

THE EVOLUTION OF AMERICAN HISTORIC COLOR PALETTES

Tania Alam

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The Evolution of American “Historic Color Palettes”

By: Tania Alam

Advisor: Mary Jablonski

“Historic Color Palette” is a group of paint colors that are supposed to have a historic connection to architecture. This thesis is a look at how these color palettes came into existence and how they have developed over time. The concept of linking certain color groups to particular time-periods and places is an intriguing one. It first emerged in the United States as a descriptor of historic colors discovered at Colonial Williamsburg. With time the palettes have extended beyond the Colonial period and now include even the mid-century modern. These palettes have grown over time to become a popular means of creating visual connections to the past. But what do these colors represent?

This thesis was initially undertaken to explore where “historic color palettes” came from and to examine the evolution of the special color collections that form the American “Historic Color Palettes.” Representing specific regions and time-periods in history, the “historic color palette” is an important means of telling the story of the nation.

For this research, a number of “historic color palettes” were selected as case-studies. These were not limited to palettes being produced commercially, and also included lesser-known palettes, which have made significant contributions to the development of respective areas. The research process entailed the study of historic paint brochures and early paint advertisements, along with archival research and interviews with people working in the development of the historic palettes. Advances in architectural paint research techniques and methodologies in the twentieth century have made it possible to identify many of the original colors that were used in different periods of the American history.

The study and examination of these palettes led to the discovery that the “historic color palette” has not always been developed using evidence found in and on historic buildings. It has evolved as an amalgam of scientific paint analysis, historical research and imagination. It has also played a variety of roles primarily as a sales tool, educational model and proponent of historic preservation. The findings from this research however raise important questions of authenticity of the “historic color palette” and its effect as a tool promoting historic preservation in the United States.

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Chapter 1: Introduction

Displayed prominently in paint stores today are “Historic Color Palettes” that claim to represent paint colors of different architectural styles from periods of the American history. These include Colonial, Federal, Victorian, Art Deco, and even Mid-century Modern like the style developed by Frank Lloyd Wright. Examining these color collections, one wonders about their origin and historical accuracy. Where did these color palettes come from and how were they derived? Are these “historic color palettes” a marketing tool used by companies to promote paint products and by organizations to promote historic buildings? There is little if any literature that addresses these questions. Likewise, not much is known about the effects of these color palettes on the practice of historic preservation either on individual structures or historic districts as a whole.

This thesis was undertaken to gain a better understanding of the development of “historic color palettes.” A first step was to find when, where, and why the first of these “historic color palettes” was produced in the United States. In addition, it was necessary to look at various historic palettes in use and understand how they have evolved and the ways that they are being used. Also, a major question that arose was just how accurate were these palettes and who was deciding the color selection.

Historic color lines sold by companies today exhibit dissimilarities in their nomenclature and categorization; some palettes lack specific time-frames associated to them while others fail to recognize certain “periods” altogether. For instance, Valspar offers over 250 historic

colors; their collection is made up of four categories – *Georgian*, *Neo-Classical*, *Southwestern*, and *Victorian* – of which *Southwestern* appears to be more regional than a “period” specific palette. In contrast, Sherwin-Williams has a total of 80 Interior and Exterior colors in its corresponding *Preservation Palettes* – divided into seven subcategories ranging from *The Classics* of 1600’s to the *Suburban Modern* of the 1950’s. However, not all the periods have been given specific date ranges. Benjamin-Moore offers a palette of 191 colors known as the *Historical Collection* completely separate from its *Williamsburg® Color Collection* of 144 colors; the latter is focused on Williamsburg during the 1770s, which was the decade of the American Revolution.¹ On the other hand, California Paints, having worked with Historic New England, provides 149 *Historic Colors of America* divided into five groups; *Colonial*, *Federal*, *Greek-Revival*, *Victorian* and *20th Century Eclecticism*.² Interestingly, within this collection a few colors are repeated for different eras; e.g. *Stagecoach* is categorized as both Federal and Victorian, while *Georgian Yellow* appears in the Colonial, Federal as well as Victorian lines. Moreover, most of these collections provide little in-depth explanation behind their specific lines and the choice of their proprietary colors. Although this lack of consistency may have little meaning to the general public, they certainly give rise to questions regarding the legitimacy of historic color palettes in the minds of historians and preservationists.

¹ “Benjamin Moore Color Collections,” <https://www.benjaminmoore.com/en-us/color-overview/find-your-color/color-collections>

Historical Collection – A collection of 191 time-honored hues comprises our most popular palette. Steeped in tradition, the refined, elegant colors of the Historical Collection deliver timeless color that can be used in traditional as well as contemporary spaces. Unveiled in 1976 to celebrate the US bicentennial, a collection of 191 colors inspired by America's historic landmarks.

Williamsburg® Color collection – A historic collection that fuses Revolutionary design with revolutionary paint, bringing Colonial style to Contemporary lifestyle.

² “California Paints Color Collections,” <http://www.californiapaints.com/find-color/color-collections/historical-colors-of-america.aspx>

Historic Colors of America – Designed in conjunction with Historic New England, the “Historic Colors of America” collection features 149 authentic shades used from the 1600s to 1895. Each color has been researched and verified for authenticity.

The National Trust for Historic Preservation (The Trust) is known to “*partner with a select group of corporations to protect the places*” that tell the nation’s important stories.³ Among these partners, is the paint company Valspar. It is said to have worked extensively with the Trust to “*develop an exclusive collection of historic colors documented from historic sites across the country.*” The resulting palette constitutes over 250 historic colors.⁴ Other historic preservation organizations are also known to have been involved in similar endeavors; e.g. Historic New England developed the “Historic Colors of America” and the “Twentieth-century Colors,” while Historic Charleston Foundation brought out the “Colors of Historic Charleston.” Hence, it becomes ever more important to understand the creation of these historic color palettes that are essentially intended to be a part of the complete narrative of American history.

The aim of this thesis is to provide historians and those interested in the topic with better knowledge about the emergence of historic color palettes into the American consumer society. The field of Architectural Paint Research (APR) has advanced paint research techniques and methodologies, leading to new discoveries that have added to the body of knowledge pertaining to the development of paint as a finish material in America. However, the same cannot be said regarding the overall development of historic color palette collections. Matters such as the inclusion of particular colors in specific “historic” palettes offered by companies, reasons that had governed these choices and the people

³ “National Trust for Historic Preservation,” <https://savingplaces.org/corporate-partners#.WJO87vkrK03>
At the National Trust for Historic Preservation, we are proud to partner with a select group of corporations to protect the places that tell our nation’s stories. Their support ranges from in-kind gifts of the tools and supplies that make HOPE Crew projects possible, to multi-year philanthropic commitments that can transform entire communities.

⁴ Ibid.

The National Trust worked extensively with Valspar to develop an exclusive collection of historic colors documented from historic sites across the country. The resulting palette, sold exclusively at Lowe’s, features over 250 historic colors. Valspar also supplies paint to our Historic Sites to ensure that these historic treasures are protected for a lifetime.

involved in the selection and decision-making phases have scarcely been studied; a fact that is demonstrated by the lack of literature available on this issue.

1.1. Research Questions

The following questions were used to guide the research process:

Why were these color palettes created?

The first question is why these “historic color palettes” were created. It becomes important to find out if there was any cultural motivation to isolate groups of colors that were believed to capture a moment of the past, or if a group of colors was just put together in a palette simply because they looked good together. Because these color palettes claim to represent certain periods and regions, it is also necessary to inquire why there was a need for them and if they were not just a marketing tool.

How were these color palettes developed?

Examining these “historic” palettes, one has to ponder how colors were specified for certain periods and regions. Therefore, finding the people, who were responsible for the selection of colors, becomes an important aspect of the research; was it a color historian, a paint scientist, or a marketing agent who made these decisions? Simultaneously, learning about the procedures they followed in making these choices of “historic colors” for the palettes lends a better understanding of the development of “historic color palettes” in America.

What effects, if any, do historic palettes have on Historic Preservation practices?

It is important to identify the ways that these palettes have affected, if at all, Historic Preservation practices especially within historic districts. If the district mandates the use of

these “historic color palettes” to regulate the appearance of houses in the areas, how does this affect the interpretation of history? Also, does the existence and use of these palettes make the general public more sensitive and caring towards historic structures?

Authenticity of chosen “historic” colors in the palettes– does it matter?

Finally, the question that arises is about the authenticity of the palettes – the issue of ensuring that the “historic color palettes” are historically correct. If a group of colors is successful in preserving the aesthetic unity of buildings within historic areas, how important is it for the colors in the palette to be historically authentic? Consequently, it becomes essential to understand the importance of aesthetic quality and historical accuracy in the field of historic preservation.

1.2. Methodology

For the purpose of the thesis, a “historic color palette” has been defined to be the following:

“A group of paint colors, which were selected either by an individual or a committee, to represent colors, believed to be used in architecture during the different historic periods in America, and can sometimes be specific to distinct places from across the country.”

Owing to the lack of secondary literature concerning the evolution of historic color palettes, a number of approaches were taken to develop this thesis; the major part of which included the identification and use of primary data sources.

As a first step, archival materials constituting trade catalogues starting from the early twentieth century and old house magazines at the Avery Classics were reviewed. This was an attempt to find the first instance of “historic” colors on sale and the company involved with it. However, it became clear that there was one particular regional palette that was

being promoted in the early 1940s – these were the *Colonial Williamsburg* colors. This discovery led to the selection of the first case study for the thesis – The Colonial Williamsburg Restoration Project.

The next step was to choose other case studies, which may or may not be produced commercially, in order to draw comparison between such projects and get a better understanding of “historic color palettes.” These were selected primarily on the basis of specific color palettes known to be used on buildings in the areas. For each of the case studies, the reason for the creation of specific palettes, person(s) responsible for selecting certain colors to put the palette together, and the after-effects of using the palettes in the area were examined. Necessary information was gathered by a combination of literature review and correspondence with responsible people within organizations where possible. These case studies are discussed in detail in Chapter-4.

Apart from the palettes specific to the case studies, there are a number of popular “historic color palettes” available in the market today. One of the best ways to understand how these began and developed was to talk to the people who have been involved in the decision-making processes. In the limited time for this thesis, I was able to contact a popular historic color consultant in America and a number of people who were and are currently involved either in the analyses or selection and use of historic colors on historic buildings.⁵ People who work in preservation organizations were also contacted. Learning of the varied methods employed by them has, in many ways, aided the understanding and formulation of reasons for the thesis presented in the following chapters.

⁵ *John Crosby Freeman* – The Color Doctor – was interviewed about his works for Sherwin-Williams and Valspar in the creation of the early historic color palettes, and his work as a color consultant for historic houses.

Chapter 2: The Development of Color Palettes



Fig. 2.1. A fan-deck showing paint colors from a collection by the paint company Valspar.

The term “palette” has its origin in the world of fine arts. It is used to describe the plate on which an artist typically puts and mixes his colors for painting. With the passing of time, it has extended from its original meaning and is now frequently used to refer to a selection or “range” of colors, which are often meant to establish unique visual styles.

2.1. Concept of the Color Palette

The concept of the architectural color palette in America can be traced back to as early as 1842 when Andrew Jackson Downing, a landscape designer, protested against the *irrational* use of *white* on the exteriors of wooden houses. At the same time he suggested six shades of colors (Fig.2.2.) that he believed were highly suitable for the exterior of cottages and villas of that period. He provided lots of description on how to use these colors. ⁶

⁶ Downing, A. J., *Cottage Residences; A Series of Designs for Rural Cottages and Cottage-Villas and their Gardens and Grounds adapted to North America.* (New York and London: Wiley and Putnam, 1842), 22-25.

A, B, and C, are shades of gray, and E, F, G, of drab or fawn colour; which will be found pleasing and harmonious in any situation in the country. Stuccoed or cemented buildings should be marked off in courses,

According to Downing, these specimens would “...*be found pleasing and harmonious in any situation in the country.*” These colors when used in different combinations presumably harmonized the architectural features of the house within its surrounding. Downing also wrote extensively on interior decoration, including colors and finishes like faux graining, although these were not illustrated with color palettes.

In 1856, the first artificial dye – mauve – was invented in Europe by William Henry Perkin by accident. He was trying to synthesize quinine (the medicine to treat malaria) from the industrial waste product coal-tar when he discovered that the colorful end product in his test-tube could easily be transferred to cotton cloth when dissolved in alcohol. Thus began a revolution in the textile industry that was based on aniline chemistry.⁷ The production of aniline dyes allowed for a range of color selections in textile design, and was soon transferred to the paint industry.⁸

"The fashion for compound hues, neutral tints, grays, and other so-called quiet colors, is giving place to a preference for combinations of red, blue, yellow, and other colors of the prism,"

– John W. Masury, 1868.⁹

and tinted to resemble some mellow stone; Bath, Portland stone, or any other light free-stone shades. Are generally most agreeable.

⁷ Fagin, Dan, “Dye Me a River: How a Revolutionary Textile coloring Compound Tainted a Waterway,” in *Toms River: A Story of Science and Salvation*, (New York: Bantam Books, 2013) Excerpt from Scientific American, accessed on April 29, 2017, <https://www.scientificamerican.com/article/toms-river-excerpt-on-aniline-dye/>

⁸ Shivers, Natalie, “American Interior Styles,” in *Walls and Molding: How to Care for Old and Historic Wood and Plaster*, (New York: National Trust for Historic Preservation, John Wiley & Sons, Inc., 1990), 43-44. Before 1850 most paint colors were made from earth pigments or dyes such as ocher or indigo, generally imported from Europe. Purchased as dry powder or solid blocks, colors had to be ground and handmixed into the paint. By the 1870s aniline dyes made from coal tar were commercially available, after the discovery of the first such dye, mauve, in 1857. Aniline dyes allowed a greater and more consistent range of colors, but they faded quickly with sunlight and cleaning. In the 19th and early 20th centuries, paint mixtures used more stable white or red lead bases tinted with pigments.

⁹ John W. Masury, "A Popular Treatise on the Art of House-Painting: Plain and Decorative," (New York: 1868).

By the 1870s aniline dyes were commercially available in the United States, allowing for the production of considerably brighter and more consistent range of paint colors. Around the same time, polychromatic schemes started to become more fashionable, and became a strong characteristic of the highly decorative Victorian era buildings. It was in the late nineteenth century – after the Civil War – that industries started growing almost exponentially and manufactured a large variety of products in great quantities in the United States. The paint industry experienced massive changes in its production techniques, and consistent ready mixed paints were introduced to the American consumer as a result of this industrialization. It was around this time when color palettes developed, responding to the needs of advertising to reach a larger number of people.

In the twentieth century, color preferences changed but were still combined to create palettes that enhanced the strength of architecture. An example was Chicago's second World's Fair of 1933-34, *A Century of Progress*. Using the fair as a medium, Joseph Urban

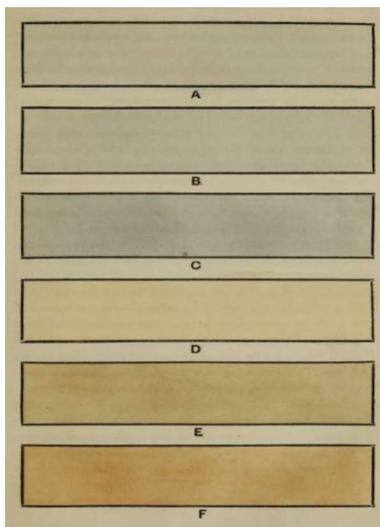


Fig. 2.2. Color specimens suggested by A. J. Downing for the exterior of cottages and villas.

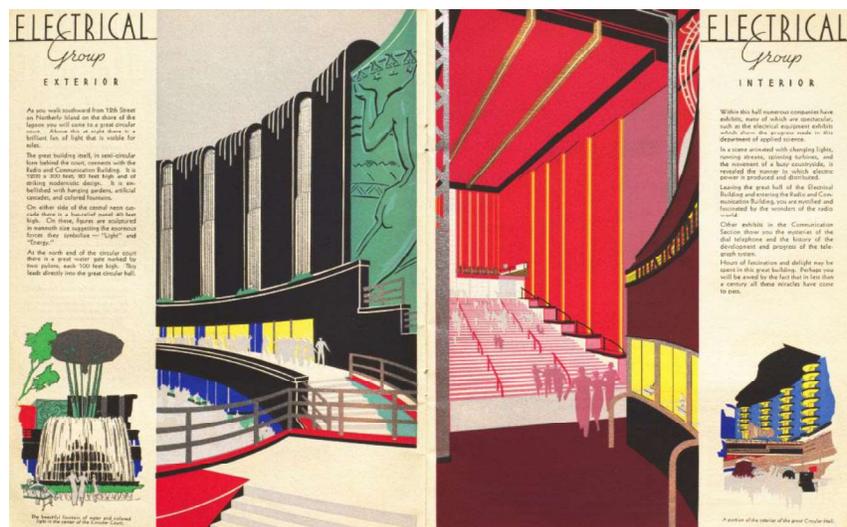


Fig. 2.3. A page from the booklet for the exposition “A Century of Progress,” showing Joseph Urban’s color scheme for the Electrical Group of buildings.

– an architect well known for his innovative use of colors – displayed colors for both home and industry; he used twenty-eight distinct colors to decorate the international exposition. Urban used diverse color schemes for the individual buildings at the fair, which when combined produced a panorama of color harmony for the viewer.¹⁰ The colors used in this palette were quite dynamic as can be seen from the scheme used for the Electrical Group buildings at the exposition (Fig. 2.3.). These were as different from the softer earth tones recommended by Downing as the difference between wooden Romantic Revival cottages and steel & glass exhibition buildings. Nevertheless, color palettes continue to be advertised to consumers as one of the most efficient means to generate dramatic visual effects for the exterior and interior of buildings.

In today's world when selecting paint colors for the home or work spaces, we are given a wide range of choices. Every paint company has created its own set of contemporary color palettes – which in many occasions may be very similar to one another – allowing a person to choose a shade that he or she likes. Fig.2.1. shows a fan-deck of colors from the palette produced by the Valspar paint company. More often than not, these palettes would provide suggestions on colors that apparently work well when combined together, and therefore take on the role of both codifying and documenting color preferences of any given time. This trend is reinforced almost every year when color palettes are updated; sometimes every season. The number of color choices that we have in these palettes today would appear infinite, and incredibly still growing. However, it was not always the case. Early paint color palettes comprised a lot fewer shades than today.

¹⁰ The American Asphalt Paint Company supplied the colorful paints and finishes for the second World's Fair, which was a two year event that took place in Lake Michigan lakefront during the depression years of 1933-34. Color schemes for this fair was in sharp contrast to the clean "White City" of Chicago's first World's Fair of 1893.

2.2. Use of Color Palettes in Advertisements

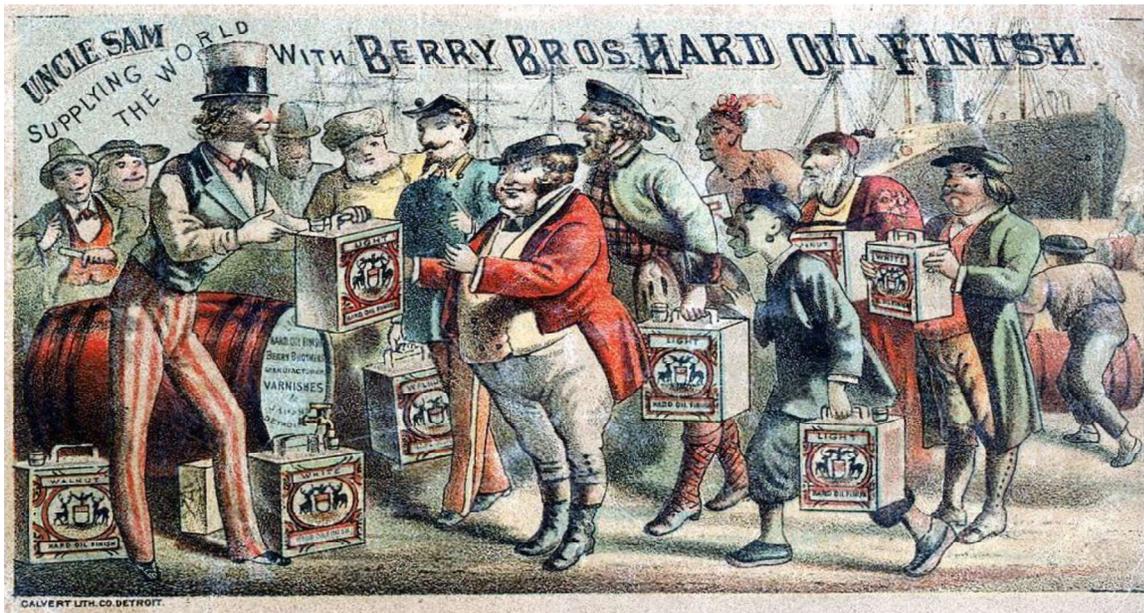


Fig. 2.4. An early chromolithograph showing “Uncle Sam Supplying the World with Berry Bros. Hard Oil Finish,” c. 1880.

Early Advertisement in the United States

In the early 1700s, advertising in the American colonies was done using trade cards, which were engraved either in wood or metal, with attractive illustrations displaying various products. Initially the trade cards only advertised luxury goods intended for the more *sophisticated and literate audience*.¹¹ But in the later part of the nineteenth century, right after the Civil War, the advertising media went through rapid development as a side effect of industrialization. The increasingly growing numbers and types of trades by burgeoning companies, in the last quarter of the nineteenth century, caused the market to quickly shift from being a sellers’ to a buyers’ one.¹² Consequently, the companies required a tool to

¹¹ Jay, Robert, *The Trade Card in Nineteenth-century America*, (Columbia: University of Missouri Press, 1987), 1-3.

¹² Laird, Pamela Walker, *Advertising Progress: American Business and the Rise of Consumer Marketing*, (Baltimore & London: The John Hopkins University Press, 1998), 31.

reach out to a greater number of people to be able to sell their products efficiently. This led to the growth in advertising media, with traveling salesmen in the field persuading people of the quality of the products, distributing promotional materials, exhibiting products at expositions, and featuring small advertisements in newspapers and periodicals.¹³

The introduction of chromolithography – multi-color printing – around the 1870s allowed for trade literature to feature, at very low cost, full-color illustrations that made products appear more attractive to buyers. An early example of a chromolithograph being used in the promotion of paint products can be seen in the advertisement card showing *Uncle Sam supplying the World with Berry Brothers "Hard Oil Finish,"* circa 1880 (Fig. 2.4.). These cards – typically 3" by 5" with illustration on one and text on the other side – could be found in stores, likely to have been stacked as postcards are today, where prospective clients could easily slip them in their pockets. The cards became very popular as souvenirs after the 1876 Centennial Exposition before being replaced with other forms of trade literature.¹⁴

Invention of the steam-engine and the growth of the railroad system, was an essential tool for the booming industries of the nation after the Civil War. Owing to the improvement in the transportation network, it was no longer difficult for manufacturers to market and sell products to consumers in far-away cities. Advancements were also made in paint preservation and storage techniques that helped to keep paint products fresh during and after transport. And with the simultaneous advancement in printing technology,

¹³ Baker, T. Lindsay, "Researching History through Trade Literature," *History News*, vol. 53, no. 1 (Winter, 1998), 25.

¹⁴ *Ibid*, 26.

advertising media developed rapidly in the form of handbills, broadsides, folders, postcards, posters, newspapers, magazines, trade cards, and the trade catalogues.¹⁵

Trade Catalogues

“The trade catalogue was arguably the most important advertising medium of the last century. Like the trade card, the trade catalogue got its start in colonial America, came into prominence during post-civil War business growth, became more complex in its design and appearance as the printing industry matured, and was commonly available at local general stores where orders would be placed.”

– Richard McKinstry, 1988.¹⁶

The trade catalogue, as an advertising medium was very successful because it reached a large group of people, a critical factor for companies that needed to sell large amounts of mass produced goods to make profit. In general trade catalogues, used by manufacturers and salesmen, were booklets that advertised specific products and often included detailed product descriptions, prices, and other technical information. From a variety of trade catalogues, the two principal types were those published by businesses to be *distributed at no cost to prospective patrons* who visited places where their products were displayed, and the kind that were *issued for the trade only* in hopes that the products of the advertising manufacturer would be selected over other competitors by retailers.¹⁷ With the

¹⁵ Baker, T. Lindsay, 26.

Handbills – small printed sheets designed to be distributed by hand or from counter tops in stores. Broadsides – skin to handbills, they are larger sheets of paper printed generally on one side. These were typically posted on walls for reading by the public. Folders – printed on one piece of paper, and designed to be folded for convenience in distribution.

¹⁶ McKinstry, E. Richard, in his review of Robert Jay’s *The Trade Card in Nineteenth-Century America*, Winterthur Portfolio, Vol. 23, No. 2/3 (Summer –Autumn, 1988), 196-197.

¹⁷ McKinstry, E. Richard, *Trade Catalogues at Winterthur: A Guide to the Literature of Merchandising, 1750 to 1980*, (New York & London: Garland Publishing Inc., 1984), xi-xii.

improvement in the methods of illustration and printing technology, the size and quality of the trade catalogs improved as well. These were often well-written in advocating for the products being advertised in the respective catalogues, adding to the credibility of these products.¹⁸

The nineteenth century trade catalogues remain important today to historians and researchers seeking information regarding manufacturers, trades, products, technologies used, and popular styles and social trends of earlier times. Its role as a historic record has been attested by many of the people who have created “historic color palettes” when they began their journey with information collected from early paint catalogues.

Paint Trade Brochures

Like any other goods in the market, early trade brochures for promoting paint and its accessories came in simple forms, e.g. handbills and thin booklets. It was the arrival of the “ready mixed” paints in 1867 that revolutionized the paint business in the United States.¹⁹ Advertising followed suit. Paint catalogues were published by the paint companies to promote their paint and became progressively elaborate in their design, content and illustrations.

