundation wall was found to be in excellent condition at the north side of the southwest cellar. This wall has been retained relaying the old brick exactly as they were found. It is arched over to relieve it of weight, and it is from this original wall that the size and character of the brick that has been used throughout was established. The width of joint, manner of laying, which is so-called "English Bond" alternating header and stretcher courses, etc.

Thanks to the never failing support and urgent insistence of Major
Melvin, the entire brick construction at Pennsbury has been done with handmade brick to as nearly as possible match the old brick found in the ruins and laid to match the above mentioned fragment. A decided saving would have resulted had a cheaper machine made brick been used for all interior walls, chimneys, backing, etc. but in this as in all other portions of the construction old methods, duplications of old materials have been used and no substitutions have been employed even where they do not show.

As above stated, a frame house of a much later date than the Manor House had been erected over the eastern portion of the Manor House site. A close examination of the walls of the outside cellar way of this later period house indicated quite clearly that a portion at least of the cellar way masonry was much older than the other walls of the later period house. The stones were laid in a different manner, the mortar was not the same and some of the corners of the masonry showed very decided smoothness from use. Also a portion of the east cellar wall of the later period house was built with the same oyster shell lime and indicated earlier construction than the other portions of the wall.

The kitchen chimney of the later period house had a large fireplace on the east side of the kitchen with an attached bake oven that had a clean-out door on the outside.

The masonry of this bake oven and portions of the masonry of the fireplace were of the same oyster shell lime as in the cellar-way, above referred to, indicating the bake oven and a portion of the kitchen chimney were of earlier construction than the other walls in the cellar of the Caretaker's house and were of the same period as the walls of the outside
cellar way. The above observations fixed the location of the large fireplace in the Manor House Kitchen with the connected bake oven and also fixed the location of the outside cellarway. The bake oven has been reconstructed over the old foundation and the outside cellarway side walls have been retained.

The old cellar walls under the main part of the house indicated quite clearly foundations for a chimney on the south side of the Great Hall, with probable fireplaces in the Great hall, in the South Parlor and the Withdrawing Room; also making it possible to have fireplaces in the two south bed rooms on the second floor and the two servants' bed rooms in the third floor.

No evidence of a corresponding chimney however was found on the east of the Great Hall between the Great Room or the Dining Room and the East Parlor, due to the fact, we believe, that the erection of the later date house over this portion of the original cellar necessitated the removal of the foundation of the similarly located chimneys.

The fact that fireplaces originally existed on the east side of the hall was established by Dr. Cadzow's finding a quantity of the yellow-brown facing tile and also of the square hearth tile (also of sooty brick) to the east of the Great Hall, where they would have fallen from such a chimney.

The blue green fireplace facing tile that have been re-used in the Great Hall, in the West Parlor and in the Withdrawing Room, were all found in excavating to the South of the Great Hall. Sufficient of these blue green tile were recovered to complete the facings of the three first floor
fireplaces without the use of any new facing tile. The hearth tile of these first floor fireplaces were found some in the ruins and some were procured from an old house on the river, to the east of Penn's Manor.

The yellow brown tile had to be matched as closely as possible as practically all of those that were round and were in good condition had been removed. The new yellow brown tile are as close a duplication of the original as it was possible to make after many attempts.

The existence of a chimney and fireplaces ot the east of the Great Hall is further established from -

Penn Papers - 19th 3rd mo. '85 - Vol. 10 p. 12

The partition between ye best parlor and ye great room ye servants used to eat in, should be wainscoted up & even with ye chimneys at least double leavid doors, one next one & tother next tother room, wich makes a kind of dark closet between no a matter for wainscoat. The doors have best be large between ye other parlor & ye withdrawing room.

In the cellar under the Great Hall and on the east side of the same when excavating, Dr. Cadzow found brick on edge with openings between as would be required for studs. This construction suggested an original vegetable bin as is now re-constructed.

The kitchen porch was determined by finding very hard packed clay and gravel extending from the north wall of the bake oven to the south wall of the kitchen. The width of this strip of hard packed clay and gravel correspond very closely with the brick paved kitchen porch as it is now built.

The probability of the correctness of the arrangement of the present kitchen wing is further established by the existence of a narrow gravel
drive or walk extending form the north of the property, passing the Ice House, Store and Office and Smoke House and between the Bake & Brew House and the Kitchen porch and continuing toward the River. William Penn having requested two larders as per his letter as follows:

London 18th 1st month 1684-5 Vol. 9. p. 10

I would have a Kitchen two larders, etc.

They have been placed on each side of the passage from the kitchen to the Great Room or Dining Room.

Justification for constructing the northeast and northwest portions of the building together with the central connecting portion with frame outside walls is had from letters as follows:

Wm Penn to James Harrison 18th 1 mo. 1684-5 Penn MSS. Vol.9-9-10 H.S.P.

Indicated Vol. 10 p. 27

pray don't let the fronts of ye house be common places to go in & out for shoes will spoile ye steps & bords & their hands soile the doors & walls.

William Penn to James Harrison 18th 1 mo. 1684-5

x x x What you can do with bricks, do what you canst doest with good timbers & case them with clapboards about five foot, which will serve other things and we can brick it afterwards. x x x

Also the following:

(undated, Vol. 10, p.28)

thou says nothing of wt is done within doors or without, pray let not ye bords, posts & stairs & doors within doors be stained batter'd or spoyled. I know thy genl1 care & neatness, but a word by ye (by) does no harm x x x

Regarding the Out Houses, Penn's requests are as follows:

Wm Penn to James Harrison 24th 2 mo. 86 Penn MSS. Vol.10 p.26 H.S.P.

x x x I remember no more, only pray finish ye great house
within & wt cant be done with brick of my outhouses do with wood slight, yt may be done after & see we have a good kitchen garden x x x

Wm Penn to James Harrison 17th 9 mo. 86 Penn MSS. Vol.10 p.20 H.S.P.

x x x I would have thee press James about ye most serviceable things. The man I sent, can make bricks, wt you build better it be with bricks.

24th 2 mo. 1686 Vol. 10 p. 26

only pray finish ye great house within & wt cant be done with brick of my outhouses, do with wood slight, yt may be done after x x x x

Penn MSS. Private Correspondence Vol. 11 P. 141 H.S.P. Thomas Penn to ?

- Philadelphia, November 25, 1736

x x x no person has lived in the big house for near twenty years so you must conveive it is much weatherbeaten and one-half which is brick built with oyster shell is in many places cracked.

When I came here I found the house at Pennsibury was very near falling, the roof open as well as windows, and woodwork almost rotting x x x

19th 3mo. '85 Vol.10 P. 12 Penn Papers

I hope Ralph has layd out ye garden next the house & yt ye court be taken in yt is on ye timber side.

Further justification for the adoption of the rectangular plan and the placing of the rooms at the northeast and north west of the rectangle is had from the following letter which shows there was a room that was not reached form the hall and that a door was requested to this room from the foot of the stairs. The main stair location and the side of the house on which they occur being definitely fixed by a gravel walk leading form the barn directly to the centre of the rear hall door under the second stair landing.
We have positively agreed with Coll. Quarry for Pennsbury, he takes it for 7 years unless thou comes over sooner & then must have 6 moths warning, the rent is 40 lbs per ann.; he to stand to all repairs after ye first wch upon ye house itself is only to make it light repair ye windows & make one new door to ye Lower Chamber at ye foot of ye stairs and to lay ye upper floor of ye Outhouse & run one partition to repair ye garden fences & build up ye wall before ye front of ye descending steps, all wch was absolutely to be done if any of ye family come into it for the old wall in that place being quite gone; the rains washed away the upper ground wch has lost so much to raise other things, etc. he is to do at his own expense and whatever thou may think of ye rent those here know ye trouble of repairing great buildings and the damage that an ordinary tenant would doe to such a building and the advantage that an Improving one will be to it & to those gardens, think we have taken a very prudent course and much for thy benefit. x x x

page 253 - 5th Mo. 1707/8

The news we had of they affairs in chancey put a stop to our bargain (Lease to Coll. Quarry.)

The interior and exterior door sizes of the Manor House are determined from a letter Penn writes giving instructions regarding a proposed house for a friend.

24th 2nd mo. '86 - Vol. 10 p. 26 Penn Papers

Let ye doors be three foot - half broad & light high at entrance at Least, ye rest within two foot ten inches and seven foot high as myn are.

Regarding the windows, Penn writes as follows:

24th 2nd mo. '86 - Vol. 10 p. 26 Penn Papers

Robert Ripsy, J. Bradberry, Thomas Russell are pretty fellows, middlemost a rare Joyner, he will make sash windows and I would have my middle floor sasht, if thou could sell or use elsewhere the windows yt are in, for they are ye best a hindrance.

Also in another letter regarding the house for a friend or relative which Penn hoped to build, he gives instructions from which window sizes
are determined as follows:

**Undated letter - Vol. 10 p. 25 Penn Manuscripts**

The rooms below nine foot high above ye garretts seven and one half lutheran lights x x x let the lower lights be five foot one half deep, ye upper story lights, seven foot deep or near it like mine, if ye rooms above be but nine foot and one half to ye plastering it will doe.

Regarding outside steps, Penn writes as follows:

**24th 2nd mo. '86 - Vol. 10 Page 26 - Penn Papers**

let it be with three steps in ye house

and again definitely outside steps:

**19th 3rd mo. '85 - Vol 10 page 12**

I would have steps at ye water side, out of one court into another layd, also at ye door.

Also:

**11th 5th mo. 1685 - Penn Papers Vol. 10 p. 13**

The steps are ye at landing up to ye house & into ye landing up to the house before and behind should be finished.

**17th 9th mo. ;86 - Vol.10. p.20**

If I had ye dimensions of ye steps with ye house I would send free stones, but I hope tis done with wt you have, also at ye landing.

Also:

**18th 1st mo. 1684-5**

I desire a pair of handsome playn steps be made at ye landing right ag'inst ye house.

Also in the above quoted letter in the Logan papers mention is made of repairing "garden fences and build up ye wall before ye front of ye descending steps, etc."

In addition to the tile for fireplace facings, roofing tile stone
evidently from a roof and the stone floor in the cellar all as above referred to, there were many pieces of hardware found in the ruins, some sufficiently intact to verify the window widths as above mentioned in the Penn letters. The reinforcing iron found with the casement fast attached agreeing exactly with the Penn letter as to width. Other casement fasts found did not have the brace iron or reinforcing rods. Each type has been copied for the casements in the several buildings.

Leads for windows and parts of ledged glass sash gave the size and shape of the panes of glass in the upper sash of the Manor House, second floor windows.

