

MICHAEL MILEY, 1841–1918

By Mame Warren

Washington and Lee University Art Exhibition Catalogue, 1980

PRIDE AND PREJUDICE, as has been noted elsewhere, often inspire strong emotion and exaggerated conviction. It should be no surprise, then, that Lexingtonians (and their Rockbridge County neighbors) believe that there were just two photographers in the last [19th] century of any real significance: Mathew Brady and Michael Miley.

Brady, of course, achieved his fame through his remarkable photographs of a war which to most minds is better forgotten. Miley, on the other hand, was a local boy who made good — very good — and did it all in the county itself.

The story that Miley, “General Lee’s photographer” (no matter that Lee posed for Brady and for numerous others during the same period), had “discovered and

Editor’s note: This Epilogue consists of two articles: The present well-researched essay by Mame Warren, which first appeared in the 1980 Washington and Lee University art exhibition catalogue *Michael Miley: American Photographer and Pioneer in Color*, and an excerpt from Henry Miley’s 1941 oral memoir describing, *inter alia*, his and his father’s early work in color photography.

developed color photography”¹ was already popular by the time his obituary was written in 1918. Not wholly true; but not entirely untrue, either.

Michael Miley was born July 19, 1841, in Rockingham County, Virginia. While he was still young, the family moved south to Rockbridge County, to a farm about three miles from Fairfield. At the age of nineteen, Miley went to war, serving in Gen. Thomas J. Jackson’s “Stonewall Brigade.”

When he returned to Lexington is not known for certain. It is certain that he began his photographic career after Appomattox in Staunton, where he worked about a year with a Mr. Burdett. There, presumably, he learned to print positive images from collodion wet-plate glass negatives onto albumen-coated paper. He introduced this then-recently developed technique to Rockbridge County when he came to work for Andrew Plecker, a traveling photographer from Lynchburg.

Many “country photographers” at the time were experiencing difficulty with the process,² but the number and quality of the surviving Miley prints from this period suggest that he mastered it quickly. The new method required that plates be sensitized, exposed, and developed while wet. In contrast to daguerreotypes and tintypes, the new “wet” process made it possible to print any number of pictures from a single plate.

Plecker’s was a transient operation; the two photographers, with all their equipment, a room for sittings, and a darkroom, traveled in his boxcar wagon. Miley’s association with Plecker seems to have been brief, but it included at least one session — probably Miley’s first — photographing Robert E. Lee, on Traveller, at Rockbridge Baths.

Late in 1866, Miley formed a partnership with Captain John C. Boude of Lexington; hence the stamp, “Boude and Miley,” on early prints. The photography itself is attributable to Miley alone, however, since Boude is not known to have had any knowledge of or skill in photography; he was, instead, a business partner whose backing permitted Miley to open a studio and gallery on the corner of Main and Nelson Streets, upstairs in the Hopkins Building.³ In 1870, just prior to his marriage, Michael Miley bought out Boude’s share in the business.

The studio was called The Stonewall Art Gallery, and, as the *Rockbridge County News* reported, “it became one of the sights of Lexington. Here were portraits of General Robert E. Lee and his family, to the third generation; of President Jefferson Davis, John C. Breckenridge, General Beauregard, Jubal Early, Commodore Maury,

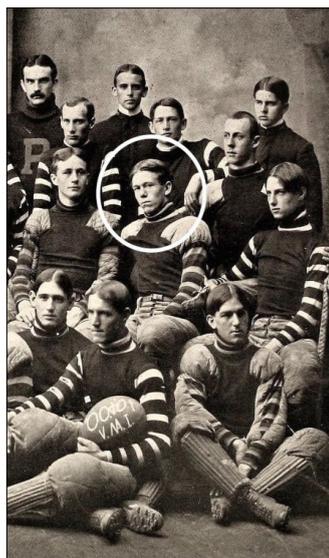
Mame Warren has been a photographic archivist and historian at Johns Hopkins and Washington and Lee Universities. She is the editor of *Come Cheer*, W&L’s 250th anniversary coffee-table book, and assistant editor of the papers of George C. Marshall, published by the Marshall Library in Lexington. She is also the author or co-author of several books, all abundantly illustrated with photographs, mainly centered on Maryland and its history.

John Randolph Tucker, of all the professors in the University and Institute faculties . . . and many other notable men and women. All of these pictures were from sittings and a large portion were life size.”⁴

Portraiture comprised the majority of Michael Miley’s work. His famous images of Robert E. Lee were as popular then as they are now. In one of our primary sources about Miley’s career, 22 pages of oral recollections transcribed in 1941, his son Henry commented that the picture of “General Lee on Traveller was the most salable photograph that Father made of him from direct life.”⁵ Lee himself requested that the photograph be made; he posed — in uniform for the first time — in the back garden of his home on the Washington College campus. [The oral recollection is excerpted beginning on page 4.]

For many years, Miley had the annual assignment of documenting the classes and athletic teams at Washington and Lee University and at Virginia Military Institute. And so it was, though artist or subject could not have known it in 1901, that Miley photographed a cadet who was to become a great general, George C. Marshall.

In addition to his commercial work photographing brides, babies, and family groups, Michael Miley was intrigued with portraying beautiful women. Highly stylized poses were popular in such idealistic photography, and Miley’s provided no exception. In his 1941 reminiscences, Henry Miley recalled more than a dozen “beautiful young ladies” from as far away as Kentucky who posed for his father’s camera.⁶ “He made a lot of photographs in his studio just because he considered the subject beautiful in some way and not because they came to have their pictures taken. One particular picture, the picture of a nun, was taken because he thought it



Left: Detail, Virginia Military Institute football team, 1900; George C. Marshall encircled. Right: Albert Sidney crew team, Washington and Lee University, also 1900. Photographs by Michael Miley.

Michael Miley, 1876 (?)



would be outstanding. Another one was the picture of the girl with the basket of fruit on her head. These pictures were about 20-by-24 inches large.”⁷

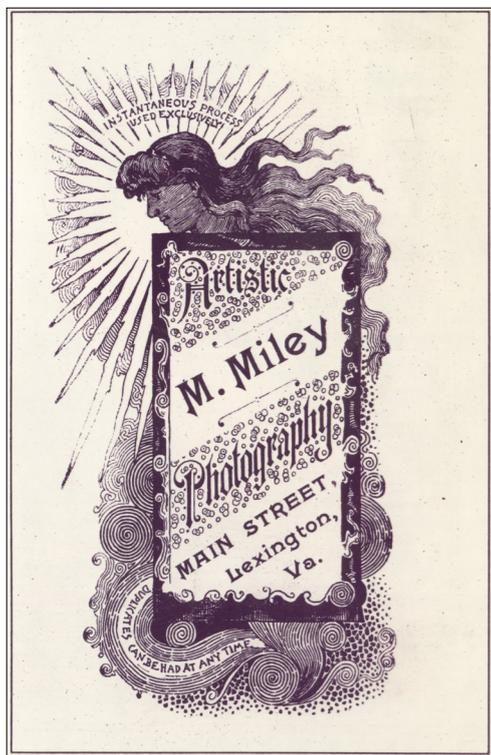
These negatives, on glass plates, were made with an enormous view camera. Despite its cumbersomeness and the auxiliary equipment needed to operate such a precision instrument, Miley did not hesitate to use it outside the studio as well as in. “He would always look out for any special picture,” Henry Miley recalled. “He would get the carriage ready in a hurry if he saw that there was going to be a pretty cloud effect and rush down to the bend in North River before the cloud would leave. He wouldn’t waste any time getting set up, either.”⁸

