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UNITED STATES
DEPARTMENT OF THE INTERIOR
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PRELIMINARY EXPLORATION OF FRANKLIN COURT
ARCHEOLOGICAL PROJECT NO. 4
MAY - SEPTEMBER 1953

Prepared by:
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September 1956

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INDEPENDENCE NATIONAL HISTORICAL PARK PROJECT
Philadelphia, Pennsylvania

By
Paul J. F. Schumacher, Archeologist
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INTRODUCTION

The home which Benjamin Franklin built for himself in the prime of his life, formerly stood in the middle of the block between High (now Market) Street and Chestnut Street, and between Third and Fourth Streets. This home which was often called "Franklin's Mansion" (no doubt to differentiate it from his earlier homes), is of the greatest historical as well as commemorative importance, since Franklin designed it with the assistance of Samuel Rhoads, and it may well be said this was his creation. This was the home of his best years---when Franklin was honored by his country, admired by the people and sought after by the great of the western hemisphere. Many important events no doubt were conceived under its roof and the vast store of accumulated knowledge and prolific inventions of this great man went into the building. The American Philosophical Society occasionally held its meetings here when Franklin was in the city. This home was to Philadelphia and vicinity what Monticello and Mount Vernon are to Virginia.

Alas, nothing remains of it pictorially, descriptively or visibly above ground. The National Park Service, in conjunction with the American Philosophical Society, decided to explore the possibilities of locating what remained of Franklin's Mansion beneath the surface. A preliminary exploratory archeological investigation of Franklin Court was set up with

the National Park Service furnishing the archeologist and the tools and the American Philosophical Society furnishing the money for the laborers. This joint project was to determine the soil conditions in the area where Franklin's home once stood, the original levels of the ground in the area, the possibility of eighteenth century walls still remaining, and to delineate the layout of the land with a view to future excavation when the remaining properties have been acquired and the buildings demolished.

Grateful acknowledgments are hereby made to the personnel of the National Park Service and the American Philosophical Society for their full cooperation on this project; Mr. H. Chaiken and Sons, and Mr. T. R. Martinez of the Immigration and Naturalization Service for permission to use the vacant lots for excavation; Mr. Charles M. Brown and Co. and Messrs. Ralph Barton and John Morrison of the Philadelphia National Bank Annex for assistance while excavating; Mr. Charles F. Devlin of the First National Bank and members of the Carpenters' Company for loaning us material in their collections for comparative purposes; Mrs. T. A. Carter and Miss Jane Goodale of the University Museum and Mr. Fred A. Ulmer of the Philadelphia Zoological Garden for identification of all the bone material; Mr. A. Eric Parkinson of the University Museum for assistance in the identification and cleaning of artifacts; Dr. Henry B. Allen, Executive Vice President of the Franklin Institute and Mr. William J. Smith, architect, of Chicago, for permission to use Franklin's house plans; Mr. David Stockwell and Mr. Ernest J. Donnelly for identification of artifacts; Mr. L. F. Wagner, Chief Chemist of the Glidden Paint Company for identification of paints; Mr. E. A. Talcott and Mr. Fred Sankowicz of Alex. C. Fergusson Company for information and identification of the modern walls; Miss Beatrice Wolfe and Miss Jean Gordon Lee of the Philadelphia Museum of

Art for identification of English, American and Chinese ceramics; Mr. Robert L. Ketcham for identification of the bricks; Dr. Anne Bezanson and Miss Miriam Hussey of the Industrial Research Unit of the Wharton School, University of Pennsylvania, for information concerning prices and wages in Colonial Philadelphia; Miss Millie Manheim of D. M. and P. Manheim, New York, for identification of ceramics; Mr. Robert Wm. Phinney of the Winterthur Museum, Delaware, for identification of glass and ceramics.

THE EXCAVATION

May of 1953 seemed an opportune time to conduct an archeological investigation of the area around Franklin's home site. It was at first proposed that three test trenches in the vacant lot at 17-23 Orianna (Figs. 3a & 17) and three more trenches in the lot 11-15 Orianna be excavated. When, at the end of three weeks, the results in the first lot proved rather successful, it was decided to concentrate all the efforts on it. From descriptions of the home it was possible to make plausible deductions as to its location on the Franklin lot.¹ It remained for the excavations to uncover the walls, if any remained.

1

In 1745 Franklin purchased the land on what is today 318 Market Street and Orianna Street southward for 306 feet. In 1752 he purchased additional land on what is today 320-322 Market Street south for 306 feet. This gave him property of 66 feet by 306 feet on which to build. He did not own the strip of land at 320 Market Street south for 140 feet, and his own land fronting on Market Street was built up with tenant houses and their yards. Therefore, this actually left Franklin an open space of some 66 by 166 feet in the center of the block in which to build his home and plan his garden. (Fig. 16)

In this space of some 11,000 square feet he planned a square house nearly 1,100 square feet in size. The insurance records mention the house as being 34 feet square, but Franklin, in a letter, states the house was 33 feet wide. Since Franklin designed the house and the insurance company probably merely paced off the measurement of the house, it would appear that Franklin's record would be more accurate. The insurance survey records of August 5, 1766 state the house was $3\frac{1}{2}$ stories high, of brick with a kitchen in the cellar. The outside walls were 14" thick, and the inner walls 9" thick. It had two sets of chimneys---one at each end. There were two large penthouses with trusses at each end. The roof had wooden shingles. The entry was in the center and faced south towards Chestnut Street (see the hypothetical plan of the house as drawn from contemporary descriptions, Figs. 1a & 21). Colonel Carr remembered an ice house under the kitchen. The latter had contrivances to carry off steam, smells, and smoke. Here were also located the oven and a furnace.

From certain descriptions and by reading between the lines, it was suspected that the house was situated approximately in the center of his

remaining 11,000 square feet of land, i.e.: some $16\frac{1}{2}$ feet east and west of his west and east property lines and some $66\frac{1}{2}$ feet north of the south property line and $66\frac{1}{2}$ feet south of the property at 320 Market Street. Deborah Franklin wrote her husband that the house was pleasantly situated on the lot with equal space on each side. The Reverend Mr. Cutler mentions the house as standing some distance from Market Street, and Colonel Carr states there was a grass lot about 100 feet square (66 feet square would probably have been more accurate) in back of the lot, and on the north side a similar sized lot extending to the printing office. This would place the house at some 200 feet south of Market Street as Chief Park Historian Riley suspected.

Placing a building in the heart of the city block where it was secluded from view, noise, and dirt was as common a practice in Old Philadelphia as it was in London. The size of the blocks in the city were rigidly fixed, and the only way of fully exploiting the center of these blocks was to open privately owned streets, courts, or footways. This occurred between Fourth and Third Streets when St. Joseph's Church on Willing's Alley and Carpenters' Hall on Chestnut Street were built, and there is a similar court to the south of the Friends Meeting Yard on Arch Street. There is no indication in the chain of title records, or anywhere else, that a previous structure existed in the center of the block where Franklin built his home. Therefore, it is logical to assume that Franklin built his home in seclusion in the open space in the center of the block, back of his tenant houses and their yards.

On September 26, 1765, after the house had been completed, Deborah Franklin purchased the adjoining lot to the east at what is today 314-316 Market Street south for 306 feet (except for a small strip at 314 Market Street and for 110 feet southward). This increased the size of the property to 99 feet east and west, making the east yard larger, but it is suspected that the house was designed and centered according to the properties Franklin owned as of 1764 and not according to the properties he later acquired. No known plans, drawings or detailed descriptions of the exterior have yet come to light.

Contemporary maps of the city are of no help. The Eastburn map of 1776 shows only an entrance to Franklin's property at approximately 322 Market Street, which was his principal entrance until he rebuilt the tenant houses with an arched passage way underneath at 316-318 Market Street in 1786. John Hill's map of 1796 inaccurately shows the home slightly to the west of the site on property not owned by Franklin but in the center of the block. Thus the major archeological problem of this project was to ascertain the exact location of the house. [See Dr. E. M. Riley's Preliminary Historical Report on Franklin Court for a more detailed report on the house, property, etc. This is merely a summary of the documentary data in Dr. Riley's report which is important in relation to the Archeological Excavation.]

Before the excavating on the vacant lot (Fig. 2a) which formerly² contained buildings at 17-19-21 and 23 Orianna Street, the area was raked off to remove the present day refuse, such as bottles, lumber, etc. (Fig. 2b) The elevation of the ground before the excavation varied from 21.0 city mean datum at the south end to 21.8 at the north. The sidewalk top was at 20.8 elevation (Fig. 17). The first trench was four feet wide and ran the length of the property line dividing #15 and #17. It was excavated in two sections going down to 12.0 in Sections 1 and 2 and uncovering the basement floor of the building formerly at #17. Nothing lay beneath this floor except the natural clay. This trench produced no artifacts of pre-1850.

Trench 2 (Figs. 6a, b, & 18) was five feet wide and ran underneath the former sidewalk, parallel to the street for the entire frontage of the vacant lot. Once we removed the 0.6 foot thick sidewalk (which was a very arduous task with sledge hammers) and the 0.4 foot of cinders, modern utilities were uncovered crossing the trench from the street into the former buildings (Fig. 19, Section CC). These having been removed, eighteenth century artifacts---bricks, painted plaster, old walls and a brick floor, all resting on sterile yellow clay---began to appear (see Artifacts and Old Walls). This trench proved the most fruitful as far as finds are concerned. Trench 2 was excavated down to 13.0 elevation, and a small tunnel a few feet underneath the street was cut for exploratory work around the old walls.

Trench 4 (Figs. 8b, 9a, & 18) was excavated in three sections, each six feet wide by ten feet long, running parallel to Trench 2 but

²

See Appendix II

inside the modern buildings which were razed. This trench was excavated down to 13.0 in order to confirm our excavations in Trench 2 (Fig. 19, Section AA). The trench contained only building rubble from the modern buildings and no artifacts. The basement floors of the structures formerly standing at #19, #21 and #23 were uncovered containing nothing but sterile clay underneath.

Trench 3 (Figs. 3b & 4a) was five feet wide and ran parallel to the rear boundary wall. It was excavated in four sections---Section A between Walls A and B going down to 16.3 in sterile yellow clay to discover the base of these two walls. Section 3B was excavated to 18.1 elevation to yellow clay except where the laborers went lower down into the two privy pits (Fig. 4b). Section 3C was excavated to 9.5 to discover the base of the various walls in that area, and Section 3D was excavated down to natural clay at 13.9, after uncovering the basement floor of #23. It was in Trench 3, Sections A, B and C, where were uncovered the great quantities of eighteenth and nineteenth century artifacts as well as the privy pits and the modern walls which shall be described below. Trench 3D produced no artifacts---merely great quantities of modern building rubble, composed of nearly all bricks and no dirt; this was completely a manual operation (Fig. 8b).