While none of the leaded glass sash were intact, parts were found which when pieced together agreed with the sash size requiring the brace irons above referred to. The width and thickness of the old leads has also been followed as nearly as possible. An iron latch plate in very good state of preservation was found and has been reproduced for the first and second floor doors of the Manor House where a more elaborate latch would have been used. The plainer latch parts have been copied for the third floor.

Hand made nails have been used throughout for all exposed nailing of finish, floors, etc., the floor nails having the heads only partially counter sunk.

All door and window frames are solid white oak mortised and tenoned as was the custom at the time. The sills of the cellar window frames are yellow locust as was the custom where the most durable result was desired.

On the landing of the stairs to the third floor the solid oak wall
plate is left exposed and shows the tenons of the oak outlookers which extend through the wall plate and are keyed on the inside. These outlookers support a roof plate which in turn supports the roof rafters. All of white oak and all pinned with oak pins. This roof and plate construction is to be found in the oldest buildings in Pennsylvania.

The southeast third floor room in the Manor House has been left unplastered in order to show the sturdiness of construction typical of the times.

All panelled doors have been made with the moulds worked on the solid and not applied.

That some of the buildings at Pennsbury were roofed with shingles is learned from the following:


Pennsberry Dr. Paid x x x

Paid for 2650 shingles L S D
5 6 6

Also that cedar boards were used. Page 191. 21st of June 1736

Pennsberry Dr. Paid to Robert Field for Cedar Boards and Nails L S D
10 9 10

The same expense account shows the following:

Paid John Gale for Smiths work at Bristol L S D
3 12
and Richard Parker for 4 locks 15 6

All doors have the rails tenoned through the stiles exposing the end grain of the rails at the edges of the doors and with pins to secure the joints also as was the custom. All batten doors are made with a dove tailed
batten and brace let into the vertical boards.

Split oak lath have been used for all plastered interior walls and ceilings and the plastering is done with lime and sand and cattle hair.

The stairway detail has been copied from a portion of an original stair that is still in place in the Biles house, which is up the river from Pennsbury, and was built in 1726.

It is not unlikely that Biles who was a prominent man in the community and well-to-do, copied his stair way, when he built his house, from what he had seen in the house of his distinguished neighbor, William Penn.

NOTE: There is interesting correspondence in which Penn states he is anxious to acquire some of Biles land, which William Penn feels encroaches upon his property to an undesirable extent.

In correspondence between William Penn and James Logan, Vol. 1, page 1, H.S.P., 1870, page 60, a copy of a paper entitled "A catalog of Goods left at Pennsbury the 3rd of the 10th month 1701," we are given a list of the second floor bed rooms, substantiating the number of rooms that our plan provides, as follows:

In the Best Chamber . . . . . . .
In the next chamber . . . . . . .
In the next chamber . . . . . . .
In the nursery . . . . . . . . .
In the next chamber . . . . . . .
In the garretts . . . . . . . .
In the lower rooms . . . . . . .
Best Parlor

In the other parlor

In the little Hall

In the Great Hall

In the closet and best chamber

In the kitchen

In the garretts, four bedsteads and two beds could readily refer to two extra beds in one or two of the four rooms. We believe furnishings of certain of the rooms had been sent to Mr. Penn for his use in England which accounts for the above enumeration of rooms not being complete.

BAKE & BREW HOUSE

The excavations in the Bake & Brew House, under Dr. Cadzow's supervision, resulted in finding very definitely the brick foundations of the outer walls of the building, also the foundations of two large chimneys. In addition indications of the ripening vat in the malt room and one of the iron hopps that evidently had been on the cedar vat. Near the south-west corner of the malt room they also found a brick formed floor drain with an outlet leading toward the outside of the building.

Also in the north east corner of the wash room a portion of the floor was of brick on edge and with the top surface of the brick above the level of the apparent level of the balance of the floor. The same construction as this occurs in "The Sisters House" at the Ephrata Cloister in Ephrata, and it is said was used to pile the fireplace wood on.

Such a raised floor would provide place for wood where it could be kept dryer and the brick on edge made a more durable base than if the
brick were laid flat, as in the balance of the floor.

There are in existence, steel or wood cuts of the west wing of the Bake and Brew house showing the appearance of this portion of the building, and it is from these existing pictures that the present elevations have been worked out.

The position of the iron vat hoop when found in excavating gave the depth of the vat in the brew room and this depth has been followed in the restoration.

For the balance of the interior arrangement of the malt room and the brew room, and old employee was found in the Adam Scheidt brewery, in Norristown, who know exactly how such a brewery should be arranged. By consulting this master brewer, it has been possible to build an entirely workable brewery and to retain in their exact original locations the chimney, vat, ground floor level, floor drain, etc., as well as the apparent dimensions of each of the two rooms.

William Penn in writing his instructions regarding the bake and brew house says the following:

19th 3rd mo. '85

A kitchen, wash house, brew house, stable will be wanted, but I know how to shift.

24th 2nd no. '86 - Vol. 10 p. 26 Penn Papers

Let there be good out housen for servts kitchen wash house, stable, etc.

17th 9th mo. '86 - Vol. 10 - p.20

A better kitchen would do well, milk house, stable, etc, but all by degrees.

Worm. 17th 9th mo. "86 - Vol. 10 - p. 20
If you build anything let their be low lodgings over head; yt is of 8 foot high, be it stable, ditchen, etc, & be sure it be in uniformity and not ascu from the house.

London 18th 8th mo. 1684-5 Vol. 9 - p. 10.

I would have a kitchen, two larders, a wash house & room to iron in, a brew house & in it an oven for baking & a stable for twelve hourse, 4foot 8 inches each horse stand. ths rooms ye demensions I told ff. Gibbs & all but ye stables 9 foot high & thus 11 foot & over head, half story. What you can do with bricks do, what you can't doest with good timbers & case them with clapboards about five foot which will serve other things & we can brick it afterwards.

London 25th 8th mo. 1685

Let him wainscot and make tables and stands for some of ye rooms, but chiefly help on with our out houses, because we shall bring much furniture.

Thos. Penn Phila. Nov. 25, 1736

The kitchen house was very open so that the servants who look after the plantation could not live warm and dry, which made me think it absolutely necessary to be at some small charge to mend their House.

Undated

how farr have you advance with ye out housen, how & of what built, ye dimensions & how they stand to ye house.

BARN

The barn has been re-constructed on the site of and to the size of the original building, some walls which were standing a foot or two above the ground and in some parts footings only. these old walls suggested the type of plan that has been followed which provides a barn floor forming a drive way through the guilding from north to south in the centre and stabling on each side of this central barn floor. This scheme of plan suited exactly the number of stalls Penn suggests in his letter as quoted above and also the width of each stall (4'8") as per letter above.
The foundations also suited stalls of the proper length with the front feeding entry and the back entry as they have been built. The ceiling height requested by Penn as per above has been followed.

No tile or tile fragments having been found at the barn site, it is assumed that the barn had a shingle roof.

For the sake of economy and in order that the estimates on the entire project would not exceed the money appropriated, one side of the stable has been temporarily used as an office. It is proposed eventually to erect an administration building and to put stalls in the east side of the present barn, also it is intended to erect the other farm buildings and out buildings necessary to care for the dairy cows, sheep, pigs poultry, etc. Penn speaks of.

Penn wrote that a suitable well be provided at a convenient location to the barn. There is an old dug well with stone walls partially in tact near the east end on the barn which it is assumed is the one that was provided as Penn requested.

London 18th 1 mo. 1684-5 Vol. 9, p.10
x x x be sure that you have a large & convenient well or else pump for the several offices; yt being better because of children, etc.

London 7th 9th mo. 85
I like the contrivance about ye barn, & am glad to hear ye Indian field bore so well, lay as much down with hay dust as thou canst & clear a way ye wood up ye river to open a prospect upwards as well as downwards.

11th 5th mo. 85
I hope care is had of my mares, my bay and two white ones & their colts. I intend two or three mares & a fine hors when I com x x x a good dairy my wife will cark & love, for swine perhaps we may buy as cheap as breed but poultry is commenable & usefull x x x Pray lett
there be a good convenient Pump at a little distance from ye house towards ye outen houisen.

That a dog wheel for churning had been in use and is to be sent to England is to be learned from the following:

Logan Papers Vol. 1 corresp. Page 14 Hannah Penn to James Logan

And pray send by ye firs Boat the Dell boards fron Jno. Parsone, & our dog wheel.

The fact that the Manor house had rainwater downspouts and consequently gutters of some kind at the roof is established from the following:

19th 3rd mo. 1685 Vol. 10 P. 12

Pray be carefull ye spouts wrong not ye foundation

The downspouts evidently were to be drained away from the building or were to have proper drip stones at the base of each spout that would keep the roof water from the foundations.

From the Diary of Elizabeth Drinker an interesting description is had of the lintel over the front door:

Elizabeth Drinker 1797 Sept. 20

Reviewed the ruins of the ancient Pile. Some of the very thick walls still remaining and the Lintel that was over the door lays near the ruins dated 16 WP 83 scarcely legible.

If in 1797 the lettering and figures on the lintels were "scarcely legible" it is reasonable to assume it was of wood of some sort rather than of stone as lettering on stone would likely have remained distinct for a longer period than 100 years.

This assumption is made more likely from the fact that the Lintel from the Phineas Pemberton House built in 1687 on bank of the Delaware
opposite Oreclans Island and removed in 1700 to his farm called Pemberton
is of oak rather than of stone.

The Pemberton lintel is in the Historical Society, 13th & Locust Streets, Philadelphia.

The colors used for the interior painting of the Manor House were decided upon after consultation with Mr. Horace Lippincott and Mr. John P.B. Sinkler. Mr. Sinkler had made a careful study of many of the old buildings in Fairmount Park as to colors, etc., and he is also familiar with the interiors of the earlier buildings in Philadelphia. He made two trips to Pennsbury spending several hours with the Contractors' Painter supervising the mixing of the several colors and considering the relation of each room to the other in order to get a pleasing effect that would not jar in any way.

The tile in the fireplace facings were duly considered in the color selection and in studying the above referred to Biles House from which Pennsbury's main stair has been patterned we found several original paint colors which were also helpful in arriving at a decision.

In writing the above all reference in correspondence to the gardens, orchards, planting, fences, the barge, etc. has been omitted awaiting the further completion of the grounds and certain necessary out buildings, farm buildings, etc.

