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**INTERIOR PAINT ANALYSIS
GENERAL PHILIP SCHUYLER HOUSE**

**Saratoga National Historical Park
Schuylerville, New York**



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I. INTRODUCTION

PROJECT SCOPE

The scope of this project was for the Building Conservation Branch (BCB) of the National Park Service's Northeast Cultural Resources Center to provide technical assistance to Saratoga National Historical Park (SARA NHP) to evaluate the interior finishes of the first-floor rooms in the General Philip Schuyler House at Schuylerville, New York. The goal of the paint analysis was to determine, if possible, the circa-1787 paint schemes of the rooms. The analysis was to include removal of paint samples from the subject rooms, review of available documentation on the building, and microscopic examination of the paint samples removed from the building.

SUMMARY HISTORICAL BACKGROUND and ARCHITECTURAL EVOLUTION¹

The Schuyler House was built in 1777 by General Philip Schuyler near the site of his former house that had been destroyed by British troops during the Battle of Saratoga. Schuyler owned the large tract of land known as the "Saratoga Patent" on which the house was situated and which had been accumulated by his grandfather, Peter Schuyler. General Schuyler had inherited the Saratoga Patent from his father in 1763.

The house that the British troops had destroyed had been an elegant country seat, but because of war scarcities and the need for haste in rebuilding, the 1777 house was a simpler structure than its predecessor. The house was a gable-roofed rectangle that stood two stories high and was one room deep. The first floor consisted of a reception hall flanked by a parlor and a dining room, and the second floor contained a small hall, two large chambers, and one smaller chamber. The interior was sparsely finished; all window openings were fitted with casement sashes, there were no mantels, chair rails, or cornices, plaster was applied directly to the brick nogging in the walls and whitewashed, and ceilings were the exposed floor joists and floor boards of the rooms above (pages 19-20).

The original 1777 kitchen was located in the cellar, but within a few years after the house was built a detached kitchen was constructed off the northeast corner of the house (page 22). This building held the new kitchen, a small entry hall, and a storage room on the first floor, and servants' quarters on the second floor. Apparently there was no casing or trim around the interior of any windows or doorways, and the rooms were not plastered for several years, with whitewash and color washes applied directly to the wall framing and brick nogging, and to the exposed floor joists and floorboards of the floor above (page 24). In the main house, an exterior doorway was installed on

¹Unless otherwise noted, historical data and information on the conjectured physical evolution of the Schuyler House was taken from *Historic Structures Report: Architectural Data Part I - Preparatory to the Restoration of the General Philip Schuyler House* (May 1959) by historical architect Henry A. Judd. All page references in the text of this report are to the 1959 HSR.

the east (rear) wall of the dining room at this time for access to the side doorway into the kitchen.

In 1787 General Schuyler, whose primary residence was in Albany, had the house renovated for his newly-married son, John Bradstreet Schuyler. It was at this time that the front door and pedimented frontispiece extant in 1956 were installed, the original casement windows were replaced with double-hung sash windows, and new window openings were installed in the south and north walls. The interior was completely refinished (pages 30-31). On the first floor of the main house there were new casings for the new double-hung windows, cornices in all the rooms, chair rails in the reception hall and in the dining room, and mantels for the dining room and parlor fireplaces. The ceilings were lathed and plastered for the first time and the walls were newly plastered. Within a few years wallpaper was hung in all three rooms (page 35). It was probably also at this time that a one-room addition referred to as "father's office" was built that projected from the center of the rear (east) wall of the house (page 29). It is thought that the room was used by General Schuyler as a summer office while he was overseeing his land and milling operation in the area.

John Bradstreet Schuyler died in 1795 and General Schuyler in 1804. It is not known who, if anyone, occupied the house between John's death and 1811 when Philip Schuyler II, son of John and grandson of the General, moved into the house. Twenty-six years later Philip lost the house in the financial panic of 1837, but he apparently made no major changes to it during his family's residency. In 1839 the house was purchased by George Strover of Schuylerville, who is thought to have been responsible for the next episode of major alterations (page 39). Sometime between 1839 and 1848 the office and rear porches were removed and a two-story tier of rooms was added to the rear of the house, a two-story columned porch was built across the front (west) facade, and the kitchen was enlarged and connected to the house via a pantry built on the north wall of the dining room. In the three original first-floor rooms, new doorways were punched through the rooms into the new rear rooms and the new pantry, and the reception hall was reconfigured, with the staircase moved from the north wall to the east wall and the original pantry to the dining room annexed as part of the hall.

The National Park Service (NPS) acquired the Schuyler House property around 1950, at which time minor repairs were made and the exterior was painted. Between 1956 and 1959 the NPS conducted an extensive architectural investigation of the structure. All the plaster walls and ceilings were removed, thereby exposing the framing and allowing for documentation of the existence and location of early features. Based on the findings of the investigation, it was decided to restore the house to its conjectured circa-1787 appearance. Work began on the three first-floor rooms in 1956. The reception hall was restored to its original plan, and all the walls were replastered over wire lath and the ceilings "rebuilt or repaired as needed".² In 1960, the circa-1840 two-story tier of rooms that had been added to the rear of the main house was removed and the office was reconstructed along the east wall. The pantry between the dining room and the kitchen at the front of the house was removed and the doorway returned to a window opening. New mantels were reconstructed for the parlor and (possibly) the dining room (page 53).

In 1963, the (once-again) detached kitchen was reconstructed. Much of the structure's framing

²A 1959 measured drawing of the first-floor plan of the Schuyler House shows the reception hall returned to its 1787 configuration with the notation "As restored in 1956". See Judd, *HSR*, Appendix A, Drawing #5.