All the dirt and building rubble from these trenches was piled up into the center of the lot. One of the greatest difficulties while excavating was to find a place for the excavated dirt and bricks (Fig. 9a). After excavating for six weeks, all the trenches were filled in. The three privy pits which were cleaned out were covered over with several planks four inches thick and tar paper since it was felt that after all the effort of cleaning them out, it was a shame to fill them in again only

to be cleaned out once more at some future date. The remaining brick chimney (Wall V) and the brick floor uncovered in Trench 2 were covered over with two inch planks and tar paper for protection (Fig. 11a). Due to the heavy rains experienced during the excavation, a few of the walls such as W₂ and Z₂ disintegrated with their soft lime mortar. Walls X, Y, Z₁, T and U are still intact. In Trench 2 and in Trench 3, Sections B and C, only clean dirt was thrown in, but in Trench 1, Trench 3, Sections A and D, and Trench 4, Sections A, B and C, were filled in with all the stone, concrete and brick rubble which had been unearthed. Trench 2 and sections of Trench 3 are still valuable for future excavation, and possibly for interpretive purposes the old walls may be unearthed, protected and left open for display; but in the rest of the area a mechanical shovel would do just as well and be more expedient since there are no old walls remaining. The ground was leveled to its former elevation and some cinders spread over it lightly. The concrete sidewalk was not replaced since this was found useless for the future plans of developing Area C.

During the excavation it is doubtful that any walls of the out buildings were uncovered. It is known that they existed on the property, for an advertisement from the Aurora of March 11, 1799, in which Franklin's home was put up for rent, mentions the commodious house, a coach house and stable with haylofts, a bath house, a wash house, etc. The dates of their construction are unknown. The yard was leveled during Franklin's time for drainage purposes to slope towards the north. Mrs. Franklin speaks of filling in where part of the yard sloped off towards Dock Creek.³ No evidence of this type of fill-in was located in the excavations,

3

A branch of Dock Creek ran north up what is today South Orianna Street

but no doubt most of this fill was disturbed by the public utilities of recent years.

from the southeast corner of Carpenters' Hall, across Chestnut Street and then west northwest near the edge of Franklin's property (Fig. 16). The water came from a pond on High Street between Fifth and Fourth Streets until the year 1740.. A bridge crossed the creek at Chestnut Street from 1689-1750 when this branch of the creek must have been filled in.

4
THE MODERN WALLS

The buildings of the nineteenth century which were excavated shall be discussed briefly in order to clarify the existence of the walls which were uncovered. The buildings which formerly stood at 17, 19, 21 and 23 Orianna were demolished in 1934⁴ and their basements filled in with the brick rubble from their walls.⁵ The basement of #17 was at 15.0 feet elevation and had a 0.2 concrete floor with 0.3 of cinder underneath resting on sterile yellow clay at 14.5. The basement of #19 had a rotten brick floor resting on sterile yellow clay at 14.5. These two basement floors did not extend to the end of the lot but stopped at Wall A some ten feet west of the east boundary line. Mr. Sankowicz stated the basement floors of #17 and #19 were as deep as they appeared during the excavation prior to 1922 when he started to work for the chemical company. There were no steps or entryway into the basement from the street, except for a square cellarway in the northwest corner of #17, which was unearthed beneath the sidewalk. A brick wall, which was named I (Fig. 10a), divided the two cellars of #17 and #19, but according to Sankowicz there was a doorway between the two. This 0.4 foot thick wall had its brick base resting on sterile yellow clay at 14.4. It ran only up to Wall A.

4

The modern walls are discussed first, then the older walls. Modern walls in this report henceforth will refer to post-1812 reconstruction or to walls built after the mansion was destroyed. A great deal of the information concerning the appearance and use of these modern walls before they were demolished was furnished by Mr. E. A. Talcott and Mr. Fred Sankowicz of Fergusson Chemical Company, both of whom had worked for the company since 1919 when it was located at 17-19 Orianna Street. All measurements were made with an engineer's tape and transit and are therefore listed in tenths of feet. All elevations are city mean datum.

5

See Appendix I, II and Fig. 17

Between Walls A and B (Fig. 3b) there were two brick floor levels--- the northern level was at 19.4 elevation and rested on yellow clay at 19.2, while the south level comprising part of #17 and all of #19 was at 16.6 resting on yellow clay at 16.4. From a conversation with men formerly working in these buildings, it seems Fergusson Chemical Company had chemical vats or tanks on these brick floors in the back of their property and this may be the reason for the two levels of brick flooring.

Wall A (Fig. 3b) was a hodgepodge of brick construction showing that there formerly had been entryways and windows which were later bricked in. Its width varied from 0.8 feet thick through 1.1 feet and up to as much as 2.3 feet in one place at the property line between #17 and #19. Its base varied; in one section the brick resting on yellow clay at 16.4. The stone section had its base resting on yellow clay at 14.6 and 16.1 elevations (Fig. 17). The stone section of Wall A was built of rough cut stone except for the bottom foot which was built of two courses of smooth faced stone.

Wall B was of one period brick construction, its base at 18.6 resting on yellow clay. The great quantity of brick rubble lying between Walls A and B indicates that Wall B was the east wall of #17 and #19. Wall B has a curious westward curve (Figs. 3b & 4a) at its north end which it was impossible to explain except that possibly the bricklayers were trying to avoid the privy well Pit C which might still have been in use when Wall B was constructed. Neither Wall A nor Wall B seemed to be bonded to any of the other walls.

The south foundation wall of 13-15 Orianna Street (Fig. 2b) served as a partition wall between #15 and #17. The western section is all brick, and its base rests on heavy red clay at 12.2 elevation. Its eastern section

is brick to 21.6 elevation and is of coursed stone masonry beneath this down to 6.8 elevation, its base resting on sand. This eastern stone section was constructed after Walls A and B had been built and split the old privy Pit C in half (Fig. 4b), having been built after the pit had been filled in.

The space between Wall B and the east boundary wall (Fig. 4a) contained very little construction rubble and great quantities of eighteenth century artifacts down to 18.1 elevation where the sterile yellow clay appeared. No floor was located in this areaway, and it must have served as a service area so common in Philadelphia. A rather weak brick wall, D (Fig. 4a), was uncovered in this areaway---0.8 feet thick, its base at 20.7 resting on dirt and rubble. This wall may have served merely as a low partition wall for a few years. A narrow brick ledge was located where Walls B and F meet.

In the rear of these properties were located many privy pits. Pit C (Fig. 4b) straddled the #15-#17 party line, Pit E (Fig. 4a) straddled #17-#19 party line, Pit H straddled #19-#21 party line, and Pit G was underneath the #23-#25 boundary walls. Only two of these pits, C (Fig. 4b) and E, were excavated and a portion of G. They all contained nine-⁶teenth century artifacts, and nothing very exciting at that. Each of these pits was 0.3 feet or one brick wide and constructed without mortar. The diameters of the various pits were: Pit C, 4.8; Pit E, 4.8; Pit G, 5.2 feet. Pit H was not excavated. Each pit had a 0.2 foot brick ledge at its base and rested on a reddish yellow sand. Pit C had its base at 7.5 elevation and Pit E went down to 6.0 elevation. Pit E was covered by

a stone slab resting on loose brick footing. Pit C was covered by a layer of dirt containing eighteenth century artifacts. Thus was found the incongruency of reversed stratigraphy---a layer of eighteenth century material on top of two privy pits, both of which contained nineteenth century material from top to bottom.

The explanation for this confused situation in the rear of 17-19 Orianna Street seems to be as follows. Two buildings at 17 and 19 Orianna were built from the street front to Wall B. In building Wall B the men were careful to skirt Privy Pit C which was already in use as were Pits E and H. The space between Wall B and the boundary wall was used as an areaway. Wall A served as an inside partition wall. Later on the privy pits were no longer necessary due to the private sewer having been built in the middle of Orianna Street, and they were filled with trash and rubble of those days---late nineteenth century---and Pit E was covered over with a slab. A new partition wall was erected between 15 and 17 Orianna and this wall of stone and brick split Privy Pit C in half and was built over the north ends of Walls A and B. Later occupants of #17-#19 excavated a foundation for a cellar. In the clay and dirt they excavated was eighteenth century material possibly discarded by the occupants of Franklin's home. The excavators threw some of this eighteenth century dirt into the areaway behind #17-#19 Orianna. It is probably at this time that Wall A was patched up and filled in, the basement extending only to Wall A. When Fergusson Chemical Company came in in 1918, they constructed various levels of brick floors between Walls A and B for their vats. Then in 1934 when the buildings were demolished, more brick rubble and a few artifacts of the nineteenth and twentieth century fell in on top of all this---filling in the basement,

covering over and intermingling with the eighteenth century layer.⁷ The other privy pits shall be discussed below.

A 0.7 foot thick brick wall called F (Figs. 8b & 9a) divided properties #19 and #21 and ran the full length of the land. It was brick down to 15.9 and had a stone foundation below this to 14.3 where it rested on yellow clay. In the rear of the property, F was incorporated and built over a curved brick wall of another privy pit which was called H. The men excavated on the outside of this pit and went down to 9.5 elevation without reaching the bottom. Due to the limited time and money, they did not go any deeper. Two clay horizons were located while excavating this test hole. A natural sandy yellow clay rests above a red iron colored hard clay, and in this spot they met at 13.4 elevation. Observing other excavations in the vicinity, it seems these two clay strata are found throughout this area.

The rear property wall which is part of the wall of the building at 312 Market Street is of brick to 21.6 elevation. A brick ledge and then a stone ledge jut out a half foot altogether and the base of this wall is of stone resting on natural clay at 17.2. All this stone work is a coursed rubble masonry. There were hopes of locating the nine inch east garden wall of Franklin's property at this point, but it was either completely destroyed by subsequent building or it may lie slightly to the east, and could be located in the future by excavating in the courtyard of 25-27 Orianna Street (Fig. 1b). This excavation completed in July, 1955.

