

## Connecting Across the Curriculum: More Ideas for George Washington's Life in Color

# Summer

1

**Military connection: Charles Wilson Peale painted portraits of George Washington in the uniform of the Virginia Militia (1772, Washington and Lee University) and in a uniform of the Continental Army (1779, Pennsylvania Academy of Fine Arts). What are the military advantages of a red uniform? Is the buff and blue uniform a better choice for battle? Why or why not?**

2



### Color Concerns of a Commander in Chief

The year is 1778. George Washington is commander in chief of the Continental Army. His correspondence refers to armies, battles, troop movements and even the color of uniforms worn by regimental musicians. In building an army from the ground up, all decisions had to be made, and apparently made by the commander in chief, including the colors of uniforms. The General would spend much time writing letters about the colors of uniforms and about uniform color.

When the war began, some volunteers wore state militia uniforms, some wore uniforms from previous military conflicts, while others wore their everyday clothes. General Washington understood that making these small groups of fighters into

an army required discipline and uniformity in all aspects of life—including uniforms.

We may picture an American soldier wearing a blue coat with red facings over a white waistcoat and breeches, but there was never only one uniform in the Continental Army. Prior to the appointment of James Mease as Clothier General to the Army of the United States, individual states purchased clothing for their troops. Upon his appointment, Mease was instructed to write to the states and discover what arrangements had been made and which regiments had decided on their own uniforms.

Among Washington's early color concerns was the potential for confusion. On April 17, 1777, Washington wrote to James Mease: "I could wish Colo. Moylan would put his Regt in any other Uniform than Scarlet, because I am convinced that many Mistakes and perhaps some fatal ones will happen from our Dragoons being clothed in Red and Blue which is the same with the Queens Dragoons. There now are going on, 1400 Suits of Brown and White and Brown and Buff which are handsome, and good standing Colours, I had rather see Moylans Corps in one of them than in scarlet, for the Reasons I have mentioned. But if the Uniforms of the Officers are made up, I suppose it will be too late to make an Alteration."

Mease replied on May 12 from Philadelphia: "Upon receipt of your Excellency's letter of 17 Ult. I waited on Col. Moylan, & mentioned your disapprobation of his regiment being dressed in Red, & he appeared desirous of complying with yr Excellency's wishes, but upon consulting the officers, on this point; it appeared they had been all at a considerable expence for scarlet Uniforms, & therefore they concluded best on the whole, to take the red, Upon which, I delivered them 240 Coats of the 21st & 8th regts both which are red faced with blue... There is also part of the



Clothing of three other regts Vizt 47th 53d & 62d which together will go near to clothe a Battalion, & I have directed the white Lapels of the 47th to be taken off, & applied to make Cuffs & Capes for the 53d, so that they will be uniform... I had thoughts of resewing one of these Uniforms for Col. Graysons regt, but find he has fallen on blue & red & has obtained near 400 suits... I can supply this regiment, with either the red Uniforms mentioned, Or with the Brown & buff, which is yet Unappropriated."

On the same day, Washington wrote to Mease: "Being more and more convinced, of the impolicy of any part of our Troops being clothed in Red and that many injurious and fatal consequences are to be apprehended from it, I think it necessary to repeat my request, mentioned in my last, that you will have all the Clothes in your hands, of that Colour, dyed of some other, as soon as you can. Yesterday an Escort to money from Colo. Moylan's Regiment dressed in that Uniform, alarmed the Country, and had they passed where the Enemy's Horse could possibly have been, they certainly would have suffered. Unless the matter is immediately remedied, by changing the Colour, our people will be destroying themselves."

Uniform color was not a problem quickly solved. On September 14, 1778, from headquarters in White Plains, NY, Washington wrote: "The Clothing of the Drums and Fifes should also be characteristic of the Regt to which they belong, that is, the Ground of the Coat of the same Colour as the Regimental facing..." The musicians were identified by their regiment's colors; however, because their colors were reversed they were also identified as non-combatants.