In 1907, tragedy struck the Miley firm when the studio and gallery were almost completely destroyed by fire. Negatives from 1885 on were lost; the early, more valuable negatives and most of the equipment, however, were saved. Several retail stores and the offices of the *Rockbridge County News* were also damaged severely by the fire. An acknowledgment of how dearly The Stonewall Art Gallery was cherished is evident in the newspaper’s comment that “the loss of M. Miley & Son will appeal personally to more people than any other.”⁹

The enterprise was far from lost, however. Two weeks later, a notice appeared in the paper that “our newly fitted up gallery . . . opposite the courthouse is now ready for business.”¹⁰

Michael Miley pursued all his interests with enthusiasm. On Sundays, he attended services at the Lexington Presbyterian Church twice, though he never joined the congregation. Toward the end of his life, he went to the movies almost every night to study the lighting effects.

But his house on White Street and his family were at the center of his affections. In 1870, he had married Martha Mackey, and they had three sons, Henry, Herbert, and Edwin. His niece, Frances Isabel Mackey Huffman, remembers that the Miley house was always full of people, and that there were flowers all year ‘round. There were a greenhouse for exotic plants and a vegetable garden. “Uncle Miley — Mrs. Miley would not have him called ‘Uncle Mike’ because it sounded too Irish — gardened very scientifically.”



“He used to get up early in the morning to go out and watch everything grow. Sometimes he would sit up nearly all night tending the fire to keep the greenhouse warm and things growing. We burned as much coal in the greenhouse as in the house,” Henry recounted.¹¹

Experimentation, whether in the greenhouse or in the darkroom, was always a challenge for Michael Miley. Though he traveled regularly to photographic conventions, he often did not wait for others’ solutions to problems he was experiencing. Halation — fogging in negatives of high contrast — was a difficulty encountered by many photographers who used the new dry-plate process after 1880. Miley discovered the cause and began making his own plates with modifications to eliminate the

troublesome reflections. Ten years later, plates similar to those devised by Miley were on the market.

In 1895, after graduation from Washington and Lee, Henry Miley joined his father as a partner in the business. About that time, Michael Miley became interested in carbon printing, a very difficult and time-consuming process. The technique, if properly carried out, results in a permanent print in any one color. Henry did much of the day-to-day commercial work, leaving his father free to work on his experiments.

The carbon process was enjoying a revival of interest in photographic circles with the introduction of a better carbon tissue, available in fifteen colors or shades.¹² Henry recalled in 1941: “It’s such a difficult process that very few photographers ever undertook it. Carbon paper was not manufactured in the United States at that time, and not even today. It has to be gotten from London, England, so we ordered some from the Autotype Company, one roll each of red-chalk, sea-green, sepia, and black, and the transfer paper, with several 20-by-24-inch sheets of white celluloid, and started to learn the process of carbon printing. We undertook to make the first carbon print when the paper came in, and like everything Father did, he wanted to do it in a big way. He sensitized a 20-by-24 sheet of sepia carbon for our first print, in the darkroom, and tacked it on the back of the door. The paper pulled away from the door and fell to the floor, which was not very clean. We hung it up again, thinking it was spoiled, and when it was dry, we brushed the dust off and proceeded to make the print. Much to our surprise, the print turned out very good, and it was interesting to

see the picture develop when that slimy brown mass was washed from the celluloid. We soon found out that the carbon printing was no easy process.¹³

Gradually, father and son began to consider the possibility of making full-color prints by superimposing the carbon images, using a primary color for each. It took them years to perfect the procedure. Finding materials of the proper quality and tone was difficult, since there was so little commercial demand for them.

“We wrote to the Autotype Company stating just how we would like to have the tricolor paper prepared, but they were not willing to undertake it at first as it was very expensive and there was no demand for it. We tried to make our own paper but were not successful. The Autotype Company must have gotten interested finally, for [in] the summer of 1900 they sent us one roll of each color, red, yellow, and blue. . . . We soon found it was delicate, uncertain, and hard work. Sometimes the pictures were very good and then again the colors would not be quite true to the original picture. It seemed to be impossible to get a color, as pure red or green, to photograph as it should. We felt there was a mistake somewhere.”¹⁴

They persevered, however, and in 1902 were issued a patent on the process.¹⁵ In 1905, the Franklin Institute awarded Michael and Henry Miley a medal of merit. Quite probably, they had produced the first colored photographic prints on paper in the United States.¹⁶

In all, Michael and Henry Miley produced about five hundred color prints. Their subjects were mostly still lifes and copies of paintings, since these could be controlled and the color checked accurately. One of the most popular was of Charles Willson Peale’s portrait of George Washington, in the Custis Lee Collection of Washington and Lee University. Miley photographed all the paintings in the collection, as well as the then-just-completed mural of the Battle of New Market, in Jackson Hall at Virginia Military Institute. These color prints have retained their strong, deep tones even to today, and seem to be less subject to fading than modern color prints.

Yet despite the significance of his color experiments, and despite popular belief, Michael Miley is almost unknown in the annals of photography. The reason may have been suggested in his obituary: “In his experiments Mr. Miley made remarkable discoveries in the art of applying color to photography and made many exquisite pictures in color. His discovery was patented but he looked upon the process as too slow and costly for commercial purposes and made no effort to have it brought into general use.”¹⁷

In this exhibition, then, which brings together for the first time prints that show the development of his talent, his diversity, his artistry, and his technical achievement, Washington and Lee University hopes to help right the balance and place the name of Michael Miley more securely in the history of American photography. ■

