I, Kelly F. Wright, hereby submit this original work as part of the requirements for the degree of Doctor of Philosophy in History.

It is entitled:
Coloring Their World: Americans and Decorative Color in the Nineteenth Century

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Committee chair: Wayne Durrill, Ph.D.
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Coloring Their World:
Americans and Decorative Color in the Nineteenth Century

A dissertation submitted to the
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by

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ABSTRACT

Certain events in recent history have called into question some long-held assumptions about the colors of our material history. The controversy over the cleaning of the Sistine Chapel posited questions about color to an international audience, and in the United States the restoration of original decorative colors at the homes of many historically significant figures and religious groups has elicited a visceral reaction suggesting the new colors challenge Americans’ entrenched notions of what constituted respectable taste, if not comportment, in their forebears. Recent studies have even demonstrated that something as seemingly objective as photography has greatly misled us about the appearance of our past. We tend to see the nineteenth century as a faded, sepia-toned monochrome. But nothing could be further from the truth.

Coloring Their World: Americans and Decorative Color in the Nineteenth Century, argues that in that century we can witness one of the only true democratizations in American history—the diffusion of color throughout every level of society. In the eighteenth century American aristocrats brandished color like a weapon, carefully crafting the material world around them as a critical part of their political and social identities, cognizant of the power afforded them by color’s correct use, and the consequences of failure. In their “classless” and not fully literate society glossy colorful carriages spoke with grandiloquence about their owners’ place in the world. In an aristocracy of the untitled, verdigris parlors bore the same power to intimidate as a gilded family crest. But their time was the last time that color could be so easily wielded. From the first flushes of pink and green in the early nineteenth-century homes of American elites, to the industrialized, commodified, synthesized hot pinks and electric blues available to literally everyone by century’s end, color collapsed class lines. No longer even remotely a trapping of aristocracy by the beginning of the twentieth century, color’s caché was replaced by a confidence in its easy access and ubiquity. But this access came with new rules, and self-appointed arbiters of taste dictated its use more and more. This process took place in several stages which form the parts of this dissertation. Part One explains how color first made its way into the interior of the country from 1800 to 1840, a process facilitated by the Market Revolution. Part Two describes how the harnessing of steam power and industrialization gave every class of Americans unprecedented access to all forms of decorative color. Within each phase Americans manipulated and consumed decorative color in distinctive ways, and the evidence of that is built into their material culture.

As shocking as it may be to some, our past was a colorful place. Scarlet, not sepia, was its color. This dissertation is an attempt to explain why.
ACKNOWLEDGEMENTS

To Mom and Dad and Bean, with all my love. You made this possible.

Wayne, I owe you a bottomless cup of really, really good coffee.
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Introduction

Contested Colors
June 2, 1982

Miss Christina Pundeff
Associate Editor
Architectural Digest
5900 Wiltshire Blvd.
Los Angeles, CA 90036

Dear Miss Pundeff:

Enclosed please find my thoughts on the subject of the refurbishing of the Governor’s Palace and what is happening in comparable historic buildings. I hope it fits your bill. Please feel free to change it around to suit your needs...

When do you expect it to appear and when do I get paid for it? I trust the latter happens before the former.

Yours sincerely,

Graham Hood
Chief Curator

Enclosure
The winds of change are stirring—some would say howling—in historic houses today. Accepted canons of “good taste” and the traditional harmonies of faded old colors seem no longer to apply. Conventional groupings of ornate furniture are disappearing. Curtains are coming down, oriental carpets are coming up, and brighter colors, often accentuated by unoccupied spaces in the middle of rooms, are causing people to blink—or wince—as they revisit their old familiar shrines.

These changes do not stem from whim or willfulness on the part of today’s temporary custodians of historic buildings. It is not the natural iconoclasm of the young we are seeing. Rather, it is the fruit of extensive and intensive research. Building on the achievements of its predecessors, the present generation of curators is asking questions hitherto unasked, is looking at familiar evidence from fresh vantage points, and drawing new conclusions about the tastes, preferences, and living habits of those whom we all thought we knew so well—the likes of Washington, Jefferson, Adams, and so on.¹

¹ Graham Hood, June 3, 1982.
When the Chief Curator of arguably the most venerable living history museum in the United States began this editorial he was defending his employer, the Colonial Williamsburg Foundation, from a complaint it may have been hearing for the first time in its half century of existence—the charge of having bad taste. In 1982 the Foundation had just finished an expansive and expensive reinterpretation of several of its eighteenth-century buildings inside and out, a wholesale refurbishment designed to reflect the most recent scholarship in the material culture of that period. That reinstallation included the stripping of fancy appointments for more period-accurate simplicity, and painting some exciting new colors in the most prominent and beloved building on the grounds, the Governor’s Palace. The near hysterical reaction to that change provided “an excellent case in point” for the curator to state his position:

Since it was reconstructed on its original foundations in the early 1930s and furnished by John D. Rockefeller, Jr., and his advisors…it has
established itself as a mecca of good taste—mellow, rich and entirely admirable. Its elegant interiors have delighted over twenty million people. Any thought of changing it, therefore, had to be approached with considerable trepidation. Yet our investigation proved that the taste stood up better than the evidence.²

The Palace had been one of the first buildings to be rebuilt and interpreted when Rockefeller undertook his project around the time of the Great Depression to restore the City of Williamsburg to its eighteenth-century appearance. Rockefeller had insisted upon “the creation of authentic restorations and reconstructions based on exhaustive historical, archaeological, and architectural research regardless of the cost in time, money, or effort.” As they surveyed the interior and exterior finishes of Colonial Williamsburg’s building stock they found many grey blues and grey greens, and lots of grey itself—dusty colors befitting the dusty town Williamsburg was in the eighteenth century when Thomas Jefferson and Patrick Henry took tea and talked insurrection at the Raleigh Tavern. Their interpretation usually featured rich, elegant upholstery with subdued tints on the walls and woodwork.

² Ibid.
Governor's Palace Study before (left) and after (right) refolishment. Aqueous Chloroform wallpaper was removed and built-in bookcases painted Prussian blue.
Governor’s Palace Supper Room 1972 with Chinese wallpaper (left), after 1981 refurbishment (center) and after 2006 revision (right)

Governor’s Palace Chamber over Dining Room before 1981 (left) and today
The Colonial Williamsburg Foundation took color so seriously that they even published their findings and granted the John Masury Paint Company a license to reproduce them for retail sale in 1936. “Raleigh Tavern” was their liveliest green offering, a greyish green which today we would most likely call “sage.” (Most monitors and printers will make the chips below look brighter than they really are.)
In the 1960s Williamsburg partnered with Martin Senour Paints, promoting a line of insipid colors chosen primarily for their marketability and in which only a few selections were actually based on those found on the buildings in Williamsburg. Even then, some of the most interesting shades derived from Victorian-era repaints of the buildings, not from the colonial period.³

Over fifty years, while Colonial Williamsburg kept brushing those stale old colors on their buildings, they also successfully branded themselves as the authority on both antique colors and the study thereof. That reputation remained unchallenged until the 1980s, when new social historians came to Williamsburg, but lots of other Americans stayed away. Revisions to old scripts and old buildings were one way to increase the accuracy of the site’s presentations and perhaps a way to convince visitors to come back.

Back in the beginning Rockefeller and his staff had indeed amassed a great deal of data on colonial finishes and they had used the best science at the time to study them. They conducted paint archeology: diligently seeking out the original finishes in Williamsburg by prying off trim and peeling back wallpaper, scraping and sampling as they went throughout the town, and copying the surviving colors onto chips so that they could be replicated for many years. The paint scrape approach to paint analysis is still used and taught in the United States, and it is described and promoted in numerous homeowners’ building restoration guidebooks and other publications. Yet this method is very misleading as it is almost impossible to scratch down mechanically to reveal cleanly each individual paint layer, especially in a paint chronology that contains the twenty or thirty layers that really old houses often have. It is even more problematic if there are complex decorative treatments buried under multiple layers of overpaints. The scratch-and-match or paint-scare method is unequipped to factor in time, weathering, cleaning, repainting, and oxidation, all of which alter finishes, making them either darker from dirt, or lighter from exposure to the elements, or even radically changing the color itself. Nevertheless the work done at Williamsburg represents the first recorded attempt in the United States to locate and match original house paint colors as part of such a project.
So Rockefeller’s methodology was flawed, and in the case of the Governor’s Palace was also hampered by huge swathes of the material record that were missing entirely. The building had in fact burned to the ground a century and a half before during the Revolutionary War, and despite the researchers’ painstaking investigation of document and material sources in the end they were forced to compromise in their curatorial choices in redecorating the Palace. They “fudged” in other words. Over the next half century the Apocrypha became gospel; their conjecture as to the colonial-era appearance of the Palace was so plausible, so flattering, and by 1982 had stood long enough that for Hood and these later generations of curators “the political problems of changing a ‘national monument’ such as this were enormous.”

Williamsburg’s history is the history of history making, and Rockefeller’s Depression-era staff had done their job so well that the staff there fifty years later found themselves fighting the paradigm of colonial American colors Williamsburg itself had created. But they fought on, and over the last 30 years have continued to revise the colors on the interiors and exteriors of Williamsburg’s building stock.

Even if Americans’ idea of what Williamsburg looked like had remained static methodologies in finish analysis had not. Research conducted continuously since the historic site first opened to the public had invoked, for Hood and his colleagues, “new perceptions of how certain terse bits of historical evidence could be transformed into credible three-dimensional objects” and, apparently, irritating wall colors. This new data at Williamsburg and other sites has come to light principally through the use of natural and polarized light microscopy, and spectrophotometry (measuring the color reflectance spectra of each finish sample) and advanced sampling techniques involving

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4 Hood, Graham Hood used the term “fudged” during a phone interview he gave the author in 2006.
microchemical testing and microscopic stratigraphy, (studying the layers in which the finishes were applied over time) to locate each sample correctly temporally.

In Williamsburg the new interpretation Hood et al based on that research featured the removal of some popular, expensive furnishings such as carpets and hand-painted Chinese wallpaper, and the installation of some very bold interior colors even by modern standards such as “vivid bright-blue, the rich yellow, full-bodied green, a gorgeous plain
blue (a mixture of blue verditer and Prussian blue),” and “pearl”, a greenish white composed of white lead, Prussian blue, and spruce yellow (a form of yellow ochre).⁵

Outside Williamsburg transitioned from a “much more white clapboard town with green shutters” to a less cheerful mélange of Spanish brown houses (a deep ochre red color) and tar-coated outbuildings.⁶ Hood wrote his editorial because the Foundation’s sterling reputation for the “zealous pursuit of historical accuracy” notwithstanding, many of their constituencies—paying constituencies—felt angry and betrayed by the new versions of their beloved historical village and vacation destination, conveniently located just up the road from Busch Gardens, and a short drive to Virginia Beach.

Of the many changes Colonial Williamsburg had made over time, including reconstructing entire buildings and replacing authentic antiques with reproduction furniture, the new colors drew the most ire. “The subject of interior paint colors i[s] one


⁶ Edward Chappell, Interview with the author, 2006.
that invariably arouses much interest and controversy. Research into this subject, at Williamsburg and at other important preservation agencies and house museums, has traditionally been plagued by the question of how old (and therefore discolored) were the original paint colors that have been revealed by scraping and have been so painstakingly reproduced.” In the end Hood appealed to critics to understand that the mission of Colonial Williamsburg was to present the eighteenth century (a pretty tall order) as accurately as possible, accuracy depended on historical evidence, and “looked at in that way the choice was made for us.” It was understandable, he felt, that in this “rapidly changing world” Americans would “resent changes to well-loved monuments, to accepted ideas, above all to beautiful places and things.” Hood’s characterization of Americans’ reaction to the revised interpretation at Williamsburg belies its intensity; it so shocked some people working at the site at the time that they still remember visitors’ actually screaming in outrage upon encountering the new colors. Events like this remind us that the people working at our historic sites really do live on the front lines of history.7

One could argue that the rather steep ticket price for a Williamsburg pass had elevated ordinary visitors to the realm of “founders, descendants, trustees, or the influential public,” entitling them to a voice in the controversy over color if not a cathartic yelling.8 But it seems this sense of entitlement to armchair curate an historic site applies to people much more broadly. There appears to be an axiom that people, not just Americans, can be physically disconnected from a place, likely ignorant of its history and significance, perhaps even uninterested in visiting it, and yet still believe themselves to be stakeholders in its historical presentation. Those irate visitors’ antagonism to the new

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7 How many more times have these awkward encounters with beleaguered historical interpreters occurred since the formation of the Tea Party?
8 Hood,
colors at Williamsburg should not have been unexpected. The precedent was established at least two years before Hood sat down to write his editorial when art conservators climbed immense scaffolds to begin an even more public project, the cleaning and restoration of Michelangelo’s original fresco colors on the ceiling of the Sistine Chapel. Hundreds of years of grimy lamp-oil soot and candlewax, dirt and exhaust from a city full of cigarette smokers and Cinquecentos had obscured the artist’s seductively bright early Mannerist palette, reducing it to a color-impoverished *grisaille*. As conservators painstakingly removed several centuries’ worth of dull and dirty environmental accumulations bright blues, vibrant reds, and glowing oranges and yellows crept out of the dark inch by inch, cotton swab by cotton swab.

Just as they had done in Williamsburg, before beginning their work conservators had undertaken a thorough scientific investigation of the paintings, culling data from the frescoes themselves and even interviewing those people still living who had worked on the ceiling back in a 1930s intervention. Yet despite the modern conservators’ public
promises to implement a modest plan to clean only those areas that could tolerate the treatment, art historians, artists, and formerly disinterested people around the world went nuts.

It was the vibrant colors revealed by the restoration over the next four years that made the project’s critics believe the cleaning had gone too far. Andrew Wordsworth commented in London’s *The Independent* that the ceiling now had “a curiously washed out look, with pretty but flavourless colouring…”9 The complaint is a strange one given the fact that before this cleaning the work of a master colorist had been reduced to practically a monochrome. But Wordsworth appeared to speak for many people, art critics and average people alike whose last judgment was to ignore the evidence of the bright palette used by other early Mannerists and indeed Michelangelo himself in other works, and to accept those knocked back greys, blacks, and browns as dogma. Over the years millions of people had plunked down twenty bucks to partake of the rarified if sooty air of the Sistine Chapel, and when they returned, if they ever returned, they wanted to see exactly what they had seen before.

Colonial Williamsburg and the Vatican were in good company in spending vast sums of money and energy to collect and use hard, scientific data to reinterpret colors in a scholarly manner, and still get nothing but heartache for it. Changes made to the interior and exterior colors at other prominent American sites based on sound scholarship have similarly called into question the “dividing line between historical judgments and hard

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9 Andrew Wordsworth, ”Have Italy's Art Restorers Cleaned Up their Act? ; Piero Della Francesca's Masterpiece, the Legend of the True Cross, has Re-Emerged After More than a Decade Under Wraps. so has Italy Managed to Restore Faith in its Conservation Policy After the Uproar Over the Cleaning of the Sistine Chapel?” *The Independent* June 20, 2000, 2000. An American critic charged that Michelangelo disliked bright colors and thought they were used chiefly by artistic hacks. These were only a couple of the many critics who took the Vatican to task.
Mount Vernon, George Washington’s estate in northern Virginia, has experienced a similar history of redecorating. The first serious restoration of the twentieth century does not appear to have been based on historic precedent, because it was designed to “beautify” the home, but the conservators who undertook the project were sensitive enough intentionally to leave the original paints beneath the new treatments. Later in the 1980s the house’s caretakers, the Colonial Dames, wanted to preserve it authentically, so when the finish analyst they hired began restoring its colors he worked with both Washington’s own written descriptions of his decorating and with microscopic analyses the conservator performed on the tangible evidence of the original finishes remaining on the surfaces themselves. Combining the original “receipts” and microscopic data, and using eighteenth-century tools and methods, he was able to reconstruct the intense blue of the drawing room and the peacock-colored verdigris of the family dining room accurately down to its original eighteenth-century roughness and streakiness. (See verdigris color chip above, and discussion in next chapter.) But after all that the finished project affronted the curators’ modern aesthetic sensibilities enough that they insisted he mitigate its intensity and smooth it out. Even so, the color still draws gasps from visitors.

Far away in Ohio, Kentucky, and Indiana many historic homes have undergone similar renovations based on scientific finish analyses and their reinterpretations have met with varying degrees of both curatorial and public acceptance. At sites around the country directors have had to dismiss volunteers who refused to refrain from complaining about restoration colors to the visitors, and one historic home asked a rather critical professor who regularly brought his class to the house to show them the “mistakes” the

10 Hood
curators supposedly made not to come back anymore because he had caused the docent to cry.\textsuperscript{11}

Even a single piece of furniture can challenge our collective consciousness of color. Curators at the Shelburne Museum commissioned a finish analysis on their late seventeenth-century Hadley chest, and then applied the results of that study to an exact copy of that chest they had commissioned.

The conservative interpretation of the data they applied to the reproduction still revealed that in its infancy the chest had looked like this (image below), which strikes the modern viewer more like a piece of Herman Miller furniture or a Mondrian painting than a colonial-era chest. Today museum visitors seeing the original and reproduction chests side by side often cannot tell that they are the same, yet in all but color they are identical.

\textsuperscript{11} At Waveland in Kentucky the director asked certain volunteers not to return, because they were so critical of the new colors and wallpapers installed after a reinterpretation. It was at Sunnyside, Washington Irving’s home near Tarrytown, where the director asked the university professor to stop bringing his class to the site. The professor refused.
For many visitors the new, but accurate, reproduction is not only implausible, it lacks all the charm of the original, albeit stripped, version.

FIG. HADLEY CHEST REPRO

In attempting to understand this phenomenon, this hostility to restored colors, I developed a little formula that may help to predict its onset. Let’s take any historical site that has just undergone a renovation that has at least cosmetically altered an earlier installation. If we factor in the degree of historical significance of the previous occupant of the site, and the degree of change in the historic site’s new appearance, and the length of time the old installation stood (how many times that view was reinforced) we can anticipate the force of the reaction to a new interpretation:

Owner’s historical significance (Status) x degree of change to site (Change) x Length of time old interpretation stood

(Time) = force of reaction (F)

S X C X T = F
If we assign a number of units between 1 and 10 to all three terms the minimum reaction possible would be 1; the maximum, 1000. If all three variables are big numbers, as in the case of Mount Vernon before its late 1980s reinterpretation, or the Governor’s Palace in that same period, we can more reliably predict the result will be a crazed visitor. The reaction to a dramatic change in a fifty-year-old interpretation that took parts of Thomas Jefferson’s house from white to chrome yellow will likely receive a greater backlash than the repainting in bright colors of just a few rooms of a Shaker village.

Why do some people believe so ardently that our ancestors would not have used these bright, bold colors on the walls, but get upset when deep red carpets are removed from the floors? Why are these changes to historical decoration so offensive to them? At the Colonial Williamsburg Foundation one curator described the tone of the response to the restoration of the original colors in the Governor’s Palace there in the 1980s as one of “mourning.” There are many more restored houses that have drawn criticism from their docents and visitors, people for whom apparently no level of empiricism could convince them of the correctness of painting a heavy, streaky coat of a deep, green-blue all over the room where George and Martha Washington ate their morning biscuits, for example, even if the site can document that color is one the Washingtons chose themselves. Why do so many Americans seem to prefer a whitewashed or even dingy, old, inaccurate and boring interpretation of an historic home to the truthful upgrade? “Taste”, after all, is a means of processing information, a way for people to make meaningful choices for their lives. Perhaps the dinginess is familiar; the inaccuracies a comforting part of the collective consciousness of our not so collective past. But given the visceral response to these colors some audiences have evinced, one gets the feeling that they have also been
perceived as a slight not just to the decorating sense of our American forebears, but to their own dignity, their own inviolate respectability. It would seem that the secular hagiography surrounding our founding generations does not allow for apostasies such as swapping out whitewash for deep robin’s egg blue, or even worse… grey for pink. Though there are no hard numbers to answer the question here, anecdotal information suggests that these new colors violate some of my countrymen’s deeply held notions of what constitutes respectable décor for colonial American aristocrats. The explanation for this culture war is probably a combination of these ideas exacerbating what I believe is most likely responsible--a profound ignorance of what our past really looked like.

There are really only a handful of experts on finish analysis working in the world today; a good number of them live in the United States. There are also a relative handful of curators and museum professionals, academics, board members, craftsmen, architects, antiquarians, and other interested parties who can speak with any authority on the colors of our American history. The work of many of these people is featured in this manuscript. For most other Americans, however, the past is dull and colorless; pages scribbled in faded inks moldering in archives; starched, unsmiling, monochrome people sitting for daguerreotypists who failed to meet the challenge of making them look interesting. Our mind’s eye sees the nineteenth century as an old tintype; its subjects stare with dead eyes through a scuffed and sepia-toned film of anonymity. Those people worked in factories, dug coal mines, fought a civil war. They were not people who enjoyed a good joke, or wore colorful clothing. Many Americans today seem to subscribe to the idea that their ancestors did not have access to, or did not like, color. But nothing could be farther from the truth.
Americans embraced color from their very beginning. They wore it, drove it, built with it, decorated with it. They painted it, sewed it, advertised with it, bought and sold and traded and stole it. They wrote about it, studied it, collected it, and even eulogized it. At the end of the 1800s, when Americans looked back on the first century of their glorious Republic, they remembered it in color.

I see color as a category of analysis in which we can witness one of the only true democratizations in American history—the diffusion of color throughout every level of society. In the eighteenth century American aristocrats brandished color like a weapon. They crafted the material world around them as carefully as they wrote their political speeches, cognizant of the power afforded them by its correct use, and the consequences of failure. In their “classless” and not fully literate society glossy colorful carriages spoke with grandiloquence about their owners’ place in the world. In an aristocracy of the untitled, verdigris parlors bore the same power to intimidate as a gilded family crest. But their time was the last time that color could be so easily wielded. From the first flushes of pink and green in the early nineteenth-century homes of American elites, to the industrialized, commodified, synthesized hot pinks and electric blues available to literally everyone by century’s end, color collapsed class lines. No longer even remotely a trapping of aristocracy by the beginning of the twentieth century, color’s caché was replaced by a confidence in its easy access, its ubiquity, its permanence in the lives of everyday Americans forevermore. This process took place in several stages which form the three parts of this dissertation. Because this project focuses on the domestic use of decorative color, the introductions to each part are designed to illustrate some of the changes to the landscape outside American homes and the technology driving them. Part
One explains how color first made its way into the interior of the country from 1800 to 1840, a process facilitated by the Market Revolution. Part Two describes how the harnessing of steam power and industrialization gave every class of Americans unprecedented access to all forms of decorative color. Part Three explores how Americans went “crazy” with color when science and society removed all remaining limits on its range. Within each phase Americans manipulated and consumed decorative color in distinctive ways, and the evidence of that is built into their material culture.

Rude and painful as it may be to some of us, our past was a colorful place. Scarlet, not sepia, was its color. This dissertation is an attempt to explain why.
On September 17, 1718, the Rose, an English merchantman standing in the Bay of Cadiz, narrowly evaded an attack from five Spanish men-of-war. The ship’s captain, a man named Pennyman, had concluded his business in the port just two days earlier, and the Rose made her escape loaded with 200,000 pieces of eight and 80 chests of cochineal. The other British ships were not as lucky as the Rose. Upon their return to England Pennyman’s crew reported that there was “a very great quantity of Silver, Cochineal, Indigo, [indigo] and other rich Goods” on board the six English ships that were taken in
Cadiz by the men of war. For a couple hundred years British pirates had been targeting stragglers lagging behind the convoys of Spanish ships making their way back across the Atlantic from Central America. The crossing operated on a fixed schedule from year to year, making it easy for pirates to target them. But the fleet often included a dozen large vessels escorted by several armed 500-ton fighting galleons, making it hard. For these intrepid pirates, however, a booty of gold and cochineal—a natural dyestuff that rendered a bright, clear, scarlet red—was well worth the risk.

In the world before the 16th century, red dye could be obtained from a variety of sources, including plants like madder and minerals like ochre, but usually only yielded variants of red, like russet and orange-red. True reds were tough to find, and dyers turned to exotic and sometimes disgusting sources for it. “Their quest was rather like alchemy: a secret art by which practitioners sought to transmute base materials—leaves, bark, blood, dirt, and even cow dung—into a gold mine of brilliant red dyes.” But then Conquistadors found the Aztec markets selling the greatest red dyestuff ever, cochineal—“a perfect Scarlet”—in the early 16th century. Ignorant of the dyestuff except that it was produced by a small cactus plant called the “nopal,” the Spaniards shipped some of the plants back home. By the 18th century, dyers and others interested in propagating a cochineal industry had realized the colorant was in fact produced by a scale insect living on the cactus, the *coccus cacti*, so small that no one had noticed the parasite. The *coccus cacti* is so tiny in fact that one small cactus leaf can sustain more than 100 insects, and it takes twenty-five thousand *cocci* to produce one pound of dry cochineal. Even with this

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14 Ibid.
discovery, however, the fact that only females were shipped from Central America confounded Europeans into thinking the insect reproduced asexually, and this misunderstanding delayed attempts to reproduce the color even longer.

The great financial and political rewards of producing the richest and most desired pure red coloring agent in the world, and as a bonus depriving the Spanish of their monopoly, made it worth the trouble to try to cultivate. But cochineal was too tricky, climate-sensitive, and labor-intensive. The cacti could only feed the insect for three years and the bug itself was delicate. “From its birth to its death the Cochineal Insect adheres firmly by its feet and its mouth to the leaf of the Nopal, and if it accidentally falls, it perishes without attempting to return.” With no great will to live apparently, the coccus cacti did not take to transplantation well. A fatal fall from a cactus leaf, however, may have been the least painful way to go. Those methods designed by men to make the insect’s body a working colorant came straight out of the Spanish Inquisition:

“They are spread on linen sheets and exposed for hours daily to the strongest rays of the sun for ten or twelve days. Or they may be first put into an oven, as hot as the hand can bear, for eight or ten hours, and then be placed in the sunshine during six successive days. They are also prepared by pouring boiling water on them until dead and then exposing them to dry in the sun; by roasting them in a covered earthen vessel surrounded by hot ashes during several hours; and finally by suffocating them in a closed sack.”15

European dyers tried unsuccessfully to convince the cactus that it would be just as happy growing there as in its native Mexico, and similar attempts to cultivate the plant

around the world almost all failed. Ultimately Europeans figured it out how the insect reproduces, but they could not cultivate the cactus. Even today the cochineal that finds its way to consumers—in the form of safe food coloring and in makeup—still comes from Central America. The area in which Europeans did have great success with cochineal was in using it to dye fabric, and in fact the beauty and lasting color of the British “redcoats” came from this premium dyestuff. Dyers were able to make a wide range of colors with this excellent, fast dyestuff, and so they hid their secret recipes for making this “perfect red” until nearly the 19th century.¹⁶

The other dyestuff looted that day in the Bay of Cadiz was indigo, the famous blue colorant. Indigo had the distinction of giving the most durable, or ‘fastest” blues,

resistant to fading and environmental degradation. Indigo gives deep, lustrous blues, making it a “greater” dyestuff on a par with cochineal. Though they had been stealing it piecemeal from the Spanish for some time the British acquired their first indigo plantations in 1655 when they captured Jamaica from Spain. In their Navigation Acts of 1660 they stipulated that indigo could only be shipped through Great Britain on British vessels. When they levied an export duty on Jamaican indigo in 1670 they forced Jamaican producers to shift to sugar production, and indigo production moved to the Carolinas. Producers of indigo in the southeastern United States had a problem not unlike that of those who had tried to transplant cochineal. Frosts in the U.S. killed the plants and interfered with a fermentation process necessary to making the dye. Then in 1739 a woman named Eliza Lucas experimented with indigo cultivation and found a Bahamian variety acclimated well to the Carolina climate. Between the War of Jenkins’ Ear, which closed ports to French and Spanish goods between 1739 and 1743, and a bounty the South Carolina colonial legislature offered to jump start indigo production, North American indigo began a production run which lasted until the end of the 18th century. In the 17th century the dyestuff ranked along with ginger, coffee and spices in fostering plantation production. The British Royal African Company experimented in indigo production, planting it around Cape Coast Castle on the Gold Coast. The 24,000 people, mostly European and many indentured, who settled Barbados between 1625 and 1645 wasted no time in establishing cotton and indigo plantations.

17 G. Terry Sharrer, “Indigo in Carolina, 1671-1796 ,” The South Carolina Historical Magazine 72, no. 2 (April, 1971, 1971) 94-95. Between 1739 and 1748 Spain and Great Britain warred over the contract right, or asiento, awarded by the Spanish allowing the British to supply an unlimited number of slaves and 500 tons of goods to formerly closed markets in Spanish America.
Indigo is the only major natural dye that adheres directly to cotton. Most fibers resist accepting color. They require mordants (typically salts) to bind the color to the fiber.  

19 This should have meant that dyeing with indigo would be easier than with other dyestuffs, but indigo required of the dyer both overseeing a complicated fermentation process and a strong stomach. The two methods of dyeing with indigo, “hot” and “cold,” called for filling a vat with hundreds of quarts or so of urine, without regard to whether it be “fresh or stale,” stirring it morning and night for more than a week, “or till the vat appears green at the surface when raked, or that she makes flurry as the common vat” until finally “she was…fit to work…” . There seems to be great consensus among the early dye manuals that the cold method was “extremely convenient”, as the vat would serve as long as the indigo held out, and when spent all the dyer had to do to recharge it was add another quart of vinegar, two ounces of madder (which gave a deep violet hue to the blue) and another “sixty to seventy quarts of urine”. It should come as no surprise that the solution fermented faster, and would come “sooner to work,” in the summer than in cooler seasons. 

20 The demand for red and blue in the colonial era did more than boost the pirate economy and the money to be made in dyeing these colors far outweighed their unpleasantness. The history of the stroud is a case in point. Among the most colorful and profitable objects to have been imported into colonial North America were “strouds” or “stroud-waters”, both 18th-century names for woolen trade cloths. The names come from the River Stroud in Gloucestershire, where they were woven. Daniel Defoe commented on the pastoral and manufactured beauty of the place about 1725.

19 Indigo’s superiority as a dyestuff in both these regards may help explain the popularity of blue and white cotton fabrics throughout the dyestuff’s very long span of use.  
20 Haigh, 59-60. These methods of indigo dyeing remained in use for the entire nineteenth century.
“Gloucestershire must not be pass’d over, without some account of a most pleasant and fruitful vale which crosses part of the country, form east to west on that side of the Cotswold, and which is call’d Stroud-water; famous not for the finest cloths only, but for dying those cloths of the finest scarlets, and other grain colours that are any where in the England; perhaps in any part of the world.” Another commenter on the place singled out the red or scarlet and black dyes “for which they do drive a mighty trade.”

British textile manufacturers shipped two products to North America in this period: “cloth” and strouds, which played “a stunningly large part in the North American fur trade.” In 1683 William Penn traded, among other items, “20 fathoms stroud-water” in exchange for the land around Philadelphia. Native Americans always comprised a large share of the market for strouds, fabrics they fashioned into clothing and other items. Between roughly 1700 to 1840, first in the Ohio and Hudson Valleys and then the Great Lakes and Red River regions, strouds earned the title of “the most significant woolen textile in terms of monetary value, amount of fabric traded, and application to Native American garment styles.”

The two underwent different finishing processes, and their nap determined what kind of textile manufacturers would label them—broadcloth, blanketing, flannel, etc. One consideration figured most prominently in the stroud industry. “Whereas descriptions in fur trade inventories and orders are curiously silent about the finishing techniques of strouds and cloths, their specification for colour are clear and consistent.”

In the 17th century stroud-waters were all red, but by the early 18th century British cloth

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23 Ibid.
24 Ibid.
finishers dyed them both red and blue, and by late in the century several other colors in
accordance with their customers’ requests.

Native American consumers could be quite prescriptive in their choices of color
and striping. A 1705 order between a Boston merchant, James Logan, and his London
agent described the preferences. A “sort fit for the Indian trade” had no nap and a white
stripe through the selvedge. “If you have any of that sort I have one Customer that trades
to Albany that will take off 15 pieces as soon as they arrive…but if you see Cause to send
any of these they must be all blews [blues]…Next the blews the red sells best and next
the Reds the purple…By the next letter, the merchant had learned something more about
his clientele, and added, “And if you please leave out the purple. Those no body Chuses
to buy.” In subsequent letters Logan reiterated his customers’ preference for blue, and
reminded his agents about the salient characteristics of shrouds: “They are, 1st, Strowd
water a cloth about 4\text{th} broad about 4\text{shillings} per yd. Blue or red in purchasing w\text{ch} a
regard must be had not only to the Cloth and Colour but also to the list [selvedge] about
wh\text{ch} the Indians are very curious [i.e. exacting]” English manufacturers were most
likely unaware of the large numbers of Native Americans who made up their customer
base. But they well knew the importance of getting the color right in their product, as
color and finish dominated the industry’s concerns at both the production and marketing
ends. “Control of dyeing and finishing was essential to control of the market because
they determined price and saleability.”25

Blue and red were the stroud’s staple colors throughout its lifespan. Both indigo
and woad, a European vegetable dye ultimately replaced by indigo, produced the very
popular dark blue; the mazareen blue James Logan and others ordered for their clients

\footnote{Ibid.}
was also a product of the indigo dye vat, but only after the cloth was first boiled in cudbear, peachwood, or logwood, all vegetable dyes of lesser quality than indigo used to render different shades. Of the three shades of red that frequently appeared in orders, scarlet was produced by cochineal, and given its high price, the shade “aurora” was most likely derived from that same dyestuff. “Red” was the product of the dyestuff madder, another root vegetable dye produced in many regions of Europe and the Levant. In the larger inventories other colors appear, including green and white strouds, and cloth dyed scarlet, blue, green, black, grey, brown, drab, olive, and claret. With the exception of scarlet, used traditionally for riding and hunting, these colors typified men’s suitings in the period, and claret was considered “handsome” for ladies’ gowns.26 Blues, however, continued to dominate colonial orders. In the last few decades before the obsolescence of the stroud (in the mid 19th century), ten fur trade company inventories show that 71% of orders were for blue, 11% for red, 7% for black, 5% for white , 1% for green. Grey and brown constituted the remaining 5% of orders.27 

The merchants who tried so hard to describe what colors their customers wanted shared a problem with every other colonial who wanted to order something from abroad. From the gentleman scholars and early naturalists tasked with describing newly encountered species, to women who wrote their families in more urban areas to request the purchase of fabric or ribbon in a specific shade, communicating a specific idea of color in words is tough. If “writing about art,” as the comedian Steve Martin says, “is like dancing about architecture,” then writing about color may be even more absurd. There is plenty of evidence, in fact, that the colors of goods arriving from overseas often disappointed their 

26 Ibid.
27 Ibid. These inventories represent numbers for the Canadian Colonial Government, North West Company, XY Company, and the American Fur Company.
recipients. Colonials usually relied on drawing analogies between the desired color or object and one from the natural world already familiar to their correspondents. In 1787 while travelling at sea John Adams wrote that on his advice the captain had “ordered up every Body from that Sink of Devastation and Putrefaction” in the decks below in order to clean out the hammocks and other refuges of disease. As he stood waiting on deck for the cleaning to commence, Adams stared down over the side of the ship at water blackened by bonitos, a fish common to the shallow waters of the Atlantic but a species with which he was unfamiliar. But then a sailor pulled an even stranger fish from the water below, a Portuguese man o’ war. Adams recorded that it had “something like Gutts, hanging down, which are said to be in a degree poisonous to human Flesh,” with a “Hulk…like blue Glass.” Curious, the author stabbed the invertebrate with his pen knife and “the Thing shrunk up almost to nothing.”

Blue glass was familiar to members of Adams’ social class because those Americans who could afford it often applied crushed blue glass, or smalt, as a decorative treatment on their walls. The authors of dye manuals used the same descriptive device; in the 18th century the familiar object usually formed part of the color name. A dye manual first published in the 17th century and reprinted in the 18th, *The Whole Art of Dying*, listed these colors among its receipts, or recipes: olive, “lemmon”, nutmeg, violet, blood and hair. Its descriptive prose may not have been quite so clear: “Hair or Goat Colour is of several different sorts, as Light Reddish, or Yellowish; so that indeed ‘tis impossible to determine, which is preferable, each of them being saleable, and in good Esteem, and every Man Dyes which he pleases.” An 1810

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American dyer’s recipe book listed among others “sage grey, pigeon grey, the slate grey, the lead grey, the king’s and prince’s colour…goose dung, marigold, old carnations, burnt cinnamon and tobacco of all kinds.” Some color names that have survived without these descriptors are now too arcane for modern readers to identify: feulemort (meaning the color of a dead leaf), perse (a dark grey blue), brimstone yellow, kings colour, Brasil crimson, English red. Others are no doubt lost forever.

Americans and Europeans may have shared a lexicon of color names, but they did not share a capacity for color production. The popularity of strouds may be at least in part explained by the fact that their colors were bright, lasting, and manmade. Until European dyes and pigments came to North Americans nature provided the only color in their lives: the blue of the sky, the deep browns and greens of the forest. The landscape turned progressively lighter and more varied as colonists felled trees and dotted it with bright spots of white and black sheep whose varieties had yet to be named, and the deep russet red of Red Devon cattle. The first cattle shipped to Plymouth Colony in 1623 were a Red Devon bull and three heifers, and their reputation for docility and multi-purpose utility—working ability combined with meat and milk production--made them a staple on the American landscape until the early 20th century.30 The saturated color of the Red Devon’s dense fur—somewhere between an orange red and a chocolate brown—against a green field is a pleasing sight, to which any visitor to Colonial Williamsburg can attest. Houses in this period often went unpainted, but when they were, the color most frequently applied to them was Spanish brown, a colorant made of iron oxide, or they were simply tarred. Sometimes colonists painted their window frames and doors in a

lighter iron oxide color or a red or yellowish shade produced by a locally found ochre. In the end, however nature’s palette—no matter how charmingly bucolic—may have become a bit boring.

Despite the whiggish fantasy of colonial American self-sufficiency that developed early in the nineteenth century, in reality colonial Americans looked to England or France for paint pigments, well colored clothing and furnishing fabrics, ceramics, wallpapers, carriages, and virtually every other article of household furnishing. In their quest to fill their lives with these goods colonists came to rely on the “mail order system of finance and provision” that shipped them from across the Atlantic, “by the Grace of God in good order”. In 1768 Mr. R.C. Nicholas, a resident of Williamsburg, Virginia, wrote to his factor John Norton in London to place a large order for clothing, that included: “6 Pr. Best French Purple [Kid Mitts] & 2 pr. For a small Woman, and four pr. Larger—6 PR. Coulour’d Lamb Mitts for a Girl of eleven years…[and] as much black cotton Velvet with Lining and Trimings as well make a large Man a pr. Breeches.” In 1773 James Minzies wrote to Norton & Sons on behalf of Lord Dunmore to order articles “for his Lordship’s own use”, as much “Superfine Cloath” as would make three coats in each of the following colors: Green, Brown, Scarlet, and Gray, and an additional coat of black. In casimir fabric (a medium weight soft twilled woolen cloth) he ordered enough to make one coat each of green and grey, and three of brown, with enough buttons in each of the colors for the coats, along with a few dozen stockings in white and buff. For his Lordship, Minzies also wanted as many colors as he could get for one price. He ordered

31 Frances Norton Mason, John Norton & Sons, Merchants of London and Virginia, being the Papers from their Counting House for the Years 1750 to 1795 (Richmond, VA: The Dietz Press, 1937) forward.
32 Ibid.
“2 Pound Silk as many different colours as possible but the largest quantity dark blue.”

In the same order shipment that brought his Lordship’s suitings, a Mrs. Scott received ten yards each of pink, blue, white, and “Garnet a blooming Colour” “lutstring” [lustring or lutestring]. Lustring was a fabric finish in which the textile (in this case probably silk) was treated with glue, starch, resin or shellac, after which hot friction rollers polished the finish, giving the silk extra body and enhancing its characteristic rustling sound. Some ideas of color were more vague: “A grave [in color] Narrow Striped Callimancoe large Wrapping Gown for a large Man…lined with thin green Bayes,” [a rough utilitarian woolen] or “1 pr. Finest brown Holland of a yellowish dye.” Holland was a plain woven line with the additional processing of bleaching, a step required to remove the grayish-beige of natural flax and leave a clean dyed color. Mrs. Scott’s friend, a Mrs. Anderson, was to call upon Norton’s in London to select these goods herself, and Minzies seems to have trusted her to understand what colors he wanted for his Lordship.

If the British empire was collecting the raw materials of color, British industry was providing the finished product. Up and down the Atlantic Coast from the mid eighteenth century colonists willingly entangled themselves in Britain’s “empire of goods” and up until the eve of the Revolution, with the exception of some boycotts, they showed no inclination to cut off their addiction to colorful goods cold turkey. The sumptuary laws that dictated fashions, including color, in European societies had never held sway in the colonies; cost controlled who had access to it. But with European products came other European ideas, which efficiently wove themselves into the fabric of Americans’ lives.

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33 Ibid.
34 Ibid.
In the last quarter of the 18th century the best place in North America to see the intersection of all of this was Philadelphia.

Visitors to Philadelphia in the late 1700s often commented on, and debated the merits of, the series of straight lines and ninety degree angles that constituted the city’s grid plan. Before 1775 boosters bragged about the man-made features of the city, insisting that the grid’s progressive uniformity and regularity made it superior even to major European cities. But by the fourth quarter of the century visitors complained about this very same uniformity. The balanced, symmetrical Georgian geometry of the city’s plan, they found, was boring. It lacked the unpredictability, the wildness of the natural world—the picturesqueness—of the Romantic. The two ideologies intersected in the middle of the grid. “It seemed to typify for them all that was good or bad about Philadelphia,” and one could argue, all that was good or bad with the New Republic. To some extent the change of mind hinged on how the commentator viewed the American Revolution. After 1775 it was still the Revolution’s foreign advocates who had the nicest thing to say about Philadelphia’s plan, because they still associated it with Enlightenment rationality, and even at the end of the century those most deeply indoctrinated into the ideology of the Revolution were still disposed to think of the grid as the embodiment of those noble ideals. But in the last decades of the century many European visitors had already experienced Romanticism, and the plan’s regularity only left them yearning for the picturesque, “the ability to please the eye with variety in color or form and to present the viewer with an element of surprise through vistas and

irregularity.” Developers worked quickly to meet this most basic tenet of Romanticism, as they erected new public buildings and mansions, and landscaped spaces, ironically, to introduce “Nature” into the all too orderly interstices of the grid.

Positioned on the cusp between two centuries and two intellectual phenomena, Philadelphia was a great place to see color. Two- and three-story red brick row houses and humbler painted structures ornamented the city’s geometric armature of steepled churches, public halls, and light-colored palatial residences, many of which were built in the neoclassical style which advocated a lighter, ostensibly more rational palette, and which had just appeared on the Philadelphia landscape. The grey and white marble of their new columned porticos “created a new sort of streetscape with depth and shadowing” compared to the “flat” facades of the row houses. In the year 1794 a new park appeared on the grounds of the old pauper’s cemetery, freshly planted poplar trees stretched toward the sun alongside native white-trunked and silver-leaved sycamores, deepening the long green stripes that had long shaded Philadelphia’s streets. Those streets were not only colorful but also were relatively safe, as streetlights had recently lit them and watchmen patrolled them. They were also pretty clean; at mid-century city leaders had taken Benjamin Franklin’s advice and begun paving the streets with stone, and flanking them with wooden gutters and brick sidewalks.

The greys, greens, and reds of Philadelphia’s built environment must have made dramatic backdrop for the colorful clothing and carriages and signs that dotted its streets

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36 Ibid.
37 The plan of the new nation’s capital met the criterion for a sophisticated Western capital by imposing diagonals and circles over its grid, creating long vistas and interesting spaces.
38 Ibid.
like so many hothouse flowers. Tavern and ale house signs appeared everywhere, their
great number “noted even by Englishmen” who couldn’t ignore the bright and glossy oil
paintings depicting Noah’s ark, Bunyan’s Pilgrim, a crowing rooster perched on a lion
with Liberty “issuing from his beak,” and naval battles in which the Americans whipped
the British during the war. The most common according to one early nineteenth-century
account were “eagles, heads of public characters, Indian Kings, &c.” Signs for paruke
makers, apothecaries, and mercantiles were just as bright and interesting.

Philadelphia was the carriagemaking center of colonial North America, providing
coaches, chariots, post-chaises, and coachees for a healthy domestic and export
consumption. By the start of the American Revolution colonists could buy any style of
carriage available in Europe from a domestic manufacturer, but until the end of the
eighteenth century, only American elites—merchants, successful tradesmen, and the like-
could afford such pleasure vehicles. Yet other kinds of vehicles rolled along
Philadelphia’s guttered streets—family wagons, chaises, and caravans—owned or used
by the middling sorts, and thus their passengers enjoyed the same visual treat.

The carriages of the 18th century tended to be cumbersome but elaborate, with
extensive applied decoration. Their sculptural bodies born on rigid and ineffective
suspension systems made them heavy and uncomfortable for passengers and horses alike.
George Washington owned one of those first carriages to be seen on Philadelphia streets,
and they took their toll on it. In June of 1768 Washington wrote to Robert Cary & Co.,

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39 In the 18th century the generic term “carriage” referred to any number of wheeled vehicles, from sedan
chairs to stage waggons or wagons. Many subtypes of personal carriages (which most people would
probably think of as coaches) existed after 1750.

40 Alice Morse Earle, Stage-Coach and Tavern Days (New York: The MacMillan Company, 1900) 163.

41 A carriage tax enacted in 1794 inspired the consumption of lower-taxed Jersey wagons, carry-alls,
chariotees, and coachees, a peculiarly American design.
his agents in London, asking them to “bespeak” him a new one. “Gentn: My old Chariot havg. run its race, and gone through as many stages as I could conveniently make it travel, is now renderd incapable of any further Service.” Washington ordered his chariot from abroad because imported carriages held the caché of status and fashion that justified their greater expense and the complications of conducting transatlantic business. Like his peers he worked hard to keep abreast of European tastes. Just the month before ordering his coach, he probably saw this item from a London paper reprinted in the Virginia Gazette: “His Excellency the Count du Chatelet, Ambassadour from France, made a very splendid appearance on Monday last. His coach was very elegant, made in London, drawn by six black French horses; the harness was made of red leather, stitched with white, and his servants were dressed in rich liveries, green and gold.”42

As he did with most of his acquisitions, with the purchase of a new carriage Washington greatly concerned himself with its color—both its fastness and its fashionableness:

The last Importation which I have seen, besides the customary steel springs have others that play in a Brass barrel, and contribute at one and the same time to the ease and Ornament of the Carriage; One of this kind therefore woud be my choice; and Green being a colour little apt, as I apprehend to fade, and grateful to the Eye, I woud give it the preference, unless any other colour more in vogue and equally lasting is entitled to precedency, in that case I woud be governd by fashion. A light gilding on the mouldings that is, round the Pannels) and any other Ornaments that may not have a heavy and tawdry look (together with my Arms agreeable to the Impression here sent) might be added, by way of decoration….A lining of a handsome, lively cold leather of good

quality, I sh'd also prefer, such as green, blew, or &ca., as may best suit the col'r of the outside.\textsuperscript{43}

Two years later Washington received his new carriage, described by the invoice as “a new handsome Chariot, made of the best materials, handsomely carvd” with lots of mouldings, its surfaces Japanned and polished, its body “handsomely paintd in a glazed green adorned by shields and ornaments, flowers “all over the Panls, body and Carridge, and even its footboards carved and ornamented with beading.” The maker, Christopher Reeves, lined the interior with “green Morocco leather trimmed with Cuffoy Lace, and the trunk beneath the seat with red leather and “handsome carpet”, with brass nails, fringe, and gimp all over. To protect his new purchase Washington received a cover made of Green Bays” [baize, a heavy wool fabric commonly used to protect table tops and delicate carpets.] The cost of this luxury vehicle, including shipping, totaled more than 300 pounds.\textsuperscript{44} Two months later Washington wrote his agent to complain about the poor quality of the goods he had received, some more problematic than others. The window panes he had ordered were cut to the wrong dimensions, he said, were “a considerable disappointment, & no small disadvantage to me; but not equal to the one that followd upon the Heels of it: I mean the Chariot, which I begd might be made of well Seasond Materials, and by a Masterly workman; instead of which, it was made of wood so exceedingly Green that the Pannels slipd out of the Mouldings before it was two Months in use—Split from one end to the other—and became so open at the joints, tho.

\textsuperscript{43} George Washington, Letter to ROBERT CARY & COMPANY Mr. Vernon, June 6, 1768. 1732-1799. The writings of George Washington from the original manuscript sources: pp. 489-90. Volume 2, Electronic Text Center, University of Virginia Library, Mr. Vernon, June 6, 1768. Washington, George, 1732-1799b.

\textsuperscript{44} George Washington, Letter to ROBERT CARY & COMPANY Mr. Vernon, August 20, 1770, June 6, 1768, Mr. Vernon, June 6, 1768. Washington, George, 1732-1799a.
every possible care was taken of it, that I expect very little further Service from it with all the repairs I can bestow.” Whether it was bad glue, planned obsolescence, or the terrible toll colonial roads took on most vehicles, that green chariot would not roll for long. George and Martha Washington owned several personal wheeled vehicles in their lifetimes; not one of them survives today.

Life on the streets for these carriages was hard, and not ten years later Washington was coach shopping again. This time he wrote to an agent from Morristown, New Jersey asking him to examine carefully a couple of chariots he was thinking of buying, to ascertain whether they were made “in the present taste.” “My reason for being so particular I shall mention; some days ago I was told of an elegant chariot of exquisite workmanship…that was for sale; I got a Gentn. to view it, who made so favourable a report, that I sent down to buy it, when upon a second inspection…it was found to be so old fashioned and uncouth that the Gentn. did not incline to take it.”45 Washington decided to purchase one of the two his agent inspected “on acct. of the size although it will take longer time to finish it…The painting I hope will be well done, and in a tasty stile with respect to color (in wch. I have no particular choice).” George Washington’s remark to his agent in Morristown that he had “no particular choice” as to the color of his carriage strikes a disingenuous chord. He seems always to have had an opinion on what colors he wanted on any personal article that would be exposed to the public, and his instructions for the decorating schemes of his carriages were as exacting as those for his tailors or his contractors at Mount Vernon. In 1780 he didn’t venture a guess as to what the day’s most fashionable color might be for his new coach, but he knew enough about

45 I searched Washington’s phrase here “my reason for being so particular” in the Library of Congress’ digitized library of his correspondence, and found that he used that phrase at least 18 times in letters to various correspondents.
the color-conscious world he lived in to insist that the color should be “tasty”. As always, he was doing his best to keep up with the Joneses, and in Washington’s world the Joneses were the Randolphps, Carters, Wythes, Masons, and Jeffersons. He had already given instructions to have his arms and crest “properly dispos'd” on the vehicle before he’d even bought it. Although he claimed to prefer a plain chariot, he added afterward “it may not be amiss to Ornament the Mouldings with a light airy gilding; this will add little to the expence and much to the appearance.” Even the harness was to be decorated. Washington’s hesitation here regarding some “light airy gilding” on his new carriage is understandable given the context in which he had ordered his chariot in 1768. When he was Governor of Virginia in the 1760s, Lord Botetourt’s state coach, a heavy clumsy “richly ornamented” carriage in an already dated, mid-century style, was “gilded in every part, even the edges of the tires of the wheels.” Several liverymen, dressed in crimson velvet capes, postilion coats and shag breeches, some with stripes and some with solid green waistcoats and velvet collars, attended the golden coach, which was drawn by eight matching grey horses. But only a year after the chariot’s purchase golden idols like the governor’s chariot got a black eye in the colonial press. The *New-York Gazette* carried a letter from “a Gentleman” in Edenton, North Carolina, that most likely appeared in other American papers, which equated Botetourt’s gilded lifestyle with a blithe disregard of frustrated colonists’ desire for political autonomy. “Our Assembly is dissolved, new writs are issued, and the election will be on the 18th of July.—Don’t you think the

47 Ibid. Upon seeing Lord Botetourt’s old state coach parked in a building near the former Governor’s Palace in Williamsburg in 1781, Octavius Pickering recorded these notes. The arms of Virginia are painted on every side. The motto of the arms led me to remark how peculiarly disposed the Virginians have been to adopt ideas of royalty and magnificence…The motto is, En Dat Virginia Quartam, --that is, ‘Virginia gives a fourth quarter to the world.’"
Virginians have behaved like men? I fancy Lord B------t is greatly mistaken, and must by this time know, that titles, burgundy and a gilt coach will not be sufficient inducements to bribe men out of their liberties…”

In short, a much disliked governor’s equipage had set the bar for visual impact and royal indulgence in colonial Virginia, an attempt, the writer suggests, to tempt less committed republicans away from their cause. Color was controversial again in 1769, when duties on colors in the Revenue Acts antagonized colonists. In November William Nelson wrote an otherwise friendly letter to John Norton, his tobacco agent: “I before desired you not to send the Things you used annually send me, except the Garden Seeds; as I am an Associator in Principle, & shall not import any more necessaries till the hateful acts posing the Duties on Glas paper & Colours; But, tell Them in plain English, That alone wont satisfy America.”

By January Nelson wrote again to express his approval of the Merchants’ finally “bestir[ing]” themselves to demand the Revenue Acts’ repeal, but wished to remind them that the repeal of only that part pertaining to the duties on “Glass Paper Colours” would not suffice. In June of 1770 the Burgesses and 125 Merchants of Virginia agreed to boycott “spirits, food, luxuries, oil, painters’ colours, etc. coming from England after September 1, 1770.”

Lord Botetourt died in October of that year; the probate inventory listed just how colorful his life had been.

The context of Washington’s 1780 carriage purchase was even more uncomfortable than the situation for Lord Botetort had been in the 1760s. It was April of 1780, the spring just after his second terrible winter in Morristown, the worst of the 18th

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48 Ibid.
49 Mason, John Norton & Sons, Merchants of London and Virginia, being the Papers from their Counting House for the Years 1750 to 1795 112-113
50 Ibid.
51 Ibid.
century. His equivocating tone with regard to the gilding and ornament he so clearly wanted betrays some anxiety that the ostentation might be too much, causing upset most likely among his troops or his Revolutionary peers. Yet after that brutal winter the general could not resist a little radiant golden warmth. His own freshly gilded coach of 1780, with its ciphers, allegorical paintings, and matching team flanked by his livery colors of green and gold, undoubtedly skirted the line of excessive flashiness for a rebel general. The coach was quite possibly Philadelphia’s most striking. From bills for its refinishing in 1790 we know that it was white, not a crisp blue-white like modern whites but a warm white created by the mellowing, yellowing effect of linseed oil on the white lead. The large body required a four-horse team, and its glistening gold and silver carvings must have given it a stately grandeur. Its panels contained trompe l’oeil medallions depicting nude allegorical representations of the Four Seasons. The traditions in royal coachmaking most assuredly influenced its design. Allegorical figures also covered the state coach built in 1761 by Sir William Chambers for the Queen of England, so ornate it required a team of eight cream-colored horses to draw it. Paintings by Cypriani on the coach depicted among other things Britannia attended by a host of Virtues incarnate, Neptune in a car drawn by sea horses, and Industry and Ingenuity presenting a cornucopia to the Genius of England. All of this was supported by braces covered in red morocco leather, which was in turn supported by four gilt Tritons. Two more gilt caryatids supported the driver. Washington’s coach was, then, unabashedly royal in its decoration. It served him until the end of his life, although its decoration did not. In 1790, while the carriage was in their shop, David and Francis Clark wrote to its owner suggesting that the oval moldings on the quarter panels should be painted with a
purple or grey ground with the crest set within them, since the coach was white and its crest silver. Washington countered that the crest should be set against an ornamental painted ground instead of the solid color. Washington may have rejected using purple in the cartouches of the family chariot in 1790, but he was not averse to using that color on other articles. In the closing year of the American Revolutionary War the general had written “Whenever any singularly meritorious action is performed the author of it shall be permitted to wear on his facings, over his left breast, the figure of a heart in purple cloth.”