Three years into the war, questions still arose. From Washington's headquarters in Middle Brook (April 5, 1779), he wrote to Joseph Reed: "I cannot conceive from whence can arise the antipathy

of Colo. Proctor and His Officers to the Uniform adopted by all the other Regiments of Artillery. In every service, it is customary to distinguish Corps by particular Uniforms, and as Black and Red has been pitched upon for that of the American Continental Artillery; it is unreasonable in him to make any objections. As Blue and Red has hitherto been the Uniform of his Regt I imagine the Officers are in general provided with Cloathing of that kind for this year; and it would therefore be inconvenient to make a change at present: But I would wish you to inform Colo. Proctor, that it is expected he will conform next year—It is good policy to diversify our Uniform as much as possible, as thereby the demand for any particular colour and of course the price is decreased—Blue Cloth is now higher priced than any other (except scarlet and Buff) because such numbers prefer it—"

Issues of uniform color never went away because uniforms were important for both tactical purposes and morale. In battles fought with smoke-producing weapons, identifying a friend from an enemy was a matter of life and death. When the soldiers were not in battle, seeing everyone in the same uniform helped minimize geographical and cultural differences and focus on the common goal. Though the Continental Army largely comprised amateur soldiers, their commander in chief understood the importance of presenting a professional military appearance for building troop morale, intimidating the enemy and marketing the American cause to the world.



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**Dyeing connection: One option for changing the Continental Army's uniforms was to dye them. Learn more about dyes and dyeing on pages 8 and 9.**

3

**Archibald Willard's painting "Spirit of '76" is a well-known image of Revolutionary War musicians. What instruments are being played? What does their clothing tell you?**

1

Commerce connection: Research how food comes to your table. Do you buy local food? Which of your favorite foods comes the farthest distance to be on your plate?

4



### The Colors on Your Plate

It may seem overly simple, but nutritionists' advice to increase the number and variety of foods in your diet makes good sense. Beyond being pretty, a food's color can often tell you about its nutritional value. Red foods are sources of vitamin A and C and antioxidants like lycopene, which can improve heart health. Orange and yellow foods also contain vitamins C and A as well as beta-carotene and alpha-carotene, which promote eye, hair, and skin health. Blue and purple foods are sources of B-vitamins and antioxidants, which promote cell health. Green foods bring vitamin K, folate, and potassium. A diet that includes foods of all these colors provides—as much as possible—the nutrients needed for good health.

It's easy to see the range of food colors at a grocery store or farmer's market. At a market, consumers can easily gather their color spectrum

of fruits and vegetables into a basket or bag. It wasn't that easy for the Washingtons, who had no market or grocery store nearby. What they did have was a series of gardens where they grew fruits and vegetables to feed plantation residents and guests. The Washingtons had both hired workers and enslaved people who brought food from seed to table.

George Washington's correspondence and diary help paint a clear picture of the gardens at Mount Vernon. When the Washingtons were away for long periods of time, due to either the war or the presidency, they constantly communicated with the plantation manager and, through him, with the gardeners—both employed and enslaved.

Plantation records and correspondence point to the fruit and vegetable gardens, sometimes called the kitchen gardens, as the province of Martha Washington. When writing his estate managers, George Washington often passed along requests or instructions from Mrs. Washington.



She sent seeds to be planted at home and asked for seeds from home to be sent wherever the Washingtons happened to be living. Mrs. Washington believed that vegetables were the “best part of our living in the country.”

What colors were visible in the Washingtons' gardens? **Red:** Strawberries, cherries, beets, raspberries, and radishes. **Orange:** Apricots, carrots, peaches, and pumpkin. **Yellow:** Corn. **Green:** Peas, artichokes, celery, broccoli, cabbage, and asparagus. **Blue/Purple:** Plums and red onions. **White:** Turnips, potatoes, onions.

In addition to the kitchen garden produce, exotic (though what was exotic to the eighteenth century may seem ordinary to us today) fruit trees were grown on the estate, spending the growing season outdoors and the winters in the greenhouse. Mount Vernon's gardeners cultivated lemons, limes and oranges and a less familiar-to-us citrus fruit called a shaddock. Also called a pomelo, the shaddock is a grapefruit-sized citrus fruit with a pale green skin, white flesh, and a thick white rind.

Seasonal fruits and vegetables were eaten fresh, making summer a bountiful time at Mount Vernon's dinner table. In 1799 the day-to-day work was supervised by a hired Englishman named William Spence. He directed two enslaved gardeners, Harry and George. One crucial task was making sure that the garden produced enough food for the household for winter. They planted winter crops (like cabbage and winter squash) in the garden and harvested root crops like turnips and potatoes, storing them for winter. Hundreds of bushels of turnips and potatoes were stored in the mansion's cellars. Corn and peas were dried and stored. These stores of vegetables were supplemented by food preserved by pickling.

The kitchen gardens produced a rainbow of foods for those who ate dinner at the mansion's

table. But there were other places where people gathered to eat at Mount Vernon. They were the tables—sometimes real, sometimes metaphorical—around which the enslaved people of Mount Vernon gathered to eat. Were their plates also filled with colorful food?