In excavating the area where #21 and #23 stood before being torn down in 1934, the men uncovered hundreds of bricks (Fig. 8b) and plaster

⁷

See Artifacts

rubble from one end of the property to the other. No artifacts were uncovered in this area. The former building encompassed the entire lot and must have been one unit for there were no dividing walls in the basement. The basement floor (Fig. 9a) at 14.2 elevation was concrete 0.2 feet thick resting on a cinder and brick fill ca. 0.4 feet thick resting on natural yellow clay. In places the concrete floor rested directly on the clay. Mr. Sankowicz stated that when Fergusson Chemical Company purchased the property in 1927, there was a very shallow 5.5 foot basement with a dirt floor. He and another man dug the basement deeper by about 1.5 feet and laid the concrete floor. The City Hall records show extensive alterations⁸ occurred at #21-#23 in 1928. In excavating this basement, Mr. Sankowicz stated there was a thin layer of dirt with no artifacts and then it was all yellow natural clay so common in the area. The dirt was hauled away. The building could very well have been one unit since 1867 because the property⁹ title for both lots is held as one after that date. Before Fergusson owned the building, the basement was entered by two sets of three marble steps, designated #1 and #2 (Figs. 8b, 9a & b) going down from the sidewalk. Inside the walls the steps were wood, and as Mr. Sankowicz remembers there were two or three steps. When the concrete basement was laid the steps were bricked up by Mr. Sankowicz and the entrance was by wooden steps from inside of the building. Because the walls around the building were not deep enough for this deeper basement, Mr. Sankowicz added rough cut stone to the base of Walls U and F; therefor, the 1.6 foot deep stone base underneath the brick of Wall F and the six inch thick stone appendage underneath

8

From Bureau of Building Inspection, City Hall Annex

9

See Appendix II

Wall U. Wall U_2 and U_3 is 1.5 feet thick, and while excavating this unusual bit of wall underneath U_2 was noticed (Fig. 19, Section AA), and was given the designation U_1 .^{10a} No addition to the basement walls on the south and east was necessary because these brick walls of the building still standing at 25-27 Orianna Street went down to 14.0 elevation and rested on natural clay. This building demolished during spring of 1955.

The concrete floor and the property line wall dividing #23 and #25 (Fig. 2a) covered over two more privy pits---Pit G in the rear of the property and Pit J in the front (Fig. 17). Both these pits were of brick ca. 5.2 feet in diameter, 0.3 foot or one brick thick, built with dry mortar. Pit J was impossible to excavate and Pit G was covered with an additional slab which was removed and dug out for about two feet of depth locating only a few artifacts---all of the late nineteenth century.⁷ Since the digging in this pit was dangerous and would no doubt have been fruitless, the men did not go any deeper. Pit J holds more of a fascination because it was in the front of the nineteenth century property---a rather unusual thing, especially since there was already one in the rear. Also, this pit was built very close to where Franklin's house once stood and it may well prove to be full of eighteenth century artifacts from the house. This pit would be fruitful to excavate at a future date when the building at 25-27 Orianna Street is torn down.^{10b}

^{10a}

See below for further discussion concerning Wall U

^{10b}

This pit was excavated in July, 1955; and contained late 18th century artifacts including one purple and blue Dutch fireplace tile which could very well have come from Benjamin Franklin's home.

THE PRIVY PITS

All the privy pits uncovered (Figs. 4a & b) must have been constructed after 1812 because each one was built right on the center of the property lines as they were established in 1812. Therefore, they have no significance with Franklin's property. Yet, these privy pits must have been built before the middle of the nineteenth century, for at this time many of the buildings were rebuilt and took in all of the property.¹¹ Therefore, it is logical to assume that these privy pits were built when the first buildings were erected---between 1812 and 1820---and these early homes and shops had space remaining in the rear for a small yard or utility area. It was in these areas that the privy pits were excavated. These privy pits are located all over old Philadelphia and some, such as along Marshall's Court and Elfreth's Alley are in the rear of the lots usually on the property lines. The ones excavated descended to 7.5 and 6.0 elevations and rested on sands and gravel. Speaking to local contractors it seems most of these privy pits had their footing on a sand stratum. The ones on Orianna Street were filled in and ceased to be used during the end of the nineteenth century (when a private sewer line was placed in the street) as can be seen from the artifacts extracted. Others in the city ceased to be used as other sewer lines extended throughout the city; yet some are known to be used even today.

Besides the five pits uncovered at the excavation, there are a few other pits in the vicinity which should be discussed for comparative purposes. A brick privy pit or well was uncovered during the winter of 1952 in the rear yard of Carpenters' Hall in the southeast corner. The pit

¹¹

See Appendix II

itself was destroyed when a manhole was excavated for the steam pipe, and since the hole was dug with a power clam shovel, much of the material in the well was hauled away. A few artifacts were saved, mostly of the nineteenth century.¹² The pit was six feet in diameter, one brick thick (4") with no mortar. A great quantity of brick pits was uncovered during the year 1952 by the contractor while building the addition to the First National Bank at 311-313 Chestnut Street. Only three of them contained artifacts (Fig. 16). Pit No. 1 was excavated in June 1952 (Fig. 5a & b) and it produced mostly eighteenth century artifacts with great quantities of Chinese ware.¹² These artifacts, which were lent to us by the courtesy of Mr. Devlin and the First National Bank for comparative purposes, are extremely interesting to examine in conjunction with the eighteenth century material excavated by the National Park Service, since these pits were located on properties adjoining Franklin's property. Pits No. 2 and No. 4 were excavated in April and August 1953 and produced mostly nineteenth century artifacts.¹² Another area (Area 3) where the contractor was excavating was practically on the other side of the wall from the excavation (Fig. 16, Area No. 3). This produced some nineteenth century earthenware jugs.¹² All of these areas were excavated by machines and with very little care taken for the preservation of the artifacts. Great quantities of the artifacts were hauled away with the dirt to the city dump. It is truly surprising that there remained as many fine pieces as there were.

¹²

See Artifacts

THE OLD WALLS

13

Orianna Street was laid in 1812, and must have covered over any remains of Franklin's home. Eighteenth century material was found underneath the sidewalk below the area disturbed by the utilities. Luckily no modern construction occurred underneath the sidewalk except for the cellar-way in the northern end of Trench 2 (Fig. 18). The walls unearthed were certainly of the eighteenth century since there was definite stratigraphy here of modern twentieth century material on top, then nineteenth century material along with the utility lines, and eighteenth century underneath, overlying the stone walls and a brick floor. These stone walls we named T, U, W, X, Y and Z (Figs. 17, 18, 19)..

Wall Z is rather confusing at the present time due to our inability to follow it through underneath the street. It consists of two components ---Z₁ which was merely a rock and lime mortar footing running east-west, bonded to Wall T₂ at its eastern end and projecting slightly east of the latter wall (Figs. 10b & 18). This footing was followed for 5.5 feet underneath the street without finding its western end. The top of this wall was at 15.1 elevation, and its base at 13.1 rested on sterile yellow clay with a slight oil slick (Fig. 19). This wall was U shaped in cross section, and at its top was 3.7 feet thick. It does not conform with the other stone walls which were unearthed and it is wider than the 18 inch foundation walls surmised to be at the base of Franklin's home, but many other things (which shall be discussed subsequently) give one the feeling that this Wall Z₁ may well be the north wall of Franklin's home.

Directly on top of this wall lay a shallow clay fill and above this was Wall Z₂ (Fig. 18) which is even a greater mystery. Wall Z₂ was actually a section of massive stones (Fig. 6b) laid in a very soft lime mortar. A few pieces of brick were also included in the structure which was bonded to Wall T₂. Its top seems to have been broken off by the utilities at 17.5 and its base rested at 15.1 (Fig. 19, Section C-C). During the excavations much of it disintegrated due to the heavy rains. The exposed section of this mass was 8.4 feet wide and extended 2.9 feet east into the trench with sections of it appearing to be bonded into Wall T₂. How far westward it extends underneath the street will have to remain unanswered until the street can be excavated. Z₂ was built later than Z₁ and overlapped it. Yet eighteenth century artifacts were found in contact with this wall and it must date from Franklin's time. Is it possible that additions or alterations were made to Franklin's home after his death of which Z₂ is part of a porch foundation?

Walls X and Y (Fig. 18) were much more conventional walls and were what was expected to be found in the first place. They were both coursed rubble masonry with lime mortar and were both the same width 1.5 feet. Their tops were smooth with no sign of having been broken off at 15.7, and their base at 13.7 rested on sterile yellow clay. Both were bonded into Wall U₂ (Fig. 7a) and extended slightly beyond it to the east (Figs. 18 & 19). Wall X continued beneath the street for 3.5 feet and did not seem to come to an end. Wall Y was partially demolished due to a modern brick manhole having been built over a section of it, but it may very probably reappear on the other side of the manhole when the street is excavated. Wall Y is believed to be the south wall of Franklin's home, since it is 34 feet from Wall Y to Wall Z, and since the grout and brick floor was

located between these two walls. Wall X leaves one in a quandry as to what part it played in Franklin's home since it does not fit into the described plan of the house. ^{1 & 14} Walls X and Y are contemporary as far as stratification, for they were both surrounded by eighteenth century artifacts. ¹⁵ They both fit the conjectural foundation walls of the home, and they were built of the same material and at the same elevations. It is believed Walls X and Y were never any higher than they are today. Their top had a smooth appearance with no signs of being broken off or crumbling. Probably the 14" brick walls of the home were built right at this 15.7 elevation. This would make the stone foundation walls at around two feet high when they were built, which would work out very well with what is known as to the amount of stone purchased and the time spent excavating the foundations. ¹⁶

14

See Fig. 20 for a conjectural plan of house drawn from insurance descriptions and letters.

15

See Artifacts

16

The stone for the foundation was obtained from John Parrish's quarry and amounted to 18 perches or 450 cubic feet and cost £4. For his Mulberry Street house, Franklin specified coarse stone for foundations and cellar walls. If the stone foundation walls were 1.5' thick (in order to support a brick wall $3\frac{1}{2}$ stories high and 14" thick, the stone foundation walls would have to be 18" thick), this purchase of stone would have been sufficient for a 2'4" high foundation wall around the house. From the elevation of the land (Fig. 16), the basement floor could not have been much below the surface of the ground during Colonial times, and since the basement was used as a kitchen, it would be logical to conclude that the basement walls were partially above ground level for reasons of light and ventilation (Figs. 1a & 21). Generally stone was used for walls beneath the surface, and brick was used for walls above the surface.