The Badge of Military Merit was the United States’ first military decoration, its original design a purple cloth patch with the word “MERIT” embroidered in gold across it, surrounded by a border of acanthus leaves.52

In fact, Washington was no more concerned about fashionableness than the rest of his social set. Copycatting one’s neighbors was de rigueur among colonial elites. Peter Lyons wrote to Messrs. John Norton in 1772 to order a carriage, asking the company to use a previous order from Mr. Lyon’s neighbors to determine what to send: “…I request the favour of you to bespeak of Mr. Benj. Wallers Relations, who are Coachmakers in London, and known to Captn. Peterson, a small, neat, light, post Chariott, that may be drawn in Summer with two small Horses and will just hold two Ladies & carry their Trunks &ca to be about six inches wider than the Chariott or Sulkey you sent Mr. Tazewell, but not near so large as the one you sent Mrs. Chamberlayne, to be painted the colour of the Chariott they sent Mr. Waller.”53

According to the 1789 account book of

52 “Around the Mall.” Smithsonian Magazine, November, 2004a, . It wasn’t until the bicentennial of Washington’s birth in 1932 that the U.S. War Department revived the award, reshaped it into a bronze heart born on a purple ribbon with a purple enameled center surrounding Washington’s silhouette, renamed it the Purple Heart, and expanded its criteria to honor those killed or wounded in service.
53 Mason, John Norton & Sons, Merchants of London and Virginia, being the Papers from their Counting House for the Years 1750 to 1795, 573 p.
the Philadelphia carriage makers Hunter Brothers two Pennsylvanians ordered copies of a carriage commissioned for export to the West Indies to be “painted in color like Mr. Lombarts” in light blue with silvered moldings, a painted mantel, and “fancy pieces on the sides.” The Hunters sold carriages to Americans who speculated on sales in the West Indies. Their island trade included Havana, St. Croix, and four ports in Saint-Domingue, where they shipped carriages whose bodies they finished in “bright colors.”

Carriage makers stocked certain pigments, binders, and varnishes regularly, including yellows of many shades that were popular in the late 18th century. A particularly well liked shade was “Patent yellow”, or “Turner’s” or “Montpellier yellow,” “a hard, ponderous, sparkling substance, of a crystalline texture and bright yellow color,” similar to chrome yellow. Its name derived from the patented process used to extract the color from sea salt and litharge. Bright red gear elaborated with ornamental carvings was also common to chariots of the late 18th century. The Hunters’ shop painted carriage bodies in these and many other color combinations, from solid base colors to white and purple stripes, customizing them with panels adorned by flowers and festoons, scenic cartouches, family crests or symbols of public office.

In 1790 Attorney General Edmund Randolph of Virginia ordered a new travelling post coach in dark green with gilt moldings, four ciphers of “ER”, and fine white cloth. George and William Hunters’ Philadelphia firm was the Clarks’ competitor. Their customers included Edmund Randolph, Richard Henry Lee, Thomas Jefferson, Charles

55 Ibid.
56 Earle, Stage-Coach and Tavern Days, 254
Wilson Peale, and Alexander Hamilton. They advertised that they produced highly fashionable and decorative modes of transport, and to meet the needs of their socially prominent clientele the Hunters employed experts in passementerie, wool combing, and gold beating. In the late 18th century the Hunters’ spinner, weaver, and dyer Philip Schuman produced coach laces in ten different colors to coordinate with the color schemes devised in the shop, as well as coach trimmings in other patterns and color combinations. His work allowed the Hunter Brothers to cement their reputation for customization without delay, and made Schuman important enough to their business that the Brothers forgave the many debts he accrued, having to bail him out of jail, and the fact that he showed up to work only one day a week in the winter of 1789, while drawing full pay. Varicolored fabrics increased the richness—material and visual—of carriages; gold leaf adorned ciphers and crests, moldings, and sometimes ironwork. Coachmakers suffered from the same problems of placating picky customers with natural dyes and pigments. Dyeing was a tricky business, especially when vegetables and mineral dyes varied in their manufacture, quality and availability, and their successful application was subject to environmental fluctuations. To be competitive good shops had to employ skilled painters and varnishers, too, who needed a super clean workspace and adulterant-free materials. Finally, they had to convince American customers they could deliver work as good as British shops.

The Hunters advertised that their firm offered coaches “after the newest and most approved taste. As they fully understand the Art of Japanning and High Varnishing, they flatter themselves they can finish their work equal to any imported.” 58 The most arresting of the upholstery cloths they used must have been the spotted silks in orange and crimson

58 Ibid.
they purchased from abroad in 1789. They also imported chintz and calico, calimanco and dimity which they may have dyed themselves. George described himself as a chemist who also retailed “a general assortment of medicines, paints, brushes, and dye stuff, etc.” to the general public as well as to his brother. He sold the surplus to other carriage makers.\(^59\) The Hunters used bright-colored leathers to enhance the interiors of coaches and reinforce delicate upholstery fabrics. In Philadelphia carriage manufactories’ indigenous American designs cross pollinated with English and French-bred styles. Some were adapted from London carriage maker William Felton’s 1796 guide to wheeled vehicles *A Treatise on Carriages comprehending Coaches, Chariots, Phaetons, Curricles, Whiskeys, &c. together with their Proper Harness, in which the Fair Prices of Every Article are Accurately Stated*. Felton specified how many colors total could appear on a vehicle and in what way it could be striped or picked out.

“Picking out” is the striping or banding of surfaces on the vehicle, just like pinstriping today. The work illustrated a coachman driving “A Neat Ornamented, or Town Coach sat on a heavily fringed and ornamented hammercloth on a carriage picked out in two colors.”\(^60\) A “Plain Coach” could exhibit “painting of any colour, but plain and common varnished.” “An Elegant Crane-Neck Coach” glistened with a high-varnished finish, and “a rich border, 5 inches wide, round the middle,…with handsome swags of flowers on each side, of about the same value with the border, the mouldings of the carriage are gilt, and picked out with three colours.”\(^61\) The painting and decorating of carriages represented a considerable part of their cost. In the 18th century painters accented the

\(^{59}\) Ibid.  
\(^{60}\) Goodwin, *Wheeled Carriages in Eighteenth-Century Virginia* lxxx-b  
structural members of vehicles with “bold and contrasting colors.” Ornament was typically carved into, and not painted onto, their frames. After the mid 1700s the French produced guides to coach making with chapters on carriage painting and decoration. In his 1772 work *l’art du peintre, doreur, et vernisseur*, Jean Felix Watin described the state of the art of carriage painting and varnishing. The basic treatment involved priming the coach body with white lead, litharge, and linseed oil, and then applying up to twelve coats of undercoating of finely ground white lead and resin spirit. The carriage painter had to sand each dry coat with pumice stone and then gently rub with sieve pad and fine pumice powder. Over this ground he meticulously brushed seven or eight coats of color mixed in linseed oil, and after they dried he applied up to eight coats of varnish, again rubbing each dried coat with a pad and pumice powder. Smooth, shiny, and colorful, on dusty American roads these private carriages must have glimmered like precious gems.

In a world almost devoid of bright, deep, and glossy colors, these rolling calling cards announced their owners’ affluence everywhere they went. And Americans of means suffered from few limitations on their colors. The plates of Rudolph Ackermann’s contemporary publication *Fashionable Carriages* illustrate the wide variety of colors and combinations of colors in which carriages could be and apparently were finished, in schemes not always in accordance with our present day sense of harmony and good taste. William Felton wrote that the carriage customer’s color choice depended “entirely on fancy.” As Washington’s letter to his English carriage maker illustrates, however, Americans did not rely only on “fancy” to make their selections. Wheeled

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vehicles were the most visible expression of the social status of 18th-century elites, a phenomenon not unknown in our own time. Customers like Washington made socially and politically motivated purchase decisions, and color was one of the most important.

The owners of commercial vehicles like vending carts and those available for hire used color to attract potential customers. Though lacking the many expensive layers of glazing and buffing that private carriages displayed, the bright yellow, red, and blue of the bodies, gears, and wheels of carts and wagons still caught the eye. Road wagons, (simple wagons fitted out for road travel), farm wagons, and other utilitarian vehicles which sat unsuspended, without benefit of springs or thoroughbraces to make the riding easier, might also be colored according to the tastes of their owners. Stage wagons were large carts fitted with benches and sometimes covered to haul passengers, yet they were still hideously uncomfortable and usually without doors, causing their riders to climb over the driver and then one another to take their seats. As commercial vehicles, it makes sense that they were painted in a bright color—usually yellow—to attract customers, like taxis in our time. The stage wagon at Colonial Williamsburg is finished in a bright shade of mustard, most likely to replicate a paint made of yellow ochre, a pigment found throughout the world and commonly used to make yellows in colonial America.

Stage drivers may have been even more colorful than their vehicles. Notorious for their gossiping, swearing, and insolence, they were equally known for the vehemence of their egalitarianism. Drivers usually refused the tip offered them by foreign travelers, but would happily take a drink with any passenger, from senator to smith. Travel writers also universally praised stage drivers for their mastery of their horses and daring in
navigating the perils of the American road. For a stage ride from New York to Philadelphia in 1797 the passenger sacrificed four dollars and the health of his spine. One contemporary account from an expatriate living in America at the time described the distinctive passage. Constructed alike throughout the country, the American stagecoach offered few conveniences but usually untaxed entertainment. The front seat held three, including the driver. The coach held about twelve, and though some men clambered to the rear to “the most esteemed seat because you can rest your shaken frame against the back part of the wagon”, that section was reserved for the women, “who are generally indulged with it; and it is laughable to see them crawling to this seat. If they have to be late they have to straddle over the men seated further in front.”

The country’s first turnpikes were laid over old hunting trails and horse tracks, and though they represented an improvement for travelers’ comfort they were still horrendously bumpy. Light vehicles were not up to the task of travel on the turnpikes, and so from the second half of the 18th century a second class of wagon and carriage evolved. The coachee was the first carriage whose design was suitable for family travel in both city and country. Like a smaller version of the stagecoach of that era, the two passenger seats faced forward, with the driver’s seat beneath the roof. The coachee’s practicality did not exclude its decoration. The Henry Ford Museum at Deerfield Village

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64 Though they were built for heavy duty work, stage waggons frequently broke down or got bogged down. While I was a fellow in Colonial Williamsburg, I witnessed the breakdown of their stage wagon on the Duke of Gloucester street. Even though that street is flat, and the service department and Colonial Williamsburg police showed up immediately, the wagon’s passengers were frightened and the women chose to be lifted to the ground by the burly driver. Even though those passengers may have had the most authentic wagon experience of anyone living in the 21st century, they still all asked for their money back.

65 Earle, Stage-Coach and Tavern Days 256, 263 One account of the period held that thirty-eight Philadelphians owned the three coaches, 2 landaus, 18 chariots, and 15 chairs known to travel the streets of Philadelphia in 1761. In the early 1770s that number had grown to eighty-four coaches, coaches, chariots, and post chaises. By 1794, with a city population of approximately 50,000, there were 847 carriage owners, holding among them 33 coaches and 157 coachees.
owns a coachee of the period which is lined inside with red cloth, with red roll-curtains at the windows. Its gear and body are dark green, panels and footboard are striped with yellow, and its gear and wheels are striped red.66

One of American history’s best marriages of form and finish appeared on one of its most iconic vehicles of the colonial era. Though Americans tend to associate the Conestoga wagon with the “prairie schooner” that crossed the American West in the 19th century, its form and color scheme were actually developments of the previous century. By 1750 documentary accounts identify a specific type of vehicle as a Conestoga: a covered freight wagon with plank sides in an unusual curved shape, dipping low at the center and rising up at the ends, with end-gates flaring outward. Thick leather thoroughbraces suspended the frame, allowing for some rider comfort. Their shape kept freight in place as these wagons travelled up and down hills and mountains of Pennsylvania and outlying roads. Like its form the wagon’s color scheme remained remarkably consistent over time. The boat-shaped body was typically a shade of blue, between a dark blue and a slate color; sometimes tending toward blue-green, although this was a less common shade. Red running gear ranging from vermilion or “Chinese” red to an orange shade if the paint contained red lead, usually held it up. Conestoga wagons began life in the Conestoga River Valley of Pennsylvania hauling produce to Philadelphia. They later served in the American Revolution, and they did not retire for another hundred years.

From Philadelphia the Great Waggon Road travelled south and west. Also known as the Valley Road, it crossed the Potomac at Mecklenburg or Shepherdstown, continuing

to Fincastle, Virginia. At the lower end of the valley it had three forks, one heading into
the Carolinas, one into what would become Tennessee and Kentucky, and the third that
went west into the Trans-Allegheny region through the Greenbriar Valley. At its
southern terminus was the first colonial capital, Williamsburg, Virginia.

The seat of government in 18th-century Virginia, after 1705 the City of
Williamsburg had ordered its highway surveyors to lay out convenient roads to connect
the town to all outlying parish churches, public ferries and mills, and all the neighboring
court houses, as well as to keep them “well cleared from woods and bushes, and the roots
well grubbed up.”67 With the exception of some swampy woods that bogged down the
occasional unwary traveler, Williamsburg’s roads remained passable year-round.
Virginia’s elites did not hesitate to take their carriages out on a regular basis. As early as
1720 the Reverend Hugh Jones of the College of William and Mary commented on the
“several very good families” who set the fashion for high-living in Williamsburg. “They
live in the same neat manner, dress after the same modes, and behave themselves exactly
as the gentry in London; most families of any note having a coach, chariot, berlin, or
chaise.”68

In the second half of the 18th century Williamsburg could not boast the neatly
gridded, cobbled streets that distinguished Philadelphia, but it did have its share of brick
mansions, elegant shops, and brightly colored carriages to decorate them. Sandy soil and
at least a thirty-foot breadth of the main street down the center of the town facilitated the
passage of pedestrians and carriages, and drew the compliments of even snobbish English

67 "Second Annual Report of the Ohio Valley Historical Association Comprising the Proceedings of the
Second Annual Meeting."(Marietta, Ohio, The Ohio State Archaeological and Historical Society,
November 28 and 29, 1908, 1909).
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visitors. Tavern and coffee house signs lined Duke of Gloucester Street, and the shops’ vitrines were full of colorful articles. Williamsburg dry goods merchant John Greenhow advertised “for ready money only” white “calico” and red and blue cottons, handkerchiefs in the same colors, fine men’s stockings in blue, red, brown, and white, feathers in blue and white, as well as “Feathers for ladies hats”, ladies’ aprons in whites and checks, flower bulbs in various colors, including crocus bulbs in blue and yellow, seeds for Globe amaranth, a deep pink flower which retains its color when dried, viola tricolor, and dianthus, Queen’s China, (Wedgwood’s famous creamy white china), assorted china, earthenware, stoneware and glass, Hogarth prints, colored sealing wax, and “Best painted floor cloths.”

In 1736 another English visitor could not but note favorably the “prodigious Number of Coaches that croud the deep, sandy Streets of this little City,” despite finding that city “a most wretched contriv’d Affair for the Capital of a Country.” “Almost every considerable Man Keeps an Equipage, tho’ they have no Concern about the different Colours of their Coach Horses, driving frequently black, white, and chestnut, in the same Harness.”69 It is clear from other accounts of the period that some Virginians at least cared a great deal about matching the colors of their carriage horses, all dapple grey, all sorrel, or all bay, for instance.

The coaches of late 18th century Virginia rolled through city and country attended by “slaves richly dressed”, testifying like town criers to their owners’ position at the apex of the social, political, and economic hierarchy.70 Round trip to a neighbor’s for dinner might require a journey of sixty miles, and the comings and goings of carriages often

69 Goodwin, Wheeled Carriages in Eighteenth-Century Virginia 223
70 Ibid.&nbsp;ca. 1781.
provided the color content of locals’ diaries and letters. While employed as a tutor to
Robert “King” Carter’s children in the 1770s, Philip Fithian recorded in his journal the
arrival “from the Ship lying at Leeds” of the family’s new carriage. “It is a plain
carriage, upper part black, lower part Sage or Pea-Green—the Harness is neat strong and
suitable for the country.” The price of the carriage, Fithian notes, was 120 £ Sterling, a
goodly sum.71 In 1785 a visiting merchant from London wrote “Most of the company
went away this morning, soon after breakfast, in their phaeton[s], chariots, and coaches in
four, with two or three footmen behind. They live in as high a stile here, I believe, as any
part of the world.”72 In his treatise on carriages William Felton illustrated a coach that
looks similar to the one Fithian described.

Before the 1770s most wealthy Virginians purchased their coaches, chariots, and
wheeled chairs from England, although the non-importation agreements of 1669 and
1774 made domestically made carriages from Boston, Maryland, New York, and

71 Hunter Dickinson Farrish, "
Journal and Letters of Philip Vickers Fithian: A Plantation Tutor of the Old Dominion, 1773-1774,"
14).
72 Goodwin, Wheeled Carriages in Eighteenth-Century Virginia 20
Pennsylvania temporarily more attractive. Colonial Americans living in the South of course complained about high duties and being forced to purchase expensive finished goods from England, yet they respected European manufactures and generally sought an English or French provenance. The green and gilt post-chariot “lined with light coloured Cloth” advertised in the Maryland Gazette in 1767 was described as “LONDON made”. The same paper ran an ad in 1770 for “an elegant new POST CHARIOT,” “painted in the newest taste, French grey, and lined with green Morocco leather,” and made “under the particular direction and inspection of a Gentleman at London.”

At the beginning of the third quarter of the 18th century, coachmakers typically wore several hats, as wheelwrights or chair, harness-, or cabinet makers, and several resided in Williamsburg. Any of the nineteen or so coachmakers living in Williamsburg between the 1760s and 70s could produce painted and trimmed carriages, and some firms specialized in finish work. J. Durand was a popular portrait painter in the colony who also advertised his skills to “paint, gild, and varnish, wheel carriages; and put coats of arms, or ciphers upon them, in a neater and more lasting manner than was ever done in this country.” When he opened his herald and coach painting shop opposite the new hospital in Williamsburg in 1774, Campbell Thomson’s newspaper ad mentioned that “he likewise paints all Kinds of Landscapes with Accuracy…” Elkanah Deane placed an ad for his shop on Palace Street attesting to his skilled work on “carriages of various sorts and prices,” and the repair, painting, gilding, and japanning of carriages “in the best manner.” They also boasted that he had apprenticed in Dublin, and in New York he had

73 Ibid.
74 Ibid.
75 Purdie & Dixon, Virginia Gazette April 14, 1774
76 Goodwin, Wheeled Carriages in Eighteenth-Century Virginia lxiii
“the honour of making a coach, phaeton, and chaise, for his Excellency the Right Honourable Earl of DUNMORE…”

Elkanah Deane dropped this big name in promoting his shop because he understood his customers’ obsession with the gentility of their carriages, of which color was a critical component. Most newspaper advertisements for carriages as well as fancy goods and real estate specifically used the word “gentile” to describe the item for sale, and purchasers of such goods often used the word in their purchase orders to ensure they would not later be disappointed. In 1762 George Washington ordered a post-chariot from Robert Cary & Co. of London for Col. Fielding Lewis, quoting Lewis’ notes to him “to have it made of well Seasoned Wood and painted of a genteel and fashionable colour without any arms;…” Only a few years after Washington expressed his interest, in 1768, in acquiring his own new chariot in the color green on the grounds of fashion and practicality, Robert Carter Nicholas of Williamsburg commissioned John Norton of London to order “a new light colour’d Cloth” lining and “proper Lace & Trimmings” to refurbish his coach. “I should also be glad of as much Colour ground in Oil as well paint the outside; green of different Shades will be as durable & do as well as any other.” By 1772 Williamsburg had several coachmakers and merchants who could have supplied the paint, but Nicholas probably did not feel confident in their ability to grind the pigments as finely as a British house could or to choose the proper greens, like the “proper” lace. A year later Thomas Nelson, Jr. of Yorktown, wrote to Samuel Athawes in London: “My Mother desires you will send her a genteel chariot with six Harness, to be painted of grave colour, and the coat of arms of our family, the whole to cost about $100

77 Purdie & Dixon, Virginia Gazette
78 Goodwin, Wheeled Carriages in Eighteenth-Century Virginia, 181
sterling…”  The invoice of sundry goods shipped on board the Planter bound for Virginia in 1786 began “To a New Genteel Fashionable Post Chaise, and went on to describe the chaise’s japanned finish “the Ground a fine Olive colour Ornamented with Arms, crest in the panel in Mantles on the end, & door panel the Mouldings of framing in Colours Buff & Corbeau, lined with a super fine light Colour’d Cloth trimed with raised lace worked in Colours green & Buff polished plate Glasses Trunk under the Seat, and a Carpet at the Bottom hung with the best Neats Leather Braces on a Modern perch Carriage [sic]…painted a fine Princes Buff, Carving & Iron Work picked out Olive colour & highly varnished every Article of best Materials and finished in the most approved Taste.”

Thomas Jefferson exhibited his usual originality in selecting the color and ornament of his new carriage. In 1788 he wrote to John Kemp from Paris with these specifications for “a new Crane Neck Chariot”: “The body painted a pale Laylock [lilac] Colour the beeds mouldings and lamps pick’d out a dark Colour, lin’d with a light Colour best second Cloth trim’d with a rich lace of three Colours laylock and white with a brimstone Colour Silk Lay in Do.! Best plate Glasses, and Inside trunk. To this he added a “hammer Cloth to match the lining with 4 rows of broad Lace to Do., the Carriage painted a patent yellow, pick’d out edged striped & ornamented with Dark Grey.” Under the heading “Extra Work to the body” he ordered Venetian blinds and bolts, spring and Festoon Curtains with “Silk Tossels” and fringe, another set of the same for hanging

79 Ibid.
80 Ibid.
behind the large “Octagon”, [the small oval window at the back of the carriage], to
match, and “silver’d rowlers with buttons”.81

Jefferson’s choice of lilac was unusual but unremarkable in its day, at least where
any modern idea of gender appropriateness of color is concerned. Bright colors of any
shade remained common for wheeled vehicles from the late colonial through the
nineteenth century.82 In Jefferson’s time gentlemen wore pink satin and fabrics with
large floral patterns in their “leisure” suits and banyans (a robe or dressing gown).
Displaying a fashionable color was what mattered among this set. In fact Washington,
Jefferson, and their peers expended no less thought in choosing colors for their dress and
homes than they did for their carriages and liveries. While preparing for his inaugural in
January of 1789 President-elect Washington wrote to his friend General Henry Knox to
ask him to procure for him some broadcloth for a suit of clothes. “As to the colour, I
shall leave it altogether to your taste; only observing, that, if the dye should not appear to
be well fixed, & clear, or if the cloth should not really be very fine, then (in my
judgment) some colour mixed in grain might be preferable to an indifferent (stained)
dye.” Washington asked that the cloth be forwarded by stage, along with, if possible,
足够的“powder smoke” that Mrs. Washington could make a riding habit. He was
hoping to procure the fabric for his new suit from a manufactory newly established in
Hartford, Connecticut. Indeed, the Hartford Woolen Manufactory had launched in 1788,
and over the next several years was the beneficiary of several tax exemptions and
bounties from the state of Connecticut to encourage local textile production. Washington
remarked that he had learned of the company from an advertisement he had seen, no

81 Ibid.
82 Black only became the predominant color for personal vehicles in the late nineteenth century.
doubt one in which the company had touted its broadcloths in such patriotic colors as “Congress Brown”, and “Hartford Grey”. In March Washington wrote again to Knox to thank him for the suit in a dark brown fabric from the “Hartford Manufacture” which by all accounts Washington wore to his inaugural with white silk stockings and silver-buckled shoes. This was most likely the suit the President wore, too, when he stopped at the United States Arms, a public house and important stage for the Worcester line, in 1789.83 Despite the chauvinism of its other color names, “London Smoke” was a shrewd attempt of the American company to associate its brand with its British counterparts known for their quality. Like many fledging American companies born into this era of feverish republicanism—with its emphasis on domestic consumption as an emblem of civic virtue—the Hartford W oolen Manufactory learned their countrymen might be more talk than action. The business closed in 1794, in large part due to a “public prejudice against American manufactures.”84

Colonial women were just as seduced by colorful fashions as men. Abigail Adams was “not an icon of fashion,” but “report[ed] on fashions with native verve and expertise” from France and England during her husband’s disappointing diplomatic tours there from 1784 to 1785, and 1785 to 1788, respectively. In France she hired a maid to style her hair on a daily basis, blaming her additional expenses on a French obsession with trendiness: “For Fashion is the Deity every one worships in this country, and from the highest to the lowest you must submit.” She supplemented her income during the Revolution by taking advantage of the American demand for scarce European goods by selling to friends and acquaintances cloth, trimmings, fans, gloves, and other such

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83 Earle, *Stage-Coach and Tavern Days* 234, 300
articles—luxuries neither her Puritan heritage nor her republican virtue apparently proscribed. In responding to the expatriate American women in France who criticized the simplicity of the dress of the wife of the Marquis de Lafayette, Adams said “the Lady’s rank sets her above the little formalities of dress: she had on a brown Florence gown and piticoat which is the only Silk, except Sattins which are worn here in Winter, a plain double Gauze handkerchief, a pretty cap, with a white ribbon in it, and looked very neat.” In reality high-end fashions in both countries only effected an appearance of simplicity, because that level of dress was made “with a finesse and refinement that to the tutored eye distinguished it clearly from the dress of peasants or servants.” The execution of details—the precision of cutting and sewing, the neatness of seams and ruffles—was also a means of distinguishing elites from others back home. For those lesser sorts who could not come so close, well applied color was the most observable and impressive of the barometers of social rank.85

Adams approved of some of the fashions she saw in England, especially the popular colors, “for instance, the muslin of the chemise and printed cottons and the lighter fabrics with small flowers, spotted and striped prints; and delicate colors replacing the heavy brocades in rich, dark colors and patterns of large naturalistic flowers popular earlier in the century.” She remarked especially positively on the dress of the young bride of an old Boston friend, a Loyalist who had fled to England, whom she met when their old friend invited them to dinner. “Her [Mrs. Michael Joy] dress pleased me and answered to the universal neatness of the apartments furniture and entertainment. It was a delicate blew and white copper plate calico with a blew Lustring [shiny silk] skirt flounced, a muslin apron, and a handkerchief, which are much more worn than Gauze;

her hair a fine black, driest without powder; with a fashionable cap, and Straw ribbons, upon her head and Breast, with a Green Moroco Sliper.” In an age when one’s architect was probably her cabinetmaker and decorator, Abigail’s favorable comparison of her hostess’ dress with the interiors of the house was quite appropriate.  

Americans may not have been the most up to date on European trends, but they had access to some goods that were prohibited in England, such as cotton prints from India. Adams herself wore an indienne—a light cotton kerchief imported from India and printed with a border and diaper pattern in bright, and colorfast, colors. Indiennes had caused a sensation in France; their importation into the country was proscribed by Louis XIV in a 1686 royal ordinance to protect their domestic textile industry. In Great Britain anyone caught wearing one of these colorful fabrics after 1701 was subject to a £200 fine for his or her crime. But such was the popularity of these fabrics that the laws were ignored, and by the mid 18th century calicoes had come to be known as that fabric long worn by women and children “but now prohibited to be worn, printed or coloured, otherwise than by needlework, upon account of its prejudicing the woolen and linen manufacturers of Great Britain and Ireland.”

To get around the restriction textile manufacturers set about spinning a cotton yarn strong enough to use for warp thread, to create a fabric capable of competing with the Indian product and get around the law. “The first successes, the necessary legislation for regulating the use of these western

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86 Ibid.
calicoes, and the duty to be charged, date from 1774.”89 The American gentry imported these fabrics for fifty years before their price made them accessible to a much wider class by 1800. The clothing worn by the ladies in The Prodigal Son, the watercolor by an unknown artist circa 1790 that appears at the beginning of this chapter, appears to be made of calico fabrics in a sprigged pattern (little sprays of flowers) and a columnar pattern, both quite common in the period in textiles, wallpapers, and, for the sprigged pattern, even in ceramics.

A short time after her return to London in 1785 as the wife of the first American minister to the Court of St. James, Abigail Adams chose to wear to her presentation at court “white Lutestring, covred and full trimmd with white Crape, festoond with lilick [lilac] ribbon and mock point lace, over a hoop of enormous extent.” Apparently the princesses were also both wearing lilac, with silver silk, and the queen was in purple and silver. In the end, however, she found the English to be just as insufferable as the French when it came to forcing conformity to fashion. “There is a rage of fashion which prevails here with despotick Sway; the coulour and kind of silk must be attended to; and the day for putting it on and off; no fancy to be exercised, but it is the fashion, and that is argument sufficient to put one in, or out of countenance.”90

Before 1790 the standard-issue garment for colonial women of all classes was the petticoat, a voluminous underskirt that showed through the front opening of a woman’s gown skirt below a tight, boned bodice that molded a cone shape of her torso. Petticoats were often made of a fabric called calamanco, a worsted, both plain and decorated, finished with a glossy shine. “Colorful calimancoes that had been glazed mimicked more

89 Ibid.
90 Winner, Abigail Adams and "the Rage of Fashion" 64-73
expensive silks, yet their long-lasting worsted fiber content was appropriate for workingwoman’s garments.⁹¹ Britain had successfully marketed woolens and worsteds in the 17th and 18th centuries, and in the colonies woolen fabrics were popular choices for furnishing fabrics, men’s banyans, and women’s winter dresses, including petticoats. Even with 18th-century natural colorants wool fibers could be dyed very deep, intense colors, and calimancos gave them a stage. An 1802 description of calimancos, satins, and “brilliants” (a glazed worsted dress fabric) suggests how the presence of these fabrics in a room may have transformed it: “These were woven in various patterns which were formed in the loom, and were composed of the richest and most brilliant dyes, and variegated by an endless diversity of colours, in the forms of flowers, birds, figures, and fancy subjects, upon the face of the goods…This manufacture was peculiar to Norwich, and the colours employed for it surpassed any others dyed in Europe.” Calimancos in American museum collections show a sweeping range of colors from deep indigo, light blue, green, olive, raspberry red, red, and pink. Surviving petticoats of the period show that American women up and down the Eastern seaboard wore them, and wore them out. When that happened they often cut them up to use them in calimanco quilts.

Calimanco cloth was used primarily for clothing. John Banister of Newport ordered scarlet, brown and ‘Blew emboss’d’ calimanco in 1744” and although slaves were issued clothing in a limited range of colors—usually white, blue, or green—many fugitive slaves made their escapes wearing hand-me-down or stolen colorful calimanco trousers and vests.92 But there is plenty of documentary and material evidence to

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demonstrate that it was regularly used as a furnishing or quilting fabric. Quilts made from calimanco generally feature one color in a center medallion or center-figured pattern which showed off the quilting skills of the maker. These are often referred to as “wholecloth” quilts. Sometimes, however, several pieces of calimanco in different colors appeared in these bedcovers. “The color effects in these imported wools are wonderful…strong primary colors…And the glazed quilts in those colors must have been particularly beautiful at night as every segment of the relief design reflected candlelight in a dark bedchamber.”

Bedding was typically the most valuable possession any colonial family had. There are accounts of down beds being thrown out of windows in houses threatened by fire before the roof was even dampened. Bedding also provided much of the color in a colonial home. Even in light of its expense the sight of a bed dressed in beautiful colors must have gratified in a way that merited the price. Another explanation of Americans’ investment in bedding, however, may lie in the fact that beds and bedrooms were often the centerpiece of the colonial American home, and any family of note would want their bedding to impress. Down the road from the Washingtons’ home Mount Vernon in Alexandria, Virginia stands Gunston Hall, the home of the Revolutionary George Mason. The layout of the Mason’s home is typical of the period in that one of their first-floor “best” rooms was Mrs. Mason’s bedroom and served as her reception room. The room, therefore, hosted visitors to the Mason’s home, where the family displayed Mrs. Mason’s very fine bed and its “furniture. The bedstead was typically the best piece of furniture in the 18th-century house, and its furnishings most likely the most expensive and

complicated. While the Masons lived there Gunston Hall had curtains only in the first-floor bedchamber or “chamber” as it was called in the 18th century, a typical situation for that period when curtains most often appeared in bedrooms and sometimes in dining rooms but infrequently anywhere else. Often the color of the bed’s furnishings dictated what the room would be called. Household inventories and probate records are filled with descriptions of items found in the “Blew room” or “red room”, a tradition that carried well into the nineteenth century. In the cold northeastern colonies green wool or baize curtains often surrounded the bed. Gingham, one of the most popular textiles in early American homes and one of the first to be domestically manufactured, was a frequent choice for dressing the bed in both warm and cold climates. The cloth originated in India. In the West it was woven of pure cotton with dyed yarns making the stripes and checks of its patterns, and the way they were used in 18th-century decorating might strike the modern observer as rather haphazard. New Englanders were fond of matching gingham bedding and curtains to very strong wallpaper colors; “Blue Pladd” and “Blue Check” were two commonly used wallpaper patterns in the mid 18th century. James Logan purchased the popular combination of blue and white checked linen curtains for Stenton, his home in Germantown outside Philadelphia, sometime between 1731 and 1751. American gingham’s golden era came in the mid-nineteenth century, when domestic mills churned out miles of it “of good dye, and the colours generally put in with good taste.”

There are no gingham bedcurtains at Gunston Hall now. The recent finish analysis and restoration of some of the original interior colors at the site have produced

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this much more exotic interpretation of Mrs. Mason’s room, in which diaphanous yellow fabric curtains the bed.

The curtain color was a curatorial choice, made without direct evidence of its appearing in the Mason’s home, although there is evidence of this color for bedcurtains elsewhere. In 1719 Samuel Sewall wrote to London to order curtains, valence, counterpane, headcloth and tester “of good yellow watered worsted camlet, with enough fabric left over to cover the cushions of the room’s chairs.” He may have taken the idea from a 1665 engraving showing the same treatment of an alcove and bed designed for Charles II.95. A 1768 bankruptcy inventory of the Moffatt Ladd house in Portsmouth, New Hampshire,

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describes a “yellow chamber” with yellow damask bedhangings, side chairs, three window curtains, window seat cushions, wallpaper, and one damask easy chair—all in yellow.\(^{96}\) In one family the provenance behind a long-cherished 19th-century needlework sampler contains the story of Washington’s visit to Newburyport in which he was entertained in a home where the guest room bed and windows “were draped with a beautiful orange-yellow India print.” It was the custom in that era to have neighbors over to critique the arrangements made for the visit of illustrious guests, and one of these critics loved the yellow curtains so much she recreated them for her daughter when she married decades later in 1831.\(^{97}\)

But the chrome yellow bedcurtains framing the Mason’s bedstead at Gunston Hall provide only the second most arresting color in the room. Much more mesmerizing are the room’s verdigris walls.\(^{98}\) Chemically speaking, verdigris is a greenish blue, crystalline powder that is the normal acetate of copper or copper carbonate or one of the other green corrosion products which form on copper, brass, or bronze. The ancient recipe for its production involved exposing copper plates to fermenting grape skins or vinegar, and that formula changed very little through the 18th century when Montpellier, France was the verdigris capital of the world. The green particles that form on the copper in reaction to the acetic vapors take the form of “pointed needles”, which tend to bunch up.\(^{99}\) Verdigris green was one of the most important pigments of the 18th century, and in

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96 Nylander, *Comfort and a Little Less Splendor: American Beds and Bedhangings 1700-1830* This interior has been restored and can be viewed.
98 In my lengthy visit to Gunston Hall I encountered one docent who liked the color, and all the others claimed to detest it. In fact, when one of them heard I liked it he yelled through the halls looking for the “girl who liked the verdigris room.”
his technical manual for craftsmen published in 1758 *Handmaid to the Arts* Robert
Dossie described its characteristics: “Verdigrise is a rust or corrosion of copper formed by the action of vinegar; it is used in most kinds of painting where green is required. It is bright when good; but very soon flies when used in oil…Cysts of verdigrise, called distilled verdigrise, is the salt produced by the solution of copper or common verdigris in vinegar. The crystals thus formed are of an extremely bright green color, and in varnish, where they stand perfectly well, they have a very fine effect.”

In the Mason’s home conservators have restored the verdigris finish to the room’s woodwork by using the method of the time, binding the crystals in linseed oil and applying this glaze in several coats. Even with a careful application the tendency of verdigris crystals to stick together gives a streakiness to the overall effect. This is the characteristic of verdigris that especially bothered the curators at Mount Vernon when they first restored the color in Washington’s dining room. The addition of a lead white extender commonly used in the period would have increased the paint’s covering ability and therefore lowered its price, would have made it more lasting, and it would have reduced the appearance of brushstrokes. But it also would have made the paint opaque and turned the color to a pastel. That option was rejected by the Masons, who clearly desired the dimensionality, the glossiness, and the dazzling color of the verdigris glaze.

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It is no coincidence that the Masons had a verdigris room. In 1785 their neighbors had treated the walls and woodwork of their family dining room at Mount Vernon in this electric blue-green color, and even varnished it for extra brilliance, making it look like green patent leather. Though Washington said he chose verdigris because it was "grateful to the eye" and less likely to fade, his selection had greater significance. Paint and varnish colors in the early colonial period were quite limited. Houses in the southern colonies tended to remain unpainted, while New Englanders often painted theirs in Spanish brown or tar. White paint made with white lead had been in production since ancient times; the pigment makes paint with excellent hiding power and wonderful texture. In the late 18th century Americans embraced the classical revival style of decoration and began painting their house exteriors with a Georgian palette of lighter tints based on white lead. It was only after 1720 that Americans started to paint the
interiors of their homes, and even then it was only elites who did so, “when the notion of genteel finish began to manifest itself in buildings erected for the well-to-do.”

By the early 18th century there were professional painters working north and south in the colonies. By the middle of the century “a steady stream of professionally trained British immigrants, many of whom specialized in decorative painting of signs, heraldry, and coaches, supplemented the small number of locally trained painters.”

Ostensibly written for artists, Dossie’s 1758 book shows signs that Dossie was also writing for house painters as he made recommendations for certain colors over others for that kind of application.

Until the factory milling and grinding of pigments began in the mid nineteenth century, the work of the house painter was done on site, one batch at a time. Hand-ground pigment molecules were naturally bigger and cruder, and their size variance gave pre-industrialized paint finishes a dimensionality, almost a 3D effect, that is hard to imagine today. This hand labor was expensive and finishes requiring many many coats to render the depth of color customers wanted, like verdigris, were even more so. A verdigris room made several statements, the most important of which being that the owner had money. At the time the Washingtons and Masons installed their verdigris rooms the color signaled their good taste, too.

If there was a fad color for American interiors in the late 18th century it was verdigris. One prominent conservator estimated that every affluent homestead of that period probably had a green glaze room; he believed that most dining rooms, at least, were finished in verdigris. While this is almost certainly an exaggeration, his point is

101 Lounsbury, Patrick and Colonial Williamsburg, An Illustrated Glossary of Early Southern Architecture and Landscape 253
102 Ibid.
legitimate—they have been found time and again in the houses of the wealthy up and down the Atlantic coast, and green paints were common in spaces most likely to be plagued with vermin. As early as 1750 the mayor of Williamsburg painted his parlor in verdigris. His house may be the first occurrence of this finish in Virginia, and really signals the beginning of Americans’ intentionally creating variety in their interiors. The period of the 1780s was marked by a fondness for bright blues and greens in paints and wallpapers and elaborate hand-painted graining on doors and woodwork. Verditer blues and greens were popular backgrounds for displaying art, and graining effected the impression of exotic, imported, fashionable woods.

In the late 18th century the decorative style of applied classical ornament made famous by Robert Adam after his return from Italy to England circulated among elites in the American colonies, and they found his aesthetic went well with these blues and greens. By the 1780s George Washington wanted all three. The Washingtons had two bold, green rooms, one glazed in verdigris (the small dining room) and a large dining room papered in bright green. Finding it hard to acquire what he wanted for his large dining room at Mount Vernon in the Williamsburg shops Washington wrote away for help in 1784: “I have seen rooms with gilded borders; made of I believe papier mache fastened on with Brads or Cement round the Doors and window casings, surbase &ca; and which gives a plain blew or green paper a rich and handsome look. Is there any to be had in Philadelphia? And at what price? Is there any plain blew and green Paper to be had also?” Once the Revolutionary War was over and he was President, Washington had gotten back to work keeping his house in the latest style. It took two years for him to get

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103 The late Morgan Phillips was the paint analyst at the Society for the Preservation of New England Antiquities, now known as Historic New England. For a discussion of arsenical green paints see Part 1.
the green paper he wanted, and then he had problems finding the right installer. Over three years and three contractors later Washington finally got his bright green paper put up in the large dining room. Down in Williamsburg several of the mayor’s neighbors on the Palace Green chose emerald green for rooms in their houses: the Getty family glazed their dining room in green and the James Wythe house had intense green wallpaper in its front room. At Monticello, in an audacious demonstration of both his social position and originality as a colorist, Thomas Jefferson had bright green painted in his hall, on the floor.\footnote{The suggestion was made to him by a “Mr. Stewart”, a portrait painter, who suggested Jefferson take care to achieve a “true grass-green”. Jefferson used the color in two rooms—the entrance hall and the dome room of Monticello, and chemical analysis shows the sample was made with white lead, calcium carbonate, verdigris, Prussian blue, yellow ocher, and bone black. Mosca, p. 75.}
Mount Vernon’s large dining room with plain green wallpaper

The Brush Everard House in two different interpretations before 2006
The Brush Everard House parlor today

The hall of Monticello, with chrome yellow dado, Prussian blue below rail, and verdigris on the floor
After the spring greening of colonial mansions there was no summer. Verdigris rooms swept out of fashion as quickly as they swept in. Washington’s library contained a copy of the second edition of Robert Dossie’s *Handmaid to the Arts* of 1764 which suggests one reason why that may have happened. In concluding his remarks about finishes made from these green corrosion products in general Dossie wrote “In paintings of consequence they cannot be depended upon being apt to turn black with time.” Verdigris is “the most reactive and unstable” of the copper pigments, becoming quite ugly and intolerably dark with age.105 Conservators discovered this is indeed what happened at Mount Vernon when they examined the finish samples from the dining room. But verdigris also lost its caché as a finish, and in the early nineteenth century was replaced by the chrome greens, and later new synthesized colors after 1840.

Even if colonial Americans deep sixed deep greens, the blues of their era persisted. Prussian blue, or ferric ferrocyanide, was the first industrially produced color. Developed by accident in Berlin around 1710, in its early manufacture it was the product of an elaborate formula that used pig’s blood as a foundation, but typically it is made by the action of an oxidizing agent, such as sulfuric acid, on a mixture of copperas, sodium ferrocyanide, and ammonium sulphate. The deep blue precipitate which results is removed from the mother liquor, washed, filtered, and dried. Though Prussian blue was quite expensive in its youth it made its way into use in North America quickly. Its high price helped make it fashionable, in fact.

105 Dossie, *Handmaid to the Arts* 169
Prussian blue renders blues of unquestionable beauty, from sky, to dark robin’s egg, to greenish blue. On its own it renders a very deep color, but in at least one conservator’s experience it was always mixed with white lead, which actually enhanced the best qualities of the color, as Prussian blue alone can create a color too deep to appreciate its blue shade. According to Dossie by midcentury it was also often mixed with more nefarious things: “The common Prussian blue…found in the shops, which is prepared almost wholly at present by ignorant and sordid people, and sold at very low prices, can be very little depended upon in paintings of consequence…prepared in the proper and true manner and…considering the high price of ultramarine, and the foulness of indigo, it may be deemed an acquisition to the art of painting.”106 A little Prussian blue goes a long way. A small spoonful of the precipitate can color a gallon of white paint an obvious blue. By 1725 the recipe for the Prussian blue had been made public in England, and by the middle of the century Prussian blue and lead paints were working well together. These factors ultimately helped to bring the pigment’s price down among the cheaper colorants and so use of the color persisted well into the nineteenth century. As Prussian

blue ages, it has a tendency to turn greyish green. This fact helps explain why Rockefeller’s investigators at Williamsburg in the 1930s may have misinterpreted what color was originally on so many colonial walls.

One conservator has found Prussian blue in a house in New England as early as 1719, and in many more by the 1720s. In Williamsburg it appeared on the walls of the Governor’s palace by 1727, and later James Wythe had a room first painted blue then glazed over with clear varnish to give it a gloss. Mount Vernon’s Prussian blue room is the west parlor, an elegant space with Palladian windows and doorframes. The doorways are exact copies of some illustrated in *Ancient Masonry*, a 1736 builders’ guide by Batty Langley, and with some modifications the chimney was taken from Abraham Swan’s 1745 building text *British Architect*. In the 1760s Washington had ordered the walls painted a stone color and the paneled walls and doors a grained mahogany made with red-ocher ground coat with dark brown glaze overlay. In the 1780s he updated the color to the robin’s egg blue shade of the pigment, which conservators restored in the 1980s.
Jefferson used Prussian blue at Monticello. Like Mason and Washington, he put a great deal of thought into the colors that would be displayed in both his homes—Monticello, in Charlottesville, Virginia and Poplar Forest, the property in central Virginia his wife inherited in the early nineteenth century. Even more prescriptive than Washington, Jefferson dictated every color inside and outside his homes. He even described the exact shade of green the shutters and garden furniture should be painted. At Monticello conservators have restored Thomas Jefferson’s original, bright colors to the walls. The foyer is once again painted an invigorating combination of deep yellow, bright Prussian blue, and verdigris green, and looking at the restored chrome yellow dining room now is like staring into the sun.
In the 18th century the décor of rooms signaled their function to visitors. Room size, trim design and fashionableness, and color were the features used to distinguish one room’s role from another room. “Eighteenth-century Virginia dwellings invariably display a hierarchy of interior decoration that clarified the function and social importance of each space.” Colonials used color and trim to differentiate rooms as well as to show off the colors and materials available to them. They loved juxtapositions of colors. The mayor of Williamsburg chose a moderate stone or light yellow ochre for the room adjacent to his verdigris room. Others installed deeply colored papers to contrast with the bright paints in other rooms. Research suggests that as the 18th century progressed more and more it was “paper that provided the necessary diversity to distinguish one room from another. “In mid-18th century Virginia, the heavy, articulated appearance of
architectural trim was giving way to a lighter aesthetic.”107 In their abandonment of elaborate and heavy floor-to-ceiling wood paneling, colonial Virginians installed instead chair-board high and flushboard wainscoting without busy turned wood details, and used wallpapers above them. In some cases, like the Wythe house, the woodwork in the rooms was reduced to a cornice, surbase, and baseboard alone. Paper could be glued from floor to ceiling, giving a big pop of color and pattern without the use of outdated wood mouldings. “The use of wallpaper was well suited to this new aesthetic, which emphasized light woodwork, broad planes, and the diminution of individual parts.” More and more in the second half of the 18th century wood trim was painted a uniform color throughout the house, often an ochre yellowish color, to allow for applications of different wallpapers in different rooms. After the Revolution, Americans began updating and redecorating old houses and building new ones, wallpapers “came into quite general use,” and the majority of houses in New England, at least, were papered for the first time. These papers appeared in both city and country. “From the 1790s onward it is almost impossible to scan the advertising columns of any newspaper published in the smaller outlying communities of New England without finding some record of the sale of wallpaper.” Even retailers began papering their stores.108 Collectively these changes signal the beginning of “modern” decorating. Terminology also evolved to reflect the way rooms’ use was changing. Over the course of the 18th century “bedchamber” came to replace the word chamber, suggesting that the room’s use for hosting visitors and other functions was in decline, and the room containing the bed was being used primarily for

sleeping. After this point Americans would invest fewer resources in decorating the bedroom as opposed to public rooms.

Wallpapers were in use in Virginia by the 1750s if not earlier. If the local merchant did not have the desired paper colonists placed their orders with their factors overseas. In 1767 Edward Scott listed his house “with Eight Genteel rooms, six of which are papered with most elegant paper” for sale in the *Maryland Gazette*. In 1771 Robert Beverley ordered all of the following papers for his Virginia house: “no. 6 pea green flowered, no. 8 yellow ditto, no. 10 stucco colour large Patterns of Pillars and Galleries,
no.  9-stucco colored, and no.  11-a large yellow pattern mixed with stucco color, the borders to be of paper.” Robert Carter ordered four papers for his house and Thomas Jefferson five for Monticello. Wallpapers from China and their many English copies were terribly popular in the 18th century for their brilliant colors and exotic themes, typically birds and flowers and Chinese landscapes. They were not for “shallow purses”; these papers were in fact “prized as well for their costliness.”109  When Thomas Hancock ordered his Chinese wallpaper from his English agent in 1737 he asked for even more of what made these papers so exotic. “Get mine well Done and as cheap as Possible and if they can make it more beautiful by adding more Birds flying here and there, with some landskaps at the bottom, should like it well.”110  Hancock’s request would have posed no problem for European designers, who did not concern themselves with any kind of biological integrity in their work. “Oriental” papers often combined near and far eastern motifs: “Grotesque figures, pig-tailed mandarins, pagodas, bridges, quaint Chinese landscapes without perspective, monkeys and dragons, all came in for their share of popularity, and even the silks of Lyons were not free from their bizarre influence.”111 And if Hancock’s request wasn’t met he could always cut the birds in the paper out and glue extra ones in, in what they called “mosaic work” in England.112  Although Dossie lists “ingredients of red, blue, yellow, green, orange, purple, black and white,” in English papers, Americans frequently criticized them for being less colorful than French-made

112 E. A. Entwisle, A Literary History of Wallpaper (London,: Batsford, 1960) 50. From Lady Mary Coke's Journal of 1772: "I called on othe Duchess of Norfolk and found her sorting butterflies cut out of India paper for a room she is going to furnish."
After the Revolution the number of wallpapers available to American consumers from abroad skyrocketed. Some were original in design; many were plagiarized as the English and French, (mostly the English) engaged in industrial espionage and outright theft of designs in their rush to print more new patterns in more colors. The most popular patterns were “pillar and arch” designs with a repeat of wall sections or other architectural elements of a pronounced vertical orientation which were in continuous production from the mid eighteenth century through the early nineteenth century and had analogs in printed textiles. By the late 18th century wallpapers offered an unprecedented level of color and ornament to an unprecedented number of Americans. Those who could afford them reveled in the aesthetic possibilities these papers offered, and made color choices that twenty-first century Americans find hard to accept. In the last month of the last year of the eighteenth century, when the “Father” of the country closed his eyes on the world forever, the last thing he saw was his bedroom’s black and orange wallpaper.

By the time of his death Washington had been overseeing painting and construction on Mount Vernon for the entire forty years he had lived there, working to keep his farmhouse-turned-mansion on the cutting edge of fashion just as his peers up and down the Potomac were doing. Historian Richard Bushman has argued in his wonderful book The Refinement of America that eighteenth-century American aristocrats defined and reinforced their position in society by demonstrating their mastery over certain skills, such as personal comportment, etiquette, and literacy, and by building homes that reflected their gentility. Mastery of the grammar of color was yet another

skill they were obliged to learn, and their personal effects were the reflection of that education. In Washington’s dramatically evolving world one constant was the preoccupation with color. It was never taken for granted. The display of fancy painted coaches and dazzling house interiors accompanied fluency in ancient Greek, familiarity with European political philosophy, and legislating for the hoi polloi as among those things expected of late eighteenth-century American aristocrats. This society required a kind of visual literacy in which any seeing person could navigate fluently. Color was one of the most obvious measures of social and political hierarchy whose existence posited the greatest irony of American republicanism.

Soon enough the lines would blur, and American aristocrats could no longer count on their exclusive access to color to distinguish them from their social inferiors. From the last few years of Washington’s life to the first few years of the nineteenth century a number of inventions and discoveries would dramatically change the way the country looked. Pigments and dyes, some old, some new, would make their way onto the walls, floors, bedcovers, ceramics, coaches and carriages of inland aristocrats, and within just a couple of decades into the homes of Americans of middling incomes and even less than that. This diffusion of color occurred with the same rapidity that the country grew, and followed many of the same patterns. Where Americans went, color went, too. The same year that Washington died, in fact, a brand new coach hit American roads. "The body painted green, colors formed of Prussian blue and yellow ochre; carriage and wheels…mixed to approach vermillion as near as may be; octagon panel in the back, black; octagon blinds, green; elbow piece, or rail, front rail and back rail, red as above; on the doors, Roman capitals in patent yellow, 'United States Mail Stage,' and over those
words a spread eagle of a size and color to suit. The people now owned their own fancy-painted carriages.

The surface of American society is, if I may use the expression, covered with a layer of
democracy, from beneath which the old aristocratic colors sometimes peep.\footnote{Alexis De Tocqueville, \textit{Democracy in America} (New York: The Colonial Press, 1899).}

Eighteenth-century Americans left a legacy of color. Prussian blue still enlivened
the walls of many homes after most of the Revolutionary generation had faded away.
Flocked wallpapers were tough, their colors and texture enduring long past their
fashionableness. Although women stopped wearing petticoats after 1800 fabric was still
imported and expensive so American women altered their skirts to suit the dictates of the
new century’s style. Calimanco petticoats made a poor choice for the soft lines of the

\footnote{Alexis De Tocqueville, \textit{Democracy in America} (New York: The Colonial Press, 1899).}
neoclassical mode that prevailed at the turn of the century, but thirty years later strangely enough their glossy finish and vibrant colors appeared again in gowns with full skirts that “stood crisply away from the body.” In the meantime, though, calimanco quilts settled in on American beds for the next half century.

Much of the 18th-century’s color passively disappeared. Verdigris turned black with age; rocky American roads loosened bolts and frames and condemned colonial American coaches and their sumptuous finishes to decay and disposal. The streets where Americans could soak up so much color were as hard on fabric dyes as they were on carriage paint. Philadelphia’s upgraded sidewalks somewhat protected its inhabitants’ long gowns and stockings from mud stains and other blights on their wardrobes, but in the end washing out the dirt washed out their colors, too. The trees lining city streets offered too little cover to clothing dyed with extremely fugitive vegetable stuffs. Even without washing, exposure to light turned purples made from the dyestuff logwood to grey or brown in about nine years. In sunny Williamsburg a bright yellow silk dress could only be worn at night as the weld, a vegetable dye, usually used to make this color was terribly fugitive. In only a few hours’ wear in broad daylight a good portion of the color would be lost. Such garments lived gloriously and died young.

Americans allowed some colors and finishes to die a natural death, and they expedited others’ with a fresh coat of limewash. But they were determined not to let their colorful new world go the way of the tricorn hat. From the first years of the nineteenth century, decorative color was on the move, travelling west to the American frontier, and down through social classes whose members just decades before could not have

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conceived of the kind of unfettered access to color they would enjoy in the new century. Americans’ use of decorative color expanded exponentially from both the production and consumption ends. They built machines to weave, dye, and print it, and they decorated their homes and themselves in exuberant hues that attested to their access to what had been for most human history a trapping of aristocracy.