(except for the floor joists) was found to be badly rotted and was presumably replaced.³ The enclosed north porch was returned to an open porch, and the chimney mass was reconstructed to its original configuration. On the interior the first floor (which by the 1950s had been made into one room) was returned to its original three-room plan using beaded-board partitions.⁴ Window openings and doorways were restored to their original locations.

³*HSR*, p. 45: "Nearly all members of [the kitchen] frame - except floor joists - have rotted very badly and some sections are now completely missing. The kitchen frame must be largely rebuilt."

⁴Harry V. Martin, weekly work progress report dated 8/31/63: "The beaded-board partition[s] on the first floor [are] nearly complete."

III. PAINT ANALYSIS

OBJECTIVE

The objective of the paint analysis of the first-floor rooms of the Schuyler House was to identify and provide color matches from the Munsell Color Notation System for the circa-1787 interior paint scheme of the rooms.

METHODOLOGY

Archival Documentation

The available documentation reviewed for the preparation of this report was comprised of:

Henry A. Judd. *Historic Structure Report - Architectural Data, Part I, Preparatory to the Restoration of the General Philip Schuyler House*. U.S. Dept. of the Interior, National Park Service - Eastern Office, Division of Design and Construction (May 1959).

Maureen K. Phillips. "Exterior Paint Documentation and Analysis - General Philip Schuyler House". Building Conservation Branch/Cultural Resources Center, North Atlantic Region - National Park Service (January 1995).

Schuyler Mansion [Albany]- A Historic Structure Report. Prepared by the Division for Historic Preservation-Bureau of Historic Sites, New York Parks and Recreation (1977).

Paint Sampling and Analysis

In December 1998 a BCB architectural conservator removed sixty-seven paint samples from the interior painted surfaces of the Schuyler House, sixty-four from the rooms on the first floor, two from closets on the second floor, and one from the attic. The samples were removed using an X-acto knife. Each sample was placed in a separate small envelope, which was carefully labeled with the sample location, building name, and date of removal. The samples were brought to the laboratory facilities of the BCB in Lowell, Massachusetts, and logged using a system derived from the National Park Service's *Integrated Research Organization System* (IROS). This system provides a four-part code that identifies the site, the building, the sample type, and the sample number. In this instance, the site code is *SARA* for Saratoga National Historical Park; the building code for the Schuyler House is number *15*; and the letter *P* indicates that the sample is paint. Thus, for example, a paint sample with the code number **SARA-15-P001** is paint sample (**P**) number "1" (**001**) taken from the Schuyler House (**SARA-15**). A list of the paint samples removed and the location from which each sample was taken can be found in **APPENDIX A** of this report.

The samples were examined using a stereozoom microscope. Each sample was viewed in cross section at 10 to 63 times magnification. Paint-layer colors and sequences (stratigraphies) were

recorded as well as dirt lines and fractures between layers, which help to distinguish the possible passage of time between layers. Spot chemical tests were performed, including the use of dilute sodium sulfide solution to identify lead paint and to help identify similar layers among samples. Selected samples with the most complete stratigraphies were each mounted in a wax-filled petri dish, which was also labeled with the sample's log number.

Based on the documentation researched, conjectural dates were assigned to selected layers. The chromochronologies (dated stratigraphies) for representative samples from the interior of the Schuyler House are included at the end of the subsection for each room

Color-Matching

Color-matching was performed for the first and (sometimes) second paint layers in the samples taken from the first-floor rooms in the Schuyler House. Based on documentary records, it was assumed that the historic paint layers were linseed oil-based paints. Since it is known that linseed-oil paint can yellow in darkness (i.e., when covered with subsequent paint layers), before color matching was performed representative mounted samples were placed in a sealed container and exposed to long-wave ultra-violet light for a period of at least 72 hours to attempt to return the paints to something close to their original colors. The historic paint layers were color matched where possible to the Munsell Color Notation System and to commercial Benjamin Moore paint colors. A description of those colors, along with the Munsell and Benjamin Moore color swatches, can be found in section **III. COLOR MATCHES.**

ANALYSIS⁵

Overview

The circa-1787 paint scheme of the interior of General Philip Schuyler House is difficult to determine because little documentation is available on the early appearance of the interior, many of the interior features are modern (post-1956) reproductions, and very little paint history could be found on the interior features that may have dated to circa 1787. According to Judd's *HSR*, many of the interior features that were extant in those rooms in the late 1950s probably dated either to the 1777 construction or to the 1787 remodeling of the house. However, the *HSR* made no references to original or early paint colors found in these rooms, except to mention that many pre-1787 features such as plaster walls and exposed-frame ceilings were whitewashed or colorwashed. The *HSR* did include several excerpts from General Schuyler's correspondence and account entries relating to the 1787 renovation. Some of the entries refer to the purchase of kegs of white lead, gallons of linseed oil, and small amounts of white vitriol. Linseed oil and white-lead pigments were common ingredients for an 18th-century paint mixture, and white vitriol was a drier used when light colors were desired.⁶ The resulting finish would probably have had a cream or ivory color if no other pigments had been added (pigments were not among the entries listed). However, it is not known if these ingredients were intended for paint to be used for the interior, the exterior, or both.

According to the *HSR*, when the NPS obtained the Schuyler House around 1950 it performed some minor repairs and painted the exterior of the structure, but no mention was made of painting the interior. The NPS conducted extensive documentation and restoration of the house between 1956 and the early 1960s. The restoration work apparently was performed in four stages.⁷ In 1956 the reception hall was significantly altered when it was restored to its original configuration (page 41). The remaining rooms on the first and second floors in the main front section of the house were restored in the summers of 1956 and 1958 (page 47). The demolition of later additions and the reconstruction of the office took place in 1960. And the detached kitchen was restored in 1963. During this period, "later features [were] stripped off" (page i), and all the plaster walls were removed and the plaster ceilings removed or repaired "as needed" (page 16). Unfortunately, the report did not document which of the then-extant features were preserved, replaced, or removed, nor

⁵Room, window opening, and doorway numbers used in this report refer to those on the annotated first-floor plan of the Schuyler House found in APPENDIX B. Page numbers refer to the 1959 *HSR*.