-30-

Insert A - from the handwritten manuscript (not in the typed copy) The kitchen chimney and bake oven of the later period house also indicated earlier construction and were of the same type of oyster shell lime. The
original stone wall has been retained on the sides of the outside cellar way. The bake oven has been built to the size of the old foundation but with the walls carried to a proper depth below frose, and the old stone have been reused as far as possible in the cellar foundation walls.

Insert B - from the handwritten manuscript (not in typed copy)

Adjoining the above mentioned bake oven and in a normal relative location to the kitchen and oven a hard packed clay floor was found extending form the north side of the oven wall to the present south wall of the kitchen porch indicating the existence of a porch at this location. The length of this packed clay surface from the bake oven on the north agreed very closely with the over all dimension of the kitchen wing as it is built and with the south wall of the wing established by the stone at the foot of the foot of the outside cellar steps as above noted.

Insert C - (crossed out on handwritten manuscript)

Also the following substantiates certain of the first floor rooms and leads one to believe the furnishings of the Great Room or Dining Room and of William Penn's Withdrawing Room had been sent back to England for his use. Certain of the dining room goods being stored in the great red trunk.
Appendix B:

Inventory of Goods Left at Pennsbury 1701
Appendix B - Catalogue of goods left at Pennsbury

3rd of the 10 mo 1701

Catalogue of goods left -

"In the best chamber -
one bed and bolster, 2 pillows, 2 blankets, 2 silk quilt, 1 suit of satin
curtains; 1 table and pair of stands, 1 looking-glass, 6 cane chairs, and
2 with twiggen bottoms; 1 little black box, 1 water-stand, 1 chamber
chair; 1 pair of brasses, with fire shovel and tongs, 1 little cane stool,
4 satin cushions.

In the next chamber-
one bed and bolster, 2 pillows, 2 blankets, 1 India quilt, 1 suit of
camblet curtains, with white bead-cloth and tester; 6 cane chairs with
cushions, 1 table, 1 looking glass; 1 pair brasses, and a fire shovel.

In the next chamber-
one wrought bed, with bolster, pillows, blankets and couterplan, 1 table
and stand, 6 wooden chairs, and 1 cane ditto.

In the nursery -
one pallet bedstead, 1 table, 1 screen; two chairs of Master John's, and
2 rush-bottomed chairs; 1 pair brasses, with fire shovel and tongs.

In the next chamber -
one bed and bolster, 2 pillows, 1 blanket quilt and suit of striped linen

curtains; 1 table, 4 rush bottomed chairs.

In the entry -

Two chests of drawers, 2 trunks and 1 box

In the Garretts

Four bedsteads, 2 beds, 1 quilt, 1 rug, 2 blankets; three side-saddles,
one of which is my mistress's; 2 pillows, 1 cloth.

In the Lower Rooms: - Best Parlor

Two tables, 1 pair stands, 2 great can chairs, and 4 small do; 7 cushions,
four of them satin, the other three green plush; 1 pair brasses, brass
fire-shovel tongs, and fender; 1 pair bellows; 2 large maps.

The other Parlor

Two tables, 6 chairs, 1 great leathern chair, 1 clock, pair of brasses; 1
teapot, 6 saucers, 2 basins

In the Little Hall

Six leather chairs and two wooden ones; 5 maps

Great Hall

One long table, and 2 forms, 6 chairs, 1 little table, 1 napkin-press; 3
very large pewter dishes, 6 lesser ones, 6 of the best pewter, 4 soup-
dishes, 2 pie-plates, 2 cheese-plates, 2 doz. of the London plates and 4
doz. of the common ones, 2 stands, 5 mazarines, 1 cullender, 2 cisterns, 2 rings 1 doz and 10 patty pans.
Appendix C:

Rules for Williamsburg Restoration 1928
Appendix C

The Board of Advisory Architects of the Williamsburg Restorations - ground rules 1928

1. That all buildings or parts of buildings in which Colonial tradition persists should be retained irrespective of their architectural date.

2. That where the classical tradition persists in buildings or parts of buildings, great discretion should be exercised before destroying them.

3. That within the "Restoration Area" all work which no longer represents Colonial or Classical tradition should be demolished or removed.

4. That old buildings in Williamsburg outside the "Restoration Area" wherever possible should be left and if possible preserved on their original sites and restored there rather than moved within the "area".

5. That no surviving old work should be rebuilt for structural reasons if any reasonable additional trouble and expense would suffice to preserve it.
6. That there should be held in the mind of the architects and in the marking of buildings the distinction between Preservation where the object is scrupulous retention of the surviving work by ordinary repair, and restoration where the object is the recovery of the old form by new work; and that the largest practicable number of buildings should be preserved rather than restored.

7. That such preservation and restoration work requires a slower pace than ordinary modern construction work and that in our opinion a superior result should be preferred to more rapid progress.

8. That in restoration the use of old materials and details of the period and character, properly marked is commendable when they can be secured.

9. That in the securing of old materials there should be no demolition or removal of buildings where there seems a reasonable prospect that they will persist intact on their original sites.

10. That where new materials must be used, they should be of a character approximating the old as closely as possible, but that no attempt should be made to "antique" them by technical means."

Appendix D:

Blue Prints of Pennsbury Manor
Pennsbury Manor Archives
Appendix E:

Specifications for Pennsbury Manor
Appendix E

SPECIFICATIONS
PLAIN AND REINFORCED CONCRETE

REGULATIONS

1. All definitions, details placement of reinforcement of other factors entering into this work shall conform to the current report on "Reinforced Concrete Building Regulations and Specifications" of the American Concrete Institute, except where otherwise specified herein.

MATERIALS

2. Cement shall be Portland cement of American manufacture conforming to current "Standard Specifications for Portland Cement" ASTM No. C-9. It shall be shipped from bins of Highway tested cement, and must be certified to by the Pennsylvania Department of Highways. All cement must be delivered in bags of 94 pounds or barrels of 376 pounds net, marked with brand and name of manufacturer, and stored in such manner as to permit easy access for proper inspection and identification of each shipment, and in suitable weather-tight building which will protect cement from dampness. Cement which has hardened or partially set shall be removed from the site and not used in the work. Packages varying more than 5 per cent from specified weight may be rejected. If average weight of 50 packages taken at random is less than that specified, entire shipment may be rejected. Samples for tests must weigh at least 4 pounds. When requested, take a sample for each 300 barrel lot, a part taken from one bag in each 40 bags (1 barrel in 10) and combined to form one test sample. Store and ship sample in air-tight, moisture-proof container.

3. Fine Aggregate shall be sand or other approved inert materials, well graded, coarse to fine. Each source of supply must have sample tested by Engineer or Laboratory, and shall meet current "Tentative Specifications for Concrete Aggregates" A.S.T.M. Specifications Number C-33T.

Percentages passing square-opening laboratory sieves:

<table>
<thead>
<tr>
<th>Percentage Passing</th>
<th>100 per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 4</td>
<td>95 - 100</td>
</tr>
<tr>
<td>No. 16</td>
<td>45 - 80</td>
</tr>
<tr>
<td>No. 50</td>
<td>5 - 30</td>
</tr>
<tr>
<td>No. 100</td>
<td>0 - 10</td>
</tr>
</tbody>
</table>

4. Fine Aggregate shall meet the requirements of A.S.T.M. Specifications No. C-40; Color Test.

5. Coarse Aggregate shall be composed of crushed stone. Gravel blast-furnace slag, or other approved inert materials of similar
characteristics, having hard, strong, durable pieces, free from adherent coatings and meeting A.S.T.M. Specifications No. C-33T. All gravel shall be washed.

6. Percentages passing square-opening laboratory sieves:

<table>
<thead>
<tr>
<th>Designated Size</th>
<th>Sieve Opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2 in. to 1/4 in.</td>
<td>95-100</td>
</tr>
<tr>
<td>1 inch to 1/4 in.</td>
<td>90-100</td>
</tr>
<tr>
<td>3/4 in. to 1/4 in.</td>
<td>90-100</td>
</tr>
<tr>
<td>1-1/2 in. to 3/4 in.</td>
<td>90-100</td>
</tr>
</tbody>
</table>

MAXIMUM SIZE AGGREGATE

7. For all concrete construction the maximum size shall be not greater than 3/4 inch.

CINDERS

8. Shall be product of high temperature combustion of coal or coke. Residue from domestic furnaces not allowed. Cinders shall be well burned, free from foreign matter, well graded from coarse to fine with maximum size 1 inch. Cinders shall contain not more than 25 per cent of combustible content by weight, nor more than 4.00 per cent sulphur in any form. Not over 10 per cent to pass No. 100 sieve.

WATER

9. Water used for mixing concrete shall be clean, free from acids, alkalis, oil or organic materials, and shall be fit for drinking.

REINFORCEMENT


PROPORTIONS

11. All concrete materials shall be proportioned in accordance with the following table, each measured separately and accurately by volume or weight.

<table>
<thead>
<tr>
<th>Max. Vol. Aggregate</th>
<th>Water-Gals. per Sack Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>per Sack Cement</td>
<td></td>
</tr>
</tbody>
</table>
FLOORS ON EARTH

12. All concrete floors on earth shall be reinforced with a 6 inch x 6 inch - No. 10 x No. 10 gauge welded wire mesh.

PAINT

13. Where paint materials are specified, they shall comply with these requirements established by the Commonwealth of Pennsylvania:

- 0-3 - Linseed Oil, raw
- P-16 - Red Lead and Oil
- T-10 - Turpentine
- V-3 - Varnish, Shellac, Orange
- V-4 - Spar Varnish
- W-2 - White Lead
- P-32 - Putty
- D-5 - Liquid Paint Dryer

14. Where shrinkage may have taken place in certain rooms, the entire woodwork shall be repainted.

LIME

15. Where lime is specified it shall conform to Federal Specification No. SS-L-351 for hydrated lime, or shall be finely pulverized quick lime Federal Specification No. SS-Q-351. Quick lime shall pass a No. 20 sieve and at least 90 per cent shall pass a No. 50 sieve.

16. Lime putty shall be a stiff mixture of lime and water thoroughly slaked and allowed to cool. Putty shall soak not less than 24 hours after cooling, and shall be kept moist until used.

MANOR HOUSE

17. The Caretaker's House, which is now over the original foundations of Penn's Manor House, is to be removed as described in specification covering Caretaker's House. The present masonry and brick walls at site of Penn's Manor House are to be taken down and any material approved may be re-used.

DEMOLITION

18. After removal of Caretaker's House as described above, the entire foundation remaining is to be removed, except as noted below. The
bricks and stones are to be piled separately where directed by the Chief Engineer, and if approved by Architect and Chief Engineer are to be reused. In west portion of cellar on north side, a section of the original brick cellar wall is to be carefully retained and arched over with a 9 inch arch.