There is a reference to Michael Coon's receiving 27 shillings for excavating the foundations to the house. He worked six days at $4\frac{1}{2}$ shillings per day, which was slightly below the average wage for one man's labor in those days. [The average daily wage in the 1760's for a man's labor was 5 shillings or one bushel of wheat. All wages and prices referred to are from information given to us by Dr. Anne Bezanson and Miss Miriam Hussey

To add to the mystery, while exploring along Wall X underneath the street a brick chimney-like structure (Fig. 7b) was uncovered which was named Wall V (Figs. 17, 18, 19). Its top at 15.0 had been broken off by the street sewer line, and its base at 12.0 rested on sterile clay. No artifacts were located with this wall. To the west and north it was surrounded by grout. To the south it butted up against Wall X and a brick addition to Wall X which served as a backing for the "chimney" which went 1.7 feet deeper than the wall. As Fig. 17 shows, the brick was built with two hollow squares in the middle, and the total formed a brick column 2.2 feet by 1.2 feet square. Could this have been part of the foundation of a small chimney? Wall V as are Walls X, Y and Z, must have been built prior to 1812 when the street was laid and covered them up. Yet in none of the descriptions is there a structure which would give cause for Walls X, V and Z₂. Were these walls, of which there is no record, added after Franklin's death, or were they part of Franklin's home as he built it, and are the descriptions incomplete? Only by excavating more fully underneath the street in order to possibly pick up Wall Y, to follow Walls Z and X to their western termini, and see the rest of Wall V, will these questions be answered.

Wall W (Figs. 18 & 19) was another indefinite stone wall unearthed in Trench 2. It also had two components, both of which were bonded to

of the Industrial Research Unit of the Wharton School of the University of Pennsylvania.] He had to excavate 1,156 square feet of ground which would take a good man at least six long days to dig out ca. 2½ feet deep. Since only 450 cubic feet of stone were purchased, enough for a 2'4" stone foundation around the house, and since it took only one man six days to excavate, the cellar could not possibly have been deeper than 2.5 feet below the surface..

[All costs for construction of the house came from Samuel Rhoads'"Franklin Receipt Book 1764-1766" in the Historical Society of Pennsylvania,]

Wall U₂. Wall W₂ was of massive stones with lime mortar 3.5 feet wide and protruding 3.5 feet west of Wall U. Its top at 17.3 elevation lay directly underneath the bottom marble step of Steps No. 2, while its base at 14.7 was on yellow clay. Due to the heavy rains, this wall disintegrated while it was exposed. An extension of Wall W was located lower down and on the east side of Wall U (Fig. 8a). It was 1.2 feet thick, bonded to Wall U₂ and its base extended beneath the latter to 13.9 on yellow clay (Fig. 19, Section AA). This appendage was named Wall W₁ and is a bit of a mystery, for it is not the same size nor at the same depth as W₂ but is directly in line with it. Wall W₂ is exactly in the middle between Walls Y and Z₁, and if Z₁ is the north wall and Y the south wall of the home, then W₂ may very well be part of the foundation for the chimney which was on the east side of the home in the center (Fig. 20).

Walls T and U (Figs. 18 & 19) formed one continuous wall along the entire front of the property at 17-23 Orianna Street. These walls were the west walls of the modern buildings which stood here until 1934. Wall T was the front for #17 and #19 Orianna and included the cellarway, and Wall U was the front for #21 and #23 and included the two sets of marble steps No. 1 and No. 2 (Figs. 9a & b). Both walls were 1.5 feet at the top and widened at the base to 2.2 feet. They were smooth on the inside where plaster had been and rough on the west face. The top of Wall T was broken off at 20.6 elevation and its base at 14.5 rested on yellow clay. Wall U was broken off at 20.3 and its base was at 14.2 on natural yellow clay. Along their outside west face (Fig. 19, Section BB) they formed one continuous mass, but on the east face (Section AA) they were theoretically divided by Wall F (Figs. 8b & 9a) which merely butted up to the exterior wall. Both walls were of coursed rubble masonry with a few

bricks here and there (Fig. 9b). Wall U contained the two sets of marble steps which had been incorporated into the wall proper and had been bricked up on the east face in 1928 by Mr. Sankowicz. Along the west face of these walls there were a few visible patches of a type resembling repair jobs---no doubt where utility companies had broken through the walls for their lines. Besides these noticeable patching jobs, there seemed to be a very definite distinction between the lower $2\frac{1}{2}$ feet of masonry and the upper three or more feet (Fig. 19, Sections AA and BB). The lower section of these two walls which are one as far as appearance goes, had a soft lime mortar while the upper section had a much harder mortar. Therefore, these walls were designated as T₂ and U₂ at the bottom and T₃ and U₃ at the top. This dividing line was not well defined but was only hinted at. The type and size of stones also varied. Therefore, one comes to the conclusion that these two walls show two periods of construction.

Steps No. 1 and No. 2 are definitely of the same period as U₃ which is contemporary with T₃ and the cellarway. In addition, there was a small 0.5 foot thick wall running beneath Wall U₂ which was designated as U₁ (Figs. 18 & 19). This bit of wall was definitely added on by Mr. Sankowicz in 1928 when he lowered the basement floor in 21 and 23 Orianna Street for Fergusson Chemical Company, and at the same time he bricked in the marble steps along the east face of Wall U₃, incorporating them into the wall. None of the modern walls, such as the party line walls F and I (Figs. 9a & 10a) which come in contact with Walls T-U, are bonded to it. Besides, the modern walls are all brick or with only an extension footing of stone. On the other hand, all the old stone walls (some of which, such as X and Z, run under the street and must therefore be prior to 1812) do bond into Walls T₂ and U₂. These are Walls W, X, Y and Z (Figs. 7a & 8a). Wall U₁

was not bonded to U_2 but was merely laid in natural clay underneath Wall U_2 to form a support for the wall. Wherever the old stone walls came into Wall U_2 , the small U_1 wall was built up to them but not bonded. Another interesting point is that all the other walls of the modern buildings on the vacant lot were of brick and were definitely one unit and well defined and generally much thinner, while T and U are one wall in length and it is the only major bit of stone in the entire modern structures. Only in 1927 did these four lots come under one ownership and Wall T-U was built prior to that. That it formed the western wall of these modern buildings is definite. But could this have been a second life? Is Wall T_2-U_2 of a much earlier period---say prior to 1812 and that it only later became incorporated into the west wall of the modern buildings when T_3-U_3 was built on top of it? If T_2-U_2 is an earlier wall, as is suspected due to the lime mortar and to its being bonded with walls of a pre-1812 date, then it must be part of Franklin's home---the east foundation wall. Now the question arises: Is it the east wall of the original 1765 house or is it the east wall of the 1786 addition? It is believed the 1865 house walls were centered (Fig. 16) according to the property Franklin owned prior to

17

In a letter to his sister Franklin gives rather detailed information concerning the addition to his home which was constructed in 1786. It was built on the east side of the old house for an additional $16\frac{1}{2}$ feet, but the width (north-south) remained 33 feet. Inside, the first floor room was $30\frac{1}{2}$ feet long and 16 feet wide which would make the north and south walls 15 inches thick as on the main house, but the east wall of the addition would seem to be only six inches thick according to Franklin's descriptions, which seems very unlikely for a $3\frac{1}{2}$ story building. Franklin states there were two windows each on the north and south sides of the room and a chimney in the middle of the east wall (Figs. 1a and 21). The cellar of the addition was used merely for wood storage at first, although it may have been used as a room later, as Franklin suggested these possibilities in his letter. The old basement windows became entrances to the wood cellar.

September 1865¹ and that the east wall of the 1786 addition was 16.5 feet further to the east, which would place it in the exact location where Wall T₂-U₂ was uncovered. If T₂-U₂ is not the original east wall of the 1786 addition, then it is a wall built up in the same place where that east wall should be. Only by excavating the entire street with the possibility of locating the 1765 east wall, as shown by the dotted lines in Fig. 17, can one be sure of this hypothesis.

Between Walls Y and Z₁ and forming a connection with Wall U₂-T₂, there was a brick floor at 15.0 elevation (Fig. 18). Most of it was very rotten and crumbled, but a small section remained intact. These bricks were laid with a soft lime mortar and rested on grout which rested on natural yellow clay at 14.5 elevation. In spots this grout was so rotten as to disappear completely (Fig. 19, Section BB), but it did encompass all the area between Walls Y, Z and T₂-U₂. There was no grout between Walls X and Y, merely fill to 15.0 and then natural clay. Great quantities of painted plaster, wrought nails, glazed brick as well as other eighteenth century artifacts came out of the area above the brick floor and beneath the utilities fill (Fig. 19, Section CC). Therefore, the conclusion may be drawn that this brick floor is of the eighteenth century and that it may be relocated once the street is carefully excavated. Since this brick floor lies so nicely between these old stone walls and is ca. 33 feet wide, and rests on the natural yellow clay, with all the eighteenth century material above it, one comes to the conclusion that here is the basement floor of Franklin's home. If, as mentioned above, this is the 1786 addition, then this brick floor was part of the wood storage area adjoining the kitchen and may very well have become a room or part of the kitchen in later years as Franklin suggested the possibilities in his letter.

Having very likely uncovered some of the stone foundation walls and the basement floor of Franklin's 1786 addition, it remains for the writer to discuss the material which was located above and in contact with these walls to give an idea of the possible date of these walls and to see if it coincides with the other evidence.

THE ARTIFACTS

A great quantity of artifacts (Figs. 12-15) was uncovered during the excavation dating from the early part of the eighteenth century up to the present day. Most of the modern period material dating post-1830 or so was discarded as was a quantity of small fragments of broken glass, shell and bone which were completely useless for identification purposes. All the material which was saved has been given temporary numbers T11-T17. The artifacts were all cleaned and pieced together. The metal objects were treated by the electrical chemical method for removing corrosion (embedding the metal artifacts in zinc mossy with a 10% solution of sodium hydroxide) and after having been thoroughly cleaned and dried, they were coated with a paraffin cover.