⁶White vitriol was often the preferred drier for use in delicate colors, which could be darkened by linseed oil boiled with more commonly-used driers such as litharge. See Theodore Zuk Penn, "Decoration and Protective Finishes, 1750-1850: Materials, Process and Craft," thesis for M.A. degree from University of Delaware (June 1966).

⁷In addition to the *HSR*, see two folders in the SARA facilities management files that contain weekly work progress reports written by Building Restoration Specialist Harry V. Martin for the 1960 and the 1963 restoration work.

did it record if original or early features were stripped of paint before repainting.

The paint analysis revealed that most features in the first-floor rooms are either modern (post-1956) reproductions or had been thoroughly stripped of finishes during restoration. Samples from only a few features (sometimes only one feature in a room) display extensive stratigraphies. While postulating a paint scheme for a room with so little evidence is risky, these few samples are the only physical documentation available from which to draw conclusions. Because some features are known to date to the circa-1956-1963 restoration, and it is known that the interior has only been painted once or twice since that time, the earliest layers in the paint samples removed from these post-1956 features can be dated with some certainty. In areas with older features and longer stratigraphies, the first paint layer preceding the post-1956 layers can probably be dated to pre-1950, or before the NPS obtained the property. For those few features that display extensive stratigraphies, there was the question of whether the earliest layers of paint dated to the original 1777 construction of the house, to the 1787 renovations, or to even later painting campaigns.

Another source of documentation in the SARA archives may help in dating the paint layers found in the samples from the Schuyler House with the most extensive stratigraphies. Fragments of early wallpaper were removed from the walls of the reception hall, parlor, and dining room before the plaster walls in these rooms were demolished in 1956. Analyzing these wallpaper fragments in conjunction with the paint evidence may help provide a clearer overall decorative chronology for each room.

It was originally hoped that some of the window sashes would provide evidence of the late-eighteenth century finishes, since the *HSR* stated that the sashes that were extant along the west wall of the house in 1956 probably dated to 1787.⁸ However, none of the samples removed from west-wall sashes contain extensive stratigraphies. Of the three west-wall sashes sampled, the paint sample from the sash in W102 of the dining room displays only post-1956 paint layers, one from the sash in W103 of the reception hall contains only two pre-1956 paint layers, and another from the sash in W105 of the parlor, while it contains five pre-1956 paint layers, had a first layer that is thought to date to the mid-nineteenth century at the earliest.⁹

⁸P. 46: "The existing double-hung type front windows are all of one date, circa 1787 . . . the windows in the end walls are of a later period." (emphasis original)

⁹Similar results were found in the paint samples from the exterior of the sashes. See Phillips, "Exterior Paint Documentation and Analysis" (1995), p. 12.

Reception Hall (Room 101)

It is thought that the woodwork in the reception hall (Room 101) of the Schuyler House was painted light cream in 1777 and gray in 1787. This conclusion is based on the analysis of the paint stratigraphy found in only one sample removed from the room, which has undergone significant alterations at least three times in its history: in 1787, circa 1840, and 1956.

In the original plan of the house, a staircase to the second floor was located along the north wall of the reception hall, with a walk-in pantry on the south wall of the dining room was situated on the other side of the stair wall. In the 1840s the hall staircase was relocated to the east (rear) wall of the room, and the space occupied by the dining room pantry was annexed to become part of the reception hall. The reception hall underwent extensive restoration in 1956, and as a result, many of the extant features appear to date from that time: the extant plaster walls and ceiling were removed; the circa-1849 staircase was removed, the pantry area was restored to the dining room and the north wall in the hall was rebuilt in its original location; the staircase was reconstructed in its original location along the (now new) north wall of the hall (fig. 2); and the walls and ceiling were replastered.

The paint analysis revealed the extent of the 1956 work and the resulting paucity of historic paint evidence remaining in the room. Twenty of the twenty-five paint samples removed from features in the room display paint stratigraphies that date to after 1956. Not surprisingly, all the staircase features sampled (except those taken from the bridging beam and trim around the stairwell - see discussion below) display only post-1956 stratigraphies.¹⁰ Also displaying only post-1956 stratigraphies were all samples taken from cornices, chair rails, baseboard, and ceiling, as well as samples from the surrounds to four of the five doorways and four of the doors. These results suggest that all the aforementioned features were replaced when the plaster walls were demolished and then replastered. However, while it is probable that many of these features are modern (post-1956) reproductions, some may be original or early features that were stripped of paint during the 1956 work. For example, while the *HSR* records that the then-extant door in the main doorway (D101) probably dated to the 1787 renovations, the paint sample taken from the existing door displays only post-1956 paint layers, and the wood substrate viewed under the microscope is extremely clean and light-colored, e.g., it does not appear to be 210 years old.¹¹ However, there is no record that the door in D101 was replaced in 1956 (or later) with a reproduction. Therefore, even though the extant door appears to be a reproduction, it may date to 1787 and have had its paint history stripped in 1956.

¹⁰On the chromochronology chart, the first layer of paint from features documented to the 1956 and 1958 restoration work has been assigned a circa-1958 date, while the first paint layer on features that are known to have been added during the 1960 restoration work (e.g., the door in the office doorway) have been assigned a 1960 date.

¹¹Paint samples removed from the exterior of the door also contained only post-1956 paint layers. See Maureen K. Phillips, "Exterior Paint Documentation and Analysis - General Philip Schuyler House" (January 1995).