NOTES

1. Marshall Fishwick's very sympathetic book, *General Lee's Photographer* (University of North Carolina Press, 1954), is partly responsible for the exaggerated local reputation of Michael Miley today. But the obituary in the *Lexington Gazette* ("Death of Mr. Michael Miley Last Thursday Morning," May 29, 1918, pg. 4) shows that the legend was already established then. Research has indicated that Miley's were probably the first successful colored photographic prints in the United States, but his process made little contribution to the development of color photography as we know it today.
2. William Welling, *Photography in America: The Formative Years, 1839–1900* (New York: Thomas Crowell Co., 1978), p. 157.
3. Boude, who was clerk of the County Court for many years, apparently entered into a similar arrangement at some other time with another photographer, as several prints in the Virginia Military Institute archives bear the label "Boude and McClelland."
4. *Rockbridge County News*, "The Loss at Miley's," October 17, 1907, pg. 5.
5. Taken from pg. 19 of "a verbatim transcript of conversations between Henry Miley, son and successor of his father Michael Miley, and Mr. Harrison Waddell, of Lexington, Va. The transcript was made by Mr. Waddell's secretary at his suggestion, in November, 1941, just before Henry Miley left Lexington to live in other parts of the country. On a return visit in February, 1951, Mr. Miley stated that everything contained herein was (so far as he knew) correct and substantiated." A copy of the transcript is among the manuscripts in the Special Collections of the Washington and Lee University Library. It is hereafter referred to in these notes as *Transcript*. [A portion of that transcript follows in this Epilogue.]
6. *Transcript*, p. 21.
7. *Transcript*, p. 6.
8. *Transcript*, p. 9
9. *Rockbridge County News*, "The Loss At Miley's," *op. cit.*
10. *Rockbridge County News*, advertisement, November 7, 1907, P. 5.
11. *Transcript*, p. 5.
12. *Photography in America*, *op. cit.*, p. 351.
13. *Transcript*, pp. 13-14. " *Transcript*, pp. 15-16.
14. The Mileys' application for their patent, which includes very specific details on how the process was accomplished, is printed as Appendix III in Fishwick's *General Lee's Photographer* (*op. cit.*), pp. 90–94.
15. The local misconception that Michael Miley "invented" color photography probably arises from confusion about photographic techniques. In *Photography in America* (*op. cit.*), Welling points to the work of French experimenter Ducos du Hauron, who in 1869 "proposed three different ways in which to reconstitute [*i.e.*, obtain] colored images, either for viewing or in print form" (p. 200). His ideas — very similar to Miley's — were accomplished in Europe by 1877. In Europe and in the United States, others as well were testing various theories, with varying degrees of success. By 1894, both F. E. Ives and Robert D. Graves had perfected methods for momentary viewing of superimposed color images on a screen (pp. 359–61).
16. *Rockbridge County News*, "Mr. Michael Miley Died at 2 O'clock This Morning," May 23, 1918, p. 4.

THE MILEYS AND EARLY COLOR PHOTOGRAPHY IN LEXINGTON

Henry Miley, 1941

FATHER NEVER DID SAY VERY MUCH about his early life and what he did say was mentioned here and there. He was born July 19, 1841, of Dutch descent in one of the neighboring counties, probably Rockingham. When he was a child his father bought a farm about 3 miles from Fairfield, where my father lived until early manhood. His father was Henry Miley, but I do not know who my grandmother was. My father and Uncle William Miley (or Will Miley), who was a minister, were half brothers. Father had several brothers and sisters, but when they married, they were never much at visiting each other.

Father went to war when he was nineteen and served during the whole war, starting under General Jackson. After two years under Jackson, he was captured at the Battle of Chancellorsville and taken to Ft. Delaware, an island off the New Jersey coast, as prisoner. He was kept there for the remaining 2 years of the war and a short time after it was over. He told me about being sick while in prison and almost dying. He fell off in weight to almost nothing, but finally pulled through. He didn't smoke so he and the boys would play keno to see who would get his tobacco when it was rationed.

Pies and cakes from home came in occasionally while he was in prison. While there he had to help with the cleaning up. He was in prison with P. I. Huffman.

When he came back home, he made up his mind immediately about what he wanted to do, and went to see Mr. [John H.] Burdett, a photographer in Staunton. He stayed and worked for Burdett about a year. He then came to Lexington in 1866 when he was about 25, the same year that General Lee came. He introduced the old wet plate photograph to Rockbridge Co. when he came here to teach Plecker from Lynchburg how to make photographs on the wet plate. One of the first pictures of Gen. Lee after he came to Lexington was made by father at Rockbridge Baths. He and Plecker went there in a van — a box car wagon in which they would travel from place to place and stay as long as business was good. They had a dark room and operating room where they made sittings. They would develop them in about five minutes. When a wet plate was taken, you could print any number

This essay is taken from a 1941 transcript of an oral interview. Obvious typing mistakes have been fixed, but Miley's and his typist's general style and idiom have been retained.



The familiar photo of General R. E. Lee on Traveller. Monochrome photograph by Michael Miley, 1866.

of pictures from the negative on sensitized paper, and they would be in a positive form.

This wet plate process continued to be the standard process of photography until about 1880 when the dry plate was invented. In the wet plate process you sensitized, exposed and developed it

while it was wet. It could not be carried away but had to be developed promptly. Father took two pictures of General Lee at Rockbridge Baths — one on his horse and one standing beside it. These pictures were small photographs made on a wet plate and were about 3½ x 4 inches. Plecker had these pictures enlarged and worked up, but General Lee did not look natural. Father laughed about Plecker claiming to have made these pictures, but as he was working for Plecker, the negative belonged to Plecker but father made the sittings himself.

In the tintype days when father came to Lexington you had to sit for every picture as there could be no duplicates made. Tintype pictures followed the daguerreotype and were made by using a high sheened black metal (iron) plate. When you wanted to make a picture, you had to sensitize this metal sheet with silver salts and then expose it and develop it in the dark room. The picture was finished in a few minutes. The light-gray silver deposit on the black surface made the picture. This gives a reverse likeness, like looking in a mirror. After working a few months with Plecker, father started business in Lexington.

He went in with Capt. John C. Boude, but Capt. Boude knew nothing about photography. He furnished the capital and father did the work. James L. McCown, who was a prisoner with my father at Fort Delaware for part of the time, lived in Lexington and worked for him as a photographic printer. He was then about 21. Father began his first studio work in the Hopkins Building on the corner of Nelson and Main Streets and continued there from 1866 until the time that I closed the studio out in 1940 and turned it over to the Historical Society of Virginia. I have a book in my possession which shows an account of money paid to Mr. McCown in early '67, so Mr. McCown seems to have started with the business. Father told

me that Capt. Boude made good profits out of his investment and in large measure used this money to pay for the property near the cemetery where he lived for many years. Capt. Boude was one of the men that lived in Lexington, with whom father could remember being in the war. He was for years the clerk of the County Court. After about a month of this partnership, Christmas came and father didn't have a penny with which to celebrate it, until somebody came in the evening before to have a picture taken, for which he paid \$4.00. This was the only money father had to spend for Christmas. He went into partnership with Capt. Boude about Dec., 1866, and probably bought him out on April 30, 1870, just before he was married. About the time they were partners, they had a charge of about \$8.00 a dozen for cart de visite (pictures about the size of a calling card) which were the bust size photograph first made from a wet plate.

The beginning of the wet plate photography was started somewhere around 1858 but little commercial use of it was made until about the time of the Civil War when a good deal was done. This process of photography lasted about 25 years.