Archaeological evidence from the *House for Families* excavation revealed that enslaved people hunted, fished, and foraged to supplement their rations of cornmeal and salted fish. Additional sources of protein included deer, squirrel, turkey, and blue crab along with cows, pigs, sheep, and chickens. Eighteen fish species were identified in the excavation. Enslaved people also kept their own small domestic gardens growing green peas and beans, yellow corn, orange carrots, and white turnips. They also foraged for plant-based foods like persimmons and black walnuts, which grew wild on the property. While there was variety, the diet of the enslaved people at Mount Vernon lacked the variety of colors that provided the nutrients for good health; they did not experience the same variety of colorful food as the mansion residents and guests.

A plate of food can be fuel—simply the necessary nutrition to keep a body functioning. A plate of food can be a feast—a superior food well-prepared for enjoyment in eating. A plate of food can also be a feast for the eyes—a visually pleasing composition of colors and textures. All three approaches benefit from a wide assortment of food colors: greater nutritional variety is present, foods are enjoyed at the peak of their season, and plates become abstract explorations of color.



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Nutrition connection: Keep a record of the food you eat for an entire week. Sort the food items by color. Are you eating around the color wheel? Are there colors you do not eat? What color(s) should be added to your diet?

3

Writing connection: Develop a series of thoughts about food as fuel, food as a celebratory feast, and food as a feast for the eyes. You might choose the idea that resonates with you or write about the differences among the three approaches. You might write a series of prose reflections or a collection of poetry. Try writing a rap or song lyrics about food and color.

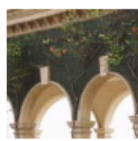


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**Symbolism connection: The laurel wreath is a symbol of victory. What do the oak, olive, willow and cypress trees symbolize? What do trees in general symbolize?**

6

## spectrum



The colonnades that connect the mansion to the wing buildings were among the improvements made to the mansion while George Washington was serving as commander in chief during the Revolutionary War. His distant cousin, Lund Washington, served as manager of Mount Vernon during this time. See an older image of Mount Vernon and the colonnade with a different color scheme.



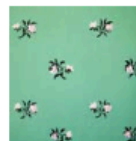
Cabbage was a staple crop in Mount Vernon's gardens because of its versatility and ability to keep for long periods of time. Cabbage can be preserved as sauerkraut, boiled, added to soups, or prepared in a number of ways. This recipe for German Cabbage has a sweet-and-sour flavor from the inclusion of apples, vinegar, sugar, and spices.



The New Room was the last addition to the house at Mount Vernon. George Washington tried to manage the construction during the Revolutionary War, but ultimately construction was halted because of the difficulty of overseeing the work from a distance and because it was difficult to find skilled workers. Construction of this room began in 1776 and ended in 1787.



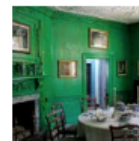
George Washington redesigned the landscape at Mount Vernon to focus on a bowling green surrounded by serpentine (curving) walks. The walks were lined with trees transplanted as saplings from the woods around Mount Vernon. In addition to the tree-lined walks, planted areas near the bowling green were planned.



The Chintz Room was one of the more elaborate of the six main bedrooms at Mount Vernon. The background color of the sprigged wallpaper (a reproduction paper) in the room is based on a green wallpaper fragment found under the floorboards of the room.



The laurel wreath has been a symbol of victory since the classical period. Winners of various kinds of contests—athletic, literary, military—had laurel wreaths placed on their heads at the time of victory. This wreath is the center element of a china pattern designed by a Dutch merchant and presented to Martha Washington in 1796.



The verdigris finish on the walls of the small dining room, is the result of a chemical process. Copper corrodes when mixed with vinegar and forms 2 bright green crystals. These crystals are added to varnish or oil (for paints) to be used for paintings or as wall finishes. Though bright green at first, verdigris has a tendency to darken as it ages. To keep the room this intense shade of green would have required somewhat frequent repainting.

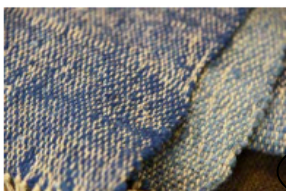
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**Chemistry connection: The Statue of Liberty has a verdigris finish. Research the appearance of Lady Liberty to determine how the statue might have looked when it was new.**

1

Enslaved people connection: Newspaper notices about runaway slaves often described their clothing. Find several of those notices and see if it describes clothing that has been dyed.