Only one paint sample from the room displays an extensive stratigraphy that may reflect the paint history of the woodwork in the reception hall. This sample was removed from the door in the doorway (D107) to the parlor, which the authors of the *HSR* thought may date to the 1777 construction of the house (page 30). The sample contained 14 layers of paint, with the first layer a light-cream color (Munsell 10YR 9/1-9/1) and the second layer a gray color (Munsell 10B 5/1). These layers have been tentatively dated to 1777 and 1787, respectively, based on the presence of an early wallpaper fragment found on the wall in 1956. This fragment, which was "apparently of the eighteenth century" (page 48), had a white and dark-gray lattice and flower pattern on a gray background.¹² Records indicate that "paper hangings" were purchased for the house in 1789 (this would have allowed for the new plaster applied in 1787 to have cured). Assuming that the wallpaper fragment dates to the eighteenth century, it is probable that it is one of the paper hangings ordered for the house in 1789, and that the woodwork in the room would have been painted to match. Since the only paint layer in the sample removed from the parlor door that would match this wallpaper is the gray second layer, that layer is thought to date to circa-1787, and the light-cream first layer of paint probably dates to the 1777 construction of the house.

Three paint samples removed from features in the reception hall had similar stratigraphies of between six and eight layers beginning with a tan-cream paint (Munsell 10YR 7/4): one from the surround to the doorway to the dining room (D110), and one each from the bridging beam and trim around the stairwell opening. The fact that there are fewer layers on these features could suggest that the features date to the 1777-1787 period but that the painted surfaces have been periodically "prepped," thus removing some of the paint history. However, the fewer paint layers probably indicate that these features date to a later period - possibly to the circa-1840 alterations of the house. Supporting this theory is the fact that the tan-cream first layer in these samples is very similar to the fourth layer in the sample from the parlor door with its longer stratigraphy, suggesting that each was applied at the same time and after 1787.

¹²A reproduction of this wallpaper now hangs on the walls of the reception hall.



Figure 2. Reception Hall (Room 101), View of Northeast Corner Showing 1956 Reconstructed Staircase (1997).

REPRESENTATIVE CHROMOCHRONOLOGIES GENERAL PHILIP SCHUYLER HOUSE INTERIOR

ROOM 101 - RECEPTION HALL

FEAT- URE		"A"	"B"	Ceiling	D107 Door	D110 Surround	R101/201 Stairwell	W103 Sash
DATE	LAYER #	[9 Samples - See List]	[10 Samples - See List]	[Plaster cont. mica chips]	[To Parlor]	[To Dining Room]	[Bridging Beam & Trim]	
	Sub- strate	Wood	Wood	Plaster*	Wood	Wood	Wood	Wood
c 1777	1				•lt crm			Resinous
c 1787	2				•gray			
	3							
	4				•lt tan			
c 1840	5				•tan-cream	•tan-cream	•tan-crm	
	6							
	7				•tan-cream	•tan-cream	•lt cream	
	8				•lt cream			
	9				•lt cream			
	10				•lt cream	•cream	•lt cream	
	11				•lt cream			
	12							
	13				•lt cream	•lt cream	•lt cream	•crm-white
	14							
	15				•lt cream	•lt cream	•lt cream	•crm-white
c 1958	16	•crm-wht			•crm-wht		•crm-wht	•white
1960	17	white	white	white	white		white	white
c 1971	18	lt cream	lt cream	white	lt cream	lt cream	lt cream	white

• = Reaction to Na₂S - denotes presence of lead

* = Reaction to HCl - denotes presence of lime

"A" Features

P001 South wall - baseboard
P002 North wall - baseboard (under stairs)
P003 North wall - chair Rail
P004 West wall - chair Rail
P008 West wall - D101 (main entrance), door
P011 South wall - D107 (to parlor), surround
P013 East wall - D108 (to office), surround
P023 Staircase - balusters
P024 Staircase - newel, cap

"B" Features

P005 South wall - cornice
P006 North wall - cornice
P009 West wall - D101, surround
P012 East wall - D108 (to office), door
P014 North wall - D109 (closet under stairs), door
P015 North wall - D109 (closet under stairs), surround
P016 North wall - D110 (to dining room), door
P019 Staircase - risers
P020 Staircase - decorative stringer board
P021 North stair wall - baseboard

Parlor (Room 102)

It is thought that in 1777 and 1787 the woodwork in the parlor (Room 102) of the Schuyler House was painted the same colors as the woodwork in the reception hall. This conclusion is again based on the analysis of one paint sample that was removed from the circa-1777 door in the doorway (D107) to the reception hall. It was a sample removed from the reception hall side of the door that displayed what is thought to be the circa-1777 and the circa-1787 paint layers of light cream and gray, respectively. Although the sample taken from the parlor side of the door contains only 6 layers of paint, the first two are the same light-cream and gray layers found in the sample from the hall side of the door. It is therefore thought that the woodwork in the room was originally painted light cream in 1777 and repainted gray in circa-1787.

The woodwork in the parlor would not have been painted gray at the same time that it was papered with the salmon and gold-color wallpaper that is currently hanging on the walls in the room. According to the *HSR*, this paper was the first of eight layers found on the plaster walls before they were demolished in 1956 and was thought to have been the paper installed in circa 1789. Enough sheets of the original wallpaper were saved to paper the west wall of the room. The remaining walls were covered with a reproduction paper based on the document paper (**fig. 3**). However, the report also states that a ninth layer of wallpaper was found on the fireplace walls, apparently sometime after the first eight had been removed (although this is not clear). This paper has a light gray background with a pattern of small wheat sheaves in green, and was reproduced for use in the dining room. It is possible that the gray-color wallpaper, rather than the extant salmon and gold wallpaper, was the first (circa-1789) paper hung in the room, and that the woodwork was painted gray to match. Analysis of the wallpaper fragments removed from the parlor will help clarify the dating of both the wallpaper and of the paint evidence found in the room.