One of the most important as well as interesting features of the paint catalogues by the 1850’s was the inclusion of actual paint samples in the form of color chips. These were basically pieces of paper that had been painted with the type of paint being advertised, in different colors, and mostly pasted onto the brochures. Within a decade they started to be

¹⁸ Romaine, Lawrence B., *A Guide to American Trade Catalogues, 1744-1900*, (New York: Dover, 1990), ix. As our methods of illustrations and printing developed, so they (the American trade catalogues) grew in size and quality. During the last half of the nineteenth century their copy was often written by outstanding authors and historians, and embellished with woodcuts and lithographs executed by the best artists and engravers.

¹⁹ American Coatings Association, “History of Paint” <http://www.paint.org/about-our-industry/history-of-paint/> “...in 1867, D.R. Averill of Ohio patented the first prepared or “ready mixed” paints in the United States.”

displayed in a fan-deck or encased as a pack of cards. The samples provided buyers with information on visual as well as tactile qualities of the available colors and types of finishes offered by a manufacturer. Originally colors chips would reflect the exact appearance of the paint finish that would be achieved if applied on wall and other surfaces. However, many brochures became soiled with time, and oil paint samples yellowed. Thus the veracity of these early color cards as a modern research tool may be doubtful.

Although color chips were prominent features of catalogs starting from the 1870s, the exact date of the first publication containing color samples is difficult to determine. The earliest example of color samples that was found during the research was from around 1870 by the F. W. Devoe & Company, displayed inside a small folder (Fig. 2.5).²⁰ It is however not clear if the paint companies themselves supplied the color chips with their brochures. In fact, there were companies that manufactured “Color Cards.” One was the *LaClede Mfg. Co.* of Buffalo, N.Y.²¹ Figures 2.6. and 2.7. show some examples of LaClede Manufacturing Company’s advertisements in the journal *Paint, Oil & Drug Review* from 1905 and 1922 respectively.



Fig. 2.5. Color samples of *Homestead Colors*, manufactured for Merrill Brothers in Boston by F. W. Devoe & Co., c.1870.

²⁰ F. W. Devoe & Company, “Homestead Colors,” 1869. (Source: Avery Classics Collection of Architectural Paint Catalogues, accessed November 2016 through January 2017).

²¹ The LaClede Mfg. Co. was acknowledged as the color card makers at the bottom of a brochure for “Carmote Floor Enamel” by the *Carpenter-Morton Co.*, 1920. (Source: Avery Classics Collection of Architectural Paint Catalogues, accessed March 24, 2017).

The LaCledé Mfg. Co., color card makers of Buffalo, N. Y., have purchased the color card and advertising departments, including the printing plant, of the McLennan Paint Co. This plant will be added to their already large plant for turning out high-class color card work. They will add 5,000 feet more floor space to their plant, which will give them one of the largest and most complete equipped up-to-date color card, lithographing and printing plants in the country.

Fig. 2.6. Announcement of the LaCledé Mfg. Co., “color card makers” of Buffalo, N.Y. taking over the color card and advertising departments as well as the printing plant of the McLennan Paint Co., *Paint, Oil & Drug Review*, 1905.

We Are Manufacturers of

COLOR CARDS

Backed by 20 Years' Experience

The LaCledé Manufacturing Company
 1453 Niagara Street, BUFFALO, N. Y. BRIDGEBURGH, ONT., CANADA

Fig. 2.7. Advertisement by the LaCledé Manufacturing Company, promoting itself as the manufacturer of “Color Cards” with 20 years’ experience, in the *Paint, Oil & Drug Review*, 1922.

Design & Development of Paint Catalogues

The earliest paint brochures starting from the 1870s were usually rectangular in shape, approximately 4” by 10” maximum in measurement, and often could be unfolded to display an array of color chips from the respective manufacturer. Companies would choose to exhibit few selective colors in the brochures and remind viewers that these were only few of the shades from their collection, and they could produce *any desired shade of color upon request*, provided the order would be placed with respective dealers.²²

Advertisements from this decade were kept relatively simple – usually a monochromatic cover with little text and color chips inside. For example, the brochure from c.1876 for *House-Keepers' Paints*, by the Averill Paint Company – boasted on its cover of providing paints “mixed ready for use” at the Centennial Exhibition. Twenty samples were pasted

²² - Averill Chemical Paint Co., c.1873

The samples herewith shown are but a few of the tints we make, and is the PAINT ITSELF, taken from tanks from which our customers are daily supplied.

- George D. Wetherill Co., “Atlas Ready Mixed Paints,” c. 1900.
 Any Shade not on this Card will be made to Order.

inside with colors visibly arranged in light and bright groups (Fig. 2.9). Similarly, the small color sample card by the Alabastine Co., c.1880, shown in Fig. 2.8., contained description about the paint and a few color chips inside. These brochures evolved and like the one by Allentown Manufacturing Co., c.1888, provided special advice to consumers for selecting “appropriate” colors to paint houses while ensuring the right combination to emphasize architectural features of the houses (Fig. 2.11). This brochure had fifty-two color chips inside that advertised the colors to be “economical, beautiful and durable” (Fig. 2.10).²³

As printing technology improved, and paint advertising advanced into a more competitive era – companies began to develop innovative ways to display color chips, sometimes accompanied by colorful illustrations of interior and exterior surfaces of buildings.



Fig. 2.8. Paint brochure from the Alabastine Company, c.1880, selling *The Only Durable Wall Finish* that was apparently the best, cheapest, and most easily applied. On the inside are the color chips with some description about the paint.

²³ Avery Classics Collection of Architectural Paint Catalogues, accessed November 2016 through January, 2017.



Fig. 2.9. *House-Keeper's Paints* by the Averill Paint Co., c.1876. This was a simple color sample card that could be folded so that the color chips would be kept inside.

Companies started experimenting with the ways color samples were displayed in brochures. For instance, the Eagle Paint & Varnish Works and the George D. Wetherill and Co., in their catalogues c.1890s, arranged the color chips in groups of four, forming small polychrome squares pasted in the booklets (Figures 2.12. & 2.13.). Other companies like Longman & Martinez chose to change the shape of their color chips to make them appear different and thus, more distinctive (Fig. 2.14).

By 1900s, a new means of advertisement was adopted by manufacturers – sending postcards or paint brochures to prospective clients and people who had subscribed them through mail-order. The postcards frequently depicted finely painted colorful exterior of houses or beautifully finished interior spaces, like the one shown in Fig. 2.15. from 1912 by the Alabastine Company. The brochures themselves were also designed for mailing, measuring approximately 4" x 9", and had spaces for the postage stamp and address. These could be unfolded to reveal news on latest products and color samples, highlighted occasionally with promotional offers like the one by The Patterson-Sargent Company from

SELECTION OF SHADES.

The introduction of Ready-Mixed Paints manufactured in a variety of well-selected shades, has resulted in marked improvement in the art of displaying the most beautiful and harmonious effects in painting. The property holder with the aid of the architect or painter should study such combinations as will harmonize with the style of architecture and the surroundings of the building to be painted. Some manufacturers have attempted to aid in the selection of shades, by furnishing colored plates of buildings. These have proven to be of no material help, since buildings vary so much in style and design. A good showing on colored plates may prove a great disappointment when displayed on buildings. The best plan to adopt in making selections, is to first definitely decide on the **BODY COLOR**, then, when decided on that, exercise the best taste in selecting for the trimmings such shades as will harmonize with it either by sympathy or contrast. Of three shades selected be devoid of harmony. Hence the necessity of beginning with the body color and then selecting for the trimmings such shades as the body color may require. On this plan of selection a person may not always display the very best taste, yet he would have to be very deficient not to make a desirable combination. It is poor taste to display too many shades. As a rule two or three shades, according to style of architecture, will produce the most pleasing effect. In using two trimming shades always use the darker for the cornice and heavy wood work and fill in with the lighter.



Fig. 2.10. Paint Brochure with fifty-two color samples for *Brienig's Ready Mixed Paints* by Allentown Manufacturing Co., 1888.

Fig. 2.11. Advice to buyers on selecting appropriate shades for painting their houses, Allentown Manufacturing Co., 1888.



Fig. 2.12. *Eagle Elastic Prepared Paints, Mixed Ready for Use*, by the Eagle Elastic Paint & Varnish Works, c.1890. Here the color chips have been arranged in groups of four.

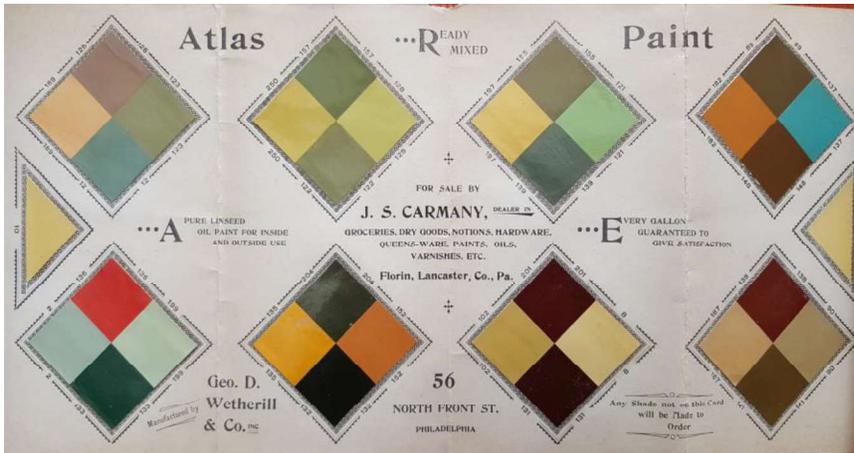


Fig. 2.13. *Atlas Ready Mixed Paints* by George D. Wetherill Co., c.1890. The color chips here are also arranged in groups of four but pasted in a slightly different angle.



Fig. 2.14. In the new Color List for the Longman & Martinez *Pure Paints*, c.1891, an innovative shape for color chips have been used. This was a method to attract customers' attention to something different than regular rectangular color samples.

1931 – giving away free sample cans to *enable consumers to try the products in their homes at no expense of their own.*

Manufacturers were providing the consumers with a choice of colors, suitable for painting their houses – both interior and exterior. As the range of colors increased and paint formulations became more uniform, some companies also advertised the type and quality of paints they were manufacturing – ready-mixed, linseed oil based, elastic prepared paints, fast drying, durable, economical, and so on.



Fig. 2.15. A postcard (dated August 28, 1912, addressed to Mr. John Thomas) by the Alabastine Company showing *An Attractive Alabastined Interior*, with a box of Alabastine paint at the lower right corner.

The content of these brochures included color advice, these booklets were no longer meant for the tradesmen only, and were primarily directed to the consumers. By including information and directions on how to mix and apply paint, it would suggest that they were assuming that some consumers, along with painters, were applying the paint as well.

In the following years, paint brochures transformed dramatically. From one or two pages long with a handful of illustrations and color chips, these became large dynamic colorful books with extensive color palettes and multiple illustrations, reinforced with more elaborate descriptions and specifications to create the latest designs in home decoration.

Color Palettes in Paint Brochures

Near the end of the nineteenth century, manufacturers began to add guidelines for color combinations in the paint brochures. For example, a notice was issued on a sample card (circa. 1890s) from the George D. Wetherill Co. in Philadelphia, addressed to “Paint Consumers,” which said –

“This sample card shows forty eight different shades of Atlas Ready Mixed Paint, but gives no idea of the combinations in which they should be used to secure the best effects. For this purpose, we have at great expense, issued a series of Artistic designs, consisting of a number of handsomely colored engravings, showing the latest and most effective styles of modern house painting...”²⁴

²⁴ George D. Wetherill Company, “Atlas Ready Mixed Paint,” circa late 1890s. This paint brochure is in the trade catalogues collection of Jablonski Building Conservation (New York); accessed on March 23, 2017.

SUGGESTIONS FOR TRIMMING COLORS AND BLIND COLORS			
ALSO SUGGESTIONS FOR SPECIAL USES			
<p>Bay State (Pure Linseed Oil) Liquid Paints are all put up by number and by name. The color number is the upper number stamped on the top of can, the lower number being the manufacturing number. After this date the strip on label of can will bear the number and name of the color contained.</p>			
BAY STATE LIQUID PAINTS	TRIMMINGS	BLINDS	SPECIAL USES
NEW NO. OLD NO.			
301 Light Drab..... 1	519, 515, 323, 385	As trim'gs, 530, 533, 534	
302 Quaker Drab, Lt..... 2	515, 528	" 530, 533, 534	
305 Iron Brown..... 5			
307 Pearl..... 7	515, 519, 528, 465	As trim'gs, 530, 533, 534	
308 Cream..... 8	528, 515, 310	As trim'gs, 530, 533, 534	
310 Pompeian Red..... 10	323, 515, 530, 528	As trim'gs, 530, 360, 534	
312 Flesh Tint..... 12	515, 528, 317	" 530, 305, 534	
313 French Gray..... 13	519, 515, 465, 528	" 530, 534	
316 Apple Green..... 16	515, 528, 394, 385	" 530, 394, 534	
317 Terra Cotta..... 17	323, 515, 305	" 530, 534	
318 Vandyke Drab..... 18	515, 323, 528	" 530, 534	
323 Yellow Buff..... 23	515, 528, 522	" 530, 305, 533	
325 Light Canary..... 25	528, 515	" 530, 534	
328 Warm Buff..... 28	515, 528	" 530, 534	
331 Emerald Green..... 31			
360 Olive Green..... 60	515	530	
362 French Yellow..... 62	515, 528, 305	As trim'gs, 530, 534	
365 Oxide Red..... 65	515, 323, 360, 530	" 534	
384 Gray Stone..... 84	519, 515, 528	" 530, 534	
385 Pure Drab..... 85	519, 515	" 530, 534	
386 Lilac..... 86	515, 528, 317	As trim'gs, 530, 534	
388 Freestone..... 88	323, 515, 528	As trim'gs, 530, 534	
389 Yellow Drab..... 89	519, 515, 528, 385	" 530, 534	
390 Cold Gray..... 90	515, 323, 528, 316	" 530, 534	
391 Bluish Gray..... 91	519, 515, 528	" 530, 534	
392 Warm Drab..... 92	515, 519, 318	As trim'gs, 530, 534	
393 Greenish Gray..... 93	515, 323, 528	As trim'gs, 530, 534	
394 Olive Drab..... 94	323, 409, 515, 316	As trim'gs, 530, 534	
396 Lt. Olive..... 96	515, 316, 528	As trim'gs, 530, 534	
397 Cherry Color..... 97	515, 528	" 530, 534	
398 Maple Green..... 98	515, 528, 323	As trim'gs, 530, 534	
407 Deep Buff..... 107	515, 528	As trim'gs, 530, 534	
409 Yellow Stone..... 109	515, 323, 528	" 530, 305	
439 Warm Gray..... 139	515, 519, 385	" 530, 534	
465 Pure Gray..... 165	519, 515, 528, 313	" 530, 534	
515 Colonial Ivory..... 215	528, 409	" 530, 535	
517 Greenish Yellow..... 217	528, 515, 394	As trim'gs, 530, 396, 534	
518 Lt. Lavender..... 218	515, 528	As trim'gs, 530, 534	
519 Lt. Gray..... 219	515, 528, 439	As trim'gs, 530, 534	
590 New Green..... 220	528	As trim'gs, 530, 534	
521 Salmon..... 221	515, 528	As trim'gs, 530, 534	
522 Colonial Brown..... 222	323, 515	As trim'gs, 530, 534, 305	
524 Light Blue..... 224			
525 Dark Blue..... 225			
526 Vermilion..... 226			
527 Inside White..... 227			
528 Outside White..... 228	528	As trim'gs, 31, 530, 398, 533, 534	
529 Black..... 229			
530 Golden Star Green..... 230	515, 323, 528	As trim'gs, 530, 534	
531 Flat White..... 231			
532 Inside Gloss White..... 232			
533 Leaf Green..... 233	515, 528	As trim'gs, 530, 534	
534 Moss Green..... 234	515, 528	As trim'gs, 530, 534	
535 Oak Brown..... 235	515, 528	" 534, 530	

To avoid confusion with other paint numbers, Bay State Liquid Paints are renumbered by adding 300 to old numbers.

Fig. 2.16. A part of the brochure promoting *Pure Linseed Oil Paints*, section titled "Suggestions for Trimming Colors and Blind Colors – also Suggestions for Special Uses" by the Wadsworth, Howland & Co. Inc. c.1900.

The issue of color combination was also promoted by the Wadsworth, Howland & Co. Inc. in 1900. In the brochure advertising *Pure Linseed Oil Liquid Paints*, a section titled "Suggestions for Trimming Colors and Blind Colors; Also Suggestion for Special Uses" was published. The manufacturers provided a list of the "Bay State Liquid Paints" – which were *for buildings, inside and outside* – and provided designated "numbers" for the colors that a consumer could use to paint trims and blinds in concert with the primary body color of the house (Fig. 2.16.).

Manufacturers wanted the consumer as well as the painter to be able to use their paint products to achieve the "latest styles" in house decoration. Therefore, the paint brochure

started playing a significant role in an attempt to increase the popularity of certain color combinations among home owners in the early twentieth century. “Color palettes” were important to the manufacturer, painter and consumer.

Catalogues over time became more sophisticated with illustrations of elaborately designed interior spaces in various color schemes. These pictures assisted home owners in making decisions that would keep them updated with the latest color trends in society. The Alabastine Company was among the earliest manufacturers to publish multiple colored illustrations of interior spaces; as presented in its brochure, from as early as 1910, championing the *Color Age* promoting *Water Color for Walls*, c.1917 (Fig. 2.18.).²⁵ The company’s interest in promoting decoration using color combinations and design patterns for surface finishes is manifest in many of its catalogues starting in the 1910’s and extending through the 1920’s with *The Alabastine Book, Artistic Home Decoration, Color in Home Decoration, Alabastine Wall Decoration*, and the *Alabastine Home Color Book*, from the 1920s. These books were filled with numerous colorful graphics of interior spaces of residences and sometimes of public buildings like restaurants and churches, and also had elaborate color plans for consumers to choose from (Fig. 2.18.). The company was determined to attract consumers and provide them with design options from its collections. It published special crafted brochures such as *The Water Color for Walls* that allowed consumers to insert color cards of specific schemes into the cover picture (Fig. 2.19.).

²⁵ Alabastine Company, “Alabastine Water Color for Walls” (Grand Rapids, Michigan: Alabastine Company, 1910).

The twenty beautiful pastel tints enable proper selection of color to harmonize with rugs and furnishings for every room in the home, and the walls are easily kept beautiful, clean and sanitary.

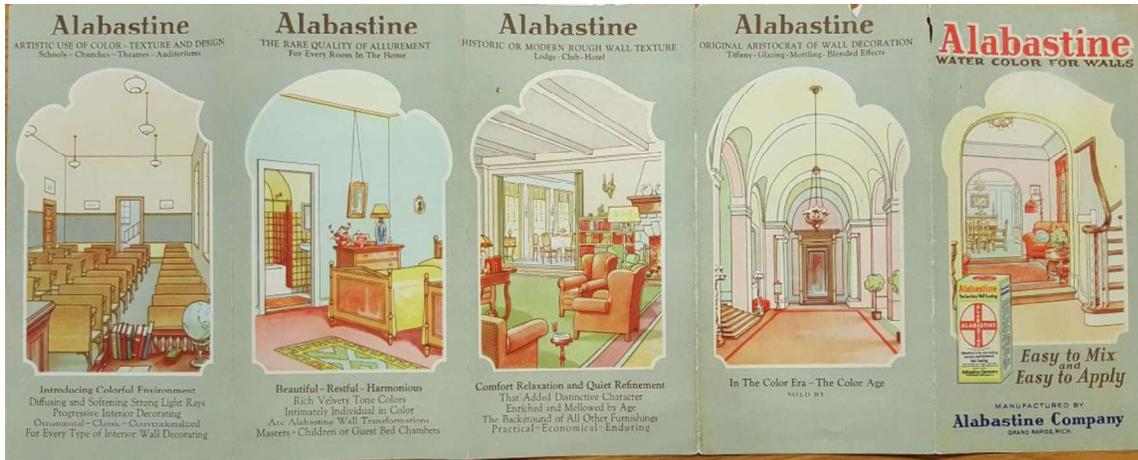


Fig. 2.17. *Alabastine Water Color for Walls*, depicting five colorful illustrations of interior spaces for both residential and public buildings, painted in colors that Alabastine Company was promoting in c.1917.

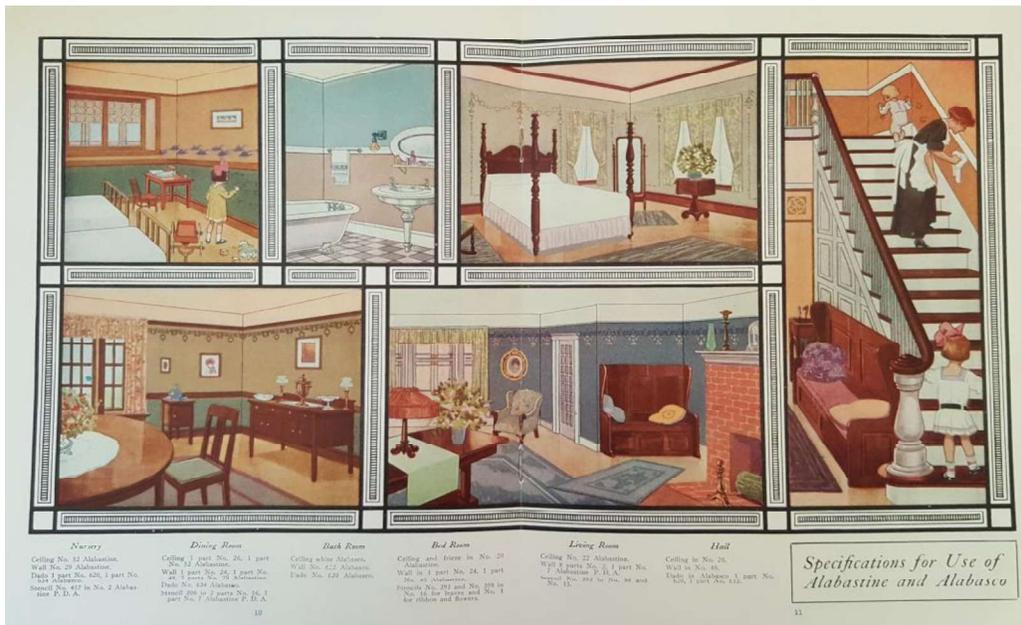


Fig. 2.18. (above) Two pages from *The Alabastine Book* – illustrations of major interior spaces of a house, painted in the various color schemes that the Alabastine Company was offering at the time, c.1910's - 1920's.

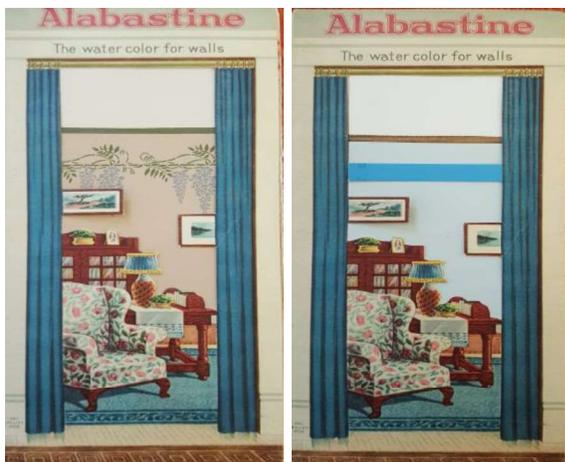


Fig. 2.19. The Alabastine Company brought out specially crafted brochures in which different samples of color schemes & patterns could be inserted; e.g. the two images in this figure are of the same living space, only with two separate color cards inserted behind, c.1917.

Other paint manufacturers like the National Lead Co., John W. Masury & Son, Sherwin-Williams Co., and Benjamin Moore followed these trends. With iconic images of spaces – that are occupied and used by people – painted in colors from the companies’ contemporary collections in addition to color samples and advice from popular interior decorators, these brochures were designed to make painters and consumers comfortable selecting their product.²⁶

Color Harmony: Practical Help in the Selection of Colors for House Painting, Exterior and Interior is an early example of a paint catalogue from 1915, published by the National Lead Company, which focused on helping consumers in choosing colors for their homes. This continued as can be seen with the *Color Scheming with the Dutch Boy Paints* around the 1950s. The Berry Brothers worked with color harmony theories to produce graphics including “scientific” spin-wheels, from 1933, for people to select colors based on their “feelings” (Fig. 2.20.). The Pittsburgh Plate Glass Company published a whole section titled “Color Authority” in its book on color psychology based on gender, age, and even influences of civilizations.^{27 28}



Fig. 2.20. *Berry Crafters’ Scientific Color Chart* was published to provide a fun way for consumers to select colors by reflecting on what they would like to feel in specific spaces in the house. Berry Brothers, 1933.

²⁶ McKinstry, 251-254.

²⁷ Berry Brothers, “Berrycrafters Scientific Color Chart” (Detroit, Michigan: Berry Brothers, 1933). The remarkable chart shows the powerful influence which colors have in our daily lives.

²⁸ Pittsburgh Plate Glass Co., *The Master Painter’s Partner*, Section VII, (1947), 1-14.

This emphasis on color and its effects on the daily lives of people inhabiting spaces painted in certain colors undoubtedly tell the story of manufacturers selling “color” more than “paint.” Manufacturers began playing to a new interest in psychology involving the use of colors. The emphasis on color evolved in the late 1920s and 1930s, as the paint formulations became more complex. Rather than sell complex paint formulas, companies sold color.