When dry plates were introduced about 1880 they were expensive so father decided to make his own. He prepared his bromide and iodide silver emulsion and cooked them by boiling till they reached the proper state for the fastest exposure. (He learned this by experimental work.) About this time halation or a kind of fogging in negatives of contrast lighting became the topic. Father was sure it was light through the emulsion and reflected back from the back of the plate when exposure was made. He also noticed that the silver emulsion in cooking was first of a yellow color and not very sensitive to the blue light, and when finished it turned to a pale blue color and was sensitive to the blue. To prevent halation, he figured he would first coat the plate with the yellow (somewhat orthochromatic emulsion) and dry it and then coat it with the fast blue emulsion. When exposed, the light would pass through the fast blue emulsion and the yellow emulsion would stop it before it reached the glass. Dr. William Brown, Professor of Chemistry at Washington and Lee, became so enthusiastic over the process that he wanted to start a non-halation plate plant until he found the cost of financing the company. A few years after that the manufacturers were putting the double coated non-halation plates on the market.

When he coated a dry plate, father held it in his hand and the emulsion was poured on the glass out of a vessel like you would pour molasses on a plate and the glass was moved around and around so as to coat it all over. When the emulsion was dry, the plate could be exposed and developed at your convenience.

The daguerreotype picture was made on a copper plate coated with silver. The amber type is a wet plate negative backed up with something to darken it so as to make the image stand out, as the silver deposit is gray.

Father must have settled every week with Capt. Boude, as the book I have, which was used for accounts, shows the notation "settled" at the end of each week.

I don't remember the exact date that father and mother were married, but sometime in 1870 he married Martha T. Mackey. She lived near Riverside on South River at the old homeplace where Carrie Mackey lives now. They went to Philadelphia on a wedding trip, and father had photographs taken of them together. I still have these negatives and some pictures, too. When they returned to Lexington, they boarded with a Miss Compton. I think she lived on the corner of Lee Avenue and Washington Street where the Student Union building now stands. Then mother and father went to housekeeping in an apartment in the Hopkins Building across the hall from the studio. I was born in this apartment October 4, 1873. Herbert was born in January 1872 and Edwin was born January 1876. Father bought the house on White Street when I was 8 months old and he lived there the remainder of his life. He bought the house from a Dr. McClung, a physician in Lexington who had built the house not very long before that time. When I was about 12 years old, father remodeled the house. He had it weather-boarded and made other improvements to the property.

Father did not have very much schooling. He went to a country school where he had reading, writing and arithmetic. He was a self-educated man, observing things closely. He didn't do a great deal of reading but what he did read were very serious books. His knowledge of chemistry was learned by his own experience. He not only knew every chemical reaction but he was not satisfied till he thoroughly understood the whys and wherefores. He had a pretty thorough knowledge of the chemistry of photography.

Father's health was very good. When I was about ten years old, he nearly died from intestinal trouble. He was sick another time when Herbert went abroad. They were about the only times he was ever sick.

Father was just a young man when he started showing an interest in flowers and grafting trees. He often went around the neighborhood and grafted trees of one kind or another. I remember going down to the homeplace in Fairfield and seeing an apple tree that had four different kinds of apples on it. After he was married, the first thing he did when he got a home was to build a greenhouse. It seemed that anything that he touched grew. He spent more time with his flowers at home than he did his garden. He had century plants and large palms which sat out in the yard. One palm in the front yard measured 12 feet from one side to the other. In the summer time our yard was nothing but flowers. He would get out every spring and fix the garden; plant his own plants and seeds; watch them come in and try to be the first one to get produce from them. (This was the vegetable garden.) He would not

trust the man he had to look after it but would look after it himself. He used to get up early in the morning to get out and watch everything grow. Sometimes he would sit up nearly all night, tending the fire to keep the greenhouse warm and things growing. We burned as much coal in the greenhouse as in the house. Herbert and I did not take much interest in flowers, but Edwin liked to work with flowers and plants.

Mother was an invalid from the time Edwin was born or shortly afterward, and that's the reason Father bought a carriage. Mother would go out in the afternoons for a drive, but I don't think she ever walked more than 100 yards at a time. Mother did a lot of work and much of the time she did things seated on the back of a chair. She did not let any of the servants make any dessert, but superintended the making of everything of this kind herself. As long as I can remember, I never heard mother use a sharp word to anybody in anger. Father was the same way. He never did any fussing. I remember one time he was going to whip me. We went up on Main Street to some parade and he said he was going to punish us. I remember when he whipped my brother but can't remember being whipped myself. Mother was interested in everything we did and took great pride in showing everyone over the greenhouse. Father was very liberal with his flowers and would give a lot of them away. Mother was interested in the housekeeping, too. She was about 7 years younger than father. He died May 18, 1918, at the age of 76.

When he was in the war, after every battle father used to take colored pencils and draw a map of the battlefield. This picture was about 5 or 6 inches long and he had the mountains and valleys sketched in different colored pencils. I have one of these in my possession. He made a lot of photographs in his studio just because he considered the subject beautiful in some way and not because they came in to have their pictures taken. One particular picture, the picture of the nun, was taken because he thought it would be outstanding. Another one was the picture of the girl with the basket of fruit on her head. Miss Nina Bacon [?] would help drape the people whose pictures he would take. These pictures were about 20 x 24 inches large.

Mother used to always tell us to look up our family records, but we didn't care much about it so we know very little about anyone except our cousins.

When father first came to Lexington, he was a young man and General Lee was his hero. Naturally he wanted to get as many pictures of him as he could and he invited him over to sit for one just as soon as he could get him. General Lee was always willing to sit for pictures. When General Lee had a general come to visit him, Father would have him bring the general over for a photograph. He said he never saw a man more willing to oblige than General Lee was. Lee would tell him just to take his time because they had plenty of time and nothing to do. Father said

he was so different from other men who would come in with people visiting them to have photographs taken at father's request because these men were so very impatient. One man said, "Go ahead! Hustle up, we are in a hurry." Father told me that General Lee had the largest head that he ever photographed. When he came up one morning and wanted to have his picture taken on his horse, he told father that that was the first time that he had ever asked to have his picture taken in uniform, but he said he wanted to have his picture taken on Traveller as he went through the four years of the war. This picture was taken in the back garden of his house. Some of the men who came up with General Lee to have their pictures taken were Gen. Beauregard, Gen. Early, Pres. Jefferson Davis, Gen. Breckinridge. Father also photographed the Lee family — Custis, Bob, and Fitzhugh. When Mother and father were married Mrs. Lee wrote her a letter and congratulated her. She wrote notes several times to mother and knitted a little cape which she gave to her when Herbert was born. General Lee was one of father's best friends in Lexington. General Lee liked father and father admired General Lee.