Samples removed from four features in the parlor (the sash to W105 and the baseboard on the west wall, the surround to the parlor doorway (D107) on the north wall, and the cornice over the fireplace on the south wall) each had nine layers of paint - the lengthiest stratigraphies of all the samples from the room. The first paint layer in each of these samples is a tan-cream color that is very similar to the first layer found in samples from three features in the reception hall and to the fourth layer found in the sample from reception-hall side of the parlor door that contained the circa-1777 and circa-1787 paint layers. This tan-cream layer is therefore thought to date to after 1787, possibly to the 1840 renovations, as are the features on which it is found as the first layer. The surround to window W105, and the sash in window W108 on the south wall, have stratigraphies that date to the circa-1958 NPS restoration work. The mantel displays only one layer of paint, reflecting that it was installed in the room in 1960.¹³

¹³Martin, progress report dated 3/28/60: "The parlor mantel is two-thirds complete".

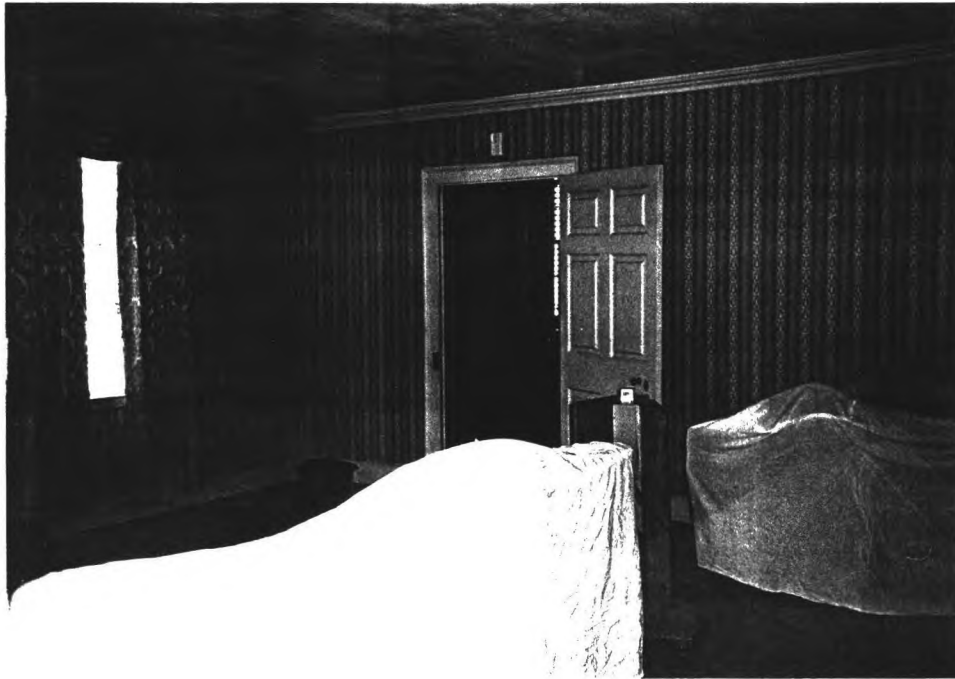


Figure 3. Parlor (Room 102), View of Northwest Corner Showing Surviving Early Wallpaper on Left (West) Wall and Reproduction Wallpaper on Right (North) Wall (1997).

REPRESENTATIVE CHROMOCHRONOLOGIES GENERAL PHILIP SCHUYLER HOUSE INTERIOR

ROOM 102 - PARLOR

FEAT- URE		"C"	Ceiling	D107 Door	W105 Surround	W108 Sash	Mantel
DATE	LAYER #	[4 Samples - See List]		[To Hall]			
	Sub- strate	Wood	Plaster*	Wood	Wood	Wood	Wood
c 1777	1			•lt cream			
c 1787	2			•gray			
	3						
	4						
c 1840	5	•tan-cream					
	6						
	7	•tan-crm					
	8			•lt cream			
	9	•tan-crm					
	10						
	11	•tan-crm					
	12						
	13	•tan-crm		•lt cream			
	14						
c 1958	15	•tan-crm			•tan-crm	•off-white	
	16	cream-white (P)			cream-white (P)	cream-white (P)	
1960	17	salmon		salmon	salmon	white	white
c 1971	18	white	white	white	white	lt cream	

- = Reaction to Na₂S - denotes presence of lead
- * = Reaction to HCl - denotes presence of lime
- P = Possible primer

"C" Features

- P026 West Wall - baseboard
- P027 South wall - cornice
- P030 North wall - D107 (to hall), surround
- P031 West wall - W105, sash

Dining Room (Room 103)

The woodwork in the dining room (Room 103 - **fig. 4**) of the Schuyler House is thought to have been painted cream in 1777 and light green in 1787. Very little paint evidence remains in the room, and it is again from one sample that the early paint colors have been determined. That sample, removed from a section of baseboard on the south wall, contains the most extensive stratigraphy of all the samples taken from the three front first-floor rooms in the main portion of the house. The *HSR* recorded that in 1956 "a few short sections of six inch beaded baseboard" that dated to the 1777 construction of the house had survived (page 20), and it seems likely that the paint sample was removed from a section of this early baseboard. The sample contains 19 layers of paint. The first layer, which is thought to date to circa 1777, is a cream color (Munsell 2.5Y 8/4) that is darker than the circa-1777 light-cream first layer found in sample with the longest stratigraphy in the reception hall, and lighter than the circa-1840 tan-cream four layer found in the same sample. The second paint layer, thought to date to circa-1787, is light green (Munsell 2/5 GY8/2). This green layer was finished with varnish to add gloss, a common decorating practice for dining rooms in the eighteenth and early nineteenth centuries.