Paint catalogues’ emphasis on colors were publicized by all the major paint manufacturing companies. *The Joy of Color* by Sherwin-Williams, c.1931, promoted a variety of colors that the company offered for finishes ranging from exterior walls to interior furnishings. It became known as *Sherwin Williams Home Decorator* in later years. Pittsburgh Plate Glass Company started with a simple book titled *How to Work Wonders with Color in your Home* (1934), which in the following years became a larger and more complex book titled the *Color Dynamics*, and emphasized on color psychology.²⁹

The titles, colorful cover pages, and content of these brochures from the paint companies convey the same message – that of the importance of selecting the “right color scheme” for the “right space” to make the “right statement.” Paint brochures no longer focused on the type of paint product being advertised; they did not describe the materials in the paint, the gloss level or even the texture of the finish. They sold to consumers the “right color” for maintaining contemporary style and status in society. Therefore, during the late 1930s and through the 40s, the focus was all on the color.

²⁹ Avery Classics Collection of Architectural Paint Catalogues.



Fig. 2.21. *The Joy of Color* by Sherwin-Williams Co., 1931. In this illustration, from right: the cover page depicting a woman tending to her garden in front of her house painted in latest color scheme, a similar story is shown in the middle image, while last image emphasizes the ability of colors to add luster even to the kitchen and bathrooms that usually remain “behind the scenes”.

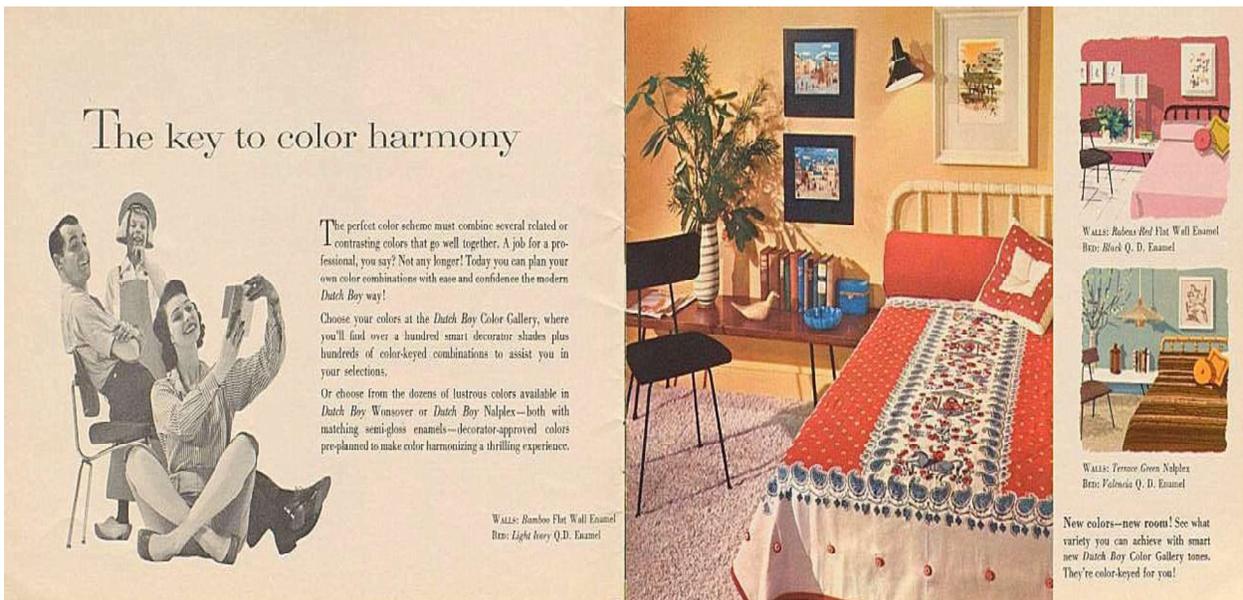


Fig. 2.22. A section from the paint catalogue from the National Lead Co., *Color Scheming with Dutch Boy Paints*, 1957. The book is all about teaching consumers how to choose the right colors from the numerous Dutch Boy collections, and create the perfect color schemes to maintain harmony in the house.



Fig. 2.23. One of the many ways that manufacturers tried to instill specific color schemes into the mind of their consumers – with illustrations of houses, in different colors, and specifying the colors to be used for the roof, shutters, trim and sash according to the body color of the house – all this to ensure an attractive color scheme for the house. *Color Harmony in the Home*, Lowe Brothers Co., 1928.

With the advancement in the printing industry, color chips were slowly displaced, and paint colors were now simply printed onto brochures, sometimes in ways that imitate the type of finish they are meant to produce. It was not only architectural paint catalogues that promoted color schemes and products from various companies; architectural journals specializing on home décor are also known to have provided readers and home owners with suggestions for painting their houses.

The 1930s trend and interest in colors was expanded by the Colonial Williamsburg (CW) Restoration Project, which introduced a palette in 1936 to promote eighteenth-century paint colors to the public. The focus of this palette was completely on “color” (with complementary and contrasting shades) and not the “type of paints” being used. Historic colors became of interest as interest in historic preservation grew. This can be seen in house

magazines such as *The Old-House Journal* that was first published in 1973, and can still be found to advice people on the subject of restoring old houses.³⁰ These articles talk mainly about appropriate “period colors” and not about the type of paint suitable for old historic houses. This interest in specific groups of colors soon carried into “historic color palettes.”

³⁰ Yarrow, Andrew L., “The Old-House Journal Comes of Age,” *The New York Times*, February 5 1987.

Chapter 3: The Color Palette of Colonial Williamsburg

This survey of early and current “historic color palettes” demonstrates that one of the most popular periods to be emulated is the Colonial era. The Colonial Williamsburg (CW) Collection is one such palette that has been produced commercially since 1936. Interestingly, the CW palette has changed considerably through the years that it has been in existence.

3.1. Colonial Williamsburg Restoration Project

In April 1928, with financial support from John D. Rockefeller Jr., and at the initiative of Reverend W. A. Goodwin, the local Episcopal minister, a large scale restoration project for the town of Williamsburg – the colonial capital of Virginia – was initiated.³¹ From its inception, special attention was given to ensure that restorations carried out on site stayed true to the original appearance of the houses from the Colonial period. Recreating the original paint colors for these structures became an important aspect of the project. Williamsburg was one of the earliest areas where color research of historic buildings was undertaken on such a large scale, and it is believed to have set precedent for modern day architectural paint research and the subsequent “historic color palette” that it produced. Although literature on the restoration project is well-published, it required archival research at the CW Archives to find materials relating specifically to the earliest commercial production of colors that were uncovered in the historic area during the

³¹ Pappas, Nicholas A. and Thomas H. Taylor, “Colonial Williamsburg Colors – A Changing Spectrum,” in *Paint in America: The Color of Historic Buildings* (Washington: Preservation Press, National Trust for Historic Preservation, 1994), 87-88.

restoration. Examining correspondence between the Colonial Williamsburg Foundation (CWF) and the paint manufacturing companies helped to identify the people who selected colors forming the CW palette and the processes that they followed. Additionally, talking to a current paint analyst working with CWF shed light on how the commercial palette has developed over the years.³²

COLONIAL WILLIAMSBURG LICENSED MANUFACTURERS <i>(with date licensed)</i>	
Wedgwood (1930) <i>dinnerware, ceramics</i>	Le Jacquard Francais (1983) <i>woven linens</i>
Kittinger (1936) <i>furniture</i>	Focal Point (1983) <i>moldings</i>
Friedman (1938) <i>mirrors</i>	Highland House (1983) <i>prints</i>
Katzenbach & Warren (1938) <i>wallpaper</i>	Mersky Etchings (1983) <i>etchings</i>
Kirk Stieff (1940) <i>silver, silverplate, pewter</i>	Hedgerow House (1983) <i>prints</i>
Schumacher (1941) <i>fabric</i>	New York Graphic (1983) <i>prints and posters</i>
Dietz Press (1944) <i>prints</i>	Kedron (1983) <i>notecards, prints, posters</i>
Charles Overly (1947) <i>notecards</i>	Crummles (1983) <i>enameled boxes</i>
Virginia Metalcrafters (1949) <i>brass, iron, locks, lighting fixtures, fireplace equipment, wooden accessories</i>	Added Touch (1983) <i>beverage mixes</i>
Williamsburg Pottery (1952) <i>pottery</i>	Thos. Woodard (1983) <i>woven rugs</i>
Foreign Advisory (1958) <i>crystal, delft</i>	Cooperman Fife & Drum (1983) <i>musical instruments, toys</i>
Lackawanna (1965) <i>leather</i>	W. E. Richards (1983) <i>jewelry</i>
Martin Senour (1965) <i>paints</i>	GMG Publishing (1983) <i>address books, notecards</i>
Bates Fabrics (1972) <i>bedspreads</i>	Stevens Linen (1984) <i>screen-printed linens</i>
Johnson Creative Arts (1978) <i>needlework</i>	American Traditional (1984) <i>stencils</i>
Pimpernel (1979) <i>placemats</i>	V. B. I. (1984) <i>toys, ornaments</i>
Plaid (1979) <i>miniatures</i>	Eldred Wheeler (1984) <i>furniture</i>
Karastan (1981) <i>rugs</i>	Fieldcrest (1984) <i>coverlets</i>
Navy Arms (1981) <i>swords</i>	Mottahedeh (1985) <i>ceramics</i>
Wooden Products of Virginia (1982) <i>toys</i>	Universe (1985) <i>calendars, gift books</i>
Winslow Papers (1982) <i>notecards</i>	Rowe Pottery (1985) <i>pottery</i>
J. J. Kormann (1982) <i>picture framing</i>	C. R. Gibson (1987) <i>stationery, paper products</i>
Reed & Barton (1982) <i>ornaments</i>	Morgan Products (1987) <i>doors, mantels</i>
Craftmark (1982) <i>miniatures</i>	New Englander (1987) <i>dried flowers</i>

Fig. 3.1. A list published in the *Colonial Williamsburg Journal* of Spring 1988, displaying the names of licensed manufacturers and their corresponding products among which Martin-Senour has been listed as the manufacturer of paints, noted to be licensed in 1965.

³² *Kirsten Travers Moffitt* – Conservator & Material Analyst at the Conservation Department of the Colonial Williamsburg Foundation – was involved in creating Benjamin Moore’s latest Williamsburg Color Collection. According to Moffitt, the palette was based mainly on in-depth evidence-based analysis of surviving paint on the historic buildings in Williamsburg.

The Colonial Williamsburg Reproductions Program

“...to further the educational program of Williamsburg by creating outposts of restored Williamsburg in distant cities where those unable to visit Williamsburg may see something of its spirit of gracious living.”³³

– Mary Miley Theobald, 1988.

The Colonial Williamsburg Reproductions Program was a platform that allowed CWF to connect and understand visitor’s interests while communicating its own ideologies to them. The need for such a program first arose during a meeting about the refurnishing of the Raleigh Tavern, in February 1930, where responsible personnel were discussing the problem of acquiring the right quantities of accurate antique furnishings and silverware that were unavailable in the marketplace. It was determined that reproductions had to be made to fill the need. It was then that John D. Rockefeller, Jr. emphasized the educational intent of the Colonial Williamsburg Restoration Project; he insisted that not only furniture and fabric but every object, which implied a connection to the colonial times of Williamsburg, should be an accurate representation of the original. No compromises in accuracy were to be allowed because of the primary aim of the whole project – which was to disseminate knowledge about life in the historic area during the Colonial period. Mr. Rockefeller also believed that selling reproductions to visitors would be a good way to farther the educational goals of Colonial Williamsburg. This essentially led to the formation of the CW Reproductions Program in c.1936. It was further propelled by the public interest in antiques and decorating materials including paint colors from the eighteenth century

³³ Mary Miley Theobald, “Colonial Williamsburg’s Reproduction Program,” *Colonial Williamsburg – The Journal of the Colonial Williamsburg Foundation* (Spring 1988): 10

that people saw at the restored buildings.^{34 35} Consequently a list of products including silverware, china, glass, fabric, prints, furniture and paints was made that were to be manufactured and available for sale to visitors at CW. A shop called the “Craft House” was opened in 1936 for that purpose. It was a place where visitors could examine and purchase new reproduction items as well as original antiques (that were no longer suitable for exhibition at the buildings). The Reproductions Program and the Craft House were run by the Williamsburg Craftsmen Inc. (WCI).

Colonial Williamsburg was determined to preserve the authenticity of its reproduction products, and hence, were very concerned with selecting the companies and retail stores best suitable for the manufacture and promotion of CW products. In July 1936, a North Carolina furniture manufacturer, Tomlinson of High Point began a franchising and marketing concept called the *Williamsburg Galleries*, which in reality had no connection to CW. As it gained popularity in stores and among consumers, CWF created the WCI in order to put an end to such forms of duplicity.³⁶ WCI was the only administrative body that could authorize manufacturers to create reproductions of objects owned by CW. It was also responsible for *the development of the Program with licensed manufacturers and designated retail distributors to market the reproductions on a national scale.*³⁷

Paint was one of the earliest products to be added to the list of merchandise sold at the craft shop and other authorized stores throughout the country. Evidence of this is found in

³⁴ Theobald, 7-8.

³⁵ Pappas and Taylor, 88.

³⁶ Charles Alan Watkins, “The Tea Table’s Tale: Authenticity and Colonial Williamsburg’s Early Furniture Reproduction Program,” *West 86th – A Journal of Decorative Arts, Design History, and Material Culture* (Fall-Winter 2014): 161.

³⁷ Theobald, 10.

the early correspondence between Williamsburg Craftsmen Inc. and the John W. Masury & Son, dated 1936.³⁸

3.2. Development of the Colonial Williamsburg Color Palette

The use of eighteenth-century paint colors was one of the major attractions for tourists who began to visit Williamsburg in increasingly large numbers soon after the project began. Many of the visitors asked for samples of the paints used in the restoration works.³⁹ This was perhaps the earliest indicator of a growing public interest in historical colors that facilitated the creation of a “historic” or “period” color palette. Commercial production and advertising of these “period” colors began shortly afterwards, and is a trend that still continues through the present time.

Understandably, many paint companies were interested in being associated with CW. However, the approach taken by the WCI in ensuring quality and integrity of all its products at the beginning of the Reproductions Program made the process of selecting manufacturers quite intense. The head of the corporation at the time, Frank W. Darling,⁴⁰ observed prospective manufacturers and stores to determine their commitment to the driving slogan of the CW Reproductions Program – *“the primary purpose is to spread the*

³⁸ Accessed from the General Correspondence Records at the Colonial Williamsburg Foundation John D. Rockefeller Jr. Library Corporate Archive Collection, in Virginia.

³⁹ Pappas and Taylor, 88.

⁴⁰ Charles Alan Watkins, 161.

Frank W. Darling was, quite possibly, the most unusual man who ever worked for CW; he had earlier been president of the L. A. Thompson Scenic Railway Company, which sold and installed roller coasters, and he had served three terms as president of the National Amusement Association, an organization he had helped to found. More recently, Darling had served as director for a huge model recreational facility, Playland, owned by the Westchester, New York, and county parks commission at Rye Beach, New York. When Darling became embroiled in political infighting at Playland, he resigned and began a relationship with the Rockefeller organization, doing part-time work superintending the construction of amusement facilities and guest accommodations for Rockefeller Center’s Rainbow Room. Having succeeded at this task, Darling was dispatched to Williamsburg to oversee guide services and entertainment for the Restoration. When the issue of the reproduction program emerged, Darling, with his extensive business background, must have seemed an ideal candidate to manage the program.

good word, and the making of profits is to be incidental” – which was a focus on education instead of profit from the sale of reproduced merchandise.⁴¹

“In countless memoranda and letters from the 1930s to the present, the goals and purposes of the Reproductions Program are set forth. The emphasis never wavers. The priority is always the educational value. In 52 years never has a product developed in the Reproductions Program lacked educational merit, yet many have been developed with full knowledge that sales and profits would be negligible.”

– Mary M. Theobald, 1988.⁴²

John W. Masury & Son became the first licensee to manufacture paints for the CW Reproductions Program, in 1936.⁴³

Since then, a number of paint companies – Pittsburgh Plate Glass Co., Martin-Senour Paints, Pratt & Lambert, and Benjamin Moore – have been involved with the program, and the CW color palette has changed in conjunction with them. Nevertheless, the restoration project at Williamsburg continues to be a prominent resource to the field of architectural paint research and in recreating the original appearances of buildings, both interior and exterior.

⁴¹ Theobald, 10.

⁴² Theobald, 7.

Mary M. Theobald was a former products manager at Colonial Williamsburg.

⁴³ Williamsburg, Virginia, Colonial Williamsburg Foundation: John D. Rockefeller Jr. Library: Corporate Archives Collection, General Correspondence Records, Crafts – Manufacturers – Masury John W. & Son (1936-41), John V. Duncan to Anson B. Gardner, July 2, 1936.

Paint Research at Colonial Williamsburg

Every time a paint research project was carried out at Williamsburg, the findings were reflected in later color restoration efforts of the houses, and corresponding colors would be updated in the CW color palette and documentation. Paint analysts in America today are in general agreement that the preliminary groundwork for paint research was certainly established by Susan Higginson Nash – colonial Williamsburg’s first paint researcher.

Perry, Shaw and Hepburn, the Boston based architectural firm that was selected to be the principal architect for the Williamsburg restoration project hired Susan Nash to design and furnish the interiors of Williamsburg houses beginning in 1929.⁴⁴

Nash was an interior designer with knowledge of early American and English furniture; she had restored two houses in New England prior to her work at Colonial Williamsburg.⁴⁵ On one of her very first site visits, Nash noted the presence of original colors in the houses, and began locating and documenting these using watercolors creating color samples for CW use. Although having the advantage of being easy-to-mix and fast drying, watercolor did not work well with the frequent handling they received. They were easily damaged when in contact with water, and faded over time, facts that Nash quickly acknowledged, and accordingly decided to match colors, on her later visits in 1930, with the help of a colorist, Nels Ehrenborg (from the Boston paint contracting firm, Edward K. Perry and Company) who used alkyd paints.⁴⁶

Nash began what is believed to be the first systematic paint study effort in the United

⁴⁴ Pappas and Taylor, 89.

⁴⁵ Williamsburg, Virginia, Colonial Williamsburg Foundation: John D. Rockefeller Jr. Library: Corporate Archives Collection, Susan H. Nash, “The Reminiscences of Susan Higginson Nash” (Colonial Williamsburg, 1956), 61, 65.

⁴⁶ Pappas and Taylor, 89-90.

States. Her approach to identify original colors was two-tiered. First by carrying out chemical analysis of the paint scrapings, which she took from houses by using only a knife, exposing each layer until she reached bare wood. Nash did not explain the nature of these analyses since these were carried out by chemists from the manufacturing companies.⁴⁷ Second, by comparing results with eighteenth century historical records like storekeepers' inventories of paint materials as well as early building documents that made reference to color or paint. However, not all buildings could be repainted to represent their original colors. Some private owners within Williamsburg chose not to paint their houses with the colors discovered by Nash in her analysis. For buildings with no specific records, and she chose any color she felt was appropriate. Nash's research revealed that people in the Colonial period sometimes painted different rooms in their houses in different colors. This was initially not appreciated by the local painters who were accustomed to painting interiors with a single color throughout.⁴⁸

As late as the 1980s, paint colors used at Colonial Williamsburg and in its respective commercial palette came largely from the palette that Nash had established in the late 1930s. Nash's method was sometimes referred to as "scratch-and-match" method. This began to be considered unscientific as modern paint research techniques evolved in the 1970s. Around 2002, Catherine Matsen, an intern at CW, was able to demonstrate how unreliable the results were from the old method of paint identification. She found that almost 44% of the scrape tests missed the first finish layer, while 89% failed to identify all existing layers in the sample.⁴⁹ Nevertheless, the colors that Nash discovered became iconic and were used in the historic area until the time when more modern scientific and

⁴⁷ Susan Nash, 56.

⁴⁸ Ibid, 57, 65.

⁴⁹ Chappell, Edward A., "The Colors of Williamsburg: New analysis and the Chesapeake Town," in *Architectural Finishes in the Built Environment* (Archetype Publications Ltd., 2009), 31.

systematic study of the Williamsburg buildings could be undertaken. This next phase began in 1987, when CWF commissioned Frank S. Welsh to conduct paint research on some of the buildings in Williamsburg.⁵⁰ In many cases, Welsh's findings were strikingly different from Nash's making evident the significance of modern paint research techniques and technologies.

Welsh's methods included cross-sectional microscopy and pigment identification with polarized light microscopy (PLM) and microchemical analysis. One of the very first Williamsburg houses that Frank Welsh studied was the Dr. Philip Barraud House, built in the 1760s. In his research Welsh carried out microscopic investigations of paint samples collected from both interior and exterior surfaces of the house. His analysis was able to call out the mistakes made previously in the identification of different paint coatings – a layer previously identified as “buff primer” turned out to be a “yellowish white” layer while the “grey-green” was in reality a “light green” color, the blue pigment of which had faded over time. Moreover, Welsh was able to prove through his investigation that the green trim color used on the exterior of the house contained zinc white, which was a mid-nineteenth century pigment, and therefore could not have been an original eighteenth century color.⁵¹

Advances in architectural paint research has also made it possible to verify documentary evidence found in historical records. For instance, in 2005, Natasha Loeblich, an architectural paint analyst, discovered original roof sheathing boards from under concrete roof shingles of the St. George Tucker House. This presented an opportunity to verify the

⁵⁰ Pappas & Taylor, 95.

⁵¹ Pappas & Taylor, 97-99.

information within the painting specification document from 1798 for the house.⁵² Forty samples were analyzed using cross-section microscopy, fluorochrome staining, PLM, and Fourier Transform Infrared spectroscopy (FTIR). An oil binder, red iron oxide with a few fine particles of red lead pigment were detected in four of the samples, corroborating the data in the document. Based on the results of instrumental analysis and microscopy, a commercial paint swatch as well as its corresponding number from standard systems of color measurement (like the Munsell color system, and the CIE L* a* b* system) was matched and given to the CW paint shop to reproduce the original red paint for the roof of the Tucker house in modern paint.⁵³⁵⁴

In the last few decades, analysts like Dr. Susan L. Buck, Catherine Matsen, Peggy Olley, Natasha Loeblich, and more recently Kirsten Moffitt, have brought fine-art conservation practice – including fluorescence microscopy and binding media analysis – to the field of architectural paint research at Williamsburg. Today, modern paint analysis continues to advance the search for original eighteenth century paint colors, and in some cases to interpret early architectural paint color identification at Colonial Williamsburg.

⁵² Welsh, Frank S., “The Early American Palette: Colonial Paint Colors Revealed,” in *Paint in America: The Colors of Historic Buildings* (Washington: Preservation Press, 1994), 78-80.

Agreement between St. George Tucker and Jeremiah Satterwhite of Williamsburg on 30, august, 1798. “... The top of the House, the roof of the Shed, and of the covered Way are to be painted with Spanish brown, somewhat enlivened, if necessary, with red Lead, or other proper paint... The top of the Kitchen, and of the shed leading from the Cellar to the Kitchen yard, are to be painted with Spanish brown, mixed with Tar, & fish oil, & well boiled together...”

⁵³ Loeblich, Natasha K., “A Sharper Focus: New Techniques and Findings at Colonial Williamsburg,” in *Architectural Finishes in the Built Environment* (Archetype Publications Ltd., 2009), 19-21.

⁵⁴ The Munsell color system specifies colors based on three color dimensions: hue, value (lightness), and chroma (color purity). It was created by Professor Albert H. Munsell in the first decade of the 20th century and adopted by the United States Department of Agriculture (USDA) as the official color system for soil research in the 1930s.

The CIE L* a* b* system identifies colors mathematically rather than using color samples in specific arrangements. It is linked with the use of spectrophotometer and references colors with respect to whiteness-blackness, redness-greenness, and yellowness-blueness.



Fig. 3.2. This is the earliest paint color card showing interior & exterior colors approved by Colonial Williamsburg Inc., which was produced by *John W. Masury & Son* in 1937.

Commercial Production & Evolution of the Colonial Williamsburg Color Palette

When John W. Masury & Son became the first licensee paint manufacturer for the CW Reproductions Program, it started with sixteen interior colors that quickly expanded into twenty-four to include colors for the exterior (Fig. 3.2.). An article published in “Retailing” on February 8, 1937, stated that the paints were mixed by hand just as those used in restoring Williamsburg buildings (overseen by Susan Nash) and they were matched to colors *found in old buildings in Williamsburg and in other parts of the Tidewater Virginia dating from the eighteenth century.* The article also listed the sixteen colors approved by CW for production (Fig. 3.3.).⁵⁵ This first CW color palette was developed entirely on the basis of Susan Nash’s early research in and around the historic area, and so it comprised

⁵⁵ Williamsburg, Virginia, Colonial Williamsburg Foundation: John D. Rockefeller Jr. Library: Corporate Archives Collection, General Correspondence Records, Crafts – Manufacturers – Masury John W. & Son (1936-41), Anne Croxton to Miss Davis, February 12, 1937.

subdued colors compared to those used today. This was because Nash was matching colors by age to aged, soiled and deteriorated paints that had changed color over time. In the following years Susan Nash was known to have collaborated with chemists from Masury, especially James A. Fredrickson,⁵⁶ to carry out chemical analysis on paint samples she had scraped off of deteriorated layers from historic buildings at Williamsburg.⁵⁷

At the same time that Masury was manufacturing CW approved paints for houses, the Ditzler Color Company, which was a division of the Pittsburgh Plate Glass Company (PPG), was licensed to produce and sell CW approved colors in automobile finishes – lacquers and enamels – exclusively for the automotive trade. The company was well known for its role in promoting special color palettes in the automotive industry; e.g. their *King Tut* series was motivated from the colors used by ancient Egyptians.⁵⁸ Fig. 3.4. shows the list, titled *Authentic Colors from Colonial Williamsburg*, comprising forty-two colors that the company manufactured; the collection ran from 1938 to 1944.⁵⁹

⁵⁶ “3 DuPont Aides get Promotions,” Wilmington Morning News, Wilmington, Delaware, March 2, 1956. Mr. Fredrickson has been engaged in the paint and pigments business for more than 35 years. After being graduated from the School of Science and Technology at Pratt institute in 1920, he started as an apprentice in the paint and varnish works of John W. Masury & Son, Brooklyn, NY. He advanced through production and research work to become director of research there in 1935. In 1940, he joined DuPont as a chemist... became manager of technical sales in 1944.