There was not a complete object in the entire collection except for the bones, nails and a few jugs. Yet, it stands to reason that nothing was thrown away that was still whole and useful. Several people who have seen our collection of artifacts have been disappointed in the quality of the material we have uncovered, expecting finer results from Franklin's home site. Several things must be taken into consideration when such a statement is made. The walls and brick floors of the home were badly wrecked not only by placing the street over it, but in later years by the utility companies and contractors building on the site. Most of the ground in this area has been disturbed not once but several times. Secondly, the finer pieces were no doubt better taken care of and therefore not broken and discarded. But even amongst the broken pieces one might expect a few unusual pieces as were found in the First National Bank Privy Pit No. 1. If one considers the parsimonious nature of Deborah Franklin, then

little doubt remains as to why so small a quantity of truly fine objects was uncovered on the site of Franklin's home. A list of the artifacts and their location in the excavation follows. This is the code used for numbering the artifacts listed on the following pages.

- T1 - First National Bank - Privy Pit #1 - Mid-late 18th Century -
Excavated June 1952
- T2 - First National Bank - Privy Pit #2 - Mid-late 19th Century -
Excavated April 1953
- T3 - First National Bank - Excavated Area #3 - Excavated June 1953
- T4 - First National Bank - Privy Pit #4 - Excavated June 1953
- T5 - Carpenters' Hall - Steam Line Excavations - Excavated Dec. 1952 -
March 1953
- T8 - Northeast Corner - 4th and Chestnut - Beneath foundations of new
Mall Bldg. adjoining Franklin Court - Excavated Sept. 1954
- T10-1 through T10-18 - Steam Line Trench - Excavated Feb. 13 - March
13, 1953
- T10-19 - Second Bank of United States - Rear - West Wall - May 4-11, 1953
- T10-20 - Second Bank of United States - Rear - East Wall - Modern -
May 4-11, 1953
- T10-21 - Second Bank of United States - Along West Side - Excavated
October 1954
- T11-1 - Franklin Court - Trench 3 - Section B - 0.0-4.0 feet deep -
South of Pit C - 18th Century - Excavated May 13, 1953
- T11-2 - Franklin Court - Trench 3 - Section B - 0.0-2.5 feet deep -
18th Century - Excavated May 14, 1953
- T11-3 - Franklin Court - Trench 3 - Section B - 0.0-2.5 feet deep -
18th Century - Excavated May 15, 1953
- T11-4 - Franklin Court - Trench 3 - Section B - 0.0-3.0 feet deep -
north of Wall F - Excavated May 18-19, 1953
- T12-1 - Franklin Court - Trench 1 - Pit C - 0.0-7.0 feet deep - 18th
Century - Excavated May 11, 1953
- T12-2 - Franklin Court - Trench 1 - Pit C - 7.0-15.0 feet deep (bottom) -
Mid-late 19th Century - Excavated May 12-13, 1953
- T13 - Franklin Court - Trench 1 - Center - 1.0-6.0 feet deep - in the
rubble.- Late 19th Century - Excavated May 11, 1953

- T14-1 - Franklin Court - Trench 3 - Section A - Between Walls A and B - above Brick Floor - 0.0-2.5 feet deep - Excavated May 13-14, 1953
- T14-2 - Franklin Court - Trench 3 - Section A - Between Walls A and B - Test hole below brick floor - 2.5-5.0 feet deep - Excavated May 14, 1953
- T15-1 - Franklin Court - Trench 2 - 2.5-5.5 feet deep - along Wall Z and in contact with Wall Z - Excavated May 15-18, 1953
- T15-2 - Franklin Court - Trench 2 - 2.5-5.5 feet deep - between Walls Z and Y.- Above brick and grout of basement floor, in amongst the 18th Century rubble - Mid-late 18th Century - Excavated May 27-June 1, 1953
- T15-4 - Franklin Court - Trench 2 - above and between Walls X and Y - Excavated May 22-28, 1953
- T16 - Franklin Court - Trench 3 - Pit G - Late 19th Century - Excavated May 22, 1953
- T17 - Franklin Court - Pit E - 2.5-15.5 feet deep - Mid 19th Century - Excavated May 22-27, 1953
- T20 - Franklin Court - 21-23 S. Orianna St. - Rear Courtyard - Excavated July 1955
- T21-1 - Franklin Court - 25-27 S. Orianna St. - Rear in contact with old wall - Excavated July 1955
- T21-2 - Franklin Court - 25-27 S. Orianna St. - Basement Trench - Excavated July 1955
- T21-3 - Franklin Court - 25-27 S. Orianna St. - Basement Pit J - Excavated July 1955

Glass

18th. & Early 19th. Glass						Mid-Late 19th. Cent. Glass						
	Hand 1739 1770	Blown Bot. 1770 1805 1855	Pieces Dis- cards	Square Gin Bottle	Brown Necks	Molded Brown Bases	Bottles Green Necks	Green Bases	Window Panes Chips	Bottle Pieces- Discards	Totals	
T11-1	5	6		27	8; 2 scent bott.				4	6	58	
T11-2	6	12		47			1			14	80	
T11-3	5	6		44	1	2	2	1 in- sula- tor		29	89	
T11-4	10	7	1	53		1	2	2	8	61	147	
T12-1		8		3							11	
T12-2	1				7	7	6	14	9	99	143	
T13			1					1			2	
T14-1	4	3		4						60	71	
T14-2				15	3	1	2	1		26	48	
T15-1							1			3	4	
T15-2	1	1		2	1 scent Bott.	1 pat- ented 1867	1	2		5	14	
T15-3	1			13			1	1	5	6	27	
T15-4	2	1		6	1 scent Bott.					1	11	
T17	1			35		1		2		89	128	
T1	6	15	6	27	2 1 scent				26	35	118	
T2	6	7	7	31	2	2	2	11 Bots.	1	15	84	
T4					1 scent						1	
T5			5					1 Bot.		2	8	
T10-1	1			1	1 scent bottle						3	
T10-3						1					1	
T10-5								1 Bot.			1	
T10-10		1				1					2	
T10-15	1	1				1		1			4	
T10-18		1									1	
T10-19	2							1			3	
T10-20	1	4							2		7	
Tots.	53	73	20	308	21	17	15	16	39	55	451	1065

Comments: One blown glass wine bottle base came from Frederick Md., 1780.
(Fig. 15a)

Glass

Loc.	Wine Glasses			Late 19th.		Mugs & Tumbler	Wine Caraf Necks	Other types of glass	19th. cent.	
	Bowl	Stem	Base	Pressed Handles	Glass Bowls				Medicine bot. etc.	Totals
T11-1			1 Am Late 18th				1 Late 18th	1 Milk Bottle		3
T11-2		1 Early 19th.		1	3	1 Early 19th.				6
T11-3					12	1 Honey Comb Blue		1 Milk Bottle 1 Blue Glass		15
T11-4				5	7					12
T12-2	1 Amer 19th C.		1 Amer 19th C.	1		2 Gob- lets		2 Milk Botts. 2 Hur- ricane lamps	8; 1 Apo- thecary Measuring Glass	18
T14-1					1			1 Hur- ricane Lamp	4 Bris- tol Gl. 1750- 1880	6
T14-2			1 Amer 19th							1
T15-1	1-Fr 1790			1	5					7
T15-2					2			1 Milk Glass 1850		3
T15-3			1 Amer 19th		1					2
T15-4					1	1 Tum- bler Base- late 18th. C.		1 Blue Overlay 1840		3
T17					14	1 1850 Button Gl.		1 Ink Bottle	7	23
T1		3 air Twist	1 Amer 19th C.				1 Late 18th C.	1 Germ. Etched Glass 2 Sand. Glass	1 Molded Vase - 1 Bohemian Glass	10
T2			1 Ger 19th.					1 Ink Bottle		2

Glass (continued)

Loc.	Wine Glasses			Late 19th.		Mugs & Tumbler	Wine Caraf Necks	Other types of glass	19th. cent.	
	Bowl	Stem	Base	Pressed Handles	Glass Bowls				Medicine bot. etc.	Totals
T4			1 Amer 19th							1
T5					3			1 Sand. Lamp base Post 1840		4
T10-20							1 Early 19th			1
Totals	2	4	7	8	49	5	4	16	22	117

Comments: The airtwist wine glass stems are of the type prominent during the latter half of the 18th Century. The red wine glass base from Germany is early 19th Century, as is the Bohemian glass flask neck and the glass piece with a landscape scene and ".....LANDS" etched on it. Most of the wine glasses are American of the 1830-1870 period, with one French wine glass dating from 1790-1820 and a French goblet dating from ca. 1825. There was one Steigel type green flask or scent bottle of 1790-1820 and a representative group of hand blown scent bottles. Along with the medicine bottles, there was an apothecary measuring glass of the late 18th Century. Some of the more unusual pieces were a molded vase base of the 19th Century, a Sandwich lamp base post 1840, 2 pieces of decorated Sandwich glass of the mid 19th Century, blue overlay glass of 1840, Milk Glass of 1850, rolded blue honey combed glass, 4 pieces of Bristol glass from the period 1750-1880, and a molded Sandwich glass tumbler of the thousand eye or button glass type popular in 1850. Four flask or wine carafe necks of the late 18th and early 19th Century English variety were also uncovered.
(Figs. 12b & 15a)

True Porcelains

Loc.	Chinese Export Wares			Mid & Late 19th.	Japanese 19th.	French ?	Meissen Late 18th	Eng. 1830	Totals
	Late 17th	Mid 18th	Willow Pattern Late 18th. & Early 19th.						
T11-1			5						5
T11-2		1	11				1		13
T11-3		1	10				1		12
T11-4							1		1
T12-1			2 pieces of a box						2
T12-2				1 Canton		dolls arm - bisque & 1		2	5
T14-1			2						2
T14-2			1						1
T15-1			1						1
T15-2			2						2
T15-3		3	11		1				15
T15-4			7			1			8
T17			3		2				5
T-1	1		77	5 South China	1		1		85
T-2			1				1		2
T10-20			3						3
Totals	1	5	135	6	4	3	5	2	160

Comments: The late 17th century piece is questionable. The greatest quantity of Chinese Export Wares was located in the First National Bank Pit 1 and most of them dated from the late 18th. & early 19th. centuries. The second greatest quantity of this type ware came from the area above the brick floor we believe to be Franklin's basement. The rest came from the areaway in the rear of #17-#19 Orianna Street. The mid or late 19th century pieces are rather odd pieces. The three French pieces are questionable, being such small fragments, but one piece is definitely a dolls arm. N. Hudson Moore in "The Old China Book," Tudor Publishing Co. N. Y. - 1948 on p. 55 states "Washington & Franklin both liked blue china for every-day use." He further comments on p. 56: "Franklin liked blue and white (Canton) also, and among some barrellfuls which he sent over to his wife, was a certain little squat blue and white pitcher, which he particularly commended to his wives' notice, for he says I bought it because it reminded me of you know who!" (Fig. 12a)