Mother belonged to the Presbyterian Church and father was a strictly religious person but was not a member of the church. He went to church twice on Sunday and was never a profane man. He was always quiet and never said much. He was not a gossip, and was the easiest person to get along with.

When Valentine came here to measure General Lee for the recumbent statue, father made several pictures of him standing so Valentine could take them back with him. I have one that was taken when General Lee walked across the room and stopped still and father snapped the picture just as he stopped. Valentine didn't want anyone to copy anything he made until he finished it. One time he came to Lexington with a small model for the statue of General Jackson and placed it in the operating room at the studio for the committee to see and pass on. He would not let anyone photograph it, but while he was out to lunch, father took a picture of it. When Valentine finished the statue of Lee, they could not get anyone in Richmond who could photograph it properly. Father went down to take a picture and when Valentine told him it was no use to try, father told him he had not come down to try; he had come to take it. He did, and Valentine was so pleased with it he did everything he could for father from then on. Father made photographs of the funeral exercises. One picture was taken of the body lying in state in the chapel. It was about 11 by 14 inches and included two students, on each side of the casket. When General Lee was buried, father made a picture of the procession as it turned down Main Street after leaving the house and coming up Lee Avenue and Nelson Street. He also made a photograph of the whole campus and college which showed the black draping around the pillars and a crowd of people standing about the chapel.

Scott Shipp, 1867. Monochrome photograph by Michael Miley.
Courtesy Virginia Military Institute Archives.



Mrs. Lee wrote a note to my mother like this once: "Please get Mr. Miley to print one half dozen pictures of General Lee of "certain" pose." [?] Mrs. Lee used to do a little painting and touching-up herself. The whole Lee family was nice, pleasant and affable.

Some other men father photographed were Col. Poague and Col. Shipp. He made a photograph of Commodore Maury in a little one-half size picture. He made quite a few pictures of General Smith of V.M.I. but did not have an intimate relationship with him. (People of that day acted older than they do today.)

On Saturday afternoon, October 12, 1907, I went down to Mrs. A. M. Glasgow's to spend Sunday. Early that Sunday morning my aunt called me to answer the phone and I was told that Hess' store, which was just below the studio in the building Rose's Store is now in, was on fire. Harry Glasgow took me to Lexington in a buggy. When I got to town, the building was about burned up. Everything had been burned that was in the front room. Also all the registered negatives from 1894 to 1905 were destroyed, but we did not lose any of the real old, valuable negatives. The fire only went back to the skylight in the operating room, so the back room where the dark room was, was not injured by the fire. The instruments were gotten out of the operating room. The biggest loss was the negatives, which we could not insure except for the value of the glass. During the time the studio was being rebuilt we moved into the Stuart Building for about six months. The fire was thought to have been caused from a defective chimney in the Rockbridge County News office.

Father made photographs of every noted person in the state that ever came to Lexington.

He would always look out for any special picture. He watched for nice effects of clouds, too. He would get the carriage ready in a hurry if he saw that there was going to be a pretty cloud effect and rush down to the bend in North River before the cloud would leave. He wouldn't waste any time getting set up, either. The picture of the volcano effect with the clouds right over House Mountain was a picture which many people had in their homes. Every time that he made pictures outdoors for himself, he would wait until everything was suitable. He would sometimes take plates as large as 24 x 24 inches and used an immense camera, as no enlarged pho-



North (now Maury) River and House Mountain. Monochrome photograph by Michael Miley. Courtesy Rockbridge Historical Society files in Special Collections, Washington and Lee University.

tos were made at that time. When he made a personal picture for his own use, he would always study it and paid especial attention to the lighting. The picture of North River and House Mountain with the cloud over it we made in 1895. At that time we had started making carbon printing. We got the carriage and hustled down there and made this picture in the fall, about November, and sold more than \$45.00 worth of it before Christmas. We made these carbons and sold them for 75 cents apiece. This was about the time when the first orthochromatic plates and yellow filters were coming in, and the picture was one of the first around that time to stand the blue light and get cloud effects.

Father went about once a year on a trip somewhere for quite a few years. He never cared much for ball games, but, in later life, he went to the movies almost every night because he was interested in seeing the lighting effects. He told me shortly before he died how interested he was in the war. He would get papers both in the mornings and evenings. He wanted to live long enough to see what the outcome of the war would be.

When father was working on his own dry plate process, he went to New York on one of his yearly trips and, as always, visited all the big galleries. He had plenty of nerve for a country boy about asking questions. He went to see one of the city photographers named Saroney [Nicholas Sarony], a little “sport,” almost a dwarf. Father said he talked around with the employees and they were rather upish with him because they knew he was from a little town down south. They were using dry plates and just to be smart, asked father how he was getting along. They were very

much surprised to learn that father was using dry plates and more surprised when he told them he was using his own make. (They had asked him what make he was using.) When they learned this, they just crowded around him asking how he did it. He had to give his formula for making them. His formula was different from the one given him because he didn’t like that and changed it as he often did formulae. He said when he first went there, they looked on him as a green-horn, but after they found out what he knew, they wanted to do everything for him. That was the only time he mentioned about people looking on him as a beginner.

Mother never took any trips with father because she wasn’t strong enough, but I took her once to the Virginia Fair down in Norfolk. I got a wheel chair, and my sister-in-law, Mrs. Edwin Miley, and I wheeled her all over the town. This was just after the fire and we didn’t have anything to do for a month. That was the only time I ever saw mother any where far away from home. While we were on the train, she was so interested in everything.

For a small man of about 150 pounds and five feet seven inches tall, father was unusually strong. When he and a “darkey” would lift the plants that were put in those big barrels, he could outlift the “darkey” every time.

The summer before I started to college in 1890 father took me to the city for the first time. We left here about 4:30 in the morning on the train and arrived in Washington about time for supper that night. He went to attend one of the photographers conventions. The hotel — Ebbet House [actually Ebbitt House] — where we stayed was like a fairyland to me. One night father took me to a minstrel show and from that night on I wanted to go every night but he said he had other things to do. On the last night he had something else on hand, but because I wanted to go to a show he went with me. Father gave me one of the convention buttons, and as I walked around the hotel, I took great joy in letting the other photographers see it.

In about 1876 father went to a world fair in Philadelphia. I can remember that he brought us some tin buckets and candy when he came home. The last trip he made was several years after we patented the colored photography just for a visit about 1906. Whatever trips he made were largely to photographic conventions. He never talked much about war except when he got with some of his cronies. He said that after one battle he was able to walk a good distance without putting his foot on the ground, just on the dead bodies.

Shortly after I graduated from college [Washington and Lee] in 1894, I went in with father. Before that time he used to give me the small heads to retouch during the summer. He would give me 10 cents a head, and I would make my spending money for the summer. Miss Mary Leyburn was the only retoucher who ever learned to retouch properly although father tried to teach several. He trained her

until he made her a skillful retoucher. When I went to work I could retouch anything, even a large sized head. Mr. McCown was still doing the printing then. I used to help father with all the outdoor groups. In those days your printing was done with sunlight and you often had to stay in the room working all day to print 12 photos.