⁵⁷ Susan Nash, 56.

⁵⁸ Williamsburg, Virginia, Colonial Williamsburg Foundation: John D. Rockefeller Jr. Library: Corporate Archives Collection, General Correspondence Records, Crafts – Manufacturers – Ditzler Color Company (1936-44), Edwin R. Hoag of the Ditzler Color Company to Frank W. Darling of WCI, October 2, 1936.

⁵⁹ The duration of the Colonial Williamsburg Color program by Ditzler has been deduced approximately, from correspondence between CWF and the Ditzler Color Company.

"Williamsburg" Paints Will Be Available Soon

Williamsburg, Va. — Announcement was made here last week of the appointment of John W. Masury & Son as producers of paints, selected and approved by Colonial Williamsburg, Incorporated, as part of the craft program of Colonial Williamsburg, Incorporated, in reestablishing 18th Century handicrafts here.

Sixteen different colors matching the colors used in decorating such exhibition buildings of the Restoration as the Raleigh Tavern, the Capitol and the Governor's Palace will be included in the first group of paints. Hitherto these have been mixed by hand as were the paints used in the restored buildings, matching colors that were found in old buildings in Williamsburg and in other parts of Tidewater Virginia dating from the 18th Century. Ingredients of the paints used in Williamsburg during the Colonial period were also ascertained from extensive research among contemporary advertisements, invoices and other documents. It is believed that this is the first time authentic Colonial colors have been made available in this form.

Included in this first group of authorized paints are the following colors, approved by Colonial Williamsburg, Incorporated: Palace Ball Room White, Great Dining Room Pearl, Palace Ball Room Blue, His Lordship's Bed Chamber Ochre, Raleigh Tavern Peach, Palace Staircase Gray, Governor's Office Yellow, Palace Guard Room Green, Powell-Hallam Blue, Apollo Room Blue, Palace Bed Chamber Blue, Raleigh Tavern Green, Governor's Dining Room Green, Governor's Office Red, Capitol Wainscot Brown, and Palace Mulberry.

"RETAILING"

February 8, 1937



Colonial Williamsburg

INCORPORATED

ANNOUNCES THE APPOINTMENT
OF

John W. Masury & Son
of Brooklyn, New York

as collaborators in a revival of eighteenth century handicrafts authorized as part of the restoration of Colonial Williamsburg in Virginia.

The Masury Company has been licensed to produce ready-mixed paints in sixteen colors matching the authentic colonial colors used in the decoration of important buildings that have been restored or reconstructed in Williamsburg.

Retail distributors are being selected in key cities with exclusive franchise for the sale of these authentic paints, the colors of which have been approved by Colonial Williamsburg, Incorporated, in addition to furniture, tableware and other crafts.

For further information, address

Williamsburg Craftsmen, Incorporated
WILLIAMSBURG, VIRGINIA

*Authentic reproductions
approved by Colonial
Williamsburg, Incorporated,
bear this hall-mark.*



*Income derived by
Colonial Williamsburg,
Incorporated, from this
program will be devoted
to furthering the educa-
tional purposes of the
Restoration.*

Other appointments

KITTINGER COMPANY, BUFFALO, N. Y.
JOSIAH WEDGWOOD & SONS, INC.

FURNITURE
QUEEN'S WARE

Fig. 3.3. Announcement of the appointment of John W. Masury & Son Co., by Colonial Williamsburg, Inc. as the manufacturer of ready-mixed paints in sixteen colors that matched the authentic colonial colors used in the decoration of important buildings, either restored or reconstructed. "Retailing," February 8, 1937.

The Ditzler Color Company of Detroit offers the following list of name abbreviations for the

“Authentic Colors from Colonial Williamsburg”

These abbreviated forms have been officially approved by “Colonial Williamsburg, Incorporated,” to facilitate general use in inter-company correspondence and all communications concerning sales by telephone, cable, wire and letter.

The complete names must be used, however, in all forms of promotional releases and advertising as registered in the original color books entitled “Authentic Colors From Colonial Williamsburg,” copyright 1937.

CODE NO.	COMPLETE ORIGINAL NAME	AUTHORIZED ABBREVIATION
LE-2896	Capitol Shutter Brown	Capitol Brown
IL-237	Williamsburg Blu-Gray	Williamsburg Blugray
*LE-2900	Palace Mulberry	Palace Mulberry
IL-207	Palace Brick Brown	Palace Brown
IL-270	Governor's Dining Room Green	Governor's Green
IL-255	Palace Bedchamber Blue	Palace Blue
*IL-241	Williamsburg Tan	Williamsburg Tan
VV-502	Raleigh Tavern Rust	Raleigh Rust
IL-234	Paradise House Blu-Green	Paradise Blugreen
IL-254	Governor's Office Yellow	Governor's Tan
IL-243	Paradise House Green	Paradise Green
IL-261	Palace Staircase Gray	Palace Gray
LE-2916	Palace Indian Red	Palace Red
IL-246	Governor's Room Yellow	Governor's Yellow
LE-2864	Colonial Capitol Brown	Colonial Brown
IL-262	Apollo Room Blue	Apollo Blue
IL-271	Raleigh Tavern Green	Raleigh Green
IL-263	Raleigh Tavern Peach	Raleigh Peach
IL-257	State Dining Room Pearl	State Pearl
LE-855	Williamsburg Wainscot Brown	Wainscot Brown
*IL-265	Powell-Hallam Blue	Powell-Hallam Blue
IL-266	Raleigh Tavern Beige	Raleigh Beige
LE-1321	Palace Spanish Brown	Spanish Brown
IL-256	Palace Ballroom Blue	Ballroom Blue
IL-267	House of Burgesses Gray	Burgesses Gray
IL-268	Palace Guard-Room Green	Guard's Green
XLE-307	Williamsburg Header Gray	Header Gray
*IL-269	Williamsburg Gray	Williamsburg Gray
XLE-316	Old Pewter Gray	Pewter Gray
XLE-330	Williamsburg Header Blu-Green	Header Blugreen
XLE-162	Raleigh Tavern Slate Gray	Slate Gray
IL-240	Courthouse Header Gray	Courthouse Gray
XLE-318	Williamsburg Header Green	Williamsburg Green
XLE-340	Glazed Brick Warm-Gray	Brick Gray
XLE-311	Salt-Glaze Pottery Blue	Pottery Blue
XLE-322	Williamsburg Header Gray-Green	Williamsburg Gragreen
IL-218	Wythe House Header Taupe	Wythe Taupe
LE-2834	Delft Tile Blue	Tile Blue
IL-213	Salt Glaze Gray	Glaze Gray
IL-204	Delft Tile Gray	Delft Gray
IL-210	Salt Glaze Blu-Gray	Glaze Blugray
IL-200	Churchwarden Pipe Gray	Churchwarden Gray

**These colors do not change in name when abbreviated as they consist of only two words.*

DITZLER COLOR COMPANY

Fig. 3.4. “Authentic Colors from Colonial Williamsburg” – the list of authorized names for Colonial Williamsburg approved colors to be produced in lacquers and enamels for the automotive industry by the Ditzler Color Company, 1938.

Masury's tenure as the authorized paint manufacturer for CW ended in November 1939, when, for reasons unexplained, the contract was not renewed.^{60 61} In 1940, PPG took its place and began to develop a new series of historic colors, using modern methods and materials. Judging from correspondence between Williamsburg Craftsmen Inc. and PPG, it appears that the color selection process was quite iterative. Colors were at first selected by staff at the WCI. The list, along with wet paint standards, would then be sent to PPG for studying. People at the advertising and sales department of the company would make their selection. PPG then sent back samples to match their choices in new formulas for approval by the Foundation; the process was repeated until a consensus was reached by both groups. Appendix-3. shows a list of colors, with information relating to building and location where the colors were found, that WCI sent at the very beginning of their association to PPG for research. One interesting addition that PPG made to the CW palette in the late 1940s was its "let down" system – where by adding white in varying proportions different shades of an original source color could be produced.⁶² This method was quite helpful in providing consumers with a greater range of choices within the Williamsburg color collection. More colors were added in the 1960s when there was a discovery of more varied hues in the historic houses.⁶³

During World War II, there was a shortage of raw materials required for the manufacturing of products that were not considered useful to the people at war. The Reproductions

⁶⁰ Williamsburg, Virginia, Colonial Williamsburg Foundation: John D. Rockefeller Jr. Library: Corporate Archives Collection, General Correspondence Records, Crafts – Manufacturers – Masury John W. & Son (1936-41), Mr. Boyer to Mr. Upshur, April 24, 1940.

The letter details out a number of steps to be taken as a result of the discontinuation of contact with John W. Masury & Son.

⁶¹ Ibid, Robert D. McCreary of WCI to James A. Fredrickson of John W. Masury & Son, September 29, 1937. There have been a number of instances where purchasers have complained of variations found in packaged colors bearing the same labels

⁶² Pittsburgh Plate Glass Company, "Pittsburgh Wall paints," 1949.

⁶³ Chappell, Edward A., 31.

Program suffered; manufacturers could no longer produce and supply goods in large quantities. Sales through mail-order too decreased considerably. It was during this time that the Foundation's association with PPG started to decline, largely because the paint company stopped production of CW paints without notifying the WCI. The reasons for discontinuation of the line were later explained as a critical linseed oil shortage, and the possession of large stocks of Williamsburg Reproduction Colors in many retail branches around the country. Large number of complaints started pouring in from consumers regarding the quality of the "Wallhide" semi-gloss paints (this was a vitalized oil-paint), which were produced in CW approved colors by PPG.⁶⁴ Finally, in 1965, the Martin-Senour Paints replaced PPG as the official paint manufacturer.

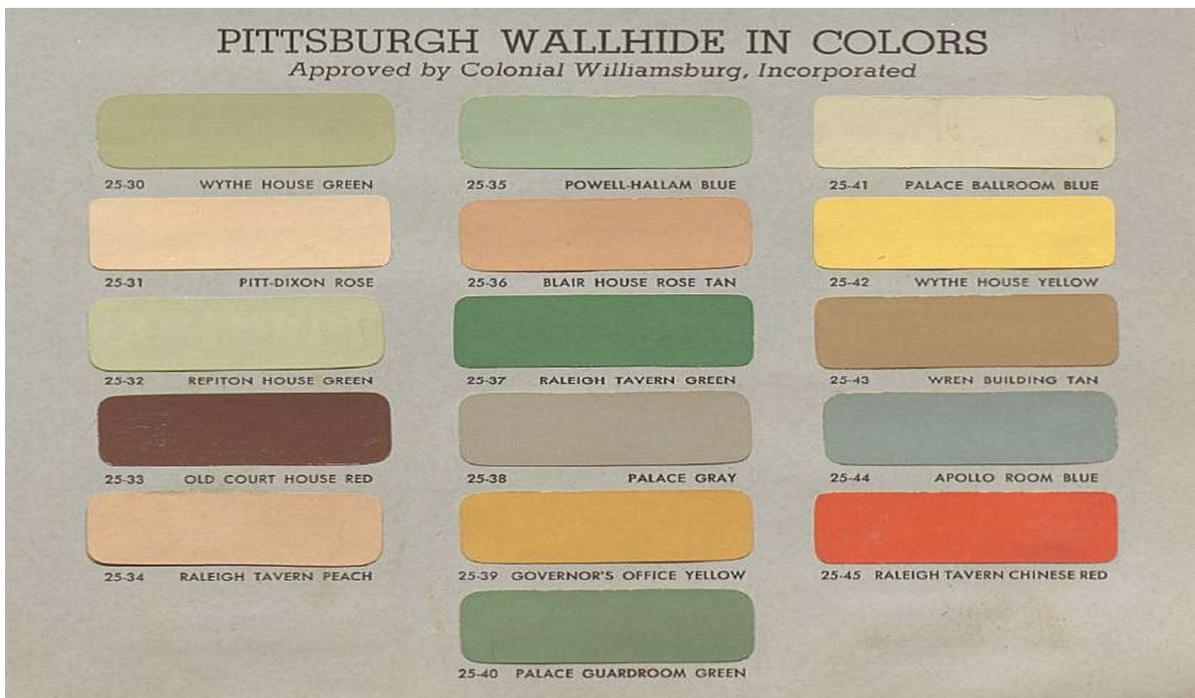


Fig. 3.5. Samples for Pittsburgh Wallhide paints in Williamsburg approved colors, 1941. Many of the colors still bear same names, mostly the blues and greens, from the first color palette that was produced by John W. Masury & Son – Raleigh Tavern Peach, Powell-Hallam Blue, Raleigh Tavern Green, Palace (Staircase) Gray, Governor's Office Yellow, Palace Guardroom Green, Palace Ballroom Blue (chip missing in the image), and Apollo Room Blue.

⁶⁴ Williamsburg, Virginia, Colonial Williamsburg Foundation: John D. Rockefeller Jr. Library: Corporate Archives Collection, General Correspondence Records, Crafts – Manufacturers – Pittsburgh Plate Glass Company (1940-47), J. A. Upshur to M. J. Batenburg, December 10, 1947.

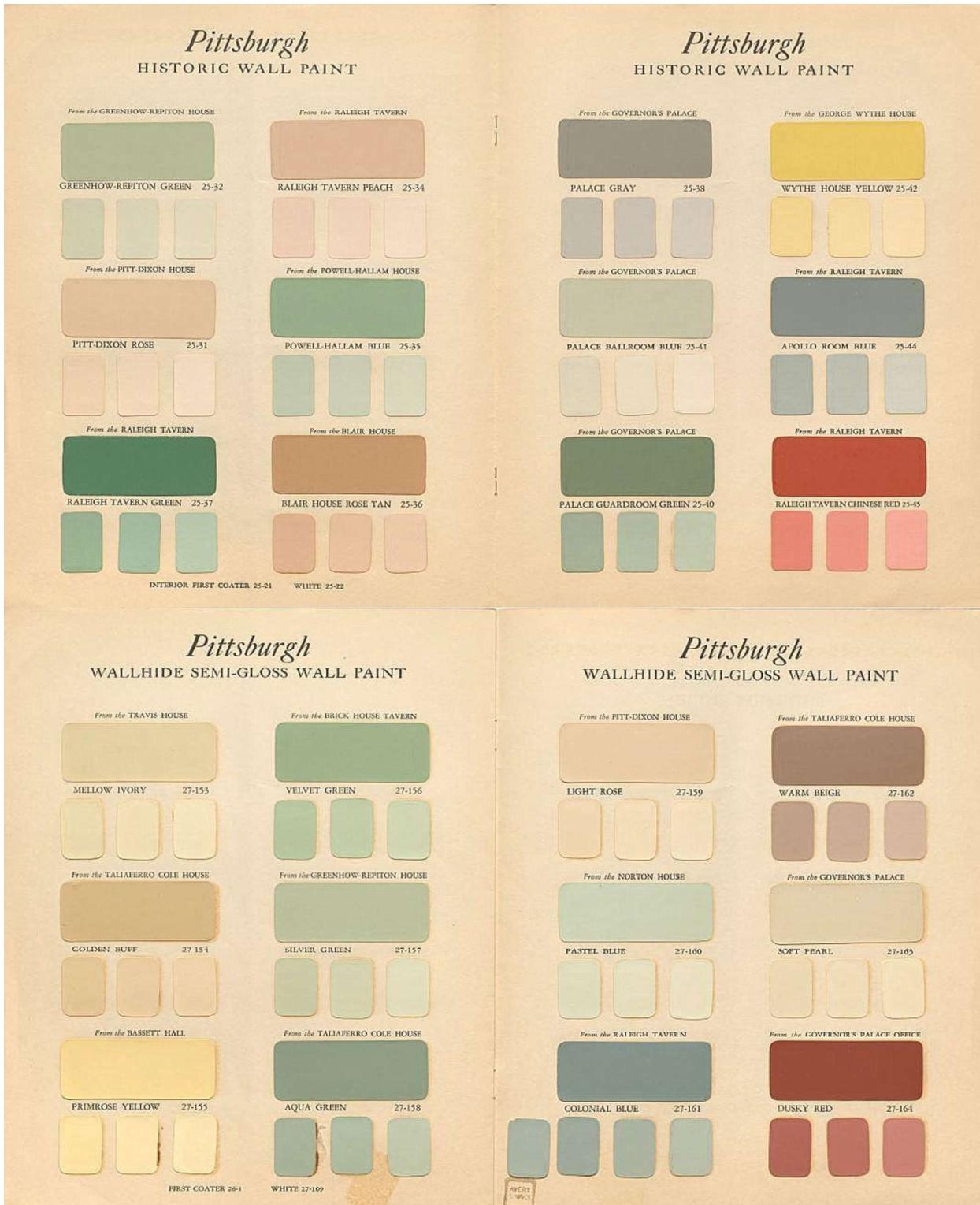


Fig. 3.6. Colonial Williamsburg Restoration colors in Pittsburgh “Historic Wall Paint” and “Wallhide Semi-gloss Wall Paints” – the former has an eggshell sheen giving a soft satin-like luster while the sheen is semi-gloss for the latter. The large color chips are exact matches of colors used in CW restorations, while the small chips show “let downs”: Left chip – two parts White to one part color. Center chip – four parts White to one part color. Right chip – eight parts White to one part color. 1949.



Fig. 3.7. This is paint brochure for the Williamsburg Interior and Exterior Colors by the Martin-Senour Paints from 1986. The palette comprises 119 colors in total.



Fig. 3.8. A fan-deck displaying the Williamsburg Color Collection by the Pratt & Lambert Co. "Celebrating the Origin of American Style" in 2004.



Fig. 3.9. This is the latest “Williamsburg Color Collection” from Benjamin Moore. 2017.

There is little information in the CW archives about the Martin-Senour Paints’ relationship with WCI. However, the CW color palette grew dramatically under Martin-Senour (Fig. 3.7.), as did its popularity among consumers nationwide. This can be understood from many consumer’s reactions to the differences in shades of their favorite CW colors after Martin-Senour stopped producing the series.⁶⁵

In 1973, Pratt & Lambert became a second licensee for producing CW paint colors. The CW collection from Pratt & Lambert was by far the largest with 184 colors (Fig. 3.8.). It appears, given the large number of colors, that the company could have expanded the line by matching paint colors on buildings as well as from objects found in the buildings, which

⁶⁵ Holt, Linda, “BIG color news from Benjamin Moore and Brimfield,” *Linda Holt Interiors*, May 28, 2013, accessed on March 20, 2017, <http://www.lindaholtinteriors.com/2013/05/big-news-from-benjamin-moore-and-brimfield/>

Susan West, October 20, 2013 , wrote –

As a native Virginian and a lover of Colonial Williamsburg all my life nothing spoke “Williamsburg ” color like the Martin Senour palette. My favorite has been the Williamsburg. Apollo Room Blue and you could get it in light, med or dark... and planned to redo my home and use my old stand-by colors especially Apollo Room Blue... I looked at the BM “Apollo Blue” and it is off the mark....very dark. Any suggestions where I might find the original Martin Senour colors?

was not an uncommon practice in recreating “period” colors.⁶⁶ According to Moffitt of CWF, some of the colors in the CW palette from Pratt & Lambert were still based on Nash’s research from the 1930s.

In 2013, Benjamin Moore (BM) released the “The Williamsburg Color Collection”. Comprising 144 colors, this updated palette is the product of close collaboration with CWF experts using modern Architectural Paint Research (APR) methods including microscopy, instrumental analysis, and colorimetry complemented by archival research to provide a range that accurately reflects the range of eighteenth century Williamsburg’s architectural finishes, and yet responds to the modern consumer’s demand for more nuanced shades of historic color. According to Matthew Webster, Director of the Grainger Department of Architectural Preservation at CWF, and Kirsten Moffitt of the Conservation Department, decisions surrounding the most recent changes in the CW color palette were largely driven by preservation and research. It was the architectural preservation and architectural research departments which pushed the decisions forward, and was committed to re-creating the authentic appearance of houses in Williamsburg. Their intent is made clear in the following statement by the director.⁶⁷

⁶⁶ In the selection of *George Washington’s Mount Vernon Estate of Colors*, produced by the Fine Paints of Europe, out of 120 colors, only thirty came from the mansion’s interiors, and the rest was developed using colors derived from historical artifacts and from the content of diaries and letters written by George Washington. And then the chosen colors were darkened and lightened to expand the range. Fine Paints of Europe, “George Washington’s Mount Vernon Estate of Colors,” https://www.finepaintsofeurope.com/mount_vernon.aspx, accessed on March 30, 2017.

Washington’s diaries and letters reveal intricate details regarding his hands-on approach and passion for beautifying his home. The man who inspired a nation was himself inspired by beauty, design and bright, bold color. Nearly 30 of these colors are painstakingly duplicated directly from the Mansion’s interior, while period artifacts are the inspiration for many more of the 120 colors in the Mount Vernon Estate of Colours collection.

⁶⁷ Matthew Webster’s statement explaining the working principles relating to the development of the CW color palette when Benjamin Moore took over the franchise from Pratt & Lambert. Contacted via e-mail, February 28, 2017.

“Our stance was that we needed a product that we felt would best address our needs to preserve structures, (that we) remain fiscally responsible, have access to the research and development groups within the companies to help address specific issues, and have a functional color line that would allow us to maintain accuracy.”

– Matthew Webster, 2017.

Benjamin Moore Paints agreed to give Colonial Williamsburg full control of the color line, which according to Webster is *a very rare situation in the development of paint colors*. CW was primarily responsible for developing all the colors, naming them, and writing most of the descriptions. In their partnership with Benjamin Moore, CW was free to use a range of colors and products within and outside of the BM product line that were suitable to both preserve and maintain historical accuracy of the paint colors at Williamsburg. Both BM and CW have direct access to each other’s research and development departments. This allows for quick identification and solution of issues that may arise during the research processes.

The paint colors in the CW collection proclaim their origins from genuine eighteenth century sources, and the majority were chosen directly from the results of paint analysis carried out on surviving eighteenth century structures at Colonial Williamsburg. However, eighteenth century structures in the historic area were not the only sources for the numerous shades in the CW palette of 144 colors (Fig. 3.9.). Some of the colors have their origins in early (eighteenth century) structures in the region, while a few have been selected based upon descriptions from early advertisements of pigment and paint materials in the *Virginia Gazette*, which was for sale in Williamsburg during the eighteenth century. Fig. 3.10. shows one of many such advertisements dated November 7, 1777.

The architectural preservation department ordered all the pigments identified from a large collection of similar advertisements, produced period appropriate paints using period appropriate techniques and then painted boards that were sent to the BM color labs. An additional resource was the collection of eighteenth century wallpapers, which was studied to find more colors to be added in the CW palette. This was because, BM felt that limiting the palette to only colors found through architectural paint research did not offer a broad enough range for their market. As a result, certain hues such as light yellow-greens that were not found through APR were created from sources other than eighteenth century Williamsburg buildings.⁶⁸ It appears that not many colors in the palette were selected from historical wallpapers.

The CW palette has been derived from its architectural research of what is considered representative of the eighteenth century in Tidewater Virginia. After this thorough color selection process, Benjamin Moore was responsible for creating the modern formulations for the chosen colors. But it was only with the approval from CWF that the new formulas can finally be sent out for production.



Fig. 3.10. An advertisement on the sale of clothes and other articles. Virginia Gazette, November 7, 1777. Although not an actual advertisement for pigments or paint materials, this advertisement has a list of colors that were most likely fashionable at the time. These colors have been used to develop and expand the range of Colonial Williamsburg Color Collection at Benjamin Moore.

⁶⁸ Kirsten Moffitt, interview with author at CWF, Williamsburg, Virginia on January 11, 2017.

3.3. Significance of the Colonial Williamsburg Color Palette

The Colonial Williamsburg color palette has over the years transformed from one comprising sixteen colors discovered through in-situ scraping, to one that contains over a 100 shades supported by scientific research and evidence-based analysis along with extensive historical study of eighteenth century archival materials.

When it comes to preservation of historic structures, it is imperative that existing conditions be documented, and investigations carried out as deemed necessary; if the emphasis is on restoring a building to a historically accurate appearance, examination of all surface finishes becomes indispensable to the project. In-depth research on paints can reveal a great amount of information. Analyses of samples can provide data regarding not only color, but the composition of materials used (binding medium, pigments, driers, varnishes, etc.), application techniques employed, and to some extent the relative dates of these finishes. All this has been exemplified by paint analyses carried out at Colonial Williamsburg. It seems only fitting that in creating any historically authentic color palette – with the intention to represent a certain period and place – paint analysis will be an obligatory step in the process.

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Chapter 4:

Historic Color Palettes in the United States

Although it is now possible, using scientific means, to identify original colors used in historic periods in the United States, it is interesting to discover that scientific paint research and analysis has often not been used to create many of the “historic color palette” collections in America today.

