Above: Fig. 3 and detail.

Right and below: Fig. 5

Color figures (see interior pages for complete captions)
They knocked the socks off their audiences, these colorists did. They wowed their critics. They created slides that shimmered like opals. They made a major contribution to the success of the best lantern presentations. Yet they received little notice in their own time, and have received even less in ours.

Who were these people? Who created the best color for the commercial lantern slide companies? Who colored the slides that helped make the best lecturers into superstars? What were their secrets—their domestic and foreign inspirations, their hidden artistic techniques—the elements that made them so outstanding? What was the “revolution” in slide coloring, and who followed in the footsteps of the revolutionaries?

When we speak of “colorists” we are usually referring to those who hand-colored photographic magic lantern slides in the years 1850–1940. Nevertheless, for two hundred years, from the 1650s, when the magic lantern was invented, to the 1850s, when photographic slides were invented, the magic lantern presented a screen ablaze in hand-painted color, often spectacular color applied in meticulous detail, created by true miniaturists. Sometimes at the other extreme of quality, crudely painted colors emphasized the slapstick of moving cartoons.

Color slides sold to the general public continued after 1850, especially in cartoons, children’s decals and French sliders; and at the high end in the hand-colored photographic slides used by the superstar lecturers like John L. Stoddard and George R. Cromwell. But simple black-and-white photographic slides became more and more popular, despite the fact that color media like chromolithographs were becoming widespread in the culture. There were two reasons for this. First, black-and-white slides were much cheaper than color. For instance in 1892 McAllister’s catalog sold black-and-white 3-1/4” x 4” slides at 50 cents each; the equivalent slides in color at $1.80—or about $12.00 and $44.00 today. And second, black-and-white photography was also seen as an “exact reproduction” of nature, more “honest” and more “conscientious” than hand-painted (colored) pictures. As Edward Wilson, the editor of The Magic Lantern, wrote in 1876:

Few people who have not seen photographic enlargements projected upon a screen know the full charm of such pictures, which, besides being pleasant and agreeable things to look upon, carry with them the true stamp of reality.

The lantern catalogs offered hundreds of pages of black and white images—both photographs and photographed illustrations—to be used by the thousands of small-time showmen operating in churches and small halls. Even as late as 1892, the various “Outfits” that McAllister sold to beginning showmen—there were twenty different Outfits to choose from—were on average about 75% black and white slides, with a few color slides thrown in for effect. This inclusion of token color slides in an otherwise black-and-white presentation is consistent with the advice Edward Wilson had given in 1882, writing in the trade journal, The Magic Lantern:

Many exhibitors discarded entirely all colored slides from their collections, and throughout an evening’s entertainment, lasting nearly two hours, nothing but plain photographic slides were presented, under the belief that they were meeting the wants and pleasing the needs of the public. For the past year or two, however, the demand for colored slides of the [high] class we have mentioned has increased to that extent that the maker of them (for there is but one maker) has scarcely been able to keep pace with the demand, and now scarcely an exhibitor of any note dares risk an evening’s entertainment without at least a few of these “things of beauty” interspersed to break the monotony, for no matter how interesting the subject of the lecture may be, an hour or two of constant gazing at plain photographic views becomes monotonous, and...any person who has noticed the murmur of approbation which always greets a good colored slide after a continued series of plain views, will, we think, agree with us in the assertion that the day of colored slides has returned.
Even on the Chautauqua circuit, where performers played to large audiences, only about 40 percent of the illustrated lecturers used color on all their slides. That may be the reason that those who used it highlighted it in their brochures. For instance, Arthur Coggeshall promoted his “perfectly colored slides,” Frank Roberson his “superb color photographs,” and Albert Armstrong his “exquisitely colored pictures.” But if color was not crucial for the Chautauqua lecturers, it was certainly essential for the superstars—illustrated lecturers who played the huge halls of 3,000-5,000 in the big cities, and could make $10,000 a performance in today’s dollars—men like Stoddard himself, and Burton Holmes, Dwight Elmendorf, and E. M. Newman.

Color, then, had an important place on the magic lantern screen, especially at the top levels of performance. But how was it created? And who were those colorists?

The Process of Coloring Slides

A detailed account of the coloring process for photographic slides, and of the historical development of lantern-slide preparation has been given by Francisco Javier Frutos. There is thus no need for me to cover the same ground, but a few sentences of summary may be helpful. I will expand on them later as appropriate.

There were four methods of coloring used in the industry—applying the pigments with oil, varnish, water color, or aniline dyes. Each method had its advantages and disadvantages. Whatever the medium, the colorist was working on a space of about 3”x 3”, usually on images that were full of detail, either photographic detail, or illustrations that were almost photographic in their conception. The images might well be magnified 60-80 times when projected, so that even the tiniest defect on the slide would appear as a huge smear on screen, though this issue is often overstated. Coloring was exacting work, and required great skill and patience. (Fig. 1)

Crowd-Sourced Research

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Dwight Elmendorf, a colorist of note to whom we will return, was one of that top-tier of illustrated lecturers mentioned earlier. He sold his own brand of colors, and wrote a book about his techniques. He and other authors discussed the widely understood color theory of the time, which stressed that the effect of a picture is much more dependent on the contrast between colors, than on the tone of a particular tint. In addition to such theoretical discussions, he made some practical comments that help give a sense of the difficulties of the colorist’s art.

The first rule to be learned and obeyed is, don’t color slides, but tint them…[We will return to a discussion of this “rule” later.] Each color should have a brush of its own which should never be used for any other…The floor of the room should be dampened before beginning the coloring…Dust is a most vexatious nuisance. One little particle falling on the wet slide will stick closer than a brother, and will be painfully evident on the screen…The sky should be colored first, and it is sometimes advisable to turn the sky toward the bottom or sideways during that part of the work [to avoid runs]…Take the half-inch blue brush [and] moisten the sky evenly and thoroughly…Don’t allow the brush to stop on the slide. By using dilute color and ap-
plying many times, a perfect sky may be obtained... Slides should be colored for the light used in projecting them on the screen, and used with that light and no other.\textsuperscript{13}

It was easy to be a “dauber” of color, but as Elmendorf’s comments make clear, creating outstanding color required perseverance, skill, and artistic talent. There were two places to go for such a combination of skills—companies that mass-produced colored slides for the commercial catalogs, and artists who colored individual slides for the top lecturers.