Father was always experimenting. Most all of our best work at one time was made by carbon printing. I started in with father about the beginning of 1895 as a partner. In the fall of 1895 father became interested in the carbon process of printing. Anything that interested him interested me. Printing is a very difficult and tiresome process. At the time I don't imagine there were a half dozen carbon printers in the U.S.

This is a brief synopsis of the process. When gelatin emulsion is sensitized with a bichromate of potassium solution of about 5 percent in a yellow light and dried, this gelatin when exposed to a strong light is insoluble in hot water and is soluble if not exposed to light in hot water, about 120°. The carbon printing is a process of making pictures in any colored pigment with a gelatin base. The pigments can be of any color like green, red-chalk, or sepia. Carbon paper consists of any colored gelatin pigment coated in a gelatin em [?] on paper and put up in rolls. The paper then looks like a printed wall paper with the tint of the color you use. You take this paper when you are ready for printing and sensitize it in a 5 percent solution of bichromate of potassium. Let it dry and ripen about 2 days in a nice, cool temperature. Then you take a piece of this paper and put it under a negative and expose to strong daylight or sunlight. You can not see anything when you print the paper because it is just the color of the gelatin pigment. You have to print it by actinometer. When the paper is properly exposed, it is then taken out and placed in a tray of fairly cool water, about 65°, until it gets limp. It is then taken out of the water and squeegeed on to a temporary support as a sheet of white celluloid. This support had to be waxed so the paper can be transferred from that later. You put this under a weight for about 15 minutes. Now you lift the whole thing into a tray of hot water, about 120°, and after a few minutes, you will see the gelatin and pigment begin to squeeze out between the support and paper. After a little the paper can be lifted off of the support and the gelatin and pigment that is not exposed to light washes out in the water, and the gelatin print is left on the celluloid that was exposed to light. The reason you have to transfer it to celluloid instead of developing it directly from the paper is that when exposed to light there is an insoluble film formed on the surface that will not let water penetrate to the carbon pigment beneath, so you have to put it on a transfer support and develop it from the back. The print is now reversed. When this photographic print on the celluloid is dry, you take a piece of transfer paper which is gelatin-coated and squeegee it to the print on the celluloid. When it

is dry, peel that off and you have a double transfer carbon print. If everything goes all right, you will have a permanent carbon photograph in any one color. This is the process of carbon printing, and it's such a difficult process that very few photographers ever undertook it. Carbon paper was not manufactured in the United States at that time, and not even today. It has to be gotten from London, England, so we ordered some from the Autotype Company, one roll each of red-chalk, sea-green, sepia and black and the transfer paper, with several 20 x 24 inch sheets of white celluloid and started to learn the process of carbon printing. We undertook to make the first carbon print when the paper came in, and like everything that father did, he wanted to do it in a big way. We sensitized a 20 x 24 sheet of sepia carbon for our first print, in the dark room, and tacked it on the back of the door. The paper pulled away from the door and fell to the floor, which was not very clean. We hung it up again, thinking it was spoiled, and when it was dry, we brushed the dust off and proceeded to make the print. Much to our surprise the picture turned out very good, and it was interesting to see the picture develop when that slimy brown mass was washed from the celluloid. We soon found out that the carbon printing was no easy process.

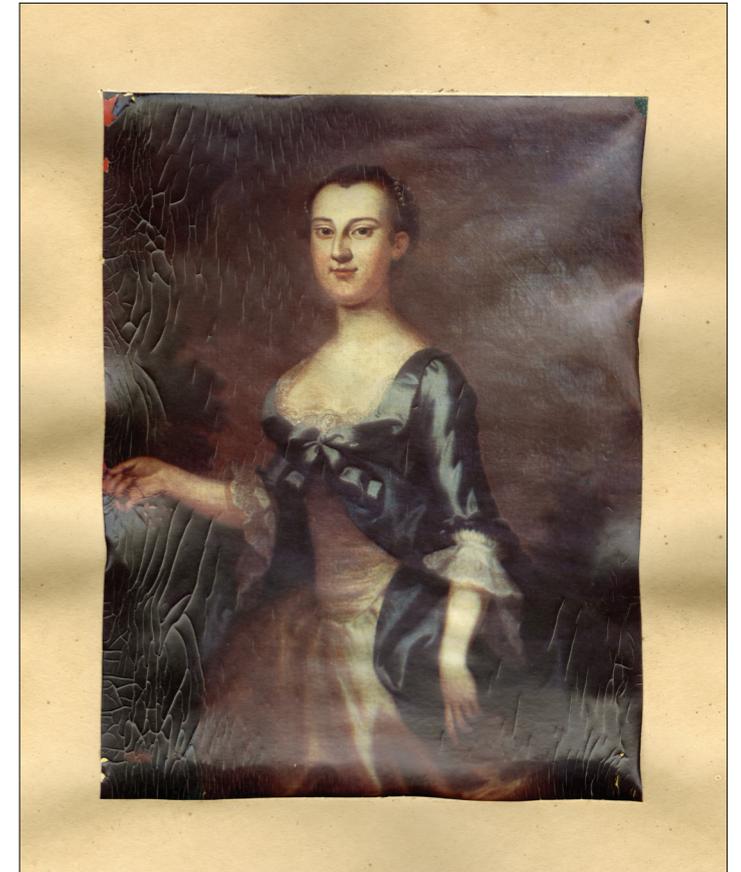
During the summer of 1897 I spent several weeks at the Alum Springs with two friends, and when we returned to Lexington, we had a photograph taken. It was a bust picture of us seated in a row. I thought that I would try printing these three heads in different carbon colors on one piece of paper, from the negative. I proceeded to print myself in green carbon, blending out to the next head in red-chalk and then blending out to the next head in black. I finally succeeded and it made a peculiar looking picture. This picture is now in the possession of the Historical Society of Va. That was the first suggestion of the making of colored photography. About the same time experiments were being made with color filters to separate the red, blue and green lights from daylight, so I thought of getting some colored glass — orange, green and blue for filters — and making a colored picture of some kind. At that time there was no red sensitive plate — only the regular blue and orthochromatic (green sensitive) plate. When the negatives were made, I intended to make colored carbon prints on glass in sea-green, red, chalk and sepia; as near as I could to the primary colors, red, yellow and blue, and superimpose them, one over the other, on the same piece of paper. I asked father what he thought of the idea, and he said that I would not get much, going about it in that haphazard way. He thought we should experiment with the three color filters and see if the Autotype Company could make some colored paper in red, yellow and blue, the three primary colors, that we were taught, in certain combinations, would make all the colors that we generally encountered. Then we could try to produce photographs in