4.1. Historic Preservation and Beyond

“Historic color palettes” often focus on areas depicting a specific period in time. The “Pastel Palette” of South Beach focus on the 1930’s Art Deco buildings within the historic district, while the “Shaker Village Colors” concentrates on paint colors used on varying styles of houses constructed between 1905 and 1939 in Shaker Heights, Ohio. There are other palettes that represent colors from other architectural periods of America such as the “Heritage Colors” by Sherwin-Williams or the “Historic Colors of America” by California Paints. Each of these palettes, either regional or specific historic periods evolved from differing sources or philosophies. The following is an overview of some of the existing historic color palettes, and how they have developed.

They have been grouped into three broad categories based on how they were derived – scientific research, examination of historical records or imagination. The first category comprises historic color palettes that were initiated with scientific research and is usually complemented by documentary research, an approach similar to that taken by CW.

“Colonial Colors” – Defined by Frank S. Welsh

Frank S. Welsh is a conservator, who has been consulting on the restoration of many historic buildings and conservation of antiques and objects of fine art in the United States, and internationally since 1974.⁶⁹ Based on a large set of data, which he had collected over twenty years of research on more than 175 Colonial and Federal structures (from about 1715 to 1815) from the Middle Atlantic region and studying over a hundred paint colors, Welsh published a palette of “Colonial Colors.”⁷⁰ This palette was published as a reference tool but was never used commercially. According to Welsh, in the first half of the eighteenth century darker shades of reddish brown and grays were frequently used on the exterior and there was a transition into lighter colors such as whites, yellowish whites and even pale blues in the latter half of this period. For interior spaces, he found the *ubiquitous* blue and many shades of green to be the most popular choices in colonial houses, while the color Spanish Brown was apparently used as a multipurpose shade for both interior and exterior surfaces.⁷¹ Welsh concluded that even with a large range of colors, there was seemingly very little variation in the palettes from different regions. He found thirty-five typical colors from the many samples that he had studied and microscopically analyzed.

In defining the “Colonial color palette” Welsh relied on scientific research and analysis of evidence (paint samples) from old houses in the United States, but he seems to have extended his color selection to the Federal era too. Although this information has not been used to produce a commercial historic color palette, it signified the importance of architectural paint research in defining authenticity for historic paint colors. A more

⁶⁹ Welsh Color & Conservation, Inc., “About Frank S. welsh,” accessed April 8, 2017, <http://www.welshcolor.com/aboutus.html>

⁷⁰ “The Color Palette of the Eighteenth Century,” by Frank S. Welsh was published in the book *Paint in America* in 1994, pages 81-85.

⁷¹ Welsh, Frank S., 69-72.

commercial color palette that made use of architectural paint research is the “Historic Colors of America”, by California Paints.

Historic Colors of America

The Society for the Preservation of New England Antiquities (SPNEA, now Historic New England) is a non-profit preservation organization founded in 1910 and based in Boston, Massachusetts. Its mission is to *“serve the public by preserving and presenting New England heritage.”*⁷² One of the many ways the organization has chosen to present New England heritage is through historic paint colors. In the summer of 1997, SPNEA announced the “Historic Colors of America,” a collection of 149 “authentic” interior and exterior historic paint colors that the organization developed in conjunction with California Paints (part of Color Guild International).⁷³

“These paints are ideal for those of us who love old houses and want to create an effect that is appropriate for a given period. You can have fun working within a remarkably broad range of choices that would have been available to consumers at a particular time. You can also use this palette as a starting point to make modern variations on historic themes to suit your personal taste.”

– Brian Pfeiffer, a member of the working team that selected the colors.⁷⁴

⁷² Historic New England, “Mission & Leadership,” accessed April 27, 2017 <https://www.historicnewengland.org/about-us/mission-leadership/>

⁷³ “Color your House with History,” *SPNEA*, Series 67 (Summer 1997): 1-2.

Through the production of “Historic Colors of America,” California Paints joined SPNEA’s list of other licensed manufacturers, who reproduced products like furniture, wallpaper, fabrics, lamps, and colored crystal– that was run through the Historic New England program, similar to CW Reproductions Program.

⁷⁴ *Ibid.*

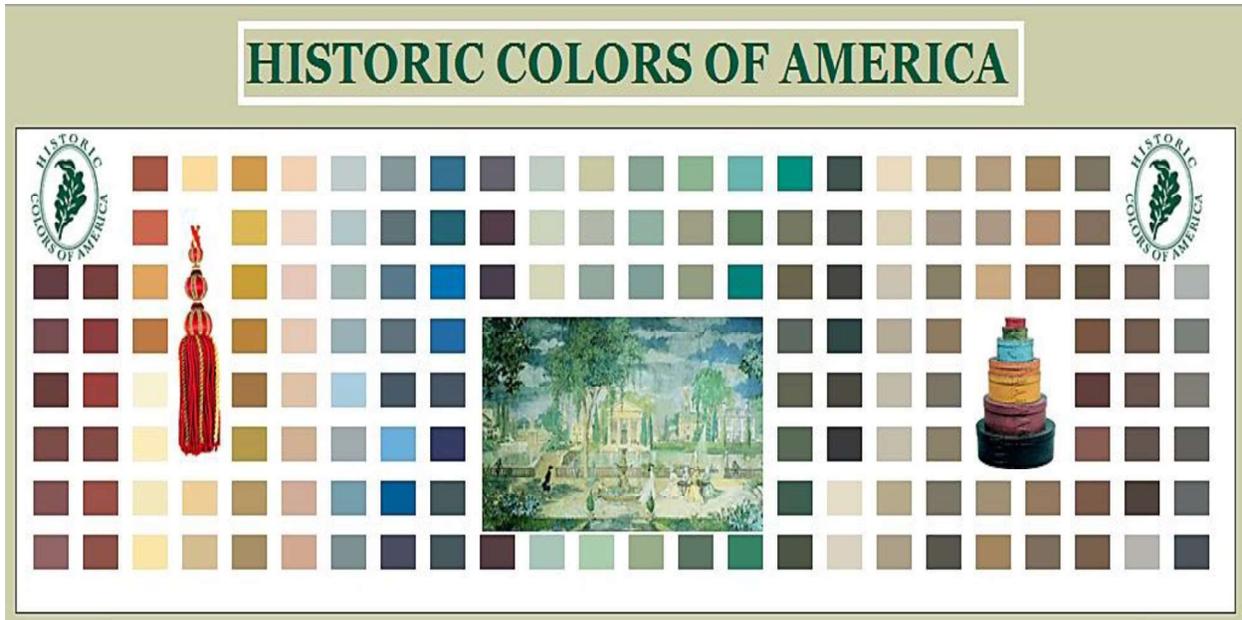


Fig. 4.1. “Historic Colors of America” – a palette comprising 149 “authentic” house colors for both interior and exterior use. Colors have generally been grouped into certain historical periods (although some colors appear in more than one category). The periods represented in the palette are: Colonial, Federal, Greek-Revival, Victorian and 20th Century Eclecticism.

This “Historic Colors of America” palette was built upon SPNEA’s twenty years of experience using scientific analysis of paint layers and pigments to determine original colors used to paint their historic sites and objects from the eighteenth and nineteenth centuries. The work began with the restoration of Harrison Gray Otis House in 1974 by Morgan W. Phillips.⁷⁵ ⁷⁶ The project revealed a brilliant range of colors used in houses from late eighteenth and nineteenth centuries, and bolstered the organization’s role as leaders in scientific paint research.⁷⁷ Morgan Phillips used chemical and microscopic examination, in addition to emission spectrograph, and X-ray diffraction for paint analysis, at the same time emphasizing the opportunity to adopt the high technology employed in fine arts

⁷⁵ Ibid.

⁷⁶ Morgan W. Phillips (1943–1996) was an American founder of the field of architectural conservation. He is credited with coining the term “architectural conservation” in the early 1970s and was among the first to call himself an *architectural conservator*. Phillips worked for most of his career at the Society for the Preservation of New England Antiquities (SPNEA) in Boston, and the organization’s Conservation Center was largely built around his research and that of his apprentices. – Wikipedia.

⁷⁷ This discovery of bright colors is in the Harrison Gray Otis House (of 1796) is in contrast with Welsh’s Colonial color chart (covering 1715-1815) that appears to be quite dull and grayish looking.

conservation for analyzing old house paints.⁷⁸ In the years that followed, SPNEA carried out further research on its own buildings and historical furniture and artifacts in addition to the numerous consulting projects from 1974 through the 1990s. The organization also studied its vast collection of wallpapers, and manufacturers' paint samples while comparing with a late eighteenth century color chart – all of which ultimately informed the selection of colors in the historic palette (Fig. 4.1.).⁷⁹

Not all of the 149 colors listed in the palette, however, have been adopted from the analyses of documented paint samples found in old houses. A few of them are rooted in the research work carried out by Historic New England's conservators in a number of historic houses in the area while the rest would appear to have been developed on the bases of historical color charts and paint analysis of period artifacts, and *painted objects* found in the houses.⁸⁰

Colonial and Federal period colors were not the only palettes being created by commercial paint companies. As the interest in preservation increased, so did an interest in Victorian and later styles of buildings. Historic color palettes expanded to include them as well. For instance, Historic New England's palette consisted of colors *appropriate for the Colonial, Federal, Greek Revival, Victorian, and Colonial Revival periods*.⁸¹

⁷⁸ Morgan W. Philips, "Discoloration of Old House Paints: Restoration of Paint Colors at the Harrison Gray Otis House, Boston," *Bulletin of the Association for Preservation Technology*, Vol. 3, No. 4 (1971): 40-47.

⁷⁹ "Color your House with History," *SPNEA*, Series 67 (Summer 1997): 1.
The restoration combined scientific analysis of paint layers and pigments with curatorial knowledge – such as corroborative data found in paintings, decorative objects, and written records of the period... In the twenty years since, SPNEA has continued to expand its research, learning from its own buildings and objects, and from consulting projects, and examining holdings that include a late 18th-century color chart, a vast collection of wallpapers, and historic folders of manufacturers' samples.

⁸⁰ *Ibid.*, 2.

Starting this Summer, SPNEA's specialized knowledge about historic paint will be accessible to the public through a line of authentic colors available at paint stores across the country and abroad. The custom color chart, entitled "Historic Colors of America," consists of 149 hues selected from hundreds of samples taken from historic buildings and painted objects.

⁸¹ *Ibid.*

The second category is consisted of those “historic color palettes” that have relied heavily on historical records like color cards and paint brochures from earlier periods to develop the palettes; e.g. the “Heritage Colors” by the Sherwin-Williams Company.

Heritage Colors – Preservation Palettes

The Sherwin-Williams Paint Company worked with Dr. Roger W. Moss and John Crosby Freeman in 1981 to create a color collection called the “Heritage Colors, 1820-1920” (Fig. 4.2.).⁸² It was made up of colors selected from significant architectural periods of the American history; Neo-Classic, Early, High and Late – Victorian, Edwardian, and Colonial Revival. According to Freeman, the colors in the palette, which were all to be used on the exterior of houses, were selected primarily from the early paint catalogues of a number of paint companies from the respective time periods. They selected colors that they believed to be *in vogue*, or popular for use on houses. This philosophy was explained in the following statement by the first ‘color’ archivist at Sherwin-Williams, Patricia S. Eldredge.⁸³

“The majority of the forty colors shown within this color card are documented colors from the archives of the Sherwin-Williams Company, which has formularies dating from the 1870’s, and color cards dating from the 1880’s. Dr. Roger Moss, the author of Century of Color, a documentary history of exterior decoration from 1820 to 1920, selected “Heritage

⁸² Roger William Moss is an historian, educator, administrator and author in Philadelphia, Pennsylvania. Throughout a long career he has also been an aggressive and entrepreneurial advocate for the preservation and authentic restoration of historic buildings. For forty years Moss directed the Athenaeum of Philadelphia, a special collections library near Independence Hall, and for 25 of those years he also taught in the Graduate Program in Historic Preservation at the University of Pennsylvania. – Wikipedia.

⁸³ Patricia S. Eldredge was a trustee of the Morris County Historical Society when she did her first major preservation project – Acorn Hall belonging to the family of Mary C. Hone (a Broadway actress). Afterwards, she studied historic preservation at Columbia University, and was trained by its founder, James Marston Fitch. Eldredge initiated the first corporate archive at the Sherwin-Williams Company and became its color historian, and after arming herself with a Certificate in Archives Management from the National Archives, she proceeded to catalog and conserve a treasure trove of color cards, the earliest of which was from 1870. – Hudson Heritage Association, <https://hudsonheritage.org/cleveland-restoration-society-recognizes-patricia-s-eldredge-prestigious-award-robert-c-gaede-lifetime-achievement-award/>

Colors” from two sources: our archives and those owned by the Athenaeum of Philadelphia, of which he is the Executive Director.”

– Patricia S. Eldredge, Archivist, the Sherwin-Williams Company, 1981.⁸⁴

The historic palette of forty colors has long since doubled to eighty, expanding to include interior colors, while the historic periods being presented were updated to *The Classics*, *Colonial Revival*, *Arts & Crafts*, *Late Victorian*, *The Jazz Age*, *The Streamlined Years*, and *Suburban Modern*. The date ranges for the seven periods in the palette, however, remain unclear and were never defined. Additionally, the historic collection is now referred to as the “Preservation Palettes,” which appears to be a tactic to appeal to consumers with



Fig. 4.2. *Heritage Colors™ 1820-1920*,” the original historic color card from Sherwin-Williams showing forty exterior colors appropriate for houses built between 1820 and 1920. Catalog from 1981.

⁸⁴ The Sherwin-Williams Company, “Heritage Colors: Authentic Exterior Colors for American buildings – 1820/1920,” Ohio, The Sherwin-Williams Company, 1981.

historic houses.⁸⁵

Shaker Village Colors, Ohio

“The “Shaker Village Colors” were developed by the Landmark Commission of the City of Shaker Heights in conjunction with the Cuyahoga County Archives and Sherwin-Williams Paint Company Archives to represent authentically the original exterior color standards for Shaker Village set forth by the Van Sweringen Company in 1925, and other actual colors recommended for residential architecture of the period 1905-1939.”⁸⁶

The Shaker Village (now the City of Shaker Heights) was a land that was once occupied by a peaceful community called the “United Society of Believers,” who *farmed the land, operated a mill, packaged seeds and contributed many inventions to a growing American society*. However, with the development of the nearby industrial city of Cleveland, people started migrating out of the village for better opportunities in the 1890s. In 1905, two brothers, Oris Paxton and Mantis James Van Sweringen – transportation and real estate magnates of their time – realized the potential for developing the village into a peaceful garden suburb, comparable to the “garden city movement” made popular by English designers at the turn of the century. They devised specific color guidelines for the development of Shaker Heights, which were not new or specific to the village, but on the contrary, reflected contemporary taste in colors in the early twentieth century throughout

⁸⁵ Sherwin-Williams, “Historic Collection,” accessed April 6, 2017, <https://www.sherwin-williams.com/homeowners/color/find-and-explore-colors/paint-colors-by-collection/historic-collection>
Interior Preservation Palette

Combine these historically accurate paint color palettes for wall, trim and accent colors that help you achieve a coordinated “period” look for the rooms in your home.

Exterior Preservation Palette

Achieve a coordinated period look for the exterior of your home with these historically accurate paint color palettes for home exterior walls, trim and accents.

⁸⁶ The City of Shaker Heights, Ohio, Department of Urban Planning: “Shaker Village Colors: a guide to exterior paint colors for residential architecture 1905-1939,” Ohio, April, 1983.

the nation. The Van Sweringen Company was quite strict in controlling the architectural styles, materials and colors of residences built in the village, and would ensure that guidelines were followed through the distribution of booklets and brochures to architects and homeowners. Elaborate color charts were developed to inform builders about the recommended color schemes for walls, roofs, trim, shutters and even mortar for houses of certain architectural styles; Colonial, English and French (Figures 4.4. & 4.5.).⁸⁷

The palette of “Shaker Village Colors” offered by Sherwin-Williams today was developed in 1983 with the Landmark Commission of the City of Shaker Heights, and based on the colors originally selected from contemporary palettes by the Van Sweringen Company in 1925.⁸⁸ These are not mandated by the city, but are meant to act as reference for people painting their houses within the village, in order to preserve the architectural heritage of the community. The palette has thirty colors (Fig. 4.3).



Fig. 4.3. The earliest palette showing the “Shaker Village Colors” as produced by the Sherwin-Williams Paint Company, 1983.

⁸⁷ Ibid.

⁸⁸ Ibid.

APPROPRIATE COLOR SCHEMES
For Colonial Residences

Walls	Trim and Sash	Shutters or Blinds	Doors	Chimneys	Fly Screens	Roof
1. White	White	Dark-green	White	Brick painted white	White	Dark-green
2. Silver gray	White	Bottle-green	White	Red sand-moulded brick	White	Weathered gray
3. Ivory	Ivory	Olive-green	Ivory	Red sand-moulded brick	Ivory	Dark moss green
4. Shingles stained to weather to natural wood tone.	White	Blue-green	Ivory	Common brick sand face, light range of red, brown and salmon	Ivory	Very dark gray

For Colonial of Frame Construction

Reprinted from *Shaker Village Standards*, Van Sweringen Co., 1925

Fig. 4.4. This is one of the many color charts that were produced by the Van Sweringen Company in order to control the aesthetics of the Village of Shaker Heights, 1925. This one is specific to *Colonial Residences of Frame Construction*, showing the best colors to be used in conjunction with the primary color of the walls.

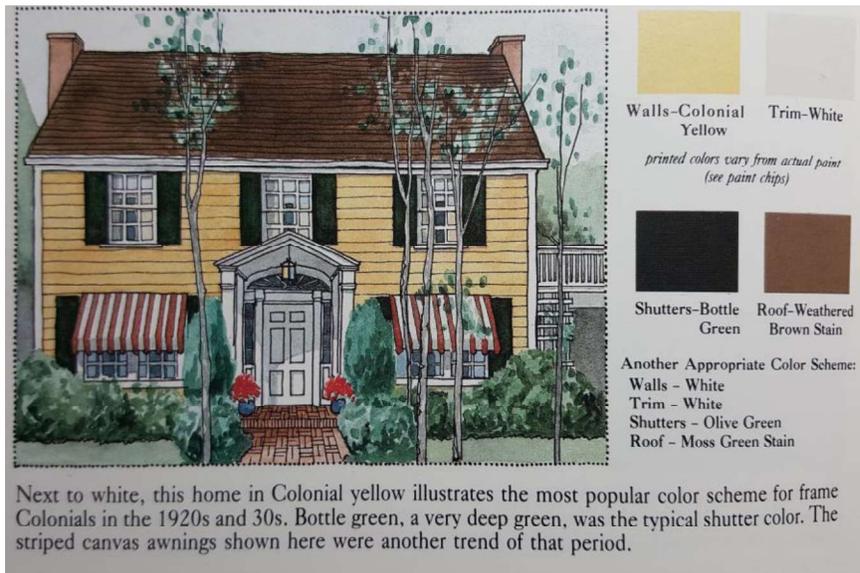


Fig. 4.5. Color illustrations of houses in popular color combinations was another way of showing appropriate color schemes for houses in Shaker Village. The image shows one of the most popular color schemes for Colonial residences of the time. 1925.

Older palettes by prominent architects have also been reissued. The Frank Lloyd Wright (FLW) color collections for Taliesin West and Fallingwater are such examples. Here, the palettes were either developed from old color cards used in the past (by Wright himself), or from colors identified through architectural paint research carried out on the structure and was also a result of extrapolation of Wright's original design scheme, where inspiration was drawn from the surroundings. Representing a mid-century modern architectural style, the

FLW colors were the latest addition to the growing collection of American “historic color palettes.”

Frank Lloyd Wright Color Collections

“Go to the woods and fields for color schemes. Use the soft, warm, optimistic tones of earths and autumn leaves.”

– Frank Lloyd Wright.⁸⁹

Recognized as the “greatest American architect of all time” by the American Institute of Architects, Frank Lloyd Wright was a true believer of the philosophy of organic architecture in which man-made structures existed harmoniously with the natural environment. Color played an essential role in achieving this philosophy. Wright believed that it was color that unified the aesthetic of organic construction with architectural elements and its surroundings, and therefore almost always had specific color themes for his designs.⁹⁰ The two sources that inspired Wright in determining his palette for any given project were the nature of the site and the nature of the building materials that he generally collected from the locality. Colors of natural elements like the sun, trees, stones and water influenced the majority of colors used by FLW in his designs.⁹¹

⁸⁹ Legler, Dixie, “Natural Colors,” in *Prairie Style*, (New York: Stewart, Tabori & Chang, 1999), 36.

⁹⁰ Lynda Waggoner, Vice-president & Director of Fallingwater, said on the significance of color in Wright’s works:

Color was very important to conveying Frank Lloyd Wright's aesthetic of organic architecture as a unified whole. He drew from two sources in determining his palette for a given project: the nature of the site and the nature of the building materials. In the early projects, particularly the Prairie houses that were constructed of brick and stucco, autumnal colors predominate: warm shades of red, gold, brown and yellow-green. These restful yet intense colors were accented by a palette of related hues and created a harmonious, unified and serene environment for the client. At Fallingwater, Wright employed both a limited palette of color and a limited number of materials in his desire to create an organic and integrated whole.

⁹¹ Schlotter, Dee, “Frank Lloyd Wright’s Approach to Color,” *Voice of Color*, March 1, 2006, accessed April 5, 2017. <http://www.steinerag.com/flw/Artifact%20Pages/FallingwaterPPGColor.htm>

Fallingwater – the Kaufmann House – built in 1935, conveys Wright’s philosophy in the implementation of its colors, both outdoors and indoors. It was Wright’s idea to continue the stone and concrete of the exterior to the inside of the house to create a neutral palette of gray and rosy ocher. For the interior of the house, Wright used earth tones including warm shades of red, gold, brown and yellow-green as is evident in the furniture and other decoration of the living room (Fig. 4.6.). Lynda Waggoner, the vice-president and Director at Fallingwater, explains that Wright had individual concepts behind all his color choices. For instance, Wright limited the use of the “Cherokee Red” – which has come to be known as his personal favorite – only on metal and ironwork in Fallingwater. He explained that the color red best expressed the nature of steel, a metal that he frequently used, which was *a product of red iron ore and fire*.⁹² Similarly, the floors were painted in several colors, indicative of the varied tones of natural stone that was quarried from nearby; the palette included white, raw umber, burnt umber, black, gray, and yellow-brown.⁹³ The overall theme reflected colors from the landscape with trees and stones surrounding the house.

Wright followed a similar concept in choosing the colors for Taliesin West, Wright’s winter abode, in the desert of Arizona. Here too, Wright used colors that reflected the nature of the terrain and his choice of building materials that included concrete with large aggregates, stones collected from the desert, and steel.

Today there are color palettes derived from those used at Fallingwater and Taliesin West.

In 1955, FLW selected color from existing contemporary paint colors offered by the Martin-Senour Paints. He selected thirty-six colors that he thought best represented his choices for

⁹² Waggoner, Lynda, “Visiting Fallingwater: the Director’s Tour,” in *Fallingwater* (New York: Rizzoli International Publications, Inc., 2011), 54.

⁹³ Bonfilio, Paul, “Painting the Building: The Palette is not just Cherokee Red,” in *Fallingwater: The Model*, (New York: Rizzoli International Publications, Inc., 2000), 67.
The Cherokee Red resembles a terracotta color, and is a mixture of burnt sienna and red. It is now available in Pittsburgh Paints Color #FLLW68 and PPG13-02.

Taliesin West (Fig. 4.9.). This was part of a larger development of home products marketed to people who did not live in one of Wright's designed homes, or could not afford to have Wright design their residences. The line included furniture, fabrics, rugs, wallpaper and most importantly the selection of specific paint colors for houses from the Martin-Senour Paints (who started promoting them as the Frank Lloyd Wright color palette).^{94 95}

After working with the Western Pennsylvania Conservancy (current owner of Fallingwater) in an in-depth color analysis of the Kaufmann House, the PPG Pittsburgh Paints Company introduced a palette of thirteen shades in 2007, inspired from the building and its surrounding (Fig. 4.8).⁹⁶ In 2014, PPG also acquired the thirty-six color Taliesin West palette from Martin-Senour Paints. It worked with Frank Lloyd Foundation to develop specific paint formulas with modern ingredients to match the original 1955 colors from Martin-Senour that Wright had selected. The palette is labeled as "The Original Taliesin Color Palette from 1955" and appears slightly darker than the original palette from Martin-Senour (Fig. 4.10).⁹⁷ These palettes both represent the mid-century modern style of architecture made popular by FLW.

⁹⁴ Maddex, Diane, *Frank Lloyd Wright's House Beautiful*, (New York: Hearst Books, 2000), 36.

In 1955, Frank Lloyd Wright developed the "Taliesin ensemble," a line of furnishings for those that did not live in one of his homes. Partnerships were formed with five companies: 1) Heritage-Henredon, a line of furniture designed by Wright. 2) Karastan, Rugs. 3) The Martin-Senour Company, the Taliesin Palette, 36 personally selected paint colors. 4) Minic, Accessories. 5) F. Schumacher & Co., Fabrics and Wallpaper designed by Wright.

⁹⁵ "The Martin-Senour Company Paints," *House Beautiful* (November 1955): 204.

⁹⁶ *Old House interiors*, "Dark and Rich," (November – December, 2007):16.

The shades are available as part of the new 13-color Fallingwater Color Palette from Pittsburgh Paints, offered in an environmentally friendly, no-VOC formula.

⁹⁷ PPG Pittsburgh Paints has an exclusive Frank Lloyd Wright™ collection within its "The Voice of Color" Program.



Fig. 4.6. The living room at the Kaufman House, Pennsylvania, decorated in earthy tones of yellow, red, and green.



Fig. 4.7. The upholstery on the furniture displays one of the prominent shades (orange) that Wright used in designing the main living room at Taliesin West, Arizona.