8



### Color from Nature: Dyes and Dyeing

In eighteenth-century America it was possible to purchase commercially-dyed fabrics, clothing and needlework supplies if one lived close enough to centers of trade and commerce or had a reliable trading network. But with the uncertainties of transportation and the ultimate severing of the relationship between the United States and Great Britain, reliance on natural sources of color for dyeing became more important for American cloth manufacturers and on estates like Mount Vernon.

On the north side of the mansion is an outbuilding called the Spinning House. In the Spinning House, enslaved women turned the linen and wool fibers produced on the estate into yarn. Hired weavers wove the thread into cloth that was turned over to seamstresses who made clothing for the enslaved population.

George Washington originally thought to produce cloth as a business at Mount Vernon. Washington had between 600 and 1000 sheep on the Mount Vernon farms. He called them "white cattle" and used them mostly to graze in and fertilize fallow fields. As a businessman, Washington understood that using the animals' wool made good economic sense.

As he investigated the process he decided that fabric production as an estate industry did

not make economic sense. He did determine that enough fabric could be made to provide Mount Vernon's enslaved population with a set of linen clothes for summer and a set of wool clothes for winter. These estate-made fabrics and clothes were not dyed as part of their manufacture. They retained the natural color (as seen in the example below of the linen and wool fibers) unless the enslaved people dyed the clothes themselves.



If, however, something needed to be dyed, there were natural coloring agents available to Mount Vernon. Some sources were local, while others came from farther away. All of them followed the same general dye process that is still used today. The fibers—cleaned, spun, and woven as necessary—soak in water while the dye bath is prepared from the source material and the proper mordant\*. How long the fibers spend in the dye bath determines the intensity of the color, as will the amount of fiber that has been placed in a



particular dye bath. With each batch the colorants are depleted, requiring each subsequent batch to remain in the dye bath longer to achieve the same intensity as the batch before it. The two pieces in the photo at the beginning of this essay are made with blue yarn dyed at the beginning and end of a dyeing session. The piece on the right shows how depleted the dye bath had become.

Red, yellow, green, blue, and purple could all be made by natural means. Some colors had multiple routes to a color family, affording the dyer a certain amount of nuance. Red could be a cherry red or a red-orange. Greens could be changed by selecting different blues and yellows. Below are some of the available means of producing colored fibers and textiles in the eighteenth century.

**Red:** Madder and cochineal are two of the most popular families of red available to 18th-century dyers. Madder is derived from the root of the madder plant (*Rubia tinctorum*). The root contains the pigment alizarin, which is also the source for the paint alizarin crimson—and was the source for the English army's famous red coats. Madder is an orange-red. If you were looking for a berry red, the choice would be cochineal, a long-known insect-based dye. Indigeneous peoples in what is now Mexico collected cochineal insects (*Dactylopius coccus*) from the cactus plants on which they lived, dropped them in hot water to kill them, then dried them in the sun before grinding them into a powder that produced a deep red color when dissolved in a liquid. Cochineal was a very expensive dye and is still used in making today.

**Yellow:** The most widely used source of yellow dye in the 18th century was onion skins, which are still used today. An older source of yellow dye is weld, which was used in ancient Rome. This plant produces tall spikes of yellow flowers. The flowers, leaves and seed capsules can all

be prepared to make the bright yellow that is characteristic of weld as a dye.

**Green:** Green objects are created by first immersing the fabric or fibers in a yellow dye bath and then overdyed with indigo or woad, both dyes in the blue family.

**Blue:** The most common blue dye is indigo. Most familiar to us as the traditional coloring for blue jeans, what we call indigo can come from species of *Indigofera*, as well as from woad and other plants.

**Purple:** In eighteenth-century America, the most popular purple dye came from logwood. Originating in Mexico and coming through the West Indies, logwood (*Haematoxylum campechianum*) creates a deep purple often used when dyeing cloth black (black was created by dyeing fabric in multiple dark colors). Logwood, either sawdust or chips, is soaked and/or boiled to get the color. Depending on the mordant used, the length of time in the dye bath, and the strength of the dye, logwood can produce deep purple, light purple, grey-purple, grey, or black.

The production of intentionally colored fibers and fabrics is both an art and a science. Thinking about eighteenth-century dyeing is a reminder that this was an age that valued both facets. The science was necessary to achieve the desired results. The art was valued for its contribution to quality of life.

### \*Vocabulary

**Mordants** are compounds that combine with a dye or stain and fix it to a fabric. Alum (right) is a mordant.



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Lifestyle connection: Check food and cosmetics labels for words like cochineal, carmine and carminic acid. Those words indicate the presence of cochineal.