In the early years of the Republic, authors of American dye manuals published antique secrets of dye “chymistry” while they argued for the importance of using those “receipts” to establish a domestic dyeing industry. In this way, they claimed, Americans might “enrich” themselves as a nation both aesthetically and economically, and “private families” might “colour their own yarn of woolen, worsted and thread…to have clothes as beautiful as the wealthiest American.”\textsuperscript{117} The capitalists behind the United States’ nascent wallpaper industry made the same argument as they struggled to copy the colors and patterns of French papers while simultaneously clamoring for high duties on those articles. Textile industrialists and coverlet weavers put into service machinery that increased their capacity for printing and weaving colors into their products. And they sought the best dyers and the best dyestuffs available, recognizing that ugly colors doomed their products and their businesses to failure faster than just about anything else.

When Asa Ellis produced his dye manual, \textit{The Country Dyer’s Assistant}, in Massachusetts in 1798, he was trying to do two things. He hoped, of course, to make some money off the sales of his book. But he was also hoping that by teaching the secrets of making beautiful colors to his countrymen he would father a new class of competent and competitive American dyers.

\textsuperscript{117} Asa Ellis, American Imprint Collection (Library of Congress and Joseph Meredith Toner Collection (Library of Congress, \textit{The Country Dyer’s Assistant} (Brookfield, (Massachusetts): Printed by E. Merriam & Co. for the author, 1798) vii.
In such a country as America, especially the northern states, which abound in sheep, the art of dying wool is of high importance. Were the art suitably cultivated, we should not only, by industry, satisfy our curiosity upon that raw material; but prevent an extensive and needless importation; and of consequence retain our money in our own country.

The art of dying is an useful branch of chymistry. Its influence on the sale of all stuffs used for furniture or apparel, has been felt by almost all Europe, who have been enriched by it, especially England.118

Ellis was only one of many to articulate this recurrent theme in early American manufacture, although there were few others specifically instigating the creation of a domestic dye industry. For Ellis a successful one would “enrich” the new nation, allowing it to be “useful” and therefore to grow competitively in the world marketplace. He advocated a regulatory system similar to the one in France that governed the classification of dyestuffs, which had earned the French their reputation for brilliant dyeing. “They employed their most able chymists to inspect the dyers, and to mark a distinction between the true and the false dyes. Those who possessed the art were of consequence, distinguished by the epithets of the true and of the false dyers. The former were encouraged; the latter were laid under particular restraints. The design of government, in these regulations, was to improve the art and enrich their nation. By this wise interference of authority, France realized both objects.” The French had classified dyestuffs according to their potency and reliability. False colors were those produced by “lesser dyes” or from inferior or adulterated dyestuffs. They bled, or “lost all their original tints” on being exposed to sun and air, making goods dyed with them

unsailable.” Blues produced from logwood for instance, a less expensive dyestuff, faded faster and turned ugly over a short span of time, unlike blues from indigo.\textsuperscript{119}

The suggestion that Americans should become successful dyers elided the Jeffersonian/Hamiltonian debate over the agricultural or industrial future of the United States because, at least for the next half century, the dyestuffs used in the manufacture of textiles would come only from the land. Nuts, insect galls and insects themselves, minerals, roots, blood, urine, and dung—these were the stuffs of making beautiful colors in the early nineteenth century. Whereas Hamilton forecast an America in which women and children worked as factory drudges, Ellis saw them as consumers, albeit indiscrete consumers badly in need of training. “With regard to our own manufacture of cloth, women and children commonly dictate the colours to be imprest upon them. But they frequently make an injudicious choice; the colour which they dictate fades; the coat is spoiled, is thrown aside, or given to Jack the garden boy, and poor little Tommy must have a new one.”\textsuperscript{120} Even the relatively few professional dyers working in the United States at the turn of the nineteenth century couldn’t escape his censure; he admonished them for their supposed refusal to use experiments “and other general means of information” to improve on their dye recipes. Other dye manual authors and entrepreneurs engaged in other nascent American industries made the same complaint. Finally, appealing to all Americans’ patriotism Ellis argued the ability to create beautiful colors would free Americans of their dependence on European imports.

Some authors of these early American dye manuals simply ignored “all observations on philosophical causes” in order to write “practical companions[s] on the

\textsuperscript{119} Ibid.
\textsuperscript{120} Ibid.
subject of making colors. When he drafted his lovely dye manual of 1833, filled with
gorgeous swatches of the shades then available to the consuming public, Cornelius
Moloney wrote “in the technical language of the workman, in preference to the style of
the scholar,” and promised to leave out more political subjects. Yet, he could not avoid
the temptation to mention the place of dyeing in the destiny of the country. Speaking of
himself in the third person he wrote:

“It is not his purpose nor is it necessary to speak of the value of this art to
the manufacturer and the merchant. As long as America shall continue the
course she has successfully begun, of being the fabricator of her own
cotton, woollen,[sic] and silk manufactures, instead of being tributary to
foreign nations for these articles of first necessity in times of war and
peace, advancement and perfection in the art of dyeing will be of primary
importance, imparting beauty, polish, and finish to the labours of the
loom, and enabling [sic] the products of American skill and industry to
compete with any and every other fabrics on the globe.”

Even if Moloney was more direct in his references to “enrichment” Ellis was also
encouraging Americans to better themselves aesthetically, not just economically. Every
painter, every potter, every carriage maker, dyer, weaver, and craftsman knew that color
gives a kind of psychic stimulation, the kind that consumers demanded and for which
they were willing to pay. Part of the great attraction of European imported textiles,
fabrics, ceramics, and wall treatments was their well applied and diverse colors, all of
which greatly increased Americans’ visual interest and ostensibly satisfaction in their
world. The brightly colored, competently printed fabrics coming out of English and
French mills at the beginning of the nineteenth century were Ellis’ greatest enemy in the battle to turn Americans into home dyers. Even today, anyone who has ever tried to dye something at home with modern, sophisticated, convenient, and well tested dyes and has seen the typically disappointing result should be able to appreciate that homespun American fabrics came by their reputation for scabrous quaintness honestly. They were usually scratchy in texture and poorly dyed in colors unflattering enough that their fugacity may have been a blessing. Ellis’s compatriot in the challenge to found an American dye industry, James Haigh, described the problem in his practical manual of dyeing of 1810: “Every climate furnishes man with furruginous earths, with boles of all colours, with saline and vegetable materials for this art…But how many trials and essays must have been made, before they found out the most proper methods of applying them to stuffs, so as to stain them with beautiful and lasting colours? In this consists the principal excellence of the dier’s art, one of the most ingenious and difficult which we know.”

Home dyeing may have been within the economic means of most Americans, as according to Ellis the tools a dyer needed were limited: a hoop with netting, a rake, a scale, some sticks, a copper or cauldron, a six-inch thick brick furnace, and for dyeing blue a vat five feet deep and three in diameter, an iron kettle, and an iron ball for grinding if they were going to dye with indigo. But dyeing is complicated business. There is good reason why homestead dyeing usually increased during wars that blocked Americans’ access to dyes, and decreased when ports reopened.

Successful fabric dyeing was an especially iffy proposition in the era of natural dyes, when having the right pots and sticks was the least of a dyer’s problems. Natural colorants—animal, vegetable, and mineral—were often admixtures of superior and

121 Haigh, The Dier’s Assistant in the Art of Dying Wool and Woollen Goods xi
inferior products, and they varied in quality according to climactic factors, point of
cultivation, and cleanliness before processing. Most came from very far away. Once
imported in sticks, by the turn of the nineteenth century Americans were freighting in a
dyestuff called camwood for reds, browns, and violets from West Africa in casks,
“ground fine like flour.” The dyestuff logwood (also known as campeachy) was the
wood of a short prickly tree that grew in the “low marshy places” of Honduras. When
James Haigh published his translation of a French dyer’s text, The Dier’s Assistant, for
Americans’ use in 1810, he remarked that the British had recently introduced logwood
into Jamaica and “some of the warmer of the British plantations.” The wood gave out its
red color in both a “watery and spirituous [sic] menstrua” which Americans and
Europeans bought principally to make “jet blacks, raven blacks or crow colour; also navy
blues” because of its low price, despite the fact that its colors soon “perish[ed].”

Despite the romantic reputation they would earn later in the nineteenth century for a
delicacy the new synthetics did not offer, natural dyestuffs suffered from a number of
problems. Some were just inferior and unpredictable. Disreputable producers
adulterated their colors. Colorants like cochineal were exorbitantly priced “on the
account of accumulated and heavy duties,” and took a long time to reach Americans on
the coast, let alone those living in the interior of the country.

In the first years of the nineteenth century these colors arrived in cities like
Cincinnati, Louisville and Lexington on flatboats and coaches, one and two ounces at a
time. Demand grew quickly, however, and by the second decade the barges and
keelboats with names like “Hornet”, “Resource”, “Cecilia” and “Wild Goose” arriving in

122 Ibid.
123 Ellis, The Country Dyer's Assistant 17-18
124 Ibid.
those cities bore barrels of indigo, seroons of cochineal and tons of logwood.125 Having waited a long time to take delivery on their packages most Americans were not in a position to return the defective product or even to recognize that it had been compromised until their dyed cloth was ruined. The long trek to inland North America degraded some exotic colors. “Zealand” madder could still dye beautiful browns and blacks at three years, but madder from other places—the Levant, Alsace, Wurtenberg—ranged from a year to nineteen months. From the moment of their grinding and packaging some vegetable dyestuffs survived only for a few weeks before they had lost their coloring vigor. Brazilwood or Redwood, a species of Brazilian timber tree for which the country is named, gave excellent results for making pinks and clarets, and mixed with inferior logwood made “violet, leloch, and many others of that cast.” The dyewood, however, could be severely injured by seawater, a distinct risk for a product that had to make the ocean voyage from South to North America. Even domestically produced dyestuffs didn’t always weather the trip. When of decent quality “Carolina” indigo reliably made good blues and Saxon greens, but when the two-inch square “junks” it was shipped in broke open to reveal a “dirty, sad, or dull color” this expensive product was useless.

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125 “The Following Barges and Keel Boats have Arrived at this Place within the Last Three Months from New-Orleans.” The National Intelligencer, August 12, 1814, 1814. A seroon is a bale covered by an animal hide, often used to ship goods like indigo and other dyestuffs.
Despite the travails of producing and using natural dyes and the stiff competition from European producers, the argument Ellis and other American entrepreneurs were making prevailed, at least for a time. Successfully employed, these stuffs made a wide spectrum of gorgeous colors, and the possibilities for “enrichment” and natural honor were too great to allow Europeans a monopoly on them. In 1827 the U.S. Treasury Department produced a tract describing efforts to cultivate the nopal cactus, and consequently the insect that produced cochineal, outside of Mexico. “The great importance of the Nopal to Mexico is generally known, but it is not perhaps as public, that since the Independence of New Spain, the Insect has been successfully introduced into the Peninsula of Old Spain, and bids fair to become a source of prosperity to that unhappy nation.” The writer, the U.S. Consul for Campeachy, indicated that with both its “happier climate” and “happier Government,” the Florida territory could reasonably expect to produce in just a few years enough cochineal to meet an apparently universal U.S. consumption. “I now present the Nopal as one whose advantages can be enjoyed alike by the rich and the needy; by the Lady in her parlor, and the Servant in her kitchen; by the Planter around his palace, and the Negro around his hut. It will form an ornamental enclosure for the gardens of the wealthy; a fruitful hedge for the patches of
the poor; and will furnish both sexes and all ages of every family with a source of pleasant and profitable labor.”126 Sadly for all those southerners who may have been searching for just such a vocation, the nopal cactus does not “happily” relocate anywhere.

The quest for blue may have been just as intense as the one for red. Prussian blue as a dye gave a bright, cheerful hue as the “lesser” dyes often did initially, and was much in use in the first decades of the nineteenth century. But the king of blue dyes was still indigo. Indigo gave a deep, violet, fast blue, resistant to “the action of the air and sun,” and “not easily stained by sharp or corrosive liquors.”127 Against a chlorine-bleached white ground, indigo still pops, and that color combination has never gone out of fashion, nor has our love for the blue of our jeans. Indigo’s near perfection as a dyestuff inspired a century’s worth of campaigns to synthesize it. In 1831 the National Gazette and Literary Register announced an “Important invention for Manufactures;” Napoleon Bonaparte had offered three million francs to the discoverer of a material “that should in all respects answer as a substitute for indigo.” “In consequence of this stimulus” the practical chemist and dyer M. Souchon supposedly developed a process for making prussiate of iron even more permanent than indigo blue. “With this preparation he has succeeded in dying green, blue blacks, and black, at an expense of little more than one third that of indigo colors, and said to be in every respect equally fine and permanent.” The inventor claimed the new dye was resistant to both acids and alkalis, and from crocking—the habit of indigo to wear away at stress points that makes us love our well worn jeans all the more. The Register’s editor hoped that “if found successful, [the new dye] will not only diminish the expense and increase the permanency of the best colors in

127 Haigh, The Dier's Assistant in the Art of Dying Wool and Woollen Goods vi
cloths, but that the preparation of the material will give rise to a valuable branch of manufacture in our own country, shows the importance of the discovery, if it will be really what it is resented [sic].”

Bounties like this one were common devices in the 18th and early 19th centuries to spur invention, but in the case of indigo they failed to produce the desired result. No synthetic substitute for the world’s most popular blue would be found until the close of the nineteenth century.

Napoleon’s money would have been better spent in the quest for the discovery of a safe green rather than a lustrous blue. Some scholars speculate that it was exposure to the arsenic in his green wallpaper that killed him. Several of the greens manufactured in the first half of the nineteenth century were toxic, and that in fact was one reason why some people used them. It was quite common for Americans to use arsenical green paints, like Emerald green, on bedsteads to kill the vermin they knew would otherwise be their bedfellows. Household manuals like Lydia Maria Child’s 1832 book *The American Frugal Housewife* recommended green paint for killing vermin in the walls. The first arsenical green was the invention of a Swedish chemist, Carl Wilhelm Scheele, in the last quarter of the 18th century. Scheele dissolved white arsenic in potash to make potassium arsenite and then added the resulting solution to a solution of copper sulphate to precipitate copper arsenite. The precipitate needed only to be washed and dried, when it became somewhat transparent green flakes. Scheele’s Green was “the first artificial green pigment in which copper and arsenic were the essential constituents.”

Schweinfurt Green, also known as Emerald Green or Paris Green, was first prepared in

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128 “Stained Glass.” *The National Gazette* November 24, 1831.
129 I am indebted to Dr. William Jensen of the University of Cincinnati’s Department of Chemistry for helping me to understand and explain these processes.
130 Gettens and Stout, *Painting Materials : A Short Encyclopaedia* 154
Schweinfurt, Germany and though it can be prepared in a number of ways the basic formula combines copper, acetic acid (or verdigris), white arsenic, and sodium carbonate. Schweinfurt Green started replacing Scheele’s Green shortly after its introduction in 1814 due to its superiority as a pigment. These greens were convenient and efficient as they eliminated the need for dyeing both blue and yellow to make green. But they were quite dangerous, and when applied to flocked wallpapers which would in their lifetimes be exposed to heat and cleaning and brushing their poisons flaked off and wafted easily through the air and into human lungs. It wasn’t until the 1860s and the popularization of a shade of light green in wallpaper and paint that an English surgeon treating people with a legion of complaints was able to isolate the cause.

131 Mineral greens were of two types, according to an 1874 dye manual: mineral compounds “possessing a green colour and well-defined chemical constitution, as chrome-green or hydrated oxide of chromium; Scheele’s green or arsenite of copper; Schweinfurt green or aceto-arsenite of copper; and the emerald greens.” The other greens were all those shades derived from mechanical mixtures of blue and yellow colorants, which, naturally, meant more work for the dyer, and less predictable results. Crookes, p. 156.

Some colors have very colored pasts. In the nineteenth century there were indeed some very naughty arsenical greens. Lead, too, is responsible for some of the most prized pigments in our history, ones that Americans used to color their world throughout the nineteenth century and beyond. Red lead is a bright red--near scarlet--pigment most often made by roasting white lead until it changes color. Like white lead, red lead covered well and made a good drying agent in other paints. White and red lead makeup and powders had been poisoning the European aristocracy for years, and in the early nineteenth century artisans were aware that “Painter’s colic” caused lesions and sickness. Workmen often had to cycle off their jobs as lesions appeared, cycling back on as their skin healed. Trade publications in the latter half of the 19th century warned their readers not to eat near lead, always to wash their hands before eating, and to change their clothes before going home. Despite the risks painters continued to work with lead paints.
American carriage painters, for instance, “slushed out” vehicles—coating them thoroughly inside with a leaded paint—to better protect the carriage from atmospheric changes, especially moisture. Their customers remained either ignorant of, or complacent about, the costs; the continued demand for paints with the wonderful qualities of lead ensured their longevity in the marketplace. So, lead paints were not only not going away anytime soon, their use was expanding.

One of the many developments of the 1790s that rapidly changed the American landscape was the extraction from the mineral crocoite of chromium, an element discovered in the 18\textsuperscript{th} century. In Paris in 1797 Louis-Nicholas Vauquelin, a student of the great chemist Antoine L. Lavoisier, was experimenting with the mineral crocoite, a rare, naturally occurring red form of lead chromate that investigators had misidentified as red lead. Vauquelin isolated a specific metallic component from it which he named chromium for the Greek word \textit{chroma}, because all of this element’s compounds are colored, some wildly so. Vauquelin had added a solution of a soluble lead salt to a solution of an alkali chromate to create lead chromate— the stunningly beautiful pigment known as chrome yellow. He then synthesized other compounds of lead and chromium, including chromium orange, and a chromium oxide green. All were brilliantly colored. Vauquelin wrote that chrome yellow takes on various shades according to how it is precipitated, from lemon to orange, and when mixed with certain organic elements can take on a green tint. It is most satisfactory in oil paints where it gives bright and fairly permanent colors. In the nineteenth century its use extended beyond paints to ceramics and the textile industry, where chromium compounds served as both mordants and
colorants. Chrome yellow rather quickly became “the most important of the commercial yellow pigments.”

Americans took an immediate interest in the possibilities for both color and cash afforded by chromium-based pigments. In 1814 the Emporium of Arts and Sciences solicited a letter from a Philadelphia gentleman named Hembel whose research in chromium synthesis impressed the editors. The account of his experiments Hembel submitted explained the delay in industrializing this much desired pigment. “The great difficulty in preparing the Chromat [sic] of Lead, is to preserve an uniform colour during the whole precipitation with nitrate of Lead. Vauquelin, Murray and other writers, found the difficulty so insurmountable, that, they concluded, Chromat of Lead could never be made subservient to the arts.” Vauquelin was right, Hembel thought, in his assessment that some “organic elements” could change the final appearance of the compound. The answer to procuring “a deep and uniform color,” according to Hembel, was to “separate all the earths” and carbonic acid from the precipitation process. Still disappointed after trying this, he “digested a portion of the precipitate…in cold diluted nitric acid. A slight effervescence ensued; and the colour immediately improved to a lively orange yellow; nearly equal to that which you think superior to any you have seen prepared.” Refining his process by treating the mineral (chromium) with muriatic acid, nitric acid, and boiling the heck out of it to remove “all the earths,” [Hembel’s italics] always produced “deep orange colours of great beauty.” Hembel claimed to have shared the results of both his tests with several people who then attempted to make and sell the pigment, “but, from the inferior colour which they produce, I fear that more knowledge of chymical processes is

133 Gettens and Stout, Painting Materials : A Short Encyclopaedia 106
necessary to enable a person to conduct the second [experiment] than is common to mere manufactures.”¹³⁴

Hembel wouldn’t speculate on the permanence of his colors. He would, however, observe “that no inference should be formed from the specimens which have been offered to the public; they are all contaminated with carbonate of lead, a pigment which is well known to blacken, the instant it comes in contact with sulphuretted hydrogen gas, or the effluvia from putrid animal or vegetable matters” a distinct possibility in the less than sanitary living conditions of the nineteenth century. What his description of his experiments with chromates of lead makes clear is that the work of making colors in the United States was being carried on, as Ellis similarly complained, by practitioners who would not take the time to apply science to their work. (The authors of European dye manuals often remarked on this subject, too.) With both dyes and pigments the effective synthesis and use of colors required certain conditions, among them the use of clean unadulterated products whose origins were known, and something closer to a laboratory-grade setting than most workshops provided. With the exception of carriage factories whose bread and butter was the glossy, perfectly smooth paint and varnish finish that required at least the last several coats be applied in dust-free rooms, such controlled settings did not exist in American manufactories, nor would they until the latter half of the nineteenth century. In sharing the results of his study of chromium, the editor of The Emporium of Arts and Sciences stated that William Hembel exemplified “the liberality so common among scientific Chymists.”¹³⁵ That kind of scholarly generosity would not

¹³⁴ William Jr Hembel, "Chromat of Lead," The Emporium of Arts and Sciences 3, no. 1 (June, 1814, 1814) 305-309.
¹³⁵ Thomas Cooper, "Chromat of Lead," The Emporium of Arts and Sciences 3, no. 1 (June, 1814, 1814) 305.
serve other entrepreneurs in other industries quite so well over the century, but many Americans in this first part of the nineteenth century seemed to believe, rather naively, that the sharing of industrial information would bring returns of both the intellectual and pecuniary kinds.

The discoverer of chromium ore in the United States, as a case in point, was happy to borrow from the work of scholars like Hembel but was not equally interested in sharing. Isaac Tyson, Jr. in fact, parlayed his finding chromium ore on his father’s land outside of Baltimore in 1810 into a near world-wide monopoly of the mineral that lasted for decades. Different accounts of Tyson’s discovery have muddied the history but the basic narrative seems to hold that as a teenager Tyson, the son of a Quaker grain merchant, had rejected a life following in his father’s footsteps to pursue the study of chemistry at a Baltimore apothecary. Four years later at the age of 18 he was serving on one of his father’s grain ships when it wrecked off the coast of France. He secured permission to stay in France and study chemistry, geology, and mineralogy, and in so doing learned of Vauquelin’s work. In 1810, having returned to the States, Tyson was walking the parcel of land his father had just acquired northwest of Baltimore with his father’s gardener, an Englishman named Henfry, when Henfry stopped to pick up a rock. He recognized it as the ore he had refined in the pigment plant where he had worked in England. In this capricious instance one of the few Americans who had studied chemistry in Europe was talking to one of the handful of people in the United States who could have recognized this ore in its natural state. Tyson quickly borrowed money from his father to begin mining and exporting the ore to pigment producers around the world.
At some point before 1827 the bounty on the original Tyson estate ran out, but in that year Tyson, Jr. happened to be at the Bel Air Market in Baltimore one day when he noticed the rocks a farmer named Reed was using to chock the barrels of cider in his wagon looked like chromium. When Tyson later surveyed the scruffy, sparsely vegetated Reed farm he recognized the familiar, unproductive landscape concealing an abundance of chromium under the surface, and after buying the land he laid claim to more than 300 tons of ore just lying on the ground. That purchase became the centerpiece of the swath of chromium-producing land stretching from Virginia to New Jersey that Tyson either leased or purchased over subsequent years.\textsuperscript{136} He had already built a chrome works to process the ore domestically, a smart investment since by 1820 chrome yellow was both a common pigment in house paints and a very popular dyestuff, and chromium was being used as a mordant to bind other colors to cloth in constantly humming British textile mills. Until chromium was discovered in Turkey in 1848, in fact, Jesse Tyson, Jr. held

nearly a world-wide monopoly on the ore, and the Baltimore Chrome Works he founded kept their domestic monopoly on chromium pigments until the 1860s.\textsuperscript{137}

These unassuming little black rocks launched an industry that freed the United States from their reliance on some popular imported European minerals, fostered the American textile industry by providing a domestic source for critically needed mordants and dyes, and produced compounds that revolutionized the American palette. Chrome yellow constituted a brilliant discovery in several senses of the word. Before the synthesis of colors like Prussian blue and chrome yellow decorating with an intense, bright color meant acquiring and grinding an expensive mineral. Painting with ultramarine, for instance, the blue found on cave walls, required actually crushing the mixture of calcspar, iron pyrites, and lazurite—otherwise known as the now semi-precious stone lapis lazuli—to make the pigment. The stones medieval artists used for paintings, frescoes, and illuminated manuscripts had to make the long trek from northern Afghanistan to Europe before they ever adorned a thing, their expense no doubt making their already beautiful color appear even more precious. The chrome colors, like Prussian blue, were industrialized, making their bright, beautiful shades available to virtually everyone in the nineteenth century.

Everyone seems to be exactly who wanted them. Chrome colors made their way to the interior of the United States from the East Coast in very little time. In the house pioneers William Whitley and his sharpshooter wife Esther built in Crab Orchard, Kentucky, purportedly the first brick house in Kentucky, they painted one part with a chrome green composed of Prussian blue mixed with chrome yellow as early as 1815.

\textsuperscript{137} The family didn’t part with the company until they sold to the Mutual Chemical Company of America in 1908.
When Daniel Boone’s nephew John Bryan built his Greek Revival mansion Waveland in the heart of the bluegrass in 1845 he chose either chrome or one of the arsenical greens for the soffits and porch ceilings.\textsuperscript{138} Between 1800 and 1840 Americans furnished their homes with bright red, green, and yellow square-back windsor chairs from the Delaware Valley, and ornate chairs, benches, and settees in every color and style of ornament from Baltimore. Members of communal religious societies whose liturgies proscribed figurative art indulged their need for artistic expression with the unmitigated brightness of chrome yellows, reds, oranges, and greens on their furniture, woodwork, walls, and floors.

Much of what we know of the decoration of these religious sites has come to us from the microscopes of finish analysts employed to do this work over the last twenty years. Such research is expensive and time-consuming, and few owners of private homes have the wherewithal to afford an investigation of the history of their home’s decoration. Much of our knowledge of the interior decoration of the private homes of non-celebrity Americans, then, comes to us from the objects preserved from that time, and from genre paintings, those often untutored works that depict everyday scenes of domestic life. In the twentieth century historians dismissed much of what these early nineteenth-century “primitive” artists chronicled as a product of their fancy and a lack of academic discipline in which their artistic impulse to embellish with color and pattern overrode whatever commitment to realism they would otherwise make. But unacademic should not be confused with untruthful. The material record of this time surviving from American furnishings and decorative arts has proven that some of these artists may have only

\textsuperscript{138} The director of the site has never reported which one it was, although when he gave me a fragment he told me to make sure to keep it in a baggy and not anywhere near my desk. As the color was quite lasting I suspect it is chrome green, the most stable of the nineteen-century green pigments.
exaggerated slightly, indulging a bit of artistic license, and some not at all, when
recording the splendid, unrestrained colors of the early nineteenth-century American
home. Neither can these colors be ascribed exclusively to the influence of folk traditions
being disseminated across the United States as immigrants made their way West.
“Rosemåling” or rosemaling (the “primitive” decorative painting of flowers and
flourishes long associated with Scandinavian folk art), and decorative cartouches, picking
out, stamping, stenciling, and penciling, in blues, greens, yellows, reds and orange—these
decorative embellishments appeared on American coaches, carriages, houses, furniture,
and fabrics before 1820. The most colorful furniture in the country came from the areas
of Baltimore, Maryland and Lancaster County, Pennsylvania, from which the
“Pennsylvania Dutch” artistic traditions originated in the United States. But those places
also sat atop vast serpentine beds of chromium. It may be that this is more than
coincidence.

Color was a prized new toy, and Americans were ready to play. They used exotic
new woods, like rosewood and zebrawood, to enliven veneers, and when they didn’t have
those they faux painted existing woodwork to look like the imported varieties. When
new pigments became available, such as the range of colors produced by the synthesis of
chromium compounds, they wasted no time buying and applying them. They stitched
mosaics into quilts and wove geometric fantasies into coverlets. This was a period of
pyrotechnic colors and techniques reflective of an aesthetic that the historian Sumpter
Priddy has called “Fancy” with a capital F. Priddy argues that Fancy was a unique and
“noteworthy American style” that occupied the mainstream of American aesthetics. It
“reflected a progressive cultural attitude born out of new and enlightened ways of seeing,
understanding, and responding to the surrounding world.” Americans indulging in “Fancy” as a style of arts expressed “an unrestrained sense of decoration, one that infused vivid colors and boldly ornamental patterns into their household furnishings.” The movement was an outgrowth of concepts of how the eye and mind should work together developed in the 18th century, based on the “elements of abstraction” introduced to Europeans by the kaleidoscope. In the 18th century “Fancy” referred to imagination and creativity, but had expanded by 1820 to encompass a “celebratory and progressive spirit” linked to “a growing receptivity to virtually every form of creativity rooted in the imagination.” The furnishings and decorative arts produced in this era, according to Priddy, were designed to inspire emotional responses, from delight to awe. Color and pattern were the tools the movement used to elicit these reactions.139

Priddy’s work has received some resistance from historians and curators whose intellectual pensions have been vested in the definition of these fancy–decorated objects as folk art, and folk art as a marginal movement. That Fancy, not restrained Greek Revival classicism, occupied the minds and households of middle-class Americans violates this idea, it is clear. And the proposition that all early nineteenth-century Americans who sat on Fancy rockers, bought a fancy painted chest, slept under a geometrically patterned coverlet or poured coffee from a toleware pot cognized the ramifications of such objects would be quite implausible, if that is indeed the way they are reading his work. Yet the material record is clear. The objects remain, testaments to the imaginative if not intellectualized decorating bravado of Americans living in the first forty years or so of the nineteenth century.

One of the most astounding features of the American landscape in this age was the rapidity and pervasiveness of this diffusion of color throughout the country. Describing the world inhabited by Sylvanus and Mary Jane Foss, two New Hampshire residents comfortable enough in 1836 to have their portrait painted amid their Fancy furnishings, Sumpter Priddy writes: “The Fosses made their home in Strafford, New Hampshire, but their taste were no different than those of millions of middle-class Americans who lived throughout this nation in the early nineteenth century. Had they lived in downtown Philadelphia, in a Connecticut village, on a farm in Ohio, or on a Carolina plantation, the Fosses would have encountered similarly exuberant expressions of Fancy.”

140 Ibid.
Improvements to the country’s infrastructure made after the War of 1812 greatly facilitated this movement of color around the country. Better roads went in everywhere in the North; railroad building began in the 1830s, and the Erie Canal and steamships connected New York to the Ohio River valley, the Mississippi, and the West. All this improvement in long-range freight hauling resulted in an increased demand for horse-drawn transport to move people and goods locally. Just two decades before, pigments and dyestuffs had made their way down the river on keelboats and rafts a few ounces at a time. But in the second decade of the nineteenth century in cities like Cincinnati and Louisville colorants were offloaded from paddleboats onto the public landing in kegs and hogsheads. New lines of public and private transportation freighted Americans and their colorful stuff around more colorfully than ever before. In 1814 the first coach, horn blaring and linchpin missing, wobbled down the road on the first permanent stage line between Concord and Haverhill. Like other surviving objects from this period of fancy decoration, public vehicles were highly decorated with “intricate designs” in colors. The work of carriage building and decorating was still carried out in small artisanal shops, very much as it was in the 18th century. The design and decoration of a carriage was the product of the industry’s judgment as to “what shapes, elements, colors, and materials were the most beautiful and the most desirable to employ” combined with individual consumer preferences.

Coach painters tended to be jacks-of-all trades, who also painted “banners, signs, medicine boxes, fire buckets, and theatrical scenery, since the public taste for

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141 Gannon, Carriage, Coach, and Wagon: The Design and Decoration of American Horse-Drawn Vehicles 44
142 Ferrell, A Harmony of Parts: The Aesthetics of Carriages in Nineteenth-Century America 62
ornamentation on those objects as well as vehicles ran to pictorial as well as scroll, heraldic, gilding and stripe painting. The coach painter was a skilled artisan, and several of early nineteenth-century America’s most renown portrait artists were associated with the craft. High-end makers of stages and omnibuses specialized in the pictorial ornament and scrolling in bright colors generally reserved for public conveyances.\textsuperscript{143}

Public transportation in the United States changed in form as well as finish around 1820. It was then that the stage waggon evolved into the oval-bodied, rounded stage coach familiar to us from paintings, prints, and film. The Downing and Abbot Company of Concord, New Hampshire built the first Concord Coach in the late 1820s, although there is some evidence that this type first appeared in Troy and Albany a few years earlier. Its smoothly rounded body perched on leather thoroughbraces from which it could sway, the Concord design forced the driver outside, allowing the carriage to close fully and its passengers to avoid the elements. The success of the ovoid body type inspired many carriage manufacturers to copy it, and guaranteed both its ubiquity and longevity in the nineteenth-century American landscape. The Concord, Albany, and Troy coaches were recognized as class levelers even in their own time. An 1825 account appearing in the \textit{Boston American Traveller} held that sulkies were made for physicians and single gentlemen; carriages for old maids, or, more delicately, “single ladies advanced;” and gigs, landaus, and curricles for “fops, dandies and exquisites of both sexes;” but stage coaches, “your downright, modern, well-built stage-coaches” were

\textsuperscript{143} Gannon, p. 195.
made for “the young, old, the rich and the poor, the great and the small, male and female, of all ranks, and conditions…”  

Heavily carved and gilt coaches had disappeared after the French Revolution, though coloring and ornament remained essential elements of carriage manufacture and marketing. Even the shortcut method of coloring the carriage involved several coats of color, and optional varnishing. Concord coaches typically received two especially thick coats of varnish. The application of contrast colors in stripes from as narrow as 1/16 inch to several inches, known as “striping” or “picking out”, was not only to decorate the coach, but to draw the eye away from transitions in dissimilar carriage materials, such as from wood to metal, giving the coach or sleigh the appearance of cohesion and solidity. The mechanical means of fabrication introduced in the 19th century and the elimination of heavy decorative elements allowed manufacturers to lighten vehicles, making them more efficient and less burdensome to their horses. This change did not mean that aesthetics had lost their import among American carriage and sleigh owners. What it did mean was that vehicle decoration in the nineteenth century came almost entirely from paint.

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Concord coaches were highly decorated, with brightly colored bodies with running gear in at least one contrasting color, and were finished with “painted scrollwork, oil paintings, ornate lettering, and gold leaf.”\textsuperscript{145} Curtains and upholstery were usually of russet leather.\textsuperscript{146} Although there does not appear to have been a specific standard of ornament for the Concord coach, the most common color scheme for coaches designed for the road seems to have been a red body on pale yellow running gear. Combinations of green, red, orange, white, blue, yellow, olive, black, maroon, and others are also known, and these last colors were popularly used on the hotel coaches that ferried guests between carriage and railroad stops to the hotel and back. One romantic and awkwardly written depiction of early Concord coach travel appears in James Lyford’s 1903 \textit{History of Concord, New Hampshire}. “On the slightly highest seat of his yellow coach[,] rustic beauties, going home from service or from school, with handsomer faces than those

\textsuperscript{145} Ibid.
depicted by the skillful hand of the Concord painter on the panels of the coach, perched where the long whiplash made its surprising whirl past their sun bonnets before it shot forward to make its still more surprising crack behind the ears of the leaders on the six-horse team."

Concord coaches endured throughout the nineteenth century in the United States and abroad, in South America, South Africa, and Australia, with only negligible changes to their 1830s design. Late in the century Buffalo Bill used one, and in the early twentieth century “stanch, well-equipped open ones” with especially sturdy hand brakes were still in use for mountain travel.

Like Concord Coaches, Albany Coaches were well known to Americans from the late 1820s, and by that time they could be found as far south as the Washington, D.C. area, where they were known as the “Splendid Red Coaches” of the Union line. In that decade the enterprising manufacturers of several different firms in Troy, New York were already copying innovations in the Albany Coach and offering their own additions, and they may in fact have been trying to coopt the Concord’s color branding. It may have worked, as their products soon superseded the competition. An 1831 item in the United States Gazette described the appointments of a “splendid” Troy coach owned by a Mr. Reeside. “The coach was painted red, and beautifully lined with red morocco. The whole appliances of the carriage were suited to the elegance of the body, and bespoke the liberality of the enterprising owner.” Mr. Reeside no doubt appreciated the press, as he was in the process of founding a new stagecoach line to run between Baltimore and Pittsburgh. His was not the only line to employ Troy coaches, which spread throughout the South and West as new companies popped up over the next decade. The owners of

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147 Vineyard, Elkanah Deane: Coachmaker of Williamsburg 29
148 Earle, Stage-Coach and Tavern Days 265
149 Vineyard, Elkanah Deane: Coachmaker of Williamsburg 40
the lines obviously knew how well the Troy manufacturers had branded their product, as they specifically mentioned employing Troy-built coaches in their newspaper advertisements.\textsuperscript{150}

According to at least one English observer, there were genuinely beneficial effects to be reaped by the viewers of these spots of color on the landscape even by those unable to own their own carriages.

“But after all, those who do not use pleasure carriages—as the mass of the community, still benefit indirectly by them. They are objects of beauty constantly exposed to public view, as much so as architectural erections—perhaps more so, being locomotive,--and far more so, though in a humbler way, than paintings or statues. It is an undeniable fact, that the daily habit of beholding beautiful objects has an imperceptible effect in refining national taste.\textsuperscript{151}

Where rivers and creeks turned to ribbons of black glass in winter coaches were often “snowed up” and traded in for pods and pungs. Pungs were sleighs drawn by two horses and pods by one. Sleds or sledges generally hauled goods, sleighs people. Incredibly, some sleighs from this period have survived with their original paint intact, if a bit faded. Travelling over snow protected their finishes from the damage done to carriages and wagons by rocks and ruts. Throughout the nineteenth century Americans usually decorated their winter vehicles with bright colors and even landscapes and fancy

\textsuperscript{150} Ibid.
cartouches and rosemaling, because the decoration would not require the number of expensive restorations that carriages needed over their lifetimes.

In 1815 George Hunter, of the Hunter Brothers carriage manufactory in Philadelphia, left his brother to continue in the established craft tradition, and moved to New Orleans where he founded a rolling mill, soap factory, forge and distillery with the aid of a twenty-horsepower steam engine. In the nineteenth century carriage and sleigh manufacturers began to replace water, human, and animal muscle in their factories with steam, to mold the wooden frames of their product. Though a steam engine powered the works at the Massachusetts carriage makers Knowles and Thayer in the 1830s, other carriage manufacturers were slow to install steam power. Furniture manufacturers, however, quickly applied steam to bend wood to their will, textile manufacturers used steam to weave their cottons and to full their woolens. Steam changed the way virtually every industry did business in the nineteenth century, and had a great bearing on

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152 Fulling was the process that scoured and pressed woolen fabrics to decrease the appearance of individual fibers and create a felted mass, ideally one that had a smooth “hand” or feel to it.
the ways colors would be made, printed, transported, and even invented. Some of these developments, such as the way color would be shipped, came about as early as 1815.

It is difficult to summarize the developments in the use of decorative color in the four decades following the turn of the nineteenth century—they were as bright and bold and varied as the colors themselves. Americans clearly took delight in the opportunities for coloring their world that new colors and new machines for making them created. They may not have realized it at the time, but they lived, too, with very few rules dictating how they should use that color, and without the fear of how its improper use might reflect poorly on their homemaking, their characters, and even their dedication to the New Republic. Americans of the next generation would understand that kind of pressure, after 1840. The period of 1800 to 1840 would be the first time a majority of Americans would have access to color, and the last time that they would not have anyone to bother them about how to use it. They spent this time very fruitfully.
By the dawn of the nineteenth century the possibilities of decorative color were known everywhere in the thirteen states. In Williamsburg’s fine homes the paint and papers were still on the walls, but Virginians had already moved their capital to Richmond and Williamsburg would never again hold the political or social relevance it had long enjoyed. In Massachusetts the Puritan aesthetic for plainness had taken a beating from decorative color just as the Quaker sensibility had in Philadelphia. Americans acquired color as soon as their fortunes allowed, and when they traveled, they took it with them. Thousands of Pennsylvanians as a matter of fact were loading their
blue Conestoga wagons, getting ready to set out on their state’s excellent roads. Travel between Philadelphia and Pittsburgh was brisk; freight moved on thousands of four- and six-horse wagons through the turnpike stations. Scores of sturdy New Englanders borne in shiny sleighs and wagons headed for the Genesee Valley on the Mohawk Turnpike. They were joined by waves of immigrants up and down the coasts who packed their clothes and blue and white coverlets and painted chests to cross Pennsylvania, Maryland, and Virginia into the Ohio country. Keel boats and barges, and later canal boats and steam ships that plied eastern American lakes and rivers bore the colorful cottons rolling off English and American mills to families living in the interior of the country. Color was moving to the frontier.

Thomas Rodney was one of these thousands of people bound for the West. After an illustrious career of service during the Revolutionary War in both the militia and Continental Congress, followed by a couple of terms in the Delaware State House, Rodney’s fortunes took a turn for the worse and in 1803 he had just bottomed out as a merchant on the East Coast. His fortunes changed again when President Thomas Jefferson appointed him as a Mississippi territorial judge and land commissioner for the district of the territory west of the Pearl River. So in the latter half of 1803 Rodney set out for a new career, and a new life, in the American interior. To get to his appointment in Natchez, Rodney’s party traveled overland first to Wheeling, Virginia, where they all boarded a boat to take them down the Ohio and Mississippi Rivers. Like that more famous western expedition Jefferson dispatched in the same year, Rodney made copious notes of his experiences as he discovered the inland United States. In Wheeling, then part of western Virginia, he spent the night in the tavern of the captain of militia and
justice of the peace, one Mr. Knox, whose establishment he found to be “a dury hovel and his beds swarming with bugs.” Yet Rodney “had a very good bed perhaps the best in the house and elegant chintz furniture and being newly painted green the bugs did not much disturb me.” On a cloudy morning en route in November, he recorded that he had met a Native American family who boarded his boat outside their hunting camp.

“The old man and woman had no ornaments. The eldest girl had a necklace of glass purple beads and a half a dozen ringlets of tin bobs in each ear. The youngest girl…had similar bobs and [illegible] of tin round her neck and bracelets of the same ...that were kept bright and neat and looked very well.” Rodney’s observations are some of the best descriptions we have of what was once an exotic place--the early Ohio country. His letters home to family regularly described what he was seeing: the landscape, the women, the pigeons, “feasants”, “partriges,” and “dear”, and frequently the colors.

The English naturalist John Bradbury’s eye was often drawn to color, and as he made his way through the Louisiana Territory in 1811 he noticed that at least some Native Americans invested much more than a passing interest in color themselves. In what is now North Dakota he recounted a side trip to a village in which some “Chayenne” had just arrived, dispatched by their people to inform the resident Aricara tribe of an impending visit. “One of these Indians was covered with a buffalo robe, curiously ornamented with figures worked with split quills, stained red and yellow, intermixed with much taste, and the border of the robe entirely hung round with the hoofs

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153 Dwight L. Smith and Ray Swick, Notes on a Journey through the West: Thomas Rodney's 1803 Journal from Delaware to the Mississippi Territory (Athens: Ohio University Press, 1997) 58-59. "Chintz" was the term often applied to cheerfully painted furniture of the middling sorts that was popular in the first half of the nineteenth century. Its name is a reference to a glazed printed fabric in that period, often used as a furnishing fabric and for quilting.

154 Ibid.
of young fawns, which at every movement made a noise much resembling that of the rattlesnake when that animal is irritated. I understood that this robe had been purchased from the Arapahoes, or Big Bead Indians, a remote tribe, who frequent the Rocky Mountains.” Bradbury offered to buy the robe, but was refused, but “the day following it was purchased by Mr. M'Clellan, who gave it to me for silver ornaments and other articles, which amounted to about ten dollars.” The Cheyenne, Bradbury notes, “were tall and well proportioned men, but of a darker complexion than the Aricaras.” On returning to camp Bradbury found it was now “crowded with Indians and squaws,” and his fellow travelers more “acquainted with savages” explained the Aricara’s fondness for decorative color to him.

[T]hey [the Aricaras] are either very liberal of their women to strangers, or extremely jealous. In this species of liberality no nation can exceed the Aricaras, who flocked down every evening with their wives, sisters, and daughters, anxious to meet with a market for them. The Canadians were very good customers, and Mr. Hunt was kept in full employ during the evening, in delivering out to them blue beads and vermillion, the articles in use for this kind of traffic. This evening I judged that there were not fewer than eighty squaws, and I observed several instances wherein the squaw was consulted by her husband as to the quantum sufficit of price; a mark of consideration which, from some knowledge of Indians, and the estimation in which their women are held, I had not expected.155

Bradbury’s companion’s coat was the subject of particular enthusiasm. “After my return, I walked into the village with Mr. Donald M'Kenzie, who wore a green surtout. This attracted very much the attention of the squaws, and from the surprise they shewed, I believe it is a colour with which they were unacquainted. They were so anxious to obtain a part of it, that several offered him favours as an equivalent for a piece which they marked out. This occasioned much mirth betwixt us, and on my part a pretended alarm lest his coat should become a spencer.\textsuperscript{156}

Spots of color in the flora and fauna of the frontier impressed other immigrants. Missionary Timothy Flint recalled his first trip down the Ohio from his native New England, and a particularly striking autumn afternoon: “The bright sun, the mild blue sky, a bland feeling of the atmosphere, the variegated foliage of the huge sycamores which line the banks of the Ohio, their leaves turning red and yellow, and finely contrasting with the brilliant white of their branches, the unruffled stream, which reflected in its bosom the beautiful surrounding nature,—all things conspired to give us very high anticipations from being wafted down ‘la belle riviere.’”\textsuperscript{157} Bradbury regularly commented on the colors of the earth he saw along American riverbanks, especially when a red hue hinted at the profit to be made from mining the iron oxide hidden below. Traveler Christian Schultz also looked for clues to valuable mineral deposits in soil colors when he went from New York to New Orleans in 1810. “All the prevailing rock here, for some distance, is a massive sandstone, either brownish, greenish, or grayish,

\textsuperscript{156} Ibid. A surtout was a man's long frock coat and a spencer a short waistcoat.
\textsuperscript{157} Timothy Flint, “Recollections of the Last Ten Years,” in Our Natural World: the Land and Wildlife of America as seen and Described by Writers since the Country's Discovery, ed. Hal Borland (New York: Doubleday & Company, 1965) 162.
fine grained and micaceous, and occasionally exposing something like impressions of alcyonites, but appearing in no place indicative of coal.”158

Though their itineraries and experiences could be quite diverse, all early visitors to the Ohio country who cared to chronicle their discoveries shared the problem of just how to do that—how to describe the people, animals, plants, minerals, and landscapes they encountered in terms that would be understood to their readers. Flatboat travelers, for instance, often dined on fat exotic birds plucked from the river banks, and strange fish and turtles straight out of the water. Most of these they had never seen before, let alone tasted, and they did what John Adams had done in describing the man ‘o war, choosing an object analogous in color that was familiar to their correspondents. In 1803 Rodney breakfasted on a soft-shelled turtle he believed peculiar to the Ohio River. “They are neither like the loggerhead or sea turtle but are of a make between both; but their upper and lower shells are more like the sea turtle. The belly both shell and skin is white, a milky white, and the back is the color of the back of a flounder.” The “remarkably fat” Ohio sucker he ate (probably a catfish) at another meal was “in color like a yellow perch.”159

In the first years of the nineteenth century land travel through the Ohio country meant days and weeks of bumping along muddy trails flanked by densely canopied forest that choked out the sun, turning the roadsides into a darkly impressionist canvas of dappled greens and browns. Travelers scanned the horizon for signs of human life to break the unrelenting monotony. But even a sighting of civilization itself might only

159 Smith and Swick, Notes on a Journey through the West: Thomas Rodney's 1803 Journal from Delaware to the Mississippi Territory 88, 93
amplify the traveler’s impression of dreariness. After leaving Pennsylvania, a state with cities that could boast thousands of houses built of brick, clapboard and stone, Thomas Rodney and his fellow travelers quickly learned the promise of civilization that a glimpse of a log house offered often went unfulfilled, as only three or four of them constituted a town in the Ohio territory. The town of Marietta began this way. Established in 1788 above the confluence of the Ohio and Muskingham Rivers on land acquired after the “Indian war”, Marietta was the first permanent United States’ settlement in the Northwest Territory. The town was an investment of a group of New England speculators led by the Revolutionary war general Rufus Putnam who called themselves the Ohio Company. In what seemed like a solid bet, the Company and the Virginians and New Englanders who moved to Marietta with them vested their aspirations for the town’s prosperity in its proximity to the Ohio River. The attraction of that part of the country was its access both to the waterway and the enslaved labor force of western Virginia lying just across its breadth. George Washington himself had seen the area of course, some thirty years earlier during the French and Indian War. The year of Marietta’s founding he wrote of it that “No Colony in America was ever settled under such favorable auspices as that which has just commenced at the Muskingum Information, property and strength will be its characteristics. I know many of the settlers personally & that there never were men better calculated to promote the welfare of such a community.”160 Washington’s optimism caught on, at least for a time. John Kerr was another early traveler making his way down the Ohio from Pittsburgh who found the green-browns of the dense wilderness oppressive, and who was relieved to lay his eyes on a different palette.

Marietta is a very handsome little Town well improved by men of Taste who have their houses & Garden [fences] painted with a Variety of Elegant Colours. The house of Mr. Green deserves particular Notice it exhibits a handsome appearance the sides white the Roof red & doors Brown which on the whole had an agreeable Contrast, the house are generally much better than such a new place can afford & pleases the travelers fancy as it emerges from the solitary woods with so much more splendor he being so long presented with nothing Novel to attract his notice or regard.161

Fortescu Cuming later attributed Marietta’s “neat and handsome style of building” to the many New Englanders in residence there. No doubt they were also credited with Marietta’s “elegant” colors, as travelers originating from there knew New Englanders typically either tarred their houses or painted them in ochre colors ranging from mustard to red. Painted houses were still rare enough in the Ohio country in the very early nineteenth century to draw attention and usually praise.162 For the most part settlers built their houses of local materials and the naked woods still offered a broad palette of colors and textures: “hard and soft woods, woods that were white or red or blue, woods that came curling clean off a plane and woods that splintered at a touch, close-grained oak, tractable pine, wild-grained fir, cherry, maple, cypress, [and] redwood” were all available to the frontier contractor. Builders of masonry structures could choose from a similarly

162 F. Cuming, Sketches of a Tour to the Western Country, through the States of Ohio and Kentucky: A Voyage Down the Ohio and Mississippi Rivers, and a Trip through the Mississippi Territory, and Part of West Florida (Pittsburgh: Gramer, Spear, and Richbaum, 1810) 10.
varicolored selection of “clays that would provide hard bricks and soft bricks, warm red ones, delicate pink ones, simple grays and dirty yellows.” Marietta was growing fast at the turn of the century. By the time Thomas Rodney visited it in 1803 Marietta had blossomed into a town of more than almost 600 residents and “91 dwelling houses, 65 of which were of frame, 11 of brick, and 3 of stone”...19 public buildings, 3 rope walks, a jail, and courthouse and an academy.” About the time that John Kerr commented on Marietta’s handsome facades, the daughter of the local postmaster bragged about it in a letter to her sister. “This town is much thicker settled than Amherst and the people much more fashionable than they are in Amherst.”

The girl’s rather implausible remark smacks of more than a little boosterism. Yet Americans living even deep in the frontier did have access to information about what was fashionable in the East. People passing through shared details about the places they’d seen, and letters to relatives back on the coast always inquired about what styles and colors were most in favor. The houses of the rich and famous served as the local template for contemporary house and furnishing design, and accordingly drew regular visitors.

In the same year that John Kerr found Marietta so charming, just a few miles south of the town a foreign couple as colorful as Marietta’s houses moved into the mansion they had just completed on an island in the Ohio River. Harmon and Margaret Blennerhassett, wealthy aristocrats and natives of County Kerry, Ireland, emigrated to the

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164 Smith and Swick, Notes on a Journey through the West: Thomas Rodney's 1803 Journal from Delaware to the Mississippi Territory 206
US to escape the repercussions of both an incestuous marriage (Margaret was Blennerhassett’s niece), and his membership in the Society of United Irishmen, a secret subversive anti-British organization. In the 1790s they left their residence in Philadelphia for Pittsburgh, then a gateway to the American frontier, settling on the line between Virginia and Ohio. Blennerhassett family lore holds that it was color that sealed the family’s choice to restart their lives in the wilds of Ohio after leaving Ireland. According to their son’s memoirs, in 1797 the Blennerhassetts had ridden a skiff to the island, walked into the woods, and surveyed the available property. “Mrs. Blennerhassett’s attention was soon attracted by the birds whose varied plumage as they flitted from tree to tree displayed the brightest hues of the rainbow and surpassed any thing she had ever imagined.” Her eye had apparently caught the iridescent flash from the feathers of a ruby-throated hummingbird, a species not known in the Old World. Enchanted, the story goes, the Blennerhassetts determined to build their clapboard mansion amidst the log cabins of the Ohio frontier. For the next several years the house welcomed many visitors who apparently offered it nothing but compliments.

It was common throughout the nineteenth century for travelers visiting prominent homes to publish their impressions in monographs and journals like Ackermann’s Repository of the Arts, a publication with regular features on interior decoration and even its own illustrated volume on the subject published in 1826. Few Americans could afford these publications, produced in England and some containing hand-colored, tipped-in plates and in the case of Ackermann’s, fabric swatches. Some American elites, certainly

166 Ronald Ray Swick, "Harmon Blennerhassett: An Irish Aristocrat on the American Frontier" (Ph.D., Miami University), 129. The Blennerhassett’s son Joseph recorded this family story in the 1850s, in an unpublished volume of his mother’s poetry. Joseph Lewis Blennerhassett, “Introduction to ‘Poems by the late Mrs. Harman Blennerhassett, Ohio Historical Society manuscripts. The flora and fauna of the island may indeed have been what prompted the Blennerhassetts to settle in that particular spot.
not all, read about current fashions from the few “professional” decorators in this period. These were, with only a few exceptions, European architects and cabinet makers like Thomas Sheraton, George Smith, and George Hepplewhite, and self-appointment style gurus like the Dutch banker and world traveler Thomas Hope, who turned his London home into a “museum” of “gorgeous decoration” and then invited his titled peers to come gawk at it so they could testify to its splendor. These tastemakers published their ideas—generally European interpretations of the Greek orders and Roman designs excavated from Herculaneum and Pompei blended together with bits and pieces of ancient Egypt—in expensive guides to furniture and upholstery design around the turn of the nineteenth century. There was of course a lag as these colors diffused throughout society, but not a protracted one. The colors that Robert Adam endorsed for Georgian houses, which were literally ripped from the frescoed walls of Pompei’s newly excavated homes and carried back to England in the 18th century, made their way from the furnishings of American aristocrats on the East Coast like Washington to fashionable homes on the frontier after 1810, when the Empire style superseded the Federal. By the 1820s urban furnishing centers in the eastern United States cranked out the Regency and Empire styles Adam et al popularized along with their bastardized American offspring and shipped them to families around the country.