**Coloring the Slides Offered in Catalogs**

We can begin our discussion of mass-produced colored slides with the company to which Wilson was referring when he said that there “is but one maker” of high-class slides. He meant the C. W. Briggs Company, which purchased the Langenheim Brothers firm (American Stereoscopic Company) in 1874. Given the photographic heritage of both companies, it might be expected that Briggs would continue as a purveyor of photographic travel slides. Instead, perhaps because the field had become so crowded, he became a wholesaler, shifting his focus to two other areas: (1) photographed illustrations of stories, Bible texts, fraternal images and history, especially those drawn by his employee, Joseph Boggs Beale, who would become America’s first great screen artist,\textsuperscript{14} and (2) coloring slides for others—the subject of our inquiry here.

By 1881, only four years after his purchase of the Langenheim firm, Briggs had acquired a reputation for excellence in coloring, as Wilson, the editor of *The Magic Lantern*, makes clear. “The wise lanternist,” he wrote, should beware of the competitors to Briggs who offered “spurious slides colored by foreign hands, on our own shores,” slides which are of “wretched quality”:

> It has long been an open secret that there is only one party in America who *can* and *does* color lantern slides well...He colors for all the trade in this city [Philadelphia], New York, and elsewhere, and no matter where you have made your purchase you have purchased his excellent work. The party we allude to is Mr. C. W. Briggs...\textsuperscript{15}

His work is so superior to all others that there are virtually none others to be found in the market.

Supplying the entire industry kept the Briggs Company busy:

> [The Briggs factory] was literally like a place straight out of Dickens [Fig. 2]. Each of the four floors had its own potbellied stove and was devoted to one feature of manufacture. The first floor had the shipping department and the fireproof vault for wet-collodion [glass] negatives... The second floor was used for cutting the glass plates, each with four slides printed on it, into individual 3-1/4 X 4 inch slides, and for varnishing negatives and colored slides. Also on this floor were 16-inch pine shelves that held old readings [scripts] that went with the slide sets... and title labels for slides in great quantity...\textsuperscript{16}

During the ‘80s and ‘90s Caspar Briggs had developed his business to such size that he employed six photographers and twenty colorists...\textsuperscript{17}

The Briggs colorists used the varnish method to hand-paint each slide because of its “brilliancy and wonderful lack of ‘grain,’ even when greatly magnified.”\textsuperscript{18} Though estimates of the time it took to color a slide, and the wages of coloring vary widely, it probably took the Briggs colorists between a half-hour to three hours to color one image, producing somewhere between 16 and three slides a day. An expert colorist could expect to make about $20 a week in 1899, or about $550 today.\textsuperscript{19}

When the slides had been colored, the paint was sealed with Canadian balsam, which also helped to increase the brilliance of the coloring. (After 1900, when the Economy slides became popular, the Briggs colorists no longer sealed the images with varnish. That may account for the fact that the Economy slides seem brighter today, and that the earlier, wood-framed slides tend to have a slight brownish cast, as the extra varnish may have darkened with age.) The slides were then covered with a second piece of glass to protect the painting, framed, packed, and sold wholesale to the nation’s leading distributors where they were offered under many different brand names.

**Fig. 2.** At left, a colorist at the lantern slide facility of The National Cash Register Company in Dayton, Ohio uses natural backlighting as she works on a slide, protecting her eyes from other lights and distractions with the hood. She is probably using a large magnifying glass. At right, men use a slide-sorting rack to prepare for a lecture. Harvard Art Museums/Fogg Museum, transfer from the Carpenter Center for the Visual Arts, Social Museum Collection.
The work required great skill, because when projected the colors would not be seen in the same tints as on the palette. (Fig. 3). Though slides to be colored may have been printed more lightly than black and white, when on screen they would still be mixed with both the shades of black in the photographs or Beale’s paintings, and with the brilliant white of the limelight. And, as opposed to the Pre-Raphaelite attention to every specific that characterized Beale’s artistic rendering, the application of color was entirely different because it was done on such a tiny scale. “It must be remembered,” wrote The Photo-Miniature, “...that in lantern-slide work we are, first and last, impressionists; that is, we do not separately touch each leaf, or blade of grass, or minute detail. A slight, even wash over the whole of the mass gives it the requisite variety and contrast of tint.”

The Briggs colorists gave much more attention to “minute detail” than most, but still the point made by The Photo-Miniature is well taken. Their skill was indeed that of the impressionists—to give the sense of multi-faceted color and light without in fact coloring every leaf, which was physically impossible.

In general, the artist or photographer who created the image did not do the coloring. (There were important exceptions, to be discussed later.) But the artist did have input. In Beale’s case, he put notes in the margins of his drawings if he thought the specific coloring was important, or sent notes on a was discussed in correspondence, as in this letter from Beale to Briggs about Old Black Joe (Fig. 4).

In your letter of the 15th is mentioned "that everything looks too nice and new" in my drawing [of Old Black Joe]. To take away the new look, "Old Black Joe" in the graveyard should have his shoes and trousers painted mud color nearly to his knees . . . as they must have been; since I can only show light and shade, with black and white.

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In the end, however, color was in the hands of the colorists, the women who worked in the lantern-slide factories, and in Briggs who set the coloring standards. We know from the Briggs notes about how to print the slides that he was a meticulous craftsman, so he no doubt set high standards for coloring as well, and trained his staff carefully. (The lowest standards, set in other companies, seem to have been in creating the Secret Society slides, and—paradoxically—the Religious slides.) Depending on the care that was taken and the colorist's interpretation, the effect could vary considerably (Fig. 5).
Fig. 5. Beale’s dramatic silhouette of General Wayne in “The Battle of Stony Point” (A) is emphasized by the main colors—the black of the General’s coat and the red of the fire. Background details from three grades of colored slides give a good idea of the range of color that appeared in lantern slides. In the best grade (B), by Briggs, the background colors have been toned back to enhance the main image, but face colors are carefully shaded. Even the gold piping in the hats of the soldiers in the mid-distance and the spars of the ship on the horizon receive attention, and the red of the roaring fire commands the scene.  In the medium grade (C), a blue wash indiscriminately covers ship, water, coats, sky, and fire, and does not contrast well with General Wayne’s coat or profile. In the lowest grade (D), a few crudely applied dabs of orange and red give only a hint of color. Author’s collection. See p. 2 for full color versions.