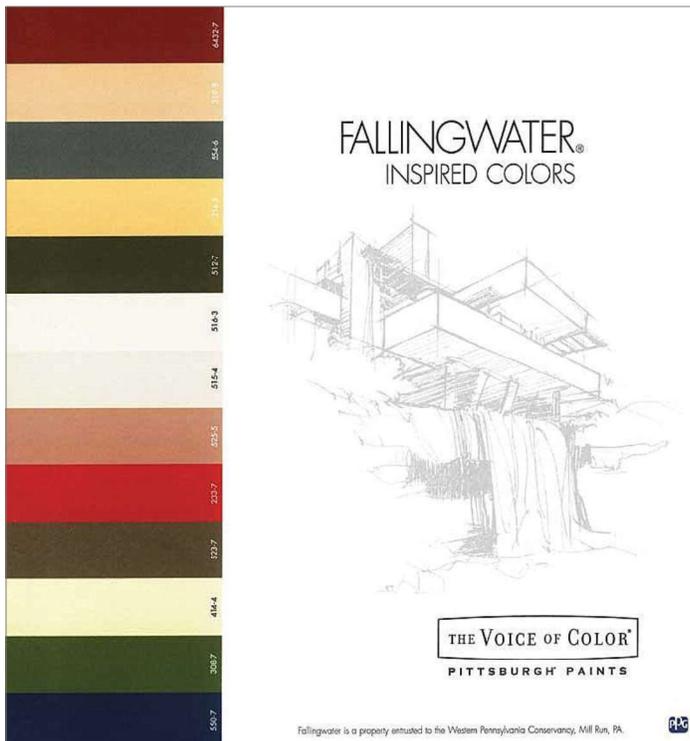


Fig. 4.8. This is the “Fallingwater Inspired Colors” offered by *The Voice of Color* from Pittsburgh Paints.

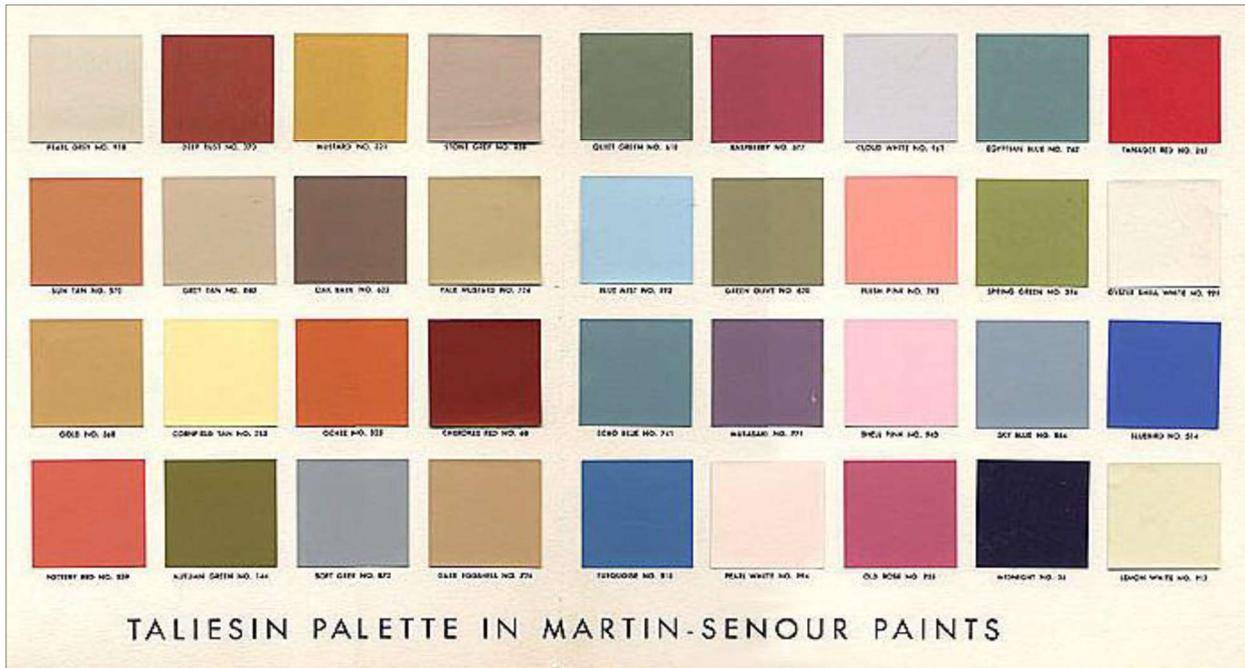


Fig. 4.9. The “Taliesin Palette” in Martin-Senour Paints from 1955.



Fig. 4.10. “The Original Taliesin Color Palette From 1955” by the PPG from its Frank Lloyd Wright color collection.

In contrast to historic color palettes that were developed from the examination of paint samples and historical records, there are palettes that have originated from people's imagination, and yet have had great impacts on the aesthetic quality of respective areas. The palettes for Columbus Storefront Restoration Project in Indiana and South Beach in Miami are two examples.

Columbus Storefront Project, Indiana

In March 1961, architect and designer Alexander Girard was offered *the possibility of cleaning up and beautifying the fronts of the stores and other business houses up and down Washington Street (in Columbus, Indiana)* by S. E. Lauther, the president of the Irwin Union Trust Company. The project was part of a joint effort by the Downtown Development Agency (DDA) and the commercial redevelopment committee of Chamber and Central Business Association (CBA) to give the commercial zone of downtown Columbus what was then commonly called a “facelift.” Its purpose was to save the business district from turning into a ‘jungle’ of conflicting colors and neon signage of various shapes and sizes – what architect and critic, Peter Blake referred to as *the mess that is man-made America*.⁹⁸

Hailing from Santa Fe, New Mexico, Alexander Girard was an architect by profession, who was well known for his keen sense of order. He was better known as a Designer or Artist for his works with color in furniture and textile design. Not surprisingly, color was one of his most important tools in the storefront restoration project. He created a palette of twenty-six

⁹⁸ Peter Blake, “God’s Own Junkyard,” (New York: Holt, Rinehart and Winston, 1964), 7.



Fig. 4.11. A scale model painted by Alexander Girard using colors combination from the 26-color palette he created for the Storefront Restoration project. It helped people to visualize the appearance of the block fronts once Girard’s design theme was implemented.

colors that he thought was historically appropriate for the Victorian storefronts and commercial buildings along Washington Street. Girard and his associates decided on the colors by examining and studying the architectural details on the Victorian structures – the exact methodology was not explained. The color scheme was intended to accentuate the period architectural details on the buildings, and work simultaneously with the addition of new porcelain enamel signs and fluorescent lights installed above the marquee level on all stores to create a unified streetscape. Certain shades predominated the scheme in their application on store elevations – orange, green, white and buff along with a sky-blue. The bright colors were used primarily to emphasize decorative elements such as the cornices, windows, and their lintels and trim, while more restful shades (like sky-blue and beige) were applied on the main body of the buildings, creating what Girard felt was a balanced aesthetic for the block fronts.⁹⁹

The project came to be known as “the model block project” and “pattern painting of downtown Columbus,” as it was carried from one block to the next in phases.¹⁰⁰ After the first model block between Fifth and Sixth Streets on the east side of Washington Street was

⁹⁹ Lange, Alexandra, “Alexander Girard in Columbus,” in *Alexander Girard: A Designer’s Universe*, (Germany: Vitra Design Museum, 2016), 278-279.

¹⁰⁰ This information was gathered from early articles on the project in newspapers in the collection of the Columbus Indiana Architectural Archives.

completed in 1965, store owners from adjacent blocks began to ask for design schemes for the buildings in their blocks. The whole process was never legislated or strictly enforced but

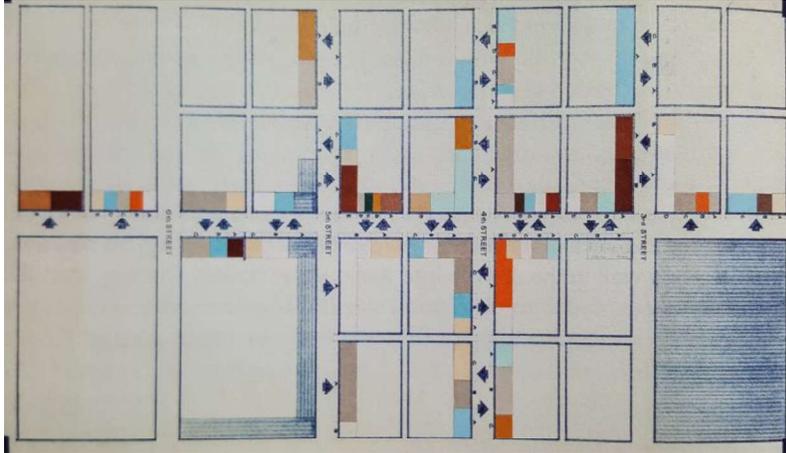


Fig. 4.12. This is the plan of the color scheme designed by Alexander Girard for the commercial facades along Washington Street, Columbus,



Fig. 4.13. View of Washington Street, Columbus, Indiana, around the mid-1960s, before Alexander Girard's restoration. The facades are all painted in different colors and have various shapes and sizes of signage installed.



Fig. 4.14. View along Washington Street, Columbus, Indiana; with the same facades renovated according to the design scheme by Alexander Girard in 1965. Here, colors transition smoothly from one facade to the next along the entire block, enhanced by similar styles and sizes of signage and lighting across all stores.

was executed through voluntary acceptance from owners.¹⁰¹ This approach allowed the community to become involved in the restoration project, which led to an appreciation for the historic buildings in the area. The Columbus Storefront Project drew national attention for its success and became a model for later street transformation projects.¹⁰² Today, the mock-up scale models (Fig. 4.11.) that Girard first used to convey his idea of a harmonious streetscape to the public, are considered artwork themselves. These models are used in tandem with the color-coded maps (Fig. 4.12.) by building owners who want to recreate the look from Girard’s design from 1965.¹⁰³ The palette, which draws inspiration from colors used on Victorian houses, is not based on scientific paint analysis; neither does it rely on historical documents specific to the storefronts. Therefore, while it is promoted as historic, it is not. The colors are a mid-twentieth century view of early twentieth century color schemes.

“It’s a different kind of “historic” in that it’s from the 1960s. This palette, though, is the most important one for Columbus, Indiana.”

– Richard McCoy, Director, Landmark Columbus, 2017.¹⁰⁴

The main street revitalization program added to the burgeoning architectural movement in Columbus, Indiana in the late 1960s. Girard’s color scheme along with modern buildings by

¹⁰¹ “CBA Plans More Store Painting,” *Target*, March 1, 1966.

¹⁰² Lange, 281-282.

A 1975 Washington Post editorial pointed to Girard’s Columbus storefronts as a model for the transformation of G Street, while designer Ruth Adle Schnee also referred to it when she consulted on the repainting of Monroe Street in Detroit’s Greektown in the late 1960s.

¹⁰³ Lange, 278.

Girard took scale photographs of all of the storefronts in the central business district, and then he and his staff painted each building a combination of the 26 colors he had selected for the project, mounted these paintings on Masonite boards and shipped them to Columbus, where they were exhibited on Washington Street. These panels were set up on wood stands to simulate the continuous street front along individual blocks.

¹⁰⁴ Richard McCoy’s statement regarding Alexander Girard’s 1960’s palette for the Storefront Restoration Project, Indiana. Contacted via e-mail, February 24, 2017.

well-known architects, all helped to attract more visitors to the city, promoting Columbus as an “archi-tourism” center for people to appreciate modernism.¹⁰⁵

The Pastel Palette, South Beach, Miami

The “Miami Beach Architectural Historic District” of South Beach is known internationally for having one of the largest collections of Art Deco buildings in the world. Its signature is a range of colors used on the buildings lining the oceanfront, which include pastel shades of yellow, pink, blue, purple, green and many more.

Popularly known as the “Art Deco District,” the area was listed in the National Register of Historic Places in May, 1979 following a large campaign by the Miami Design Preservation League (MDPL) against a multi-million urban renewal project below Sixth Street (see map in Fig. 4.15.) that threatened to displace the elderly population in the area, making it the nation’s first urban twentieth century Historic District.¹⁰⁶⁻¹⁰⁷ However, being listed on the National Register proved inadequate to prevent landmark buildings from being destroyed.

¹⁰⁵ Susan Stamberg, “Columbus Ind.: A Midwestern Mecca of Architecture,” *WNYC Radio*, July 31, 2012, accessed on April 27, 2017 <http://www.npr.org/2012/08/04/157675872/columbus-ind-a-midwestern-mecca-of-architecture>

The Modernist buildings — mostly geometric and made of glass and steel — are not immediately visible, interspersed as they are with old, 19th-century, gingerbread-like structures; but more than 60 public buildings in Columbus have been built by a veritable who’s who of modern masters — I.M. Pei, Eero and Eliel Saarinen, Cesar Pelli, Richard Meier, Harry Weese, Robert Venturi and James Polshek, to name a few... Then, in the 1960s, thanks to some design-conscious decisions by the biggest business in town, the architectural revolution soared, with schools, fire stations, an all-glass bank, a courthouse, city hall, a world-class golf course and a jail — a really attractive jail.

¹⁰⁶ Miami Design Preservation League, “A Brief History of MDPL,” <http://www.mdpl.org/about-us/about-miami-design-preservation-league/a-brief-history/>

The Miami Design Preservation League (MDPL) was formed through the efforts of Barbara Baer Capitman and her son John Capitman. The initial impetus was to find a project to honor the United States’ bicentennial; the Capitmans worked with designers Leonard Horowitz and Lillian Barber to identify a concentration of 1930s buildings in South Miami Beach that the group felt could be a historic district of 20th century architecture.

¹⁰⁷ Stofik, Mary Barron, *Saving South Beach*. (Florida: University Press of Florida, 2005), 26. The Miami Design Preservation League was made up of people whose focus was primarily on the design and time period of buildings and was concerned with the people who lived there. At its inception, the purpose of the organization was to preserve the neighborhood of South Beach by creating a historic district called “Old Miami Beach.”

Significant structures like the Boulevard Hotel at 775 Dade Boulevard (demolished in April 1980) were torn down in order to make way for what was thought to be more profitable construction. Developers thought new construction would increase revenue and “save” the district from the changing demographics of South Beach in the 1970s. There had been a shift in the district’s population; as older and retired people moved in, crime increased, businesses were in decline, and the older buildings were in disrepair. The National Register listing did little to persuade people to spend money on restoring these buildings and to save



Fig. 4.15. Map showing the Miami Beach and the South Beach Art Deco Historic District bounded by Sixth Street and Lincoln Road in the North-south direction.

the neighborhood of South Beach. This is where the color palette (Fig. 4.16.), created by an interior designer, Leonard Horowitz, was able to make a difference.

"I'll take care of the buildings. I'll do the frosting on the cake because these look like they're going to be a lot of fun to play with."

– Leonard Horowitz, in a film called "Pastel Paradise," 1988.¹⁰⁸

With his love for Art Deco designs, Horowitz shared Barbara Baer Capitman's (founder of MDPL) dream to rejuvenate South Beach, and reinstate its old glory from the 1930s. The significance of the area, however, lay not only in its large concentration of Deco buildings but also on the wide variation and fine composition of Mediterranean and Moorish architectural influences, creating a unique vernacular style of Deco buildings.¹⁰⁹ Horowitz envisioned the Deco revival through the use of color, which he believed would add excitement to the dull gray dilapidated buildings on the beach. His idea was to accent the building decoration attracting attention to the details on the Art Deco structures. Historically, the hotels, apartment buildings, and stores were mostly painted white with little touches of jade green, ochre, or coral.¹¹⁰ But the color scheme that Horowitz visualized was radically different. His goal was not merely to save the stylish Deco structures but to call attention to them and to create a unified streetscape. The body color of one building would transfer to the trim of the next while the colors would change shades to maintain continuity. Horowitz's color palette for Miami Beach was created using colors from his surroundings; the sun, the sky, the sand and the ocean. As a result, South Beach today is filled with buildings that are painted in colors such as peach, cream, mauve, aqua, shell

¹⁰⁸ Julia Duba, "Meet the Man behind all those South Beach Pastels," *WIRN Public Radio and Television*, July 26, 2013, accessed April 5, 2017, <http://wlrn.org/post/meet-man-behind-all-those-south-beach-pastels>

¹⁰⁹ Stofik, 31.

¹¹⁰ Ibid, 78.

pink, golden sand, seafoam green, Caribbean blue and sunrise orange. The buildings along Ocean Drive bring to life the idea of the continuous streetscape that Horowitz dreamed of (Fig. 4.17.).

The first building to be painted using the colors developed by Horowitz was the Jewish Friedman's Bakery on the corner of 7th and Washington Avenue – now *Manolo*, a restaurant (Fig. 4.18.). It was painted with shades of cotton candy pink, periwinkle blue, buttercream and mint green, giving it the appearance of a fancy birthday cake. Although the color combinations were not unfamiliar on the streets of Miami, the public reactions initially were not very favorable.

Within a year, as more buildings were painted, people started accepting Horowitz's pastel color scheme. It expanded into the "paint and awning" project – which had the trim and awnings of storefronts match the new color scheme along the commercial strip from Fifth Street to Lincoln Road.¹¹¹ In 1982, the Bakery was featured on the cover of *Progressive Architecture* magazine, photographed by the famous Steven Brooke, who was of the opinion that Horowitz had drawn inspiration from Chicago's second World's Fair of 1933-34.¹¹² The magazine feature along with television shows like "Miami Vice," (which showcased the Art Deco setting as a backdrop) helped the district reach a greater audience, and gain the much needed national attention to save its buildings from further demolition.

¹¹¹ Stofik, 102-103.

Lynn Bernstein, the assistant director of the Miami Beach Development Corporation, scored her first success (in persuading owners of retail stores to freshen up their buildings with a new coat of paint) with the owner of sixteen storefronts in the 600 block of Washington. The first building to be painted was a Jewish bakery. Bernstein's next task was to convince merchants to pay \$25 to paint their awnings to match the new color scheme.

¹¹² Luke Crisell, "The Most Beautiful Art Deco Buildings in Miami, Chosen by a Man Who Spend 30 Years Photographing Them," December 2, 2015, accessed April 5, 2017. <http://www.wearesweet.co/culture/art-design/g328/most-beautiful-art-deco-miami/>

"When efforts to revive the district began, colorist Leonard Horowitz chose sophisticated new color schemes for the buildings based on 1930s World's Fair colors," Brooke says. "The new colors were as much a draw as the architecture itself, providing, for example the backdrop for programs such as *Miami Vice*."

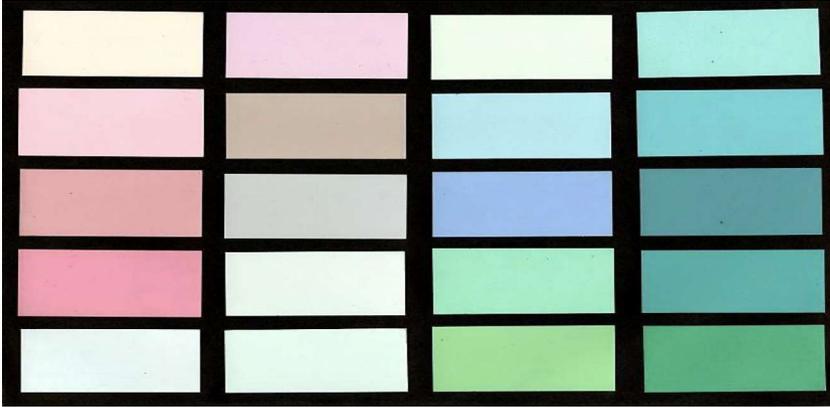


Fig. 4.16. The Pastel palette by Leonard Horowitz, created for the Deco buildings in South Beach Historic District in Miami.



Fig. 4.17. This is a view along the Ocean Drive in south Beach, showing the use of pastel colors from Horowitz's palette creating a harmonious streetscape.



Fig. 4.18. Friedman's Bakery, before and after being painted with the colors from Horowitz's palette: cotton candy pink, periwinkle blue, buttercream and mint green,

The Pastel Palette was not the only factor that contributed to the eventual preservation of the Art Deco District, but it certainly played an important role in attracting and generating public opinion regarding the significance of buildings in the Historic District and the need for their preservation. More people began to voluntarily paint their buildings in South Beach with colors from Horowitz's palette. Today, the Historic & Environment Preservation Board (HEPB) in the City of Miami regulates the colors used on buildings within the historic district and recommends the use of light pastels similar to those developed by Horowitz.¹¹³ Moreover, the City of Miami has a list of approved colors, which can be obtained from the Building Department, and at present uses color numbers assigned by the Sherwin-Williams Company (Appendix – 4).¹¹⁴ No information, however, was found regarding any company that may have worked with Horowitz at the beginning, or about any commercial production of the Pastel Palette in later years. Nevertheless, the palette is very popular in Miami, and has been translated into other building finishes such as the “Cement Tiles” by the Villa Lagoon Tile Company, which offers over seventy “South Beach” colors.¹¹⁵

From the case studies it appears that the earliest “historic color palette” started with architectural paint research to aid in the restoration of historic buildings usually by historic preservation organizations. Soon, paint manufacturers got involved and expanded the colors in commercial palettes, using sources other than paint in and on historic buildings. “Historic color palettes” (either commercially produced or not) helped create attractive and sometimes harmonizing aesthetics, supported economic motives such as tourism (e.g. CW,

¹¹³ City of Miami, “Historic Preservation General Design Guidelines,” (City of Miami: September 2011), 33.

¹¹⁴ Information collected from Jack Johnson, Vice-chair Officer at Miami Design Preservation League. Contacted via e-mail, April 26, 2017.

¹¹⁵ Villa Lagoon Tile, “The South Beach Palette – Cement Tile Colors,” accessed April 9, 2017. <https://www.villalagoontile.com/south-beach-collection-colors.html>

South Beach and Downtown Columbus) and also acted as a disseminator of historic knowledge (e.g. CW, Historic New England, Shaker Village Colors, or even the FLW color collections). Overall, it would seem that these palettes have been beneficial to historic preservation in the United States.

Chapter 5: “Historic Color Palettes” and Authenticity

Examining the genesis of the “historic color palettes” it becomes clear that their evolution was driven by a variety of factors including educational goals, community preservation, aesthetics, and historical documentation. But all are the result of attempts to preserve the nation’s historic past. They do raise the question of how important is it to display authenticity with regards to historic colors on old buildings. How important is it to be accurate to save our heritage?

5.1. Architectural Paint Research and Authenticity in Preservation

From Susan Nash on, there have been a number of methods used to analyze historic architectural paints – that ranged from the early and now discredited scraping and sanding to the more elaborate cross-section microscopy. Mechanical scraping of paint layers was the most commonly used method for identification of original paint layers in the early twentieth century (as seen at CW). Although a simple technique, it is unreliable in cases where over painting of surfaces were done because the full stratigraphy is not always visible. A few examples described in Chapter-3 illustrated how new research was able to reveal misidentifications of paint layers where the paint-scrape method had been used. Priming coats were thought to be the finish coats or the colors were incorrectly matched to darkened or washed-out paints.

Standards and procedures for investigating architectural paint layers have evolved and were developed to help conservators and preservationists. Penelope Hartshorne Batcheler – a restoration architect – established more modern paint color research and restoration techniques when working on buildings at Independence National Historical Park in the 1950’s. Her work was used to produce a set of guidelines in the 1960s that carefully described the procedures to be followed in collecting samples, determining finish coats, dating the layers and ways to interpret paint evidence. She explained the techniques to use a binocular microscope and ways to match colors with the Munsell color system. Batcheler also advised on paint formulas most suitable to use in recreating the original appearance of the finish.¹¹⁶ The Secretary of the Interiors, too, has standards concerning painting historic interiors, and emphasizes the significance and necessity of paint investigation in the determination of appropriate preservation treatments on historic structures.¹¹⁷

Architectural Paint Research techniques have progressively advanced to produce better and more precise results. With the introduction of techniques like the photo-microscopy and fluorescence microscopy, it has become comparatively easier to document and identify various layers in paints.¹¹⁸ Now it is possible to compare photographs of finishes, identify original and later paint layers, and determine a chronology of building changes, which is again an important research tool for architectural historians and conservators.

The latest technologies enable the identification of details in paint layers, even from extremely minuscule samples. These methods include visible light microscopy, fluorescence microscopy, micro-chemical testing, gas chromatography, Fourier Transform Infrared

¹¹⁶ Batcheler, Penelope H., “Paint Color Research and Restoration,” *History News* 23, (October 1963), reproduced as *Technical Leaflet no. 15* American Association for State & Local History.

¹¹⁷ Chase, Sarah B., “Painting Historic Interiors,” *Preservation Brief 28*, (National Park Service, U.S. Department of the Interior, June 1992).

¹¹⁸ Susan Buck, “The Aiken-Rhett House: A Comparative Architectural Paint Study” (PhD diss., Art Conservation Research, University of Delaware, 2003), Ch.2.