But even such unabashed tastemakers as these were loathe to impose too many rules on color’s use. In the eighteenth century Thomas Chippendale suggested little more than that furnishing colors should match, even if the color derived from fabrics with different patterns. In his book Household Furniture of 1808, George Smith was equally liberal, writing: “for Eating Rooms and Libraries, a material of more substance is
requisite than for Rooms of a lighter cast; and for such purposes superfine cloth or casimere [both woolen goods], will ever hold the preference:…calico when used should be of one colour, in shades of moroon or scarlet.”167 It may be that Smith simply thought the deeper color would impart a more substantial look to this lighter, more simply woven, fabric, as crimson would not become the standard upholstery color until the Victorian era. In fact few of the furnishings illustrated in *A Collection of Designs for Household Furniture and Interior Decoration* of 1808 are upholstered in crimson. Its color plates show a range of fantastic colors that would have been difficult if not impossible to effect with natural dyes, the only dyes available and the time of its publication.

None of these authors was writing for an American readership. In the end, the vestiges of color rediscovered in frontier houses decorated in the first four decades of the nineteenth century and kept safe from revisionists of later generations under moldings, woodwork,

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whitewash, and carpeting suggest that few Americans in this period were reading, or at least implementing, the advice of such pundits in their own homes. Even if the Blennerhassetts and some of their visitors may have been familiar with their work it is very unlikely their Ohio contemporaries were. For most of these people living on the frontier, then, the homes of elites constituted the only local source for decorating ideas; the homeowners themselves the only arbiters of taste.

The tastefulness of an estate like the Blennerhassetts’, juxtaposed as it was against its rough-hewn, colorless neighbors, would go unquestioned by frontier critics. In 1801 John Bernard wrote the Blennerhassett’s house was “erected in the style and splendor of a Persian pavilion…this Italy of the West…until I go to my grave I must bear with me, as of a dream, the remembrance of the beautiful Blennerhassett…this Paradise.”\(^168^\) John Kerr added that the whole of the island was “beautifully decorated with Handsome Buildings” and Thaddeus M. Harris, visiting in 1803, complimented the “elegant mansion and buildings of Mr. Blennerhassett,” including the “well-cultivated garden.” When the Count D’Artois (Charles X of France) saw the estate around 1805 he remarked that “he could have had no Idea of such a splendid establishment in the United States: Combining as it did all the Elegance of the old World with the grandeur & beauties of the new.”\(^169^\)

The Blennerhassett’s home attracted a fascinating retinue of tourists in those first years of its existence, and The “Monseigneur The Count D’Aratois of the Royal exiled family of France” was not even the most interesting exile to visit. Six years after the

\[^{168}\] Thomas Hope’s eclectic decorating endorsed the introduction of Middle Eastern elements into the Regency style, but Bernard’s comment could reflect his familiarity with other European writers of the early Picturesque movement who were similarly fascinated with the exotic.

home’s construction Harman Blennerhasset’s island estate served as the headquarters for Aaron Burr’s “conspiracy,” and the subsequent failure of Burr’s plan ruined the couple and forced their eviction from the property.\textsuperscript{170} In 1807 Fortescu Cuming stopped by the island just after the Blennerhassett’s had moved out. If the houses of the famous were an ineluctable draw for the local populace, the houses of the infamous were another story, and Cuming was one of only a handful of curiosity seekers intrepid enough to risk associating himself with the Burr scandal. His is one of the last accounts of this early Ohio estate.

On ascending the bank from the landing, we entered at a handsome double gate, with hewn stone square pilasters, a gravel walk, which led us about a hundred and fifty paces, to Mr. Blennerhasset’s [sic] house, with a meadow on the left, and a shrubbery on the right, separated from the avenue by a low hedge of privy-sally, through which innumerable columbines, and various other hardy flowers were displaying themselves to the sun, at present almost their only observer. The shrubbery “was well stocked with flowery shrubs and all the variety of evergreens natural to this climate, as well as several exoticks,” and though the garden was not large, yet it seemed to have “every delicacy of fruit, vegetable, and flower, which this fine climate and luxurious soil produces.

The Blennerhassett’s never forgot the importance of a flash of color, having splashed it around the garden and inside their home. “The stair case is spacious and easy, and leads

\textsuperscript{170} Just south of Marietta Thomas Rodney had in fact run into “a Mr. Smith from Cincinnati, who was deputed by the marshal of Virginia to collect evidence for the trial of Co. Burr, and his associates at Richmond.” \textit{Notes on a Journey}, 108-109.
to a very handsome drawing room over the dining room, of the same dimensions. It is half arched round the cornices and the ceiling is finished in stucco. The hangings above the chair rail are green with gilt border, and below a reddish grey.” Little else in the house could attract Cuming’s attention. Creditors had recently forced the auction of the family’s furnishings “for perhaps less than one twentieth of their first cost,” to compensate for debts Blennerhassett accrued in endorsing Aaron Burr’s bills. Nevertheless, Cuming pronounced the property a “terrestrial paradise” and left it disappointed that it “should be deserted by an owner who had taste to blend judiciously the improvements of art with the beauties of nature.” In a final ominous remark, Cuming tempted its fate. “It is to be regretted that so tasty and so handsome a house had not been constructed of more lasting materials than wood.” Just three years later the mansion burned to the ground. 171

In this first decade of the nineteenth century, before steam ships and canals would facilitate bringing both stone and stone masons to the Ohio country, houses were usually constructed of log or clapboard. The boards were sometimes covered in sand or stone dust to effect the appearance of masonry. The treatment was cheap and, from a distance anyway, effective, as it lent the house a more expensive and substantial look. Further, it somewhat protected the home’s wooden surfaces from the elements. No such treatment could protect these early homes from their greatest danger though--fire. So much of the history of color has passed this way.

171 Cuming, Sketches of a Tour to the Western Country, through the States of Ohio and Kentucky: A Voyage Down the Ohio and Mississippi Rivers, and a Trip through the Mississippi Territory, and Part of West Florida109-111
Things fared little better for poor Marietta and the Ohio Company’s gamble. By the second decade of the nineteenth century the town’s growth had already stagnated as the rich lands of Ohio’s interior enticed settlers further west, away from the poor soils of Marietta’s hilly terrain. Halfway across the state, a mile and a half northwest of the present city of Chillicothe, the Worthington family chose to build their family seat. Thomas Worthington was one of Ohio’s most prominent Jeffersonian Republicans and the state’s first governor. He began his residence in the area by building a log house in 1796, then replacing that with a larger log structure called Belle View in 1802. In 1805 Worthington was assisting Secretary of the Treasury Albert Gallatin with his Gallatin Report on Internal Improvements, in which the Capitol’s construction was discussed. By 1806 Worthington had enough money to begin Adena, an impressive Georgian structure designed by the most famous architect working in the United States, Benjamin Henry Latrobe, whom Worthington most likely met while Latrobe was working as Surveyor of Public Buildings in Washington, D.C. 172 “Latrobe and Worthington were, no doubt, brought together in conferences about the Capitol’s construction, by their interests in internal improvements, and by Jefferson, at whose dinner parties in the President’s House they were frequent guests.”173 In his role in Washington, Latrobe had every chance to shape the Classical Revival appearance of the capital city; working with Dolly Madison he even supervised the furnishing of the White House. But his desire to classicize had a rural as well as an urban bent. When he addressed Philadelphia’s Society of Artists in 1811 he expressed his vision in which not only would Philadelphia become the Athens of the western world, but also that “the days of Greece may be revived in the woods of

172 Latrobe served in this role from 1804 to 1812.
America.” Symmetrical and solid, Adena was Worthington’s statement about his place in the New Republic. Situated on a rise amid what was originally a 5,000-acre parcel of woods and meadows along the Scioto River, Adena’s 22-inch thick mottled beige stone walls have protected the home’s original interior colors and finishes for nearly 200 years.

Nineteenth-century visitors to Adena were treated to a feast of color from the moment they crossed the threshold. The Worthington’s foyer featured mint green paint on the doorframes and beneath the stairs, and a wallpaper border surrounding the room in two different, and not necessarily complimentary shades (by 21st-century standards), of green in a dentilwork-like pattern. The room’s large doors of virgin American hardwood were grained in a deep red mahogany finish. Marbleized stair risers in black and white drew to the eye to the right and a glimpse of the Brussels carpet in the adjacent room, its lavish wallpapers and deeply hued wainscot.

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Twenty-first century visitors to the home have not always been so impressed with
the Worthington’s taste. In the late 1990s the Ohio Historical Society, the guardian of the
property, undertook a six-million-dollar reinterpretation of the site. Professional finish
analysts dug beneath wainscots and door frames, window sashes and shutters, to reveal
the Worthingtons’ original wildly colorful décor that had somehow survived decades of
the home’s service as a barn for the first half of the twentieth century. In scraping down
to the Worthington’s colors the OHS had to remove the historic site’s first major
“restoration”—a mid twentieth-century colonial revival interpretation that had
predictably and enthusiastically brushed a heavy coat of modern white paint over
virtually every surface. The evidence showed that the Worthingtons decorated with
white, light and medium grays, pinks, light to medium greens, light and dark browns, and
light and medium blues—a palette “typical and quite popular in the late 1700s.”\footnote{175 Frank S. Welsh, Microscopical Paint and Color Analysis Prepared for Mr. Neal V. Hitch, Facilities Planning, Ohio Historical Society, by Welsh Color & Conservation, Inc.,[2002].} The
OHS’s conservators then used the most modern microscopy techniques to reverse time, restoring the Worthington’s own choices to Adena’s walls and floors.

When it reopened to the public the locals who had toured the old Adena year after years as public school kids turned hostile. In those first days of the new installation one curator received an urgent call from a docent, imploring her to come to the house. When the curator got there she found a man in the foyer doubled over and red-faced, unable to speak. As she dialed 911 the man recovered enough to tell her it was the new colors in the house that were causing his distress. His, and much of the current visitors’ frustration with Adena’s aesthetic rebirth lies with the floorcloth in the foyer. Though the Worthington’s own household accounts show that the family owned at least three Brussels carpets, there is no material evidence remaining from them. A development of the 18th century, in the early nineteenth century Brussels carpets made up the majority of the business in Kidderminster, England, the town most closely associated with carpet production in the century. Many of them went to the United States. The Brussels is a low-pile looped carpet whose construction could incorporate up to five colors in a row, unless other colors were “planted” or alternated with them as accent colors. At the time the Worthingtons were decorating their house these carpets typically comprised the most expensive furnishing item in an American home. In the case of the Worthington’s foyer there is neither documentary nor material evidence to suggest what they put on the floor, if anything. The patterns, then, for the carpets and floorcloth at Adena are curatorial choices based on evidence of these objects from the period. The OHS ordered the carpets from a company that specializes in the sales of historically accurate period furnishings, whose collections house many samples from this period. The floorcloth on the other hand
was reproduced from a full-size period portrait of a prominent neighbor of the Worthingtons in the collections of the local historical society, in which he stands lightly contrapposto on a geometric fantasy in raspberry, mustard, and black. The portrait dates to the late 1830s, which makes the choice a bit of a stretch for an interpretation purporting to represent the family’s occupancy and initial decoration of the home around 1810, but it also makes sense that the family would have added to their furnishings as time passed.

The history of the use of floorcloths in the United States suggests that this treatment of Adena’s foyer is in no way excessive, even to represent an earlier period. Constructed of tough canvas and painted with durable paint finishes, from the colonial era these utilitarian floor coverings had been in continual use in American homes, particularly in entryways where they could take the beating dust, dirt and rocks dragged in from primitive streets dished out. They had been, and remained through the first half of the nineteenth century, generally complicated in design and wild in coloration, reflecting the interest in geometry fostered by the Fancy movement. Two portraits in the collection of the Abby Aldrich Rockefeller Folk Art Museum of William Howard Smith and his sister Mary Jane, painted in 1838, show the siblings on a buff colored floorcloth with a stenciled green swirling grapevine pattern, displaying the romantic floral ornament that would replace the geometry of the neoclassical after 1840. Apparently all of the known work of the early nineteenth-century artist Joseph Davis features floorcloths or elaborately patterned painted floors or ingrain carpets—it is difficult to discern which.
The floorcloth’s greatest critic may have been Edgar Allen Poe, whose essay describing the state of American interior decoration in 1840 singled out these simple, utilitarian, cheerful furnishings for invective worthy of a camp-meeting preacher. “As for those antique floor-cloth & still occasionally seen in the dwellings of the rabble - cloths of huge, sprawling, and radiating devises, stripe-interspersed, and glorious with all hues, among which no ground is intelligible-these are but the wicked invention of a race of time-servers and money-lovers - children of Baal and worshippers of Mammon - Benthams, who, to spare thought and economize fancy, first cruelly invented the Kaleidoscope, and then established joint-stock companies to twirl it by steam.”¹⁷⁶ Steam-applied color, then, represented only one of the floorcloth’s damnable qualities. After 1820 steam power was applied more and more to the production of finished goods in the

United States, and to their distribution across the country. Where the floorcloth the Worthingtons might have purchased around 1810 would have been either made on site or shipped down the river on a flatboat, the floorcloths that so offended Poe in 1840 were made in factories, albeit small-scale factories by modern standards, and were shipped on steamboats.

“Kaleidescopic” might also describe the Worthington’s dining room, where the family would, it bears mentioning, entertain important officials and dignitaries. Today the room’s original color scheme of pink and black gloss woodwork shimmers again from its meadow green backdrop.

All this rendering in color was done by craftsmen skilled in preparing pigments, mixing paint colors with linseed oil, and applying paint, whitewash, tar, lacquers, and varnishes to wood, plaster, masonry and iron surfaces. The first “decorators” in the United States
were itinerant limners who often billed themselves as portraitists but would just as
happily paint a room, a carriage, a company sign, or clapboard siding. Still decades
before the manufacture of canned, prepared paints, these artists carried their tools with
them, ground their colors, and mixed their paints on site. The most versatile could
successfully simulate exotic woods and marble finishes on woodwork and trim, a popular
option in a time when American hardwoods were so abundant as to be too mundane a
choice for the homes of the socially significant. From 1800 limners, and beginning in the
next decade, itinerant wallpaper salesmen, served as the only interior decorators as such
on the frontier. Their work appeared in homes throughout the United States before 1840,
by which time wallpapering had eclipsed paint in affordability and fashion.

Green reappears in Adena’s study, where the walls are covered in a paper pattern
of black and green concentric rings. The sample found in the home fits within a genre
popular in the period known as diaper patterns—simple, small-figured, typically
geometric designs. Thomas Worthington’s brother-in-law purchased this relatively
inexpensive paper in Baltimore from a stationer and paperhanging manufacturer who
described the paper as a "late fashionable piece" which was "plain and neat.” That firm
bought much of their stock from a Philadelphia concern. Adena’s pindot was found
under the door and window trim of the study, having survived since 1808. It has been
faithfully reproduced by a commercial company specializing in antique papers where it is
referred to as “Adena pin ring”.177

177 "Adelphi Paper Hangings." http://www.adelphipaperhangings.com/adena.html Another example of this
pattern resides in the Winterthur library as a cover for the Abraham Rex 1806 daybook.
The discovery of Adena’s pin ring wallpaper under a doorframe (let); the reproduced pattern above

Adena’s study showing the modern, nineteenth century use of wallpaper above and below the dado and with a border
The Worthington family was not alone in their decorating exuberance. Further south, Kentucky and Tennessee planters demonstrated their social superiority through the liberal application of decorative color to their homes. In Louisville, John Speed ordered several rooms’ worth of colorful wallpaper and paints for Farmington, the 14-room Federal-style villa with Palladian references he built in the middle of his massive hemp plantation. Mrs. Lucy Speed had grown up in Virginia where her grandfather had been Thomas Jefferson’s guardian and Jefferson himself had designed the octagonal room that appeared in the home of her uncle by marriage. Her own home has two octagonal rooms, which the Speed’s visitors encountered after they swept along “the broad greensward of the great avenue” up to the house, whose sky-blue portico was flanked by windows shuttered in an equally bold green. The blue created a cool space for entertaining outdoors on a hot summer’s day, and the green of the shutters was the single most common shade for such architectural features in the period. Inside the front door a vibrantly striped Venetian carpet, a reproduction based on extant samples from the period, stretches across the pink foyer toward several brightly painted and wallpapered rooms. Venetian carpets were constructed of woolens dyed a single color then loom woven through a multicolored warp.178 Even nineteenth-century Americans did not know why these carpets were called “Venetian”, although Venice does appear to have had a reputation for colorful decoration in the Anglo world. They didn’t concern themselves with the origins of the carpets, only in their acquisition, as Venetian carpets bore powerful witness to their owners’ taste by offering the entire range of colors in one furnishing piece.

178 Priddy and Chipstone Foundation., American Fancy : Exuberance in the Arts, 1790-1840
Farmington's Venetian carpet in the foyer (left) and Unknown artist, York, Pennsylvania Family, oil on panel, c. 1828. St. Louis Museum of Art. The impact of this interior comes from the furnishings' bold color and patterns, not from small accessories, pictures, or trinkets. The wallpaper was most likely a cylinder printed paper, and the vining flower pattern at the ceiling line could be a paper border or stenciling. The hearth rug over the Venetian carpet would have been hand hooked. A pier mirror over what may be a chrome red finished table adds to the trendiness of the space.
A Louisville paper announced the local varnish factory carried “virmillion, Crome Yellow, Prussian Blue Nos. 1 & 2, Dutch & Rose Pink, Patent Yellow, Red Lead, Purple, Brown, English White Lead, French Paper Hangings—latest and most fashionable patterns.” In 1829 in preparation for painting the Speeds ordered a couple of pounds of verdigris and Venetian red, 5 ounces of Paris (Prussian) blue, and 11 ounces of chrome yellow along with lamp black, litharge, japan varnish and linseed oil, all products sold in Louisville before 1840. Farmington brilliantly reflects the Speed’s access to these colors in this early period.

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179 Louisville Public Advertiser (November 6, 1819, 1819).
The family referred to one bedroom whose color strikes the modern viewer clearly as a shade of pink as their “red” room. The original color has been restored through meticulous finish analysis, and there is no explanation for the discrepancy in documentary sources. We can speculate that the high cost of pigments required to create a truly “red” color out of a pot of white lead paint in the first decades of the nineteenth century may have caused a family who wanted a red room to see a red room and to call it as such. Nevertheless, the Speeds certainly made up for any lack of pigmentation in their red room in their other rooms. Chrome yellow’s warmest orange tint colored the walls of one bedroom.
While smalt was still available in the very early 19th century, most Americans now fed their inclination for blues through Prussian blue, a much more economical product with brighter finish. In one room the Speed’s painter stippled Prussian blue onto white to imitate marble, and in a bedroom he brushed a saturated solid blue onto the walls.

The dining room is wallpapered in a strange pattern pedaled throughout Ohio and Kentucky in the first decades of the nineteenth century. In 1816, the year after the Speeds completed construction on Farmington, Henry T. Virchaux arrived in Louisville selling and installing “the newest patterns of French and American paper hangings for dwelling houses.”180 His ad in local papers said that he offered an elegant assortment of papers which he offered for sale “on reasonable terms, and which could be hung “in a beautiful and substantial manner” by the two “first-rate” paper hangers he brought with him from Philadelphia. The market revolution had shortened travel times so that by 1815 Kentuckians, Tennesseans, and Americans in states throughout the West and South who could afford them could be hanging papers on their walls that had only recently been

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printed in France or England. It homogenized styles, too, as the papers westerners bought and installed were identical to papers found in homes in Philadelphia and other eastern American cities.

Nineteenth-century Americans bought a lot of wallpaper. Manufactories popped up in cities throughout New England while the importation of papers from France particularly expanded. The first two references below to domestically made papers appeared in newspapers from 1782, suggesting that it was the high cost of French wallpapers, [in part due to the duties on them], that inspired some Americans to begin their own production selling an “inferior sort” at a dollar a roll.181 Though the argument will strike art historians as inelegant, Americans’ interest in wallpapers was not all aesthetic. Wallpapering was often cheaper than painting when plaster walls were rough, it windproofed rooms, and a busy pattern concealed a world of ills, including disgusting fly specks.

JOSEPH HOVEY has made, and now ready for sale, a large assortment of beautiful PAPER HANGINGS at his shop near the Long-Wharf in Salem, which he will sell cheaper than can be bought in America, for cash, country produce, or almost any sort of goods—An elegant arched pattern suitable for entries, staircases and large room—very neat papers (much approved of) for covering furniture from the dust and flies, and for many other uses…N.B. Papering rooms will be in the end four times as cheap as white washing.182

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181 Nylander et al., Wallpaper in New England 10
182 Ibid.
But other manufacturers marketed their papers on less utilitarian grounds, including the uniqueness of their patterns and colors. In 1813 the Boston newspaper the *Palladium* ran this story about a local wallpaper firm:

We are informed that Moses Grant, Jr. & Co.,....have just completed additional figures of the present fashionable HANGINGS FOR ROOMS, obviating the objection...of too much sameness, by the introduction of a variety of views. The Design, Paper, Colors and Labor are American, and will bear the closest comparison, with imported; they are offered to the public, as specimens of the rapid improvement of this branch of manufactures, added to these, a great variety of Paper and Borders, from 25 cents and upwards, per roll—rendering their assortment so complete, as will not fail to suit any taste.

Since most all pigments in use in decorative trades in that period came from Europe it’s unclear what “American” colors might have been. What is clear is that American wallpaper manufacturers were trying to cash in on the fits of republican fervor that profited other nascent domestic industries in the post-war era. Moses Grant was only one of many entrepreneurs who had been getting into the wallpaper business since the 1790s, selling papers throughout the North, South, and West Indies. Ebenezer Clough, “Paper-Stainer,” sold papers in PLAIN Blues, Greens, Buffs, Red, Yellow, Stone, Pinks, Purple,—Purls, and any other plain coloured Grounds, which the Public may want.” He was doing well
enough in 1795 that he wanted to hire three or four “active LADS” as apprentices.¹⁸³

Domestic wallpaper manufacturers proliferated through the first decade of the nineteenth century. Documentation shows that Moses Grant sold papers in Connecticut, Maine, Rhode Island, and Ohio, and another paper stainer even moved to Ohio. In 1810 manufacturers of wallpaper in Massachusetts alone produced 22,500 rolls. Letterheads and advertisements of the period show that the tendency of paper stainers and retailers in the late 18th century was to advertise that their papers were in the latest English or French styles; by the 1790s mentions of French papers had eclipsed English. But by 1810 many, like Zechariah Mills, chauvinistically chose to promote “their fashionable Paper-Hangings and Borders, of the newest Philadelphia, New-York and Boston

¹⁸³ Ibid.
Patterns; together with those in the Hartford stile, not inferior to any.”\textsuperscript{184} The sophisticated wallpaper production in England and France, however, still posed the greatest threat to the domestic industry. Much as they had with domestic textiles, sales figures demonstrated that Americans clearly preferred the quality and coloring of French papers more, and for that reason American paper companies welcomed the Napoleonic wars for the convenient interruption to French wallpaper importation they provided. Afterward, when French papers began flooding into the United States again they desperately begged the federal government to impose a high duty on them.

The great technological development in wallpaper production, just as in textile production, was cylinder printing. Long continuous rolls of paper or fabric run around an engraved copper cylinder that could be repeatedly inked and therefore print an unlimited length meant the ultimate end to hand production for all but the most expensive and detailed work. (French scenic wallpaper would be printed by hand throughout the century, being modified for modern production methods only in the 20\textsuperscript{th} century. See discussion of them later in this chapter.) In both wallpapers and textiles the technology largely dictated the design of the product, at least in the first few decades of its development. Early cylinder printers used narrower rolls of paper and fabric than we see today. The prints they generated, therefore, tended to be narrow and vertical in design. One of them most popular genres of cylinder-printed wallpaper in the late 18\textsuperscript{th} and early 19\textsuperscript{th} centuries was architectural papers, and specifically what was called “pillar and arch” patterns. Because of their scale, and possibly grandeur, they were especially

\textsuperscript{184} Ibid.
recommended by paperstainers for use in hallways and large spaces, like parlors. That is indeed where most of their vestiges have been found.

Two examples of "pillar and arch" papers. The example on the left does not give the sense of verticality and narrowness of the paper strips, although it does represent the many airier, more Rococo patterns of these papers. The example on the right is an early reproduction (1909) of the pillar and arch paper found at the Paul Revere house.

Even with their narrow repeats dictated by the narrowness of the paper in production then, these wallpapers were ambitious and impressive. Manufacturers wanted to give their customers choices, so most were produced in several colorways. A wallpaper manufacturer’s sample book in the collections of Old Sturbridge Village with papers from 1821 to 1828 shows that seven of its thirteen patterns were printed in at least two colorways, and four other patterns came in at least four colorways.185 These vertical patterns appeared on fabrics in the same period, and have been preserved in quilts.

185 Ibid.
Investigations of the finishes at Farmington conducted in the 2000s revealed that two rooms had been papered in the house’s early history but no vestiges of the paper remained. Curators chose two papers from among those they knew to have been sold in Farmington’s area before 1830. One paper they selected had been found on a wall at another Benjamin Henry Latrobe-designed house owned by Sen. John Pope, in Lexington, Kentucky. The Pope Villa as it is now known is a Federal building designed in 1815, the point which marks the beginning of the stylistic evolution from the late neoclassical to the Picturesque, (discussed in Part Two of this dissertation). The Villa is currently being restored, and despite the general decay of the place the house documents
several early nineteenth-century wallpapers most likely produced in the Philadelphia area, many of which have been reproduced for retail sale and restoration projects. The dining room of Farmington now features the “charmingly bizarre pebbles and flowerpot” paper discovered in the Pope Villa’s dining room.\textsuperscript{186}

For the other room in Farmington that had originally been papered curators chose a more characteristic paper from the period, another design sold by Virchaux.

Farmington’s parlor is now swathed in “Festoon Frieze”, a “drapery” wallpaper very

common in the period and a style in which the French were experts. Drapery papers’
sumptuous folds and colors stemmed directly from Europeans’ obsession with the tent
rooms inspired by Napoleon’s battlefield campaign tents. Festoon wallpapers were a
much cheaper way of affecting the appearance of living in a tent than shrouding a room
with swag after swag of yardage. Typically a lacy border with a net pattern accompanied
the festoon paper, and this design appeared in houses all over the United States. In 1814
for instance, the Arnold Family of Woodstock, Connecticut hung a drapery paper with a
border printed in green, orange, red, and white on a yellow ground. The color scheme
is very similar to those festoon papers printed by the American firm of Moses Grant, Jr.
and Co. Though the craze for tented rooms subsided rather quickly such wallpaper
patterns had a lasting effect on the aesthetics of the American home. Some festoon
papers were still in place in American rooms at the turn of the twentieth century.

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187 Nylander et al., *Wallpaper in New England* 115
Virchaux was one of many representatives circulating through the American interior hustling wallpapers to customers who, by 1840, represented almost all classes of Americans. “PAPER HANGINGS. 1350 PIECES paper, compressing an entire new style of patterns, with velvet and common borders to match” ran an advertisement in an 1835 Louisville newspaper. In the nineteenth century borders usually accompanied the use of wallpaper. Especially colorful and bold, sometimes embellished with gilt, glitter and textural elements, borders added to the overall numbers of colors and visual complexity of the space, in addition to framing it. This ad appeared just above one reading: “Just Received by Steam Boat Revenue 35 reams of white and colored letter
paper and 3 hogsheads of madder.” By 1840 color once shipped in small packages of an ounce or two was arriving by the ream, and the hogshead.

One hundred and fifty miles south of Louisville in Nashville, Tennessee Andrew Jackson decorated a home that was just as colorful as the Speeds’. His original purchase of an estate of some four hundred acres worked by fewer than 10 slaves in 1804 had expanded to nearly a thousand acres and almost 50 enslaved people by 1820. During his first term in the White House from 1828 to 1832 Jackson classicized his Federal-style farmhouse into The Hermitage—a grand Greek Revival mansion with a two-story Doric portico and large wings flanking the main house. The transition from its crisp white exterior to its color-saturated interior was dramatic in the 1830s and it still is, as approximately 95% of Jackson’s home is intact from that period. A celebrity in his own day, Jackson’s real and moveable property were preserved from the beginning, much like mementos of Washington’s time on Earth.

Jackson decorated The Hermitage to reflect his personal social status and to prove that Nashville was no frontier backwater. He took advantage of the benefits the market revolution offered to slather his home in color. Among other things he purchased six rooms’ worth of wallpaper with borders, bed and window curtains, and lots of upholstered furniture. He drenched his dining room and office in Prussian blue, which was still fashionable as a paint color in the first three decades of the nineteenth century, even among more notable Americans. In the 1820s in what is now Bethany, West Virginia for instance, Alexander Campbell, a prominent figure in the religious revival known as the Second Great Awakening and founder of Bethany College, painted the woodwork in his parlor in Prussian blue, and installed a French scenic wallpaper. These
choices made the statement that flashy colors and a reputation for moral restraint were not mutually exclusive.  

In Nashville Jackson furnished his office with a deep forest green upholstered couch and russet red tufted chair and juxtaposed them against the saturated blue of the walls. In his bright blue dining room the furniture rests on a fancy-painted floorcloth and fancy grained mahogany doors attesting to the fact that in the early nineteenth century the custom of faking exotic woods like mahogany in the midst of a virgin timber forest was still an irony lost on Americans.

188 At the same time Prussian blue, as a dyestuff, was creating pops of blue on the cheerful calico fabrics being cranked out of new American textile mills in the Northeast.
A visitor to The Hermitage was made instantly aware that this home was fashionable. For the walls of its entrance hall Jackson purchased one of the panoramic French scenic papers then in vogue. Designed to look like hand-painted murals of exotic locations and sometimes featuring romanticized violence drawn from historical events—battle scenes, first encounters between explorers and aboriginal people—French scenic papers set the bar for lush, luminous, decorative color. Although they had been available in the colonial era to extremely wealthy customers, mural papers were the new high-end choice replacing “oriental” papers in a now cosmopolitan country formerly known as the American frontier. According to the practical guide to paperstaining James Arrowsmith published in the 1850s, Chinese, or “India” papers were still in production but rarely used. “In regard to borders for India paper, I can only say I have seen them the richness of the colours of the papers, but none have come under my hands. The “India” papers may have provided the inspiration for the scenic papers. “Their boldness of scale and
bright freshness of coloring was doubtless suggestive to French manufacturers.” Mural papers delivered the same punch of color as they also narrated a story. French scenics also added a much greater depth of field to their landscapes to aggrandize any interior spaces that displayed them. Their timing exploited the interest in panoramas as a form of art and amusement developed in the late 18th century. In 1799 Robert Fulton himself had opened two panoramas in Paris, one of a garden scene and the other an historical battle.189

The publishers of scenic papers boasted their didactic qualities; the extra expense for a scenic paper paid for the bonus of a Eurocentric history lesson. Jackson’s paper told the story of “Telemachus,” the heroic character of the first four books of The Odyssey, who goes in search of his father who has not returned from the Trojan War. The paper was manufactured by the famous firm of Zuber, a regular supplier to rich and famous Americans and the best known producer of scenic papers. In 1804 the French firm of Dufour, the other great supplier of mural papers, published one of the most colorful—in every sense of the word—papers of the 19th century. Sauvages de la mer Pacifique,” or the “Captain Cook” wallpaper was introduced during a time of great interest among

189 Lynn and Cooper-Hewitt, Wallpaper in America : From the Seventeenth Century to World War I 185
Europeans in the exotic, and its depiction of the voyages and death of Cook won an award at an international industrial exhibition in France in 1806. The scale of the paper is massive, (the biggest of its time) and spreads across twenty panels. Cool blues and greens compose the background of palm trees, water, and a smoking volcano, against which the brilliant vermilion, ultramarines, and golds of the natives’ dress pop. These are no mere noble savages; they are supremely elegant. Some dance in diaphanous gowns; others rest casually and classically contrapposto on their canes and oars. Dufour’s masterpiece was made from smaller sheets of paper attached to one another in one continuous roll, which was then painted in a water-based ground. As many as 60 carved blocks were then used to print the colors of each panel, with final details stenciled on in goache.

*Sauvages de la Mer Pacifique* made Dufour’s reputation, allowed him to move his production to Paris, and jump started a lively trade in scenic and other papers with the
United States. Former President Monroe selected a Zuber paper--“Eldorado”--for his home Oak Hill in 1848. Henry Virchaux sold Zuber papers throughout Ohio, Kentucky, and Tennessee, but there were other vendors in the area. The Louisville papers the Speeds read contained advertisements for “a few views, as the garden of Paris, Chase, &c. this day opened and for sale by Jacob Reinhard & Sons.”

Due to their brilliant coloring and well executed designs, the popularity of French papers was such that American manufacturers felt the necessity of arguing for imposing a forty-percent increase in duties on imported papers in 1824. In 1842 the tariff was reduced to thirty-five percent, and by 1846 twenty percent. Congressional Democrats had been fighting for lower tariffs for decades, and the French wallpaper industry was one which benefitted in the short run. American paper manufacturers didn’t take protectionism for granted, honing their trade enough that by the time the tariff had dropped American manufacturers had taken most of the business through their competent production of quality papers. In the market only the highest-end French papers, like the scenics, saw any real demand.

One thing French manufacturers did to insulate themselves against market fluctuations was to produce designs with American themes. A panoramic series of 1834 called “Vues d’Amerique du Nord” from publisher Zuber and artist Jean-Julien Deltil contained thirty-two lengths of paper block printed in many colors, and displaying different scenes. One panel showed fashionably dressed Americans recreating at the Natural Bridge, presumably the one in southwest Virginia, which was long a popular subject for painters working in Virginia and Maryland. Bonneted women wearing bright pink, bronze and red gowns with the ridiculously large leg-o-mutton sleeves of that era, and their elegantly dressed male escorts populate the foreground. In mid picture plane about thirty of their

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fellow travelers cram into, and on top of, an impossibly overloaded ochre and steel blue mountain coach, drawn by a single horse whose life expectancy is too painful on which to speculate. The backdrop of warm and cool greens of a heavily wooded landscape fades into the blue-grey distant background of the Natural Bridge itself, which conveniently frames the upper half of the composition. It took several years to cut the hundreds if not thousands of blocks necessary to fabricate just one scenic wallpaper like this one, to create the lushness of these colors block over block. There was so much invested in the fabrication of the wood blocks used to print these papers, in fact, that the march of history meant that the introduction of a new paper meant changing the characters in the foreground while backdrops remained the same. In 1852 Zuber’s artist Deltil manipulated the panel showing the stagecoach at Natural Bridge, replacing the top-hatted revelers in the foreground with tri-corn wearing revolutionaries engaged in battles for their set of papers called “Views of the American War of Independence.”

Jackson worked on decorating The Hermitage for many years and by the time he ordered his scenic wallpaper he had already finished his two terms as President. Scenic papers were ending their tenure in the U.S. at the same time. Americans stopped buying them, and in the 1850s James Arrowsmith suggested a couple of reasons why this may have been. “Demand for this beautiful kind of paper, vying with the richest colours in nature, was always, from its great value, confined to palaces and mansions of this country; and the great improvements in the English and French paper-hangings have rendered that demand still less, so that, at present, the paper-hanger is scarcely called upon to hang it…The fabric being made of brittle materials, and the breadth of the paper considerable, great care is required in handling it: except this, the hanging of it is easy

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191 Lynn and Cooper-Hewitt, *Wallpaper in America: From the Seventeenth Century to World War I* 194
and agreeable, as the colours are not liable to be moved by the moisture of the paste.” An additional problem was matching the patterns pieces as Arrowsmith claims they were rarely cut well enough to fit the pieces together exactly. This is a credible complaint, as the photographic record of the cylinder-printed papers hung in American homes in this era show a marked tendency for both paper stainers and hangers toward incompetence. To remedy this problem of alignment paper hangers would cut out some small details in the paper, such as a bird or sprig or butterfly, similar to the mosaic work ladies had done in Thomas Hancock’s day, “to form a kind of communication, so as to be agreeable to the eye.”¹⁹² What the scenic papers may have lacked in precision they made up for in permanency. Six full rooms of Andrew Jackson’s wallpapers, including his gorgeous scenic paper, are still on view in The Hermitage nearly 200 years later. This fact is a testament both to Jackson’s celebrity in his own day and Americans’ concomitant quest to preserve his real and moveable property, and the quality of these wallpapers. The scenic papers particularly are notable for their longevity, because, as Arrowsmith pointed out in 1856, their colors were “not liable to be moved by the moisture of the paste, nor other environmental factors” as long as they were protected from the sun. The beautiful colors of these scenic papers may have lasted and lasted, but the fashion for them did not. After 1840 their like only reappeared on American soil in any significant way when the Zuber firm reconfigured their blocks to be able to print this series more cheaply in 1927.¹⁹³.

The parlor of the Short House, Newbury, Mass. Photo taken circa 1910. Sometimes it was contractor error as opposed to manufacturing flaws that caused installation problems like this one, with what is most likely a cylinder-printed paper. Nylander, Wallpaper in New England, p. 147

The Hermitage, Andrew Jackson's bedroom with its original wallpaper and reproduction curtains (left); color chart for furnishings
Of this subject of how Americans in the early nineteenth century used wallpapers scholars have had a difficult time summarizing. With their broad swathes of wallpaper and limited use of woodwork painted in a coordinated color, it appears that The Hermitage’s rooms reflect the modern style of decorating historians argue had just begun in the third quarter of the eighteenth century. Some others, including Jackson’s contemporaries, have made the “obvious” observation, too that in the eighteenth and nineteenth centuries “the larger-scale, more elaborate, and more formal papers were preferred for halls, sitting, and dining rooms, while small-scale patterns, especially repeating floral ones, were preferred for more intimate rooms like bedrooms. This generalization again appears to hold true at The Hermitage and in many other sites in the American interior where research on the use of decorative color and pattern has only been conducted in the last fifteen to twenty years. But if there were vague guidelines for the use of pattern in the American home before 1840 there was really only one rule for color—the more, the better. An extraordinary American in so many ways, in his flagrant use of decorative color Andrew Jackson was unexceptional. The homes of Jackson’s
inner circle of friends reflect their owners’ comprehension of this maxim. Certainly
Jackson’s closest friend and trusted political advisor Judge John Overton understood it.
A “queer-looking little old man” with a “round, prominent, gourd-like, bald cranium” and
no teeth, Overton lived on the other side of Nashville from Jackson, and when he
decorated his home in 1828 to reiterate his close connection with the Presidency he, too,
selected vivid color. The wallpaper he chose for the dining room where he hosted guests
as illustrious as Jackson, Senator Thomas Hart Benton, Sam Houston, and Peggy Eaton,
featured a large-scale vertical pattern common to cylinder-printed papers in that decade
with very bright bands of chartreuse, chrome yellow, and white.

A dirty fragment of the Overton’s original paper was discovered under woodwork
removed from the room during a restoration in the 1990s and the site’s caretakers
commissioned a replica. Reproduced accurately, the paper was deemed too distasteful
169
Paintings of American interiors from the period of 1800-1840, however, clearly show that the Overton family was not alone in their fanciful decorating sense. A little bit of chartreuse, in fact, might have gone unnoticed in the homes of many Americans whose place in the world now allowed them to consume color in the way only their wealthier neighbors had in the past. Until the mid nineteenth century some papers continued to be offered in both block-printed and cylinder-printed versions, with the block version’s costing more because of the expense of hand labor and the difficulty of registration (lining the paper up perfectly each time for the next application of color).

Although the homes of the wealthy are overwhelmingly where the research has been conducted that has rediscovered these papers, the majority of wallpapers sold in England and the U.S. in Jackson’s day were not sold to wealthy people and both their makers and purchasers have remained anonymous. Few of the low-end wallpapers
survive today as cheap paper tended to turn brown and brittle over time and was replaced in the homes of all but the most inured to ugliness.

![An early nineteenth-century ungrounded wallpaper, printed in two colors, showing how unattractive these cheaper papers could become with age.](image)

The most important determinants of a wallpaper’s cost were the number of colors used, the quality of their pigments, and the paper on which they were printed. A pattern printed in only one or two colors would be considered a “cheap” paper. A wallpaper could be made even less expensive by printing onto “ungrounded” paper or a colored paper. Special effects and extra steps, such as polishing to achieve a satin effect, could be dispensed with to keep costs down.\(^\text{194}\) In both Great Britain and the United States “the social acceptability of paper hangings, as alternatives to plaster, ‘wainscotting’ or textiles, went hand-in-hand with their technical development.”\(^\text{195}\) Cylinder printing created economies of scale, and along with the competition proffered by a strong American

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wallpaper industry, gave Americans more choices and lower prices on wallpapers than they had even known. By 1830 cylinder printing and the factory production of wallpapers had brought the cost of them within the reach of most Americans and their bright colors and patterns ensured their appearance on walls throughout the country, in urban and rural places, in modest homes and even less-than-modest homes. By 1851 an English encyclopedia of industry announced that cylinder printing technology had advanced to the point that papers produced with it could finally compete with block-printed papers, and “some of the London houses have recently succeeded in producing beautiful specimens by the cylinder, in which six or eight colours are printed by one passage through the machine.” The machine described could supposedly print 200 pieces of 12-yard-long paper in one hour, or 18,000 yards per day. With these developments “the permanent market for wallpaper” in this period came “from humbler homes where, more than anywhere else, life could be a little brightened and improved.”

The strongest surviving evidence that the colorful wallpapers of the early 1800s had become truly affordable to all Americans may be the bandbox. Uniquely American, the bandbox began its existence as a gloriously colored wallpaper that was then applied to a thin box of paper construction. Bandboxes served for hat and general storage and even lady’s luggage. Their practicality and strong colors were embraced by the “troops” of young women recruited to work in the textile factories of the Northeast, whose dormitory rooms must have been made brighter by their presence. No article of the American material world was more republican in spirit than the bandbox. An 1882 description of

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196 Entwisle, *A Literary History of Wallpaper* 97
197 Entwisle, *The Book of Wallpaper; a History and an Appreciation* 15
the mill girls of the 1830s could not describe their appearance at the Lowell factory compounds without noting the bandboxes they carried with them. “The bandbox [had] a New England history almost coeval with that of Lowell. It began to be made in perfection about fifty years ago in Jaffrey, N.H., by a woman named HANNAH DAVIS, who manufactured the first nailed bandboxes in the country and made herself rich thereby…A very curious sight these country girls presented to young eyes accustomed to a more modern style of things. When the large covered baggage-wagon arrived in front of a block on the corporation, they would descend from it, dressed in various and outlandish fashions (some of the dresses, perhaps, having served for best during two generations), with hair done up in (to us) almost impossible ways and with their arms brimmful [sic] of bandboxes containing all their worldly goods.” Ephemeral but ubiquitous, bandboxes appeared in homes for decades. Despite its practicality, the fashion for the bandbox was moribund by midcentury, (when it was superseded by the carpet bag) and by the 1880s its demise had been assured by the much larger, and ostensibly stronger, “omnivorous Saratoga” bag that had “swallowed them all up.”

198 Phebe Ann (Coffin) Hanaford, Daughters of America (Augusta, Me.: True and company pref, 1883).
Many of these bandboxes, and Judge Overton’s dining room paper, display a type of decorative motif made possible and popular by this new technological development, cylinder printing. Known as irisé in France and “rainbow” in the United States, parallel bands of colors were printed onto a surface and these colors allowed to slightly merge into one another, blending them in soft lines and creating gradations of color in the ground. The paper’s pattern and other colors would then be printed over this background. The technique for creating the irisé effect was “zealously” guarded by the Zuber factory, the first house to create the patterns invented in 1819 in Vienna, and the first published description of them read “If you imagine a container of colors divided into more or less narrow compartments and a rush long enough to enter all the compartments at the same time, the whole mystery will be revealed.”\textsuperscript{199} The Zuber firm revealed the mystery when they patented their process, even figuring out how to achieve it in their block-printed

\textsuperscript{199} Nylander et al., \textit{Wallpaper in New England} 141-144
papers. An English dictionary of arts published in 1839 called the process “fondû”, saying it required “an assortment of oblong tin pans, fixed in a frame, close side by side, each being about one inch wide, two inches deep, and eight inches long; the colors of the prismatic spectrum, red, orange, yellow, green &c. are put in a liquid state, successively in these pans; so that when the oblong brush... is dipped into them across the whole of the parallel row at once, it comes out impressed with the different colors at successive points.” The brush would then be rolled over a woolen drum head or sieve, and then transferred to the paper. Wallpapers executed in rainbow designs probably brightened a room better than the shadowless astral or sinumbra lamps perched on center tables everywhere in middle-class American homes by 1840.

Two windows shades made in the late nineteenth century in the style of shades made circa 1840, and using wallpapers from that earlier period

Lynn and Cooper-Hewitt, *Wallpaper in America: From the Seventeenth Century to World War I* 274-277
Rainbow patterning appeared on more than wallpapers. Fabrics and ceramics featured rainbow coloration in their decoration, and the overall effect of many of the furnishings of the period on the American home was indeed kaleidoscopic. Venetian rugs laid rainbows over plank floors; bands of color on printed window shades cast the spectrum on interior walls. Even furniture in this early period of the nineteenth century could be quite colorful. Hepplewhite’s straight tapering chair and table legs and flaring bracket feet and Sheraton’s square back and reeded legs can be seen in fine furniture throughout the United States in the early nineteenth century, but these forms were frequently coated in colorful paints. Both Sheraton and Hepplewhite promoted decorated furniture; Sheraton was closely enough associated with the style that the name “Fancy Sheraton” came to mean a certain style of painted furniture. Boston furniture maker Samuel Gragg’s patented method of applying steam to wood to create chairs with incredibly smooth flowing lines in the style of Grecian designs aided them in achieving the Greek klismos chair shape they endorsed early in the nineteenth century, and the empire style they advanced after 1815. Most of the furniture of this period, though, came out of Baltimore and Philadelphia in the form of chairs, settees, commodes and secretaries, girandoles, mirrors, lampstands, bedsteads, and window cornices painted in the new pigments and upholstered in the brocade and damask furnishing fabrics the domestic textile industry was finally able to manufacture of a competitive quality. The most common fancy article of furniture was the chair.

The classic American windsor chair and rocker, it will come as a disappointment to many to learn, were not the austere, unfinished American icons they are remembered to be. For most of the nineteenth century these chairs were usually painted a vibrant
shade of red, yellow, or green--the same cheery but utilitarian colors that wagons and
carts would be painted to protect their wood throughout the century. Paint served a
similarly mundane function on the windsor, which were most often painted green, as the
paint concealed and homogenized the variety of woods in the chair--hickory for its
flexibility and pine for seats because it was easy to carve.

After 1810 the more restrained classicism of Sheraton and Hepplewhite evolved
into more authentically Greco-Roman designs and ornament, and this change is
responsible for the large number of highly colorful klismos chairs residing in American
museum collections today. The name most closely associated with polychrome painted
furniture in the early 1800s is that of two Irishmen who ran a shop in Baltimore. The
Finlay brothers advertised that they made fancy furniture in “all colors”, though the
predominating finishes were yellow, red, and later black (the Pompeian color scheme)
and rosewood graining. In 1805 they advertised their “CAN SEAT CHAIRS, SOFAS, RECESS and WINDOW SEATS of every description and all colors, gilt ornamented and varnished in a stile not equaled on the continent—with real Views, Fancy Landscapes, Flowers, Trophies of Music, War, Husbandry, Love &c. &c.” The style diffused through the East before heading everywhere West. The firm finished their highest-style furniture with both freehand and stenciled paint and gilding, rendering it even more like the furniture of ancient Greece and Rome, but continued offering the scenic cartouches, frequently landscapes of the customer’s hometown, as adornments.

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Much of the fancy graining applied to furniture at this time was certainly done by the fancy painters working far from furniture manufactories who recognized the marketability of the style and had the skills to execute it. An alternative to the city-made fancy chairs of this 1820-1840 period were the famous “Hitchcock” chairs whose reproductions are still so familiar to baby-boomer Americans from the post World War II era’s Colonial Revival movement. From roughly 1830 to 1850 Lambert Hitchcock mass produced stylish chairs in his Hitchcockville, Connecticut shop, for $1.50 each. The chairs were first grained with red and black paint, then stamped over multiple paper stencils with bronze powder, a metallic highlighting powder that would be in continuous use through the nineteenth century. The use of multiple stenciled allowed variations easily, and yet the chairs have a uniform look.\textsuperscript{202} Cornucopias were a favorite stencil not

\textsuperscript{202} Whenever I see them at auction houses I look to see how many differences I can find in what is usually billed as a “matched” set.
just in Hitchcock chairs but in other makers’ work as well as this design fit comfortably within wider slats and crest rails.

Stenciling became immensely popular from 1800 to 1840. It was much faster than freehand work and did not require the skills of an artist to execute well, so it quickly became a comfortable decorative tool in the hands of professionals and amateurs alike. Where interior walls were not papered they might be stamped or stenciled. In 1832 either Sally or Pamela Brown of Plymouth Notch, Vermont, recorded in their joint diary that two men had come to paint their house “in imitation of paper.” The painters mixed their pigments with skim milk “for whitewashing” (presumably as the background to the stenciled patterns) and “used rose pink to make lilac or peach blossom colors mixing it with Spanish white and milk____yellow and prussian [sic] blue for green.” For this work, which they finished in only two days, they were paid six or seven dollars.203 Entire stenciled rooms appeared in homes throughout the country, though few of the them have been preserved. The Shelburne Museum in Burlington, Vermont, owns a house with several rooms treated in this way, predictably call “Stencil House” that they acquired in 1953 when the house’s old, torn wallpapers revealed the hidden ornament preserved beneath in the house’s three public rooms. The small, side-gabled farmhouse typical of New England was built in 1804 in Columbus, New York and probably decorated between 1820 and 1830.

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In some places stenciled decoration has been authenticated and restored, as is the case with the William Tecumseh Sherman House in Lancaster, Ohio.
Stenciled decoration restored in a bedroom of the William Tecumseh Sherman House in Lancaster, Ohio. The house is owned and maintained by the Fairfield Heritage Association.

Attributed to Joseph H. Davis, the Hayes Family, Strafford, New Hampshire, watercolor, ink, and graphite on paper, 1835, collections of Colonial Williamsburg Foundation
Genre paintings suggest the aesthetic freedom that stenciling afforded Americans before 1840, and its patterns and colors fit so well into their highly ornamented rooms that it can be difficult to tell whether a wall was covered with stenciling or wallpaper or a floor with an ingrain or “Scotch” carpet, a Brussels, or a floorcloth (which could be stenciled). An 1835 family portrait attributed to the wonderful American painter Joseph Davis shows the Hayes family of Strafford, New Hampshire seated in fancy painted yellow chairs flanking a grained table. The floor is covered either with a floorcloth or in paint in an elaborate, floorcloth-like pattern, or a carpet. George Freeman’s 1816 watercolor portrait of Elizabeth Fenimor Cooper, the wife of Judge William Cooper and mother of novelist James Fenimor Cooper, shows her seated in an airy yellow room with what looks like a columnar wallpaper and a painted floorcloth or carpet. The room shows that the trend to decorate rooms sparsely with furniture arranged at the walls survives from the colonial era. In the left portrait painted by Jacob Maentel Mrs. Jonathan Jacquess takes time out from her pious reading, (as the book is most likely a Bible), to show off her tasteful stenciled walls and carpet, in much the same way as Mrs. Cooper had twenty-five years earlier.\footnote{The Maentel portrait is owned by the Colonial Williamsburg Foundation and the Freeman painting by the Fenimor Museum.} It is interesting to note how similar the two paintings appear on the surface, despite the exaggerated depth Freeman imparted to Mrs. Cooper’s room, (no doubt demonstrating his facility with perspective) and the flat, foreshortened plane of Mrs. Jacquess’ room. The eye is almost immediately drawn past the sitters to the colors and pattern of the two rooms, an effect that one would imagine pleased the decorators if not the subjects.
Like many of the decorative techniques that appeared on walls and doors, stenciling moved to the surfaces of smaller objects. White lead paint tinted with chrome colors lent itself beautifully to both freehand work and stenciling; some of the objects illustrated display both techniques.
One aesthetic avocation deemed acceptable for nineteenth-century American women to engage in was theorem painting, and in fact it was taught in ladies’ academies. Theorems were stenciled artworks applied to a number of surface types, including silk, velvet, board, and other objects, including furniture. The technique was fairly simple and as the period progressed decorators could purchase manufactured stencils in a wide variety of patterns, allowing those untrained in so-called “fine” art (which was almost all Americans) to create art for their own homes. The most common motif in these paintings was a lush basket of fruit, often surrounded by garlands of flowers in full bloom. Compositions were formulaic; the shape of the object usually dictated the form of the stencil to be applied. The best theorems approximated three-dimensional space, but most appeared in only two. Theorems had many critics in their own day and ours, but the number of theorems that have survived from this early part of the nineteenth century
suggests that they offered something in the way of artistic expression and entertainment for those who made them.

Stenciled and printed color adorned the tablecovers that came into use in American homes after 1825, particularly as the locus of the household more and more became the family’s parlor table.²⁰⁵ Related to painted floor cloths, oilcloths were initially block-printed, probably by professionals, and used mostly for decoration. Extant oilcloth table covers show four or five bright colors printed in great detail by “picotage” blocks fashioned with hundreds of tiny pins, over a foundation of black oilcloth. In her seminal book, America’s Printed and Painted Fabrics, 1600-1900, Florence Petit illustrates one such painted tablecloth in a Pennsylvania collection, with an eagle with outstretched wings encircled in a central medallion, printed in six colors. A true rarity in museum collections now, Americans owned many, many oilcloth tablecovers in the period of 1800 to 1825 which they most likely discarded outright when their colors

²⁰⁵ Discussed in Part 2 of this manuscript.
started flaking off or used to line dog beds or carriage floors. Like floorcloths, oilcloths were probably made by machine after 1825. But unlike floorcloths it’s difficult to find any vitriol about them among nineteenth-century novelists. They piqued instead fond memories for a character written by Mark Twain in *Huckleberry Finn*, who saw the colorful pattern as the foundation for a family’s well ordered and literate life. “The table had a cover made out of beautiful oilcloth, with a red and blue spread-eagle painted on it, and a painted border all around. It come all the way from Philadelphia, they said. There was some books, too, piled up perfectly exact, on each corner of the table. One was a big family Bible full of pictures. One was *Pilgrim’s Progress*, about a man that left his family, it didn’t say why. I read considerable in it now and then. The statements was interesting but tough.”