The best of the slides had the color applied in several coats so that there were no streaks and the shading was delicate. The cheaper slides, made by factories other than Briggs, were garish, or sometimes simply incomplete and spotty. The colorists’ skills could have a profound impact on screen. In shows given by the author, the vivid colors and delicate shadings of the Briggs slides are one of the features that modern audiences react to most often. They assume that an art form that came before the silent movies must of course have been black and white, or worse, and are astounded at the color quality.

Coloring slides remained a major part of the Briggs business through the 1890s. His letterhead for that period did not mention his illustrated slides at all, but proclaimed that his company was the “Only House in America supplying Colored Magic Lantern Slides to the Trade.” As the lantern industry grew, more companies—or those competitors who had “produced slides of wretched quality” back in 1881—began doing their own coloring, and doing it well. By 1902, for instance, Harbach & Co., a long-time Briggs customer, was advertising its own color slides and film. But the brilliance and subtlety of the Briggs color, combined with the sophistication of his collodion printing and the drama of Beale’s art, continued to impress the industry right to the end of the magic lantern period. The authoritative 700-page tome, Optic Projection, published in 1914, lists Briggs among other American slide manufacturers. But it goes on to say that the Briggs Company offers, “beautiful slides . . . made by . . . the collodion process.” Briggs is the only company singled out for a description, let alone such praise.

Scott and Van Altena

One other company needs to be mentioned for outstanding color, both of detail, and of overall flamboyant impact. Scott and Van Altena (SVA) was the leading producer of the “illustrated song” slides that became popular about 1900, so popular that a minimum order became 20 sets and an order of 200 sets was uncommon. The sets were usually of 12 to 14 images, selling for $5.00 (about $132.00 today). The slides combine life models, elaborate photographic montages, and vibrant color—all depicting the lyrics of popular songs sung in movie theaters, and all perfectly matching the spirit of a new century. “Novelty” montages were created by combining negatives in a process that SVA guarded closely. The coloring was done in two rooms of the company’s New York studio, using aniline paints applied by camel-hair brushes.

John D. Scott and Edward Van Altena, the principals of the company, had somewhat different roles. Van Altena, whose mother had been an artist, became a photographer, and was the company’s master in that field. Scott was the master colorist—though Van Altena was responsible for coloring half the sets. Scott, who was deaf, had gone to the Lexington School for the Deaf, where he was taught by Dwight Elmendorf, whose comments about coloring were presented earlier, and who will re-appear as an outstanding colorist later in this article. From Elmendorf, Scott learned to paint both naturally and rapidly—
learned so well that soon after graduating from school he went to work for Elmendorf as a colorist. In 1899, he struck out on his own, coloring for the New York State Department of Education (NYSDE), which had a massive program of lending slides to schools, and where, in fact, Van Altena worked as a photographer. Soon the pair were coloring 25,000 slides a year for NYSDE. They began making song slides in 1904, as well as working for a variety of organizations that demanded the finest coloring such as the National Audubon Society, The American Museum of Natural History, and The Metropolitan Museum of Art in New York.28

At SVA, Scott himself created the master colored slides that served as the models for all others. Each master was placed in a fixed frame in the middle of a moving wheel that held ten slides at once. Staff colorists copied the master, turning the wheel to position each new slide before the master so as to rapidly “put the sky blue on all ten slides first and then color any washes, such as sunlight, or green grass next” after which the details were added. According to Gladys Scott, John’s wife, an excellent colorist could average about 50 slides in an eight hour day. Gladys, born Gladys R. Silvera, was an exceptionally fine colorist, and the fastest in the company.29

Fifty slides a day is a dramatic increase in output from the estimate given earlier for high-quality slide production—it averages to less than 10 minutes a slide. That Scott and Van Altena could keep up its quality at such a pace, even using the “wheel,” is remarkable, but according to Song Slide researcher Margaret Bergh, there is no degradation of quality in the SVA coloring over time.29 Some of the SVA “secrets” of this rapid production were so treasured that Mrs. Scott refused to reveal them, even fifty years after the company closed.30 In addition to technical secrets, SVA used a number of artistic techniques to save time in coloring. As opposed to Briggs slides, which probably averaged a minute or two on screen, the SVA slides were only on screen for 10 or 15 seconds. SVA could cut corners as long as the central image was vibrant and dramatic, and it developed a variety of techniques for doing so (Fig. 6). The combination of these technical and artistic “secrets” may well have been the key to the company’s long-term success. After the song slide craze faded, about 1914, Scott continued working as a colorist for his previous demanding clients, as well as for Burton Holmes, the famous travel lecturer.

In certain other slide companies there appears to have been a decided decline in quality over time, perhaps in an effort to keep up with Scott and Van Altena’s pace. A commentator at Moving Picture World, writing in 1909, blamed the declining quality of song slide coloring on trying to do too much too fast for too little.

The girls . . . are compelled to keep up a speed of coloring forty slides a day for $7.00 a week, and sixty slides a day for $9.00 a week. [About $180 and $230 today.] . . . Now what is the result? The result is that all artistic effort is stamped out. . . The girls do not try to do good work, but only try to see how many slides they can get on the rack. . . . I have before me now two slides made by one of the largest slide establishments of this city. One of them was made ten years ago . . . and is a work of art. [Another] was made by the same firm recently. It is a miserable daub. The first slide was made when song slides bought $10.00 per set and the latter one came out of a $4.50 set.”32

Fig. 6. A “novelty” slide for “Garland of Old Fashioned Roses” (1911) by the Scott and Van Altena Company in which colorists produced a vibrantly colored slide every ten minutes. The slide’s mask has been removed to make some of the rapid coloring techniques clearer. Many of SVA’s novelty slides featured a black background over which was superimposed a dramatic composite image. The large area of black was simply the black photographic emulsion and required no coloring at all, nor did white, as in this slide, the white tablecloth at bottom. The vibrant red, green, and brass colors were quickly and heavily applied, probably on the “wheel.” Thick spill-over of red and brass, which would ordinarily be hidden by the mask, is visible off the emulsion at right. Only the figure—one square inch of the total slide surface of nine square inches—is carefully colored, possibly by a master like Gladys. It is so delicately rendered that it is almost impossible to see the paint on the glass. Author’s collection. See p. 23 for full color version.
Lantern Slide Colorists

It appears that there were significant economic pressures on the mass producers of colored lantern slides which may well account for the decline in quality that is evident in the later period, not only in some song slides, but more generally. Yet at the same time, as we will shortly see, other factors were improving the quality of coloring at the higher end of the spectrum—among those who worked for the best professional lecturers.