(FTIR) micro-spectroscopy, scanning electron microscopy (SEM), electron beam microprobe, and X-ray fluorescence analysis.¹¹⁹ Unfortunately, necessary instruments such as those required for SEM are quite expensive, and additionally requires specialized knowledge to examine samples and interpret data collected, which would explain why most of these analytical investigations are conducted only at large museums and conservation research labs. In that light, Dr. Susan L. Buck – conservator and paint analyst – wrote in her Ph.D. dissertation:

*“The standard tools for an architectural paint analyst remained (and perhaps still remain) a binocular microscope with a camera attachment and a visible light source and a polarizing light microscope, therefore precluding the ability to identify accurately the nature of resinous varnishes and glazes in cross-section, as well as the use of fluorochrome stains for binder characterization of paints in cross-section. Confident and accurate interpretation of paint cross-sections requires several years of analyzing and interpreting hundreds of samples and disciplined comparisons of unknown materials with standard known samples.”*¹²⁰

In the field of preservation, the Colonial Williamsburg Foundation continues to be a proponent of science and technology. Although the earliest palettes may be the result of outdated techniques, Colonial Williamsburg was quick to embrace advancements in analysis, and carried out further research work, making corrections to its color palette as necessary. CW became a role model for systematic research in the collection, analysis and documentation of paint samples. Along with other regional organizations like the Historic

¹¹⁹ Farrell, Eugene, “Pigments and Media: Techniques in Paint Analysis,” in *Paint in America: The Colors of Historic Buildings* (Washington: Preservation Press, 1994), 187-203.

¹²⁰ Susan Buck, Ch.2.

New England, CW was able to establish the significance of architectural paint research and analysis in restoring historic structures to their original appearances. And therefore, that research focus ended up advocating for the role of APR in historic preservation. Palettes like the *Williamsburg® Color Collection* (by CWF and Benjamin Moore) and *Historic Colors of America* (by HNE and California Paints) are examples where APR has acted as a major driving force behind their developments.

In the last fifty years, architectural paint research has increasingly been used by conservators in this country and across the globe in order to develop “historically authentic” paint colors. Some of this research has been translated into “historic color palettes.”

5.2. Use & Popularity of Historic Color Palettes

If the number of “historic color palettes” in the market is any indication of the demand for historic colors among consumers, it would be correct to say that historic color palettes appear to be quite popular in the United States. The majority of paint companies offer some form of “historic” color palettes in their collections, either regional or general. Another indicator of the demand for historic colors would be the number of colors provided in these palettes, an attempt on the part of manufacturers to generate greater interest among consumers. With the exception of the “Historic Collection” by PPG, all the historic color palettes comprise over 50 shades (see Appendix – 1), covering almost the full spectrum of any given hue. The largest historic collection comprises over 250 colors, offered by Valspar. Moreover, it is the emergence and number of “historic color” consultants – who advise people about painting their historic homes in the most time-appropriate colors – that tell

the story of use and popularity of such palettes. And John Crosby Freeman, who has labeled himself as “The Color Doctor” is one of the better known.

Choosing Time-Appropriate Colors with ‘The Color Doctor’

John Crosby Freeman developed the *Southern Heritage* color cards around 1996 for Valspar at Lowe’s (this was later incorporated by the National Trust in its historic color palette), and was also one of the people responsible for developing the “Heritage Colors” at Sherwin-Williams in 1981. He is, however, better known for his role as the Color Doctor – a title that he has copyrighted. Freeman has written a number of articles on restoring and renovating historic homes for magazines like the *Old-House Journal*, *Old-House Interiors*, and *Traditional Building*.¹²¹ He gives painting suggestions to historic home owners based primarily on the architectural style of the house while accommodating the color preferences of the owners. According to Freeman, after deducing the dominant architectural style of a historic house, he is able to make color suggestions based on his knowledge about popular trends of the period. His choices are guided by the color possibilities available in the earlier periods, because in his opinion, there is no one permanent set of historic colors for a given period. There are always options. He has also developed steadfast rules regarding the combination of colors on surfaces – like *separating the blues from the greens* because according to Freeman, these colors appear *problematic* when placed together. Bearing in mind the architectural style of the home, the personal color preference of home owners, and his knowledge of colors and their combinations, Freeman “prescribes” colors for a palette that would look appropriate on the house and reflect the period in which it was built.

Freeman stated that in his research for American historic colors, he was guided by the book

¹²¹ Old House Authority, “Color Doctor On Call for Historic Home Color Consultations,” accessed April 9, 2017, <http://www.oldhouseauthority.com/Home/OldHouseColors>

The Painter's Hand-Book from 1887 (which has 116 chromo-lithographed colors for professional Master Painters) and an early twentieth century paint catalogue from the Sears Roebuck Company. These continue to be his guidelines for suggesting historic colors to home owners that he usually selects from the color charts of Sherwin-Williams.¹²²

During the consultation, no form of architectural paint research is carried out (or even considered), and no historical document relating to the building is referred to.

This tendency of people to ask for expert advice on color restoration is certainly telling vis-à-vis people's fear of choosing the wrong color for their historic house. It also suggests a lack of interest or awareness of the concept of authenticity in historic preservation.

5.3. Varying Paths and Results

The Colonial Williamsburg color palette was initially born from the intention to restore eighteenth century houses in the region to their original appearances; it was later expanded and altered as necessary – to educate people about the colonial history of restored and reconstructed houses in the area – based on scientific evidence obtained from paint research. CW modified its palette over the years to keep up with developments in architectural paint research. Consequently, the palette has been continuously transforming since its commercial inception in 1936. From its inception in the 1930s, at the time of the Great Depression and then through World War II, the Colonial Revival may have appealed to people not only as a powerful indicator of social status, but as a means to relive “happier” times from the past. This may explain the popularity of Colonial style and paint colors. Since then, the palette has evolved to incorporate new colors, and some were removed. As CW became more “scientific,” colors that were misidentified from earlier studies,

¹²² Freeman, John Crosby, “Where have all the Colors gone?” *Traditional Building Period Homes* (2014), accessed October 2, 2016. <http://traditionalbuildingportfolio.com/opinions/forums/thecolors.html>

disappeared from the palette, reflecting the advancement in paint research methodologies and CW's commitment to education.

However, sources for colors in the latest CW palette, suggest that paint analysis of samples collected from buildings within the district is no longer the only resource responsible for development of the palette. Some colors have been derived from structures located outside the historic area although within the Tidewater region, in addition to information gathered on raw materials and popular colors from local historical advertisements from the eighteenth century. Furthermore, the palette has grown quite dramatically from sixteen to 144 colors in over seventy years. This is the result of expansively expanding on the "let down" system that was first introduced in 1949 by Pittsburgh Plate Glass Company. In later years, this expansion became a means to add more shades to accommodate a growing market for wider varieties in historic color choices.

The CW palette was easily available to a mass market, extending the popularity of Williamsburg and Colonial Revival architecture in the United States. The paint palette supported CW's educational component and promoted tourism in the district.

Another palette that had a significant effect on tourism was the *Pastel Palette* of South Beach, created in the late 1970s by a man, who was driven by his love for and desire to save Art Deco buildings in Miami. This large group of buildings, which has defined the historic district's built fabric, possessed unique vernacular characteristics. Perhaps, Leonard Horowitz – who was known to make paintings influenced by architectural styles of the 1930s-1940s – thought putting on a fresh coat of paint on the not-so-old but disheveled structures was the simplest, cheapest and quickest means to catch people's attention. An interesting color scheme would generate appreciation and ultimately save these Deco buildings from demolition.

Horowitz largely used his imagination to select the colors he thought would work best. It is likely that he may have also drawn inspiration from Art Deco buildings like the Radio City Music Hall, which has colorful medallions depicting different performing arts on its façade (Figures 5.1. & 5.2.). He had lived in New York City prior moving to Miami. In any case, the soft pastels that Horowitz used to paint the buildings created a stir in the public, and attracted attention from all around the country, and the buildings were saved.

The new color scheme brought attention to the buildings and the district rapidly gained popularity among tourists as a preferred vacation destination. As the economy of South Beach quickly improved, it displaced the majority of the elderly population for whom the whole preservation initiation was originally taken up.¹²³ The “Pastel Palette” was initially conceived as a tool that would allow the *saving of buildings*, which was by itself the tool to prevent the displacement of elderly population of by the “South Shore” commercial redevelopment project of the late 1970s. Despite the unintended consequences, Leonard Horowitz’s palette of soft and flamboyant colors forced people to take notice of and appreciate the beautiful Art Deco buildings in Miami and saved them from being lost. It played an extremely important role in the preservation and revitalization of the built fabric of South Beach Historic District. As an acknowledgement of this accomplishment, it is now mandatory within the historic district to use light pastel colors, in order to maintain an

¹²³ “Barbara Baer Capitman,” *South Beach Art Deco Reborn*, accessed April 8, 2017, <http://25327546.weebly.com/barbara-baer-capitman.html>

The Miami Beach commission planned to revive the city, creating a redevelopment agency in 1973 and a plan named “South Shore” in 1975. This plan involved tearing down old hotels and replacing them.

“We were talking about the neighborhood and how they all helped one another,” John (Capitman) said. “We were trying to think of a way to keep the community from being destroyed, and then we began looking at the buildings... the unique design they have... and we thought, ‘Maybe these lovely buildings can be used to save the people who live in them.’ That was how the movement was born.”

aesthetics that in reality first appeared in the 1980s, and are now considered “historic” (Fig. 5.3).¹²⁴



Fig. 5.1. An Art Deco rondel representing Dance on the façade of the Radio City Music Hall, New York. Notice the colors used.



Fig. 5.2. Another Art Deco rondel representing Music on the façade of the Radio City Music Hall, New York. The colors of the fabric on the performers are very prominent in the Pastel Palette for South Beach, Miami

¹²⁴ City of Miami, “Historic Preservation General Design Guidelines,” (City of Miami: September 2011), 33.

“... The first three intensities of a neutral or light pastel color shade are recommended.

- No one color may be applied to the entire structure; a minimum one main body and one trim color.
- Dark colors and bright hues are not allowed on structures.
- Trim color may be a darker or lighter (shade) than the body of the building.”

PAINTING

Most shades of paint color can be approved by the Preservation Officer for the body of the building.

- The first three intensities of a neutral or light pastel color shade are recommended.
- No one color may be applied to the entire structure; a minimum one main body and one trim color.
- Dark colors and bright hues are not allowed on structures.
- At no time should stone or brick be painted.
- Trim color may be a darker or lighter than the body of the building.



Note: The Preservation Officer has the right to refer any color request to the HEPB.

Fig. 5.3. Historic Preservation Guidelines (Sept. 2011) regarding painting within historic districts in Miami. These guidelines appear to emphasize the use of soft pastel colors and also requires the use of more than one color for building elevations, similar to Leonard Horowitz's application of colors on the Deco buildings. HEPB – Historic & Environment Preservation Board.

Washington Street in downtown Columbus was another district with one man, Alexander Girard, creating his own palette. Girard's twenty-six colors were chosen to "organize" the buildings along the street. Although the colors were thought to be historically "appropriate," no form of architectural paint research was performed to identify colors originally used on the storefronts. Girard was known to have carefully studied the old Victorian buildings and the period-specific architectural details on them, but specific methods were not elaborated. Girard may have looked at color cards and paint brochures to determine popular colors from the period when the buildings were built before deciding on the overall palette for the storefront restoration project although some of the colors are predominantly those popular in the 1960s.

Although not derived from scientific research of existing paint samples, the resulting palette used to restore the run-down Victorian buildings provided the storefronts with a fresh and de-cluttered look, and a colorful aesthetic that resonated with the public. This ultimately caused the community to look at old buildings in the area with a different perspective; people became more eager to restore old buildings instead of tearing them down for reconstructions. Therefore, Girard's palette – although not authentic – served as a tool that visually organized the buildings along Washington Street, which promoted and enabled the preservation of historic buildings in downtown Columbus, Indiana.

While a number of "historic color palettes" are meant to advocate historic preservation, others evolved from more commercial endeavors.

Sherwin-Williams began its own historic color collections in 1981 with the "Heritage Colors" and added the "Shaker Village Colors" in 1983. With the acquisition of Pratt & Lambert and Martin-Senour Paints in 1995, it inherited the "Colonial Williamsburg" color line that

both these companies were producing together at the time. Another acquisition in 2004, Duron Co. brought them the “Colors of Historic Charleston.”¹²⁵ Until 2013, when Benjamin Moore became the licensee for the CW collection, Sherwin-Williams was almost the sole source for “historic color palettes” in the country. Now, Sherwin-Williams, one of the largest paint retailers of the nation, is scheduled to acquire the Valspar Company in 2017, which will add the “National Trust Historic Colors” to its extensive collections of historic palettes. With all its acquisition strategies, it would appear that Sherwin-Williams is determined to become the nation’s largest paint retailer. Offering a wide range of “historic color palettes” that are able to attract larger consumer groups, in an era of widespread “niche” markets, would seem a profitable idea. This philosophy is reiterated in John Crosby Freeman’s statement regarding the earliest development of Sherein-William’s “Heritage Colors.”

“... (The reason why) Sherwin-Williams developed Heritage Colors, what became the Preservation Palette, in 1981 was to position and promote a new acrylic latex paint called SuperPaint; a premium product for which people were charged more money... .. and also remember that historic color cards had to appeal to current consumers, or else what’s the use of doing this?”

– John Crosby Freeman, 2017.¹²⁶

Here, the historic color palette is being used as a lucrative sales tool that relies on the inherent value that anything “historic” is thought to possess, and uphold specific “brand”

¹²⁵ Encyclopedia.com, “The Sherwin-Williams Company,” accessed April 28, 2017, <http://www.encyclopedia.com/social-sciences-and-law/economics-business-and-labor/businesses-and-occupations/sherwin-williams>

1995: The company launches an acquisition campaign that includes 16 purchases within 21 months.
2004: Duron Inc., the third largest paint retailer in the United States, is acquired.

¹²⁶ This was John C. Freeman’s reply when asked about the reason why Sherwin-Williams started a “historic” palette. Interview with author at the “Historic Home Show,” Valley Forge, Pennsylvania, January 29, 2017.

products to increase sales revenue for manufacturing companies. As a result, its role in promoting historic preservation has become subservient to its marketing role set by the company.

Even with those selling color as preservation, such as Historic New England’s “Historic Colors of America,” the decision to include colors, which were not scientifically determined or those that were found on objects and not on building surfaces, renders their announcement of sharing with consumers – *specialized knowledge about historic paint* through *a line of authentic colors* partially incorrect, as they do not distinguish architecture from objects.¹²⁷ The following statement from Sally Zimmerman, Preservation Specialist at Historic New England, adds to the subject of ambiguity regarding color sources in the palette so widely publicized as the “Historic Colors of America.”

“It is safe to assume, based on statements about the Historic Colors of America palette on its launch in 1997, that the palette includes colors developed from paint analyses performed at the conservation center using cross-section microscopy, but what the specific sources of those colors were, and which ones of the palette colors are “document” colors, I do not know.”

– Sally Zimmerman, 2017.¹²⁸

The philosophy behind this palette is quite clear – it was selling preservation to people.

¹²⁷ “Color your House with History,” *SPNEA*, Series 67 (Summer 1997): 1-2.

¹²⁸ Sally Zimmerman explains her skepticism regarding the origins of “Historic Colors of America” that was introduced to the American consumers in 1997 by California Paints, and developed by the Society for the Preservation of New England Antiquities. Zimmerman is currently the Senior Preservation Services Manager at Historic New England, and the creator of the “Twentieth Century Colors” collection for California Paints. This response was provided through e-mail, March 29, 2017.

The “Frank Lloyd Wright Color” collection began in 1955, when from an already existing palette of the Martin-Senour Paints, Wright selected color cards that he believed best represented his design scheme at his Taliesin West complex. And in general these could be applied in buildings of the Prairie Style that he was famous for. This color collection was part of a larger reproductions program that focused on the works of FLW including fabric, wallpaper, and furniture. Since PPG (Pittsburgh Paints) started working with the FLW Foundation in 2007, it has introduced the Fallingwater collection based on the in-depth paint analysis carried out on the structure. It expanded on the two colors used originally at Fallingwater to transform it to a commercially viable collection. It also brought out the Taliesin West palette, developing new formulations to match the original Taliesin colors from the Martin-Senour collection with modern commercial colors. Evidently, the FLW Collection is significantly different from the rest – because at its conception it was not meant to present a historical period but intended to emulate the very contemporary style of the moment, and the aesthetic of one iconic architect. Nevertheless, with the passage of time and its revival in the 2007 by PPG, the collection became a “historic color palette.”

Here too, a question of authenticity may arise. PPG introduced thirteen colors in its Fallingwater collection in 2007, whereas the original design scheme at the time of the house’s construction was limited to two – light ochre for the concrete and Wright’s signature Cherokee red for the steel.¹²⁹ PPG is believed to have drawn inspiration from the surroundings and furnishings in developing the other colors. And yet, this approach would not be very different from Wright’s own when he selected colors for the Taliesin West palette; it was based on all the colors that he had used at Taliesin West and was not

¹²⁹ Fallingwater, “Fallingwater Facts,” accessed April 8, 2017, <http://www.fallingwater.org/38/fallingwater-facts>

confined to colors on building surfaces. In that context, PPG's approach would not be considered incorrect. How closely it was able to reflect the building's original design scheme in the palette remains questionable to many.

5.4. Analysis

It would appear that there are three distinct trends in the ways that "historic color palettes" were created. One arises from academic architectural paint research, second from the study of historical documents, and the third derives from a good imagination and design knowledge of compatible shades that would resonate with the contemporary market. In reality, the process of creating a "historic color palette" is likely to involve all three factors with imagination taking up the bigger role. The historic color palettes that do not follow any academic research are highly decorative but inaccurate representations. This leaves a question of what happens when we try to recreate history without understanding what really existed, as it ultimately affects our interpretation of history. To the average consumer there is now way of knowing which "historic color palettes" are based upon architectural paint research and which are creations without any accurate evidence.

When examining historic color palettes and their popularity, it would appear that consumers today have little, if any, concern regarding the accuracy of colors included in these palettes. The sources of historic colors remain unclear and can hardly be determined from the paint brochures and color charts that are provided by companies and preservation organizations today. Which colors were originally used on the interior and which on the exterior? What type of buildings were the colors originally used on – residences or public buildings? Companies and organizations rarely make this information available to the

consumer. As a result, it is likely that historic colors from these palettes are not being used as they were historically. Colors from the palettes are more likely to be used wherever the consumer feels appropriate or based on the consumer's own personal preferences.

Companies do provide suggestions for color combinations according to a primary body color in order to assist the consumer in selecting the right colors for highlighting architectural features like the cornice, windows and trim.

Another issue with authenticity and the use of historic colors is the physical paint itself. Current "historic" colors are made with modern materials using modern techniques. They are no longer made from historically appropriate materials such as lead white, whiting, or hand ground pigments. Consequently, the modern "historic" paint color is unable to recreate original surface finish or the exact texture and appearance of the original historic paint colors. Even then the historic color palettes continue to remain popular among consumers today, reinforcing a lack of awareness amongst consumers regarding the issue of authenticity in historic preservation.

The popularity of historic color palettes among consumers does tell an interesting story of people's attraction to colors regardless of the type of paint and finish. In this context, paint simply becomes a medium, which allows for a color to be put on a surface. People's fascination with historic colors was first seen with the Colonial Williamsburg collection in the 1930's, and it has grown over the years continuing even today. Looking at the case studies and other historic color palettes available in today's paint market, and their gradual development over the years, it is evident that there is a need among people to connect with the past; even if it is merely through the use of a modern color that has been labeled "historic." People are applying historic colors to non-historic buildings, and colors from the

Frank Lloyd Wright collections are being used on buildings not designed by Wright and on buildings that are not even mid-century modern. “Historic color palettes” have created this notion of the “past & prestige,” and companies have marketed historic “colors” to play into this.

Another interesting characteristic of these “historic color palettes” is that – if one examines the range of colors provided in the historic color palettes, it is hard to miss the “modern” shades of grays that are included. For example the two ends of the latest Benjamin Moore Colonial Williamsburg color chart comprises a variety of grays (refer to Fig. 3.9.). These colors were unlikely to be used in the Colonial era. What had first attracted people’s attention was the discovery of radiant shades of color like the *Raleigh Tavern Green*, *Governor’s Office Red* or *Apollo Room Blue*. Inclusion of the “modern” colors raise the question if manufacturers are not trying to cater to a more contemporary taste in colors as a way of attracting younger generations under the banner of “historic.”

While the historic color palettes may not be fully “historically accurate,” paint remains an inexpensive way of interesting people in history. It is a tool that is accessible to the general public, and helps to build a connection to a period or architectural style that a person might have special interest in. Thus, the historic color palette would appear to be a promotional tool for paint manufacturers and also for preservation organizations who want to promote their historic buildings.

Authenticity of Historic Color Palettes: Does It Really Matter?

A common approach for many of these palettes was the study of historical materials available from the early periods such as paint brochures and building documents. Although paint brochures and advertisements are a good source for information, they cannot always be considered an accurate representation of what was actually painted. Specifications were not followed during the actual painting process. Plans get changed depending on builders, supervisors, or the owners; guidelines for mixing or the application methods of paints may have fluctuated, and perhaps, steps were taken to accommodate prevailing situations, which cannot always be comprehended from written documents. Therefore, putting together a palette with colors that were found in house documents and color cards from earlier times does not guarantee its historical authenticity.

Examining palettes such as the Pastel Palette by Leonard Horowitz or the one by Alexander Girard created for the Storefront Restoration Project, or even the “Shaker Village Colors,” one has to wonder if authenticity of colors should be a matter of great concern. For South Beach, the pastel colors played an important role in enhancing the look of buildings along the oceanfront, created a pleasant aesthetic that have later attracted tourists from all over the world and bolstered the economy of the area. The storefronts on Washington Street in downtown Columbus looked neglected. Girard’s palette helped revive interest in this classic “Main Street” by providing visual harmony along the street, without having to demolish and reconstruct all the buildings. The “Shaker Village” colors, when selected in 1925 by the Van Sweringen Company had a similar intent of maintaining aesthetic balance throughout the village. It identified Shaker Village as an enclave of privilege and taste separate from the industrial city of Cleveland, Ohio.

A concern for historians with the designed “historic color palettes” is that buildings were never aesthetically uniform like the designed color palette for historic Washington Street in downtown Columbus. While it may seem difficult to choose between historical authenticity and aesthetic unity when assessing these palettes, decisions regarding “historic color palettes” should always be based on evidence, if accuracy is to be maintained. In that context, architectural paint research and analysis becomes an important tool to establish historical accuracy.

Looking at the case studies in addition to the works of color consultants, and the overall popularity of “historic color palettes,” it is evident that historic preservation has, in general, gained broader recognition amongst people nationwide. And regardless of their authenticity, “historic color palettes” have perhaps become an important medium in that communication.

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Chapter 6: Conclusion

During the course of this research it became evident that not all “Historic Color Palettes” were developed with the same goal. There were a variety of intentions that led to their creation. And though historic color palettes have evolved over time, some more than others, most of them continue to promote Historic Preservation.

Although the Colonial Williamsburg color collection was the first to establish the notion of the “historic color palette” – a palette both “period” and “location” specific – it was almost forty years before other “historic color palettes” were introduced to the American consumers. Looking at the dates these palettes were created, it becomes apparent that the concept of the “historic color palette” started to gain momentum in the late twentieth century. The Benjamin Moore Co. worked with the National Park Service (NPS) archives of historic homes to release its first “Historic Colors Collection” in 1976, while Leonard Horowitz’s “Pastel Palette” took shape in 1980, and the Sherwin-Williams Company began its “Heritage Colors” palette in 1981 following closely with the “Shaker Village Colors” in 1983.¹³⁰ Perhaps, the rise in interest in preservation initiated by the National Historic Preservation Act (NHPA) of 1966, the celebration of American history promoted by the Bicentennial, and tax incentives for rehabilitation of older buildings in the 1976 Tax Reform Act, contributed to the interest in concept of the “historic color palette.” It was a period when the country had started taking notice of its heritage and finding ways to protect historical properties. The “historic color palette,” in that context emerged as a

¹³⁰ John Shearer, “Benjamin Moore Paint, A Brief History,” *Shearer Painting*, January 10, 2011, accessed April 8, 2017. <http://shearerpainting.com/history-of-benjamin-moore-paint/>

substantial and a relatively simple and inexpensive tool that preservation advocacy groups and paint manufacturers (often in partnerships) designed to promote Historic Preservation.

6.1. Limitations

A major limitation for this research was the lack of literature on the topic of “historic color palettes” in the American market. As a result, data was collected from primary sources like archival materials, which comprised early paint brochures, historic color cards and house journals that could be accessed by the author. The majority of information was gathered through verbal and written communication – constituting interviews, phone conversations, and e-mails – with a large number of people involved, directly and indirectly, with the development and promotion of “historic color palettes.” However, the most frustrating limitation was the lack of timely response from some of the people, who were contacted in attempts to obtain information regarding the development processes followed in creating their respective “historic color palettes.”¹³¹

Time was another significant limiting factor for this thesis. There was not adequate time to do in-depth research for all the case-study palettes, which could have brought out further similarities and dissimilarities among them. It would have been helpful if archival

¹³¹ Upon contacting the Sherwin-Williams archives, the author was denied access to any of their historical documents and was redirected to use their online resource of historic collection and historic color palettes available in print, which simply shows the color cards and not provide necessary information to understand their creation. Although Susan M. Wadden, the Director of SW Color Marketing, did offer to talk over the phone and discuss the development process for the SW historic color collections (via e-mail, November 18, 2016), the author was unable to get a schedule within the limited time period available to complete this thesis. Therefore, all information related to palettes developed by the Sherwin-Williams Co. presented in this thesis was analyzed from information gathered from old magazines, early paint brochures and from an interview with the “Color Doctor,” John C. Freeman.

Mark Woodman is a color consultant who had previously worked with Duron paints as their color specialist in developing the “Colors of Historic Charleston” and later with Fine Paints of Europe to create the original palette of “Mount Vernon Estate of Colours.” The author was connected to him via Steve Hanson, who is the developer of the “Carolina Lowcountry Palette” (contacted via e-mail, through February 22 – March 25, 2017). Unfortunately, the author was unable to obtain information regarding the palettes because Mr. Woodman was travelling for work and so it was not possible to set up a meeting/phone call in a timely manner.

materials could have been carefully examined for each one of the case studies. Given more time, it would also be interesting to compare the color composition on all the historic palettes and examine how they have individually changed over the years.