EXCAVATION

19. The removal of top soil is to be taken care of under this contract. The contractor is to excavate and move of all sub-soil necessary to complete this building, piling same where directed by Chief Engineer, the distance not to be over 100 feet from the building. Use the top soil for finish grading.

20. After the above masonry and brick walls have been removed, contractor is to do the necessary filling and excavating for cellar, etc., as required and indicated on foundation plan and described below.

21. Excavate for cellar under Hall, Great Hall, Parlor and Best Parlor, continuing to outside cellar door to a depth of 6 feet 11 inches from the finished first floor to basement finished floor making an allowance of 12 inches for finished stone floor concrete and gravel bed as specified below.

22. Excavate under withdrawing room and great room to depth of 3 feet 6 inches below first floor finished floor where there will be 3 inches of concrete as specified below.

23. For Kitchen wing, including passage, larders, kitchen and kitchen porch, excavate or fill as required to have level surface 1 foot 3 inches below the finished floor of these rooms. These floors are to be of old paving brick as specified below laid in 1 inch mortar bed over 4 inch concrete and 7 inch gravel.

24. If earth fill is required in kitchen wing, or if present fill has not settled, it is to be thoroughly wetted and puddled before the above gravel or gravel and mortar are placed.

25. Excavate 3 feet 6 inches below finished grade for walls at platforms, also for wall at kitchen porch.

26. Excavate for pump shelter foundation, foundations of walk connecting pump shelter and doorway at opening Number 111, and also for area, steps, etc., at basement door.

27. All trenches, etc., necessary for heating or plumbing installations are to be dug and filled by the plumber and not to be included in this contract.

28. This contract is to include only sufficient grading to
property drain surface water from the house walls.

29. Where footings are indicated on drawings the excavation is to be carried straight down to outside line of footing. Where footings do not exist the excavation is to extend beyond building line so that wall can be properly dashed as it is being built.

STONE MASONRY WORK

NOTE

30. No dry spalls, chips of stone or dust are to be used in filling any crevices.

31. All stone to be quarried stone laid on their natural bed, well tamped into place. Stone to be of good size. A sample of stone work is to be approved by Architect before Mason proceeds with work.

32. All exterior foundation walls are to be stone up to a point approximately 6 inches below finished grade. The stone in present foundations to be thoroughly cleaned and used on inside of walls when exposed in cellar. Any other stone required for completing foundations is to be furnished by the Contractor and is to be quarried stone. The area wall at cellar entrance, all porch and platform foundations, pump shelter foundations and foundations for walk connecting doorway at opening Number 111 with pump shelter to be of stone.

MORTAR

33. All mortar for stone foundations to be of white portland non-staining cement, mixed with from 2-1/2 to 3 parts of sand and 20 percent lime paste.

34. The above mortar to be well mixed in a wooden box and to be used from mortar boards.

35. No mortar to stand more than 15 minutes after cement is added.

36. No re-tempered mortar to be used.

FOOTINGS

37. All foundation walls are to have stone footings where indicated on drawings. Stone for this purpose to be large and thoroughly bedded and well laid.

FOUNDATION WALLS

38. All foundation walls are to be laid on their natural bed with
all crevices filled solid with mortar, leaving no crevices or open spaces or unembedded stone, and all stone tamped to a solid firm bed.

39. All stone work to be laid with a through stone every 5 feet 0 inches in length and not over 18 inches in height. All joints to be properly broken.

40. Corners to be of large stone, carefully bonded and edged up. All stone for the first 18 inches of new foundations to be extra large stone, carefully laid, well bedded.

41. Prepare good solid beds for all beams, and fill carefully around all beams, window and door frames, etc., to make a tight job.

42. Carefully fill around all joists, etc.

43. All window and door frames to be properly braced as walls are being put up.

CHASES, RECESSES, ETC.

44. Chases are to be formed around proper wooden boxes, grouted around the boxes as walls are laid, and well parged on the inside when boxes are removed to make absolutely tight and smooth.

DASHING

45. The inside face of all stone walls throughout, also outside face of walls below grade, are to be dashed as walls are being built. These are to receive a thin coat, but all holes are to be filled. The cellar wall is to be left smooth for white wash. Mortar for dashing to be same mixture as above for masonry walls. The Contractor is to prepare samples and have same approved before proceeding with dashing of interior walls.

STONE FLOOR

46. The stone floor indicated in room under parlor on basement plan is to be laid with stone taken from present basement. Any addition stone required to compete this room is to be approved by Architect and furnished by the Contractor, all to be laid with close joints.

47. The 1 inch mortar bed to be one part gray Portland cement with 2 parts of sand and 20 per cent Lime Paste. The pointing to be white Portland Cement as above mixed 1-2 proportion having white sand and lime added as required.

CUT STONE WORK
CHIMNEY CAPS

48. All caps are to have a 6 inch flagston cap in one piece cut to shape of chimney and having holes cut for flues, the top to have bevelled cut about 3-1/2 inch from top, all as per details.

SILLS, STONE STEPS, PLATFORMS, ETC.

49. The stone platforms at openings Number 105 and Number 121 are to be soap stone 8 inches in thickness and sizes as indicated on drawings having a circular cut at end where indicated and where required. These risers to have moulded faces and returns.

50. The sills for openings Number 105 and Number 121 are to have plinths, wash and moulded face, all to be cut from the solid.

51. The sills for openings Number 111 and Number 116 are to have wash cut as per details - no plinths, no mouldings.

52. All of the above cut stone is to be hand tooled and rubbed to form warm appearance. This stone to be pointed as above for stone floor in basement. Mortar 1-2 proportion similar to that specified above for masonry walls.

WHITE WASHING

53. The Contractor is to give the inside of all cellar walls, piers, walls and ceiling, etc., two coats of Government Formula white wash mixed as follows:-

54. "To 50 lbs. of Hydrated Lime made into a paste with boiling water, add one peck of salt previously dissolved in warm water, three lbs. of rice boiled to a thin paste and stirred in while hot; one-half lb. of powdered Spanish Whiting and a lb. of clear glue dissolved in warm water.

55. Mix the ingredients well together and let the mixture stand for several days. When ready to use heat and apply as hot as possible with brush or spray.

BRICK MASONRY WORK

56. Where interior brick walls are indicated in the basement they are to have stone footings as described above under Stone Masonry work.

BRICK

57. All brick for exterior and interior walls, chimneys, etc., are to be hand made, (color selected), similar to those manufactured by Locher & Co., Inc., Glasgow, Va.
57A. The sizes of the brick to vary as required. All joints to be a full 3/8 inch or 1/2 inch as required. Exposed edge of brick for arched to be rubbed.

58. One tenth of header brick, exterior wall, to be glazed.

59. Contractor is to prepare sample and have same approved before proceeding with work.

60. The interior and exterior walls to have brick laid in alternating stretcher and header courses. If required, alternating brick in header courses to be glazed.

61. Note – Where frame construction is indicated at Great Room, Withdrawing Room and Chambers A & C there are to be bricks placed as required between studs. These bricks are to be hand made as above and to be carefully laid in mortar as above, being careful to fill all cracks.

**MORTAR**

62. All mortar for brick walls to be a white non-staining mortar cement, mixed with from 2-1/2 to 3 parts of sand and 20 per cent lime paste.

**LEAD PAN**

63. In the second course above grade and running entirely around the exterior wall of building there is to be a 3 pound lead pan extending entirely through wall. This pan to be placed by brick layers and furnished by Contractor.

**BRICK WALLS**

64. The exterior walls are to be of above hand made brick starting at a point approximately 6 inches below grade. Note projecting brick belt course and moulded brick watertable. The interior brick walls are to be of above hand made brick where brick walls are indicated on drawings including all walls in basement, first floor and second floor except at nursery and closets at openings S-9 and S-18.

65. At all times when brick layers are at work the brick are to be kept thoroughly wet and every precaution is to be taken to have all joints entirely filled with mortar as the bricks are laid.

66. The mortar is to be used from mortar boards and is not to stand over 15 minutes before being used. No re-tempered mortar is to be used.

67. All walls are to be kept straight, the work to be carefully done.
68. Prepare good solid level bed for all beams and fill around them carefully. Also fill around all joist and rafters carrying the brick work up to sheathing, making the job as tight as possible.

69. All window and door frames to be properly braced as walls are being put up.

70. There are to be brick arches as indicated on drawings and details over openings Numbers 102, 103, 104, 106, 107 and 108.

CHASES, RECESSES

71. Chases and recesses are to be formed around proper wooden boxes, grouted around the boxes as walls are laid, and well parged on the inside when boxes are removed to make absolutely tight and smooth.

72. Form recesses under windows in brick walls for radiators when required.

POINTING

73. Joints are to be raked out where necessary and all exterior walls are to be carefully gone over with acid and water, thoroughly cleaned of all lime spots, etc., and prepared for pointing.

74. The mortar for pointing exterior walls to be similar to mortar for brick work except lime and white sand are to be added as required. Contractor is to prepare samples having flat tooled joint which must be approved before work is commenced.

CELLAR WALLS

75. These walls to be pointed with flat struck joint, mortar as above for exterior pointing.

DASHING

76. The inside surface of all exterior walls and both sides of all interior walls to be coated or dashed with a minimum of 3/8 inch of gray Portland Cement, one part cement and two parts sand. Care to be taken in applying this material so that an even thickness can be obtained. The surface shall be left heavily crosshatched with a saw-toothed metal paddle or other suitable device to provide a strong mechanical key for receiving the two additional coats which are to be applied by plasterer.

BRICK FLOORS

77. The entire kitchen wing including porch and the basement floor where brick is indicated on plans to have a brick floor as follows:
BRICK

78. The brick for these floors to be an approved Philadelphia old paving brick or other similar approved old paving brick, these to be laid with very close joints in a one (1) inch Mortar bed mixed 1-2 proportion; Gray Portland Cement one part thoroughly mixed with two parts of sand.

79. The Contractor is to make samples and have them approved by Architect before proceeding with the work.

80. The above floors to be laid over concrete slabs as described under Cement Work.

POINTING

81. The joints are to be kept as narrow and flat as possible – Mortar to be White Portland cement one part thoroughly mixed with two parts of sand having white sand and lime added as required.

ARCHES

82. The passage from outside cellar door to basement ot have three (3) ring rowlock brick arch as shown by detail.

83. The pump room to have three (3) ring rowlock brick arch above as indicated by details. This is to be built over stone walls and is to be thoroughly dashed outside and inside with gray Portland Cement and water proofing as above for interior brick walls.