Of the other paint samples removed from the room, one from the cornice shows the first-layer of tan-cream that may date to circa-1840. The remaining samples all display stratigraphies that date to 1958 or after, including a sample taken from a sash in the window opening (W111) on the south wall that replaced a doorway in 1960,¹⁴ and a sample removed from a sash in a window opening (W102) that the authors of the *HSR* thought dated to 1787 (see **ANALYSIS - Overview**, above).

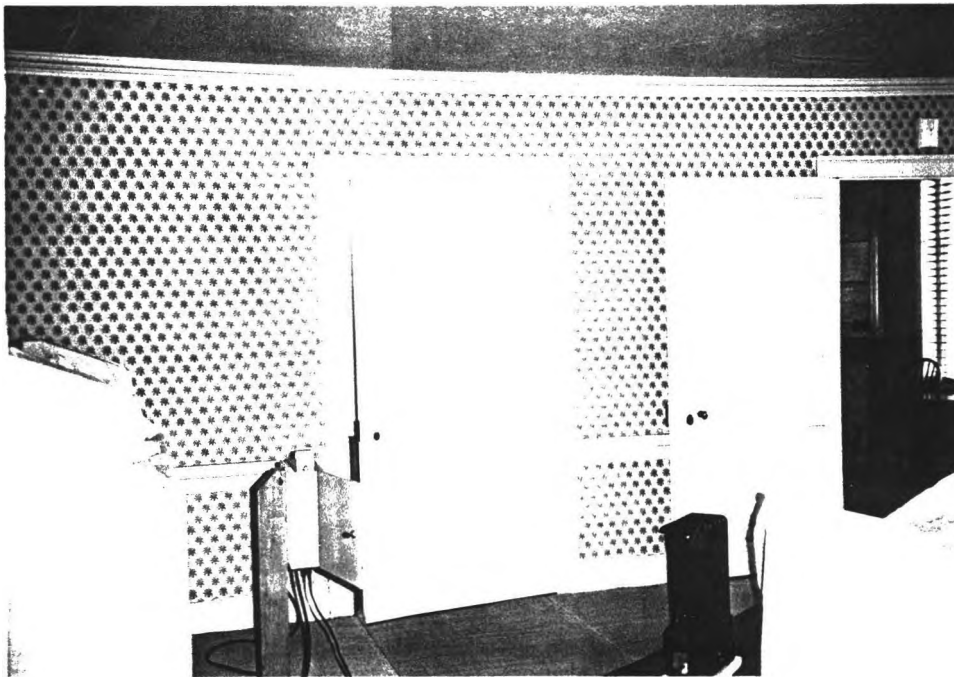


Figure 4. Dining Room (Room 103), View of North Wall Showing Circa-1958 Pantry Door and Reproduction Wallpaper (1997).

¹⁴Martin, progress report dated 3/28/60: "Window installed complete in north wall, east of fireplace Dining Room".

REPRESENTATIVE CHROMOCHRONOLOGIES GENERAL PHILIP SCHUYLER HOUSE INTERIOR

ROOM 103 - DINING ROOM

FEAT- URE		"D"	D111 Srnd/ Mantelpiece	Ceiling	Baseboard	Cornice	W102/W111 Sashes	D103 Door
DATE	LAYER #	[6 Samples - See List]	[D111 - To Pantry]	[Plaster cont. mica chips]	[South Wall]			[To Exterior - Rear]
	Sub- strate	Wood	Wood	Plaster*	Wood	Wood	Wood	Wood
c 1777	1				•cream			
c 1787	2				•lt green/R			
	3				•lt cream			
	4				•lt cream			
c 1840	5				•lt cream	•tan-crm		
	6				•lt crm/R			
	7				•lt cream			
	8				•lt cream			
	9				•lt cream			
	10				•lt cream			
	11				•lt cream			
	12				•lt cream			
	13				•lt cream	•tan-crm		
	14				•lt cream			
	15				•lt cream			
	16				•lt cream			
c 1958	17		•crm-wht		•crm-wht	•crm-wht		•gray
1960	18	white	white	yell-wht	white	white	white	white
c 1971	19	lt cream	lt crm	white	lt cream	lt cream	white	lt cream

- = Reaction to Na₂S - denotes presence of lead
- * = Reaction to HCl - denotes presence of lime
- R = Resinous layer (e.g., varnish)

"D" Features

- P036 West wall - chair rail
- P039 South wall - D110 (to hall), door
- P040 South wall - D110 (to hall), surround
- P042 East Wall - D103 (to exterior/rear), surround
- P043 South wall - D111 (to pantry), door
- P046 West wall - W102, surround

Office (Room 104)

While the original "father's office" was probably built in 1787, the extant room (fig. 5) was reconstructed by the NPS in 1960.¹⁵ It is therefore not surprising that the paint samples removed from all the features in this room contain only a white primer coat and two layers of light-cream paint. These paint layers were used in the comparative dating of paint layers in samples removed from features in the other rooms of the main house.

Since the office is a 1960 reconstruction, there is no evidence that would help determine the room's early paint scheme. It was probably finished simply, with painted walls (instead of wallpaper) as well as woodwork. Since the room is adjacent to the reception hall, the woodwork in the office was probably painted to coordinate with the paint color in the hall, which in 1787 is thought to have been gray.

Because there were so few layers of paint, no representative chromochronology chart was created for the office paint samples.



Figure 5. Circa-1959 Office (Room 104), View of Northwest Corner (1997).

¹⁵See generally 1960 Weekly Work Progress Reports.

Kitchen (Room 105) and Storage Room (Room 106)¹⁶

It is thought that the doors in the circa-1780 detached kitchen building were originally painted brown, and that in circa-1787 the doors were painted ochre and the doorway surrounds (and window surrounds, if any) were painted light cream. This conclusion is based on samples removed from the surround and door in doorway D105, apparently the only remaining early features in the main room of the building.