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The objects illustrated above typically combine pattern and ornament with color. But in some communities, particularly those of the many Utopian religious societies, ornament was unwelcome where color was warmly invited in. Their visual impact on the material world of the early nineteenth century comes from color alone. Among those who left Philadelphia in the early nineteenth century for the West were members of a German religious sect who indulged their love of decorative color with the liberal use of chromium pigments. Persecuted at home in the Reich of Wurttemberg (near Stuttgart,
Germany) for their pacifism and refusing to send their children to state schools, the Separatists who came to be known as Zoarites left Germany for Philadelphia in 1817, where they were welcomed by the Society of Friends of that city. Some months later the sect’s leader Joseph Bimeler paid $16,500.00 borrowed from the Quakers for a 5,500-acre tract of property in Tuscarawas County, Ohio to serve for their new communal home, Zoar, named for a refuge described in Genesis 19.\textsuperscript{207} In their first years in Ohio the sect occupied rough-hewn log structures, but by the 1830s the Separatists had installed a rather sophisticated greenhouse and begun building brick structures embellished with the sect’s own, quite particular, color scheme. For this color scheme, it appears there is no record of explanation. In 1835 the Zoarites constructed a large Georgian-style brick home with limestone quoins for Bimeler and the Society’s elderly, which they named the Number One House. A huge, carved wooden seven-pointed star painted in bright red, blue and yellow inlaid on the ceiling still hovers over the central stairway in Number One House. The star may have referred to a comet or star that was seen in Europe in the 18\textsuperscript{th} century and supposedly foretold the end of the world. It may also have represented peace and goodwill; nevertheless, the star’s outline appeared throughout the village, in the layout of the gardens fronting the greenhouse and the embroidery on the Separatists’ clothing. Despite the size and brightness of the star in the Number One House, it’s unlikely that visitors there would have quickly noticed it, given its position and the competition it faced for visitors’ attention among other architectural elements in the building. The woodwork in Number One House—wainscots and baseboards, stair risers, and doors—was, and is still, brilliantly decorated with paint. The

\textsuperscript{207} Charles Ballinger, \textit{Harvest: Gleanings from Ohio's Farm Village Heritage} (Orrville, Ohio: The J.M. Smucker Company.)
woodwork seems to display a uniformity of scheme—red stiles and rails with fancy
grained panels, with door beads or baseboard cap moldings picked out in a highlighting
green. The doors of Zoar, in fact, did more than shut out the world, they offered a
dazzling polychromatic display.\textsuperscript{208}

\textsuperscript{208} There is little uniformity of tint; the beads vary between bright chrome green and a very yellow
chartreuse; the graining appears to imitate different woods on different doors. The variations may be
explained by the fact that the building is quite large for its time with lots of woodwork, and in an era when
paints were still made on site one batch at a time, matching colors precisely would have been tough. Too,
the millwork may have come from as far as the Western Reserve, and the woods may well have been
different and accepted color differently.
Even the nineteenth-century religious communities most identified with a chromophobic lifestyle gravitated toward the chrome colors, it appears. If it is true that Elias Hicks, the leader of Quakers, opposed improvements, teaching “that if God had wanted the Erie Canal, he would have put a waterway there” it did not apply to other religious sects who took advantage of what the market revolution offered them, including access to color. Much more connected to technology they’re usually credited with being, the Shakers harnessed steam power to their textile fulling mills, painted their homes and even meeting houses inside and out with bright, cheerful colors, grew and purchased dyes for their commercial carpet-making business, and at the end of the nineteenth century promoted their seed business through chromolithographed point-of-purchase displays. Shaker communities throughout the United States, from the large

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Hancock Shaker village in Massachusetts to the tiny community of South Union, Kentucky outside Bowling Green, purchased chrome colors on a regular basis for a variety of applications, according to their well kept account books. Even at South Union they bought full *kegs* of white lead and “green and blue”, most likely pigments as opposed to dyestuffs, and most probably chrome green, although they also purchased much of their dyeing matter, (whatever they did not grow) from outside the community.\(^{210}\)

The argument that the Shakers shunned color was first advanced by a handful of collectors of their furniture in the late nineteenth century, who insisted that the Shakers lived out their sexless lives surrounded by complimentary whitewashed walls and virgin woodwork. To give their position credibility they sanded and stripped every piece of Shaker furniture on which they could lay their hands. This speciousness was rewarded with academic acceptance which lasted through most of the twentieth century. Among the general public who even have a clue who the Shakers were it is believed that they were just as celibate with their use of color as anything else, and so the idea that Shaker villages were devoid of color has hung on, a mistaken paradigm with an intellectual death grip. Recent scholarship, though, has attacked this idea. Some Shaker historic sites have been willing to restore the original occupants’ original colors, but they have done so with only a handful of rooms or furniture pieces, thereby containing the color and the public reaction to it.\(^{211}\) Nevertheless, the results have been truly breathtaking. Professional

\(^{210}\) Shaker Journal 1814-1911 Miscellaneous, Collection of Western Kentucky University, MSS 64 B1 F1. Sometimes the records specify “chrome green”, sometimes just “green”.

\(^{211}\) The disappearance of these early colors at Shaker historic sites resulted from a combination of factors, including prominent turn-of-the-century collectors who stripped the old finishes coincident with a modernist aesthetic that eschewed bright color, and the Shakers’ own habitual cleanliness, which meant decades of washing their furniture with lye soap. At the end of the nineteenth century some Shakers themselves removed the old, patchy, out of fashion finishes. The cost of restoring original colors—from
finish analyses performed on clapboard buildings and built-in cupboards, doors, wainscots, and other articles collectors were unable to detach and denude, has revealed that Shaker communities made shockingly liberal use of bright synthetic and mineral colors in the years before 1840. Not only did the Shakers not eschew color, they celebrated it in their architecture and even liturgy, painting their walls and cabinetry in even their private spaces with vibrant blues of varying hues and chrome yellows, greens, oranges and reds. The sky blue color made by Prussian blue found in almost every Shaker meeting house was doctrinally prescribed, although the current caretakers of the remaining buildings of the long defunct Shaker village in the Miami Whitewater area west of Cincinnati have learned very recently that this community broke with tradition when they applied a heavily pigmented deep red varnish to the trim in their meeting house. Research conducted for this dissertation reveals that there is a strong documentary case to be made for Shakers’ reliance on both pigments and dyestuffs in the first half of the nineteenth century, and generally that they used the products of industrialization increasingly over the century to make their personal lives more colorful.212

documentary research, to color sampling and study, to the purchase of new furnishings and their installation—is prohibitive, especially for typically underfunded and understaffed public historical institutions. The staffs at the sites where these colors have been restored these are to be commended for their efforts.  
212 See the discussion of Shaker communities’ use of chromolithography to package and promote their seed business in the late nineteen century, and their local consumption of wallpapers and textiles in Part Three of this dissertation.
The Shaker palette in the first half of the nineteenth century (left); cabinets in chrome yellow and chrome red.

The Prodigal Son Revelling with Harlots
Shaker meeting house (Prussian) blue. This example is from Hancock Shaker Village in western Massachusetts.

Baseboards decorated in an uncharacteristic red, in this case a heavily pigmented varnish. Miami Whitewater community, Ohio.
Two green doors of unknown paint composition, and a cabinet in what was most likely a chrome green.
South Union, Kentucky

The Trustees House in South Union, Kentucky, in its chrome yellow, caramel, and raspberry colors
The community of Zoar closed its colorful doors for the last time in 1899. Each of the 136 members received $5,000, and one half of the group moved to Minnesota where they bought another 6,000 acres. One of the few descriptions of the community was written posthumously if you will, just 3 years later, for an encyclopedia of American history. Of the Zoarites the editor wrote unkindly “their ability to make music of a commonplace order was the only talent apparent, but their religion forbade dancing.” Even more damning was his unequivocal assertion that “They had no literary or artistic taste.” It may be that religious proscriptions against figurative art in the Anabaptist traditions forced a psychological need for color to the surface, and that need expressed itself in iconic manipulations of decorative color. Certainly this appears to be the case with these sects, and later the Amish as well, whose idiosyncratic approach to quilting, for one, has always juxtaposed bands of solid color one against the other to render the
object beautiful. Or perhaps color became the medium of expression by default. Either way, these methods of decorating, despite what art historians may argue, do not represent “folk” traditions, which are by definition parochial, insular, and backward looking. In surrounding themselves with color the Shakers and Zoarites demonstrated their absolute modernity, and they fit right in with their neighbors.

From the dawn of the nineteenth century Americans had been crafting an increasingly colorful world. They painted, grained, stamped, stenciled, sponged, papered, glazed, picked out, striped and stippled an unprecedented number of surfaces and objects and distributed those to an unprecedented number of people. Whether their choices were informed by European cabinetmakers or an aesthetic philosophy that asked them to express their imaginations through manipulations of their physical world is difficult to demonstrate. What is easy to show, however, is that as soon as color was within the reach of everyday Americans they grabbed it. Long denied to lower classes by cost and convention, decorative color gave Americans exciting new ways to express themselves and their confidence as consumers in the new market, if not their new republic. Once color’s newness wore off, however, they would never again decorate with the aesthetic abandon that they showed in the first four decades of the nineteenth century. When the Bimeler family above sat for their portraits in 1842 the kaleidoscopic colors and patterns Americans had been using for decades were already changing. Victorian Americans would love color just as much as their grandparents did, but amid the chaos of a newly industrializing society they became lovers of order, too, and felt the need to craft some rules for its use. As unapologetic pedants they would insist on explaining why Americans should follow them. American homes, the new arbiters of taste argued, would
incubate the next generation of respectable republicans, but only if those homes provided the proper conditions. As one of those conditions, color would have to be implemented correctly.
CHAPTER THREE
CALICO AND CHINTZ

Many of the themes in color’s development from 1800 to 1840, both aesthetic and technological, are reflected in the textiles produced in that period. Printing fabrics on long continuous rolls by a rolling cylinder speeded up the process of making them and brought their prices down. Patterns fostered by that machinery, such as ombré and fondú-printed fabrics, added even more visual complexity to the designs of clothing, furnishing fabrics, and quilts. The invention and importation of a new machine, the Jacquard loom, allowed whole new classes of Americans to afford fancy woven coverlets. Just as it had revolutionized paint colors, chromium and its compounds changed the textile industry by offering both new colors and mordants to fix them to cloth. Synthetics like Prussian blue, chrome yellow, and antimony orange enlivened the palette available to all classes of Americans.

In textile printing two machines came into use in the nineteenth century. The perrotine worked very much like hand-block printing. A pattern was engraved in relief on the surfaces of three blocks roughly three feet long and two to five inches in width. The blocks were fixed in a frame at right angles to one another and could “each in turn be brought down upon the front, top, and back, of a four-sided iron prism, faced with cloth, and revolving upon an axis. The goods to be printed passed between the prism and the pattern-blocks, and received the impressions in succession.” One perrotine machine could replace the work of twenty skilled block printers, and could effect “some styles of work which the
cylinder machine cannot execute with the aid of surface rollers.” But perrotine printing accommodated patterns of no more than three colors. Still in use in France and Belgium in the third quarter of the nineteenth century, the perrotine was eclipsed by the cylinder printing mechanism developed in Scotland and imported into the United States which had “quite displaced hand-printing.” Americans could always spend more, if they had it, to buy French-made, perrotine or block-printed fabrics of a higher quality, but to accommodate the great demand for colorful fabrics among all classes of Americans, domestic printers shifted to cylinder printing, despite its early sloppiness, for its speed and capacity for volume. Cylinder printing of textiles worked like this:

The design to be printed is engraved on the surface of a hollow copper roller, which is forced by pressure upon a stout mandrel of iron, which serves it for an axle. To aid the transfer of the pattern to the calico [simple cotton cloth] to be printed, the pieces are lapped around another large cylinder, which is rendered elastic by a coating of stout woolen cloth. The pattern-roller presses the calico against this elastic cushion, and consequently prints it as it revolves.

According to an important textile printing manual of the 1870s, one cylinder printer managed by one man and assisted by two boys attending the color trough “perform[ed] as much work as two hundred men and boys could do with the blocks.”

New colors accompanied the new machines. Though the old vegetable dyes of the first years of the nineteenth century rendered beautiful and much romanticized shades, they could be problematic. And even the new, heralded, mineral dyestuffs were found guilty by many critics of making garish colors that clashed violently with the old. The textiles produced after the War of 1812, as technologies and dyes transitioned, blended these old and new colors. Combinations were often successful but sometimes not. That we don’t know just how ugly they could be results from the fact that it was the lovely quilts, coverlets, blankets, and clothing that were tucked away from the light, safe and sound in trousseaus and blanket chests for later generations to admire. Furniture with hideous upholstery fabric was donated to young couples just starting out, to charity, or was shoved into attics and basements where mice made it their new home. The depressing evidence of incompetent dyeing and amateurish design is largely missing from the material record because these objects were repurposed in their own time. One consequence of this effacing of the material record has been to suggest to curators and historians that only finely made, artistically designed quilts, for instance, existed in this time, and that the patterns and colors of these new fabrics were affordable only to people of means. Besides their initial purchase, badly colored textiles served the American economy by laying the foundation for a successful dyeing industry in American cities over most of the nineteenth century. Ugly clothing was cut up and stitched into pieced quilts. Quilts with poorly laid out designs often found themselves being slipped inside other quilts as batting, with the hope that the enveloping quilt would be more aesthetically successful. Many ugly textiles went summarily to the rag picker.
The evidence of all of the factors listed above—the good and the bad—is contained in the quilts and coverlets of the early 1800s that have survived the ravages of time and the caprices of fashion. Like the calimanco quilts of the eighteenth century, the very earliest quilts of this period were usually more decorative than utilitarian and were made predominantly by women who had both means and leisure. These were reserved for the “best” room or guest room. Woven coverlets, typically made of cotton and wool, were still made on looms in private houses, but more often than not after 1800 were the products of professional weavers, sometimes itinerant, who commonly specialized in the dyeing of one color over others and marketed themselves that way. Both quilts and coverlets of this early period of the nineteenth century exhibited the traits of other decorative arts of that time. Full of color and pattern, often almost literally kaleidoscopic in their visual effects, bedcovers of the early nineteenth century were generally the most colorful furnishings in any American home. The rationale for spending the time to piece and quilt a bedcover, or card, dye, spin, and weave a fancy coverlet may at least partially be explained by the lack of enough color in clothing in the early 1800s. Even while James Haigh, the author of an 1810 dye manual directed specifically to American dyers, complained that too many of his profession specialized in one color, remaining “entirely ignorant of the rest”, they still performed a valuable public service. “The materials of which cloths [sic] are made,” he wrote, “for the most part are naturally of dull and gloomy colors. Garments would consequently have had a disagreeable uniformity, if this art had not been found out to remedy it, and vary their shades.”

Textiles, especially well printed, colorful textiles, were still expensive and imported in 1800. The wholecloth quilts of the eighteenth century survived into the first
half of the nineteenth century, but faced competition from the beautiful printed fabrics coming into the country from Great Britain and France, which rendered even the rich finish of the calimancos a bit dull by comparison. Colorful and sophisticated, chintz fabrics, from the Hindi word *chint*, meaning variegated, swept across the United States, just as they had in Europe. Chintzes were fast-dyed in a number of colors and either printed or painted with dyes, and then finished with a shiny glaze, typically made by a solution of beeswax that was then polished with an agate stone or other material. In the mid eighteenth century, according to one contemporary writing in *The Laboratory or School of Arts*, there were four categories of chintz, all of which were based on color, and in which the most colorful was the most expensive. This “whole chintz” at the top of the hierarchy displayed “three madder reds, two purples, indigo blue, and weld yellow, which could then be overprinted to produce an additional palette of “crimson, orange, olive, buff, and chocolate.” “Half-chintz” had two fewer colors and “five-color chintz” outlined blue, yellow, and green in black. Last came a single purple.

The other important fabric changing the colors of Americans’ world was calico, a simple cotton cloth of various grades and varieties, usually highly colored and patterned. They are named for that part of India, Calcutta, where the East India Company collected textiles for export. According to the decorator Thomas Sheraton, writing in the first decade of the nineteenth century, calicoes were of cotton made to look like linen, and were “of different kinds, plain, printed, stained, dyed, chintz, muslins, and the like…Some of them are painted with various flowers of different colours; others are not stained, but have a stripe of gold and silver quite through the piece, and at each end is
fixed a tissue of gold, silver, and silk, intermixed with flowers.”

Calico fabrics are more or less the same today, simple woven cottons printed in an amazingly wide selection of colors and patterns that serve for a similarly wide variety of applications.

These were the contested cottons of Indian, English, and French history, desired for their many colors and colorfastness. Seventeenth-century American probate records and other documents show that calicoes were popular on this side of the Atlantic in that early colonial period, but could only be afforded by those wealthy enough to fashion from them bed furniture, curtains, and carpets, (“Cullerd calico Curtens” and “blew and white Callico window Curtains and Valence”) as well as large quilts (“1 Quilts of Calico Colerd and flowred”) as probate inventories described. By the eighteenth century calicoes had already “long been a most important article of commerce,” and by 1800 the United States imported 3,710,471 yards of printed linens and cottons from Great Britain.

Samuel Slater had built the first successful cotton mill in Rhode Island in 1790, and began using natural dyes to create the vivid colors for which these textiles were famous. Within just a few years he had several competitors who all suffered the pangs of capitalizing their businesses against the bemused stare directed at them from the textile industrialists across the Atlantic, and in the end only one domestic calico printer survived the onslaught of British textiles hitting American shores after the turn of the century. But the opportunities for profit in America caused the drain of skilled labor British manufacturers had long feared, and so along with British fabrics came British calico printers eager to start their own businesses. They settled principally around Philadelphia,

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214 Montgomery, Textiles in America, 1650-1870: A Dictionary Based on Original Documents: Prints and Paintings, Commercial Records, American Merchants’ Papers, Shopkeepers’ Advertisements, and Pattern Books with Original Swatches of Cloth 184
215 Ibid.
and by 1810 *Niles Weekly Register* listed eight Pennsylvania cotton printers in that area alone.\(^\text{216}\) These printers joined the resurgent numbers of American textile manufacturers who perched their factories alongside New England’s rivers, particularly in Massachusetts and Rhode Island, and who worked desperately hard to keep up with the fashions coming out of England and France.

“Bizarre, fantastic, and exotic” describe the subjects and colors of many of the block-printed cottons of the first decade of the 1800s, the product of a revolutionized industry in which cost-cutting, methodological innovation, and new dyes combined gave consumers an unprecedented selection of colors and fabrics.”\(^\text{217}\) Prints after the Chinese taste juxtaposed three shades of red on a mustard ground color, possibly a reference to Chinese red lacquerware. Prints in the Indian taste mimicked the exotic coloring of both *palampores*, (single-panelled arborescent and floral-printed cottons made with two specific dye processes, originally from India), and the woolen shawls then being woven in Norwich and Paisley, England.\(^\text{218}\) English interior decorators inspired by the classical motifs brought back from Italy promoted a color scheme known as “Pompeian” which combined red, yellow, black, and sometimes bright blue on textiles, just as it had on walls and ceilings in English manor homes.

\(^{216}\) Montgomery and Henry Francis du Pont, Winterthur Museum, *Printed Textiles : English and American Cottons and Linens 1700-1850* 131

\(^{217}\) Ibid.

Madder colors like reds, pinks, violets and browns, and some calicoes featuring new methods of printing indigo were popular. By 1840 the Merrimac and Hamilton Mills of Lowell, Massachusetts alone printed more than a quarter of a million yards of cotton in the madder colors.\textsuperscript{219} Some fabrics were even designed to imitate “Berlin work,” a style of needlework that held its fashion with lady crafters for the next fifty years and which came to decorate couches, cushions, draperies, pictures, firescreens, and virtually any other article of domestic furnishing in the mid-nineteenth-century American home. One color effect that nineteenth-century dyers did not intend (at least usually) was the appearance of blue leaves on otherwise naturalistic floral patterns, and other instances

where something that would otherwise be green had turned out blue. Because blue pigments were more stable than the fugitive yellows available from vegetable dyes, and greens had to be dyed first blue then yellow, when the yellow of the green disappeared over time, it left blue behind.

BERLIN WORK

Fast yellows produced from quercitron, a dye eponymously named for the American oak, were the foundation for what became known as the “drab” style. Similar to the “madder style” that featured a red palette, the drab style used different mordants applied to cloth that was then dyed with quercitron resulting in a range of colors from dark and medium browns, olives, tans, and buffs, with yellows in between. Quercitron was much less fugitive and difficult to work with than weld, and it replaced fustic (another yellow dyestuff) in American dye recipes because when of good quality it gave a clearer yellow than its predecessor. It was also easier to obtain than fustic, which eighteenth-century apothecaries had to import from Brazil or certain West Indian islands. But the onset of the drab style most certainly stems from the fact that in 1799 the American chemist and publisher of an important dye manual, Dr. Edward Bancroft, lost the patent, and therefore his monopoly, on this yellow dye, “and quite suddenly this fast, clear yellow coloring agent became generally available. It could be penciled in by hand (demonstrating a clear superiority to weld, which did not work well for that purpose) or used with mordants for a variety of colors…” Bancroft described its superior properties in *Experimental Research Concerning the Philosophy of Permanent Colours*, first published in London in 1794 and then greatly revised in 1813 to reflect new discoveries in dyestuffs and methods. He boasted that quercitron did not discolor the ground colors
when it was penciled or printed over the top, and whites would stay white so that they did not require bleaching “on the grass” (field bleaching in the sun was a common technique of dyers in the first half of the nineteenth century). Quercitron was one of the newest colors, and yet, as a natural dye the processes for utilizing it still stemmed from antiquity. For instance, adding an iron “liquor” (solution of mordant) to the bark of quercitron rendered drabs, but adding a “strong decoction of [insect] galls gave a black “sufficiently fixed, though inclining a little to a brownish hue.” The drab style completely excluded colors produced from madder to save costs for the textile houses because both madder and quercitron dyeing required separate rounds of printing, dunging, washing and bleaching. The drab style may have been affordable but its brief fashionableness both started and ended in the first decade of the nineteenth century, when the new mineral colors—Prussian blue, chrome yellow, and antimony orange (that century’s name for a pigment composed of antimony trisulphide)—went into production as dyestuffs. Textile houses did not lament these short-lived styles; new colors got attention and boosted sales. The drab style’s short lifespan illuminates, however, some of the economic and aesthetic factors driving a new color’s production. The effort to reduce the costs of printing fabrics to make them affordable to new consumers resulted for a time in reduced craftsmanship and perhaps in some styles with short lifespans, but “what many prints lacked in subtle details they gained in lively color effects.”

220 Using dung to “fix” dye colors was an ancient and poorly understood process. See Ch. 4 on quilts and coverlets for a more thorough discussion of its use.
221 The indigo discharge method, developed around 1800, made it possible for textile printers to achieve finer lines and patterns. A chemical bleach such as chromate of potash or an acid “erased” areas of color from a piece of cloth directly after dyeing. The process gave clear and clearly defined whites on blue, and was used on bandanas, among other textiles. Lapis prints, also invented around 1800, used a thick paste to block indigo from areas that would be dyed by a different stuff, such as madder, at the same time, allowing the two colors eventually to appear adjacent to one another on the fabric with no white lines between. Examples of both indigo discharge and lapis prints can be found in quilts of the first half of the nineteenth century.
The first mineral pigment to be used as a dyestuff was Prussian blue, made in 1813. Following its example were iron buff (circa 1815) antimony orange (1817), chrome yellow (1819), manganese brown (1823), and ultramarine (1827), which was still made by grinding lapis lazuli. Manganese brown was quickly adopted by textile houses as it gave fast browns between light bronze to full “seal” brown, and these colors remained good sellers well into the 1870s. This color was even used as a stain for gun stocks. Nineteenth-century printers were excited at the prospect of converting these new pigments into dyestuffs, but as pigments are insoluble and were unlikely to be able to stand the vicissitudes of being bound to a textile, fixing them permanently to a fabric without making it hard as a brick was going to be a problem. The most common flexible binder in the nineteenth century was the albumen derived from blood or eggs, eggs being used for light colors and blood only for dark. Together with two other binders—gluten from wheat, and lactarine from milk—dyers used these proteins with heat and acid to coagulate the colors and affix them to the fabrics. The legacy of pigment dyeing is impressive. Though this early nineteenth-century method has changed somewhat over the last 200 years “more than half of all the fabric printed around the world is [still] produced this way.”

PRUSSIAN BLUE QUILT

Some dyestuffs made it into the textile factory’s or weaver’s inventory of dyestuffs faster than others. In a weaver’s dyebook of the 1820s in the collection of the Colonial Williamsburg Foundation one can see that the weaver is still using fustic, not

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quercitron, with logwood chips to make green. Those greens were most likely gone long
before they should have been, as fustic and logwood both produced pretty but fugitive
colors. William Tucker’s dye manual of 1830 discusses how to make the drab colors
at length but does not include a recipe for using quercitron. Most all of the dyers working
in the United States before 1840 were trained in Europe and they preferred to keep using
the dyes they had used there. It also makes sense that textile manufacturers and dyers
would wait a bit to see how well the new dyestuffs were going to hold up to light, air,
washing, and time before committing themselves and their customer base to untried
materials.

Making the impact of these new colors even stronger was the use of chlorine
bleach, a discovery of the French chemist C. L. Berthollet first introduced into the textile
manufactories of Lancashire in 1788. Bleach gave a white surface that really made
colors cleaner and let them pop. With every new mineral dye developed calico printers
pushed a new color scheme, which their critics often argued were harsh and unflattering.
Magazine and newspapers articles of the 1820s forward asserted that blondes, brunettes,
and redheads should wear certain tints over others and cautioned all ladies should take
special care not to have the delicacy of their complexions overshadowed by the new
colors. Of course, these same beauty counselors regularly contradicted one another and
so in the end American women no doubt wore what they wanted. The record of their
enthusiasm for all of these color styles is preserved in the quilts they fashioned from
these textiles.

223 Elmey Sammis Trimmer, Weaver’s Notebook, circa 1820-28).
224 Liles, Dyes in American Quilts made Prior to 1930, with Special Emphasis on Cotton and Linen 30
A pieced quilt from the first half of the nineteenth century with a West Indian origin showing penciled blues and a rather picturesque small center medallion. Smithsonian Institution T17179

Details of Quilt T17179. The yellows are most likely from quercitron; the penciled blue appears in the blossom piece. The center piece of the pagoda-like building was probably printed from a wood block or copper plate. The red, yellow, and black feature a Pompeian color scheme.
Two quilts made with fabrics executed in the madder style. The larger arborescent fabric on the left could have been a furnishing or clothing fabric.

Section of an early nineteenth century quilt showing a yellow/brown rainbow print, probably dyed with quercitron, and other prints showing severe fugacity (left); a drab print (center); a center medallion quilt showing a quercitron print border.
Neoclassical fabric patterns remained in production in England and the U.S. throughout the century, although they experienced their peak of popularity in the first decade. The quilts that made use of these fabrics tended to use construction methods that took advantage of the fabric’s scale and verticality. Chintz patterns, such as the ones still decorating The Hermitage, were often large, especially when made for furnishing fabrics, and they were expensive, so hacking them into smaller pieces for quilting was not always reasonable on a number of grounds, and yet many wealthy women did cut them up for quilts of particular styles. Among wealthy women in the first years of the nineteenth century it was expected that they would use the needle skills and leisure time their class afforded to construct chintz quilts, and if they knew fashion that they would choose the new pillar prints. Patterns with a strong vertical orientation usually depicting pillars or columns and capitals sometimes encircled with vining flowers, called “pillar” prints, first
appeared in the late eighteenth century and were especially popular in the United States, served well as borders to frame center panels of the tree of life motif, or as a sort of fence in which gardens of flowers bloomed from within. Many quilters chose to seam several pieces of these fabrics together in a “wholecloth” quilt to show off one particularly well made or fashionable fabric.

Once considered a “marvel of the world,” by the 1830s “cheap and cheerful” calico fabrics adorned both bodies and beds across the country and across classes.225 At Farmington, Eliza Speed’s brother couldn’t help but notice the effect her calico dress had on her. “Tell Lucy a little while ago I looked out in the garden and saw Eliza stooping down scratching in the borders, she had on her Calico wrapper with great big flowers, and her green Calash with her neck all muffled up; she cut such a splash that at first I

225 Ibid.
thought it was a great peacock that had strayed there.”  

By 1835 even working-class Americans demanded inexpensive and colorful calicoes. British textile manufacturers responded by looting French designs and color schemes and copying them, but even then critics argued they stole the ugliest ones. But novelty trumped quality in this era, according to textile historians, who point to mismatched repeats, bad registration, and fugitive and poorly applied dyes to argue roller-printed fabrics of this time represented the nadir of craftsmanship. In the early 1840s British mills were registering six thousand “new” designs a year, and many of those borrowed liberally from designs issued in the first years of the century, sometimes adding strange “fills” to them (decoration around the main theme) or different ground colors. But if this interruption in quality bothered Americans, their annoyance is not reflected in sales figures from the period. British mills exported nearly 300 million yards of printed cotton in 1835 to “the less civilized parts of the world” and Americans bought the bulk of them, while they were simultaneously building their own industry. From the founding in 1823 of the Taunton and Dover textile manufacturing companies in Boston and New Hampshire, respectively, American entrepreneurs hired emigrant British textile workers and bought English engraved copper cylinders and rotary printing machines to give their own countrymen the colors and patterns they wanted. By the 1830s they produced more than 100 million yards, but these were mostly utilitarian products for rural people. But it was Americans’ fascination with the colors and quality coming off British mills that made American textile manufacturers step up their game to steal the business away from them, and this industry began the United States’ evolution to industrial capitalism in the Northeast. All of these fabrics were still expensive to ship to the ever advancing West; in 1841 in Hartford “plain cotton

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226 M. L. Speed, Letter from M.L. Speed (Polly) to Smith (a sibling?), April 27, 1835.
was listed at two and a half cents, while in distant Iowa it retailed for twenty-five cents a yard. The price difference may have stung, but it did not dissuade westerners from buying the same fabrics their East Coast relatives bought. Their appetite for color and pattern had travelled with them to the new West in the 1840s just as it had with the Blennerhassetts in 1800.

According to the family’s records, when Mary Jolliffe Higgins moved to Ohio around 1800 she brought most of the fabric she used to make her Le Moyne Star patterned quilt from Virginia. Shortly after her marriage there to Colonel Robert Higgins the family moved just north of the Ohio River to found Higginsport, on the west side of Ripley, Ohio. Mary’s quilt combines blocks of solid yellow and small-scale printed cottons in alternating stars and octagons, surrounded by a border of a large-scale furnishing chintz fabric. The center block is occupied by a large detail from what appears to be a second chintz fabric, with individual blossoms from that fabric appliqued over the yellow blocks. Making a quilt was a long-term project. Some evidence in the quilt, such as the fact that some fabrics postdate those brought by the family from Virginia, suggests that Mary, like many quilters, may not have survived to see her quilt finished. It may have been completed by her daughter. For the people who made and used them, quilts were objects of sentiment, status, and utility. Entire families often invested themselves in the design and construction of a quilt; many were worked on over multiple generations. A quilt is a document recording the material culture of its age; the fabrics contained in it an account book of that society’s industrial production.

FIG. LEMOYNE QUILT

Adamson, *Calico and Chintz: Antique Quilts from the Collection of Patricia S. Smith* 13-37
Since there were no published quilt patterns in this early period, families shared their designs with one another and carried the knowledge of their construction with them, often along with the fabrics with which they would make them, when they moved. This fact helps explain the homogeneity of culture across the country even in the pre-industrial age. But by the end of the first decade it would not have been necessary for families like Mary’s to bring the fabrics for their quilts and clothing with them from the East. The Higginses, as well as the Worthingtons of Adena, may have bought their yard goods from John Waddle of Chillicothe, who advertised in 1809 that his dry goods shop carried “the latest London fashions and patterns,” gingham in “dark and pink patterns,” and his calicoes and chintzes came in “new and elegant patterns.”

Waddle was no doubt telling the truth about his stock. Ohioans and Kentuckians had access to a cosmopolitan selection of imported fabrics even this early in those states’ history. When Englishman Timothy Flint traveled the northern part of Ohio in 1818 he observed: “I have often seen among the inhabitants of the log houses of America, females with dresses composed of the muslins of Britain, the silks of India, and the crepes of China.” Getting all those goods to the frontier was not easy, and even in the 1820s it was still tough to get the most fashionable articles to fashionable people. Dry goods merchant William Coolidge, Jr. had a terrible time exhibiting his clothing and fabrics at a fair in the “dull and insipid hole” of Frankfort in 1823. Rain kept most of the “vulgar, gross, offensively impudent and low bred” people of Kentucky away for days, so his sales of striped pantaloons, buff colored hose and vests, and calico and diaper fabrics

among many other sundries took a big hit. Even the liberal sermon he heard (“a wonderful thing in this ignorant corner of the earth”), and which he noted he heard in a house, not a church, while he was waiting for the weather to clear could not cheer him up. On his way to Louisville two days later for the next vendue the “extensive badness of the roads” slowed his party to a pace of only 18 miles in 7 hours before the wheels broke and the carriage was abandoned. The trip should have been a failure, but Coolidge’s account book suggests that the “good and steady” demand for domestics in New Orleans, where he appears to have ended his sales trip, turned his otherwise miserable trip into a success.  

By 1817 the National Road connected Cumberland, Maryland to Wheeling, Virginia but most interior roads, as Mr. Coolidge’s experience illustrates, could be impassible in bad weather. By the 1830s, however, the National Road had made it to Springfield, Ohio, steamboats were making shipping merchandise to the interior much easier, and dry goods stores were popping up everywhere. When Janet McCracken, another resident of Ross County, Ohio like the Worthingtons, shopped for the calicoes and chintzes for the Lone Star quilt she made around 1835, Chillicothe had two wholesale, and thirty-eight retail dry goods stores from which to choose. McCracken had moved to Ohio from Shippensburg, Pennsylvania in 1800 and ended up marrying a fellow Pennsylvanian and successful Chillicothe merchant. She formed her polychrome star from many different calicoes, and surrounded this central motif with a border of floral sprays cut from a large-scale chintz.

MCCrackEN QUILT

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230 William Jr Coolidge, "Diary and Account Book of William Coolidge, Jr., 1818-1829" Western Kentucky University Manuscript Collection, SC 241,
Jolliffe’s and McCracken’s quilts illustrate two of the most popular styles American quilters produced in the first decades of the nineteenth century. The Le Moyne Star quilt Mary Higgins made is an example of a pieced, or patchwork, quilt. Patchwork quilting “flourished” in the first three quarters of the nineteenth century due to a number of factors, but in this first quarter the primary explanations are the number of calicoes available to Americans combined with the ease of straight-line stitching, and the fact that there were more women sewing.\textsuperscript{231} Calico fabrics lent themselves to patchwork as their patterns were generally small enough to be contained even within a small piece. The number of calico dresses being worn in the early nineteenth century carried the potential for many pieced quilts to be made later. Sally Experience Brown in Plymouth Notch, Vermont, already had at least two “old calico gowns” to cut into pieces for patchwork by 1832. But the fact that so many patchwork quilts survive to this day is a reminder that many quilters went out specifically to buy new strong, bright fabrics for their quilts from the bounty of fabrics even small dry goods stores offered. The Brown sisters, in fact, spent many of their days working with textiles: piecing quilts, making tambour lace for purses, twisting yarn, making white shoes and dyeing another pair blue for the upcoming ball, making bed caps, and sewing gowns of calico and French muslin. Though all of these activities required aesthetic judgments be made in their fabrication, little in the life of a nineteenth-century woman offered the chance for artistic expression more than stitching together a patchwork quilt.

Janet McCracken’s Lone Star quilt is one of three types of “star” quilts commonly made in Ohio before 1840: the Lone, Blazing, and Ohio stars. Like many quilts of this

period hers is synthetic in that she has combined her central motif of patchwork calicoes with a delicate border of appliquéd chintz fabric. What appears to be a furnishing scale cotton makes up the outside border. It’s hard to exaggerate the popularity of these star quilts in the first half of the nineteenth century. The almost infinite number of calicoes that could be used to create the pattern offered boundless possibilities for working with color; stars just naturally called for a shining, glowing palette. Mrs. McCracken’s quilt is almost restrained in its coloration compared to others of the period, in which every calico utilized was almost electrically bright.

STAR QUILT

The larger inner border of the McCracken quilt is an example of cut-out chintz appliqué work. The style is also referred to as *broderie perse*, a term that derives from the style’s resemblance to a type of Persian embroidery. The appliquéd chintz technique highlighted the illusionistic qualities of some of the large chintz panels, such as tree-of-life patterns whose design took up the whole plane of bed-sized fabric. This kind of work relied on the realism of the printed chintz panel for a significant portion of its impact, yet extant chintz quilts display a staggeringly wide range of design and ingenuity interjected by the quiltmaker.

CHINTZ EXAMPLES

TREE OF LIFE

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232 Patricia Cox Crews and University of Nebraska State Museum, *A Flowering of Quilts* (Lincoln: University of Nebraska Press, 2001) 26. Quilt historian Patricia Cox Crews points out that nineteenth-century gardeners and writers used the term *parterre de broderie* in reference to a French garden style in which serpentine flower beds are cut into an expanse of lawn. Crews also makes the remark in her book that quilt historians have documented star quilts that incorporate cut-out chintz designs only in Maryland, Virginia, North Carolina, and South Carolina, "leading them to conclude that these quilts were made primarily in the southeastern region of the United States." But the McCracken quilt was constructed nearly four decades after the family moved to Ohio from Virginia.
Another quilt type common before 1840 is the mosaic, also known as “honeycomb”, which originated in England in the eighteenth century. Quilts and coverlets in the mosaic pattern constructed of small patchwork hexagons, sometimes smaller than one inch across, often incorporate a border of a chintz or columnar patterned fabric at the margins of the quilt. This particular example made in South Carolina most likely around 1825 features a floral chintz block printed with pin dots made by inserting brass pins into the woodblock. Such background patterns give the fabric depth, as several quilt historians have pointed out, but they also mimic the same minute patterning popular in wallpapers of this period, which create visual interest as well as disguise fly specks. This dot patterning is just another reminder of the technological and aesthetic parallels between nineteenth-century wallpaper and textile printing. Mosaic or honeycomb quilts represent the most literal interpretation of the kaleidoscope in the needle arts of this early period of the nineteenth century.

MOSAIC QUILTS
Some of the optical effects of these early nineteenth-century quilts were produced through the use of fondú-printed fabrics. Fondú was the French word for rainbow, and these prints were the product of one of many technological developments of this period that created a new color style. Fondú’s effect lay in allowing one color to appear in various strengths on the same fabric, or many colors to reside side by side. “Varying concentrations of a mordant or a chemical for a raised color produced a monochromatic rainbow, and different mordants or chemicals created a polychromatic one.” The 1820s were a period of intense experimentation on rainbow prints, textile houses found they could make them with a variety of methods, from hand block printing to the cylinder and perrotine machines. One firm made them with “orange, chocolate, purple, and pink,” (all madder colors) in the 1840s. Another Rhode Island house printed “three shades of ‘Dahlia or spirit purple (logwood)’ and three shades of blue and chocolate with ‘rollers’,

probably meaning engraved or etched cylinders.” That same textile printer made a fabric with five sections of blue and chocolate but an experiment to get even more colors into a six-inch wide rainbow pattern failed because of uneven blending.233 Fondú fabrics not only added colors to an article of clothing or bedding, they gave that object depth and character. Manufacturers competed to offer the most interesting and effective combinations of color, and sometimes received free press for their efforts. An English design journal of 1850 described a rainbow fabric of “steam pink, blue, green, and orange,” crossed with paler shades of the same, as “brilliant in the extreme,” and “the most beautiful production of the day.”234

The rainbow effects of color were not restricted to the quilt’s surface, or to textile printing. An embroidered cotton bedcover dated to circa 1820 in the collections of the San Antonio Museum Association surrounds its field of conventionalized flowers with unconventional leaves in red and orange as well as green leaves with artificially bright red veining. Surrounding the entire spread is an astoundingly modern scalloped a macramé border in rainbow colors, that, because of the scalloping, literally look like rainbows.

QUILT WITH RAINBOW MACRAME

Some optical effects in quilts of the early nineteenth century were effected with paint, not dyes. In the collections of the Colonial Williamsburg Foundation is a strange-looking quilt, its markings faded almost to invisibility on one side and its colors still potent and powerful on the other. The bedcover’s striking cheddar yellow, brown, and blue side is in very good shape; its colors are strong and clear and its fabrics retain their integrity. But this side of the quilt is rather unremarkable, really. Aside from its particularly cheerful aspect it is just one of many such pieced quilts constructed in the latter part of the nineteenth century whose numbers fill historical society museums and cedar chests all over the United States. The reason this particular piece is in the collections in Williamsburg is the first side--the old, ratty, rather ugly stamped coverlet that has somehow, unlike the vast majority of its early nineteenth-century peers, managed
to survive into the twenty-first century. A Stenciled bolster cover “with bold floral border and central sprigs in red, blue and green opaque paints,” circa 1800, is also preserved in the collections of the Cooper Hewitt for its rarity, but this rarity today belies the popularity of stenciled coverlets in the early nineteenth century. In the same period that Americans were stenciling paint on their walls, floors, and furniture they sometimes stamped and stenciled color onto their bedding. The stencil spread was “a lovely and fascinating product” of this time particularly on the East Coast. They were most likely used more for their decorative qualities than for warmth; this particular example featuring eagles and medallions was found in North Carolina, where its light weight may have provided adequate cover. The patterns of stenciled coverlets were created by a simple process in which the design was traced on an oiled paper and then cut out with scissors or a knife, one stencil for each color. The coverlet maker stretched out the fabric and then used a tampon, a ball of cotton held in place by a coarse cotton cover, to stamp either thickened dyes or paint pigments ground in oil through the stencils. Though professionals sometimes made these types of bedcovers, more often the work of stamping and stenciling textiles in the nineteenth century was carried on by amateurs, many, if not most, of them women. Such bedcovers offered even working women of the lowest class the opportunity for creative expression as they required much less time and skill with a needle. That some of these fabrics were printed using both wooden or copper plates and rolling cylinders, and their colors were sometimes stamped or stenciled on, reflects the continued coexistence of new and old technologies in this period.
When Thomas Worthington was decorating Adena around 1810 he may have shopped at John Waddle’s Chillicothe dry goods store, which stocked, according to their advertisements, woolen fabrics of all weights and colors. But in that year Worthington purchased a full-blooded Merino ram, suggesting that he intended to produce a high-quality wool, perhaps to weave, or more likely have woven for him, plain cloth or a coverlet. Worthington’s home already had several commercially made carpets, and his household was big and wealthy enough to have a two or four-harness loom and a spinning wheel. Looms were expensive to buy and complicated to make, and using them well took great skill. These reasons help explain why spinning wheels outnumbered looms seven to one in American households, according to estate inventories, in Worthington’s day. The weaving house of Crumpton and Smith was working in the Chillicothe area then, advertising their single and double weave coverlets, as well as
carpeting, blankets, linens, bed ticking, plain cloth and diapers. Worthington may have intended to take his wool to them to be put to use in making one of these household furnishings.

Typically woven with a cotton warp and a woolen weft, the vibrantly colored and patterned coverlets of the nineteenth century are one of the most identifiable and iconic of American furnishings. Many of them are identifiable in a very literal sense; coverlets were often signed and dated by their makers, and many feature the name of the customer for whom they were woven. Of all the furnishings of the early nineteenth century coverlets may be the best represented in museum and private collections today for the simple reasons that they are beautiful to look at and they held their colors. Protein-based fibers, like wool, retain dyes better, and thousands of the coverlets that survive from the nineteenth and even eighteenth centuries attest to this fact. In modest homes in the nineteenth century coverlets were usually the most beautiful and colorful object a family owned. As part of her dowry, coverlets accompanied a newly married woman to help her set up house, and they were often woven as appropriate coming-of-age gifts for men as well.

In Worthington’s day there were three main types of coverlets: the overshot, double weave, and the summer and winter. The attachment that constructed the fourth type of coverlet—the Jacquard—had been invented in 1800 and won an industrial design award in France in 1801 but did not come to the United States until 1826 or 1827. Aesthetically, coverlets can be divided into two categories, geometric and figured and fancy. Geometric patterns, as their name implies are based on circles, squares, and other geometric forms like many other manifestations of the Fancy movement. Overshot and

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235 Ronsheim, From Bolt to Bed: Quilts in Context 59
Summer and Winter are the coverlets that slaves wove in the American South, and northern women wove at home for their own use or as part of the female economy to which the work of historians like Laurel Thatcher Ulrich refers, since not all homes had big, bulky looms or their owners the skills to operate them. These are the objects, too, that nineteenth-century Americans most likely remembered their mothers’ dyeing woolens for at home. “Figured and fancy” coverlets were those with curvilinear, more pictorial patterns made typically by the Jacquard loom or Jacquard attachment.

All of these types of coverlets could be woven at home, but the majority of coverlets in the nineteenth century, especially as the century progressed, were produced by professional weavers. The construction of overshot coverlets in the first years of the century typically consisted of a natural color linen thread and a single colored wool weft, most often blue and white and red and white, but warp thread colors changed as time went on and more weft colors became part of the pattern. Those patterns were generally geometric, based on squares, circles, diamonds and other basic shapes, but the name overshot comes from the fact that the weft could also be caused to “float” or “skip” or “overshoot” the ground making the pattern even more elaborate. The woven piece of fabric could only be as wide as the loom was wide, usually about 40 inches, which was as far as the weaver could throw his or her shuttle, and so most coverlets were seamed in one or two places. Summer and winter coverlets were those designed to have a light and a dark side; one side or the other being turned face up according to the season. Their construction was very much like the overshot’s.
Similarly geometric, double-weave coverlets contained two webs or warps joined so that the coverlet could be flipped to a mirror image on the verso, in which the dark and light colors reverse. The lifespan of this type began in the eighteenth century but most surviving examples date after 1800 and especially after the 1820s as the pattern was a favorite of professional weavers who had the Jacquard attachment. A double woven coverlet in the Smithsonian Institution’s collection made between 1790 and 1820 in blue and white features a center section of rows of X’s surrounded by a border of elongated pine trees. Another coverlet made outside the period of manufacture of most double-wovens may have been made by a neighbor of the Worthington family in Ohio, as a gift for the maker’s baby. According to the donor of this piece to the Smithsonian, the coverlet was woven by Richard Waters in Ross County, Ohio, in 1840, who spun and dyed the yarns himself. The common and lively figurative pattern “Peacocks feeding young”, was contained by a double border of an architectural pattern “Old Boston Town.” This combination of the “Peacocks” pattern with Old Boston is unusual, as the birds were almost always paired with a pattern called Penelope’s Pot, and that
combination was seen in a wide variety of colors, ranging from “simple blue and white through pink and blue to an unusual blend of red and brown, depending upon the subtlety of the weaver’s dyepot.”\textsuperscript{236} Today “subtlety” is not the first word that comes to mind upon seeing many of these beautiful coverlets, which can still shock and awe with their colors.

![A selection of Jacquard-woven coverlets, 1836-1872](image)

The looms of the eighteenth century could create very complicated patterns. They created, after all, the \textit{passementerie} used to decorate clothing and furnishings and even trim out carriages, and the technology existed to make coverlets equally elaborate. But this work was expensive, requiring a weaver and assistants, and took lots of time, making the cost of such coverlets out of the reach of the average American. It was the Jacquard

\textsuperscript{236} \textit{Nineteenth Century American Coverlets, June 8 - July 11, 1976} (Los Angeles, CA: Craft and Folk Art Museum, 1976).
loom that made these elaborate and complex “figured and fancy” coverlets with their bold curvilinear floral and pictorial patterns economically accessible to the middle class in the early nineteenth century. The Jacquard mechanism sat on top of the frame of the loom, raising pre-selected warp yarns to create the “sheds” or spaces in the between the warp threads allowing the weft to pass through. Unlike a traditional loom, the Jacquard could raise and lower each “heddle” independently according to which holes had been punched on the card. Heddles are the individual parallel wires that control the movement of the warp threads, allowing the shuttle to pass through them. In the loom’s early days it was enormous, requiring a ceiling height in the weaving room so high that most artisan shops could not accommodate it, even if they could afford to buy it. The loom’s expense, its size, and the demand for its products sealed the fate of many artisans in England and Scotland who had long raised their own sheep, dyed their own wool, and woven their own coverlets for their own customers. Unable to capitalize their businesses to accommodate the Jacquard, they ended up working for a wage from an ever-smaller number of those who could.237 “Highly skilled handweavers found that they had to become part of the factory system, or turn to another vocation, or starve.”238 By the time the Jacquard technology came to the United States the attachment had become much smaller and could fit on most looms, allowing anyone with the skills of a weaver (and those were still quite considerable) to manufacture highly complicated patterns in a rainbow of colors.


238 *American Coverlets of the Nineteenth Century from the Helen Louise Allen Textile Collection* (Madison, Wisconsin: University of Wisconsin, 1974) 1.
In its time there was no doubt that the Jacquard mechanism was an immense contribution, and to more than the textile industry. “The significance of Jacquard’s loom attachment extends far beyond the textile industry, for it was the first practical application of punched cards to automate control of a manufacturing process. It also offered the solution to certain problems faced by nineteenth-century inventors of computing machines, and as such, can be considered a distant ancestor of twentieth-century computers.” And yet serious doubts as to the authorship of the device have been raised by many historians. Joseph Marie Jacquard may have taken the idea of using a series of punch cards to create a drawloom capable of weaving the complex patterns of coverlets from the system of pegs and holes devised to operate music boxes and automata in the eighteenth century. He may have borrowed the idea of using punched cards to control the patterns from the cards used to control a cylinder that printed complex patterns on silk in eighteenth-century France. And he may have borrowed the idea for combining both these pattern-control devices from the inventor who actually combined them first. But, as the former curator of textiles for the Smithsonian’s National Museum of American History points out, even if Jacquard’s participation in the invention of the attachment that bears his name was “minimal,” he was “the key figure in working out the problem, having been present at the propitious time and place, with all the needed mechanical assistance and financial backing.” No doubt an attorney would have put it the same way had Jacquard needed one back in 1800. Nevertheless, the Jacquard loom combined these mechanisms,

240 In her speech Rita Adrosko, the former textile curator at the National Museum of American History, examined the argument around the question of whether the Jacquard loom was really revolutionary by illustrating the evolution of the drawloom over two centuries. Adrosko titled another speech she gave to the Tuesday colloquium at the NMAH in 1984 “Jacquard: Was he ‘The Inventor of Nothing’?”

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creating a device that allowed a single weaver, with no draw boys or assistants, to create very complex and naturalistic patterned fabric in multiple colors. Just as Jacquard may have “borrowed” the ideas for technological innovations from his peers, American weavers regularly advertised their innovations to patterning devices and sometimes their ownership of a patent for them. Two New York weavers received a fourteen-year patent for a “new and useful improvement in the Machine for Weaving Figured Cloth” in 1831, and over the next few years sold their patent rights to several other weavers.²⁴¹

This loom visually electrified American bedrooms. Its great contribution was its patterning device; the flexibility to treat each heddle separately created tremendous aesthetic opportunity. “Figured and fancy” coverlets delighted Americans with their

designs, somewhere between conventionalized and realistic. Both geometric and figured and fancy coverlet patterns inspired fanciful names to match their patterns, often invoking of historically and politically based names and events: “Whig Rose,” “Washington’s Diamond Ring,” “Lafayette’s March,” “Braddock’s Defeat,” “Bonaparte’s March,” and “Lee’s Surrender”. The beauty of these patterns named for great victories and defeats only shines through because of their rich, saturated colors. In multicolored coverlets the colors of the weft usually appear in bands stretching across the breadth of the textile. Most coverlet weavers used two or more colors and the visual impact of their weaving came from the intermixture of those colors behind whatever pattern the coverlet featured. A comprehensive study of Maryland coverlets found that 61 percent of those were woven in three or more colors, 18 percent in one pattern color, 14 percent in two, and 7 percent in four or more colors. The majority of coverlets, then, (82 percent) used two or more colors. An 1820 advertisement placed by John Welty in Hagerstown, Maryland put his skill with colors right up front:

BLUE DYING [sic]  
AND  
COVERLET WEAVING  
The subscriber respectfully informs his friends and the public in general, that he still carries on the above businesses, in the house opposite Mr.  U.  Burchholder’s pottery, in Boonsborough—where he is prepared to  
Weave Carpets, Double & Single Coverlets  
Counterpanes and Table Linens  
In the neatest and best manner.  He will also colour Blue, Black, Red, Yellow and Green, all bright and durable colours. Those who may please to favor him with their custom, can depend upon having their work done in the best manner, upon the shortest notice, and at reduced prices, as times are hard.242

242 Clarita Anderson, "Maryland Coverlets: The Artifacts, Technology, and the Weaver" (Ph.D., University of Maryland), .
Some historians in decades past speculated that a specific weaver’s work could be identified by his choice of, and placement of, certain colors, but this is most certainly not the case as some weavers advertised that customers could bring their own woolens, ostensibly dyed, to them for weaving. David Kennedy, a weaver in Steubenville, Ohio placed an ad in the Western Herald and Steubenville Gazette in 1829 letting his customers know that he was “now in complete readiness to receive yarn” for carpet and coverlet weaving, and also offered to manufacture, “per order, INGRAIN CARPETING of the newest patterns from Boston, and of the very best of colors.” To make the woolen mill they built in South Union, Kentucky, profitable, the local Shaker community accepted items for fulling and dyeing from as far as 50 miles away, which merchants collected for them. From the beginning of the mill’s operation in 1814 to 1822, the mill fulled, dyed, scoured, dressed, sheared, and pressed fabrics, and the numbers show that coloring was their single biggest operation, with more than 32,000 yards dyed in that time. One would suspect that, despite the unit of measurement they chose, they also dyed wool for coverlet weaving. Andrew Kump, a weaver in Hanover, Pennsylvania, advertised in 1847 that he would accept woolens dropped off at several merchants’ in several towns, and weave coverlets according to the instructions given with the wool. Some weavers did work regularly in particular configurations of color and pattern, and there are some coverlets that appear to be the work of specific weavers for which all

243 I use the masculine single pronoun “his” here because the vast majority of professional weavers were men.
244 Ibid.
known specimens use the same color or colors, but generalizing about every weaver on this subject would be a mistake.

An overshot coverlet in the collections of the Kentucky Museum and Library, executed in blue, cream, and pink was made from wool sheared, carded, washed, dyed, spun and woven by a member of the Samuel Brown Greathouse family on their farm in Warren County, Kentucky. Or at least this is how the donor of the coverlet to the Kentucky Museum and Library remembered it. The families of the owners of many nineteenth-century textiles donated to museums have remembered that their ancestors dyed their own wools and wove their own coverlets, but the number of homemade coverlets is probably far smaller than these descendants would have it. It is certain that many Americans did indeed color their own homespun textiles, but probably not as many as their heirs would have it. In her eulogy to the American coverlet in 1912, Kentuckian Eliza Calvert Hall romanticized every aspect of the coverlet, including the obnoxious part of dyeing its wonderful colors.

When the owner of an old coverlet unfolds it to your view, the first words that come to her lips are: “I remember”. “I remember,” says another, “when Mother used to dye the thread and her nails would be blue with indigo, and I used to wish I could make my finger nails that pretty blue color”…I walk through the streets of town when the festival of house-cleaning is going on, and over the railing or balcony or porch I see a ‘Governor’s Garden,’ or a ‘Sunrise,’ older, no doubt than the oldest member of the family, but flapping gaily in the breeze, and flaunting its
reds, blues, and greens in the spring sunshine as if in gay defiance of Time the Destroyer.\textsuperscript{246}

The idea that most homes had a spinning wheel, loom, and a homemaker perpetually occupied in dutifully making blankets and coverlets was for the most part an invention of the Colonial Revival movement that began in the last quarter of the nineteenth century. Eliza Calvert Hall’s tribute to the American coverlet helped forge this idea when it was first published in 1912 and reinforced it in the many reissues of the book that came out over the course of the twentieth century.

Most professional weavers in the United States, many of them German, were male, although there are some examples of female professional weavers and apprentices. In 1827 in Lincoln County, Kentucky, weaver Edmond Taylor contracted with “Rhoda, a Mulatto girl” of 13 as an indenture in his shop, promising that he would “teach the said Rhoda (or use his utmost endeavours so to do) the art trade and mystery of a Spinster & weaver”, and would furnish her with “good wholesome diet, cleanly lodging” and instruction in reading. Whether Rhoda ever set up her own weaving business is unknown. Sally Brown noted in her diary one day in the early 1830s that she had “made up” the bed with the blue coverlet, presumably a wool coverlet, made for her by a Mrs. Ordway. Given Sally’s skills with a needle, it makes sense that this coverlet was loom woven and one Sally could not have made for herself. If so, Mrs. Ordway may have been a professional weaver, one of the rare female professionals, working in the 1830s. Like many female craftsmen of the period she may simply not have advertised.