And though there is no evidence that Gladys Scott worked for professional lantern lecturers, in the 1920s she successfully made the transition to cinema, advertising regularly under her maiden name of Silvera (Fig. 7) as a colorist for movies and movie title slides. Coloring for movies was even more difficult than coloring slides because the images were so small, and because there were so many of them, even in a short reel of film. Silvera became very good at it. In 1922 she took out a full page ad in *Film Year Book*, touting this review in *Film Daily* about her work on the movie, *A Light in the Dark*:

> A reel of colored photography, showing Tennyson’s famous interpretation of The Holy Grail...is, by odds, the finest color work ever shown in this country [italics in original]. It undeniably lifts the value of the production materially....Too much praise cannot be given this.33

**Fig. 7.** Gladys R. Silvera, at age 16 in 1909, the year she started work for Scott and Van Altena. Scott was taken with the lovely young girl, enjoyed toying with her hair, and called her “Curley.” He soon married her, and she became Gladys Scott, one of the company’s best and fastest colorists. Ancestry.com.

**Colorists for the Professionals: The Wives and Lecturers**

Unlike the colorists for Briggs, or Scott and Van Altena, who were working in a production environment and often producing hundreds of copies of the same slide, the colorists who worked for professional showmen were producing only a single image. They could take as much time as they wanted; quality was their only consideration. But even these colorists—the best who worked for the best (like the Chautauqua showmen)—went largely unnamed and unappreciated. There were three exceptions: We’ll look first at the lanternist’s wife, then at the lanternist himself, and then at professional colorists who worked for professional lantern showmen.

**Wives as Colorists.** It behooved a Chautauqua showman, if his wife spent hours slaving over his slides, to mention her contribution somewhere in his promotion, and this two of them did. Speaking in the third person, they were wise enough not to stint on their praise:

> Mr. Stellmann’s colored slides, made from his own exclusive photographs and colored by Mrs. Stellmann...present the most beautiful, accurate, and graphically interesting record of San Francisco’s rehabilitation [after the earthquake] ever attempted.

> The unrivaled coloring of the slides, the art of Mrs. Baumgardt, should not be confused with the ordinary.34

**Showmen as Colorists.** In a few cases, the showman himself did the coloring, or was closely involved in it, and made a point of the fact. Frederick Monsen, member of the U. S. Geological Survey, and Chautauqua travel lecturer, promoted his color work with a very elaborate 16-page catalog that asserted:

> Dr. Monsen adds a unique and comprehensive art in photography. Although trained as a landscape painter, he has adopted photography as a more rapid vehicle of expression, and has so handled his medium that his pictures have the qualities of life and atmosphere that characterize the finest paintings. The remarkable lantern slides used in illustrating the Monsen lectures are made from original negatives taken in the field and painted by Dr. Monsen himself, who has devoted over a quarter of a century to the perfection of this art.35

Most praise for colored lantern slides is limited to phrases like “exquisitely colored” (a favorite), and Monsen collected a number of such tributes, but here is one reviewer who captures what is was like, in an era of limited color
on screen, to experience one of Monsen’s colored lectures on the West (Fig. 8):

Have you ever seen the desert at sunset, when the wild waste is a sea of crimson and purple and gold, and the great rocks like cinnabar giants are piled up darkly against the luminous sky? Or have you seen it at night, when the stars swarm like fire-flies through the velvety dusk and the mighty hills rear up like black fingers into the heavens? And have you seen it at noon, when the water holes stare like sunken eye sockets out of the dead gray face of the desert? These are the things one views, as though one were there, in the most remarkable pictures of the vast Southwest ever presented in Washington.

Now that is a critic who appreciates color!

Fig. 8. Frederick Monsen, “Sheep in Canyon.” Color images like these stunned Eastern audiences. The distant rock face has been toned down to contrast with the cliffs that tower in the foreground. Note, however, that the blue of the sky bleeds over onto the mountain. Courtesy of George Eastman House International Museum of Photography and Film. See p. 23 for full color version.

Dwight Elmendorf (Fig. 9), another major lantern artist who colored his own slides, had a profound effect on American coloring. A graduate of Princeton, he became a teacher at the Lexington School for the Deaf, where he met, taught and hired John Scott, later principal and lead colorist for one of the largest manufacturers of colored slides, Scott and Van Altena.

Elmendorf got his start in lecturing as a war correspondent in 1897, taking more than 500 pictures of the Spanish-American War, including 140 of Roosevelt’s Rough Riders. He was a painter before he became a photographer, so it was natural that he might explore the art of coloring himself, and, as we have seen, he wrote an influential book on the subject, as well as travel books like A Camera Crusade Though the Holy Land. A member of the New York Camera Club, he was on the advisory board of The Mentor Association, publishers of The Mentor, a semi-monthly magazine devoted to increasing popular interest in the arts and culture. Elmendorf served as editor of the Department of Travel and many of the travel features were photographed and written by him.

Fig. 9. Dwight Elmendorf’s picture in his promotional brochure. He cut an impressive figure, as did most top illustrated lecturers.

Author’s Collection.

Elmendorf was one of the top-tier lantern lecturers, the kind who could fill Carnegie Hall for a week.

There is no raconteur of travel experiences who succeeds so completely and quickly in establishing a relationship closely personal between himself and his hearers as does he. His stage presence is so free from every hint of pose or affectation, his delivery is so conversational and so spontaneous, and his whole attitude one of such genial comradeship that every listener immediately comes to feel that all that is being said is distinctly individual and personal in its address.

Elmendorf not only colored his own slides using aniline dyes of his own manufacture, but was said to have colored them on the spot:

The Grand Canyon... is filled with hundreds of peaks taller than any mountains east of the Rockies, and all ablaze with such color as no European landscape ever knew. Mr. Elmendorf will not attempt verbal description of this scenery. But he made pictures and colored them as
he perched a mile or more above the river and looked about through the deep reds, golden yellows, and rich purples as far as the eye can see.\footnote{It is very doubtful if Elmendorf actually colored the slides while perched above the river in the wind and dust. More likely he made notes, or did quick color sketches to capture the colors which he then “worked up” later—a common technique of plein air painters of the time.)}

Elmendorf often gave a series of five lectures, and frequently included a lecture on “Children and Flowers in Many Lands” which showcased his coloring talents. Even in the course of his regular lectures, it was his handling of flowers that roused the reviewers:

Pictures of flowers such as will be long remembered were shown. One house in southern California was covered with cloth of gold roses and although one could see that the flowers were past their first perfection, still the vine was one mass of glorious bloom; trumpet creeper entirely obliterated a small house, rose geraniums grew higher than a woman’s head and vied with oleander trees in brilliancy, while lotus blossoms and papyrus gave an idea of what exquisite places in the ancient Egyptian gardens must have been when these two flowers grew in the land.\footnote{In 1916, after a 30-year career, Elmendorf took his colored slides and movies in a whole new direction, joining with partners to form The Elmendorf Travel Talks, Inc., with the ambitious goal of taking his work to “Every Photoplay Theater in the Country”—basically a scheme to franchise his brand.\footnote{It did not work well. In 1917 he left the venture for war work,\footnote{and does not appear to have returned to the stage. Though Elmendorf’s final venture appears to have been a failure, and though I have found no examples of his coloring other than the frontispiece of his book (Fig. 10), his overall career was a major success, placing him among the top handful of illustrated lecturers, and, through his teaching and writing about the art of coloring, influencing Scott and hundreds, perhaps thousands, of other colorists.} and does not appear to have returned to the stage. Though Elmendorf’s final venture appears to have been a failure, and though I have found no examples of his coloring other than the frontispiece of his book (Fig. 10), his overall career was a major success, placing him among the top handful of illustrated lecturers, and, through his teaching and writing about the art of coloring, influencing Scott and hundreds, perhaps thousands, of other colorists.}

Professional Colorists.

If professional lantern performers like the superstars Stoddard and Holmes, and the major Chautauqua and Lyceum lecturers, did not color their slides themselves, or have their wives do it, where did they turn for color? Most did not use slides that were available in the catalogs, or even, if they could help it, slides that were colored by the catalog companies, no matter how good their coloring. They wanted to distinguish themselves from the lesser showmen, and to claim unique material, both in the slides themselves, and the nature and quality of their color. Consequently, they sought the most outstanding colorists in the country. Just as the rosters of the superstars and the Chautauqua and Lyceum illustrated lecturers have provided a way of determining who—among the thousands of showmen—were some of the most eminent lecturers,\footnote{so we can use that same roster to determine those who were the outstanding colorists. Amid the hundreds, or more likely, thousands of colorists available at the time, it seems safe to assume that only the very best would be working for the very best lecturers. Indeed, it seems likely that the best lecturers were famous in part because they had the best colorists.} the catalogs were among the thousands of other colorists available at the time.

The Japanese Influence. A key to understanding the work of these outstanding American colorists was the slide coloring done by the Japanese, especially that of photographer T. Enami, who had a profound effect on John Stoddard and Burton Holmes. Enami opened his photography studio in Yokohama in 1892, and became known as Japan’s master photographer. He sold to Japanese, but also to Western tourists, who could have themselves photographed in Japanese costume, or buy photos and lantern slides of Japanese views. T. Enami was especially known for the coloring of his slides, which was done by colorists in his studio under his supervision.

When John Stoddard and Burton Holmes visited Japan together in 1892, the same year that Enami opened his studio, they were amazed at the slide coloring they found there, and both purchased a number of slides from T. Enami and other Japanese photographers to take home for their shows. Holmes also had a number of his own photographs colored in the Japanese studios.

There were three features of Enami’s coloring, and that of the Japanese generally, that probably impressed Stoddard and Holmes. First, the coloring was remarkable for the minute detail with which the color was applied, even within the 3”x3” slide. Though as we have seen, the Briggs coloring was very detailed, the Japanese went even further. Considering the commercial context of Japanese slide coloring, the level of detail was quite extraordinary (Fig. 11). Second—referring back to that “first rule” cited by Elmendorf earlier—the images were “tinted” with delicate colors, rather than being “colored” with stronger hues

Fig. 10. The frontispiece from Elmendorf’s 1912 book, *A Camera Crusade Through the Holy Land*. His interest in capturing the subtle shading of “natural” hues—“tinted, not colored”—is evident in this subdued portrait.

Author’s Collection

See p. 23 for full color version.
such as those Briggs often used. Larger areas of color were treated with extraordinarily subtle shading of one tint into another, requiring many successive applications of color. The results—a kind of ethereal beauty—were most dramatic in the treatment of flowers, of vistas, or of the sky. Third, while Enami did artful and delicate portraits of beautiful Japanese women standing among the flowers, and evocative landscapes of Mt. Fuji, he also did many scenes of ordinary Japanese wading in the mud to plant and harvest rice. These scenes were remarkable for the natural realism of the coloring, in part because the rendering was so subtle. Mud was not just brown; it was the rich and varied earth shades of... mud. It was the combination of these factors, plus Enami’s excellent photography, that made his images so effective. (Many Enami images are available online by searching Google Images for his name. Don’t miss them.)

Both Stoddard and Holmes were enamored of Japanese slides, and began looking for American artists who could perform at the same level of quality. They found a most unlikely candidate, who became the most famous of the professional colorists.

Katherine Gordon Breed came from a distinguished family. One of her ancestors was Jonathan Edwards, the famous Puritan preacher and theologian. She was based in Chicago, and studied at the Art Institute there, but we shall let John L. Stoddard introduce her artistic talents. First, however, a word about her introduction to him. Afraid that she would be rejected by America’s most revered illustrated lecturer because of her sex, when she wrote to him offering her services as a colorist, she signed herself “Edward Breed.” Stoddard was astonished to discover that this artist of such talent was a beautiful young woman (Fig. 12).

Fig. 11. The coloring of some of T. Enami’s slides was simply stunning, both in overall conception and in detail (top). The precision of the coloring can be seen in this blow up of a one inch square section of an Enami lantern slide. Note the many different colors of the kimonos, painted with enormous precision, and the delicate shading of the skin tones. The general wash treatment of the bushes at the right was a device T. Enami used to tone down the background, and make the detailed figures leap off the screen (bottom). Holmes used this view of Mt. Fuji in his shows. It is an excellent example of the minimalist, “tinted, not colored” style that was such a departure from earlier American coloring. Coloring of the nature and quality of these two slides could not be done quickly: “Each image was laboriously worked on for many hours (some say one to three images a day).”

Courtesty of T-Enami.org

See p. 23 for full color version.

Fig. 12. Breed was a “beautiful and charming young woman...a tall and dignified blonde with a decidedly cosmopolitan accent.” Perhaps it is no coincidence that she appears in many of the pictures Holmes showed his audiences. Author’s collection.
Once Stoddard recovered from his shock, he gave her warm praise:

Miss Katherine Gordon Breed has raised slide coloring to a fine art. Her pictures are beautiful, faithful to nature, and exquisitely finished. For several years previous to my retirement from the platform, I used, almost exclusively, slides colored by her, and found that they gave great satisfaction to my audiences.  