Ceramics

Loc.	<u>Salt Glaze</u>		Blue 19C. on Gray Pebbled Stone	1750- 1770- Blue on Gray	<u>Lead Glaze</u>			<u>Tin Glaze</u>		Totals
	1750- 1780 White	1790 Blue Sgraffito			Cream Wares 1780 Queen's	1790 1820	Leeds 1780 Blue	Green	Delft 1650-1780 Dutch Eng.	
T11-1	4	4 (teapot)	2	4						14
T11-2	3		6	2	3	2			2	18
T11-3	6		9	1	2	3			1	22
T11-4	4		15	1	3		1	2	1	27
T12-1	1		1	2	4			1		9
T12-2							2			2
T14-1		1 top								1
T15-1	1				2	3				6
T15-2						2		1		3
T15-3	1					28	2	3	4	38
T15-4						13	2	1	7	23
T17	1		3		2	4				10
T1	47	1		3	19 1 Shell	34			16	121
T2			9			3			1	3
T4									2	1
T5							1			3
T10-20						1		2		1
Totals	68	6	45	13	36	93	8	10	34	4

Comments: One of the Salt Glaze pieces is a small mocha colored mug of the early 19th Century with the strap handle missing.
(Figs. 12a & b & 13a)

CERAMICS

Location	Whieldon 1750- 1770	Wedgewood 1770- 1780	Early 19th Blue Stafford- shire	Late 19th Stafford- shire	Stafford- shire Slip Ware	Clay Tobacco Pipes	TOTAL
T11-1					2		2
T11-2			2 Leeds- 1810		1		3
T11-3			1 Red on White		3		4
T11-4	1 tortoise shell	4 Red	1; 1 Brown	3; 1 handle	1		12
T12-1			1				1
T12-2			1; 1 Fig- urine base				2
T14-1			1				1
T15-1					1	2	3
T15-2				1 Mocha- Ware			1
T15-3			1	1 Lustre- ware	2		4
T15-4					2	1	3
T17			1	2	1		4
T1	1 Tortoise shell; 1 lug 1 handle Li- verpool bowl	2 Red; 1 black	6; 2 Leeds 1810		16	1	30
T2		1 Red	1	1 Davenport Pitcher			3
T4			2		1		3
T5				5			5
T10-21				28		2	30
TOTAL	3	8	22	42	30	6	111

Comments: One clay pipe from the First National Bank Privy Pit #1 has a spur, seal, and initials. It dates from the period 1750-1775. (Figs. 12a & b)

Ceramics

Loc.	Amer. Comb Decorated Slipware Late 18th -19th C.	Unglazed Earthenware Late 18th 19th C.	Glazed Kitchenware 18th & 19th C		Stoneware Crocks Late 18th -19th C.	White Ironstone China Mid 19th C. (Discarded)	White American Late 19th Early 20th C (Discarded)	Totals
			Brown	Black				
T11-1	3		9	7	5			24
T11-2	38	10	49	107	21			225
T11-3	24	12	31	54	17	15		153
T11-4	35	7	78	74	18; 4 Lambeth, 1820	12		228
T12-1	6		6	16	6			34
T12-2			1	5	3; 1 Nassau Crock	72	22	104
T13		4		1				5
T14-1	1		1	12	5	1		20
T14-2			1	1	1		2	5
T15-1			7; 1 tri- pod bowl	5	1			14
T15-2	1	1	2	2	1			7
T15-3	11	3	10	9	1			34
T15-4	9		6	8		6		29
T17	4	2	17	24		21	1 door knob	69
T1	25	2	7	29	1			64
T2	4	3	4	7	7; 1 Al- bany N. Y., 1810		1 Sherd dated 1851	27
T3			1	1	2; 4 Un- broken crocks			8
T4			2	4	4			10
T5				2	1; 1 J. Ogden Waterloo Road, Liverpool			5
T10-10							2	2
T10-14							1	1
T10-18	3						3	6
T10-19	2							2
T10-20		1	3				7	11
T10-21				2				2
Totals	166	45	236	370	105	127	40	1089

Comments: The base of a terra cotta jar has "Ralph B. Beech - Patent - June 8, 1851, Kensington, Pa." and came out of First National Bank Privy Pit #2.
(Figs. 13b, 14a & 14b)

Brick, Plaster, Tiles, Etc.

Location	Hand Made Bricks		Painted Plaster		Plain White	Tiles	Totals
	Bricks from Walls	Glazed Header Bricks	Red	Yellow			
T11-2		3					3
T11-3		1					1
T12-1		5					5
T12-2						2 pieces of furnace grate	2
T12-3	5 from Pit C						5
T15-1		1			1		2
T15-2		5			4		9
T15-3	2	20	35	35	1	4 white	97
T15-4	2	2			1	4 white 2 brown	12
T17	1 from Pit E						1
T-5						1 Lime Cone	1
Totals	10	37	35	35	2	6	138

Comments: The whole bricks from the pits came directly from the walls. They all contain pene marks indicating they were hand-made. This does not date them in anyway, since hand-made bricks were still manufactured in 1900. The glazed brick headers all have a light bluish green quality, indicating they were fired with hickory wood. This type of firing ceased ca. 1860.

The bricks for the house were from Jacob Graff's yard, and since Franklin specified well burnt red brick for his house on Mulberry Street, he possibly specified the same for his own home. The mortar was to have been stone lime mixed with river sand, a common practice in those days. One load of bricks cost £12/7¹/₂ and was laid by John & Joseph Ledru, bricklayers who were paid £39/12/9 for their labor. William Anderson was the plasterer and he received £57.

The painted plaster was analysed by L. F. Wagner, chief chemist of the Glidden Paint Co. in Reading Pa. (Appen. III) The tiles were of an English manufacture with a lead glaze. The mortar used for the tiles, brick and stone was a pure lime and sand mortar, used until late in the 19th century when cement was mixed with it. The two circular pieces of light, hard fired ceramic material was probably from a furnace grate and wall and is probably post 1850. These two pieces contained great quantities of iron pyrite. The hard lime cone may have been a pestle for an apothecary shop.

Several pieces of stone with the original plaster and "old" paint were preserved, as was a section of the brick floor and graut from the section between walls Y and Z. Soil samples of the three types of natural soils were preserved. The sandy yellow clay is located in the undisturbed layers above 13.4 elevation, while the heavy red clay is found below 13.4 elevation. The dark red sands containing quantities of iron were located at the base of the privy pits ca. 7.5 to 6.0 elevation.
(Fig. 11b)

Animal Bones
(Mostly Discarded)

Location	BOS (cow)	OVUS (Sheep goat)	SUS (Pig)	CANIS (Dog)	CERVUS (Deer)	GALLUS (Chicken & Other Fowl)	Oyster Shells in Quantity	FISCES (Fish)	Tortoise	Totals
T11-1							Yes			
T11-2	270	70	1 tooth 10	3; 4 jaws	1; 3 jaws	17; 1 Duck 2 Tur- key	Yes	1	3	386
T11-4							Yes			
T12-1	14	11				2	Yes			27
T12-2	48		2			3; 1 Tur- key				54
T13	1									1
T14-1	26	27				6				59
T15-1	17	2				1				20
T15-2	7	2								9
T15-3	38; 1 tooth	7	1 tooth			8	Yes			55
T15-4	18	3								21
T17	8		1 tooth							9
T1	1	2	1 jaw 1		1 jaw	6	Yes	3	2	17
T2						1 Duck				1
T5	8									8
T10-2	2									2
T10-10							Yes			
T10-19	6	1								7
T10-20	1	1								2
Totals	466	126	17	7	5	48		4	5	678

Comments: The great quantity of sawed limbs of cattle (bos) indicate butchering. Lots of ribs, fore limbs and hind limbs - definitely the type of bones going with the eatable sections of the animal were excavated, and a few vertebrae and pelvis were uncovered. Jaws of deer, sheep and pig were collected, but most of the deer bones came from the leg joints.
(Fig. 15b)

METAL AND MISCELLANEOUS ARTICLES

Two pocket knives with two blades each were of great interest when the men unearthed them and were dated as late 18th or early 19th Century along with four knives or razor blades. Two bolts, an iron coiled spring, lead pipe, spigot, draft horseshoe, iron wagon axle, iron pintle with eye, a regular pintle, a dog or shutter fast, an iron ring with screw, and an iron door knocker all of indeterminate date came from the diggings. Two very crude straight pins with round heads were located in the late 18th Century horizon, along with a copper button with brass plating and a rosette design engraved in its center, another brass button and a brass buckle head. Fourteen hand wrought nails, a wrought iron spike, and a wrought iron shingling nail of pre-1797 vintage were found, along with a wrought iron rose head nail of 1700-1750. Four wire cut nails of the late 19th Century were found in more recent horizons.

A quantity of small pieces of a flattened protein material, probably horn, translucent enough for a lantern or window pane were uncovered in the 18th Century basement rubble. Horn, ivory, and bone pistol grip knife handles of the 1750 type were located, along with two ivory fan ribs and an ivory syringe - all of the late 18th Century. In one trench - T12-2 - a leather strap, two leather shoe heels, a graphite pencil and a piece of tailors' chalk came to light, while a marble ball containing calcium carbonate or true marble of the 19th Century came out of T11-3. Several vulcanized hard rubber articles of a post 1840 period included four combs, a syringe, a ball with hole, and a cup.

(Fig. 15b)

SUMMARY AND TENTATIVE CONCLUSIONS

The documentary evidence gathered about the construction of the house and its foundation walls, the descriptions of the house as it was centered on the property, the stone walls extending underneath the 1812 street, and the eighteenth century artifacts in contact with these walls all brings one to the conclusion that Benjamin Franklin's mansion of 1765-1812 was located in the area between Walls X and Z.