The first floor of the circa-1780 detached kitchen building to the Schuyler House originally contained the kitchen, an entry with stairs, and a storage room, as well as an open porch along the north wall. By 1956, the first floor had been made into one room and the porch had been enclosed. In 1963 the NPS restored the kitchen to its original three-room configuration and in the process reconstructed almost the entire frame of the structure except the floor joists. As a result, most of the extant features on the first floor of the kitchen date to 1963.

However, the appearance of the interior of the kitchen rooms in the late eighteenth century was well documented by the NPS during the restoration work. According to the 1959 *HSR* (pages 24-25), the interior finish of the rooms was spartan. For many years there was no plaster in the rooms and the finish on the walls (which consisted of the exposed framing and brick nogging) and ceilings (the exposed floor joists and floorboards of the upper floor) was whitewash. In addition, no interior casing or other trim was used at door and window openings in the original circa-1780 construction.

Today the rooms have been restored to their circa-1787 appearance in most respects. The original doorway and window openings have been restored and have been trimmed with surrounds. Paint analysis revealed that the late-1950s surrounds were first painted light cream and given a resinous finish, and at a later date were finished with whitewash (which is visible today).¹⁷ Currently there is a resinous finish on the exposed floor joists in the main room (Room 105), instead of whitewash, and also on the window sash (W110). Chemical testing with denatured alcohol determined that this resinous finish is orange shellac. Floor joists and exposed interior wall posts in the storage room (Room 106) have a faded white finish. Microscopic and chemical analysis of samples removed from those features revealed that there are two layers of finish on the joist, the first layer being shellac. The second layer (the visible off-white finish) proved upon testing to be whitewash. The sample from the wall post also contained two layers, the first of which appears to be a brick-red paint, and the second whitewash.

The only early features remaining in the interior of the building (except for possibly the exposed floor joists) are the door and casing in the doorway (D105) on the north wall of the main room (Room 105). Both features display extensive paint stratigraphies, reflecting their location in a high-

¹⁶The door to the kitchen entry (Room 107) was locked and unavailable for sampling.

¹⁷Layers determined to be whitewash reacted vigorously to dilute hydrochloric acid, which detects the presence of lime.

use area that would require frequent refinishing. It appears from the analysis that the door is slightly older than the surround, which coincides with the *HSR* conclusion that there had originally been no door casing in the room. The first finish on the door is brown paint (Munsell 10YR 6/4), which is thought to date to circa 1780. When the surround was added around the doorway, the door was painted ochre (Munsell 10YR 7/8) with a resinous finish (probably varnish) and the surround was painted light cream (Munsell 10YR 9/1-9/2) and also given a resinous (varnish) finish. In this case, the varnish was probably used to protect the paint from the grime generated by the kitchen activities. Since there is only one layer of paint on the door before the surround was added to the doorway, it is probable that these finish layers date to soon after the 1780 construction of the detached kitchen, and possibly to the 1787 renovation of the main house.

**REPRESENTATIVE CHROMOCHRONOLOGIES
GENERAL PHILIP SCHUYLER HOUSE INTERIOR**

ROOM 105 - KITCHEN and ROOM 106 - STORAGE ROOM

FEAT- URE		D104 Door	D104/W110 Surround	D105 Door	D105 Surround	W110/Sash Joist	R106 Joist	R106 Wall Post
DATE	LAYER #		[D104 - To Exterior/Rear]	[To Exterior/ Side (north)]		[Second-Floor Joist - Exposed]		[Exposed]
	Sub- strate	Wood	Wood	Wood	Wood	Wood	Wood	Wood
c 1780	1			•brown				
c 1787	2			ochre/R	•lt crm/R			
	3			•lt gray	•lt gray			
	4			•gld-crm	•green			
	5			•gld-crm	•cream			
	6			[black]	•tan-gray			
	7			•blk-grn	•blk-green			
	8			•tan-gray	•tan-gray			
	9			•lt yell- grn	•lt cream			
	10				•oily tan			
	11				•gray			
	12			•lt gray	•lt gray			
	13				•oily (R?)			
	14			•lt cream	•lt crm (2)			
	15			•lt green	•lt crm (2)			
	16			dk green	green			
	17			•lt cream	•lt crm (2)			
c 1963	18	dk green	lt cream	lt cream	•lt cream	resinous ⁺	resinous ⁺	brick red
	19		resinous	crm-wht (2)	crm-wht (2)			
c 1971	20		white [*]	black			yell-crm [*]	white [*]

• = Reaction to Na₂S - denotes presence of lead
* = Reaction to HCl - denotes presence of lime

+ = Reaction to alcohol - probably shellac
R = Resinous layer (e.g., varnish)

Second and Third Floors - Miscellaneous

At the request of the SARA facilities manager, three finishes samples were also removed from features on the second floor and in the attic of the Schuyler House that were thought may give some indication of early painted finishes in the house. One sample was removed from the interior door casing of the second-floor hall closet, which the author of the *HSR* felt was the "only room in the house where the original finish remains undisturbed" (page 14). Another sample was taken from a shelf in the closet to the south bedroom, and the third sample was removed from the hinge to the east casement window on the north gable end-wall of the attic. Unfortunately, none of the samples revealed evidence of eighteenth-century paint finishes.

The closet door casing appeared upon investigation to be covered with the same finish that covered the walls. Analysis of the sample taken from the casing showed that it consists of only one white layer which reacted positively to dilute hydrochloric acid, indicating that it is plaster or whitewash. In addition, the wood substrate in the sample appeared to be very clean and light-colored, leading to the conclusion that this casing dates to the 1960 restoration work.

The sample from the sash hinge on the attic window also contains one layer of a white finish that reacted positively to dilute hydrochloric acid, indicating that the finish is probably whitewash.