Or another introduction, this time from Stoddard’s anointed successor, Burton Holmes.

Miss Katherine Gordon Breed has revolutionized the illustration of Art and Travel lectures, and has revealed the artistic possibilities of the photographic lantern slides.

“Raised slide coloring to a fine art.” “Revolutionized [slide] illustration.” How did Breed garner such praise? In part it was surely that she was able to match that Japanese quality that Stoddard and Holmes admired. But how was she able to do that? She herself attributed her success to a “process” discovered by her uncle, Dr. David Riddle Breed.

“You see,” said she …, “since no one else has this process, I have no competitors, and my work has taken all the medals offered and the highest honors at the competition at the International exposition.” [The International Exposition of Photography at Geneva, Switzerland in 1893]

The “nature process” consisted largely of “the pigments used…of the most perfect transparency” with “a complete absence of glare in the tints” while at the same time possessing an “intensity…which remains distinct and delicate even when magnified.” Though in this description Breed seems to have attributed her success to a technical breakthrough, in later comments she concentrated more on the artistic training her uncle gave her, rather than a secret process.

And in other comments, she noted the importance of being on the scene in order to get “natural and correct coloring” (Fig. 13):

“I have worked and travelled with Mr. Stoddard and Mr. Holmes for several years. I have been in nearly every country in the world—Africa, Europe, well everywhere. I go to get the natural and correct coloring of the picture. You can’t do it unless you see the views personally you know. I’ve seen all the rest of the world so I’m here in the West in connection with my work. Western people are so generous. Why the President of the Northern Pacific Railway furnished Mr. Holmes and me with his own private car for studying and getting views of Yellowstone Park. He gave us several servants and allowed me all the chaperones I wanted.”

It was the rare colorist indeed who was able to actually see the colors she was trying to portray on screen. Most just guessed. But Breed was there as the camera clicked; she saw the scene in all its detail and particularity; she knew the light and the tone she was trying to capture. It is unclear if she kept all this information in her head, or jotted it down in notebooks, or made sketches, but her slides clearly captured the color sense of the places she visited (Fig. 14). Much of her work was so fine that single-hair ermine brushes were used.

Luckily, her coloring was good enough, like that of Monsen, to push reviewers beyond the standard “exquisite coloring” bromide. Several of them comment on just this sense of “being there” that her slides gave. From the Boston Journal:

The pictures thrown upon the screen were all colored, and were extraordinarily life-like. The tints of the sky, the earth, foliage, the flesh colors in the views made a distinct impression upon the spectators.

From the Chicago Times Herald:

Miss Breed’s gradations of tone are so musical that it is possible to look at dozens of her slides…without fatigue to the eyes. She goes...
from shimmering bits of landscape, salt marshes, and unfrequented country lanes bathed in vapory atmosphere, to the orient, when she presents in the full glow of the midday sun. She paints cardinals and prelates in their highly colored robes with the microscopic fineness of a Munich master... Each slide is an artistic conception, an original and harmonious piece of coloring.

It appears that Breed spent only about four years as a colorist in the traveling parties of Stoddard and Holmes. In 1898 she announced that she herself was available to give lectures for the 1898–1899 season. It is clear from her brochure that she had already given some lectures, and she certainly seems to have had the talent and moxie to make a go of it. However, in 1900 she married Harrison Charles Williams, an entrepreneur who was at the time struggling with his business. (He was successful in his struggles. By 1928 he was, so Wikipedia claims, the wealthiest man in the country.) There is little record of Breed’s performances as a lantern lecturer, perhaps because of her marriage, or perhaps because she tried to do too much at once, as her brochure listed 13 different lectures.

Breed died in 1915, but her name lives on, at least in a small way, in part because she was the only colorist to sign her slides, and in part because she was one of the very few colorists given credit by the illustrated lecturers of the superstar/Chautauqua circuits. For instance, Burton Holmes, in the Foreword to his published travelogues, acknowledged his debt “To Katherine Gordon Breed, who was the first to realize the possibility of the art of coloring lantern slides.”

It seems likely that Breed’s art influenced other colorists as well. Her work for Holmes was followed by that of Helen E. Stevenson of Chicago, Mildred Petry of New York, Grace Nichols of Chicago, and John Scott of Scott and Van Altena—all of whom, it seems safe to assume, were working to standards that Breed had helped Holmes set, based on Japanese inspiration. And it also seems clear that lesser lights on the Chautauqua circuit followed the coloring of Holmes, the acknowledged leader. For instance, Chautauqua lecturer P. V. Collins promoted the fact that his stereopticon pictures were painted by “The Famous Colorist, Katherine Gordon Breed”—and placed that promotion on the front of his brochure. Arthur Peck’s show on Yellowstone National Park was “illustrated by the famous John L. Stoddard series of colored slides”—slides almost certainly colored by Breed. Of the three remaining Chautauqua lecturers who give credit to colorists, one (a Japanese himself) made a point of his Japanese coloring. Breed, and the Japanese tradition she exemplified, had indeed, as Holmes had said, “revolutionized the

Fig. 14. Two lantern slides signed by Breed. At top, Yellowstone Falls, in a photograph taken by F. Jay Haynes. The same image, colored by Breed, was used by Holmes as the finale of his lecture on Yellowstone. Note the sense of brilliant sunlight throughout, the dramatic tones that suggest the power of the water as it goes over the falls, the way we seem to see the delicate shading of the rocks through the mist, and the tiny touch of color on the fisherman’s jacket at lower left, a detail that on the slide that is no larger than this “i”. The bottom image, photographer unknown, is a dramatic contrast to the Yellowstone tonality, but evidences the same command of shading, color coordination, and detail—most strikingly evident in the treatment of the child’s face, and the background leaves. There is almost no color in the far background trees and sky, concentrating our attention on the foreground figures. Author’s collection.

See front and back covers for full color versions.
illustration of Art and Travel lectures."

**A. G. Marshall** was another professional colorist who had great success in his own time, and whose name lives on today. He advertised his coloring services consistently in the Chautauqua and Lyceum trade journals from 1896-1905. An article in *Talent* about the Marshall ads called him “the most artistic lanternslide colorist living,” and cited a number of famous lecturers for whom he colored slides. The article is worth quoting in its entirety because it gives such a lively account of the lecturers who appreciated Marshall’s talents:

This [referring to an ad on the page] is an advertisement—genuine—bona fide, written and paid for by A. G. Marshall out of the earnings of his labor as the most artistic lanternslide colorist living. He does not care who calls him that. He admits it. He has long suspected something of the kind, and now that good judges and competent critics say so he defers to their opinions.