natural colors. This was the beginning of our color photography. We had all kinds of difficulty finding filters that would properly separate colors. After some years, we decided that the tri-color filters, red, green and blue, made by Wainwright and Wratter [actually Wratten & Wainwright] were the best. There was no red sensitized plate at that time so we tried different ways of sensitizing our own plates and for a while used our own and got fair results. Soon after that the panchromatic plate sensitive to all colors was introduced. Our process was to take three negatives of any colored object through a blue, green and a red filter and then make pictures from these negatives in the three complementary primary colors — yellow, red, and blue carbon, the yellow print from the blue filter negative, then the red print from the green filter negative and lastly the blue print from the red filter negative. The prints were made on waxed glass and were superimposed on the same paper, one over the other. The yellow was transferred to paper first then the paper with the yellow print was soaked in cold water, face up, and squeegeed on a smooth surface and a thin solution of gelatin was floated over it as adhesive and the glass with the red print was placed over it — yellow surface to red surface — and moved until both prints registered. Then the prints were squeegeed and dried and then peeled from the glass. Lastly the blue print was transferred in the same way to the two-color combination and the color photograph was complete. We wrote to the Autotype Company stating just how we would like to have the tri-colored paper prepared, but they were not willing to undertake it at first as it was very expensive and there was no demand for it. We tried to make our own paper but were not successful. The Autotype company must have gotten interested finally for the summer of 1900 they sent us one roll of each color, red, yellow, and blue.

This first color photography, a vase of Zinnias, was unusually good. The Historical Society now has this picture as a sample of the first color print of that kind made. It was from a 5 x 7 negative. We soon found it was a delicate, uncertain and hard work. Some time the pictures were very good and then again the colors would not be quite true to the original picture. It seemed to be impossible to get a color, as pure red or green, to photograph as it should. We felt that there was a mistake somewhere.

Say we were photographing checkerboard squares in red, green, and blue colors. When we made the blue filter negative, only the blue squares registered as a silver deposit and the red and green squares were blanks. We made the yellow print from this negative which represented the red and green, or yellow, that the blue filter absorbed. This was as it should be. When we made the green filter negative, the green squares registered and the red and blue were absorbed, but we printed this negative from the red carbon paper when it should account for both red and blue which is purple. Also with the red filter negative we used the blue paper when both green

Mrs. Daniel Parke Custis (Martha Washington). Color photograph, n.d., by M. Miley & Son of painting by John Wollaston, 1757. Courtesy of Special Collections, Washington and Lee University.



and blue should be represented there. So it appeared that the carbon paper should have been not red, blue, and yellow but purple, blue-green and yellow. This was correct and the three colors are called the subtractive primary colors because color as we generally see it is produced by subtraction. Take a colored rug. It looks colored because a substance (a chemical) used in making it has the property of absorbing certain colored rays from the white light and reflecting the remaining colored rays that we see. The color of light absorbed is complementary to the color reflected. White light or daylight is composed of red, green and blue rays and these colors are called the additive primary colors, for when rays of these colors are thrown on the same screen, a gray-white effect is produced. The additive primary colors tend to produce white and the subtractive tends to produce black. By subtraction, a thin layer of yellow over blue-green on a white surface produces green, for the yellow absorbs the blue from daylight and the blue-green takes out the red, which leaves the green, to be reflected back from the surface of the white paper. The blue-green over yellow would give the same results — the same way yellow over purple produces red, the yellow absorbs the blue and leaves the red. Also purple over blue-green produces blue. A layer of any one of the subtractive colors over the other two produces black. Father finally became so interested in this work that he gave most of his attention to it, and finally gave up everything else for experimenting with the tri-color process and naturally I had to give my time to the regular photographic business.

It was due to father's experiments and work that the color photography gained the success that it did. I think it was about 1901 or '02 that Mr. Ben Cable of New York, a former chairman of the Democratic party, saw some of the pictures some-

where and came down here to see us, with his lawyer. He wanted us to form a company with him financing it and patent it all over the world. He said we would be made equal partners, so father and I agreed. I went to Washington where he had his own good patent lawyer and stayed there about a week giving information about the process. I can't remember just when these patents were given, but they were issued to us from every important European country except Germany — England, France, Spain etc. as well as Canada and the United States. Mr. Cable's idea was to promote the company after we got it on a working basis and sell stock at \$100 a share to the public. He was supposed to be a very wealthy man so Mr. Harry Tucker told me. (He had about ten million dollars.) When the time came to promote the company, father balked. He said that he thought that the process could not be used commercially for it was too difficult and he did not care to have anyone invest money that might not bring returns.

I had to go to New York and Washington several times on the patents and the last time I went to the New York office, I came to a door with "Miley Color Photograph Company" on the outside in black. When father wasn't willing to promote the company, Mr. Cable didn't press him.

The company was incorporated in New Jersey just for a start. Then in 1907 he wrote us that since father didn't want to have a company he thought it better not to fool with it any more as a company, but father contained to work, up until the time of his death, on it.

We probably photographed in color as many as 100 different kinds of subjects. We only sold the 8 x 10 size at first, which sold for \$3.50 and then \$5.00. In all we made about 500 prints from 5 x 7 to 14 x 17 sizes.

After about two years of war in Europe, most of the best English workmen were called to arms and the carbon paper got so inferior in color value that practically all the work that we did for about 2 or 3 years was a complete loss. Up until father died, we never were able to get the true color value paper again.

The materials were so expensive and the time it took to make them so long that there was no profit in making colored photography at \$3.50 and \$5.00 a piece.

About 1906 Mr. Ben Cable expressed to us a large portrait (14 x 17 inches) that belonged to him and had hung in a hall at the University Club of New York. It was named Fabiola. This portrait was a young lady's profile with a brilliant red cowl over her head, flowing down over her shoulders. It was a beautiful and very effective picture. The express insurance on the picture going and coming was \$35.00, and Mr. Cable paid \$300 insurance on it while in the studio because it was outside of the University Club. Mr. Cable never received a copy of this picture because father was always striving for perfection and did not think any of the ones we made were

quite good enough. Then the fire came and our negatives were destroyed before we had really completed the work. The portrait was kept in the Rockbridge Bank vault for safe keeping when we were not working with it, and we always felt that we were lucky that the picture was returned before the fire. The first experimental picture of this portrait is the one I sent to the Historical Society of Virginia. The Fabiola picture was valued at about \$25,000.*

The following photographs were made by M. Miley of General Lee:

Lee at Rockbridge Baths	
Lee on Traveler	(taken in October 1868)
Smiling picture	(about 1866)
Lee standing for Valentine	(taken in June 1870)
Last sitting	(about '69)
Very old and gray	(probably in 1870)

Father thought the smiling photograph gave the most pleasant expression of any that he made. He liked it the best. Nearly all of the Lee family favored the smiling picture but some of them also thought the Lee in the arm chair unusually good. I think General Lee on Traveller was the most salable photograph that father made of General Lee from life direct.