The sample removed from the shelf in the south bedroom contains 10 finish layers, two of which are resinous layers that are probably varnish. The first layer, which is protected by a varnish coating, is a tannish cream-color paint that is similar to the conjectured circa-1840 paint layer found in the first-floor rooms, and is thus also thought to date to circa-1840. The second finish on the shelf is a mint green paint, again protected with a varnish coating. The mint green/varnish finish is followed by five layers of light cream paint.

III. COLOR MATCHES

OVERVIEW

This section presents color matches for the conjectured circa-1787 paint colors for the woodwork in the reception hall (Room 101), the parlor (Room 102), the dining room (Room 103), and the main room (Room 105) in the detached kitchen, of the General Philip Schuyler House. No colors are given for the walls in the rooms; according to the *HSR*, the walls in three front rooms of the main house were probably all covered with wallpaper in circa-1789 (probably after waiting for the new plaster walls to cure), and the exposed timber-and-nogging walls in the kitchen were whitewashed.

Also given for informational purposes are the color matches for the original circa-1777 paint colors for the reception hall, parlor, and dining room, and the original circa-1780 color matches for the kitchen doors (and possibly sashes - according the *HSR* there was no doorway or window trim). No color matches are listed for the office (Room 104) since the extant room is a 1960 reconstruction and the circa-1787 colors for the room are not known.

The circa-1787 paint colors have been matched to the Munsell Color Notation System and, when available, to the Benjamin Moore Moore-O-Matic" color system. The circa-1777 paint colors for the main house and the circa-1780 paint color for the detached kitchen have been matched solely to the Munsell Color Notation System.

RECEPTION HALL (Room 101) and PARLOR (Room 102)

Historic Circa-1787 Colors

Gray

[Munsell 10B 5/1; no good Benjamin Moore Match]

- All woodwork

Circa-1777 Colors (For Information Only)

Light Cream

[Munsell 10YR 9/1]

- All woodwork

DINING ROOM (Room 103)

Historic Circa-1787 Colors

Light Green

[Munsell 2.5GY 8/2; Benjamin Moore #HC-116]

- All woodwork

Circa-1777 Colors (For Information Only)

Cream

[Munsell 2.5Y 8/4]

- All woodwork

DETACHED KITCHEN (Room 105)

Historic Circa-1787 Colors

Ochre

[Munsell 10YR 7/8; Benjamin Moore #182 (closest)]

- Doors
- Window Sashes (conjectured)

Light Cream

[Munsell 10YR 9/2; Benjamin Moore #907]

- Doorway and window surrounds

Circa-1780 Colors (For Information Only)

Brown

[Munsell 10YR 6/4]

- Doors

IV. APPENDICES

APPENDIX A
GENERAL PHILIP SCHUYLER HOUSE
INTERIOR PAINT SAMPLES and LOCATIONS

Sample #**Location*****Room 101 - Reception Hall***

P001	South wall - baseboard
P002	North wall - under stairs, baseboard
P003	North wall - chair rail
P004	West wall - chair rail
P005	South wall - cornice
P006	North wall - cornice
P007	Ceiling
P008	West wall - D101 (main entry), door
P009	West wall - D101 (main entry), surround
P010	South wall - D107 (to parlor), door
P011	South wall - D107 (to parlor), surround
P012	East wall - D108 (to office), door
P013	East wall - D108 (to office), surround
P014	North wall - D109 (under stairs), door
P015	North wall - D109 (under stairs), surround
P016	North wall - D110 (to dining room), door
P017	North wall - D110 (to dining room), surround
P018	Stairs - treads
P019	Stairs - risers
P020	Stairs - decorative stringer boards
P021	Stairs - north wall, baseboard
P022	Stairs - stairwell bridging beam/trim
P023	Stairs - baluster
P024	Stairs - newel post, cap
P025	West wall - W103, sash

Room 102 - Parlor

P026	West wall - baseboard
P027	South wall - cornice over mantel
P028	Ceiling
P029	North wall - D107 (to hall), door
P030	North wall - D107 (to hall), surround
P031	West wall - W105, sash
P032	West wall - W105, surround
P033	South wall - W108, sash
P034	South wall - mantelpiece

Schuyler House Interior Paint Samples (cont.)

Room 103 - Dining Room

P035	South wall - baseboard
P036	West wall - chair rail
P037	South wall - cornice
P038	Ceiling
P039	South wall - D110 (to hall), door
P040	South wall - D110 (to hall), surround
P041	East wall - D103 (rear exterior), door
P042	East wall - D103 (rear exterior), surround
P043	South wall - D111 (to pantry), door
P044	South wall - D111 (to pantry), surround
P045	West wall - W102, sash
P046	West wall - W102, surround
P047	North wall - W112 (?), sash
P048	North wall - mantelpiece

Room 104 - Office

P049	South wall
P050	South wall - baseboard
P051	East wall - chair rail
P052	South wall - D102 (rear exterior), door
P053	West wall - D108 (to hall), door
P054	West wall - D108 (to hall), surround
P055	East wall - W109, sash

Room 105 - Kitchen

P056	South wall - D104 (rear exterior), door
P057	South wall - D104 (rear exterior), surround
P058	North wall - D105 (side exterior), door
P059	North wall - D105 (side exterior), surround
P060	South wall - W110, sash
P061	South wall - W110, surround
P062	Ceiling - exposed second-floor joists and floor boards

Schuyler House Interior Paint Samples (cont.)

Room 106 - Kitchen Storage

P063 Ceiling - exposed second-floor joist
P064 East wall - exposed beam

Miscellaneous

P065	R201 - Hall	East-wall closet - interior doorway surround
P066	R202 - South Bedroom	South-wall closet - shelf
P067	R301 - Attic	North wall - east window, sash hinge

APPENDIX B
GENERAL PHILIP SCHUYLER HOUSE
ANNOTATED FIRST-FLOOR PLAN