Here are some of the more notable adherents to that opinion: Alexander Black, whose new picture play, “Miss America,” with 250 slides colored by A. G. Marshall, is creating a great sensation and is booked all over the country [Fig. 15]; Charles Denison Kellogg of the Kellogg Bird Carnival Co., also booked everywhere with over 100 song bird slides and tableau effects colored and designed by A. G. Marshall; John L. Stoddard, who entertained Mr. Marshall last year in the great room at Daly’s Theatre, and expressed the greatest delight in his coloring; Dr. Wm. Nevin, the discoverer of the wonderful ruined city in Mexico containing millions of objects of artistic and archeological interest made by people of an unknown race;…Rev. A. A. Brockway, Hon. Secretary, Egypt Exploration Fund and extensive European and Oriental traveler and lecturer; Lieut. R. E. Perry, the daring Arctic explorer; Capt. E. O. Rogers, with his up-to-date lecture on Alaska and the Klondike; E. A. Havers, whose latest subject is the thrilling story, “Under the Cuban Flag”; Miss Louise Booth Hendrickson, the gifted authority on historical costume; Dr. Edward Wilson, editor of *Wilson’s Photographic Magazine* [and *The Magic Lantern*] and explorer of Arabia Petra; Prof. H. J. Schmitz, Ph. D., of Genesee Normal School; Miss Mary Proctor, editor, author, [lecturer], and daughter of the great Astronomer Richard Proctor, for whom Mr. Marshall has designed and executed from her sketches a wonderful and unique series of slides showing the progress of a total eclipse of the sun; Miss Harriet L. Sackett, director Domestic Arts Department, Pratt Institute; and fifty other recent patrons.

**Fig. 15.** A slide from “Miss America” by Alexander Black, as colored by A. G. Marshall. The delicate quality of Marshall’s colors are evident here, and the coloring itself is beautifully done, though the yellow in the drape is rather slap-dash. The woman’s image, illustrating Black’s remarks about the uses of the veil, would certainly have held the attention of the men in the audience. Princeton University Rare Books and Special Collections. See back cover for full color version.

Although Mr. Marshall pays for the notices he is not rich. His prices have not permitted him to roll in wealth, but merely to hold up his responsibility. He had been advised to raise his prices to suite the improvement in the times. But for the present he will wait until the wave of returning prosperity has more thoroughly inundated the land. Meanwhile, we will “go on continuing” to be the most artistic slide colorist living.

Despite the wide use of Marshall’s talents as a colorist he was not advertising in the Lyceum trade journals of 1906–23 that we reviewed. Perhaps that is because Mr. Marshall switched from selling coloring services, to selling the colors themselves, and found that to be a much more lucrative trade. (Certainly it would be a lot easier on the eyes!) “Marshall’s” continues to this day, outlasting by a hundred years the lecturers who were A. G.’s famous clients. A variety of different versions of “Marshall’s Photo Oil Kit” are available on the web, and a PDF describes how to color photos with “Marshall’s Photo Coloring System” (Fig. 16).
Fig. 16. A full-page ad from a 1950s copy of Popular Photography features a move star promoting the legacy of Marshall’s slide-coloring service, his “Photo-Oil Colors.” These colors are still sold today. Author’s collection.

Charlotte Pinkerton stepped into the opening for high-quality coloring services to professional lecturers left by Breed and Marshall. Pinkerton, who was born in South Africa, was, in her early professional years, based in Chicago. She advertised her expertise in coloring slides for professionals, citing an endorsement from Burton Holmes, and touting her work on the smash-hit “Hiawatha,” produced by Lyceum star Katherine Ertz-Bowden. (Fig. 17). Said The Lyceumite’s editor:

I have not seen all the things of an illustrated nature—no, not all—but I have yet to see anything that compares with “Hiawatha”…I have never seen such beautiful still or motion pictures.”

Many of Pinkerton’s “Hiawatha” slides are available on the web. Pinkerton may have taken photographs as well as colored them; for certain she was an accomplished colorist. Some of her work for the western photographer Walter McClintock is held in Yale University’s Beinecke Rare Book and Manuscript Library and is available online. Other pictures, also available online by searching for her name, give a sense of the spiritual quality of her coloring—a quality which was sometimes extraordinarily evocative.

Fig. 17. The final slide of Bowden’s “Hiawatha,” colored by Charlotte Pinkerton, at two different light levels, as simulated with Photoshop. By controlling the level of the light, the projectionist can alter an artist’s color, and possibly contribute to its effect. I had the pleasure of projecting Bowden’s slides at Domitor, a conference of early-cinema scholars. As I very, very slowly faded this closing image of “Hiawatha” to dark, her colors changed, becoming richer and richer. The audience responded, their silence deepening. Courtesy of Valparaiso University Archives and Special Collections. See back cover for full color versions.

The End of the Hand-Coloring Era

Though the popularity of illustrated lectures using colored lantern slides declined dramatically after the First World War, color slides continued to be used in other
settings, most especially in the Religious, Education, and Secret Society areas. (For instance, McIntosh Stereopticon, a leading lantern catalog company, stopped producing slides in 1925 except in the Secret Society area.) Then, in 1935, two developments in coloring occurred—one interesting, one revolutionary.

In 1935, The Keystone Company, a leading producer of slides for schools, received a patent on a new process for hand-coloring slides that it had first applied for in 1931. In effect, this process continued the mechanization of hand-coloring begun with Scott’s “wheel.” Essentially the Keystone concept was to coat the entire slide with a background color and then add other colors by hand. The patent claimed that this made coloring both better and cheaper, and Keystone began producing such slides, branded with the name of “Trucolor Process,” and bound with red tape (Fig. 18). While Keystone claimed any color could be used for the background, in practice they seem to have generally used white. This certainly made for bright whites, but the process worked best only if most of the slide was white, and even then it meant that there was often a thin white line between the other colors. It is doubtful that “Trucolor” contributed to the quality of Keystone slides, which, for mass-produced commercial slides, was already quite good.