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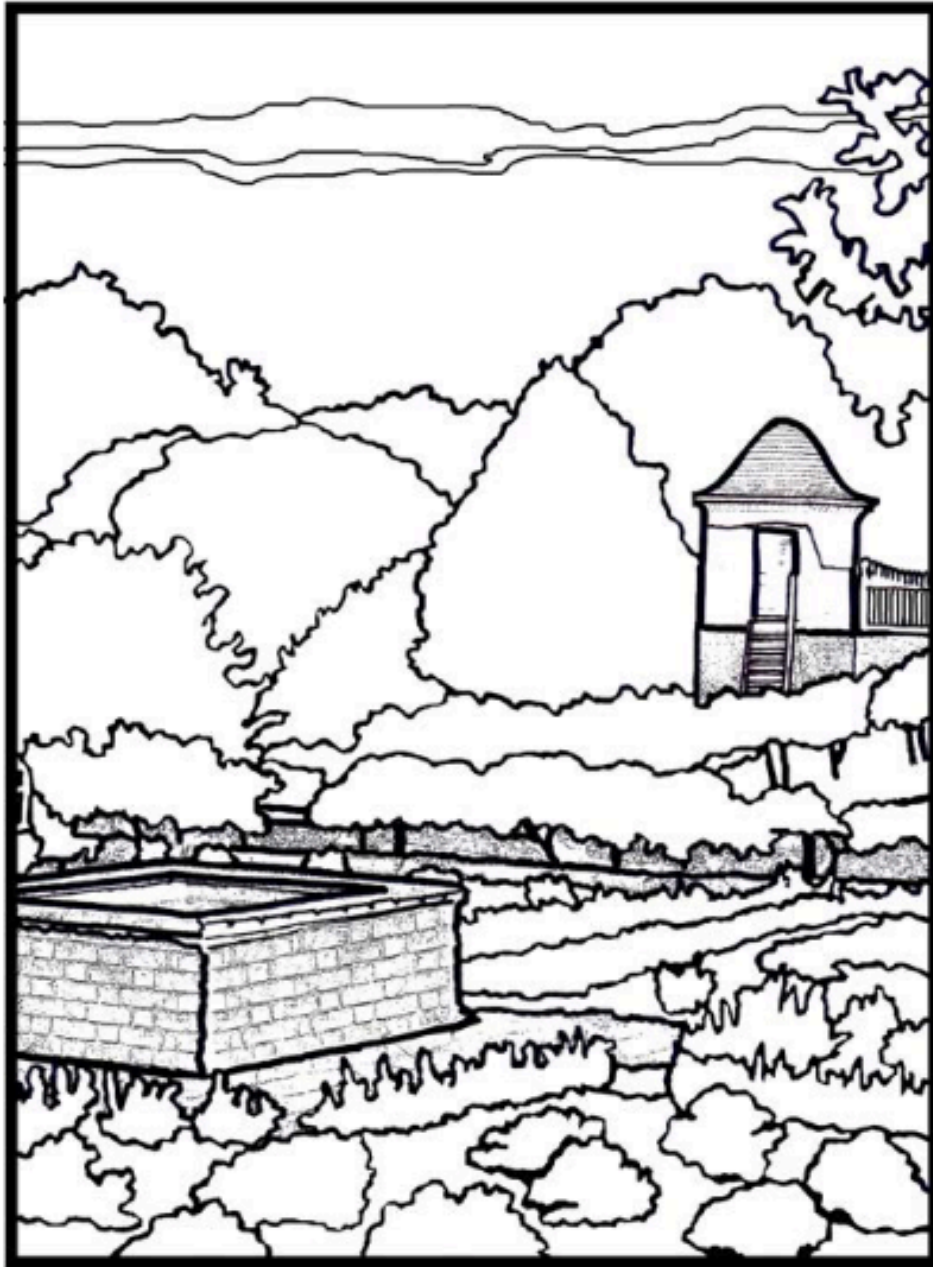
Literature connection: Research the color called Lincoln Green. With what literary work is this color associated? How is the color made?

4

Science connection: Black is not one color. Mark on paper with several different brands of black marker (not waterproof). Wet the paper and watch to see what colors separate out when the black ink begins to run.



**Add your own color to George Washington's world.**



**Landscape connection: Mount Vernon's gardens include four octagonal "garden houses." Search the Mount Vernon website to discover their function(s).**