Most of these weavers set up shop in their homes in the small towns of New York, Pennsylvania, Ohio, and Indiana. William Tucker, the author of a well known dye manual of circa 1830, *The Family Dyer and Scourer, being a Complete Treatise on the ARTS OF DYEING AND CLEANING*, suggested in the book’s introduction why this may have been. “The author of this work has been induced to publish it from a conviction that the high prices charged by the Dyers, prevent many persons who live at a distance from great towns, from having their clothes dyed, as the payment of the carriage and the dyeing together, sometimes amounts to more than the value of the article.”

Coverlet weavers often promoted their coloring business over the products that came off their looms, which suggests they may have found it more profitable to set up shop outside cities for that reason. The woolen operations that Shakers established, of course, were all located in their pastoral communities. Some weavers, including the Shakers, established four or five-loom factories in order to accommodate the weaving of ingrain carpets, diapers, and plain cloth as well as coverlets. While it appears that nineteenth-century weavers bought their warp yarns from factories, the wools they used for the weft were produced locally, and many weavers purchased their dyestuffs at mercantiles and apothecaries and dyed their own.

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248 What Tucker ignores in his argument is the labor intensity of dyeing garments and articles already fabricated. In the Daily Richmond Whig in 1830 Joseph Williams advertised that he “scoured and renew[ed] in colour, coats, pantaloons, and vests, together with all kinds of apparel” and dyed “all kinds of pieced goods”, including silk dresses, by having them “taken to pieces,” which enabled him to “warrant them to be dyed and finished as well as at any establishment in the Union.” Completely taking apart clothing must have taken a lot of time, even before dyeing and resewing them. It may be that deconstructing the clothing became part of a rural putting-out system, allowing country dyers to keep their costs down. “Richmond Dyeing Establishment,” *Daily Richmond Whig*, January 2, 1830.
Weavers specialized not only in what patterns they produced, but in what colors they offered. James Haigh, the author of an 1810 dye manual, was most certainly correct in his criticism of American dyers, that they learned one color at the expense of the others. Fortescue Cuming, an early investor in Ohio, found that to be true when he visited Lexington, Kentucky in between 1807 and 1809. He found there were three blue dyers working in that city but no red dyers. Indeed, many coverlet weavers may have learned to dye several colors but either excelled at one or another or found the market for one in their area was stronger. The fact that most of the colors on extant coverlets made in this era still retain their beautiful colors should suggest to us that specializing in dyeing one color or two colors and doing it very well might have been an excellent business decision. A stunning red and natural coverlet made in 1836 by a C. Colling of New York scattered eagles in and around a central floral motif. In each corner Colling wove “AGRICULTURE & MANUFACTURES ARE THE FOUNDATION OF OUR INDEPENDENCE July 4, 1836.” Sixty years after 1776, Colling put his money where his loom was, and celebrated more than half a century of a successful republic with an excellently manufactured, permanently dyed coverlet that even today is still red, red, red.

SI FIG. T14962.000

On coverlets that have been treated and stored with respect, their rainbow patterning is as vibrant today as it was two centuries ago. And few objects in our history were so entirely American. “Neither the earliest patterns nor the weaves originated here, but few, if any of the countries that made an initial contribution to coverlet weaving,
could match in duration of popularity, or in volume, or in variety, the coverlets produced in the United States.” And perhaps no other object made such an important contribution to the decoration of even the most modest American houses as the figured and fancy coverlet. Eliza Calvert Hall put it like this in 1912:

She had toiled long at wheel and dye-pot and loom. She had cut the breadths and sewed them together and hemmed the ends with coarse homespun threads. Then she swept and garnished her room, and spread the new coverlet over the high fluffy feather-bed and retreated to a distance to see the effect. Ah, the snowy white of that foundation, and the rich tracery of dark blue! Was there ever anything as beautiful as this latest work of her hands? It is the wonder of the world and ‘World’s Wonder’ should be its name.249

249 Hall, A Book of Hand-Woven Coverlets 80-81
“In the domain of progress all things exert a reciprocal influence, and innovations apparently the most trifling have often a most important bearing both on art and manufacture.”

Winking at us through the metallic haze of a century and a half, early photography can still seduce us with furtive glimpses into our collective past. The silvery ghosts that stare back at us from little metal plates tell us so much about the world the subjects of these photographs made around themselves.

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This remarkable early panorama of Cincinnati’s busy waterfront is a rare daguerreotype taken by the photographic concern of Fontayne and Porter in 1848. Recently restored by its guardian—the Public Library of Cincinnati and Hamilton County—the original image is highly detailed, even if the level of compression of the reproductions here makes it difficult to appreciate. On enlarged versions one can even read the names of some of the steamboats and see clothing drying on lines strung from open windows. The photographers had to set their camera two miles away on the Kentucky side of the river, but still their photograph reveals just how busy Cincinnati was in the mid nineteenth century. More than sixty steamboats line the waterfront; carts, carriages and drays fill the city’s streets. Rows of warehouses stand ready to take in the goods offloaded from barges, and hold other merchandise until it makes its way further north or south. To the far left, just over the flagstaff of the Embassy, one can see the office of the steamer clerk, Steven Foster, who later became a composer, and to the right (on plate 4), at the top of a now nonexistent, tree-lined street the home of one of Cincinnati’s wealthiest residents, Jacob Strader, the owner and a steamboat and bank, and president of the Little Miami Railroad. The twin towers of Christ Church anchor the composition of this landscape in Plate 3, while just below them the scale of the Orientalist fantasy of “onion-domed tower and battlements” of Francis Trollope’s bankrupted nineteenth-century mall—coffeehouse; retail shops; exhibition and orchestral galleries; lecture, reading, and ballrooms; all in one—reminds the modern viewer why all of Trollope’s vituperation against Americans was not due to the continued legality of the chattel slavery she so despised.
The details of such antique images continue to astound even experts on the wonders of early photography, and rightly so. Given the contribution of this series of images to our understanding of a mid-nineteenth-century river city, it seems almost petty to point this out, but the great failure of this Cincinnati panorama is its lack of color. The blacks, whites, and greys of the pictures can’t even hint at the colors to be seen in Cincinnati, indeed all American cities, in the 1840s. The red and yellow bricks and colored clapboards of the buildings, the paint colors of the boats that guided travelers and shippers to the right ones from the busy public landing, the bright reds and greens of the carts, and every color of the rainbow in the articles drying in the windows—all of that is missing from these views. The absence of color is a huge and disappointing detail in an otherwise perfectly detailed series of shots. It misleads us into thinking these Cincinnatians lived in a colorless world.

With all the information these early photographs do provide, few people have been so unkind as to criticize them for what they don’t. Michael and Virginia Mescher, two reenactors from northern Virginia, have been among the handful of people in the twentieth century who have inquired into nineteenth-century photography’s black and white effects on a world full of color. One hundred and fifty years after the Cincinnati riverfront posed for its picture the Meschers sat for theirs, a portrait made by a photographer specializing in historic methods who was making pictures at the July Gettysburg battle recreation in 1999. The process he used to take their portrait was the wet-plate collodion, whose invention followed the daguerreotype and talbotype, but unlike those two, makes a positive print. The temperature that July day was 100 degrees Fahrenheit, and the humidity was at 97 percent. As they sat in the sweltering heat the
Meschers wondered why the organizers of the event had not bothered to put up a tent or some kind of cover for the photographer and sitters, and Virginia, covered neck to toe in a long-sleeved printed cotton dress, worried she might pass out. They did not worry about their costumes, which as the owners of a sutlery that catered only to sticklers on the subject of historical accuracy they knew were correct in both cut and color for interpreting the year 1863. But when they saw the product of all that suffering in the heat they were puzzled. The finished portrait had completely altered the appearance of their clothes. The vibrant plaid of Michael’s vest had washed out, his bright gold cravat had turned black, and the patterns of Virginia’s pretty wine-red dress had sadly dissolved into a muddy sea of bodice and skirt.
Still there was no doubt that, at least in evoking the sensibility of a photograph of the 1860s, the picture was successful, and the subjects looked like two respectable Victorians—dark, grim, and dull. Though the image ultimately satisfied the Meschers, their experience poses a challenge both to historians’ trust in certain kinds of seemingly irrefutable visual evidence, and to the prevailing belief that nineteenth-century Americans were as dour in their color choices as their unsmiling faces suggest in their photographs. In their quest for historical authenticity some amateur historians, most notably the Meschers, have worked with period photographers to advance the study of our visual culture by testing how much these early photographs can mislead us about color. Their results are intriguing.
Comparing these images taken with modern cameras to those taken with the wet-plate collodion process reveals that the latter reverses the polarity of some colors. The light golds, green-golds, and oranges turn to medium to dark grey, and medium reds and greens look almost black. On the other hand some dark colors, such as the French blue printed fabric second from the bottom in the left-hand column in the above figure, turn lighter. One would think modern-day daguerreotypists could simply take pictures of fabric swatches and paint chips and create a key that would allow historians to reconstruct the colors depicted in nineteenth-century photographs. Unfortunately, the Meschers and others have found that these antique processes were unpredictable, reading
colors different ways at different times. The same light blue shirt worn by a reenactor might appear black in one photograph made through wet collodion and medium grey in another.

We in the twenty-first century are not the first people to be frustrated by the lack of color in early photographs. The photographers themselves were hardly complacent about it. Francois Arago, the physicist and mentor to Louis Daguerre, issued a preemptive acknowledgement of the defect in the very address that announced Daguerre’s invention to the Academie des Sciences in 1839. “In fact,” he said, it would be no exaggeration to say that the inventor has discovered the means of fixing the images, if only his method preserved the colours; but I must hasten to explain, in order to undeceive the public, that in M. Daguerre’s copies…there are only white, black and grey tones representing light, shade, and half-tones.” Despite the fact that the daguerreotype
reproduced the images of objects “with almost mathematical precision,” “red, yellow, green, etc.” were represented only “by half-tones, for the method produces drawings and not pictures in color.”

Despite its ingenuity and capacity for rendering the most delicate details, then, early photography’s failure to deliver color was a significant disappointment. One of Daguerre’s French contemporaries and a champion of landscape daguerreoty, Noël Paymal Lerebours, only complained about the lack of color in photographic portraiture, loathing the “cadaverous looking specimens” he saw “everywhere exhibited.” Others clearly agreed, and where technology failed the human hand accommodated. A new industry in the hand-coloring of photographs sprang up. Color specialists formed their own trade group, the American Artists’ Coloring Association, in 1867, to assist photographers so that they would not lose business to painters of portraits or portrait miniatures on porcelain. Their business succeeded almost until the turn of the twentieth century when most of their work came from coloring enlargements.

Commentators on early photography have noted that artists were divided in their opinions on the value of colorless photography, some seeing only “a cold and stiff copy of nature…entirely devoid of interest.” Others touted “the perfection in the representation of the more prominent objects in the picture, joined to an almost miraculous precision in the details, which rendered “admirable gradation of shade which makes each photographic image a masterpiece, we will not say of art, but of nature.” Even the well

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252 Ibid. An editorial of 1885 described the commercial objective of the colorist: “We believe that this is a class of work, which, if generally introduced by photographers throughout the country, would help to give business a boon, for oil-colored enlargements have a good showy appearance, and when painted in body colors, as these are, and with the likeness well retained, photographers could recommend them as being quite as permanent as any other class of oil paintings.”

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meaning Lerebours rather inadvertently derogated colorless photography by deftly summarizing others’ objections to it:

“Some, who are unacquainted with painting and drawing, and ignorant of the theory of shading that of the chiar-oscuro, and of the laws of perspective, will never admit that anything of a good effect can be obtained without the use of colors. They reckon as nothing, that admirable gradation of light and shade—that perfection in the relief—that purity of outline, which constitute the principal charm in photographic images. In a word, the most exact reproduction of nature is of no value in their eyes, if it appears divested of its colors. This class of adversaries is unfortunately more numerous than it is thought; but it is not our province to teach them the elements of art and taste…”

If Lerebours sincerely thought it outside his province to cultivate the tastes of his fellow men, he had few counterparts in America. Ralph Waldo Emerson, Washington Irving, and other American intellectuals and artists were calling for their countrymen to dispel their tenacious reputation as nothing more than gifted mechanical tinkerers and to craft a unique American cultural identity. From 1840 the United States witnessed an explosion of journals and advice manuals that batted around the subjects of art and aesthetics and the cultivation of taste. One of their new shuttlecocks was color—how it should be used properly and how annoying it was when it wasn’t. Apparently, Americans needed the same kind of schooling in the proper implementation of color that they needed to navigate other facets of their industrializing society, such as the rules of respectable comportment and the preservation of republican ideals. Singled out for these

253 Ibid.
tutorials was the new middle-class, perceived as the most fertile ground for real cultural development. One of the prerequisites of social participation quickly became a familiarity with the laws of beauty, art, and the Picturesque, that aesthetic philosophy born of the Romantic movement in Europe and exported to the United States along with all the other stuff Americans were buying. In 1840 the numbers of Americans without training in these subjects represented the bulk of the citizenry. Nevertheless, willing teachers abounded, and enthusiastic pupils were everywhere. The following editorial on fashion from 1848 captures the tenor of much of the advice of the period from 1840 to 1870:

To dress with neatness, taste, and propriety, is the duty of every young lady; and she should give just as much thought and attention to the subject as will enable her to do it, and no more. Unless she do give to it both thought and attention however, she will not be able to dress with taste and propriety. Occasionally we meet with instances where young ladies affect, or really feel indifference in regard to dress. Every thing like ornament is eschewed as beneath the dignity of an intelligent being. The higher colors never appear in any of their garments, and ribbons are used with a degree of caution that is quite amusing. All this might be tolerated if good taste accompanied their simplicity of attire; but, unfortunately, a want of good taste is, in most cases, the primary cause of the indifference they manifest.  

Having only recently acquired the cornucopia of colors the nineteenth century had already offered them, Americans were loathe to give them up, and as the above selection

\[254\] Timothy Shay Arthur, Advice to Young Ladies (Boston: Phillips and Sampson, 1848) 93-95.
suggests the arbiters of taste were smart enough not to ask them to do that anyway. Americans eagerly subscribed to magazines with articles on theories of color mixing, appropriate house colors, how to upholster furniture correctly, the rules for arranging flowers by color, the history and beauty of the Roman freehand scroll and other adornments, and an endless list of other topics of varying levels of merit and utility. In 1840, at the dawn of Victoriana’s hold on them (with all that that implies), Americans were willing to sit down in their red mohair upholstered chairs by the side of their astral lamps in the middle of their green and red parlors to read the rules. It remained to be seen if they would follow them.

As a matter of fact, much as they had done at the beginning of the nineteenth century, Americans took many of their cues about how to fashion the world around them from what the market offered. But a new source of aesthetic influence on them in this period was the photographic studio. The daguerreian “palaces” of the mid nineteenth century were posh places filled with color and ornament, to reinforce to customers the idea that they were sitting for a work of art. M.M. Lawrence furnished the men’s waiting room of the studio he opened in New York City in 1853 with Brussels carpet, expensive wallpapers and window shades, gilt ornaments, and rosewood furniture upholstered in green velvet. He carpeted the ladies’ parlor with “rich tapestry,” covered the walls with the “richest blue velvet and gold paper,” and upholstered the rosewood furniture in blue and gold brocatelle. Female patrons of the studios wore boldly printed, richly colored silk dresses and their male escorts often sported brightly colorful cravats and graphically woven vests and coats. They sat for their portraits on intricately

turned chairs upholstered with machine-loomed brocades, elaborations made available to the middle class through the wonders of steam powered lathes and looms.

Watching the money and colors flow into the daguerreian studios of the American Northeast was Levi Hill, an immodest Baptist minister and photographic impresario for whom the daguerreotype’s weakness spelled opportunity. When relentless bouts of bronchitis, “the scourge of the ministry,” forced the Reverend to find another vocation in the 1840s, he chose the less than lucrative field of invention, working for years to discover a method to produce photographs in “the natural colors” from the laboratory he devised in the shed behind his home in West Kill, New York. Hill was not alone in his quest. From Daguerre’s announcement of his discovery, several prominent researchers around the United States and Europe had begun experimenting with various processes to capture colors, but all ran into serious problems with shading, intensity, or fugacity. Some followed the trail of silver deposits, which can assume a very limited number of colors; others found the promise of capturing the full spectrum with radiation, sensitized copper plates, the halides of copper, or metal fluorides. But in 1851 it was Hill, one of photography’s least known figures at the time, and one of the most maligned ever since, who was first to announce success in achieving color in photographs, a process he called “heliochromy.”

The invention received press in the United States and abroad. Charles Dicken’s magazine *Household Words* teased its readers with the mention that the means had already been discovered “by which the colours of the spectrum may be printed at once on photographic tablets, and the sun—most brilliant of artists—may paint his pictures a the same time that he is engraving them.” A Mr. Hill of New York had “taken many

pictures from nature, having all the beauty of natural colouring upon them.” The public exhibition of these pictures would be the means “by which Apollo will be raised above Apelles in the world of art.” For his supposed invention Hill received accolades from afar, but no patent at home. And after failing to deliver on a promise to demonstrate his process to the public, he received no credibility, either. So, to vindicate himself and make a little cash in the process, in 1856 he published *A Treatise on Heliochromy, or The production of pictures, by means of light, in natural colors. Embracing a full, plain, and unreserved description of the process known as the hillotype, including the author's newly discovered collodio-chrome, or natural colors on collodionized glass.* In the preface Hill wishes “success and immortal honor to the next adventurer, whoever he may be, who shall go where I have been, and who, perhaps, shall dive into regions beyond, and bring back garlands of exceeding and unfading beauty. Henceforth may the progress of the Heliochrome be onward, and may the time be near when it shall crown with an ambrosial diadem every other branch of the Photographic art.” In the rest of the Treatise’s less lofty pages Hill narrated his method of creating the “hillotypes”, which even today scholars still consult for its excellent description of the basic daguerreotypic process. But his secrecy with the photos themselves had already doomed him to public disapprobation, and the “ambrosial diadem” for color photography went to another. Hill removed to New York City, the scandal of his fallacious announcement died down, and his supposed discovery faded like his photographs into scientific obscurity.

257 Ibid.
258 I am indebted to Michelle Delaney, Director, Consortium for Understanding the American Experience and former Curator of the Photographic History Collection at the National Museum of American History, for this information.
For a century and a half Hill’s reputation remained ruined, and the world’s only known collection of hillotypes, a donation to the Smithsonian from his daughter, stayed tucked snugly in their light-proof boxes in a storage unit at the National Museum of American History, where their tremendous fugacity meant few scholars would be allowed furtive glances in a darkened room to see them. Delicate, mysterious, smaller than an outstretched hand, the hillotypes are marked by a distinct purple iridescence that floats across their surface like a starling’s wing. What remains of their subject matter ranges from landscapes with houses, pictures shot of what appear to be color plates in books, and prints of scenes from the Napoleonic wars. Long hidden away, the hillotypes were recently removed from storage to undergo a collaborative research project conducted by the NMAH’s Photographic History Department, the Getty Museum, and the Eastman House, a study designed to answer once and for all the question of whether Hill was the brilliant inventor of color photography or an unrepentant scoundrel who had earned his ignominy. After their extensive examination of the plates researchers announced that chemistry had provided the long-awaited answer--Levi Hill had indeed told the truth. He had managed to record colors in 1851, no matter how faint or ephemeral they may be now, on his daguerreotype plates.

Whether they were “natural” was another story. In particular sections of some images the experts found traces of Prussian blue diluted with white bismuth. The blues of the hillotypes, in fact, seem to have been created primarily with added paint. On his reproduction of a nude, Hill added inorganic pigments—lead and chromium—to highlight the lush green foliage flanking the central figure. In “Girl with Faun,” perhaps his most colorful surviving plate, conservators found the addition of an organic red dye in
very low concentrations. The plate shows a young blue-eyed girl with dark hair in ringlets, a wreath of daisies with red and yellow centers against outer petals of white on her head. The fawn wears a similar garland of red and pink roses, and sits nuzzling at the leaves of a long vine the girl holds just below her velvety green bow. The area of retouched red sits just over the roses the fawn wears. Most damning was the conservators’ conclusion that Hill had kept his process for developing photographs in “the natural colors” a secret by intentionally misdirecting readers of his Treatise. He did not mention using collodion or gelatin in his process, but both of them can be found in the hillotypes. And in a particularly unchristian move, the good reverend, it appears, not only encouraged his readers to manipulate chemicals that he knew to be ineffectual in producing photographic colors, but worse, chemicals that were likely hazardous to their health.
It may be unfair to blame Hill too much for touching up the colors he claimed came from the chemicals in his process alone. He had mortgaged his life to produce them. And like other inventors of his time who practiced the same kind of educational bait and switch, Hill was not an altruist trying to enlighten the scientific community, he was a capitalist trying to create a product monopoly. But he clearly knew just how dangerous those chemicals were. Though he attributed his recovery from bronchitis to the blessings of God, the free use of Jayne’s Expectorant, (a popular nostrum) and the iodine and bromine he had come to use in making daguerreotypes, most of the chemicals Hill claims to have come into contact with were more likely to kill him than heal him. Bromine of Time both soothed and aggravated his cough, but hydrofluoric acid caused his lungs to hemorrhage, and fulminate of silver nearly blew him up. “More than once,”
Hill wrote, “I have been etherealized, iodized, bromidized, oxidized, chloroformed, and in other ways transformed from the natural to a most unnatural state.”

Well, here’s an irony. Why would the pursuit of the natural, in this case the reproduction of natural colors, push someone so far that he would describe himself even jokingly as transformed into something unnatural? Why would a self-described pragmatist, who always avoided, in his own words, “the adoption of visionary and useless theories and sentimentalities,” expend so much time and effort in the pursuit of something as intangible as color? Why would he spend more than $10,000, which is what Hill claimed to have spent on his discovery when it was yet incomplete, mortgage his house, and endure “five years of the severest toils…and bitter trials”, exposing his lungs to “prussic acid, phosphorus, sulphuretted hydrogen, cyanogen, nitrous oxide, chorine, bromine, red hot arsenic, antimony,” and other deadly poisons Hill described as his “playthings for years?”

Hill himself attributed his quixotic quest to discover heliochromy to a “passion for delineation in color.”259 The temptation to colorize, to borrow the maligned term that will follow media magnate Ted Turner to his grave, was itself a natural impulse. More important, however, was Hill’s comprehension that as celebrated as it was for capturing detail, colorless daguerreotypy was visually and commercially limited. Of this fact the hand tinting of photographs was a daily proof. But there was much more evidence. For years, through the toxic fumes swirling around his makeshift laboratory, Levi Hill had been watching his fellow Americans grow increasingly interested in color.

259 Levi L. Hill, A Treatise on Heliochromy; Or, the Production of Pictures, by Means of Light, in Natural Colors. Embracing a Full, Plain, and Unreserved Description of the Process Known as the Hillotype, Including the Author’s Newly Discovered Collodio-Chrome, Or Natural Colors on Collodionized Glass (New York, NY: Robinson & Caswell, 1856) 4.
In 1853 millions of Americans had filed through the glass doors of New York’s version of London’s Crystal Palace, one of the few places that threw northerners and southerners together *en masse* without bloodshed in the 1850s. Southerners making the “Grand Tour” of the North wrote home describing the city’s sights, frequently confusing the Exposition with Barnum’s Museum and other attractions. One southern woman returning to her “quiet Southern home” after her visit in the North articulated the impression of many at the time. “The crystal Palace must characterize New York…What a wilderness of objects! Statues and statuettes, silks and satins, china and glass, furniture of all descriptions, and for all uses. What bright colors! What never ending glitter!”

The products of American industry the Exposition’s visitors saw were manufactured to impress. Their massive scale often did not lend itself to home use, but their designs and colors inspired later purchases in the city’s shops. So much shopping went on after the Exposition, as a matter of fact, that many of the letters written home during the trip were actually requests for more money.

Europeans remained unimpressed generally by American design, but what they continued to marvel at, besides Americans’ brazen expectation to be served ice in their drinks even on the hottest day, was their penchant for movement, around the cities and the entire country. As Americans continued to push toward the ever-advancing West, following speculators, trains, and “the yellow metal that [they] worship and that makes them crazy”, they toted the colorful mainstays of their lives in the East with them. They carried the album quilts signed by friends and family, gifted to them back in their

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261 John G. Neihardt, ”Excerpts from Black Elk Speaks,” University of Massachusetts, Lowell, [http://faculty.uml.edu/enelson/blackelk.htm](http://faculty.uml.edu/enelson/blackelk.htm)
home towns, and converted fabric pieces into other familiar quilt patterns along the road. They huddled under vibrantly patterned woolen coverlets in their Conestoga wagons, and traded their blue jeans, thread, and dry goods for food and other necessities as they traveled the trails. Dry goods merchants were among the first to settle in frontier towns. One Bavarian immigrant and dry goods wholesaler, Levi Strauss, got all the way to San Francisco before he established his blue jeans company in 1853.

The vehicles hauling Americans all over in this era were still works of art, albeit of a different sensibility. Trains could be wildly colorful, even their coal-burning engines. Trains’ decoration reflected Americans’ confidence in their modern machinery. Railroad lines finished their locomotives with glossy bright colors, and the permanent crews assigned to specific locomotives in the early days of railroading bragged about their machines by painting polychromed figures on the lantern and smoke boxes. Indian warriors cut from sheet metal were an especially popular motif. The decoration of public vehicles still exceeded that of private conveyances, to catch customers’ eyes. By 1840 prosperous Americans used color to decorate large coaches whose lightness required a minimum of carved and applied ornament, so their decoration came increasingly from paint.

After 1850 American carriage manufacturers took advantage of innovations in technology and design to make wheeled vehicles affordable to the middle class. New lighter and more practical vehicles like the Rockaway, surrey, buggy, and buckboard, were cheaper to manufacture and maintain than the more elaborate vehicles of elites. European manufacturers noted the differences in American carriages from their own. “The cheapness…is obtained by making large numbers to the same pattern, by the use of
[machinery] and by the educated dexterity of the American workman, always ready to adopt any improvement." Wealthy Americans might own enough American and European vehicles to fill multiple carriage houses, and stable unique horse teams and equipage for each carriage. Middle-class Americans probably owned a single buggy and horse, which they drove themselves. In 1856 an 18-year old in East Pittston, Maine, combined steam to bend wood and iron with the skills acquired from a short lifetime of tinkering in his father’s wagon shed to form what would become the United States’ most successful carriage-making enterprise. Ten years later, when the S.R. Bailey Sleigh and Carriage Manufactory expanded into a larger red-brick Greek Revival workshop in Bath, Maine, the owner applied his machines to create the first interchangeable parts to be used in sleigh making. “The great law of the arts,” Bailey is reputed to have said, “is to make some useful thing beautiful.”

Among the new carriages rolling out of New England in this period were several new models targeting middle-class consumers. A practical family carriage, the popular Rockaway carriage was said to embody democratic ideals in that its roof extended to cover the driver. Though many of these vehicles were still servant-driven in the first half of the nineteenth century, in reality the design change may reflect the fact that many heads of households wealthy enough to afford the coach but not the servant were now driving the vehicle. The Rockaway carriage in the collection of the Smithsonian’s National Museum of American history is finished in black outside with an interior of cream upholstery dotted with red, and red carpet. Americans could order their carriages in any color, but in the first half of this period, from 1840 until the mid 1850s,

262 Horse-Drawn Vehicles at Shelburne Museum, undated).
northerners typically chose dark, often somber colors, to distinguish their private vehicles from the commercial variety, and, like the darker suits newly donned by the middle class, to reiterate their respectability. When manufacturers began richly ornamenting buggies with color and pattern again, though, to make them more elegant while maintaining their lightness, the sight of so many of them on the street gave a new respectability to this kind of elaboration.

Whether practical or inherently democratic, the Rockaway carriage could still be chic when finished in the hottest color of the era—purple. The Rockaway in a coupe version advertised in the Coachmaker’s International Journal in the 1860s featured solid purple body panels striped in gold, and a black carriage with purple stripes edged gold or canary yellow, and a brown cloth interior. By the second half of the nineteenth century American manufacturers were proud of how far they’d come from aristocratic English and French designs, “…and even those American types of wheeled Democracy; the buggy, the buckboard, the sulky and the Rockaway, will lack half their significance unless contrasted, hub to hub, with a full-liveried Colonial coach.”

A flashy purple Rockaway on the street must have drawn the attention of many pedestrians, and in fact most of the Rockaway’s purchasers were probably urbanites. Until the end of the century, when mass produced and marketed products collapsed many of the cultural divisions between the urban and rural parts of the country, Americans in both city and country paid attention to the appropriateness of their possessions for their part of the world, and increasingly color became a factor in this assessment. Dark colors

264 Donald H. Berkebile, Carriage Terminology: An Historical Dictionary (Washington: Smithsonian Institution Press, 1978) 93. This number refers to the plate illustrating this carriage.
predominated on the exteriors of private wheeled vehicles from the mid 19th century to the middle of its last decade, but there were many exceptions and overall more color rolled through American streets. “The ground colors ranged from white through almost every mixture the fertile brain of the painter could invent…Bodies were introduced with ‘bowls,’ ‘cut-under,’ or ‘wheel-houses,’ and paneled off so that different colors could be brought near each other.” Mitigating the author’s general disparagement of the previous decades’ carriage decoration was an understanding of the cyclical nature of fashion. Though body panel colors “vary but little from one generation to another…carriage parts and striping colors present a wider field for the exercise of good taste in coloring, but these, too, are subject to the caprices of fashion—a season of display being often followed by that of the plainest sort of work.”266

The other important vehicle development of the era was the buggy. Light and cheap, buggies underwrote the ability of middle class people to move around the city and suburbs. The “buggy” represented American design in its most essential elements—lightness and cheapness. The “Spider Phaeton” was a gentleman’s buggy. The English had long noted Americans’ penchant for speed, and the buggy’s lightweight “spidery” form and big wheels gave it to them. But the price of this speed was high, as the buggy’s form—in all three of its incarnations—was less than attractive. “To us it appears,” wrote the editors of one English trade journal, “the very embodiment of ugliness and danger.”267 Imparting elegance to the buggy’s “undignified” form required a fantastic finish. Echoing the rich surface ornament being applied to other manufactures in both

267 Gannon, Carriage, Coach, and Wagon: The Design and Decoration of American Horse-Drawn Vehicles 94
Britain and America, American buggy makers broke with their pattern to lighten up other vehicles of this period by applying lightly carved and painted moldings to the buggy, embossed colored leather upholstery, fringes and boldly painted designs to their otherwise egalitarian vehicle. This dressing up worked to make the buggy among the most popular wheeled vehicles in America, and despite its initial critical reviews there, the spider phaeton became fashionable even among English consumers.

As practical and inelegant as its name implies, the Jump-Seat piano-box buggy could ferry either four passengers, or two with the front seat slid or “jumped” forward and out of the way. One of the most popular vehicles of the 1860s and 70s, the jump-seat buggy often displayed the same grammar of ornament of other buggies of the period, being finished either black with a quarter-inch stripe of gold, or lake with a red stripe, both usually trimmed in blue.268 Some companies increased the visual interest of their buggies with body panels of a contrasting color. The “shifting-seat buggy” popular in the same period offered a similar function in a moveable seat under its leather-covered frame, which only accommodated three at most. But it could more than accommodate its owners’ passion for color, as purple bodies on black carriages with gold and purple striping was a common offering of the period. The Coach-maker’s Magazine of July, 1856, clearly shows the ornately decorated body and trimming of a shifting seat buggy trimmed with deep purple with light purple head lining, festoon curtains, and cushions of glossy black patent.

268 Lakes were dyes converted into pigments by combining a precipitate of dye onto an earthy based, such as alumina. Lake also often referred to a red variety of such a lake pigment, usually made by precipitating cochineal, Brazilwood, or even from red rags. Lakes generally cheaper to use than pigments, although the scarlet lake “carmine”, the best of the lakes and often used in carriage painting, was “quite expensive.” Theodore Zuk Penn, “Decorative and Protective Finishes, 1750-1850: Materials, Process, and Craft” University of Delaware).
In 1847 the partnership of Abbot and Downing crumbled, but the two men formed separate companies and continued to crank out Concord Coaches. “The most striking thing about a good Concord coach was its color and decoration.” A red body with straw-colored ornament reigned as the most popular color combination across all regions. As suburban living created new markets for pleasure vehicles in the North, a lively market for vehicles of all types flourished in the South. Southern planters ordered northern-made carriages, whose basic maintenance could be attended to by slaves. Everywhere prosperous southern planters and farmers, whose standing in their localities was not premised on their overt respectability, wanted showy carriages to reinforce their social stature. The author of an 1870s book on carriage making reminisced on the changes in that time. “…The desire arose for gaudy colors, and modest and retiring colors were in a great measure abandoned, ushering in straw, orange, red and crimson, and these were followed and accompanied with a perfect shower of gold leaf…Carmine glazed on vermilion was introduced, and had almost unbounded sway for a time.” Half and half—striping one-half of each spoke with a color that contrasted with the ground—was popular but short-lived.

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A kind of aesthetic sectionalism in carriages arose in the 1850s, that era of fervent, often violent, political sectionalism. Southerners expressed a preference for the most colorful coaches, in name and appearance. Northern manufacturers offered lines of decoration specifically for southern markets, and this successful tradition continued well into the twentieth century. “Before 1860 if a coach body was brightly colored with blue, straw, yellow or orange the chances were good that it was intended for the South.” A more subdued drab or popular red usually coated the bodies of northern coaches. Even the names of southern coaches tended to be more romantic and fanciful than the utilitarian “Denning’s Transfer” or “Studley’s Transfer” coaches headed for the North. T.F. Smith of Marshall, Texas, purchased two coaches in red and two in orange, and all but one were named after women. At least one historian has noted that by 1860 an

270 Ibid.
obvious dichotomy existed in carriage styles between those designed for northern and southern markets. “No better opposite could be posed against a southern Rockaway, with its rich gipsy trim and sensual swelling line than a Germantown Rockaway, compact and conservative, even frugal.”271 For a time, westerners may have preferred blue stagecoaches. In 1850 the first large order of six-passenger “hack wagons” with blue bodies and red gear went to Chicago, and in 1854 John Dillon’s stage lines in California ordered four eleven-passenger coaches with blue bodies and drab gear. Otherwise most coaches shipped to California were red, and by about end of the 1850s body and gear colors were more or less standardized to red and straw respectively.

Abbot-Downing Company’s western and international sales—to Mexico, South America, South Africa and Australia—continued apace in the 1860s. In 1865 the Abbotts again merged with Downing, and returned to advertising their staples of coaches and wagons. In the post-war period these market and express wagons and drays remained a ubiquitous if unexceptionable sight (compared to more highly elaborated commercial vehicles), on streets, roads, and lanes throughout the country. Yet these simple vehicles conducted a tremendous amount of business, and they did it while displaying their own, more or less fixed, grammar of color. “For deliveries or transfer of goods all that was needed was an express wagon body painted green, striped yellow, with a red or cream undercarriage.”272 All bright, clean, and easily noticed and acquired, these colors were staples of the late 19th-century painter’s shop. And on vehicles this color iconography alone communicated their commercial function.

271 Ibid.
272 Ibid.
The Civil War changed the color landscape in many ways during and after the conflict. Abbot-Downing Company’s southern trade stopped in 1863, and the firm of Eaton and Gilbert, which may have built more stage coaches than Abbott, ceased production on carriages to concentrate on the manufacture of railroad cars.273 The ornate southern style of decoration in vehicles came to an end, although until the end of the century carriage manufacturers would offer “southern” details, (generally more elaborated versions of their ornament), to customers anywhere. In 1867 Wells, Fargo and Company placed an optimistic, record-breaking order for thirty stagecoaches with red bodies lettered with the company name, and “U.S. Mail” spelled out across the top door rail.274 Other changes brought on by the war were noted by Isaac Delaney Ware in his 1875 handbook for coachmakers:

“The ground colors for the carriage part vary according to the freaks of fashion, therefore do not always follow the color of the panels on the body. During the ‘late unpleasantness,’ when money circulated freely, and the gay trappings of the military created a taste for flashy colors, we had quite a run of ‘staring’ patterns to follow. The cavalry suggested yellow, orange and gold; the artillery, red; the zouaves, in their uniform, copied from the barbarians, gave us crimson, and it may be that we insensibly preferred blood colors, imitated with carmine, because our daily papers teemed with the recital of gory battle-fields. Whatever occasioned our wild and crude taste, no one will deny that it then existed. We are now

274 Gannon, Carriage, Coach, and Wagon: The Design and Decoration of American Horse-Drawn Vehicles
returning to colors more subdued in tone, and less striping is being put on.  

The editors of trade publications saw themselves as the arbiters of taste in an era when the nouveau riche lacked the proper education to make good choices about the form and ornament of their possessions, in this case, their carriages. And sometimes they got it right. When the editors of The Coach-maker\’s Magazine endorsed the purple shifting-seat buggy in 1856 they were on the cutting edge of both fashion and science. The color purple was about to tint both the European and American aesthetic landscapes, and change the palette available to everyone in dramatic and lasting ways. While Reverend Hill was busy editing his manuscript and creating his shiny purple plates in New York, a college kid in England bungled his homework in chemistry, inadvertently creating the purple dye that would unlock not only the range of colors that could be made by man from then on, but the secrets of organic chemistry. The sludge he was working with when the beautiful purple emerged was coal tar, a greasy byproduct of gas lighting that was fouling the environment everywhere in urban America. It was the demystifying of the chemistry used in creating these new, aniline, colors that came from coal tar that quickly moved the locus of debate between theoretical and applied science to color. The victory of applied sciences is reflected in the very short gestation of the modern pharmaceutical industry birthed shortly after. For a time dunged and oiled vegetable-based Turkey reds, still based on an ancient recipe, comfortably cohabited with lab-produced aniline greens on the creamy white surfaces of several Quilt styles popular in

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275 Ware, The Coach-Makers\’ Illustrated Hand-Book : Containing Complete Instructions in all the Different Branches of Carriage Building 199
the era. But more and more as the century progressed, color was manufactured in laboratories, not picked, dug, scraped, or culled from the earth.

In the latter half of the century industrialization gave Americans a whole new palette by which to define themselves. The bureaucratization and calls for efficiency that came to characterize modern business operations after the American Civil War seeped into the ever more colorful middle-class home, just as they affected how color was both manufactured and distributed. Instead of being laboriously ground on site, paint could now be factory-made, dispensed into cans, and shipped on rails. The process of transfer printing allowed Americans to dine from industrialized china that looked hand-painted in blues, greens, reds, browns, and purples, but at a much reduced cost. Steam became the primary means of fixing dye colors to fabrics; steam milled the lumber that framed the middle-class’s new homes. Surrounded by papered walls covered in hand-colored prints and samplers, mid-century Victorians perched on their stiff, overstuffed parlor furniture tufted in deep red, black and green damasks, mohairs, and velvets, as they gazed down at their large-patterned, machine-woven, carpets. The new “industrious classes” were now empowered to “decide the national standard of architectural taste,” and “the spirit instilled in their designs” needed to reflect their unique American idiom. One of their English peers, Owen Jones, used a new industrialized method of printing in colors called “chromolithography” to illustrate the most important decorative arts text of the nineteenth century, The Grammar of Ornament, which catalogued and opened to Americans a world of exotic color schemes in 1856.

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In that year, Levi Hill and his fellow Americans were living on a line, but not the one—the Mason Dixon—that most historians would reflexively call to mind from the mid nineteenth century. Color was undergoing a seismic shift, and 1856 was its fault line.
CHAPTER 4

PICTURESQUE COLOR

…See (and scorn all duller
taste) how heaven loves color;
How great Nature clearly joys in red and green;
What sweet thoughts she thinks,
Of violets and pinks,
And a thousand flushing hues made solely to be seen;
See her whitened lilies
Chill the silver showers,
And what a red mouth is her rose, the woman of her flowers.277

Chorus of Flowers, Leigh Hunt

Over the objections of the Senate Committee on Public Building, in 1851
President Millard Fillmore appointed Thomas U. Walter as architect of the extensions to
be added to the central core of the Capitol. After Benjamin Henry Latrobe’s death,
Walter had taken his place as the country’s preeminent architect. He was the Capitol’s
fourth architect, and ultimately oversaw the addition of the wings and dome that gave the
Capitol its final profile. Walter had originally recommended the exterior structure above
the basement of the lightest colored granite be finished in marble “as nearly white as can
be obtained,” and the sandstone walls of the old Capitol would then be painted to match
the new marble. Anticipating a ruckus among the many building material suppliers
competing for Capitol contracts and their Congressional backers, Walter decided to
review the marbles submitted, and to allow a panel of experts to choose what would be

277 Frank Jesup Scott, The Art of Beautifying Suburban Home Grounds of Small Extent (New York: D.
Appleton & Co, 1870) 246.
installed. Among the selection committee was the country’s foremost arbiter of taste, Andrew Jackson Downing.

By the mid 1850s Victorian aesthetics and melodrama had begun to add to the usual politicking involved to drive modifications to the Capitol. To mend fences with the senators annoyed with Fillmore’s appointment, Fillmore’s successor President Franklin Pierce allowed Secretary of War Jefferson Davis to retain Army engineer Captain Montgomery C. Meigs as the Capitol’s superintendent over Walter. In this cast of characters it was Davis who charged Meigs with examining the strength of the building’s foundation and updating its heating and ventilating, seeing to it especially, and, one might argue ironically, that “no vitiated air shall injure the health of the legislators.” But Meig’s work quickly expanded from the structural into the decorative. In 1855 his report showed that his staff was experimenting with frescoed ceilings, bright and colorful encaustic tile floors in the corridors instead of brick and sandstone, and painting the walls and ceilings, ostensibly in more intense colors, instead of whitewashing. Secretary Davis asked Congress to approve redecorating the additions’ interiors, as finishing them to match the existing structure “would not be a fair sample of the present state of architectural skill.” By “architectural skill” Davis clearly meant “decorative taste.”

Politics played a role in finishing and decorating ordinary American homes as well. In 1841 George Dunn was just completing the large farmhouse he was building on a lot in Ross County, Ohio, not far from the Worthington’s venerable homestead, Adena. The home sat at the center of 44 acres, facing the turnpike. From the treeline flanking the property Dunn was allowed to take lumber and firewood, but the neighbor who owned it

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prohibited his taking any trees suited for railroad ties, as the income from those had already been accounted. Its first floor plan had two parlors, a sitting room, and a bedroom, and upstairs the space was being divided into five or six bedrooms. George’s brother John was about to get married, and he was in Philadelphia doing his own furniture shopping when George wrote to him from Chillicothe on January 20 with a request from one of their other prominent neighbors. “W. Ross wants another favour of you and he says this is a favourable time to get favours because when folks are about getting married they are always in good humour. He finds the tin roof on his store beginning to rust a great deal more than he expected which he thinks proceeds from the fumes of the Coal that his neighbor Madera burns in his house.” The remedy for this problem, Mr. Ross speculated and George communicated, was “the kind of Tar that is made in gass [sic] works” which, ostensibly, John could find in a city as large as Philadelphia and Ross would paint on his roof as a rust inhibitor. George then burdened his brother with a few favors for himself. “We will want you when buying your own furniture to buy a number of articles for us…Carpeting will be one of them.” The George Dunns now had a double parlor, and Mrs. Dunn wanted something in which the pattern was “in the width.” Mr. Dunn, however, thought there were factors in the carpet’s selection that outweighed the importance of how the pattern was laid out.

A good deal more depends on selecting suitable carpeting than any other kind of furniture. Our new house is a good deal more shewy [sic] than I expected or than I like therefore I do not wish to add to this in selecting shewy carpets. The kind that I think would suit the best would be superfine ingrain of a pattern two in the width…I should like something
just between a light carpet and a dark one but still one with very little white in it. One whose light colouredness was made up more by the other light colours than by white. Look at Ornes[?] stock and let me know what you see and the prices. The carpet men begin their new purchases in February.279

Aesthetics are already a subjective thing; one wonders how well John did in interpreting this order and choosing a carpet that would please his brother. George’s wordiness in explaining what he wanted demonstrates that Americans of the mid nineteenth century—without a means of cheap color printing or national magazines with color ads to refer to—faced the same problem their ancestors had in communicating an idea of color through words alone. Whatever carpet John Dunn managed to find to suit his brother’s instructions was probably the most expensive furnishing they bought for George’s new house, so it makes sense that the brothers would take care with this decision. But George Dunn had a bigger concern. Having already built an expensive-looking house, it seems he was worried a deeply colored and expensive-looking carpet might cause the neighbors to gossip. Historically, wool carpets, almost all imported from England into the New World, had served as status symbols, and sometimes centers of controversy. “As early as 1788 Brissot de Warville commented upon the ‘ridiculous prodigality in carpets’ in America and offered the anecdote of a Quaker from Carolina who, when he went to dine at the house of one of the wealthiest Quakers in Philadelphia, was so offended at seeing the front hallway ostentatiously covered with a carpet that he

279 George Dunn, Letter to John Dunn, January 20, 1841, 1841.
refused to enter the house." Even in Ross County, Ohio, several decades later the flagrant purchase of fancy carpets instigated one of Dunn’s neighbors to write to her sister in 1818 complaining

“the people in this place are getting very extravagant—furnishing their houses and liveing [sic] like they do in Cities—Bond has the handsomest and best furnished house in Town two Brussels Carpets, one in their dining room and the other in their drawing room elegant mantle glass and [illegible] in like proportion is the rest of their furniture. Mr. Worthington has got a Brussels carpet for their drawing room two hair bottomed sophas, handsome chairs and a mantle glass…”

There are several other reasons why George Dunn might have equivocated about this purchase. At the beginning of this period the prospect of owning several colorful objects was finally real, but was new enough that Americans had to feel their way around their proper implementation. Their unfamiliarity with their newfound access to color sometimes made them tentative about how they would use it. But they wanted it nonetheless. The Dunn brothers’ exchange as well as the one between the Ross County sisters two decades earlier also make it clear that Americans were cognizant of the fact that whatever rules of using color then extant might differ between city and country. The idea that this distinction is an important one emerges even from a cursory reading from the works of the social and aesthetic commentators of this era.

It seems that George Dunn was concerned about what the colors in his new carpet would say about his commitment to his community. As one of the larger farmers in Ross

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281 Nancy Swearingen, Letter to Elizabeth Bedinger, January 4, 1818, 1818.
County, Dunn was well off, but among his country patronage system were people of both wealthier and much humbler stature. His suggestion that the new carpet incorporate light tints but not whites most likely reflects his wish to avoid alienating his neighbors on either end with a deeply colored carpet, an emblem of prestige. But that its “light colouredness” should be comprised of lighter tints instead of white also tells us that he was not willing to give up color altogether. After all, aside from keeping the floor a little warmer in winter, what would be the point of the carpet?.

Although George Dunn referred to his wife’s opinion on the carpets they wished his brother to buy, the Dunn brothers’ correspondence might suggest that matters of decoration in the American home were still left to men. But a preponderance of documentary sources show that as the nineteenth century progressed women had taken on more responsibility for house decoration. Certainly the household advice manuals of the period directed their guidance to women, even if the text was sometimes written by men and men often made the actual purchases. According to historian Elizabeth Donaghy Garrett the personal correspondence between husbands and wives from 1750 through at least 1870 “gives ample evidence that husbands and wives did speak their minds freely and were frank with each other in many matters of domestic concern, including interior décor. Architecture, floor plans, furniture, pictures, carpets, curtains, colors, and costs were sometimes a source of anger and discord, but in the most felicitous marriages these issues were debated and mutually determined.”

At the beginning of this period the prospect of owning a household full of colorful objects was finally real, but was still new enough that Americans could have difficulty implementing color in their spaces in a socially or critically acceptable way. The most

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widely read journal on landscape, horticulture, and house design in the era, *The Horticulturalist*, printed an editorial in 1853 suggesting that the Dunn’s trepidation in decorating their home was not unique. The editorial recounted the tale of “Consistence”, a farmer who had just upgraded his unfenced, undecorated primitive farm with a new house surrounded by a picket fence. Consistence had made a mistake in demarcating a “stingy” little yard with a wooden fence instead of something more stately and beautifully colored, such as a line of trees. Consistence, according to the editor, would have been savvier to plant a row of evergreens, such as the Black Spruce. Much like the Norway Spruce in growth habit, the Black displayed a green similar to verdigris. “Its depth of coloring sometimes gives it rather a somber expression.” But to the editor “that very dark green is especially pleasing in the melting days of summer.” The story of Consistence continued as he patiently indulged his wife when she transplanted the suckers of old, unkempt lilacs and cuttings of blush roses from friends and neighbors to her house and thereby continued the positive trajectory of the grounds. Consistence, then, was on the right path, but was still nervous about how he was shaping his estate. “”Now CONSISTENCE is but a type of a large class of farmers whose ‘strivings’ to be tasteful are as uncertain as the flesh.”283

Helping Americans to overcome this uncertainty was a host of new journalists, editors, and authors of guides to home building, decoration, and management that appeared after 1840 in England and the United States. For the most part these critics focused on the architecture of houses, creating safe and efficient homes, and the proper arrangement of rooms. They tried to guide their readers in the respectable use of decorative color, strewing their remarks through their texts, as opposed to devoting whole

chapters to the proper use of color as authors would do in the last quarter of the century. Most were much less prescriptive about interior colors than exterior. Catherine Beecher went so far as to tell the readers of her text on household management precisely what lithographed images they might hang on their parlor walls, but compared to the period after 1870 their references to color are few, suggesting that the jury may still have been out on exactly how Americans should use color in their more private spaces. There are notable exceptions to this rule, of course, Edgar Allen Poe’s being one of them.

Poe was one of the new self-appointed judges of American taste of the 1840s, but one whose mocking hostility to American culture put him outside of that circle of his contemporary American authors, like Emerson, making the case for an enviable American cultural exceptionalism. His *Philosophy of furniture*, published just a year before the Dunn’s shopping trip, suggests yet another reason why George Dunn may have fretted over his carpet purchase. In explaining why in all the world “the Yankees alone [were] preposterous” in “the internal decoration”, Poe had much to admonish them for in floorcoverings, besides their meretricious floorcloths.

Carpets are better understood of late than of ancient days, but we still very frequently err in their patterns and colours. A carpet is the soul of the apartment. From it are deduced not only the hues but the forms of all objects incumbent. A judge at common law may be an ordinary man; a good judge of a carpet must be a genius. Yet I have heard fellows discourse of carpets with the visage of a sheep in reverie — “d’un mouton qui rêve” — who should not and who could not be entrusted with the management of their own moustachios. Every one knows that a large
floor should have a covering of large figures, and a small one must have a covering of small — yet this is not all the knowledge in the world. As regards texture, the Saxony is alone admissible. Brussels is the preterpluperfect tense of fashion, and Turkey is taste in its dying agonies.284

By “Turkey” Poe was of course referring to those carpets manufactured in Turkey, but they were also known for their intense red color, or “Turkey red.” But he did not restrict his criticism to reds only, and he meted out particular censure of conventionalized ornament. “…a carpet should not be bedizzened out like a Riccaree Indian — all red chalk, yellow ochre, and cock’s feathers. In brief, distinct grounds and vivid circular figures, of no meaning, are here Median laws. The abomination of flowers, or representations of well-known objects of any kind, should never be endured within the limits of Christendom.”285 Such condemnation of the kind of furnishing many Americans had already bought or were hoping to buy must have put a lot of pressure on people like the Dunns, and just to make sure they got the point the essay was republished five years later. But Poe’s hyperbole cannot mask the truth from the observation of time; far from moribund, Turkey carpets would continue to be popular with Americans, largely because of their deep coloration, through the nineteenth century and well into the twentieth. Some Americans may have been reading advisors like Poe, but they weren’t necessarily following the advice.

The larger point of Poe’s essay was to point the finger at the Americans’ bad taste in decoration overall. It was their errant republicanism, according to Poe, that confused

284 Poe, *The Philosophy of Furniture*, 243-245
285 Ibid.
them into relying on their vigorous capitalism to make bad aesthetic choices. “We have no aristocracy of blood, and having therefore as a natural, and indeed as an inevitable thing, fashioned for ourselves an aristocracy of dollars, the display of wealth has here to take the place and perform the office of the heraldic display in monarchical countries. By a transition readily understood, and which might have been as readily foreseen, we have been brought to merge in simple show our notions of taste itself.” Though European and Asian nations evinced varying if disappointing degrees of decorating savvy, in Poe’s view the problem was uniquely American.

Even in a country as class-conscious as England “no mere parade of costly appurtenances would be so likely as with us, to create an impression of the beautiful in respect to the appurtenances themselves — or of taste as respects the proprietor: — this for the reason, first, that wealth is not, in England, the loftiest object of ambition as constituting a nobility; and secondly, that there, the true nobility of blood rather avoids than affects costliness in which a parvenu rivalry may be successfully attempted, confining itself within the rigorous limits, and to the analytical investigation, of legitimate taste. The people will naturally imitate the nobles, and the result is a thorough diffusion of a right feeling.”

This “diffusion of right feeling” through the people’s imitation of the nobility was correct, according to Poe, but in America, “dollars being the supreme insignia of aristocracy, their display may be said, in general terms, to be the sole means of the aristocratic distinction; and the populace, looking up for models, are insensibly led to confound the two entirely separate ideas of magnificence and beauty.”

286 Ibid.
Poe’s hair-breadth distinctions between “diffusing right feeling” and apish, taste-corrupting copycatting, and between “magnificence” and “beauty” strike the modern reader, [at least this one], as ridiculous. Yet they’re a fine example of the kind of ideological hair splitting that went on in aesthetic debates of the mid-nineteenth century—“the Beautiful” versus “the Picturesque,” for instance, “Beauty” versus “Utility,” and the Greek Revival versus the Italianate. Much of this argumentation sprang from an unlikely source—politics—that played an influential role in the development of a kind of practical aesthetics especially for the middle class. At stake was nothing less than the moral future of the country, according to pundits. The notion of republican appropriateness came to be applied to household furnishings, and indeed to houses themselves in this period. By midcentury Americans everywhere had witnessed the effects of the availability of color in every article of household and personal adornment. Unfettered by any formal grammar of color they had decorated with abandon, and left few surfaces devoid of ornament. But as George Dunn’s letter suggests, access to color did not necessarily translate into comfort or complacency in its application, and in response the newly emerging American middle class took refuge in bourgeois notions of appropriateness and respectability. These ideas were rather quickly applied to household aesthetics, including architecture, furnishings, and the decorative arts.

Where these new advisors had the most to say on the subject of color was in architecture, and no architectural idiom had held more sway in the United States by 1840 than the Greek Revival. Latrobe’s object to classicize the American landscape had been met; Palladian Federal style and Greek Revival houses had started springing up around
the country about the time the Worthingtons had moved into the new house he had
designed for them.

BAUM HOUSE CINCINNATI

In the late 1820s “the first generation of American-born and American-trained
professional architects—Robert Mills, William Strickland, Gideon Shryock, and Thomas
U. Walter—took this Greek-temple mode as their own.” As the location of the first
professional architectural firm of Ithiel Town and Alexander Jackson Davis, New York
City took on the moniker “Athens Revived.” Their work helped to ensure that “[i]n
robust Midwestern towns, in the rural South, in villages that grew along western trails
and in Gold Rush California, the Greek Revival was a vigorous vernacular expression
right up to the Civil War years.”