About 30 years ago father made some negatives of Pine's portrait of General Lee. This picture was painted by an artist from the south named Pine. He painted what he thought Gen. Lee should have looked like by the study of a number of photos. Father thought the picture was too youthful looking but it proved to be a wonderful seller. I do not think there were any photographs of Gen. Lee made during the war. Besides my father, there were about four or five photographers who made negatives of Lee after the war; Plecker, Brady, Gardner, a Frenchman, and I think there was one other. There was a group picture of Gen. Lee, his son Custis and Col. Taylor. Father copied this group and also copied it without Col. Taylor, showing Gen. Lee seated and Custis standing.

Father made three photographs of Mrs. Lee about the same time that he photographed Gen. Lee. Two of these negatives were preserved and sent to Richmond. Among the old negatives they found the third one. We did not know we had it so there were no photos made from it in 60 years or more. Father copied a photograph of Miss Agnes Lee in the early 70's (but Miss Mary and Miss Mildred would never

* The photograph is unavailable online, although it is listed in the Virginia Historical Society inventory of subjects Miley photographed.



Miss Virginia Moore, as Priscilla by the spinning wheel. Michael Miley, n.d. Courtesy of Special Collections, Washington and Lee University.

have photos taken.)* Shortly after Gen. Lee's death he made an 8 x 10 negative of the Lee office, just as he left it. A picture at the present time does not look much like the one he took, for the things had to be protected by coverings. He made two interiors of the Lee residence, the living and dining rooms. I think the one of the dining room showed some of the silver. The pictures were very good. At another time Father photographed the silver in the studio. We made photographs of nearly every building at Washington and Lee and the V.M.I. from 8 x 10 to 20 x 24 sizes, summer and winter views and also many interiors.

In those days we took practically all the professors at Washington and Lee and the V. M. I.

In 1914 we photographed the Battle of New Market, a painting which covered the biggest part of the wall in the chapel on the first floor on the south wing of barracks facing the parade ground. (The first floor of the Jackson Hall.) This painting was made by Ben West Clinedinst, noted artist of New York and son of

* A handwritten question mark appears in the typescript here with a notation, apparently in Michael Miley's hand, reading: "Negatives in Richmond of Miss Mary and Miss Mildred Lee"

Right: Flowers in the staged photograph of Miss Virginia Moore (opposite).
Below: Miss Virginia Moore.
Both by Michael Miley, n.d.
Courtesy of Special Collections,
Washington and Lee University.

the photographer in Staunton. He went to V. M. I. with Col. Nichols (1876-78), and that's where father knew him. He presented this painting to commemorate the charge of the cadets at New Market. It was on canvas and was cemented onto the wall. It was made only a short time before we photographed it.

Several years[†] before Clinedinst made the painting, he came to Lexington to get some photographs of the cadets charging and yelling. When he arrived here, he found the cadets on a hiking trip, and that day they were at Rockbridge Baths. Clinedinst came to our place and wanted father to go with him to the Baths and make some negatives. Those days we had to go in a surrey. Father decided that some color photographs he was making were more important than the trip, and I was elected to go. We got out there when it was nearly sundown and made about five negatives of the boys running and yelling and finished at pretty near sundown. These negatives were a great help to Clinedinst in making the painting with the different expressions and postures.

We decided to make the largest size (14 x 17) negative of this painting and had to have a platform built about fifty feet back in chapel so the camera would not have to be tilted. The one with the red filter required about three hours exposure and I had to

[†] Inserted here by hand: "(2)"



stay down there all the time as tourists were passing through and there was some danger of moving the camera. The green and blue filters took a little less time than the red. The camera stayed there several days. We made 9 negatives but only finished one picture, and that really was more brilliant than the original. This picture was taken down to Richmond.

The picture was copyrighted and Clinedinst told us he didn't want any regular photographs sold whatever unless they were the color ones. The reason of this is he had sepia engravings (size 14 x 17) made which were to be sold to help pay the expenses of making the picture for \$5.00 a piece.

In the summer before the fire we had up in our studio over Hess' Store nearly all the fine paintings that Washington and Lee had in the library to make copies of them in color. We had George Washington, [?], Lafayette, and the Washington, and Col. Daniel Park.*

Some of the pictures he took of beautiful young ladies were: Miss Susie Welford in a picture with a basket of fruit on her head; Miss Gertrude Jackeri [Jaccheri] who was one of the finest looking girls here — general figure and physical beauty — and father took a number of pictures of her; Miss Katty Hopkins; Miss Sally Fauntleroy of Staunton; Miss Lillie Urquid† from Richmond; Miss Dimple Carmichael; Miss Virginia Moore was another one that we took and she was taken as Priscilla beside a big spinning wheel in colors; Miss Frances Howe was a very pretty girl and quite a few pictures were taken of her; Miss Adelaide King from Kentucky, a niece of the Bradys of Rockbridge County sat for the picture of the Nun; Miss Lucy Pendleton's profile was made in a big picture; Miss Florence Barclay; Miss Minnie Kate Varner, a beautiful girl was taken in a 20 x 24 picture with curls falling all over her shoulders.

Father made a number of pictures of Hon. Ran Tucker.‡ He made several pictures of John Haughwout, Mayor of Lexington, a great hunter, and a good friend of Col. J. T. L. Preston. He was one of the men of Lexington who saw the great meteoric shower come. Father took a big picture of "Big Foot" Wallace.

Around forty colored prints were taken down to Richmond as well as 12,000 negatives.

Father and I both took pictures of the Harry Lee and the Albert Sidney Boat Crews. We kept the camera on the shore and the boat was anchored out in the stream. These photographs were on a 17" x 20" negative.

Color photograph of Gertrude Jaccheri. Michael Miley, n.d. Courtesy of Special Collections, Washington and Lee University.

THE MODERN METHOD of taking color photographs is somewhat the same as the way we did it, that is, the subtractive method of separating colors.

I don't believe that there was ever a finished color photograph on paper when we made our first print.

Lumière had done some color work on glass. It was by transparency. The McDonald process was that he would rule gelatin glass with a very fine line and had those lines coated red, blue, and green. He photographed through the lines. It was transparency, also. He made a 5"x 7" plate for which he charged \$25.00 each. It was a negative from which you made a positive that you held up to the light and backed it up with the glass ruled with the colored lines. All of these processes were done about the same time. Ives made his negatives just like ours. He made the three negatives with the three filters, then made positives from each one and these positives were projected, each through its corresponding color filter, on a common screen (white). He had an instrument to project the positives on a common surface.

As far as I know, we were the first to make a color photograph that we could make any number of prints on paper so you could frame it and keep it.



* Col. Daniel Parke Custis, husband of Martha Washington

† Inserted here by hand: "ehard (?)"

‡ Presumably John Randolph Tucker, dean of the Washington and Lee law school, 1893–97, former Congressman and Virginia attorney general