Contemporary accounts relate that the home was situated approximately in the center of the open land which remained in back of the tenant houses on High Street. Walls T, U, V, X, Y and Z appeared in the area where the house must have stood. Nothing is mentioned of buildings having stood in this location before 1765 and certainly none were built after 1812 when the street and sidewalks were built and the home demolished. Walls Y and Z are the correct distance apart to have served as the north and south walls of the house and Wall W fits nicely in the center between these two. Wall Y is also the correct height for a shallow foundation wall as interpreted from the quantity of stone purchased and the time spent in excavating. The remainder of a brick floor lying between Walls Y and Z with the natural soil underneath and eighteenth century artifacts lying on top definitely place this as the basement of an eighteenth century home. The greatest quantity of artifacts excavated from Trench 2 dated from 1740 to 1820. This time period reoccurred in the artifacts from the top layer of the area on the east side of the property (Trench 3) where they overlaid the privy pits filled in with mid to late nineteenth century artifacts. This eighteenth century dirt had been excavated when basements for the modern nineteenth century buildings were constructed, after the

privy pits were no longer in use and had been filled in with dirt. The stratigraphy in Trench 2 above the brick basement floor and above Walls W, V, X, Y and Z was normal with mid-eighteenth century material underlying the late eighteenth and early nineteenth, which in turn underlay the mid and late nineteenth and twentieth century material introduced by the lateral utility lines.

This leads one to the conclusion that the stone walls and brick floor uncovered during May and June of 1953 underneath the sidewalk and street of 17-23 South Orianna Street are of the time period between 1740 and 1820. Since two of these walls fit the dimensions of the house and all these old walls fit into the area where Franklin's home was presumed to have been, one may form the conclusion that these are the walls to his home. As explained above, these walls were probably part of the 1786 addition of the original 1765 home. Alas, the limited area which was available to excavate in undisturbed soils (underneath the sidewalk) exposed too little of these walls to be certain, and it remains for a thorough excavation to follow these walls further underneath the street to bring this research to a positive conclusion.

RECOMMENDATIONS FOR FUTURE EXCAVATION IN THE AREA

It may well be that any future archeology of Old Philadelphia would give the best results by merely excavating underneath the sidewalks and smaller streets or alleys. The properties where modern structures have been razed are very poor for archeology because of the deep basements these buildings usually had. The only disturbance underneath the sidewalks and smaller streets has been due to utilities which are shallow enough to afford some possible results underneath. The only thing to beware of are buildings with coal vaults and cellarways which extend underneath the sidewalks.

The south boundary brick wall which Deborah Franklin had so much
18
trouble erecting but which Franklin must have completed before his death, could probably still be located underneath the street and below the utilities level. It might possibly even extend underneath the sidewalk alongside but one must remove approximately four feet of utilities first.

No evidence of the east boundary brick wall which was nine inches thick and erected in 1766 was unearthed in 1953 but parts of it may have been uncovered during the 1955 excavations in the courtyard of 25-27 S. Orianna Street (Fig. 16) where two trees once stood. Nothing had been built in this small vacant area and therefore it produced quantities of late 18th. and early 19th. century artifacts.

18.

During 1764-1766 brick walls nine inches thick were built along the east and part of the south and west property lines. A fence surrounded the rest of the yard. The brick wall was put up by John and Joseph Ledru for which they were paid £5 late in 1766.

The most important future exploration would be to follow out the continuation of Walls X, Y and Z and see the other side of the brick chimney-like structure called V. (Fig. 17) This would entail closing off the street, removing all the cobblestones and utilities and then carefully excavating the area. A jack hammer of some sort should be rented or purchased for this street and walk removal. This could be done before any more buildings are removed. While this is being done, it may be advisable to excavate underneath the entire street from Chestnut to Market and underneath the sidewalks wherever there are no cellar extensions. (Fig. 16) This phase of research would not only answer the questions we have raised in this report as to the meaning of Walls V, X, Y, Z₁, and Z₂, but would no doubt uncover many other walls such as out-buildings, garden walls and tenant house walls of Franklin's time. Underneath the archway pavement there is bound to be walls of the old tenant house which stood there prior to 1786. (Fig. 16) Not knowing how deep the basements of the modern buildings which formerly stood at 7, 9 and 11 Orianna Street were, (Fig. 1b) it might also be advisable to run a diagonal trench across that vacant lot to see if there are any ancient walls and if not, to see what was constructed there.

For any future archeological work on Orianna Street, it might be advisable to take over one of the buildings which is still standing and use it as a field office. This would save a great deal of time, money and energy and the archeologist could be working on artifacts, plans and reports while the excavation is going on. This would also afford a place to store the tools, and work on the artifacts could be carried on by the laborers on rainy days. Naturally, electricity, water, sewage and telephone at this sub office would be necessities.

APPENDIX I

Wall Terminology

- Wall A - Runs N.-S. - Brick
- Wall B - Runs N.-S. - Brick
- Wall C - Pit C - NE corner of Lot - Brick
- Wall D - Runs E-W - Brick
- Wall E - Pit E - along east boundary wall near Wall D - Brick
- Wall F - Runs E-W - Brick - partition wall between 19 & 21 Orianna St.
- Wall G - Pit G - SE corner of Lot - Brick
- Wall H - Pit H - Brick - south of Wall F
- Wall I - Runs E-W - Brick - Partition wall between 17 & 19 Orianna St.
- Wall J - Pit J - Brick - NW corner of 25 Orianna St.
- Wall T_{2&3} - Runs N-S - Stone - west wall of 17-19 Orianna St.
- Wall U_{1,2&3} - Runs N-S - Stone - west wall of 21-23 Orianna St.
- Wall V - Brick chimney underneath street
- Wall W_{1&2} - Runs E-W - Stone - Bonded into Wall U₂
- Wall X - Runs E-W - Stone - Bonded into Wall U₂
- Wall Y - Runs E-W - Stone - Bonded into Wall U₂
- Wall Z_{1&2} - Runs E-W - Stone - Bonded into Wall T₂
- South Foundation Wall of 13-15 S. Orianna St. - Runs E-W - Partition wall
between 15 & 17 - Brick
- North Foundation Wall of 25-27 S. Orianna St. - Runs E-W - Partition wall
between 23 & 25 Orianna - Brick
- West Wall of Rear 312 Market St. - Runs N-S)
) Party Line Wall
West Wall of Courtyard - Rear 25-27 S. Orianna St.)
- Steps #1 - Set of 3 marble steps - go up westward at 23 Orianna St.
- Steps #2 - " " " " " " 21 Orianna St.

1st Nat. Bank - Pit #1 - excavated June 1952

1st Nat. Bank - Pit #2 - excavated April 1953

1st Nat. Bank - excavated area #3 - June 1953 - along Partition wall

" " " - Pit #4 - excavated June 1953

APPENDIX II

Buildings on Franklin's Property Subsequent to 1812

The Mansion was vacated by Franklin's daughter, Sarah, and her husband, Richard Bache, shortly after Franklin's death and was put up for rent. In 1795 the Portugese Minister resided there. What subsequent additions were made to the home or to the grounds is unknown.

Following the death of Richard Bache on July 29, 1811, the Deed of Partition on Jan. 14, 1812, divided Franklin's property into 30 small lots apportioned to the seven heirs. The entire house was torn down in 1812 when Franklin Court was built to service the small homes and shops built on these lots. In 1825 Franklin Court was extended to Chestnut St. and became known as Franklin Place.

The properties on Orianna Street between Market and Chestnut are the same size today as they were on January 14, 1812, when Franklin's property was partitioned. The area excavated is numbered 17 through 31 South Orianna Street. The lots here all had a 14'11" front with a 36' depth. Narrow 2'3" alleys divided the properties between Nos. 5-7; 9-11; 13-15; 21-23; 25-27; and 29-31. (Fig. 16) The relation of the lot numbers as shown on the plan appended to the deed of Partition of Franklin's estate in 1812 is as follows:

Lot 1	-	3	South Orianna	
" 2	-	5	" "	
" 3	-	7	" "	(Figure 1b-)
" 4	-	9	" "	(" ")
" 5	-	11	" "	(" ")

19

The strip of land from Chestnut St. - 178 feet north was confiscated on Oct. 12, 1826 - Records of the Dept. of City Surveyors - City Hall Annex. The name was later changed to Hudson's Alley, and subsequently to South Orianna St. as it is known today.

Lot 6	-	13 South Orianna		
" 7	-	15	"	"
" 8	-	17	"	"
" 9	-	19	"	"
" 10	-	21	"	"
" 11	-	23	"	"
" 12	-	25	"	"
" 13	-	27	"	"
" 14	-	29	"	"
" 15	-	31	"	"

A brief history of who owned the properties on South Orianna

20

St. and what was built on them follows:

No. 13 In 1812 there was no building on the property which Deborah Duane inherited. In 1821 when John Sergeant owned the property there was a three story brick building on it. In 1853 Milton Lukens owned the land and it passed on to Jonathan Lukens in 1854. From then on it became part of No. 15. (See below)

No. 15 In 1812 there was no building on the property owned by Louis Bache. By 1820 when Joshua Longstreet and others owned the property there was a 3-story brick building on it. The property changed hands several times, and in 1852 Jonathan Lukens purchased it; by 1854 he had combined it with No. 13. Both buildings remained in the Lukens family until 1865 when Troutman et al owned the land. By 1909 the alley between Nos. 13 and 15 is no longer mentioned, and the building becomes part of 312 Market Street as it has remained up to this day, passing through several ownerships during the interim.

No. 17 & 19

Margaret Duane received both of these lots in 1812 with no building on either. The plan of partition of 1812 shows no alley between

20

This information was gathered by Historian Martin Yoelson through chain of title research.

these two lots. By 1819 when Franklin Bache inherited these two properties there stood a 3 story brick building on each lot. The two properties were divided and passed on through different ownerships after 1837 but were reunited in 1871 by Hermina Weste. Thus they remain when Ferguson Chemical Company purchased the buildings in 1918. In 1927 Ferguson purchased the two adjoining properties and they all became one unit. (See below)

No. 21 Elizabeth Harwood received this vacant lot in 1812. In 1832 and 1838 the lot still seems to have been vacant, but by 1867 a three story brick building is mentioned. Godfrey Krouse was the owner of this property by then, as well as No. 23. (See below)

No. 23 was inherited by Richard Bache. By 1828 a 3 story brick building existed on the property. In 1867 Godfrey Krouse owned Nos. 19, 21 and 23. In 1871 No. 19 was adjoined to No. 17, and Nos. 21 and 23 go down the ownership line together, until 1927 when Ferguson Chemical Co. joined these two to Nos. 17 and 19. In 1928 a portion of No. 21 was torn down and altered. In 1933 the Endowment Building and Loan Association owned all four properties and the buildings on them were torn down. They have remained a vacant lot to this day. (Fig. 2a)

Nos. 25 & 27 were inherited by Sarah Bache. By 1828 a 3 story brick building existed on each of the lots. These two buildings and properties pass down the ownership line together and in 1953 were owned by the Girard Estate, and the building as one unit was demolished by the National Park Service during the spring of 1955.