What this style meant is debated by architectural historians. One argument holds
that the Greek Revival symbolized “a past that was missing; more significantly, in an
ambitious country, the Greek Revival held the promise of a great future.” Another
maintains that it was the “most conspicuous means by which the newly rich [Americans]
celebrated their boom.” Though the style existed in Europe in roughly the same period, it
was only an “affectation of elites” who paid little attention to its political implications.
But in the United States the Greek Revival was the product of paradoxical Americans,
who kept glancing backward to the “Doric simplicity” of the founding fathers while they
disappointed the founders’ frugal expectations in their displays of extravagance.

180.
288 Ibid.
“Americans knew they were engaged in a brash pursuit of riches, and they celebrated their successes. Yet they dutifully paid architectural tribute to two ideal societies, one ancient and distant, the other American and only a half century gone, both imagined as purer and worthier than their own, and left too quickly behind.”

Regardless of whether Americans saw the temple form as a symbol of their country’s past and future or its current guilty greed, by the mid nineteenth century Greek Revival buildings were being sprinkled over the armature of every American city like course-grained salt to satisfy Americans’ taste for their ancient grandeur. A member of the English country gentry who visited New York in the 1850s favored the style. “The buildings on each side of Broadway were even more irregular. Tall, well-built houses stood beside others half their height; houses of cement stood beside others of rough red or yellow bricks, or beside Stewart’s store of white marble—the handsomest shop in the world…Some of the shops in Broadway were very magnificent. There was a linen-draper’s shop faced with pillars of white marble; but as people in trade are the gentlemen of America, this is, of course, not to be wondered at…” It was their vigorous breed of capitalism, architectural critics would argue, that would cause Americans to confound stores and the homes of elites with courthouses and banks—the public institutions for which the Greek Revival was an appropriate style.

The style had its detractors, however, people for whom the idea of a New World littered with Grecian temples seemed absurd. Students of the Picturesque style coming into vogue around 1840 in the United States particularly objected to it. “No sooner were

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there a few specimens of the classical style in the country, than the Greek temple mania
became an epidemic.” They tolerated “churches, banks, and court-houses” built in this
classical style, “but to see the five orders applied to every other building, from the rich
merchant’s mansion to the smallest and meanest of all edifices, was a spectacle which
made even the warmest admirers of Vitruvius sad, and would have made a true Greek
believe that the gods who preside over beauty and harmony, had for ever [sic] abandoned
the new world!”291

Like his namesake, Andrew Jackson Downing found himself at odds with the
antebellum American bank, although his complaints lay in its architectural form and
color. One of them stemmed from the fact that too many builders cheaped out on their
construction. “Every one familiar with New York has wondered or smiled at the
apparent perversity of taste which gave us a building, in the most conspicuous part of the
city, and devoted to the highest municipal uses, three sides of which are pure white
marble, and the fourth of coarse brown stone. But few of those who see that incongruity
know that it was dictated by the narrow-sighted frugality and who determined that it
would be useless to waste marble on the rear of the City Hall, “since that side would only
be seen by persons living in the suburbs.” Poorly fitted for most commercial
applications, the Greek Revival failed to meet consumer demand for “plans that
accommodated complex functions, for construction that incorporated iron and glass, for
style that was evidence of material progress.”292 Despite its blockiness and inconvenient
floor plans its elevation could still impress, which ensured that the stately columned
porticos and elegant pediments of the Greek Revival would continue to be used to convey

292 Rifkind, A Field Guide to American Architecture 180 "Iron and glass" refers to the cast-iron framed
vitrines then being made by steam and installed in commercial store fronts throughout the United States.
the permanence and stability of American courthouses that frequently burned down and volatile American banks that collapsed even more suddenly. Even as these transplanted Greek temples with white marble facades started to go the way of their ancient forebears after mid century, Downing and his peers still decried their countrymen’s habit of “Vitruvianizing” public buildings.293

Andrew Jackson Downing was one of the Reverend Levi Hill’s celebrity neighbors in the purple Catskill Mountains, in nearby Newburgh, New York. He edited the nationally circulated journal on country living *The Horticulturalist* from 1846 until his death in 1852, and wrote books on rural house and landscape design so widely distributed that he became arguably the most influential tastemaker of the mid nineteenth century. His first book, *A Treatise on the Theory and Practice of Landscape Gardening*, was published in 1841. He consulted on the creation of the park behind the Smithsonian’s castellated building in Washington, D.C., now known as the National Mall, and his work influenced an entire generation of architects and landscape designers, most notably Frederick Law Olmsted, Alexander Jackson Davis, and Calvert Vaux. Newburgh, Fishkill, Kinderhook, and Flushing—these were the mid-nineteenth century’s Hollywood, where visitors came to for their brushes with greatness. Downing had so many visitors come to his home, other celebrities and average people alike, he had to build a room on the first floor of his house and move his office from the second floor because he was always having to answer the door. When the Swedish author and feminist Fredrika Bremer came to America in 1849 she met Downing and found that his handsome brown eyes, dark, curling hair, and “poetical appearance” complimented “a noble and acutely discriminating spirit, a true American, yet without blind patriotism, an

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293 Downing, *The Architecture of Country Houses* 244-5
open heart, [with a] critically sagacious intellect.” In his 1991 doorstop of a book *The Market Revolution*, Charles Sellers reduced Downing’s contribution to American culture to one paltry sentence when he wrote that the designer “embowered domesticity in quaint garden cottages.” But Seller’s dismissal is an extraordinary one, given the fact that Downing “recast” the esoteric work of European landscape architects, and made “what in the eighteenth century had been the exclusive property of the English gentry…the concern of middle-class Americans” in the nineteenth century. His first book, *A Treatise on the Theory and Practice of Landscape Gardening* came out in 1841 and went through four editions in the next twelve years, and all his many titles went through multiple reprintings in the nineteenth century. Downing’s record of achievement is even more impressive in the material culture of his period, and even ours. Though most of his more prominent projects have been razed, his work is still reflected everywhere on the American landscape. A short drive through any midwestern town will turn up numerous, often many, houses still standing that were designed in his time and according to his scriptures. Usually these are the smaller “Carpenter Gothic” versions of the picturesque Gothic Revival mansions he designed for his neighbors in the Hudson River Valley.

Downing denigrated not only the blocky form, but the glaring white of the Greek Revival. Typically, high end buildings in this style would be covered with pure, white marble, a finish color designed to convey the incorruptibility of the institution inside. When marble or white stone was not available for the façade, wood was painted in its imitation using white paint and sand, with grout lines faked with paint. Even solid brick structures usually received a coat of white paint to effect the Greek Revival’s trademark color. Exceptions to these rules abounded, of course, for the most part in the private

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sector. When James Franklin Doughty Lanier, a banker and major investor in the Madison and Indiana Railroad, built and decorated his high-style Greek Revival mansion in the early 1840s, he chose a light terra-cotta pink paint for its brick exterior. Otherwise the house reflects a relatively pure interpretation of the style—symmetrical (square) façade, columns or pilasters in three Greek orders (a purer version would have stuck to only one), a three-story front portico, dentilated cornice, and a huge, impressive, white entablature.

Private residences executed in the Greek Revival style may have irritated Downing even more than their public examples, although it is unlikely he would have criticized Lanier’s home. Downing’s argument was with homeowners who disrespected the decorous obscurity of country life by painting their homes a blinding white.

“If you or any man of taste wish to have a fit of the blues let him come to the village of—. I have just settled here; and all my ideas of rural beauty have been put to flight by what I see around me every day…new wooden houses, distressingly lean in their proportions, chalky white in their clapboards, and spinachy green in their blinds…There is not a tree in the streets; and if it were not for fields of refreshing verdure that surround the place, I should have the ophthalmia as well as the blue-devils.”

WHITE HOUSE GREEN SHUTTERS

295 A. J. Downing and F. A. Waugh, Landscape Gardening, 10th ed. (New York: J. Wiley & Sons, 1921) 333. In The Architecture of Country Houses Downing made some silly analogies about the pernicious qualities of white. "There is always, perhaps, something not quite agreeable in objects of a dazzling whiteness, when brought into contrast with other colours. Mr. Price, in his Essays on the Beautiful and Picturesque, conceived that very white teeth gave a silly expression to the countenance—and brings forward in illustration of it, the well known sobriquet which Horace Walpole bestowed on one of his acquaintances—" the gentleman with the foolish teeth."
By the time Downing wrote his polemic against the Greek Revival in 1846, “the greek [sic] temple disease [had] passed its crisis. The people [had] survived it.” Many of the pediments and porticoes had fallen down, “and many ha[d] been pulled down, and replaced by less pretending piazzas or verandas.” But a second disease was then emerging, and Downing attempted to diagnose it—a “mania” for a kind of “spurious” rural Gothic cottage, “nothing more than a miserable wooden thing, tricked out with flimsy verge-boards, and unmeaning gables.” Both diseases—manias for the Grecian temple and the flimsy faux Gothic—Downing asserted, arose from “a poverty of ideas on the subject of style in architecture.” The untutored Americans who erected these houses were like “the schoolboy who, with his gaudy paper cap and tin sword, imagines himself a great general.”296  The great irony of his complaint against these Gothic houses was that he had done more to promote their design than anyone else.

Downing’s second book, *Cottage Residences*, came out in 1842. In it he refined the ideas of English Picturesque landscape design he first advanced in the *Treatise*, and this time he adapted them to domiciles for the middle class. As he had in his first book he mentioned that Americans needed a better education in architecture, but the larger point of his book was to convince them to care about the design and decoration of their homes, and within the category of decoration Downing included landscaping, for its critical decorative effects. For Downing, all beauty was an outward expression of inward good, and good rural homes would lead their inhabitants to “attain an influence that is higher and deeper than the mere symbol…” In the beautiful home, “where the social sympathies take shelter securely under the shadowy eaves, or grow and entwine trustfully

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296 Downing, *The Architecture of Country Houses* 246
with the tall trees or wreathed vines that cluster around,” the inhabitants could create “an
unfailing barrier against vice, immorality and bad habits,…whose humble roof, whose
shady porch, whose verdant lawn and smiling flowers, all breathe forth to us, in true,
earnest tones, a domestic feeling that at once purifies the heart, and binds us more closely
to our fellow beings!” There was some classism in Downing’s philosophy. “Like the
farm-house, the villa is, too, the more individual home. It is there that the social virtues
are more honestly practiced, that the duties and graces of life have more meaning, that the
city.” In European tradition “villa” refers to “a rural country seat,” and, in the United
States, the country-house of a person of competence or wealth sufficient to build and
maintain it with some taste and elegance,” and hire at least three or more servants. “The
villa, or country-house proper, then, is the most refined home of America—the home of
its most leisurely and educated class of citizens…it is in such houses that we should look
for the happiest social and moral development of our people.”

In addition to its being a bastion of morality, the adorned rural home could also
incubate republican virtue if Americans would only educate themselves to the subject of
taste. “But we are republican; and, shall we confess it, we are a little vexed that as a
people generally, we do not see how much in America we lose by not using the
advantages of republicanism. We mean now, for refined culture, physical comfort, and
the like.” Downing cited higher literacy rates as a positive sign that Americans were
starting to understand the value of “Republican education,” and what remained was to
“take up popular refinement in the arts, manners, social life, and innocent enjoyments” in

297 A. J. Downing et al., Cottage Residences (New York: J. Wiley & son, 1873) ix.
298 Downing, The Architecture of Country Houses 256-57
order to see “what a virtuous and educated republic can really become.” Taste, then, did not come from aristocratic rearing or blue blood. Perhaps it was his training as a nurseryman, but Downing’s work was dedicated to the proposition that taste could be cultivated, it could be learned. This was, perhaps, his most republican idea.

The architect Henry Cleaveland, a student of the Picturesque and later the country’s foremost practitioner of the “Stick” style of architecture, made similar arguments about the function of rural life in national development. “The rugged mountain and the gentle eminence, the lake, the river, and the brook, the forest and the grove, the broad plain and the little green dell, must make deep and lasting marks on the minds of those who daily behold them, and especially of those who grow up among them. It is eminently amid such scenes, as history and observation show, that the hardy and homebred virtues thrive, and that patriotism is born and nurtured.”

Downing’s protégé, the architect Calvert Vaux, twisted this argument. In Vaux’s view, which he laid out in his builder’s guide Villas and Cottages of 1857, republicanism had retarded Americans’ aesthetic development. The “democratic element” had rebelled against the fine arts as manifestations of “pomps and vanities so closely connected with superstition, popery, or aristocracy,” and in doing so had sacrificed their artistic development to their progress in “commercial prosperity and political importance.” “Meagre, unartistic buildings” would have to give way to a higher level of design, of which color was an important component. The locality of each house would have to be

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299 Ibid.
300 The “Stick” style was a transitional one, between the Carpenter Gothic and the Queen Anne later in the nineteenth century. The vertical members on the exterior of the house made reference to its internal framing. The style is sometimes referred to as Eastlake because they are coincident in time, the stick ornament closely resembles the superficial incised lines of the Eastlake, and because most people don’t know the difference.
301 Vaux et al., Villas and Cottages: A Series of Designs Prepared for Execution in the United States 16-18
studied and considered “for its artistic effect” and the design of the building must appeal to the eye, the “portal” of “the infinite host of progressive ideas.” The eye sought balance in “all examples of form and color…We may with propriety, so far as our subject is concerned, call this balance proportion when speaking of form, and harmony when speaking of color.” It was not sufficient that the structure be considered harmoniously colored within itself; “it must also possess these qualities when considered with reference to climate, scenery, and surrounding objects.”

The architects and designers of the Picturesque style poised themselves to satisfy the “inexhaustible demand for rural residences” growing in the country in the 1840s and 50s. Americans’ means of financing their new homes came precisely from the commercial prosperity so many architectural critics complained about. The building styles promulgated by these critics were facilitated by industrialization in the form of steam-powered, machine-milled lumber, about which they also complained. A new method of house framing, one the first ideas born in the hinterland of Chicago to push its influence East, balloon framing was the product of the application of steam power to the construction industry. Balloon framing, and its successor platform framing, used minimum cross bracing to take advantage of standardized lumber and steam-powered milling, thereby doing away with the need for skilled joinery. In addition to two-by-fours and wood plaster lathe, steam-powered saws and lathes chewed up logs and spit out the batten siding, tracery verge boards, and turned posts that constituted the “gingerbread” trappings of the Picturesque style.

ROSELAND COTTAGE ROSELAND COTTAGE

302 Ibid.
Roseland Cottage provides an excellent example of the effect of these structural embellishments on these mid-century styles. This was the high-end, high-style Gothic Revival summer home of Henry Chandler Bowen, a prosperous New York newspaper owner and businessman. Bowen left his hometown of Woodstock, Connecticut, at the age of 21, and when he returned a successful New York businessman in 1846 he hired Joseph Collins Wells, an architect clearly versed in the Picturesque, to design his gingerbread fantasy. The color scheme is actually one chosen by a later resident of the home, whose bride’s name inspired the rose-like color scheme, the intensity of which has recently been restored using scientific finish analysis. Filling the window frames of Picturesque houses more and more after 1840 were stained-glass windows, as technological innovations had recently brought their cost within the means of the middle class. In the antebellum period, stained glass was a rarity; something Americans would have seen only in commercial or religious buildings. In 1831 the National Gazette editorialized on the beauties of color afforded by its interpretation in glass. In a review of a show of stained glass at the Masonic Hall, for twenty-five cents Philadelphians could take in a “first of the kind” exhibition of stained glass designs after a handful of artists from American Benjamin West to Raphael. The editor commented: “To all the beauties of the paintings of the celebrated masters, is added a brilliancy of coloring which it is impossible to attain in any other description of picture.”303 But by 1840 stained glass was a common decorative window treatment, and by 1850 a number of domestic window manufacturers produced door panels, side lights, partitions and transoms in colors. Some of these firms exhibited their work at New York’s Crystal Palace in 1853, and by this

303 "Stained Glass."
time they had begun elaborating on color with pattern. A cheap method of casing in which a sheet of cut or engraved glass covered a thin and therefore less expensive plane of colored glass—usually red or blue—allowed Americans of middling incomes to cast intricate, sparkling rainbows onto their hall and parlor walls.

Industrialization first helped make the dream of owning and decorating a home a realizable one for many Americans. Picturesque home designs coming from Downing et al in this period celebrated European antecedents—the Gothic church, Tuscan villa, Swiss chalet, and Norman castle—but now tweaked for their new milieu. European eclecticism crossed with American exceptionalism hybridized the American Cottage Ornée, a housing style propagated by Downing and brimming with color and decorative trim inside and out. These derivative styles joined the uniquely American ornately “Bracketed” Italianate style, all on American soil. A passion for the Italianate, which would continue to appear in various forms and mutations until the end of the century, appeared and quickly dominated urban architecture in the 1840s until about 1870.

Bracketing and mouldings surrounded its tall, narrow window openings with pediments reminiscent of the Italian Renaissance. Everywhere in America amateur and professional builders experimented, synthesized, hybridized ingenious architectural forms. By the end of this period, in city blocks from Maine to Illinois, any observer so interested could read the transition from the unadorned simplicity of the Greek Revival, perhaps a clapboard storefront painted to look like limestone, to the bracketed exuberance of the Victorian Italianate, a solid structure in red brick with real limestone lintels over every window and door. The rich embellishment mid and late Victorians used to face their frame houses concealed the simplicity of the interior structure. But the embellishment was made
possible by the same mechanisms that simplified the building of the house—machine-milled, -turned, -sawn, and steam-pressed wood.\textsuperscript{304}

Picturesque architects catered to all classes. In the United States its most popular forms were the villa and cottage, high end and low end respectively, most commonly executed in the Gothic Revival, the fanciful cottage Ornée, and Italianate modes. He focused many of his designs on “\textit{cheap cottages}” [Italics are Downing’s.] “There are tens of thousands of working-men in this country, who now wish to give something of beauty and interest to the simple forms of cottage life; there are many of these who are desirous to have their home of three rooms tasteful and expressive, no less than among those whose dwellings number thirty rooms. Downing cut down the ornaments and embellishments of such houses, to keep the costs the same as for “plain building.”\textsuperscript{305}

\begin{itemize}
\item \textbf{A J DAVIS FRAME HOUSES}
\item \textbf{RIDDELL HOUSES}
\end{itemize}

The more embellished Picturesque houses, with their sugary sweet trims, crusts of hooded and lancet windows, beveled doors, and stained glass windows, could look like wedding cakes, frosted with varicolored icings. Downing argued that the architectural adornments made affordable by steam milling cheapened the Picturesque style.

\textsuperscript{304} These “distinct delineations” of older styles Allen could accept “as long as they do not absolutely conflict with true taste, or in their construction commit a barbarism upon any acknowledged system of architecture…” Such statements remind the student of American architecture why American styles born of this period still invoked their European antecedents in style. Despite the assertions of “practical” architects like Downing, Vaux, Sloan, and Allen that they were working to advance the state of American architectural taste and that they were committed to creating a style reflective of the nation’s republican idiom, they were still looking across the Atlantic for the fundamentals. Allen, 49-51.

\textsuperscript{305} Downing, \textit{The Architecture of Country Houses} 71
“Attempts to imitate in wood, effects that can only legitimately be produced in stone or other material, may, for a time, please the vulgar eye, but they cannot ultimately fail to be as unsparingly condemned as they deserve; and were there not some consolation in the thought, that the paltry imitations and ridiculous pretenses disfiguring so many of our beautiful sites, cannot, in their frailty, last long enough to outlive the attacks that the increase of a purer taste and riper experience is preparing for them.” Steam power, then, could be a destructive as it was constructive. Yet it’s difficult to see how what most of what Americans installed on their houses in this period differed appreciably from what Downing himself recommended. Some of the more ornate houses even passed muster with Downing himself. “We do not mean by this to say that it is impossible to build a highly ornamental cottage which shall be in good taste—what novel writers delight to call “a perfect bijou of a house.”306 The novel writer most associated with such a confection of a house in this period was Washington Irving, whose Romantic folly of a home, Sunnyside is just outside of Tarrytown, New York. Sunnyside’s eclecticism was inspired by Irving’s life abroad, but the many period lithographs, published visitor accounts, and its being featured in Irving’s story Wolfert’s Rest in 1855 all made its castellated lines and picturesque grounds so familiar to Americans that Sunnyside came to be referred to as “America’s Home.” And renderings of the home, which abounded in the period, tended to exaggerate the Romantic in a home already dripping with it, like this chromolithographed cigar box label from the 1850s.

DOWNING COTTAGE ORNEE

306 Ibid.
Though American architectural critics endorsed these styles, they worried about putting even vernacular design into the hands of an unschooled middle class with lots of capital but no better than a “cockney” grasp of rural taste. Throwing a wrench into this education of rural Americans were their countrymen coming out from the city, who, according to Downing, brought their inappropriately urban tastes with them. When a man from the city came to the country to “rusticate” (“that is, to recruit his purse and his digestion”) he made the mistake of moving his “profusion of gilt ornaments and embroidered white satin chairs” into the new “facsimile” of his urban townhouse, thereby becoming a gadfly of bad taste and infecting his neighbors. “As he builds a house which costs five times as much as that of any of his country neighbors, some of them, who take it for granted that wealth and taste go together, fancy the cockney house puts their simple, modest cottages to the blush.” They in turn begin to “imitate the cockney house in their moderate ways, and so the neighborhood becomes “tainted with the malaria of cockneyism.”

In his book *Village and Farm Cottages* of 1856, author Henry Cleaveland mimicked Downing’s fear of mimickry.

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“Unfortunately the copying tendencies to which we now refer usually run in a very different direction from that of fitness, or of grace. We need not mention instances. To every observant person they are perfectly familiar. Often some peculiarity of material, or form, or ornament, or color, introduced by one ambitious man, sets the fashion for a whole street, or even town. The more uncouth or fantastic or incongruous such features are the more likely are they to reappear with every new structure that is reared. Surely such mimicry as this is specially unworthy of a people who profess entire freedom and independence of thought and action. The common farm-house sometimes furnishes the model.  

Downing was especially fond of the metaphor of disease in his writing, and it would seem that when George Dunn wrote from Chillicothe to ask his brother in the city to take care with how much color was in the carpet he picked out for a house in the country, he may have been trying to inoculate himself against this cultural malaria. Millions of other Americans took the health alert seriously, too; every single one of Downing’s books came out in multiple editions in the nineteenth century. The most obvious evidence that such a disease was spreading was in the cockney use of color. Although Downing was willing to concede the limited charms of a village with a handful of white houses on tree-lined streets, the trope of a white clapboard farmhouse with arsenic green shutters standing alone in the countryside, then a ubiquitous sight on the American landscape, was quite another story. “The colour of the of a house in the

country is of more importance than is usually supposed, since, next to the form itself, the
colour is the first impression which the eye receives in approaching it…and in some
cases, the colour makes its impression, even before we fully comprehend the form of the
building.” His further objections to white as an exterior house color lay in the fact that
owners applying it were trying to convey the “newness” of their homes, and the white
itself was incapable of blending “harmoniously” with its rural surroundings. That
Downing devoted whole pages in several of his books to the attack on white shows, one
would suppose, just how hard he thought the battle to teach Americans the proper country
grammar of decoration was going to be.

It was in the homes of the rural middle class where Downing and his fellow
Victorian designers took this fight, and where their culturally constructed impulse to
reform and prescribe intersected with their passion for Romanticism. Much of their
tutoring came from the work on the Picturesque written by the aesthetic theorist William
Gilpin, the landscape architects Capability Brown, John Claudius Loudon, and Humphry
Lepton, and the great architectural advocate of the Romantic, John Ruskin. Ruskin had
asked in his 1837 essay “The Poetry of Architecture,” “How deeply is it to be regretted,
how much is it to be wondered at, that , in a country whose school of painting, though
degraded by its system of meretricious colouring, and is graced by hosts of would-be
imitators of inimitable individuals, is yet raised by the distinguished talent of those
individuals to a place of well-deserved honour; and the studios of whose sculptors are
filled with designs of the most pure simplicity, and most perfect animation; the school of
architecture should be so miserably debased?” The answer he offered to his own
question was “incapable” patrons, and a general public that used their considerable power
to compel their artists to “substitute glare for beauty.” England’s “perpetually increasing prosperity” was responsible for not allowing “anything to remain until it gets old,” and for self-consciously decorated cottages full of crockery and rose trees at the door, whose buds nouveau riche farmers plucked to decorate the button-holes of their blue Sunday suits. The remedy for the English architecture, according to Ruskin, would come in studying the air négligé, the appearance of neglect, of dilapidated French cottages whose worn whitewash had been made green with moss and mistletoe, and whose owners confidently displayed their “broken ornaments” and outré furniture.309

How anyone was supposed to derive genuine architectural theory from such descriptions is more difficult to understand than the descriptions themselves, and yet Ruskin’s work is some of the most consulted in the nineteenth century for its interpretation of the Picturesque. His influence on architects and designers in England and the United States would have had them erecting French and Italian cottages designed to look run down from the day they were put up, had his devotees not acted on their more practical instincts. Like their English counterparts Ruskin and Augustus Welby Pugin, the latter’s being principally responsible for the revival of the ecclesiastical Gothic style, Downing and his disciples Alexander Jackson Davis and Calvert Vaux immersed themselves in the Romantic movement, with its emphasis on organic forms, asymmetry, and the happenstance of Nature.310 Like his arguments on form, Ruskin’s approach to the coloration of buildings is still both lyrical and painterly. For Italian cottages, for

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309 John Ruskin, *The Poetry of Architecture: Cottage, Villa, etc. to which is Added Suggestions on Works of Art* (New York: J. Wiley & sons, 1877) 2-15. Ruskin's essay was serialized in London's Architectural Magazine in 1837-38, under the pen name "Kata Phusin" (Greek for "according to Nature").

310 Pugin was the son of a draughtsman who had fled France during the Revolution. With his father he studied architecture, because a draughtsman himself, and at 19 designed furniture for use in Windsor Castle. He then started his own business carving architectural ornaments in the Gothic style. By the end of his life he had designed not only churches and houses in the ecclesiastical and Gothic styles but also wallpaper, tiles, furniture, stained glass, and even gargoyles.
instance, the designer should remember that “the prevailing colour of Italian landscape is blue; sky, hills, water, are equally azure: the olive, which forms a great proportion of the vegetation, is not green, but grey; the cypress, and its varieties, dark and neutral, and the laurel and myrtle far from bright.” Ruskin had his own issues with combining white and green. “Now, white, which is intolerable with green, is agreeable contrasted with blue; and to this cause it must be ascribed that the white of the Italian building is not found startling or disagreeable in the landscape.” In sum, the colors of buildings need to be drawn from the Nature around them.

It is easy to see that Ruskin’s advice was closely followed by his acolytes in America. Downing was in fact one of the Americans of the era intrepid enough to attempt to define the basic tenets of Romantic theory as it applied to the material world, and his explanation, in which color figures prominently, demonstrates his fidelity to Ruskin’s approach. In his *Treatise on Landscape Gardening* of 1844, Downing explained the complex distinctions between the Beautiful and the Picturesque in landscape design, by outlining the geometry of such a landscape, and painting in its colors. In Downing’s opinion the landscapes of Claude Lorraine best exemplified the Beautiful. It was their “undulating plains covered with emerald turf,” outlined by a forest canopy interrupted by a single tree jutting into the “azure of heaven and its silvery clouds.” It was in this as well as “the deep verdure of the luxuriant and shadowy branches…and banks sometimes covered with soft turf and sprinkled with flowers” that Downing saw “all the elements of what is termed natural beauty, --or a landscape characterized by simple, easy, and flowing lines.” The Beautiful, Downing

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311 Ibid.
312 Downing and Waugh, *Landscape Gardening* 29-30, 385
summarized, was marked by symmetry, proportion, unity and grace, etc.,...” the presence of everything that could add to the idea of perfected existence.\textsuperscript{313}

The Picturesque, on the other hand, was best represented in the rugged vigorous landscapes of Salvator Rosa, with bolder rocks and wilder passes. Lines expressive of “violence, abrupt action, and partial disobedience” as well as striking, irregular, and spirited forms with “rude” details characterized the Picturesque.\textsuperscript{314} “We feel at the first glance at a picturesque object, the idea of power exerted, rather than the idea of beauty which it involves.”\textsuperscript{315}

It is perhaps reflective of his reading of English experts on the Picturesque that Downing chose European painters to define the meaning of these ideologies so important to his work, which is otherwise rooted very much in its American context.\textsuperscript{316} In any event, he and his contemporaries applied these nuanced definitions of the Beautiful and the Picturesque to the built environment as well. Expressive of rational order, a Georgian or Greek Revival house geometrically sited and landscaped with gradually curving lines, with a balanced plan, and symmetrical fenestration would most likely evoke the idea of the Beautiful. Whereas the Picturesque style, which in the United States was practically synonymous with Downing, bridged the gap between the perfect symmetry and proportion of the classical revival, and the pronounced asymmetry and rampant

\textsuperscript{313} Ibid.
\textsuperscript{314} Ibid. Frank Waugh, the editor of a volume of reprints of Downing's essays wrote in 1921: "To most landscape architects of the present time, Mr. Downing’s remarks on the geometrical style will seem slighting. They are much more liberal, however, than most of the discussions of that day. Early American thought, in particular, ran to partisan extremes in condemning the geometrical style, so that while Mr. Downing seems to have had little conception of its fundamental merits or practical possibilities, he had the good taste to spare his readers the usual venomous diatribes."
\textsuperscript{315} Downing, \textit{The Architecture of Country Houses} 28-29
\textsuperscript{316} Much closer to home, the Hudson River School of painting had become very influential since its beginning with Thomas Cole’s work in the 1820s, but does not seem to have figured into Downing’s argumentation.
eclecticism of the Queen Anne style of the last quarter of the nineteenth century. The Picturesque house relied on its asymmetry and abundance of eye catching forms—towers, bays, oriole and lancet windows, crenellated rooflines, or bracketed eaves—for its ruggedness, a cornerstone of the style.

All those architectural details lent themselves to color in a way that American architecture never had before. They practically begged to be painted in lots of different shades. What Downing recommended were the substances most in contact with the home, such as “Earth, stone, bricks, and wood,” from which homeowners would determine what colors to paint their houses. This palette of colors in sympathy with the rural landscape offered browns, putties, greys, and mild yellows, for instance, suitable for house body exteriors. Downing also recommended painting over in “any agreeable tint” the “offensive hue of red brick walls in the country” or better yet, covering them in stucco. The practical rule which Downing thought Americans should deduce from his work was to “avoid all these colours which nature avoids…In buildings, we should copy those that she offers chiefly to the eye—such as those of the soil, rocks, wood, and the bark of trees,—the materials of which houses are built. These materials offer us the best and most natural study from which harmonious colours for the houses themselves should be taken.” To illustrate his point Downing turned to an English artist. “Sir Joshua Reynolds, who was full of artistic feeling for the union of a house with its surrounding scenery, once said, “If you would fix upon the best colour for your house, turn up a stone, or pluck up a handful of grass by the roots, and see what is the colour of the soil where the house is to stand, and let that be your choice.” This rule was not probably intended to be exactly carried into general practice, but the feeling that prompted it was the same that
we are endeavouring to illustrate —the necessity of a unity of colour in the house and the
country about it.”

DOWNING’S ARCHITECTURAL PALETTE

Because of their close relationship to Nature, Picturesque buildings required this
very different palette. Downing argued in his 1850 text *The Architecture of Country
Houses* that color was secondary to proportion in the laws of beauty. But he still had
plenty to say. “Having entered our protest against the general use of white in country
edifices, we are bound to point out what we consider suitable shades of colour. “We have
said that one should look to nature for hints in colour. This gives us, apparently, a wide
choice of shades, but as we ought properly to employ modified shades, taken from the
colours of the materials of which houses are constructed, the number of objects is brought
within a moderate compass. Houses are not built of grass or leaves, and there is,
therefore, not much propriety in painting a dwelling green.”

For his villas and other masonry homes Downing found that “the two most
satisfactory stones yet extensively used in this country for Rural Architecture are the light
brown sandstone or “freestone” of Connecticut and New Jersey, … and the soft, light-
grey stone of Cincinnati. Both of these have a mellow and harmonious effect in
combination with foliage, both are easily wrought, and all ornaments executed in them
are finely relieved by soft shadows.” He preferred masonry construction for mansions,

317 Ibid.
318 Ibid. “The enrichment of beautiful parts and details, which, however important, is still as much inferior
to proportion as the shapes and colours of the clouds are to the grandeur and beauty of the arch-form of the
heaven in which they float.”
and was especially fond of stuccoed exteriors, but in darker shades than those used for “the simple and more cheerful character of the small cottage.” The style of the house also influenced its preferred color.

“A light and cheerful villa, composed in the Italian or Venetian style, would almost lose its expression of cheerfulness if built in dark blue limestone, while a Gothic villa or mansion, of large size, would have its antique character supported and developed by such a material. A little reflection will convince any observing person of taste, that the color of a stone building has a great deal to do with its expression and with the effect it has upon our feelings; and that the outward hue which the material employed will force the edifice for ever after to represent to the eye, is a point worthy of very serious consideration.”

Like Downing, Vaux made specific color recommendations for the exteriors of the designs he featured in his book. His general thoughts on the subject of exterior colors held that there needed to be at least four tints “to make it a pleasant object in the way of color” and keep it from being monotonous. The main walls should be of some “agreeable” shade, the roof, verandas, and other woodwork in another color or a lighter shade of the wall (body) color, enough to make a contrast but “not a harsh one.” The third color should be applied to the solid parts of the Venetian blinds, and the moveable slats should be painted of the fourth tint.” That last color should be the darkest, to keep the house from being boring looking from outside when the blinds were closed. Overcoming “the difficulties of ignorance and prejudice of the general populace with regard to the coloration of the houses, and even professional painters, was the great task

319 Ibid.
in creating the proper grammar of color for houses. “In some cases the house-painters themselves show a laudable desire to escape from monotonous repetition; but, on the other hand, they are often very troublesome opponents to reform in this matter. And this is not to be wondered at; for a mechanic who has been brought up on a chalk-white and spinach-green diet ever since he was old enough to handle a brush, can hardly help having but little taste for delicate variety, because a perpetual contemplation of white lead and verdigris is calculated to have the same effect on the eye that incessant tobacco-chewing has on the palate: in each case the organ is rendered incapable of nice appreciation.” Vaux recommended that owners choose their own colors, relying on their “instinctive taste” instead of what the neighbors chose, and in so doing they would “cut loose from conventional absurdity,” and arrive at a scheme that would be “artistic and pleasing.” Frank Scott, the author of a seminal book on suburban landscaping, gave completely different advice on the subject. “In choosing colors, the proprietor needs to guard himself from himself. If he desires some color different from any which the neighborhood affords an example of, let him beware of trusting to his own selection of paints in the pot, or from a specimen patch on the house. Both will deceive him.” Homeowners were advised to leave the selection to a skilled painter or architect, because even if they failed, their choice would probably still be better.

There seems to be fairly wide consensus on exterior colors in this period, as most chose a more neutral, natural palette. Samuel Sloan, an architect and pattern book author whose designs were published in Godey’s Lady’s Book beginning in 1852, sounded very much like Downing in his remarks on color. He thought Acadia stone from Nova Scotia

320 Vaux et al., Villas and Cottages: A Series of Designs Prepared for Execution in the United States 57
321 Scott, The Art of Beautifying Suburban Home Grounds of Small Extent 50-51
to be of the most agreeable tint for villas, especially contrasted with the emerald of the lawn, but found domestic limestones to be too white for most applications. He recommended adding yellow ochre to the rough stucco surfaces of country houses because “white is objectionable in rural buildings.” Granite was just as bad for rural buildings because of the “somber aspect of its color.” Veranda floors might be beautiful in a varnished yellow pine, cypress or oak, but if not they should be finished in the color of the porch ceiling. “No stone should be used which would make a violent contrast” with the color chosen for the building, and white stone should be avoided always. He felt ashlar walls should be executed in his “beau ideal” of Pictou or Mt. Joliet stone for their color, if they were available. Windows should be dressed lighter than the color of the stone in stone houses, and cold, grey tints should always be avoided.322

These stone colors were employed in the high-end Picturesque houses, the villas and even castles wealthy Americans were building all over the countryside. Many of these homes were castellated in a range of styles from the High Gothic “pointed” style (think Downtown Abbey) to more simple designs evoked of the Italian or “Tuscan” villa with blocky towers and much less surface ornament. Alexander Jackson Davis’ design for Lyndhurst in Tarrytown, New York, falls into this category of these most expensive villas. In his book *Greek Revival America*, Roger Kennedy describes the owners of these medieval fortresses on the American landscape as “Gothic Jacksonians,” “tame in their nationalism,…natural Tories drawn to Jackson largely out of a love of drama.” Lyndhurst’s owner William Paulding chose the Gothic form at the urging of his

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brother James, a northern man so devoted to Jacksonian principles “and so reactionary that James had already written a passionate defense of slavery.”

LYNDHURST

Mark Twain offered a different culprit in explanation of the style years later after his visit to the Louisiana State Capitol, which was undergoing restoration twenty years after it burned during its Union occupation:

Sir Walter Scott is probably responsible for the Capitol building; for it is not conceivable that this little sham castle would ever have been built if he had not run the people mad, a couple of generations ago, with his medieval romances. The South has not yet recovered from the debilitating influence of his books. Admiration of his fantastic heroes and their grotesque 'chivalry' doings and romantic juvenilities still survives here, in an atmosphere in which is already perceptible the wholesome and practical nineteenth-century smell of cotton-factories and locomotives; and traces of its inflated language and other windy humbuggeries survive along with it. It is pathetic enough, that a whitewashed castle, with turrets and things--materials all unguenuine within and without, pretending to be what they are not-- should ever have been built in this otherwise honorable place; but it is much more pathetic to see this architectural falsehood undergoing restoration and perpetuation in our day, when it would have
been so easy to let dynamite finish what a charitable fire began, and then devote this restoration-money to the building of something genuine.

LOUISIANA STATE CAPITOL

Twain’s description helps us to understand why a house design intended to evoke the age of chivalry would appeal to devotees of a politician whose carefully crafted image was engineered to do the same. It also reminds us that the Gothic castles hanging over the Hudson River had their counterparts everywhere in the United States after 1840. Twain saw many in his travels throughout the South where its historicism perfectly suited the mythology of the Lost Cause; his chapter on “Whitewashed castles” in *Life on the Mississippi* even begins with a lithograph of the Columbia Female Academy, a pointed Gothic structure in the ecclesiastical style. But his remarks also make it clear that the Picturesque architects were right to worry about false color on the exteriors of their buildings. Even today it is the whitewashed walls of the Louisiana State Capitol building that, more than anything, effect its “sham” appearance.

Unlike Downing and Vaux, Henry Cleaveland and Samuel Sloan vehemently objected to the use of paint to faux finish one material to look like another—whitewash for white stone, oak for mahogany, etc. Lewis Allen agreed; using paint to counterfeit stone was to cheat the viewer “into thinking it may be marble, or some other unfounded pretension.” Wood should look like wood, then, and its coloring should follow the predominate color in the rest of the house, otherwise it was “a fraud,” albeit not a
criminal one, but one “upon good taste and architectural truth.” Henry Cleaveland’s assault on grained woodwork most likely helped to end the custom of graining in the United States forever. “You admire, it may be, the skill of the grainer. Yet his work can never equal the original, which you might have in its place, and even if it did, the cheat would not be worth the pains. His tints are perhaps pleasant to your eye, and when varnished, wear well and endure to be washed…To copy rosewood or mahogany because you cannot, or will not afford to have the real thing, is mean. To make a false semblance of oak, walnut, or maple, when you might have the genuine article for little if any more than the counterfeit costs, really seems to border on the ridiculous.”

Though almost every single architect and designer of this period paid deference to Downing, if not in name, certainly by argument, not all had fallen in line with his dicta on color, at least by the 1850s. In their books both Henry Cleaveland and Sloan allowed for the use of “cheerful” colors inside and out, a range that certainly included some earthy colors but was not restricted to them. In his 1852 book *Rural Architecture* Lewis Allen wrote: “We are not among those who cast off, and on a sudden condemn, as out of all good taste the time-honored white house with its green blinds, often so tastefully gleaming out from beneath the shade of summer trees, nor do we doggedly adhere to it, except when in keeping, by contrast or otherwise, with everything around it.” Allen noted that white houses had been the norm in America for clapboard houses and even frequently masonry, because of the positive qualities of white lead in hiding and preserving finish materials and the added power of the color to reflect and not absorb the

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323 Lewis F. Allen, *Rural Architecture. being a Complete Description of Farm Houses, Cottages, and Out Buildings, Comprising Wood Houses, Workshops ... &c. ... also, the Best Method of Conducting Water into Cattle Yards and Houses* (New York: A.O. Moore, 1852) 44.
324 Cleaveland, Backus and Backus, *Village and Farm Cottages. the Requirements of American Village Homes Considered and Suggested; with Designs for such Houses of Moderate Cost* 126-7
sun’s rays. John Beste also commented on this in 1855. “The frame-house is always painted white to preserve the boards; the loghouse is generally whitewashed for neatness sake.”

Beste’s observation is too general, though, as other parties, including Lewis Allen, noted the benefits of white lead paints even while observing that other colors were making their way into the American color vocabulary by the second half of the century. “White, consequently, has always been considered, until within a few years past, as a fitting and tasteful color for dwellings, both in town and country.” A “new school of taste in colors” had arisen, however, coincident with the “recent gingerbread and beadwork style of country building” and which was “carried to extremes.” “Instead of toning down the white into some quiet, neutral shade, as a straw color; a drab of different hues always an agreeable and appropriate color for a dwelling,…or a natural and soft wood color…or even the warm russet hue of some of our rich stones…the fashion must be followed without either rhyme or reason, and hundreds of our otherwise pretty and imposing country houses have been daubed over with the dirtiest, gloomiest pigment imaginable, making every habitation which it touched look more like a funeral appendage than a cheerful, life-enjoying home.” Such “sooty daubs” were dictated by a fashion that was “barbarous, false, and arbitrary…void of all natural taste in its inception; and to one who has a cheerful, life-loving spirit about him, such colors have no more fitness on his dwelling or out-buildings, than a tomb would have in his lawn or dooryard.” Finding a

325 Beste, *The Wabash; Or, Adventures of an English Gentleman's Family in the Interior of America* 164
color that would please Allen was no easy matter; for him “red and yellow are both too glaring, and slate, or lead, colors too somber and cold.”

For trim, however, these designers were willing to range wildly over the color chart, encouraging the liberal use of multi-colored slate roof tiles, soffits and ornate steam-milled lumber that contrasted with body and trim colors, vergeboard, awnings, bays and window frames painted in bright colors picked out in even brighter colors. Picturesque buildings had many architectural members for all of these paints or stones to decorate, whether Americans were faithful to the recommended palette or not. Though Downing complained that the availability of steam-milled lumber had caused Americans to overdo it with flimsy decorations or “gingerbread” on their houses that gave them a tawdry look, his own designs had plenty of features to be painted in different colors. And he had no issue with bargeboard if it was carved from a substantial piece of wood and placed on a substantial property. Clapboard offered more opportunities for creative play with color than masonry. Lewis Allen encouraged the use of imagination in choosing colors for the clapboard cottage, but within limits. “In a wooden structure one may play with his fancy in the way of color, minding in the operation, that he does not play the mountebank, and like the clown in the circus, make his tattooed tenement the derision of men of correct taste, as the other does his burlesque visage the ridicule of his auditors.”

MORRISON HECKSCHER’S HOUSE

WARREN HOUSE

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326 Allen, *Rural Architecture. being a Complete Description of Farm Houses, Cottages, and Out Buildings, Comprising Wood Houses, Workshops ... &c. ... also, the Best Method of Conducting Water into Cattle Yards and Houses* 41-48
Facilitating the decoration of these new building styles were the first factory-prepared paints. Paint companies were still selling the same colors and finishes—the chrome colors, Paris green, Prussian blue and ultramarine, japans and varnishes, white lead. The Providence Steam Paint Works was still even featuring verdigris prominently in its advertising. It was the factory manufacture and means of shipping that had changed. The Banker and Carpenter firm in Boston wrote a letter to customer in 1854 “Having considerably increased our facilities for grinding all descriptions of PAINTS AND COLORS, we are prepared to execute orders for the same with despatch.” They guaranteed their paints for the superiority of the fineness and body and shipped them in kegs of varying weights. The Banker, Crocker, & Co., dealers in “Paints, Drugs, Dye Stuffs, Medicines, and Window Glass” wrote to a customer in 1850 apologizing for being out of the chrome green previously shipped, but stating that a similar product had been shipped that day “by railroad.” In 1856 an advertisement placed in Woodward’s National Architect for Masury’ Treatise on Plain and Decorative House Painting promised that the text would show the “Nature, Composition, and mode of production of Paints and Painters’ Colors and the proper and harmonious arrangement.” Masury’s sold factory manufactured paints to professional contractors and later also direct to consumers.

PREPARED PAINTS CHART

In a rural setting, outbuildings formed part of an estate and their appearance could be held to the same standard as the main house. Architects and authors of pattern books and building guides included instructions for their “decoration.” Lewis Allen believed “a
Frank Scott was a little more specific. “Between dwelling, outbuildings, fences, garden decorations, &c., there should be a strong similarity of tone, though the depth of color may differ materially. A gray or cool drab-colored house should not have a warm brown color for its outbuildings. A cream-colored house should have its outbuildings of some darker shade, in which yellow is just perceptible as one of its constituent parts.” Scott would allow outbuildings largely covered by trees to take the color of the house, “without impropriety,” as long as the house was of “some un-showy neutral tint.” Though “shading parts of the buildings with different colors is practiced with beautiful effect by good painters,” homeowners should not trust to their own judgment in choosing them.  

The designs and colors of the mid nineteenth century’s built environments must be viewed within the context of their urban, suburban, or rural settings. The proponents of the Gothic Revival were often landscapists first and architects second. Downing’s first book in 1841, after all, was his treatise on the *Theory and Practice of Landscape Gardening Adapted to North America; with a View to the Improvement of Country Residences*; his pattern books for dwellings came later. Just as adamant about the grounds as the structures, building manuals as well as landscape guides insisted on the importance of surrounding each cottage, villa, or castle with an emerald moat of lawn. “A velvety lawn, flecked with sunlight and the shadows of common trees, is a very inexpensive, and may be a very elegant refreshment for the business-wearied eye; and the

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327 Ibid.
328 Scott, *The Art of Beautifying Suburban Home Grounds of Small Extent* 51
manner in which it is kept will affect the mind in the same way as the ill or well-ordered house-keeping of the wife.”

Even modern cities needed green space. In the dead center of the century, in the middle of her daily walk, Maria Bremer found she could not cross Broadway, “the great high-street and thoroughfare of New York, where people of all different classes poured along in one incessant stream…in true republican intermixture. “Long lines of white and gilded omnibuses” wound their way “at [such] an uninterrupted rapid rate” that Bremer felt she would never make it to the other side of the street alive, to take refuge in the small green space in front of Astor House, “that beautiful little green plot, with its lovely fountain,” which seemed to her “like an oasis in the agitated sand.”

In 1840 Andrew Jackson Downing had set the country on a course of home improvement that drove a huge sector of the economy for thirty years. The lumber, millwork, roofing, shipping, and hardware industries, paint and pigment manufacturers, building contractors and architects, all relied on Americans’ strident demands to build houses that conveyed the ruggedness of the Picturesque at the same time they announced the arrival of the middle-class. Just as they are today, housing starts in the nineteenth century were a barometer of the economic health of the country, and business was booming. It is difficult, in fact, to read the work of any European visitor to the United States in the period from 1840 to 1870 who does not remark on Americans’ obsession with home ownership, and the sight of every form of housing, from humble Carpenter Gothic workers’ cottages to castellated mansions, going up everywhere on the American landscape. Downing had read his countrymen well, and his practical interpretation of an

329 Ibid.
esoteric European philosophy of the beautiful and sublime had been made manifest in board-and-batten frames with scrollsawed trim, and verdant sweeps of lawns and flowers massed by color for their undiluted visual impact.

The Picturesque style changed both the form and the colors of the built fabric of the United States. At the close of this period of the Picturesque, in 1870, Frank Scott summarized these changes. “The color of houses and outbuildings is a subject in which fashion has ranged widely in different directions. Twenty-five years ago, white, white, white, everywhere and for everything, was “the American taste.” Suddenly the absurdity of being always dressed in white struck the great public, and parrots of fashion everywhere echoed remarks about “garish white,” “neutral tints,” “subdued tones,” till a mania seized whole communities to paint wooden houses, cottages and all, “to imitate brown stone!” Everything of wood was dismalley darkened and sanded, and brick somberly stuccoed and “blocked off,” as if we were ashamed of our best materials, and must needs conceal them. Our homes, before sepulchrally white, and garishly brilliant, were then crocked and blackened with bogus stone colors.”

LINCOLN’S SPRINGFIELD HOME

The destiny of the Picturesque had swept it west, and by 1870 its earthen palette tinted the landscape everywhere in the continental United States. In the end, the overwhelming demand for the architectural details soaking up all these pigments was a leading factor in the style’s demise. In the 1880s a California builders’ trade magazine

331 Scott, The Art of Beautifying Suburban Home Grounds of Small Extent 50
outlined why the people of that state were converting their Carpenter Gothic-style houses into a more modern form by removing their scrollsaw lacework. Once again Downing had been correct to worry about the lesser-grade materials Americans were attaching to their homes. “Wood will shrink, and California redwood will shrink endways as well as any other may. The frail but fancy work adopted in many of the dwellings under notice have become so warped and the joints so opened by shrinkage, that one would imagine the houses were twenty years old instead of but three.” This premature aging reflected in the “cracking, twisting, and shrinkage of the fancywork” lay in “the intricacies of the different parts of the work, much of which never received “a single touch of paint.” “That exposed to the gaze is well covered, but all the little nooks, corners, and parts that cannot be seen from the street…fail to receive a single touch of that which is absolutely necessary…and so after a few years much of the “gingerbread” has to be removed, that the house may present a creditable appearance.”

As important as fostering an interest in design and decoration to Downing et al was, the critical education they were supplying to Americans in this period was an understanding of the important of cultivating taste, and with it, appropriateness. These aesthetic critics in the American mode, meaning, critics who practiced as much as they philosophized, could not have called themselves good Victorians without working to inculcate a sense of what Scott called “propriety” in coloration. Only a few referred to any extant theories of color mixing, although their ideas relied very much on the creation of “harmony” in design. The goal of achieving harmony guided their designs in both form and finish. After 1870 it would continue to influence the colorful world Americans

would make for themselves, although the pressure to be “artistic” would be added by the next generation of cultural critics, in their new, more prescriptive, grammar of ornament. The rules for decorative color Americans laid out for themselves in the period from 1840 to 1870 were still somewhat vague in relation to what was to come at the end of the century, but they were as specific as people new to following rules in the utilization of color, and without a means of inexpensive color printing, would allow.

Downing was able to read the minds and times of many Americans; the success of his books and the longevity of the designs he promoted demonstrate this. His tutelage ensured another generation of writers, landscape architects, builders and designers would carry some of the ideas of the Picturesque forward, even if they were translated into a new architectural idiom. One proof of this is the fact that the word “picturesque”, with a small “p”, became part of the Americans vernacular. When Downing died in a steamboat fire, a tragic but everyday occurrence in mid-nineteenth-century America, in 1852, every American writer on architecture and landscape design, and some Europeans, paid homage. Vaux took up the first several pages of his text with a heartfelt eulogy to him and Scott dedicated his book to the memory of his “friend and instructor.”333 Fredrika Bremer’s profound pain at his loss can still be felt from reading her memoirs 160 years later.

Just before he died, Downing wrote an essay for *The Horticulturalist* asking his readers to imagine a park, like the Crystal Palace in London, in which “noble works of art, the statues, monuments, and buildings commemorative at once of the great men of the nation, of the history of the age and country, and the genius of our highest artists” would all come together…a “verdant place…where the whole people” could recreate and

333 Scott, *The Art of Beautifying Suburban Home Grounds of Small Extent* 12
renew themselves. He had been asked to design a park for the public space behind the
Smithsonian in Washington, and ultimately his design, which was only ever partly
executed, became the inspiration for Calvert Vaux’s and Frederick Law Olmstead’s
winning submission for New York’s Central Park. In his essay Downing called it both
“curious and amusing” to see many people’s reaction to the idea of this polyglot green
space. The “million” claimed the park would be “for the upper ten who ride in fine
carriages” and the “wealthy and refined” worried it would be “usurped by rowdies and
low people.” Their hostility aroused Downing’s democratic sensibilities. “Shame upon
our republican compatriots who so little understand the elevating influences of the
beautiful in nature and in art when enjoyed in common by thousands and hundreds of
thousands of all classes without distinction!”

He continued:

“Social doubters, who intrench [sic] themselves in the citadel of
exclusiveness in republican America, mistake our people and its destiny.
If we would but have listened to them, our magnificent river and lake
steamers, those real palaces of the million, would have no velvet couches,
no splendid mirrors, no luxurious carpets; such costly and rare appliances
of civilization, they would have told us, could only be rightly used by the
privileged families of wealth, and would be trampled upon and utterly
ruined by the democracy of the country, who travel one hundred miles for
half a dollar. And yet these our floating palaces, and our monster hotels,
with their purple and fine linen, are they not respected by the majority who
use them as truly as other palaces by their rightful sovereigns? Alas, for

334 A. J. Downing, A Treatise on the Theory and Practice of Landscape Gardening: Adapted to North
America; with a View to the Improvement of Country Residences, with Remarks on Rural Architecture, 5th
the faithlessness of the few who possess, regarding the capacity for culture of the many who are wanting.”

Downing could have not have guessed his remarks on the purple fripperies of wealth, now turned the perquisite of the people, would be so prescient. Far from antithetical to a respectable republican existence, in just a few years purple, once the emblem of royalty, was the single color that would democratize all the others.