6.2. Further Research

This thesis began with the intent to answer the original questions of *“Why were historic color palettes created?”* and *“How were historic color palettes developed?”* During the course of the research, many more questions were generated and if they could be answered, would help to better understand the concepts behind the evolution of “historic color palettes” in the United States. These questions Include:

“Why do historic color palettes continue to be produced?”

“What motivates people to choose historic colors?”

Styles and of course people’s taste changes with their color preferences over time. In a similar fashion, ‘historic color palettes’ have also seen changes, although the Colonial Revival appears to remain the most popular amongst Americans. Paint companies have followed popular color trends of contemporary periods and altered “historic color palettes” accordingly to keep up with the consumer’s choices. This raises the question of *“How true is a historic color palette?”*

To answer these questions, further research is required. Due to time constraints, not all archival resources could be accessed. The Athenaeum of Philadelphia, Winterthur Library in Delaware, archives at the Historic Charleston Foundation and Historic New England, along with those of major paint companies (like Sherwin-Williams, Benjamin-Moore, Pittsburgh Paints and Valspar) would be great sources for obtaining original information

regarding the early American historic color palettes, their development processes and the people involved in the decision making phases (for instance, Dr. Roger W. Moss and Patricia S. Eldredge). Additionally, more case-studies should be included in the research to ensure that the final analysis can be representative of all “historic color palettes” in America.

Despite the limitations, this thesis was able to collate a number of “historic color palettes” and understand their development processes and the roles they continue to play. Beginning with data gathered from scientific and historical research, “historic color palettes” branched out to include colors derived not only from historic buildings but also from surroundings and contemporary color trends at the time of their creation. However, moving away from historical evidence has in no way lessened their effectiveness as a marketing tool, nor their value as an educational medium. They have been successful in preventing historic buildings from being demolished and have saved unique architectural characteristics of many districts. By creating aesthetics that were attractive to people, these palettes were able to highlight the value of historic buildings to the local communities and created a link to the past. As a result, the “historic color palette” continues to be a simple, inexpensive, and effective tool advocating historic preservation across the country.

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Fig. 3.7. Martin-Senour Paints, *Williamsburg Interior and Exterior Colors*, 1986. John C. Freeman.

Fig. 3.8. Pratt & Lambert, *Williamsburg Color Collection*, 2004. Kirsten Moffitt.

Fig. 3.9. Benjamin Moore, “Williamsburg Color Collection,”

<https://www.benjaminmoore.com/en-us/color-overview/color-collections/williamsburg-collection>

Fig. 3.10. *Matthew Webster, CWF.*

Fig. 4.1. *California Paints, Historic Colors of America,*

<http://www.hifreevideos.com/tags/Historic-Exterior-Paint-Colors-Wallpaper-70109>

Fig. 4.2. *Sherwin-Williams Co., Heritage Colors: 1820-1920, 1981. John C. Freeman.*

Fig. 4.3. *Sherwin-Williams Co., Shaker Village Colors, 1983. Urban Planning Department, The City of Shaker Heights.*

Fig. 4.4. Same.

Fig. 4.5. Same.

Fig. 4.6. Derringer, Jaime, “PPG Pittsburgh Paint Fallingwater Color Series,” *Design Milk*, September, 21, 2010, accessed April 6, 2017, <http://design-milk.com/ppg-pittsburgh-paint-fallingwater-color-series/>

Fig. 4.7. Author, 2016.

Fig. 4.8. *Old House Interiors*, “Dark and Rich,” (November – December, 2007)

<https://books.google.com/books?id=9DQEAAAAMBAJ>

Fig. 4.9. Martin-Senour Paints, “Taliesin Palette,” 1955.

<http://www.steinerag.com/flw/Artifact%20Pages/Schumacher.htm>

Fig. 4.10. PPG Voice of Color, “The Original Taliesin Color Palette From 1955,”

<https://www.ppgvoiceofcolor.com/collections/frank-lloyd-wright/the-original-taliesin-color-palette-from-1955>

Fig. 4.11. Lange, Alexandra, “Alexander Girard in Columbus,” in *Alexander Girard: A Designer’s Universe*, (Germany: Vitra Design Museum, 2016), 280.

Fig. 4.12. Same, 282.

Fig. 4.13. Same 279.

Fig. 4.14. Same.

Fig. 4.15. Maps of Miami Beach and South Beach Art Deco district.

<https://www.pinterest.com/pin/493918284105639182/>

Fig. 4.16. Duba, Julia, "Meet the Man behind all those South Beach Pastels," *WLRN*

Public Radio and Television, July 26, 2013. <http://wlrn.org/post/meet-man-behind-all-those-south-beach-pastels>

Fig. 4.17. <http://interiorcampuran.blogspot.com/2011/06/art-deco-colony-hotel-in.html>

Fig. 4.18. <http://wlrn.org/post/meet-man-behind-all-those-south-beach-pastels>

Fig. 5.1. "The Art Deco Murals of Hildreth Meiere," <http://www.andreamonfried.com/the-art-deco-murals-of-hildreth-meiere>

Fig. 5.2. Andrew Prokos Photography. <http://andrewprokos.com/photo/radio-city-music-hall-song-rondel/>

Fig. 5.3. City of Miami, *Historic Preservation General Design Guidelines*, (City of Miami: September 2011), 33.

Appendix – 1 (119)

Company Name	Collection Name	Years of operation	No. of Colors	Categories	Description – provided by the company	Remarks
Benjamin Moore	Historical Collection	1976 - present	191		“A collection of 191 time-honored hues comprises our most popular palette. Steeped in tradition, the refined, elegant colors of the Historical Collection deliver timeless color that can be used in traditional as well as contemporary spaces. Unveiled in 1976 to celebrate the US bicentennial, a collection of 191 colors inspired by America's historic landmarks.”	Not much historic data is provided for the colors in the palette.
	Williamsburg® Color Collection	2013 - present	144	N/A	“A historic collection that fuses Revolutionary design with revolutionary paint, bringing Colonial style to Contemporary lifestyle.”	Very few colors have historic data attached to them.

Appendix – 1 (120)

Company Name	Collection Name	Years of operation	No. of Colors	Categories	Description – provided by the company	Remarks
California Paints	Historic Colors of America	1997 - present	149	<i>Colonial, Federal, Greek Revival, Victorian, 20th Century Eclecticism.</i>	“Designed in conjunction with Historic New England, the Historic Colors of America collection features 149 authentic shades used from the 1600s to 1895. Each color has been researched and verified for authenticity.”	Many colors are grouped into more than one architectural style.
	20 th Century Colors	2010 - present	130	<i>Art & Crafts/Craftsman, Art Deco/Art Moderne, Mid Century Modern, Post Modern.</i>	“Designed in conjunction with Historic New England, the Historic Colors of America collection features 130 authentic shades used from 1900 to 1985. Each color has been researched and verified for authenticity. Every shade in the collection has its own color biography with an in-depth look at how and when the shade became popular and what influenced its emergence in our color history.”	Majority of the colors have historic data provided, along with a time range.

Appendix – 1 (121)

Company Name	Collection Name	Years of operation	No. of Colors	Categories	Description – provided by the company	Remarks
Fine Paints of Europe	Mount Vernon Estate of Colors	2010 - present	120	N/A	<p>“The Mount Vernon Estate of Colors collection was created from the rich legacy of color of one of America’s most historic and beloved homes. Inspired by the past, these rich and vibrant hues are as relevant and exciting today as they were more than two centuries ago. Mount Vernon and Fine Paints of Europe are honored to offer these colors that so inspired our nation’s founding for use in fine American homes today. Washington’s diaries and letters reveal intricate details regarding his hands-on approach and passion for beautifying his home. The man who inspired a nation was himself inspired by beauty, design and bright, bold color. Nearly 30 of these colors are painstakingly duplicated directly from the</p>	<p>A color range was created, not only from paint sources from the mansion but also from artifacts of the period, and written descriptions from George Washington’s diaries.</p>

Appendix – 1 (122)

					Mansion’s interior, while period artifacts are the inspiration for many more of the 120 colors in the Estate of Colours collection.”	
Haley Paint	Colors of Historic Philadelphia		31	N/A		Offered only as exterior High Build Specialty Coating.
PPG – The Voice of Color	Frank Lloyd Wright™	2007 – present, 2014 - present	49	<i>Fallingwater</i> ®, <i>Taliesin West</i> ™.	“Frank Lloyd Wright’s palette, based on his 1955 Taliesin Color Palette, is timeless and influenced by nature. The colors offer the perfect way to add an organic feel to your home. This exclusive collection provides colors and tips to achieve Wright's contemporary look while utilizing his design principles.”	The Taliesin West palette claims to have the original colors that Wright had selected from the Martin Senour paint company.
	Historic Collection		39	N/A		With names like “Pizza Pie,” “Cocoa Delight,” or “Bit of Heaven,” the colors offered raise the question of historical authenticity

Appendix – 1 (123)

Company Name	Collection Name	Years of operation	No. of Colors	Categories	Description – provided by the company	Remarks
Sherwin Williams	Colors of Historic Charleston™		122	N/A	<p>“<i>Colors of Historic Charleston™</i> echoes an era of exceptional architecture, decorative arts and garden designs that define this elegant city. After more than 200 years, myriad architectural styles harmoniously coexist in Charleston and are the inspiration for this palette. These rich colors reflect Charleston’s worldly sophistication and Southern charm. They hearken to the days when the finest in material culture from Asia, England, Europe and the Caribbean flowed into Charleston through its bustling port.”</p>	

Appendix – 1 (124)

	<p>Preservation Palettes</p>	<p>1981 - present</p>	<p>80</p>	<p>Interior & Exterior: <i>The Classics, Colonial Revival, Arts & Crafts, Late Victorian, The Jazz Age, The Streamlined Years, Suburban Modern.</i></p>	<p>“The past is still alive with Historical Colors from Sherwin-Williams. Each palette is historically relevant, staying true to its time period. The colors work together in perfect harmony for one room or carried throughout multiple rooms.” “The Exterior Historic Palettes pay homage to key architectural styles throughout American history. Achieve a coordinated period look for the exterior of your home with these historically accurate paint color palettes for home exterior walls, trim and accents by Sherwin-Williams.”</p>	
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Appendix – 1 (125)

	Shaker Village Colors	1983 - present	30	N/A	“Shaker Village colors were developed by the Landmark Commission of the City of Shaker Heights in conjunction with the Cuyahoga County Archives and Sherwin-Williams Paint Company Archives to represent authentically the original exterior color standards for Shaker Village set forth by the Van Sweringen Company in 1925, and other actual colors recommended for residential architecture of the period 1905-1939.”	
Valspar	National Trust Historic Colors	1997 – present *	250	<i>Georgian, Neo-Classical, Southwestern, Victorian.</i>	“In partnership with the National Trust for Historic Preservation®, Valspar® is proud to offer a palette of over 250 colors documented from historic places across the country and representing American colors from a variety of periods & styles.”	* For some reason, the collection is no longer available on the company’s website.

Appendix – 2 (126)

Colonial Williamsburg Color Collection		
Company Name	Years of Operation	No. of Colors
John W. Masury & Son	1936 – 1939	24
Ditzler Color Company	1938 – 1944	42
Pittsburgh Plate Glass Company	1940 – 1964	84 (as of 1949)
Martin-Senour Paints	1965 – 2013	119
Pratt & Lambert	1973 – 2013	184
Sherwin-Williams (after acquisition of Pratt & Lambert and the Martin-Senour Paints in 1995)	1995 - 2013	184
Benjamin Moore	2013 – present	144

NUMBER AND LOCATION OF PAINTS USED IN THE RESTORED BUILDINGS
IN WILLIAMSBURG, VIRGINIA

<u>Paint No.</u>	<u>Masonry No.</u>	<u>Building</u>	<u>Location in Building</u>
* 14	-	Powell-Hallam House	Woodwork - N.E. Bedroom
62	-	Bassett Hall Kitchen	Walls - All First Floor Rooms
* 346	-	Brick House Tavern	Woodwork - Bedroom & Bath #2
43	-	Barlow House	Woodwork - Kitchen & Pantry
26	-	Powell-Hallam House	Walls - Study
2	-	Lottie Garrett House	Walls - East Center Bedroom #2
* 457	-	Raleigh Tavern	Woodwork - Back of Dining Room Cupboards
41	-	Pitt-Dixon House	Walls - Dining Room and Pantry
3	-	Powell-Hallam House	Woodwork - Living Room
* 10	-	(Old Court House (Deane Shop & Forge	Woodwork - Main Room #1 Woodwork - Living Room, Stairway
80	-	Bassett Hall Stable	Walls - Bedrooms
34	-	Barlow House	Woodwork - East Bedroom #1
18	-	Pitt-Dixon House	Walls - Living Room
* 407	-	Wythe House	Woodwork - Back of Dining Room Cup- boards
* 366	-	Wythe House	Woodwork - Dining Room, Living Room, N.E. & S.E. Bedrooms
72	-	Bassett Hall Stable	Woodwork - Kitchen & Bath Walls - Bath
* 367	-	Wythe House	Woodwork - Halls, Library, Kitchen, N.W. & S.W. Bedrooms
*170	-	Wren Building	Woodwork - Rooms Nos. 301, 302, 304, 305, 307, 311, 313, 314, 315, 316
* 86	-	(Palace Caretaker's House (Brick House Tavern	Woodwork - East Bedroom #2 Woodwork - Bedroom & Bath #16
* 144	-	Palace	Woodwork - Third Floor Room #302
* 67	-	(Ayscough Shop (Brafferton Hall	Woodwork - Interior Handrail Woodwork - First Floor Baseboards

Number and Location of Faints

-2-

November 2, 1940

<u>Paint No.</u>	<u>Masonry No.</u>	<u>Building</u>	<u>Location in Building</u>
578	-	Serviente Kitchen	Halls - Bath
397	-	Randolph-Peachy House	Woodwork - East Wing Kitchen & Rear Entrance Hall
73	-	Van Garrett House	Woodwork - N.W. & S.W. Bedrooms
509	-	Bassett Hall	Woodwork - N. E. Guest Bedroom
759	-	Dr. Blair's House & Outbuildings	Woodwork - Exterior Doors
* 713	-	Brafferton Hall	Woodwork - Interior Stair Handrail
* 758	-	Dr. Blair's Brick House	Exterior Handrail
* 706	-	Travis House	Woodwork - Exterior Blinds & Doors
338	-	Frentis House	All interior Baseboards & Fireplace Facings
* 187	-	(Paradise House Nightengale House)	Woodwork - Exterior Blinds & Doors Woodwork - Exterior Blinds & Doors
84	-	Maupin Kitchen	Woodwork - Bath
414	-	Allen-Syrd House	Woodwork - Entrance Hall & Dining Room
415	-	Allen-Syrd House	Woodwork - Stair Hall & N.E. Bedroom #17
441	-	Ewing House	Woodwork - Halls
442	-	Ewing House	Woodwork - Dining Room & Kitchen
* 132	W-1	Palace	Woodwork - Palace Ball Room
* 131	W-2	(Palace Repiton Kitchen)	Woodwork - State Dining Room Woodwork - Bath
* 130	W-3	Palace	Halls - Palace Ball Room
* 135	W-4	(Palace Brick House Tavern Nancy Camp House & Outbuildings)	Woodwork - His Lordship's Bedchamber Woodwork - Bedroom & Bath #8 Exterior Trim
* 310	W-5	Raleigh Tavern	Woodwork - Ladies' Withdrawing Room
* 140	W-6	Palace	Woodwork - Third Floor Stairs
* 160	W-7	Palace East Advance Building	Panel Wainscot - 1st Floor North Room
* 152	W-8	Palace W. Advance Building	Woodwork - 1st Floor North Room

Number and Location of Paints

-2-

November 2, 1940

<u>Paint No.</u>	<u>Survey No.</u>	<u>Building</u>	<u>Location in Building</u>
9	E-9	Powell-Hallam House	Woodwork - Dining Room
* 194	E-10	(Market Square Tavern (Raleigh Tavern (Nancy Camp House	Woodwork - Bedrooms #4 & 8; Bath #4 Woodwork - Apollo Room Woodwork - Living Room
* 136	E-11	Palace	Woodwork - S.E. Bedchamber
* 137	E-12	Raleigh Tavern	Woodwork - Parlor
* 138	E-13	Palace	Woodwork - Little Dining Room
* 158	E-14	(Palace E. Advance Building (Brick House Tavern	Woodwork - 1st Floor South Room Woodwork - Bedroom & Bath #7, 14, & 15
* 104	E-15	(Dr. Carter's Shop (Capitol	Stair Handrail - 1st Floor Baseboards Woodwork - House of Burgesses
* 142	E-16	Palace	Woodwork - Little Middle Room
* 331	E-101	(Raleigh Tavern (Golden Ball Shop (Deane House & Privies (Roper Lee House	Blinds - Woodwork Doors Blinds and Door Blinds and Doors
* 622	E-102	(Duke of Gloucester Street (Mahone's Store	Barriers - Woodwork Siding
* 412	E-103	(Capitol (Bruton Parish Church (Palace S.E. Outbuilding	Gates and Benches - Woodwork Gates Siding & Trim
* 168	E-104	(Wythe House & Outbuildings (Orlando-Jones Outbuildings (Maupin (Raleigh Tavern (Mahone Laundry	Doors - Woodwork Doors & Blinds Doors Door Doors & Blinds
42	E-105	(Serviente House (Serviente Kitchen	Exterior Body - Woodwork Exterior Body
568	E-106	Barlow House	Woodwork - Exterior Body
* 459	E-107	Travis House	Woodwork - Exterior Body

* Public buildings

MIAMI BEACH

PLANNING DEPARTMENT

Pre-approved Paint Colors

All exterior painting requires a Building Permit and color approval from the Planning Department per Section 142-1193 of the City of Miami Beach Code.

SELECTING A COLOR FROM THE PRE-APPROVED LIST

The pre-approved colors have been carefully selected by the Planning Department and have been determined to be suitable for any structure located within the City, including Commercial, Multi-family and Single-family properties.

Select one main exterior paint color from the list. Please note that the colors listed are manufactured by Sherwin Williams, however any manufacturer may be selected with the equivalent color. Paint finish should be flat, satin or egg shell.

Select one trim color. Pre-approved trim colors shall be limited to any shade of white, off-white or light gray. The trim color can be applied to features such as eyebrows, roof eaves, window boxes and other decorative features.

If a property owner wishes to exceed the intensity (percentage of color saturation) of any color listed on the pre-approved list, the color must be reviewed and approved by Planning Department staff. This process is outlined below.

SELECTING A COLOR SCHEME NOT LISTED ON THE PRE-APPROVED LIST

It is important to note that in many instances an owner of a building may wish to select a color not on the pre-approved list. In fact, a wide array of main and trim colors may be approved by the Planning Department based on the style of architecture, but not every color is suitable for every style of architecture. For example, natural earth tone colors are appropriate for Mediterranean Revival architecture but would not be appropriate for art deco architecture.

For these requests, review and approval by the Planning Department is required and will be based on the criteria listed in subsection 142-1193(c) of the City Code. In rare cases, if the chosen color cannot be approved by staff, it must be approved by the Design Review Board or the Historic Preservation Board, as applicable.

ADDITIONAL CONSIDERATIONS

Colors selected should be appropriate to the architectural style, ornamentation, massing and scale of the structure.

The selection of a trim color is encouraged. Trim colors highlight architectural forms and details and enhance the appearance of the building; however, creating forms and details that are not present detracts from the building's original design.

The painting of stone, brick or tile surfaces is discouraged as paint can irreparably damage the surfaces and eliminates the contrast and the geometrical play they were intended to create.

Colors commonly described with terms such as neon, fluorescent, day-glo, iridescent and similar terms shall not be permitted to be applied to the exterior surface of any structure unless such color has been approved by the Design Review Board or Historic Preservation Board, as applicable

Planning Department staff is always available to assist owners in selecting an appropriate color scheme suitable to their building. For further information or to schedule a color consultation, please contact the Planning Department at 305.673.7550.

Appendix – 4 (131)

SHERWIN WILLIAMS

Main Exterior Colors

6000 – Snowfall	6225 – Sleepy Blue	6784 – Bravo Blue
6001 – Grayish	6231 – Rock Candy	6791 – Lauren’s Surprise
6002 – Essential Gray	6232 – Misty	6798 – Iceberg
6007 – Smart White	6233 – Samovar Silver	6799 – Soar
6008 – Individual White	6238 – Icicle	6805 – Glass Bead
6009 – Imagine	6239 – Upward	6806 – Rhythmic Blue
6014 – Quartz White	6245 – Quicksilver	6807 – Wondrous Blue
6015 – Vaguely Mauve	6246 – North Star	6812 – White Iris
6016 – Chaise Mauve	6247 – Krypton	6813 – Wishful Blue
6028 – Cultured Pearl	6252 – Ice Cube	7000 – Ibis White
6029 – White Truffle	6253 – Olympus White	7001 – Marshmallow
6035 – Gauzy White	6254 – Lazy Gray	7002 – Downy
6036 – Angora	6259 – Spatial White	7003 – Toque White
6037 – Temperate Taupe	6260 – Unique Gray	7004 – Snowbound
6042 – Hush White	6266 – Discrete White	7005 – Pure White
6043 – Unfussy Beige	6267 – Sensitive Tint	7006 – Extra White
6049 – Gorgeous White	6273 – Nouvelle White	7007 – Ceiling Bright White
6056 – Polite White	6274 – Destiny	7008 – Alabaster
6057 – Malted Milk	6275 – Fashionable Gray	7009 – Pearly White
6063 – Nice White	6385 – Dover White	7010 – White Duck
6064 – Reticence	6413 – Restoration Ivory	7011 – Natural Choice
6070 – Heron Plume	6414 – Rice Paddy	7012 – Creamy
6071 – Popular Gray	6420 – Queen Anne’s Lace	7013 – Ivory Lace
6072 – Versailles Gray	6421 – Celery	7014 – Eider White
6077 – Everyday White	6427 – Sprout	7015 – Repose Gray
6078 – Realist Beige	6428 – Honeydew	7016 – Mindful Gray
6079 – Diverse Beige	6429 – Baize Green	7021 – Simple White
6084 – Modest White	6434 – Spinach White	7022 – Alpaca
6085 – Simplify Beige	6436 – Bonsai Tint	7023 – Requisite Gray
6091 – Reliable White	6441 – White Mint	7028 – Incredible White
6098 – Pacer White	6455 – Fleeting Green	7029 – Agreeable Gray
6099 – Sand Dollar	6462 – Green Trance	7030 – Anew Gray
6105 – Divine White	6469 – Dewy	7035 – Aesthetic White
6119 – Antique White	6470 – Waterscape	7036 – Accessible Beige
6126 – Navaajo White	6476 – Glimmer	7042 – Shoji White
6133 – Muslin	6477 – Tidewater	7043 – Worldly Gray
6140 – Moderate White	6478 – Watery	7044 – Amazing Gray
6141 – Softer Tan	6490 – Timid Blue	7056 – Reserved White
6147 – Panda White	6497 – Blue Horizon	7057 – Silver Strand
6148 – Wool Skein	6498 – Byte Blue	7058 – Magnetic Gray
6154 – Nacre	6499 – Stream	7063 – Nebulous White
6155 – Rice Grain	6504 – Sky High	7064 – Passive
6161 – Nonchalant White	6511 – Snowdrop	7065 – Argos
6162 – Ancient Marble	6512 – Balmy	7070 – Site White
6168 – Moderne White	6513 – Take Five	7071 – Gray Screen
6169 – Sedate Gray	6518 – Ski Slope	7077 – Original White
6170 – Techno Gray	6519 – Hinting Blue	7078 – Minute Mauve
6175 – Sagey	6520 – Honest Blue	7100 – Arcade White
6176 – Livable Green	6525 – Rarefied Air	7101 – Futon
6182 – Ethereal White	6526 – Icelandic	7102 – White Flour
6183 – Conservative Gray	6532 – Aura White	7103 – Whitetail
6184 – Austere Gray	6533 – Mild Blue	7104 – Cotton White
6189 – Opaline	6534 – Icy	7105 – Paperwhite
6190 – Filmy Green	6672 – Morning Sun	7106 – Honied White
6191 – Contented	6679 – Full Moon	7121 – Corona
6196 – Frosty White	6680 – Friendly Yellow	7122 – Lemon Drop
6197 – Aloaf Gray	6686 – Lemon Chiffon	7123 – Yellow Beam
6198 – Sensible Hue	6687 – Lantern Light	7124 – Crescent Moon
6203 – Spare White	6693 – Lily	7125 – Glittery Yellow
6204 – Sea Salt	6694 – Glad Yellow	7126 – Pearl Onion
6205 – Comfort Gray	6700 – Daybreak	7127 – Apple Slice
6210 – Window Pane	6707 – Narcissus	7128 – Green Glaze
6211 – Rainwashed	6714 – Citrine	7131 – Brooklet
6217 – Topsail	6721 – Enlightened Lime	7133 – Faraway Blue
6218 – Traderwind	6728 – White Willow	7134 – Tibetan Sky
6224 – Mountain Air	6742 – Lighter Mint	7135 – Twinkle
	6763 – Retiring Blue	7136 – Chapeau Violet
	6777 – Carefree	7138 – Lavender Wisp
	6778 – Aviary Blue	7140 – Snowberry

Appendix – 4 (132)

Trim Colors

Grays

7072 – Online
7065 – Argos
7017 – Dorian Gray
7030 – Anew Gray

Whites

7005 – Pure White
7004 – Snowbound
7102 – White Flour

Off-Whites

6119 – Antique White
6126 – Navajo White
6371 – Vanillin