Nos. 29 & 31 as one building formerly owned by the First National Bank was demolished by the National Park Service during the fall of 1955.

From the above it may be surmised that most of the properties on Orianna Street had 3 story brick buildings erected on them between 1812 and 1820. During the middle of the 19th century many alterations must have occurred for most of the buildings became larger - taking up two of the old original lots, and most of the buildings still standing today date from this period. The alley-ways between the buildings are no longer mentioned after 1900, but they probably ceased to exist long before this time - in the middle of the 19th century when many of these properties were combined. (Fig. 1b) These alley-ways may have served as safety factors against fire in the early 19th century, but were probably used for utilities also. Along each property line in the rear, the excavations uncovered a privy pit. Since there was never any official sewage line placed in Orianna Street, these pits may have served the area for quite a long time. A private drain pipe does exist in the middle of the street today and some of the buildings are serviced by it, but a date for its construction was unobtainable as was a termination date for the use of the privy pits. Possibly by means of the artifacts excavated from these pits, it would be possible to give an exact terminal date as to their use, but for some this is impossible because of the jumble of material found - without any stratigraphy present. Since most of the artifacts uncovered in these wells ranged from the 18th century to modern 20th century material, it may well be said that some were used until rather recent times.

APPENDIX III

Notes on the Probable Color and Type of Paint Used in Some Areas of Benjamin Franklin's Original Home - Plaster Surfaces Only

It has been well established that Benjamin Franklin started erection of his home in Philadelphia in the Fall of 1764, while Mr. Franklin was either leaving for or in England, as the representative of the province of Pennsylvania to the English government. The original plot of ground, on which the home was built, was bounded by High (Market Street), Third, and Fourth Streets and extended to Chestnut Street. Orianna Street, which now practically divides Mr. Franklin's original lawn, was not on the original plan and did not exist at the time. In 1786, while Mr. Franklin was in France, the family had outgrown the original house and plans were made for an addition to be applied to the east side of the original dwelling. For a very interesting and complete detail on the available information concerning both the original house and the addition, the reader is referred to Edward M. Riley's brochure on "Franklin's Home" published in TRANSACTIONS OF THE AMERICAN PHILOSOPHY SOCIETY, New Series, Volume 43, Part I, March 1953.

In the above account of the building, there are references quoted from letters indicating that much of the interior decoration of the walls of the more important rooms was in the form of wallpaper. Wood wainscotting, of which there are many references, undoubtedly was painted or varnished.

Since the house was originally erected in 1764, just about 1 year following the Stamp Act, it can be presumed that most of the wallpaper and a number of the pigments used in the various paints were imported. Up to this time, there was little encouragement for American industry to produce not only these paint materials, but other materials as well. Therefore,

it can be safely assumed that most of the pigments used in the paints were procured from abroad. However, it is also true that at this time and even earlier, such common and natural earth pigments as red iron oxide, yellow ochre, (iron oxide), and limestone or chalk whiting were not only imported but were produced locally and were the first pigments produced in this country. These were used in paints from the early eighteenth century forward. However at this time, there were imported also a number of better grade iron oxides such as Spanish red, Persian and Indian red, all being finer in color and more expensive than their domestic counterparts. We can only conjecture that the pigments in the early part of the painting in Mr. Franklin's home were imported and later were domestic. Knowing Mr. Franklin's reputation for economy, and his patriotism, we are sure he reverted to or used domestic materials wherever possible.

Since the fragments or the artifacts which we describe below are concerned with plaster surfaces only, we can not make any more than general comments regarding the probable nature of paints used on other surfaces of Mr. Franklin's home. Numerous references are made in correspondence to the wood wainscotting and those types of surfaces in colonial times were generally finished with paints composed of various types of pigments and oil. The oil was generally linseed oil which was both imported and domestically produced, a large part of the domestic supply coming from Berks County in Pennsylvania. Linseed oil paints made with imported pigments (white lead was generally used both inside and outside) were very expensive and only the more wealthy could afford them. When considering plaster surfaces only, it is generally true that during colonial times, paints for these surfaces were not composed of linseed oil as a binder, but consisted of water types of binders, such as glue, casein, milk, etc.

Not only were paints used on plaster surfaces, but wallpaper was used as well, particularly in the more important rooms. There is a comment on page 154 of Mr. Riley's brochure which indicates that "the blue room" was not only painted blue but papered the same color. Mr. Franklin makes the comment, "I suppose the blue Room is too blue, the Wood being of the same Colour with the Paper, ans so looks too dark." He further instructs her that she should have it re-finished and have "the Wainscot a dead white" which would be a flat white. He further makes the comment that "If the Paper is not equal Coloured when pasted on, let it be brush'd over again with the same colour;" indicating that some paint may have been applied over the wallpaper to give a more even finish, particularly if this paper was of a rather inferior quality, and this was probably the case since we quote from page 152 of Mr. Riley's brochure, "for I think the paper has lost much of the bloom by pasting of it up, therefore, I thought best to leave it till you came home." Evidently, Mrs. Franklin did not have it painted over as Mr. Franklin suggested. This might have been done at a future date.

From the above, it is evident that some of the walls of Mr. Franklin's original home were finished with wallpaper and the wood wainscoting was also painted and the paint was probably linseed oil. The pigments, if they were blue or some other color other than yellow, red, or white, were undoubtedly imported.

The home that Mr. Franklin lived in only 7 years of his life was torn down in 1812 because a new street was to be put through which would go through part of the house that was standing. From that time to the present, much of the evidence revealing how Mr. Franklin's house looked and how it was painted has lain buried and forgotten.

During the archaeological excavations conducted by the Independence National Historical Park Project Archeologist, a number of artifacts were found and a great number of these were in the form of pieces of plaster to which various shades of paints were adherring.. (No fragments with wallpaper attached were found.) These were sorted and the writer in consultation with Mr. Paul J. Schumacher and Mr. Dennis C. Kurjack chose 5 different pieces of plaster samples that examination indicated might have a bearing on how some of the plaster walls of Mr. Franklin's home were finished. Therefor, it may be that in the description listed below, we may be describing the color and the type of paint used in 4 or 5 different rooms.. These rooms were undoubtedly those that may have been located in the path of the street which was put through Franklin's property in 1812. We will list below the comments as 1, 2, 3, 4, and 5, and we will assume that each of the painted plaster fragments came from a different room. This may not have been the case since there may have been a dado which would presuppose 2 different colors in 1 room.

Artifact #1 was a bare plaster fragment and whether this was bare plaster by design or accident we do not know. It is of course quite possible that some rooms, particularly storage rooms, may never have been painted and this would not have been unusual. Therefor, we might assume in some storage areas or closets the white plaster remained unpainted.

Artifact #2 showed a red face, in other words when the building was torn down, this particular room represented by this artifact was painted red. However, when examining a cross section of the various paints on this fragment and proceeding from the face of the panel back to the plaster, we find that immediately below the red face was white; immediately below that was a yellow and immediately below that a red which indicates

that the room from which this fragment was procured was originally painted red. The red on the part facing the plaster or the original red is somewhat darker than the red on the face, and may be an indication that the original red was in imported Spanish brown or Spanish red oxide whereas the last red painting was undoubtedly of domestic source. The examination of this fragment is also an indication that the color schemes then as now changed from period to period.

Artifact #3 was a yellow color on the face which indicated that this room was painted yellow when the building was torn down. This yellow was clean and bright as compared to the yellow color on some of the other samples and was due to the fact that immediately below the yellow was white and successive coats of white, going right down to the plaster. Undoubtedly this room was painted white originally and was continually painted white until the last painting which was yellow. The yellow being put over successive coats of white indicating a brighter cleaner looking color.

Artifact #4 was also yellow faced but in examining this fragment, there was a succession of colors indicated. The first color on the face was yellow; below it was a dirty bluish color. This dirty bluish color is very thin and probably represents only 1 coat. Whether this was a definite color of the room or whether it was put in between for color effects which was sometimes done, we do not know. It is also possible that there may have been some fire in this room that might have created an effect of a dirty blue or this particular fragment may have come from an area that was somewhat close to a fireplace, since it is very thin as noted. The next color under this dirty blue was red; the fourth color was white and the fifth was a thin coat of red; the sixth was a number of coats of white. Therefore in this room, the original color was white.

Artifact #5 had a yellow face and had about the same sequence as Artifact #4 but ended in red rather than white.

From the above, we could deduce at least 2 of the rooms were white paint originally, 2 were red, and perhaps the 5th one had not been painted at all.

From the examination of scraped particles of the paint, it appeared to us that these pigments were in the case of white exclusively calcium carbonate which is sometimes called chalk whiting or limestone whiting. This pigment was exclusively used in water paints or white wash types of coating. The binder was casein or glue and sometimes milk that had been soured. We have a slight further evidence that the vehicles were of a water nature since on page 152 of Mr. Riley's brochure in a letter written by Mrs. Franklin to her husband in the Fall of 1765, she says in part, "The curtains are not made, nor did I press for them, as we had a very great number of Flies, as is observed they are very fond of new paint." If the binder were a glue type or a soured milk or similar type of water binder, there is no question that the flies would have been very prominent and fond of such a compound. There is little chance that these paints were anything but water paints, but the exact nature of the binder or vehicle is not known.

The red and the yellow colors mentioned above were all iron oxides, and probably were imported in the earlier coats, and natural domestic in the latter coats. They were mixed with water binder vehicles described above. On some of the fragments as much as 30 - 35 mils of paint were measured, indicating many repaintings during the 47 years that the house was standing.

The red color used as the original painting in some of the rooms was a common decorative color used throughout colonial times and is common

throughout the eastern seaboard. Many indications of it are found in New England and Williamsburg and other localities where the old homes have been restored, or where they can be examined in their original condition. Also, the yellow made from the plentiful yellow ochre pigment is a common paint and used quite generally in colonial times. However, both these paints are rarely used except in rooms which are more common such as kitchens, utility rooms, work rooms, storage rooms, and in some cases, bedrooms and attics. The more decorative rooms were generally papered and had elaborate wood wainscotting which was painted and generally the paint on these surfaces were rather dark colors and were oil paints.

The above investigation adds just a little bit more to the already large fund of information established and being established regarding the construction, furnishing, and appearance of Benjamin Franklin's original and enlarged home.

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LEW:ed
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See Dr. Riley's Bibliography for a more complete bibliography of the area.

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