FIREPLACES AND CHIMNEYS

84. At least eight (8) inches of good sound, tight brick work must be provided around all flues.

85. Each flue in all fireplaces to be of the size indicated on the plans and of sound masonry. Each to be parged through its entire length with cement mortar and to be carefully smoothed up on the inside.

86. All flues are to be carried to the top of the chimney.

87. All fireplaces are to be carefully formed and smoke shelf, throats gathered into flues, etc. as detailed.

88. Fireplaces to be as per details, with brick laid up to receive tile on the first floor and plaster on the second and third floors.

89. Each fireplace, except in kitchen to have a tile hearth over proper brick skew back arch. Where directed or detailed the under side of skew back arch to show in ceiling of the room below.
90. The fireplace face in kitchen and those on second floor are to be plastered as described under plastering.

91. The fireplace faces except for kitchen and second floor are to be tiled as specified under tile work and are not to be included in Brick Work.

92. All chimneys to be brick above roof line, they are to have projecting brick courses to form design as indicated on detail sheet. Chimney tops are to be finished with flagstone as specified under cut stone.

**TILE**

93. Each hearth, except in kitchen, to be hand made, well burned clay, square tile about two (2) inches thick. These are to be carefully laid in mortar bed and are to be spaced and pointed.

**MOUNTING BLOCK**

94. This to have brick foundation three (3) feet, six (6) inches below grade, to be built of hand made brick as above having steps and top as indicated on details of approved worn flag stone - pointing similar to house painting.

**CEMENT WORK**

95. The basement floors where brick and stone floors are indicated under Hall, Great Hall, Parlor and Best Parlor continuing to outside cellar door are to have a four (4) inch concrete slab mixed as specified before over four (4) inches bed of gravel. Use gray Portland cement, sand and gravel all carefully mixed and left with rough surface suitable to receive this one (1) inch mortar bed for brick as described under brick work.

96. Where the floor is not excavated to full depth under withdrawing room and great room there is to be three (3) inches of concrete mixed as above having the top smooth and left level.

97. The entire kitchen wing including larders, passage and kitchen to have four (4) inches concrete slab mixed as specified before over seven (7) inches bed of gravel for main basement floor.

98. Pump room to have four (4) inches concrete slab having one (1) inch mortar bed and brick floor above as described for basement floor.

**FLASHINGS, LEAD-PANS, ETC.**
99. All flashings, etc. are to be furnished under this heading and placed by the stone masons.

100. In each chimney, as close to roof line as possible, there is to be a lead pan neatly cut around flues. Before pan is laid the Contractor is to see that the chimney is made smooth and sloped slightly from center to all four (4) sides.

101. The jambs and sills of dormer windows are to be flashed with lead coated copper flashings, also all cornice returns, water tables, trough gutters, windows and frame walls, etc., as noted or detailed.

102. Build in walls at least six (6) inches — three (3) pounds lead flashings, wherever roofs joint brick walls, also around all chimneys and wherever required or directed to provide a weather tight permanent job.

103. All flashings are to be carefully place on a smooth level bed.

104. Build in three (3) pounds lead pans extending full thickness of walls over all exposed doors and windows in brick walls.

105. These pans are to extend thru walls and turned up three (3) inches on inside as detailed, also to extend six (6) inches beyond the lintel on each side.

**Carpenter Work**

**General**

106. All lumber to be of the best of the kinds specified, well seasoned, dry and free from defects.

107. The rough lumber to be white oak, unless otherwise specified.

108. All woodwork to be carefully put in place, to be plumb level and true, and to be framed by mortises, tenons and pinning.

**Lintels**

109. All lintels to be of sizes marked on details over all windows and doors.

110. Lintels over interior doors in brick walls to have lintels of two (20) — six (6) inches be eight (8) inches White Oak.

111. Lintels over interior doors where stud partitions occur to have studs notched into heads. Where openings have double doors same to have lintels notched and studs forming trusses.
112. All lintels in masonry to have six (6) inches bearing on each end.

113. Where trusses bear over windows, lintels are to be of sufficient size to carry load over same.

JOIST

114. All joist in masonry wall are to have fire cut ends and slate wedged where embedded. Where joists rest in outside frame walls, same are to be framed into a plate or sill of proper size.

115. All joist to be four (4) inches by twelve (12) inches spaced eighteen (18) inches on first and second floors, and four (4) inches by fourteen (14) inches on third floor and to be cross bridged at least once in each span with two (2) inches by three (3) inches White Oak herring bond bridging.

116. Where hearths chimneys and stairways occur, the framing timbers are to be six (6) inches by fourteen (14) inches mortised, tenoned and pinned.

117. Where joists come directly under partitions, same to be eight (8) inches by twelve (12) inches or eight (8) inches by fourteen (14) inches according to joist size with studs let into same at top and bottom.

118. Joists over larder to rest in brick wall and mortised into lower member of truss in kitchen.

PARTITIONS

119. Exterior walls are to have corner pieces in one length, twelve (12) inches by twelve (12) inches with four (4) inches by eleven (11) inches pieces against corner pieces and six (6) inches by eleven (11) inches intermediate studs in walls and forming window or door openings.

120. All corner posts are to be rabbeted to receive clapboards.

121. All studs rabbeted to receive brick walls built between studs.

122. Where joists rest in outside walls there is to be framed between outside post and brick wall a plate to receive the joist which are to be mortised and pinned into same.

123. All the corners of frame exterior partitions to have bracings at all angles where required by the architect, the same to be carefully framed into studs with mortises and tenons.

124. Where clapboards cover the brick wall at hall, build into the brick work three (3) inches by four (4) inches White Oak pices cut to a
detail and secure clapboards to same.

**INTERIOR PARTITION**

125. The interior partitions between the larder and kitchen to be of two (2) inches by three (3) inches White Oak, studs mortised into a plate at floor and into bottom member of truss. The partitions cross the joist place a plate and sill piece with joist let into same as described above.

126. Partitions which come directly over the span of joist to have three (3) inches by four (4) inches studs spaced sixteen (16) inches C let into the large beam over and under partition. Where partitions cross the joist place a plate and sill piece with joist let into same as described above.

127. The outside walls of the attic to be made up as shown on plans on eight (8) inches by eight (8) inches posts rabbeted to receive plaster mortised into an eight (8) inches by eight (8) inches sill piece and a six (6) inches by eight (8) inches plate which will form a purlin for the roof rafters. On the sides of the posts firmly secure pieces of one (1) inch by four (4) inches to secure the wood lath to. Intermediate studs to be three (3) inches by four (4) inches White Oak. Braces at each post to be four (4) inches by five (5) inches mortised and tenoned into post.

128. Form relieving trusses in partitions where necessary.

129. All door studs doubled at door openings.

130. Form a truss over heads of openings over four (4) feet, no (0) inches wide with head pieces notched into jamb studs. At all openings headpiece is notched into jamb studs.

131. All angles formed solid by placing two (2) studs together so that no lath shall run behind studs at angles.

132. All partitions to be set perfectly plumb and forming a true surface to a straight edge.

133. In cases where one partition comes directly over another, the studs of the upper must not rest on the floor but must run down to the top plate of the lower partition. All stud partitions are to be substantially braced and bridged where necessary.

134. Note - Where board or panelled partitions are specified around studding accordingly.

**ROOF WORK**

135. Frame and construct all roofs in the most thorough manner
setting all rafters two (2) feet, no (0) inches on centers, well secured to plate and purlins.

136. Put up necessary support from tops of partitions to support rafters as specified for interior partitions.

137. Do all framing for dormers in the most thorough and workmanlike manner, same being halved, mortised and pinned as required. Hip rafters to be of sizes proper to work with main house rafters.

TRUSSES

138. The trusses are to be built in the most thorough manner, care being taken so that where mortises and tenons occur same are tight in all respects and are not to be wedged.

139. Main rafter of truss to be twelve (12) inches by fourteen (14) inches cut over four (4) inches by ten (10) inches forming a key at bottom, mortised into top member ten (10) inches by twelve (12) inches at top which in the two (2) center trusses is to have rise toward the center of roof or deck and halved, mortised to receive king post. The two (2) end trusses to have a continuous ten (10) inches by twelve (12) inches and to be level.

140. Bottom member of truss to be twelve (12) inches by ten (10) inches mortised into main rafter. King post and two (2) secondard posts are to be eight (8) inches by eight (8) inches champfered, mortised into the top member and mortised entirely through bottom cord.

141. There will be two braces six (6) inches by six (6) inches mortised into the top and bottom cords.

142. All the above is to be adequately strapped together with iron and bolted through the thickness of timbers by five eighth (5/8) inch diameter bolts.

143. Over the center of truss there will be placed an eight (8) inches by twelve (12) inches piece and over secondary posts an eight (8) inches by twelve (12) inches piece to which the roof rafters will be attached.

144. Joist forming ceiling of third floor will be three (3) inches by ten (10) inches notched into the bottom cord of truss two (2) feet, no (0) inches on centers and to be counter lathed on bottom with two (2) inches by four (4) inches - sixteen (16) inches on centers.

145. Wall plate under third floor joist is to be a four (4) inches by ten (10) inches notched into the bottom cord of truss two (2) feet, no (0) inches long with eight (8) inches by eight (8) inches plates spaced five (5) feet, no (0) inches apart, unless they interfere with window
spacing in which case they are to be spaced accordingly.

146. All of the above construction is shown on Sheet A 3.

147. Sheath the rafters and deck with one and three-fourth (1-3/4) inches by ten (10) inches White Pine (Michigan) to be tongued and grooved and secured to roof with 12D, three (3) nails in each board at each bearing.

KITCHEN WING

148. Plate six (6) inches by six (6) inches fastened to wall by one (1) inch by three (3) feet, no (0) inches bolts with plates.

149. Trusses to have eight (8) inches by eight (8) inches bottom cords with six (6) inches by six (6) inches struts let into bottom cord and into six (6) inches by six (6) inches purlin. Into the struts there are to be false struts four (4) inches by five (5) inches.

RAFTERS

150. Four (4) inches by eight (8) inches tapered rafters notched over plate and halved and fish tailed at top. Over rafters sheath with one and three-fourth (1-3/4) inch by ten (10) inches T. & G. White Pine and secured to rafter as above.

151. Porch to have three (3) inches by five (5) inches tapered rafter bird beaked over five (5) inches by six (6) inches plate rabbetted to receive trough gutter and rafters and sheathed as above.