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335 Bremer and Howitt, *The Homes of the New World: Impressions of America* lxvii-lxviii
Steam power changed the textile industry just as it had changed virtually every other one. Steam allowed the direct printing of colors onto fabric, as opposed to printing a mordant and later dyeing the fabric in a vat of color. “Steam” was in fact the name given to a style in dyeing, in which mordants and dyes were mixed together and applied at one time as a paste; with the addition of steam they became “an insoluble complex in the fiber.” By midcentury steam-powered machines milled fabrics throughout the industrialized American Northeast, but even the relatively tiny Shaker communities of Pleasant Hill and Bowling Green, Kentucky, invested in steam fulling machines. In Bowling Green the woolen mill cranked out blankets, coverlets, jeans, flannels, casimers, plaids, yarn, and lots of carpets to Shakers and non-Shakers alike. In the 1840s steam colors were still made with natural dyes and mineral colors, and the Shakers at South Union were buying lots and lots of madder for their carpet business as well as clothing dyeing for the outside world. In April of 1844 alone they bought at least 184 pounds of “best madder”, as well as 38 pounds of “best” indigo, more than 160 pounds of camwood, 157 pounds of logwood, as well as copperas and potash for use in dyeing.
Steam accelerated the aging process of textiles, allowing them to get into the waiting hands of Americans from dry goods stores and later department stores all the faster. The way textiles were steamed differed according to the preferences of the dyeing establishments; in some the goods were steamed for a short time, then exposed to the air, then steamed again. In other firms the fabrics were steamed without the interval to fix the color. “The two principal contrivances for steaming were the ‘column’ and the ‘chest,’ both fierce devices with their own advocates. The column was a cylinder of copper roughly four feet in length and 4 inches in in diameter with holes all around for the escape of the steam. The fabric was wound around it. At the pipe’s lower end another pipe fed it the steam from a boiler. More popular was the steam chest, a sarcophagous iron chamber about twelve feet long whose false bottom allowed steam to enter it from a pipe below it. A hinged door on either end allowed fabric placed on an oblong wooden frame to pass through the box on rails along its false bottom. Most calicos took between twenty and thirty minutes of steam to fix their colors, and they had to be moved quickly from the chest or column to keep the colors from running. The last step before washing was to pass the textile through a cistern filled with a very dilute solution of red chrome.\(^{336}\)

It took lots of steam to fix the colors of the miles and miles of fabrics rolling out of British and American textile mills in the mid nineteenth century. At the beginning of this period cylinder printing and block printing continued to coexist, just as it they did on wallpapers, and dye recipes were often written for both methods. By 1870, however, cylinder printing had emerged the more vigorous technology to meet he needs of mass

production. Mass production had, in fact, brought the cost of textile printing down so much that a huge diversity of textile types was available to Americans by the 1850s. The majority of Americans could now afford to buy almost any color they liked, and what they seemed to like, at least for outside the house, was bright. Blacks, madder browns, drabs, the rather dirty looking violets extant before 1856—these were forgiving colors in an industrialized age, when urban skies filled with soot and the byproducts of gasoliers and coal-burning fireplaces. Sometimes they were even called upon to forgive more than what Charles Dickens called the “palpable brown air,” and Rebecca Harding Davis referred to as the “sullen” smoke that rolled in “slow folds” from the iron mills around Wheeling, Virginia, “settling down in black, slimy pools on the muddy streets.” Black was a convenient color even in the suburban setting of *Little Women*, in which the budding author Jo wears her “scribbling suit” consisting of a black cap “with a cheerful red bow,” and a black pinafore so that she can “wipe her pen at will”.

But forgiveness does not seem to be what Americans wanted in their clothing. Englishman John Richard Beste commented on the American consumption of textiles in 1855: “You cannot have traveled through the United States without noticing, as I have, the extravagant, expensive dresses of all the females:—I do not speak of the free negresses, in their white muslin dresses, white satin shoes, and green silk parasols to preserve their complexions;—let them dress on Sundays as they will, for the present: but you must be aware that every American woman, whatever be her position in life, spends two or three times as much on her dress as one in the same station would spend in England. Do not you see the long train of evil which must follow from this rage for the vanities of dress?” Beste was making this argument to a temperance lecturer, the

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Reverend Father Mathew, who responded that he thought drink was a much greater evil. So much the better for him and his fellow tee totalers, as American women showed no sign of reining in their fabric shopping. Nor were they going to choose demure colors, as Beste frequently remarked on just how colorful the fabrics they bought were. On Broadway in New York he noticed “a great many pretty girls…walking about…in bright scarlet shawls.” In a “little shop hung with white and glazed pink calico” surrounding a center display of wines and spirits, dry goods in “scarlet and yellow and the brighter hues seemed most in vogue.” On a particularly hot day he noted “the men in the streets were mostly dressed in brown linen frock coats, but “the ladies were much smarter; and selected such glowing colours as they thought best suited to their own complexions.”

Not all of these colors made their way into American women’s wardrobes. Bedding still provided much of the color in the mid nineteenth-century home and quilts and coverlets served multiple duties as decorative objects and sources of warmth, and often as mementos of homesteads left behind. Many of the cottons of this period appeared on the wildly colorful quilts of the period. Though some traditions of quilts and coverlets carried over from the early part of the century, for the most part bedcovers of this period make several marked transitions. Some of these were structural changes. The first involved the invention and subsequent mass marketing of the sewing machine in the 1840s. Sewing machines especially facilitated piecing very small fabric sections together, and the straight-line stitching piecwork quilts required went very fast. “The Queen of Inventions” allowed its users to run off yards of “handsome and substantial

Beste, The Wabash; Or, Adventures of an English Gentleman's Family in the Interior of America 214, 81-82
stitching” in just a few minutes.³³⁹ Sewing machines were status symbols in the beginning, and as such were displayed in the parlor. The first domestic models cost $125 in the mid 1850s, a sizeable investment at a time when the average family income was less than $500 a year. But demand increased production, and by 1860s the least expensive models cost $50. Five dollars down on the installment, or “hire-purchase”, plan offered by I.M. Singer and Company allowed a family to take a sewing machine home. One historian has called the advent of home machine sewing a “collision” between the industrialized world outside with the inner sanctum of the home, and as means of smoothing over the violence of this encounter “the machine was adapted to its new domestic setting,” by being styled and presented as a piece of parlor furniture.³⁴⁰ Manufacturers were successful enough in promoting the machine to convince even Amish families to acquire them quickly, and in fact many of their quilts from this period show treadle-stitched piecework.

The sewing machine fostered the “block” method of construction, a dramatic and uniquely American innovation that replaced the wholecloth and center medallion styles of the first forty years of the nineteenth century. The quilter fabricated small blocks which were then pieced together to form the entire quilt, and the lines between blocks were covered with “sashing”, usually in a brightly contrasting color. These blocks were much easier to push through the small spaces of the sewing machine, and they allowed quilters to carry portions of their work around with them instead of bed-sized pieces.

a real advantage in travelling.\textsuperscript{341} The block style lent itself to the development of “album” and “signature” quilts, also known as “friendship” quilts, in which individual quilters created often personalized blocks that were then sewn into a single quilt at the end. Sometimes made to be auctioned or raffled at fundraising events, notably in both the North and South during the Civil War, most of these quilts were made as gifts or commemorative items, especially for young people moving off to start their own lives, departing ministers, or families moving west. Although a canon of appropriate block designs drawn from a common mid Victorian iconography—roses and other flowers, baskets, grapes and other vining plants, birds and stars, etc.—seems to have been silently communicated from one quilter to the next, the blocks of an album quilt frequently referenced events in the life of the recipient—Masonic and other fraternal organization symbols, depictions from the Mexican American war, and the like. It may be that some quilt blocks were made for and sold by the order of Masons in Baltimore, which could account for their appearance on quilt tops across the country.\textsuperscript{342} Album quilts have remained a favorite quilt type into the twenty-first century.

Another innovation in quilt construction of the 1840s changed both how quilts would be made and how they would look. What is now called conventional appliqué’s development could be seen more of an evolution of the broderie perse method popular before 1840. Where quilters working in that form simply cut around figures already professionally printed in colors on cloth, those working in conventional appliqué drew

\textsuperscript{341} Barbara Brackman and Marin F. Hanson, “American Adaptation: Block-Style Quilts,” in \textit{American Quilts in the Modern Age, 1870-1940}, eds. Marin F. Hanson and Patricia Cox Crews (Lincoln: University of Nebraska Press, 2009), 19-88.

the figures on plain or printed cloth, cut them out, and then applied to them to a background. With the red and green quilt style these cutouts, if printed, featured only small patterns or figures for the best visual effect, and the background was usually white or cream. Appliqué work allowed for realistic, pictorial representation of some delicacy, but its greatest contribution was freeing quilters from merely tracing the outlines of color already printed on fabric by someone else, namely chintz fabrics, and encouraging them to experiment with the almost limitless range of possibilities of both color and pattern afforded to them by industrial textile production.

After 1840 we cannot untangle American women’s lives from quilting, which we might consider as a cultural opportunity for them to express their artistry and ingenuity, or as a conspiracy to bind them ever more tightly to their domestic existences with newly available factory-made thread. Sewing was an essential household skill all women were expected to possess, but as more middle-class women found themselves constrained by Victorian domesticity their elite advisors reminded them that sewing could still furnish “a tasteful amusement to all.”

Although references to the grind of sewing quilts are infrequent in primary documents they do exist. Regardless of whether women felt liberated or tortured by the mid nineteenth century’s emphasis on needlework there was no escaping the pervasiveness of quilting in women’s every day milieu. Quilt metaphors abounded in the literature. “Every task, no matter how small or homely, that gets well and cheerfully done, is a fine thing; and the sooner we learn to use up the dark and bright

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343 Lydia Marie Child, *The Girl’s Own Book* (New York: Clark Austin & Co., 1833) 203. Child began recommending the teaching of useful sewing skills to young girls in her work in the 1830s.
bits (the pleasures and pains, the cares and duties into a cheerful, useful life, the sooner we become real comforters, and every one likes to cuddle about us.”

The vast number of affordable plain and printed fabrics in bright and “glowing” colors available after 1840, combined with these changes in appliqué techniques gave quilters tremendous freedom of design. A reflection of that liberty was the red and green appliqué quilt, the most significant aesthetic development in American quilting in this period. The style combined bold so-called “Turkey” reds and greens against a white or cream background in one exquisitely vibrant composition. “Cheddar” yellows, oranges, and bright blues added to the mix. Quilts made in this color scheme date from 1840 all the way through the end of the nineteenth century, but their peak years of construction were from 1840 to 1870. For their visual punch they relied on the contrast between complementary colors red and green against the white background. The white also allowed for tour de force quilting to show up, and for many quilt historians the stitching of this 1840 to 1870 period has never been surpassed. Some quilts executed in this style did use a different background color, and to great effect, but they were much in the minority.

PICS RED AND GREEN QUILT EXAMPLES

PINK BACKGROUND

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345 After this period, when ready-made clothing became readily available, the material record shows a decided decline in the quality of hand stitching in both clothing and quilts.
Recognizing that quilts were and are a production of American decorative arts worthy of research for both their aesthetics and social content, in the late 1980s many American states conducted quilt studies in which they asked residents to bring their quilts to any of several locations where they would be counted and catalogued, and as much provenance as possible collected. The data were later recorded according to the quilts’ styles and construction methods. Most of these projects generated books on various topics related to that state’s quilts, and one of the best was produced from the Kansas Quilt Project, which organized as a non-profit corporation in 1986. It turns out that Kansas quilts are not only central to American quilt history geographically, but they provide an excellent point at which to study the intersection of quilt styles with changing American cultural values and demographics from the 1840s through the 1870s. Their “combination of function and meaning is a primary reason why so many quilts made in so many other states journeyed to Kansas…” One third of the nearly 150 red and green quilts studied in the Kansas quilt survey came from Ohio, followed by quilts with histories originating in Indiana, Illinois, Pennsylvania, Kentucky, and Kansas.346 Most of these quilts were produced by rural, middle-class women of German, English, Scotch-Irish and Welsh heritage, and 95 percent were recorded as Protestant.347

Mineral colors and advances in dye technology gave Americans their first colorfast, reliable greens and bright reds in 1840. New chrome greens solved the

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346 Nancy Hornback, "Nineteenth-Century Red and Green Applique Quilts," in Kansas Quilts and Quilters (Lawrence, Kan.: University Press of Kansas, 1993) 87. Smaller numbers of red and green quilts were traced to origins in Iowa, Tennessee, Missouri, Virginia, West Virginia, Arkansas, Colorado, and Washington, D.C.

347 There were two exceptions to the rule of small-town production. One quilt was from Washington, D.C. and the other from Cincinnati, Ohio. “Middle-class” was defined by the occupation of the husband of the quilter. “The majority were farmers; other named occupations included dry goods merchant, wool carder, postmaster, cabinet maker, carriage maker, and lumberman. Several were physicians in small towns.” Hornback, p. 87.
problem of the twice-dyed greens, where either the yellow or blue fled the field, leaving
the other color behind. Mineral greens, chrome green among them, were around to stay
for quite a while. As late as 1874 William Crookes included the formula for Guinet’s
green, still extensively used according to Crookes in 1874, Arnaudon and Plessy greens,
both reliable green mineral pigments suitable for several applications. “The colours
derived from insoluble salts of chromium are numerous, and although with the present
valuable innovation of aniline dyes it is improbable that chrome or mineral pigments will
meet with greatly extended application, we may shortly review the characteristics…”348

Turkey red is one of those “glowing” colors John Beste may have seen on the
streets of New York; it is the color of the calico dress “girl with a whip” is wearing in the
illustration at the beginning of this chapter. The color has a fascinating past. It is
produced by madder, a dye so powerful it could color bones. From pinks to orange,
tomato red and the deepest hues of carmine, madder was the lifeblood of the dye
industry. In its best form, unadulterated and well processed, it could reveal colors as
beautiful and luminous as those produced by cochineal, with great fastness, and at less
cost. Madder gave the carpets appearing in American middle class homes at mid century
their deep, and sometimes off-putting, red color. The formula for Turkey red was known
only in some Mediterranean countries for centuries. Its production was complicated and
mysterious, involving as many as twenty steps and three or four months to effect the
brilliance and colorfastness of red cottons. Europeans learned the process in the mid
eighteenth century, and by the mid nineteenth century they were able to industrialize its
production. So, real, deep, lasting Turkey red fabrics were still imported and expensive

348 Crookes, A Practical Handbook of Dyeing and Calico-Printing, with Eleven Page-Plates, Forty-Seven
Specimens of Dyed and Printed Fabrics, and Thirty-Eight Woodcuts 156
in 1840, but the huge number of quilts made with this color suggests that Americans believed it worth the price. Many of the greens of red and green quilts have not held up. They have changed to what one might charitably call tan, if they have not disappeared entirely. But the reds have held. Some formerly red and green quilts are now composed of red flowers floating indiscriminately on a white sea, their leaves and stems missing entirely. Turkey red was worth the investment. In 1856 the steamboat Arabia sank after hitting a snag in the Missouri River near Kansas City. In 1988 the ship was discovered and its cargo excavated from the Missouri mud that had buried it for 132 years. On display in the museum that now houses the articles recovered from the ship are clothing and dry goods dyed with Turkey red. They are just as beautiful today as the day they were loaded on the Arabia.

The fact that both direct-dye greens and Turkey reds were available in Britain, however, but English quilters did not begin to make red and green quilts until after 1850, begs the question of whether the availability of these colors alone explains this quilting phenomenon. Several additional factors may be in play. Quilt historian Nancy Hornback has suggested that the conventional appliqué style may have been middle-class women’s way of imitating the quilting styles of elite women of an earlier age, but this does not explain the quilts’ colors. The predominant color scheme in middle-class and upper middle-class homes in this period—draperies, upholstery, carpets, and window shades—was red and green. It was also the preferred color scheme on many of the decorative arts of the mid nineteenth century, such as stenciled coverlets and walls and painted toleware. Red and green were favored colors of many religious and immigrant groups coming to the United States after 1840, who brought with them no knowledge of quilting but

349 Hornback, Nineteenth-Century Red and Green Applique Quilts 81
excellent needlework skills and a love of decorative color. Many of the immigrants came from the weaving centers of Germany, and it is not difficult to find motifs that have been translated from wool to cotton on American soil. In the end quilt scholars don’t know why the red and green style came into existence and what its genetic makeup is. It seems logical that the explanation is a combination of all of the above, but in the end the most convincing argument stems from Americans’ originality with color in the period preceding the mid Victorian, combined with their new-found access to an unprecedented selection of fabrics in hues once beyond the means of ordinary Americans. The final piece of evidence suggesting the reason Americans constructed so many red and green quilts is the lasting beauty of the quilts themselves.

Beloved articles of sensation and sentiment, quilts travelled across the country with their makers, users, and inheritors. One of the hallmarks of needlework in this period is how quickly and how far styles travelled. New York, Philadelphia, and Baltimore were all centers of American design whose influence stretched across states and ultimately the continent by 1870. Some of the Kansas quilts went further west to the Pacific coast; others went to “visit the wife’s folks”, a euphemism for making the sad trip back East. As there were still no commercially printed quilt patterns, designs were communicated as a folk art, “through direct transmission artist to artist.”350 Quilters brought their favorite styles with them when they moved, altering only their names for their new context. Colorado pioneers, for instance, continued to make New York Beauty quilts, but called them “Rocky Mountain.” Itinerant craftsmen and peddlers also moved designs across their regions, and trade fairs exposed urban and rural families to the same

objects and technologies. Nationally distributed magazines, books, and manuals referred to the quilting trends in other places. Most designs, however, were probably copied from an existing quilt.

The blocks of signature quilts, as their name implies, carried the maker’s or makers’ signatures. Also premised on both the red-and-green color scheme and the block style was the Baltimore Album quilt, a distinctive iteration of the album style that began in the Baltimore area and proliferated across the country from 1840 to the mid 1850s. All these quilts must have provided a great deal of comfort for their owners, both physical and aesthetic. Set against the bleakness of an endless prairie, a red and green quilt was a particularly cheery sight, but all quilts had the power to evoke feelings of home. One teacher moving from Kansas in 1870 wrote “when I get lonesome all by myself, I read the names on the pink and white ‘Irish Chain’ quilt the school children pieced for me.”

The red and green quilt style was a particularly unfriendly one for frontier manufacture. One woman’s diary written from the trail in 1853 contained this admonition: “Those who come this journey should have their pillows covered with dark calico and sheets colored, white is not suitable.”

Many Americans became sick during on the road. They were comforted and warmed by their quilts on the journey West; they were shrouded in them in their journey through the afterlife. On the trail quilts often took the place of coffins. Some quilts memorialized the dearly departed, and the makers of some of them drew from a somber palette, but fallen Americans were just as likely to have been celebrated in the bright, cheerful colors of the red and green album quilts. Victorian proscriptions about appropriate colors of dress in mourning seem not to have applied to quilting, although quilters themselves sometimes felt the need to express sadness in “sad”

351 Hornback, Nineteenth-Century Red and Green Applique Quilts 87
colors. “Sad” was the textile industry’s name for the greys, browns, and drabs that could be made from admixtures of other colors. Mourning quilts made use of this somber palette, today rendered even more pitiful perhaps after a century and a half of age and oxidation.

KENTUCKY GRAVEYARD QUILT

Before they left, families had to prepare for the long trip, and that might take months or even years. Home fabric production and dying was still in the mix, even at the end of this period. Before they left Mississippi for Colorado’s South Platte Valley in 1876, Georgia L. McRoberts recalled that her mother “…got cotton and wool which she carded, then spun; dyed and wove yard after yard of sheets, bed spreads, dress goods and even ‘jeans’ for men’s pants,” and turned old clothing into rag rugs. In the 1860s Montana pioneer Mary Edgerton wrote to ask her sister to send her a number of black and brown threads in various grades to make pants for her boys. Practical thread colors like these came in handy for patching worn, dirty clothing, and were easily traded. Quilts served as bedding, of course, but also as coats and shawls, and even wagon walls for protection. Some reluctantly sold their bedding along the route in exchange for cash or needed goods. Colorful goods made excellent currency with Native Americans. James M. Maxey wrote from the West in 1845 to advise James Frazier Reed that during his trip west he “mite trade a good deal with the Indians if you well take Blue Calico and Beeds in a little narrow Red Blue & Green Ribbon on the ‘Oragon’ route, and that “Brown of

Blch Muslins or Calico of any thing of that kind” could be traded for “common Bacon.” But the Spanish women Reed would encounter if he took the “Sante Fee” route would prefer “blch & Bron Muslins and Calico of high colars very distect”. Ultimately, Reed chose a northern route, becoming one of the organizers of the Donner party. In that deadly winter his friend’s recommendation for which colored cloth to pack must have struck him as exceptionally trivial advice.353

As Americans moved, so did their dry goods retailers. The states’ quilt study projects have demonstrated that, while most people in the mid nineteenth century including those living in the Midwest, had a vast and ready supply of textiles from which to choose provided by the same English and American mills, some regional differences in color selections are observable in their quilts. Rhode Island quilters were fond of a combination of reds in which a darker shade appeared over a lighter shade of the same color that they referred to as “two reds” and “two pinks”. This effect also appeared in browns, oranges, and purples. They also worked into their quilts more elaborate versions of the style, printed by as many as five cylinders, called “four pinks covered in pink.” These colors were made with madder, and their manufacture involved one cylinder’s printing an acid to resist the madder dye, the next cylinder’s printing varying concentrations of a mordant to bind the color in small patterns, and then the last cylinder’s laying down a pattern in mordant all over the fabric, thereby “covering” it.354 When the fabric went through the final processes of clearing the dyes a complex, deeply colored monochrome effect was produced.

353 23 Ibid.
New Jersey quilters, working primarily in the southwestern counties from roughly the 1830s to the 1850s, often bound their quilts with a tan tape binding featuring a blue or green stripe. The color combination is not found outside New Jersey, although quilters just over in Pennsylvania sometimes used a yellower tape binding. A survey of 2,300 quilts catalogued by the New Jersey Project revealed that the dark blue and white combination seen in many other states including New York in the mid nineteenth century was virtually non-existent in New Jersey.355 A certain red fabric with small printed figures came into fashion in New Jersey about 1840, and makers of the Oak Leaf and Reel appliqué patterns substituted them for the dark blue usually used for those designs. These quilts often juxtaposed the printed reds against greens overprinted with black, or with “intense medium blue fabrics with ombré shading.”356

OAK LEAF AND REEL QUILT

Relatively few nineteenth-century New Jersey quilts made use of blocks of white, which to some observers gives them “a busier or more crowded look” than the designs of other states.357 This heavier use of color in the New Jersey quilts, a state where quilters had easy access to fabrics, undoubtedly reflects their stylistic choice. But in other cases apparently access to color, or at least certain colors, was still limited. Despite the ubiquity of the Baltimore Album quilt’s iconography and the general success of the Market Revolution in moving dry goods all over the country, the printed reds and ombré

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355 2-3 Ibid.
356 2-3Ibid.
357 5 Ibid.
blues so common in these quilts in other states did not appear with any frequency in North Carolina. These are just a few examples of the regional variations in quilt coloration of which many more exist.

BALTIMORE ALBUM QUILT

In the color schemes of their coverlets New Jerseyans were just as particular, as coverlets from this state are frequently intensely and uniquely colored. The striking combination of only two colors—a lighter and darker shade of blue—on many New Jersey coverlets makes them stand apart. The only known coverlets from Bergen County display only two colors—natural and indigo.

In this period many figured and fancy coverlet makers marketed their work through unique color combinations and designs, the latest technological innovations, and the promise of color fastness. Weaver Andrew Kump advertised in 1845 to the residents of York County, Pennsylvania, and others willing to wait for shipping that he made damask coverlets using “entirely new machinery of the latest eastern inventions, that supersede all others.” In 1847 Kump introduced a new pattern that represented a stark departure from the coverlets he had made at least since the 1830s. The blue cotton warp and deep red weft threads of his coverlets create a eye-popping combination.

IMAGE P. 62 WEAVING A LEGACY.
The newspaper advertisement Matthew Rattray, a native of Paisley Scotland working in Wayne County, Indiana, placed in 1841 specifically stated that he had procured a “JACQUARD MACHINE” from New York, by which he can weave any kind of a FIGURE on COVERLETS and CARPETS that can be drawn upon paper.” Taking full advantage of the infrastructure building program accelerating in the 1840s U.S., Rattray created eleven different drop-off and pick-up sites for his customers, locating several along the National Road. Extant examples of his work date between 1845 and 1860, and feature predictably complex patterns of songbirds and eagles, thistles and roses, among other motifs. 358 The corner blocks of three of Christian Van Nortwic’s coverlets, the most colorful in nineteenth-century New Jersey, display the completion year followed by “fancy weaver and dyer.” Nortwic made two coverlets for the Van Nest sisters in 1845; the coverlet illustrated here was executed in the red most often selected by his customers, and he may have charged more for this color. Most coverlet weavers did, which may help explain why coverlets were more commonly executed in blue and white.

IMAGE: P. 85 ANDERSON

George Engel, an artisan working in Fairfield County, Ohio, produced this epitome of mid Victorian design and coloration in 1855. Daisies and sunbursts intertwine with grapes and grape leaves across bands of bright red, green, and indigo, all surrounded by a double border of Georgian houses flanked by impossibly tall birds. Emanuel Meily,

Jr. wove a similarly Victorian coverlet in red, blue, and teal but with the most mid-Victorian of elements—the cabbage rose. Surviving Meily coverlets display ten different designs, together illustrating the Victorian love of flower motifs. Meilly was able to combine these with complicated and delicate borders, which may indicate an advancement in the card-cutting technology of the period. Though Meilly’s designs were sophisticated and he produced enough coverlets to clearly identify himself as weaver, in the 1850 census he described himself as a blue dyer. That he would brand himself as a colorist as opposed to a sophisticated weaver suggests how important getting the color right was. Several coverlets in the collection of the Colonial Williamsburg Foundation alone feature the words “Fast Color(s)”. Weaver Henry F. Stager worked in Mt. Joy, Pennsylvania, from about 1840 until at least 1870. He drew attention to the many different woolen weft yarns he used in his coverlets by weaving “Warranted Fast Coller” or “Fast Color” into their borders. The promise of “fast colors” was made in every permutation of the textile industry over the course of the second half of the nineteenth century, as consumers became more exacting and more suspicious about the colors they trusted in their clothing and needlework projects.

FAST COLORS COVERLETS

Like quilts, coverlets often incorporated the symbols of the age into their designs. Eagles formed an essential part of the American weaver’s iconography. The Masonic pillar, square, and compass figure prominently in some examples, just as they do on

359 Ibid.
quilts of this period. William Ney’s circa 1850 coverlet in dark red, light green, and
orange wools over a natural and light blue warp bears a close similarity in shading to the
other vibrantly colored textiles of Lebanon County, Pennsylvania, but also in pattern.
The center medallion frames a large star evoking the patterning of Texas Star quilts so
popular in the mid nineteenth century. Ney’s other coverlets show a similarly broad
range of colors. The unknown weaver or weavers of the jacquard, double-woven
“Hemfield Railroad” coverlets of 1851 appear to have been commemorating the
Hempfield Railroad, a spelling mistake too difficult to correct in a tightly woven, intricate coverlet. These bedcovers are bordered by locomotives and tenders manned by an engineer, and the corner medallions may depict the founder and first president of the railroad line. They may have been commissioned to raise funds for the line or otherwise promote it. Construction on the Hempfield Railroad began two years later in 1853, with the line’s eventually laying 32 miles of track from Wheeling, Virginia to Washington, Pennsylvania, before collapsing financially. In 1871 the line was sold at sheriff’s auction to the Baltimore and Ohio Railroad. The coverlets may have been the better investment, as the deep, deep indigo of their intricate jacquard weave continues to celebrate the Hempfield in the twenty-first century.

Locomotives figure tragically in the life of Philip Schum, who began his weaving operation in Lancaster, Pennsylvania, in 1856. A very successful dyer, as evidenced by both his income and the vibrancy of his surviving coverlets, Schum’s Lancaster Carpet, Coverlet, Quilt and Yarn Manufactory earned enough profit that the weaver had hired another four employees—two men and two women—by 1860, and had capitalized his business with $3,000. According to the 1870 census by that year the Schum operation

361 Anderson, Weaving a Legacy : The Don and Jean Stuck Coverlet Collection 116-118
was manufacturing 18,000 pounds of yarn worth $14,400. Like so many products of the Lancaster area, Schum’s work uses multiple colors in strong color bands as a backdrop for lush compositions. His prolific production ensured that his coverlets were distributed across a wide range. A jacquard coverlet Schum made in red and green wools was purchased in the 1860s by James Merrilees, a ship’s carpenter, in either Pittsburgh, or Cincinnati. The coverlet, now in the collections of the Smithsonian Institution, was probably part of the merchandise ships like Merilees’ ferried down the Ohio River to Indiana. By the close of the 1860s the demand for figured and fancy coverlets had waned considerably. Philip Schum had begun his weaving business, in fact, when most others were contemplating moving on to other ventures. It may be that the demand for the kind of decorative punch that coverlets offered carried on longer in the Lancaster area than others, as Schum was able to keep working as a weaver through the next decade. In 1880 he and his wife were killed by a train as they were crossing the tracks in their horse-drawn buggy, signaling in one event the future of both woolen coverlets and equine power.

Some weavers branded their work by adding a colored warp thread. Thomas Marsteller’s stunning 1860 coverlet in the collection of the American Textile History Museum layers blue, pink, and olive weft threads over a blue cotton ground. Marsteller “often used brilliant colors.” “Brilliant” could also describe a coverlet probably made near Campbellsville, Kentucky around 1846. The all wool, double-woven jacquard coverlet features a traditional mid-Victorian pattern of clusters of grapes and leaves encircling a center of a conventionalized rose blossom and acanthus garland.

362 Ibid.
interesting motifs then enclose those designs; one is what appears to be a garland of wisteria, and the outside border has an unusual scalloped wave-like pattern, strangely reminiscent of an ancient Greek motif. Most unusual in this coverlet is its striking purple color, which according to the donors, was created through dyeing with mulberries. The purple was then basket-woven with an unusual olive-green-dyed warp. Despite the coverlet’s moth-eaten and irregularly faded appearance the color is still seductive, and a good example of the kind of purple that could be achieved with natural dyes.

SI COVERLET 2001.28730, T9537

After the development of direct dye mineral greens and the industrialization of Turkey red there were no significant changes in the dye industry, including important color introductions, for roughly fifteen years. A certain complacency settled over the industry, which was described in 1846 by Edward Parnell in his practical treatise on dyeing and calico-printing. Arguing that experience is not sufficient to make a good dyer, he wrote “the fact that their own observation and that of their predecessors has proved rich in suggestions of improvement should have taught them rather to appreciate than to disregard the combined and infinitely varied experience of all who have at any time been engaged in the same or subsidiary avocations.” Learning, according to Parnell, must accompany experience. “Dyeing is manifestly a progressive art—a trade that must be learned and one which equally with any other, is dependent for its successful prosecution on a clear understanding of principles.” Parnell claimed that the number of young men who acquired their knowledge of the trade through “a regular apprenticeship
or systematic course of instruction” was small, the trade being “open and accessible to all.” More problematic was the fact that, according to him, those entering the field worked toward acquiring “a ready familiarity with and expertness in the mechanical routine of the dye-house and printwork,” and once they had matched those skills to the highest level of pay they could get, they “lost interest in increasing [their] knowledge of the art.” He, like the Reverend Levi Hill, offered his own text as “the proper sphere of a practical treatise on any branch of The Useful Arts. By it the knowledge which has been obtained through a long series of experiments at a cost of thousands, and often at the hazard of personal injury, is made available to all who may seek it at trifling expense, and without inconvenience or danger.”

Ten years after Parnell published his lament for the intellectually lazy dyers of the world, an 18-year-old chemistry student named Perkin used science to create the world’s most revolutionary color. A student at the Royal College of Chemistry, Perkin was working on an experiment at home one night, over the first grate in his apartment. The assignment was a challenge issued by his professor to synthesize quinine, a critically important chemical for a nation busily involved in colonial ventures around the world. This experiment involved aniline, a component of coal tar which is itself a byproduct of the process used to make coal gas, a fuel used in both Great Britain and the United States at that time, which is a byproduct of the coke industry. Aniline, which can be

364 Edward A. Parnell, *A Practical Treatise on Dyeing and Calico-Printing; Including the Latest Inventions and Improvements; also a Description of the Origin, Manufacture, Uses, and Chemical Properties of the various ... Substances Employed in these Arts. with an Appendix...* (New York: Harper & Brothers, 1846) v-vii.

365 Garfield, *Mauve: How One Man Invented a Color that Changed the World* 24-25 Coal tar was known to contain valuable properties, having been combined with rubber by Charles Macintosh to make a waterproofing (the macintosh coat), as a protectant on wood and metal, and as a disinfectant for sewage. In the 1840s patent applications suggested its use to pave roadways. In those early years it was understood that coal tar contained a complex mix of the elements carbon, oxygen, hydrogen, nitrogen and sulphur, and
extracted from coal-tar and in combination with other elements can dye colors, had been
discovered in the 1820s but until Perkin’s discovery had remained “a mere laboratory
curiosity, devoid of industrial application.” Perkin’s experiment went awry, and the
black sludge left in the glass vial Perkin was working with was the color of failure. But
as he was rinsing the beaker with alcohol a brilliant purple emerged. He approached his
German chemistry professor, August Wilhelm von Hofmann, with a proposal to try to
market the color as a dyestuff. It was Hofmann who had first excited his students with
the prospects of discovering new properties of aniline. But in a sadly predictable move,
the professor disparaged the idea. In the 1850s the academy was yet uncomfortable with
the idea of applied theory. Perkin then sought backing from his family, pitched his
dyestuff to the textile manufacturers of England, and finally a Scottish manufacturer took
a chance on the color.

SWATCH MAUVINE

Mauve, or mauvine, became only the first of the coal-tar, or aniline, colors
synthesized from the byproducts of a steam-powered, industrialized world. Its gorgeous
purple caused a sensation in the textile industry. Purple became a royal color once again,
as the monarchs of Europe ordered clothing dyed with the new color. The commercial

then they discovered molecules of naptha in coal tar. Naptha contained benzene, and the benzene was
found to contain toluidine and aniline. Although they could count how many of each element came together
to form coal tar, they didn’t know how they fit together. “Their precise chains and points of attachment—
those knobbly bead-and metal constructions that (in the days before three-dimensional computer software)
proud chemists like to pose beside for photographs—would not be fully understood for several
decades.” One student of Hofmann’s working in benzene off campus burned himself and his assistant up in
1855.

366 Crookes, A Practical Handbook of Dyeing and Calico-Printing, with Eleven Page-Plates, Forty-Seven
Specimens of Dyed and Printed Fabrics, and Thirty-Eight Woodcuts 171
success of mauvine spurred the invention of hundreds of other colors within a short span of years, including magenta, fuchsia, and electric purples and blues, and gave birth to many other industries reliant on the organic chemistry whose secrets the discovery of mauvine had unlocked.

SWATCHES HOFMANN’S VIOLET, NICHOLSON’S BLUE, SAFFRANINE, ETC.

Despite the beauty of colors a skilled dyer could impart to any fabric with the traditional animal, vegetable, and mineral dyes, there were many factors arrayed against them. Often delicate, subject to weather, adulteration, changes from crop to crop, and the tribulations of world markets—natural dyes could be difficult. The more easily extractable dyes could be washed away with water. Common oxidizers like hydrogen peroxide could reduce reds to grey. Sulphuric acid, common in American households and used for a variety of purposes, could char most dyes, and even dissolve those most resolute of colors—madder and indigo. Colors produced with logwood and inferior dyes were never long for this world, and making green of the vegetable dyes required double coloring fabrics with both blue and yellow. Even the mineral greens could be unstable over time, aging irregularly. “Mountebank colourmen” intermixed good products with bad. Madder colors were adulterated with everything: reddish browns were contaminated by brick dust, wood shavings, clays, and sand; madder browns with burnt sienna and ferrocyanide.367 Testing for adulterants included burning; a high ratio of inorganic to organic ash showed adulteration. Vegetable adulterants dulled the color, and

could be tested for by a drying test which used bleach and tin chloride to destroy all the
wood dyes, leaving the madder intact. These tests were all certainly outside the amount
of work an American would reasonably perform to dye something at home, and frankly,
they were more expensive and annoying than large textile factories wanted to tackle,
either.

Mauvine first appeared on silk fabrics, but chemists worked hard to ensure that it
and its fellow anilines would ultimately color cotton. Hofmann was one of these. Soon
after his student’s blazing success that began the process of making him among the
richest men of England, Hofmann had scampered home to Germany where he quickly set
himself to inventing more colors with practical application to the textile industry.
Despite his and others’ great success in synthesizing a huge array of colors in less than
twenty years, most of these dyestuffs did not make it onto cottons, the great challenge of
the textile industry, until the last quarter of the nineteenth century. Some barely made it
past the laboratory door. Aniline colors were developed quickly, but not necessarily
permanently. The first aniline green dye was emeraldine produced directly on the fiber
by Messrs. Lowe, Clift, and Calvert in 1860. To print with the color the chlorate of
potash was heated and dissolved in starch liquor. When the mixture cooled, acid chloride
of aniline or one of its homologues, “was carefully incorporated.” The color appeared
after the goods’ exposure to air for twelve to eighteen hours, and it was all a relatively
easy process. But, by the time one major technical manual to the dyeing industry was
published in 1874 the author could already dismiss emeraldine as a dyestuff with only “a
historical interest.”

It wasn’t industry fickleness so much as dyestuff fugacity that

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368 Crookes, *A Practical Handbook of Dyeing and Calico-Printing, with Eleven Page-Plates, Forty-Seven
determined a new color’s fate. The great problem of the early dyes was their unreliability.

Aniline dyes did manage to color the woolen wefts of figured and fancy coverlets in the 1860s but their liveliness did little to resuscitate this moribund industry. A circa 1875 jacquard-woven coverlet features naturalistic eagles cheekily clutching a banner with the maker’s name. The Bowling Green Woolen Mills produced what appears to be a purple created from one of the synthetics developed in the 1860s or 1870s, as the color has retained its vibrancy for a century and a half.369 Ironically, though synthetic purples did not make it to southern Appalachia until after the Civil War, they were more in demand among coverlet weavers then, perhaps to make up for the deprivation of color during the war or maybe just because they were so new. “An intense shade of violet and fire engine red were regional favorites, sometimes used in the same piece.” This example of the late nineteenth century was made by an unknown weaver most likely in Floyd County, Virginia. The coverlet’s stunning purple color suggests that Appalachians may have been wise to wait to indulge in the aniline colors as the purples of earlier coverlets have long since fled.370

TEXTILE ART P 13 PURPLE COVERLET

As the example of the western Virginia coverlet suggests, synthetic dyes did not reach everyone at the same time. Some businesses vested in older technologies and colors were naturally suspicious of the new synthetics. Even some chemists remained

369 Beautiful but ephemeral, mauvine was not stable enough to last for very long without changing.
unconvinced. Though he died seventeen years after Perkin’s discovery and its subsequent revolution in chemical manufacture, the prominent English chemist Dr. F. Crace-Calvert had still decided to leave a discussion of the aniline colors out of his encyclopedic tome *Dyeing and Calico Printing*. By the time it was posthumously published in 1876 the editors had wisely decided to insert a chapter on them. The addition scored points with at least one reviewer, who felt the work was an “able, clear, and well arranged treatise,” and “the account of the aniline colours,” which the reviewer noticed wasn’t the work of Dr. Calvert, “is very ably done.”\(^{371}\) William Crookes’ comprehensive and beautifully written work *Practical Handbook of Dyeing and Calico Printing* published two years earlier did not fare so well with this critic, as it supposedly bore “the marks of paste and scissors,” presenting in its description of dye chemistry a “muddle of old and new notation” far beneath the ability of “so eminent a chemist as Mr. Crookes.”

The whole account of the chemistry of the aniline colours is meagre, and has a peculiarly ancient look about it which makes one feel as if it were written by a chemist who had not thoroughly grasped the meaning of the more recent researches upon the subject. So, also with the account of alizarin. There is no clear statement of the chemical relationship of this body to that substance (anthracen) from which it is prepared. There is a general haziness in the chemistry of many parts of the work which is astonishing. The old names, sulphuret, carburet, etc., still find a place alongside of the terms of modern nomenclature.”

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\(^{371}\) “Reviews.” *Pharmaceutical Journal and Transactions* (May 18, 1876).
In the end the reviewer judged Crookes’ work practical enough, as it contained so many receipts and information “laboriously gathered together.” The same criticism lobbed against Crookes—that his use of nomenclature was dated and he did not appear to understand some of the newer findings in color chemistry—was made much more stridently against another dye manual published in England in the same year. It seems from the chemical industry’s perspective these old guard chemists were guilty of the same kind of inertia in accepting the new language of organic chemistry as the textile firms who sluggishly accepted the new dyes. But their remarks also reflect how much faster science and technology were moving in the last quarter of the nineteenth century.

Despite the colors newly made available to buyers in this period, most American advice guides regularly advocated utility over aesthetics. One guide to the Kansas territory of the late 1850s suggested packing “A pair of stout Mackinaw blankets, blue or gray,” into trunks strong enough to withstand being thrown from the roof of a three-story house without breaking.372 Such Samsonite-like resistance was needed to keep the contents of the case safe from disrespectful train and coach handlers.

Just a few years later blue and grey was the choice to be made once again, in the contest that tore the nation apart. The Civil War changed the color landscape in very tangible ways. Sutlery was always more difficult in the South. The southern quartermaster’s unenviable job was made harder by many factors, and the situation with color was no different. First, the union picked a better, more reliable color for its uniforms. Indigo, properly dyed, is a color that crocks but just doesn’t run. The Confederate Army’s choice of color was another story. Decent dyestuffs were just one of

the many war-time deprivations southerners experienced. One irony of the war is that it forced many southern farmers to begin growing indigo again after a century had passed from their earlier production. The Union naval blockade prevented the South from importing European-made colors and fabrics in addition to other articles of a more critical nature. The Confederate government responded to the dyestuff shortage by producing a manual of recipes for home dyers that had them returning to walnut and insect galls to produce colors in no way as sophisticated as the ones to which all Americans had become accustomed by 1860. Fabrics dyed in small batches by amateurs on the homefront were just not going to be of the quality of industrially produced ones, but in the end it didn’t really matter. The manual wasn’t published until 1864, when southern farms had become graveyards and the Confederacy bled from every part. After the first horrendous clashes of the Civil War it was clear that the cheering effect of the red and green quilts would forever be eclipsed by the terrifying sight of the red and green of the battlefield. The style limped along for some years after the war, but by the Centennial of the Union in 1876 was all but gone.

Twenty years after the war’s end, in 1886 when Henry W. Grady asked the members of the New England Society to embrace “the New South”, he begged them to picture the “hero in gray with the heart of gold” at Appomattox in 1865, when “the footsore Confederate soldier, as, buttoning up in his faded gray jacket the parole which was to bear testimony to his children of his fidelity and faith”…pull[ed] his gray cap over this brow” to make his sad journey home.373 Like all purveyors of the Lost Cause mythology Grady was knowingly trying to beautify an ugly past. Not long after the

War’s end the newly formed Daughters of the Confederacy and other groups similarly bent on romanticizing the slave South began collecting Confederate relics of war, including uniforms. The material record was quite clear—the gray color had been unstable. Though it looked dignified in the beginning of its life it had deteriorated rapidly, turning shabby and streaky, its color straying most obviously from those places—the shoulders and upper back—where it saw the most sun. In the best of cases it had turned a “butternut” brown. Nevertheless, just as Confederate apologists substituted the true record of southern desertion rates with the legend of unfailing loyalty, fugitive butternut was finessed into a memory of stalwart gray.

The Civil War interrupted the peaceful textile industry of the Shakers in Kentucky. At South Union in 1863 Eldress Nancy noted in her journal that her community lived in “perilous times.” Among other problems they had to begin guarding the fulling mill from thieves, and heavily armed soldiers crisscrossed their land. On one day four “very suspicious men” showed up at the Office saying they wanted to inspect and buy cloth in grey and black, fustic in drab, blue jeans and silk for dresses, but it was suspected they were only casing the premises to learn where the fabric was stored. Otherwise life continued much as usual. On the day when Union soldiers shot at a fugitive down the road, several church members did not even leave their posts as guards in the vulnerable strawberry patch, and others quietly picked silk balls from the brush in their scrap stand.374

Quilt making was often part of the elaborate rituals surrounding death in the nineteenth-century United States. Memory quilts, made from the departed one’s clothing,
had as many references/relevance to the life of the departed as a posthumous portrait or photograph. The swatch diaries compiled by needleworkers at the end of the nineteenth century, journal and notebooks in which the maker or wearer of each little tipped-in patch of color has recorded the details of its purchase and how it was used, show us just how important individual fabrics and articles of clothing were to many Americans. Despite its availability fabric will still never taken for granted in the nineteenth century. Textiles and the decorative arts made from them marked seminal events in Americans’ lives. The record of surviving quilts suggests that mourning quilts were common, and more prevalent in the second half of the nineteenth century than the first. It should come as no surprise that many of the quilts produced in the years after the Civil War were composed of “sad” colors.

At the conclusion of the war, in 1865 Henry Carey Baird, a self proclaimed “industrial publisher” in Philadelphia, printed the dye manual *The Color Mixer* written by a man named John Sellers, whose byline read “an experienced practical workman.” Sellers’ book focused on the coloring of cotton and woolen goods and included lots of recipes for steam colors. Colors from madder still made up the bulk of the book’s 400 recipes, and it left out entirely any recipes for the aniline colors.375


While blue and grey had been fighting in North America, in Europe it was red that was on every chemist’s mind. Through the 1860s the quest for a factory-produced red that could replace cochineal or madder accelerated.376 Chemists knew that in cochineal,
at least, the “animal economy”377 played a role in the formation of the coloring agent, carmine, but they had been unable to isolate it. In madder they initially searched for alizarin, or lizaric acid, its most valuable colorant, and “the only one which yields fast dyes capable of resisting the operation of cleansing.” They concurred that alizarin existed but debated whether it had distinct tinctorial substances or was just alizarin in varying states of impurity. Ultimately a handful of researchers “admitted” the existence of “purpurin”, displaying, as its name suggests, a marked purple color in its alkaline solution in contrast to the violet-blue color of alizarin. The Kopp firm managed to industrialize its production and introduced the color in 1864. At the time of its introduction one kilo of Kopp’s purpurin equalled the dyeing capacity of 60 kilos of Alsatian madder.378 From purpurin chemists then discovered it contained two different red coloring matters, and both a yellow and an orange tinctorial property, discoveries which prompted further investigation.

But “the preparation of pure alizarin from madder, on the large scale, is a tedious operation.” And some of the properties natural to madder deteriorated fabrics when combined with iron-based mordants. The madder root itself was subject to deterioration at widely varying rates. Scientists had been experimenting since the 1820s with distillations of madder to try to remove the pernicious properties of the plant while still allowing it to dye brilliant, fast colors. By the 1860s European chemistry had reached a

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378 Crookes, A Practical Handbook of Dyeing and Calico-Printing, with Eleven Page-Plates, Forty-Seven Specimens of Dyed and Printed Fabrics, and Thirty-Eight Woodcuts 241-242
point of sophistication lofty enough to convince researchers that even more tinctorial components in these natural dyes could by discovered, and ultimately replicated, in a laboratory, and so they continued searching for a synthetic substitute for red. It didn’t take long to find one. I

In 1868 the firms of W.H. Perkin and the German company Graebe and Liebermann nearly simultaneously announced their production of “alizarine,” a synthetic form of the coloring matter of the madder plant “which furnishes the purest colors”. This was the first artificial dye to reproduce a vegetable dyestuff. Other firms had been trying for decades to extract other coloring agents from madder, including garancin, an elusive and puzzling component whose manufacture “Science” was still unable to explain when Graebe and Liebermann announced their invention of alizarin. If the synthetic was similarly fast, then, “a great gain in chemistry has been achieved, if the basis of this class of pigments can be artificially manufactured.” Keeping its formula secret, the chemists would say only that the colorant was made from anthracene, one of the heavier carbons of tar. It was from the lighter oils of coal-tar that the aniline colors were produced; and until the manufacture of alizarine, the heavier constituents of tar had been of little utility, except as fuel and in the manufacture of asphaltum. The synthesis of alizarine, then, represented a huge, and profitable, turning point in organic chemistry. “The patent right for different countries is already secured by the above gentlemen, and will most likely be a source of ample remuneration to them…But the importance of this discovery does not end here; much will be gained for national wealth in an indirect way. All the lands
required for the cultivation of the madder will now be rescued for the production of food.”

Yet just two years later in 1870 Crookes wrote that a Dutch concern operating the four largest garancin works in Holland had called in scientists to attest that “the garancin so prepared is as good for all practical purposes as the best madder, and the colours are equally fast, while the dyeing operations are easier and take less time in clearing.” That garancin supposedly also dyed Turkey reds quickly, but its process was kept a trade secret. The laborious process for making Turkey red, involving a mysterious and disgusting alchemy of dung and blood and grass and sun, could now be carried on in beakers within the confines of a laboratory and a specific frame of time. With this discovery one of the longest guarded secrets in the history of the world no longer mattered.

The invention of artificial alizarin at the end of this period signaled the end of naturally cultivated reds. Even Native Americans abandoned traditional methods of dyeing for the synthetics. The sight of displays of Putnam’s and Diamond Dyes for home use became a common one in dry goods stores and reservations throughout the West. In fact, the success of the aniline colors sealed the fate of all colors, which by the end of the century would come almost entirely from the factory, no longer from the field. The discovery of aniline colors meant that a truly infinite number of colors awaited the world,
and essentially guaranteed the demise of most forms of vegetable dyeing, and of the industries dedicated to their production.\textsuperscript{381}

CROOKES, P326 MADDER V ART ALIZARINE

Some of the new colors brought forth from aniline, though beautiful, were so vulnerable to light or acid, they died an ignominious death in the same laboratory in which they were born. Even some of the dyestuffs that made it into production suffered from a fugacious nature marked enough to earn them a bad reputation. Reputation was everything in the dye world. Certain parts of the world were renowned for the best colorants; certain suppliers for the purity of their products. The laboratory had created many new colors, had invented colors that did not require mordants, and could be directly printed on fabric, but had not yet come close to perfecting the formulas for their use to make them permanent and unchanging. It is quite probable that the unfortunate quilters who chose the new aniline greens had seen their leaves wither and brown on the vine, or their aniline reds turn to grey or tan, just as many who chose traditionally overdyed greens had seen the foliage they worked so hard to naturalize turn a strange color of blue. Some quilters lived more than long enough to see these colors ruin projects they had spent years making. When what appeared to be the same fabric at purchase changed in different ways over time, they learned the hard way they had bought two different unannounced dye lots at the store, or that the same manufacturer was experimenting with the color formula. The result was buyer’s remorse stemming from their investment in the new colors. Long before the discovery of the coloring properties

\textsuperscript{381} Indigo was the important exception, as no synthetic had been found to replace it by 1870.
of the coal tars, in 1835 George Field admonished the consumer of color in his treatise on colors and pigments in painting: “Newly-discovered pigments, however flattering in appearance or in working, are to be employed with caution, or even suspicion, till experience has obtained them the stamp of excellence.” It is easy, though, to sympathize with those who ventured to experiment with them. Presented with the creative possibilities of mauve, magenta and fuchsia, who could display such patience? “…Most of the resplendent pigments, fruits of the fecundity of modern chemistry, have been found deficient o the intrinsic and sterling excellences which have given value and reputation to some of the ancient and approved.”

John Sellers was not the only American dyer who failed to do his due diligence with regard to the aniline colors. In his long treatise on the subject, The American Dyer, in 1872 author Richard Gibson included chapters on aniline colors but left out a discussion of Perkin’s discovery and the competition engendered by the quest for new colors by European concerns, compulsory subject matter for European dye manuals. Individual American weavers and dyers had, of course, recognized the importance of offering beautifully and permanently dyed colors to their customers and had honed their craft toward that end. But while they were building textile factories and copying color schemes from Europeans, American industrialists ignored the advice of Ellis and other dye manual authors urging them since 1798 to “enrich” the nation through the creation of a serious, scientific, dye industry. In fact, the United States would allow England, France, and especially Germany to do the business of creating new colors for another half

century, until the Germans’ status as an enemy of the United States permitted Americans’ looting of their patents on dyestuffs in World War I.

Sellers, Crookes, and their supposedly sluggard colleagues may have put their collective finger on consumers’ wariness of the new anilines. Yes, the colors had created a sensation when they first emerged, but their unreliability became a problem for both for textile firms and customers who invested in them before they had been tested by time. It is no accident certainly that a dyeing and refurbishing industry thrived in this period. What remained for chemists and textile manufacturers was just to reverse the reputation for impermanence of the new colorants to ensure their place in the industry. Dyers and ultimately professional chemists studied, experimented, and tweaked to resolve the problem of aniline fugacity. And in the end, these new lab-produced colors were just too beautiful and too useful not to displace the natural dyes.

In 1869 the Manufacturer and Builder carried a story on the manufacture of chrome red, or what was sometimes called when it appeared in its finest deep red shades, American vermillion. The journal described four ways to make chrome red, whose shades varied from “a beautiful deep orange to a perfect vermillion red, with which, when it is properly prepared, it may almost compete in glow and depth of color.”

Chrome colors continue in manufacturing, although the American deposits near Maryland were exhausted. The Tyson family was mining chromium in California and shipping the ore back to Baltimore around Cape Horn back to Maryland.

Even in the age when the laboratory offered just shy of an infinite number of colors, and grammars of ornament written by aesthetically educated men and women

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dictated its proper implementation, Nature was usually still credited as the best colorist. As Amy March surveyed the landscape of Ireland on her way to London in *Little Women*, she couldn’t help but remark on its colors. “Such perfect color I never saw—the grass so green, sky so blue, grain so yellow, woods so dark—I was in a rapture all the way.” And though science had made beautiful colors available to Americans, they didn’t necessarily like what people did with them. When Amy saw the imperial family at the Palais Royale, she found the Empress “pale and pretty,” but “dressed in horrid taste…purple dress, green hat, and yellow gloves.”

It is a strange irony that the new synthetics guaranteeing people of all economic classes a never-ending supply of fast, deep, glowing red and green fabrics came along just at the time that Americans had tired of the red and green quilt. For a time dunged and oiled vegetable-based Turkey reds, still based on an ancient recipe, comfortably cohabited with spanking new, lab-produced aniline greens on the creamy white surfaces of the era’s most popular quilt styles. Though a style of red and white quilt would pop up for a short time in the last decade of the nineteenth century, after 1870 American quilters focused their efforts on displaying the entire range of colors, textures, and patterns now available to them in the form of the so-called Crazy quilt style.

Coverlets died an ignominious death, lining army cots and serving as privacy curtains between hospital beds in field hospitals during the War. By the time the Civil War ended, most small-scale weavers had already been displaced by power looms, and, of course, some weavers went to war but did not come home. Even had they survived coverlet making would not have. As early as 1845 an author of a household management text published in Philadelphia had damned them with faint praise, forecasting their future

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384 Alcott, *Little Women* 333, 337
as obsolete objects. “The old-fashioned country coverlets, woven of coloured yarn, are still used in country houses. They have the advantage of being light as well as warm, are extremely durable, and wash well.” Historically speaking, few things described as popular in the “country” have remained in fashion for long. Infused with a renewed interest in their history, patriotic Americans called for a resurgence of home manufacture of coverlets in 1876, and some especially vibrant specimens were produced in that year, but the majority of that still small number were woven by machine in steam-powered factories.

CENTENNIAL COVERLETS

For decades after the war, the nineteenth century’s iconic coverlets served as backdrops for the subjects of country photographers. The custom of using a coverlet to create visual interest in portraits begun early in photography’s history limped along into the twentieth century in Appalachia, much longer than anywhere else, it seems, where the number of people using the device suggests it still conveyed respectability. Mr. and Mrs. Howard Little of Buchanon County, West Virginia, sat for their portrait in front of a particularly detailed coverlet sometime just before Howard was sentenced to die for the shooting, stabbing, and hatcheting deaths of six neighbors from whom he was trying to steal timber money, in 1906. Outside, on American streets everywhere woolen coverlets slid into service as cargo covers for tobacco wagons and carpets for the display of vegetables at farmers’ markets. Despite their many humiliations, the coverlets’ colors were usually still there.
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I am indebted to Michelle Delaney, Director, Consortium for Understanding the American Experience and former Curator of the Photographic History Collection at the National Museum of American History, for this information.

In the 18th century the generic term “carriage” referred to any number of wheeled vehicles, from sedan chairs to stage waggons or wagons. Many subtypes of personal carriages (which most people would probably think of as coaches) existed after 1750.


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