152. For sizes of rafters on well curb see Mill Work.

153. Note - All exposed timbers specified above to be hand planed.

154. Sheathing for Kitchen Wing to be hand planed and beaded on the exposed side.

EXTERIOR MILLWORK

NOTE

155. All window frames, door frames, cornice material, posts, etc., to be hand planed as directed by Architect.

156. All Exterior Millwork to be thoroughly primed with linseed oil and white lead before leaving the mill.

WINDOW FRAMES

157. Openings, 50, 51, 52, 53, 54, 55, 56, and 57 to have 5 inch x
5 inch moulded frame with 5 inch x 6 inch sill and having the jambs mortised into the head and sill. The rungs to be let into jambs and to be 1-3/8 inch diameter hand drawn. Frames to be rabbeted for an inside shutter made up of a single board with batten ends. The above material to be of White Oak.

158. Opening Number 55 to have jambs 6 inch x 6 inch moulded and rabbetted to receive 7/8 inch boards. The above material to be White Oak. The door for this opening to be built up of 7/8 inch White Pine boards having 7/8 inch battens and brace — the upper portion of door to have pieces mortised into battens forming the opening for 1-1/8 inch sash all as per details.

159. Openings 101, 102, 103, 104, 106, 107, 108, 119, 120, 122, 123, 211 and 212 to have 6 inch x 6 inch White Oak moulded rabbetted frames with moulded sill 6 inch x 8 inch. Mullion to be 4 inch x 6 inch, moulded and rabbetted. The jambs and mullion are to be mortised and pinned into the head and sill.

160. Openings 201, 202, 203, 204, 205, 206, 207, 208, 209, 210 and 213 are similar to the above having a 4 inch x 6 inch transom bar moulded and rabbetted and mortised into the jambs. The mullions to be mortised into transom bar.

161. Openings 109, 110, 112, 113, 115, 117 and 118 are to have 5 inch x 6 inch frames, these to be plain having beaded edge and rabbetted for sash. The sills to be 5 inch x 8 inch, not moulded. The jambs are to be mortised into the head and sill. Material shall be White Oak.

162. The sash for the above windows to be 1-1/8 inch thick White Pine mortised and pinned and pegged — muntins in large sash to be coped and tenoned into rails and stiles. Transom sash to be same as above without muntins and having leaded glass as specified elsewhere.

163. All of the above frames to have 1-14 inch x 2 inch White Oak window breaks let into jambs and heads and being thoroughly white leaded.

164. The dormer windows to have 6 inch x 6 inch frames rabbetted to receive sash and beaded boards and beaded at corners as per details. The sills to have 6 inch x 6 inch moulded and rabbetted for sash. The jambs to be mortised into heads and sills. All of the above to be of White Oak.

165. The sash for the above windows to be 1-1/8 inch thick White Pine, mortised and pinned and pegged. Muntins to be coped and tenoned into rails and stiles. Each sash to be rabbetted and beaded at center. The crown moulding for dormer windows to be made out of 1-1/8 inch material and to be carefully mitred.

166. The exterior door frame at opening Number 105 to be 6 inch x 8 inch beaded and moulded, rabbetted 1-5/8 inch doors and having jambs
mortised into head.

167. The exterior door frames at openings Numbers 111, 114, 116, and 121 are to be 6 inch x 6 inch beaded and moulded, rabbeted for 1-3/8 inch doors and having jambs mortised into heads, except door Number 121, to be 1-5/9 inch.

168. Sill Number 114 to be Yellow Locust, 5 inch x 8 inch. Other exterior sills to be stone.

169. All of the above exterior door frames to be of White Oak, to have straight cut at heads having only the beads and moulds mitred. The jamb moulding is to extend above point where jamb is cut at top to receive head and is to mitre with head moulding which is to be cut on solid.

170. Main entrance door at opening Number 105 to be White Pine 1-5/8 inch thick panelled as per details on the exterior and having vertical T & G beaded boards on the interior.

171. Kitchen doors at openings Number 111, 114 and 116 to be 1-3/8 inch thick panelled as per details on the exterior and having vertical T & G beaded boards on the inside. These doors to have nine light sash below panelled top, the sash to be worked on stiles and rails and not let in, as per details.

172. Hall door at opening Number 121 to be White Pine 1-5/8 inch thick panelled as per details having vertical T & G beaded boards on the inside. Note - Lintel over main entrance door to be carved as per details and of White Oak.

MAIN CORNICE

173. All cornice material to be of White Pine - crown member forming gutter moulded and rabbetted to be made from a 3 inch x 8 inch piece. The bottom of gutter to be made out of 2 inch x 6 inch piece having tongue at front and back.

174. Back member of gutter to be grooved to receive bottom member and tapered as indicated; this to be made out of 1-1/2 inch x 12 inch piece.

175. The scotia mould under gutter to be moulded and rabbetted as per details and made from 3 inch x 4 inch piece.

176. The facia and planacea to be 7/8 inch material tongued and grooved together as per details.

177. Bed mould to be moulded and rabbeted and made from 2 inch x 6 inch material.
178. The vertical piece below bed mould to be 7/8 inch material.

179. The scotia forming the lower member of bed moulds to be made out of 2 inch x 4 inch material moulded as per details.

**CORNICE KITCHEN WING**

180. This cornice to be built up as follows having a 7/8 inch face board covering ends of rafters. The gutter to be built up having back and bottom piece of 7/8 inch material, the bottom piece tongued into face piece.

181. The face piece to be of 1-3/8 inch material having groove to receive bottom piece and to be tapered as indicated. Cornice held in place with shaped oak cornice hangers.

182. The bed mould to be 1-1/2 inch x 1-1/2 inch material moulded as per details.

**BARGE BOARDS**

183. The barge boards throughout to be 7/8 inch material beaded on face and having drip cut on bottom as per details.

**CORNICE - KITCHEN PORCH**

184. This cornice to form trough gutter similar to cornice for kitchen wing.

**CORNICE - BASEMENT ENTRANCE**

185. This cornice to be made up of two (2) 7/8 inch boards with planacea tongued into face boards.

**CORNICE - PUMP SHELTER**

186. This cornice to be made up of three (3) 7/8 inch boards with the planacea tongued into face board. The face to be board and eight (8) divisions and false bottoms to be made of 7/8 inch material tongued into cornice material all as per details. Pump shelter sheathing to be of White Pine 1-3/4 inch x 10 inch, 12 inch and 14 inch T & G beaded.

**CORNICE - RETURNS**

187. These to be made of 7/8 inch material to be beaded and grooved at bottom having water table all as per detail.

**NOTE**

188. All of the above cornice material to be of Genuine Michigan
White Pine - it is to be thoroughly primed at the mill with white lead and linseed oil.

POSTS - KITCHEN PORCH

189. These posts to be of White Oak 5 inch x 5 inch material mortised and tenoned into the plate and are to have 1 inch hole bored in center through its entire length.

WEATHER BOARDS

190. Where indicated on drawings, the exterior walls at Great Room, Withdrawing Room and Chambers A & C are to be frame construction having brick placed between studs.

191. The weather boards required for frame construction are to be approved Western Vertical Grain unsurfaced, except for bead, Red Cedar, made out of 7/8 inch x 12 inch piece rabbetted, beaded and tapered on one side as indicated by detail. These boards to be carefully cut and fit at ends in rabbet formed by framing timber as described under Carpenter Work.

INTERIOR MILLWORK

NOTE

192. All sash for windows, exterior and interior doors, to be made from Pennsylvania water cured virgin White Pine of guaranteed age.

193. The window frame in frame walls to be held in place by 1 inch diameter locust pines, six pins for each frame.

FLOORING

194. All flooring to be hand planed.

195. The finished floor in first and second floors to be White Oak 5/4 inch material running from 10 inch to 23 inch wide, having 1/3 of the number of boards required 14 inch and 16 inch wide, and 1/8 of the number of boards required 16 inch to 23 inch. These boards are to be laid in long lengths and are to have an approved number of tight knots in each board and are to be sawkerfed on the under side as required.

196. The entire third floor to be 5/4 inch approved poplar of widths as above.

197. The flooring over larders to be of 7/8 inch x 10 inch, 12 inch and 14 inch material and as described above.

198. All of the above flooring is to be laid in long lengths, to be
T & G and driven up tight and secret nailed with 8D nails. In addition to the secret nailing all 10 inch and 12 inch boards are to receive three (3) 8D bung head nails on each bearing and 14 inch and 16 inch boards are to receive four (4) 8D bung head nails on each bearing.

199. All finished floors are to be top nailed with surface nail having a hand-hammered head – the 1- inch and 12 inch boards are to receive two (2) nails at every other bearing and at ends. The 14 inch and 16 inch boards are to receive three (3) nails at every other bearing and at ends of boards.

200. The Contractor is to furnish and place all finishing nails and bung head nails required to complete flooring.

201. The surface nails described above, having hand-hammered heads, are to be furnished by the Contractor and are to be placed after sample of spacing has been approved by Architect.

202. The contractor is to drill holes as required for surface nails to prevent the splitting of flooring.

203. All floors laid to a perfect level, having joist edged where necessary.

204. Plane around edge of board before base boards, etc., are put in place.

205. All floors to be hand planed and hand sanded and not scraped or machine sanded at completion, letting the plane marks show as directed by Architect.

206. Lay neatly dove-tailed borders around all hearths and dove tail ends of boards at doorways where floors in adjoining room runs in opposite direction.

DOOR BUCKS

207. Door bucks for main part of house, first and second floors, are to be worked from 4 inch x 6 inch White Pine, moulded and rabbeted for 1-1/8 inch doors. Where the jambs join head the mouldings and heads are to be mitred having flat surfaces butted. All corners are to be mortised, tenoned and pinned as per details.

208. Bucks in third floor and kitchen wing to be of White Pine moulded and rabbeted for 7/8 inch doors. These bucks to be moulded, mortised and pinned as described above.

DOORS

209. The doors in main portion first and second floor to be 1-1/8
inch thick, rails to be mortised through stiles and pinned. These doors to be panelled as per details, having mouldings coped and not mitred.

210. The doors in kitchen and third floor to be batten doors 7/8 inch thick of R.W., T&G beaded boards having the battens 7/8 inch thick let into the door 3/8 inch and having a dove-tail groove - This groove is not to extend the entire width of door, but is to stop approximately 1 inch from edge.

THE GREAT ROOM

211. The fireplace side of room to be panelled from floor to ceiling having wide rail at top to receive a moulded cornice, all as per details. The outside stiles to carry from floor to ceiling, the intermediate siles to carry from bottom rail to chair rail and from chair rail to top rail.

212. The stiles at sides of doors at fire place to carry from floor to ceiling. All stiles and rails to be mortised, tenoned and pinned, the tenons extending through the stiles or rails as required.

213. The fire place moulding to be as per details.

214. The mantel shelf to be moulded and built up as per details.

215. At the corners of the rooms and jambs of doors there are to be 7/8 inch beaded and rabbetted ground piece to receive plaster. Over the heads of doors there is to be a raised panel formed by a rail over door, brick and ceiling ground being moulded and beaded as per details. Where a ceiling ground occurs over windows this board is to be deep enough to extend to head of windows.

WAINSCOT

216. The wainscoting to have moulded cap furnished of 2 inch x 3 inch material in long lengths rabbeted over 7/8 inch pieces having moulding at bottom edge which is to mitre at end with 7/8 inch vertical pieces moulded on each side and running from cap to shoe having the mould to mitre with 7/8 inch horizontal piece with moulding at upper edge being let into rabbeted and moulded shoe at bottom, the shoe to be in long lengths and of 1-1/2 x 1-1/2 inch material.

217. The above to be placed over 7/8 inch vertical backing pieces which are to form face of panel and to extend to center of vertical pieces as described above and to be grooved for spline or slip tongue.

THE WITHDRAWING ROOM

218. The fire place side of alcove is to be panelled from floor to ceiling having fire place mould as described above but having no shelf.
There are to be beaded, rabbeted and moulded grounds to receive raised panels on door opening F3.

219. The other two sides of alcove are also to be panelled from floor to ceiling.

220. The side of room toward the alcove is to be formed by panelling form floor to ceiling at the closet having a shaped head into the alcove all as per details. The balance of this room to have wainscoting, corner grounds and grounds as described above for Great Room.

**BEST PARLOR**

221. The fire place side of Best Parlor is to be panelled from floor to ceiling having fire place mould with dog ears but have no shelf. There is to be a wide rail at top to receive moulded cornice. There are to be beaded, rabbeted grounds at jambs of openings F8 having beaded, rabbeted and moulded grounds above to receive raised panel. The balance of this room to have wainscoting corner grounds and ceiling grounds as described above for Great Room.

**PARLOR**

222. The fire place side of parlor is to be panelled from and including chimney jamb to the right side of opening F4 from floor to ceiling. The face of ifre place and chimney jambs to have a wide rail at top to receive a moulded cornice. There is to be a fire place mould but no shelf. There are to be beaded, rabbeted grounds at jambs of openings F3 and F4 having beaded, rabbeted and moulded grounds above to receive panel. Corner cupboard white pine, having panelled doors, cornice, shaped shelves, radiator in bottom section, heat flue in back, all as per details.

**CHAMBER C**

223. The fire place side of this room is to be panelled from floor to ceiling having a wide rail to receive a moulded cornice. Above opening S-12 there are to be beaded, rabbeted and moulded grounds to receive raised panel. The fire place moulding to be as per details.

224. The mantel shelf to be moulded and built up as per details. The balance of this room to have wainscoting, corner grounds and ceiling grounds as described above for Great Room.

**CHAMBER D**

225. The fire place side of this room to be panelled from floor to ceiling having a wide rail at top to receive a moulded cornice. There is to be a fire place mould, as described above, but no shelf. There is to be a beaded, rabbetted and ground at right jamb of opening S1 having
beaded, rabbetted and moulded grounds above door to receive raised panel. The balance of this room to have wainscoting, corner grounds and ceiling grounds as described above for Great Room.

CHAMBER B

226. The fire place side of this room to be panelled from floor to ceiling having a wide rail at top to receive a moulded cornice. There is to be a fire place moulding, as described above, but no shelf. There is to be a beaded, rabbetted and ground at right jamb of opening S1 having beaded, rabbeted and moulded grounds above door to receive raised panel. The balance of this room to have wainscoting, corner grounds and ceiling grounds as described above for Great Room.

CHAMBER A

227. The fire place side of this room to be panelled from floor to ceiling having a wide rail at top to receive a moulded cornice. There is to be a fire place moulding as described above but no shelf. There is to be a beaded rabbetted ground at each jamb of openings S1 and S2 having beaded rabbetted and moulded grounds above door to receive raised panel. The balance of this room to have wainscoting, corner grounds and ceiling grounds as described above for Great Room.

228. All grounds mentioned above are to be 7/8 inch thick, flush with plaster, rabbeted and beaded as required.

GREAT HALL

229. All four walls of this room are to be panelled from floor to ceiling having a wide rail at top to receive a moulded cornice. There is to be a moulded chair rail and base applied to above panelling.

CLOSET

230. The closet between Great Room and Best parlor to have the partitions at openings F9 and F10 panelled from floor to ceiling.

HALL

231. The spandrel of first floor hall stairway running around to corner at opening F6 to be panelled from floor up to string.

232. The soffit of stairway, first and second floors, is to be panelled.

233. The first floor hall, second floor hall, and stairway from first floor, stopping at last riser on third floor to have panelled wainscot having moulded cap and base, all as indicated by plans and details. The risers and treads are to be housed into bottom member of
wainscot.

234. In the third floor hall and on landings of stairs between second and third floor there is to be a 4 inch base board beaded and rabbetted for plaster.

235. There are to be no base boards in rooms and closets in third floor, the plaster is to extend to floor.

INTERIOR FINISH

236. All windows are to have sills rabbetted over window sills and wainscot or plaster, these to be 7/8 inch thick and beaded on face. Dormer windows to have 7/8 inch stools as above and 7/8 inc x 4 inch beaded apron piece.

237. Heads of all windows have a 7/8 inch piece rabbetted into frame and extending 3/8 inch beyond plaster and in length to extend beyond the curve of plaster jambs as required. Windows to have no casings. Heads of all doors to have a 7/8 inch piece rabbeted into frames and extending 3/8 inch beyond the wood or plaster heads and in length extending beyond the curved jamb as required.

KITCHEN

238. Each side of kitchen and fire place end to opening Number 114 to have horizontal board wainscot running from floor to window sill having three (3) boards only, these to be 7/8 inch thick and let into 7/8 inch x 3-3/4 inch vertical boards at all corners and where recessed radiators occur as indicated on floor plan. All mortises to be pinned as per detail as required.

239. The beam at fire place to be 8 inch x 12 inch long, shaped as required on back side and extending beyond F.P. opening 9 inches on each side.

240. The larder end of room to have 7/8 inch x 10 inch, 12 inch and 14 inch vertical T & G beaded White Pine boards rabbetted into 1-3/8 inch x 1-3/8 inch rabbted and beaded shoe at floor and rabbetted into truss at ceiling.

241. These boards to have holes cut as indicated to form ladder to space above larder. Bottom of hole to have oak piece neatly cut and held in place with wrought iron nails.

242. The kitchen roof to have 1-3/4 inch x 10 inch, 12 inch and 14 inch White Pine T & G and beaded sheathing - this material to be exposed and furnished in long lengths.

243. The kitchen porch to have 7/8 inch x 10 inch rabbeted and
beaded chair rail, 7/8 inch x 3-3/4 inch rabbeted and beaded base board and 7/8 inc x 3-3/4 inch rabbeted and beaded ceiling piece. The above members to be flush with plaster and at each end and back as per detail.

RECESSED RADIATORS

244. There are to be recessed radiators in Great Hall, Nursery and Kitchen under windows as indicated. These are to have removable wood lattice grilles in sills, replaced with board for summer use.

245. The Great Hall to have moulded removable panel in front as per detail.

246. The Nursery and Kitchen to have horizontal beaded T & G board removable panel in front as per detail. These boards to be 7/8 inch thick and tongued into a 7/8 inch x 2-3/4 inch vertical piece.

247. At jambs there are to be 7/8 inch x 3 inch beaded and rabbeted stiles, all as per details.

248. The recessed radiators in partitions are to have opening left in woodwork at floor and are to have grilles where shown or directed, made up of turned balusters in a removable frame all as per details.

SILL POCKETS

249. In the main part of building, first and second floors, where indicated, on drawings, there are White Pine sill pockets of 7/8 inch material having rabbeted bottom and sides and sill to lift, all as per detail drawings.

GENERAL NOTES FOR ALL MILLWORK

250. All interior millwork coming from the mill is to be thoroughly primed before being delivered to the job. This includes all door and window frames, all doors and sash, all butt joints and mitres, all panelling, all tongues and grooves, and all portions of the millwork that will help to make the woodwork as durable as possible.

251. Heavily point with white lead and linseed oil the mitres of all corners, butt joints of all weather boards, the bearing surfaces of all woodwork, including plates, studs and ends of all timbers embedded in wall, the backs of all woodwork, before it is put in place, and any other woodwork that is not specified but where white leading would make a more durable joints.

STAIR WORK

252. Main stairs, first floor to third floor, to have three (3) 3 inch x 10 inch White Oak horses. Risers to be 7/8 inch White Pine, treads
1-1/8 inch White Oak, treads tongued into risers, treads and risers tongued into skirt board. Hand rail to be 2-1/2 inch x 3 inch moulded black walnut and securely bolted. Newells to be turned White Pine 4-1/2 inch x 4-1/2 inch with turned balusters 1-3/4 inch White Pine Mortised into hand rail and pinned. Moulded closed string as detailed and panelled below.

253. Stair from hall to basement, horses as above, 3 inch x 3 inch White Oak newel, 7/8 inch x 3 inch White Oak beaded rails, let into posts, pinned and receiving against ceiling. 7/8 inch White Oak treads and risers. Landings similar to Oak specified for floors.

PLASTERING

254. The Contractor is to examine all the walls and ceilings and see that they are plumb and true before lathing and determine that they are all firm and secure.

LATHER'S WORK

255. All walls and ceilings that are to be plastered are to be lathed with hand-split White Oak lath.

256. The first and second floor ceilings, the frame partitions at nursery, the hall closets, frame partition, Chamber A, and the entire third floor to be done in three (3) coat work, first coat mixed with fresh lime paste, clean sharp sand, and an ample proportion of long clean cattle hair. The lime is to be carefully slaked without burning. All lime paste is to stand at least three (3) weeks before it is mixed and put on. The brown coat is to be put on just before the scratch coat is perfectly dry. Brown coat to be put on of such thickness that when white coat is applied the entire plaster coats, exclusive of the lath, are 3/4 inch thick. The entire finish throughout the first, second and third floors, to be hard white wetted and trowelled to a hard glossy smooth finish. Walls of kitchen porch finished in a hard, smooth, white coat rubbed to a smooth even surface, adding the necessary amount of white cement to make a durable job.

257. The faces of the first floor fireplaces, except in kitchen, are to be tiled as described under tile work.

258. The face of kitchen fireplace also second and third floor fireplaces, are to receive finish coat only as directed.

259. All interior brick walls above basement and interior of all exterior walls above basement are to receive two (2) coats by the plasterer after completion of first coat as described under Brick Masonry Work. One (1) coat of bond plaster shall be applied in a thickness not to exceed 1/4 inch and as required. Before this coat begins to set, broom the
surface to receive the finish coat which is to be similar to the finish coat described above for frame partitions.

260. If an insufficient key is provided in any of the lathing, same to be corrected before plasterer starts work.

**FLUSH GROUNDS**

261. Wherever flush grounds occur, care is to be taken to get a sharp, true V joint at edge of the wood beads and also not to injure the surface of the wood.

262. Leave all beads, woodwork, etc. clean and true and unscarred.
263. The Contractor is to examine every part of the building that this work covers and prepare the work to receive the lead coated copper or lead as later specified and the Contractor is not to proceed until the preparation for this work is correct.

264. The Contractor is to furnish and place a 3 pound lead pan in all exterior walls as described in Brick Work. This pan is to extend entirely through full thickness of wall and is to be carefully placed, having an approved lock joint where pieces are jointed and having slight pitch towards outside of wall. This lead is not to be placed before the mortar bed has been properly prepared.

265. In the following specification where lead coated copper is specified, it is to be 25/30 pounds on 16 ounce copper coated both sides and to be identified or tagged by manufacturer.

266. The Contractor is to furnish to the stone mason the necessary 3 pound lead pans to be placed over each exposed door and window frame in brick walls. (Note by exposed is meant each door and window frame in an outside wall, the head of which opening is not protected by an overhanging cornice or by a roof.) This lead is to pass entirely through wall and is to turn up on inside. These lead flashings are indicated on the elevations, and are to extend 6 inches beyond the frame.

267. The Contractor is to provide 16 ounce leaded copper flashings for the head and for each side of each dormer windows, and also openings in frame walls. The leaded copper is to be neatly nailed with copper roofing nails in an approved manner at very close centers. All to make a wind-and-water tight finish. Lead coated copper flashings are to be provided at cornice returns, water tables, etc.

268. Lead coated copper flashings are to be used for counter flashing where lower roof joins brick walls.

GUTTER AND VALLEYS

268. All valleys and trough gutters are to be lined with 16 ounce leaded copper run well under the tile and turned down and neatly nailed at not over 1/2 inch C-C or as directed by Architect.

270. The gutters are to be connected to the down spouts through proper funnel shaped connections.

271. The valleys for intersection of dormer roofs and main roofs to be 24 inches in width.
272. Trough gutters where shown or required, lined, etc. as above. All exposed down spouts to be 3 inches 16 ounces copper, lead coated, with C.I. shoes at base and funnel shaped fittings through cornices.

273. Down spouts to have moulded hoods as per detail and to have ample and substantial lead ties holding R.W.C. to wall as indicated by details, these are to be spaced as required and are to be set to hold down spouts close to the wall, plumb and true as indicated.

274. The contractor must get the exact location for all down spouts from Architect at building and be careful not to cut through any cornice until the Architect goes over the work to definitely locate all of these down spouts.

LEAD PAN

275. In each chimney, as near roof line as possible, there is to be a 3 pound lead pan, this is to extend entirely across the chimney and is to be furnished by Contractor and placed by the brick masons.

WALL FLASHINGS, CHIMNEY FLASHING, ETC.

276. Provide 3 pound lead flashings and 3 pound lead counter flashings for all chimneys, for all roofs where they join masonry, for all gussets, etc. All gussets to be roofed with 16 ounce lead coated copper and flashed with lead.

277. Contractor is to provide 16 ounce lead coated copper and 3 pound lead wherever wood and masonry join in side walls, etc.

278. Complete the entire work in a permanent water tight and first class manner.

279. The lead deck at top of main roof to be 3 pounds lead and to have a standing seam 14 inches on center thoroughly soldered before it is rolled having end of nailing cleats spaced 12 inches on center and rolled into the standing seam to make secure. The above seams are to follow slope of roof and are to be flattened where they run over moulding and bend over top of first course of tile - Under the end of lead described above there is to be a 3 pound lead counter flashing 12 inches wide extending down under first two courses of tile, all as directed.

280. The trough gutter on main roof to be 3 pounds lead and to have a lock seam 28 inches on center lining with every other seam on deck. This lead is to extend 9 inches under tile and at lower edge is to run over cornn mould having end let into curb.

281. Finish bronze ties, as required to support gutter as indicated on detail sheet.
MATERIALS

282. All lead specified for flashing to be 3 pound thickness and put in place over smooth even surfaces so as not to be punched through when weight of stone work above is applied.

283. All lead coated copper to be put on straight with edges of gutters.

284. All nails used with copper work to be copper.

TILE ROOFING

285. Cover all pitched roofs so indicated with special hand made shingle tile equal to that manufactured by Ludowici-Celadon Company. Tile as specified to be hard-burned, approximately six inches in width, ten inches in length and one-half inch thick. It is to be of a color range and of a surface texture as selected. All necessary fittings are to be supplied including end bands, under eaves and long and short tops. Cut hip and valley tile is to be made to the proper pitch and angle of the roof at factory before burning.

FELT

286. Under tile supply best quality asphalt felt weighing not less than sixty pounds per square. Lay felt parallel to eaves, lapped two and one half inches horizontally and six inches vertically. Fasten with large-headed copper nails.

TILE LAYING

287. Lay tiles to an approximate exposure of four inches with not less than two inches head lap on the third course. Secure tiles with two copper nails one and three quarter inches long. Hips are to be laid mitered. Ridges are to be finished with courses of long and short tops.

PAINTING

288. All paint specified to be from C. Schrack and Company, E.I. DuPount de Nemours and Company, George D. Wetherill and Company or equal. Heavily prime with linseed oil, in which a small amount of white lead is mixed, all surfaces of all inside mill and cabinet work, panels, etc., and all outside mill work including all door and window frames, porch posts, rails, etc. cornice stuff and all weather boarding.

289. The bearing surfaces of all mill work throughout, mitres of all cornices, porch posts, rails all tongues and grooves, all weather boardings, butt joints, mortises and tenons, etc., and all portions of the exterior mill work wherever required shall receive a very heavy coat of pure white lead. All paint specified for priming and white leading to be
furnished by the Contractor and applied by the carpenters.

290. Putty up all nail holes and cracks, etc., shellac all knots or sappy places and thoroughly clean and rub down the work to be painted with sand paper before applying paint or stain. All mill work to be primed before leaving the mill. All wood finish, panels, flush grounds, mantels, etc., to be heavily painted on the back with white lead before being put up and given any additional coats as called for or directed.

**EXTERIOR WORK**

291. All exterior woodwork is to be gone over by the painter and sand papered where necessary. All exterior woodwork after being primed as above specified is to have knots and sappy places heavily coated with shellac, to be putty stopped and given four coats of outside lead and oil white paint on all surfaces. The unsurfaced side of all clapboards to be placed on the outside and is to be painted. All outside hardware is to be given one coat of red lead and two coats of black and to be heavily painted with white lead on the bearing surfaces before setting.

**INTERIOR WORK**

292. All interior woodwork that is to be painted, is to be primed as above, sand papered, given two coats inside white, one coat half inside white and half enamel and one coat of enamel, sand papering or rubbing with pumice and water after the last coat of paint and after the coat of paint and enamel.

293. The frames and shutters, stairways, etc., in the basement are to be given a coat of priming and three coats of paint.

294. All interior woodwork on the first floor except kitchen to be painted as specified. The hand rail of stair and beam over kitchen fireplace to be oil stained and waxed to get an approved color. Sheathing, rafters, etc. over kitchen not to be painted or stained.

295. Woodwork in second floor to be painted as above.

296. Third floor rooms to have woodwork oil stained and waxed. The interior woodwork of kitchen and larders, including the storage space over the larders to be finished with two coats of an approved alcohol stain, wiped off and given two coats of flat wax. All wood pegs finished as above.

**FLOORS**

297. Oak floors throughout are to receive one coat of penetrating fume (color selected), allowed to stand twelve hours, hand sanded to desired shade and finished with three coats of paste floor wax colored to match fume. Wax well polished between coats with weighted brush. Stain
treads, landing, etc. to match floors. All steps in the house to be finished as above. Risers painted white.

**WALLS AND CEILINGS**

298. Walls and ceilings not to be painted. Walls under porches to be given two coats of Government White Wash, as before specified.

**GLAZING**

299. All glass to be antique glass, to be bedded, puttied, sprigged and back puttied.

300. Carefully clean all paint spots from walls, floors, etc.

**LEADED SASH**

301. These are to be made as far as possible similar to those that were used on the original building. The rails are to be mortised into the stiles. Details are to be furnished by Architect to cover these windows. All to be made perfectly tight.

302. All hardware will be furnished under another contract, but all hardware shall be installed, put in place, and left in working order under this contract. The type of hardware is indicated on Sheet No. M-4.

**IRON WORK**

303. Furnish 8 ties for openings Nos. 55, 105, 121, 201 and 213 inclusive.

304. Basement frames to have 2 ties apiece.

305. All other frames to have 6 ties.

306. Iron work for truss, Sheet A3, to be furnished by the Contractor.

307. Furnish and install 24 inch diameter cast iron manhole cover and frame over well pump as shown on drawing.
Appendix F:

Discussion of the T-Shape
Versus the Rectangular Shape of Pennsbury Manor
Appendix F

R.B. Okie felt that the original Pennsbury Manor was rectangular in shape, in spite of the T shaped foundations which were excavated. I feel that this decision in favor of a rectangular building is open to question. The original house may have been T-shaped with a five register front facade 60 feet in length. Later additions to the stem of the T may have made the house a rectangle. The pier which is noted at the corner where the west and north walls meet does not appear, from the data, to be at the same level as the front foundation of the same construction. There were several options open to Mr. Okie with regard to the plan: the rectangular plan which he chose, a T-shaped plan, or a rectangle formed by later additions to the T. The fact that part of the building is believed to have been clapboard leads me to suspect that the original house was T shaped, and that additions were made of back buildings and additional rooms which may have formed a rectangle. Certainly Okie relied heavily on the description in Watson's Annals of a house 40 feet by sixty feet when he made his decision. If the building had not been built on the excavated foundation, the answer to this question of a T-shaped plan or rectangular plan could be answered with greater certainty.