Also in 1935, the Kodak Company introduced Kodachrome, a revolutionary chemical process for creating color, not on glass, but on film slides. Developed after years of work by Kodak scientists and others, the chemical process produced excellent colors though a technique that combined three layers of film, each sensitive to one of the three primary colors. Kodachrome was an instant success, and continued in use for many years. It effectively ended the era of hand-coloring.

**Conclusion**

Clearly the colorists who tinted lantern slides made a major contribution to magic-lantern performance. The artists we have examined were certainly not the only colorists—there were thousands of others, and many of them were no doubt outstanding. The artistry of a few of these has been noted in Appendix A: Other American Colorists. By concentrating on the work of the artists for top lecturers that we have examined here in more depth, we can identify three major sources of influence on American coloring. One is Dwight Elmendorf, of the “don’t color slides, tint them” rule, who through his writings, teaching, and outstanding colored lectures, trained John Scott. He in turn taught his wife, Gladys Scott, and the many colorists of Scott and Van Altena who worked on the company’s songs slides, as well as the slides for the New York Department of Visual Education and other major institutions. The second source of influence is the Japanese, especially T. Enami, whose masterful slides so impressed Stoddard and Holmes. They in turn hired the “revolutionary” Katherine Gordon Breed, who set the standards for the other Holmes colorists, and their many imitators. The third source of influence is A. G. Marshall, “the most artistic lanternslide colorist living,” who created sets of oil colors, and a coloring system, that continue to be used today. These three strands seem to have interwoven, which is not surprising, as many of these colorists knew each other and each other’s work. Among them there grew up a shared sense of “outstanding coloring.” From this study of their work, we can glean a sense of what that term meant to them, their critics, and their audiences.

First, the coloring had to be “realistic,” “natural,” “true to live”—the terms used most frequently to praise the work of the Chautauqua lecturers. This, at a minimum, meant avoiding the “wretched quality” of a few standard colors daubed helter-skelter on the glass. Achieving realism meant a sophisticated palette and a shading of colors that accurately reflected the real world. To achieve this standard it was essential to know what the real colors looked like, either by following the color directions of an artist like Beale, or by actually being at the scene like the colorists Breed and Scott, or the lecturers Elmendorf and Monsen. “Realism” was most important in certain nature studies like birds and flowers, and in military situations where...
color was used to symbolize opposing groups, but it was a broadly accepted standard for any subject matter.

Being “realistic” may have been necessary, but it was not the quality that caused audiences to burst into applause, nor the critics into flights of rapturous oratory. That quality is best captured by the word “exquisite”—a term used so frequently of the best slides that it is tempting to dismiss it as I did earlier as a bromide, a clichéd way of saying “beautiful.” But there are dozens of terms meaning “beautiful”; why should “exquisite” be chosen so often? The Merriam-Webster dictionary gives three definitions: “finely done or made, very beautiful or delicate”; “very sensitive or fine”; “extreme or intense.” When we look at examples of some of the best colorists’ work, we see that the combination of these definitions does indeed capture the essence of their art. Following in the Japanese tradition, these slides are very finely and delicately executed, far more so that even the best of the commercial work such as that done by Briggs—think of Breed’s single-hair brush. The best of the illustrated lecture slides also embody coloring that was more “sensitive” than the norm—more attuned to the most subtle shifts in tone, and the way color interplayed with form, especially in the treatment of the sky and faces—to use Elmdorf’s terms, “tinted,” rather than “colored.” When carefully controlled by a master artist, this “delicate” touch could be shaped into an overall image that was indeed “intense”—powerful enough to evoke rhapsodies from critics, and gasps of appreciation from audiences. Even modern audiences, inundated with color imagery, react with audible appreciation to the finest lantern-slide coloring.

The color of the real world, and the color of the world on the lantern-show screen, were a dramatic contrast to the land that Maxim Gorki, the famous Russian writer, described in his famous reactions to his first movie.

Last evening, I was in the Kingdom of Shadows. If one could only convey the strangeness of this world. A world without color and sound. Everything here—the earth, water, and air, the trees, the people—everything is made of a monotone gray. Gray rays of sunlight in a gray sky, gray eyes in a gray face, leaves as gray as cinder. Not life, but the shadow of life. Not life's movement, but a sort of mute specter.

The early movies were not quite as colorless as Gorki suggests. Occasionally they were hand-colored, using the techniques that had been developed for lantern-slide coloring, and sometimes using the very people who colored slides, like Gladys Scott. But because the movie frames were so small, the coloring was often no match for lantern-slide quality. And after 1905, as the pace of movie production picked up, hand-coloring gave way to stenciling, and tinting and toning (laying general tints across the image). Movie color became common, but simpler still. In contrast, the sophisticated color of the best illustrated lectures and illustrated song slides must have been stunning, and surely accounted in part for their popularity long after the introduction of the movies. In fact, a biographer of Holmes claimed that the spectacular color of his lantern slides had the effect of “coloring” his movies:

So richly colorful was the impression produced by their brilliant lantern slides that audiences do not miss the color in motion-pictures, which although black and white, are always alive with action. Strangely enough, many who attended the lectures have for years insisted that Burton Holmes has always had movies in natural color—even before they were invented.

And so, we leave those unsung heroes and heroines, the artists who created colored lantern slides that took your breath away. And what better way to say “Good Night” to them and to you, than with a slide (Fig. 19) colored by Julia Henshaw—who despite her many accomplishments, did not meet our screening criteria, and so is tucked away in Appendix A. You would never see her extraordinary talent if the images in this article were slavishly limited only to those who worked for the most popular lecturers, or were such lecturers themselves. We will let Henshaw represent the hundreds of other unacknowledged colorists who brought an exquisite art to the screen, sharing its beauty with millions.

Fig. 19. Teepees of the Rockies, photographed and colored by author and illustrated lecturer, Julia Henshaw. Mary-Ann Auckland Collection. See back cover for full color version.
Lantern Slide Colorists

Notes and References

1. D. Crane Taylor, John L. Stoddard: Traveler, Lecturer, Litterateur (New York: P. J. Kenedy & Sons, 1935). Though Crane gives Stoddard credit for inventing the biunial (125-126); discusses in detail his picture-taking or picture-purchasing practices (126-127); gives a nice tribute to his projectionist, Timothy Mapes (145-146); and alludes to his use of color slides (140); he does not specify how much of Stoddard’s lectures were in color, and never mentions his colorists. Colorists are also unmentioned in Theodore X. Barber. “The Roots of Travel Cinema: John L. Stoddard, E. Burton Holmes, and the nineteenth century illustrated travel lecture.” Film History 5 (1) (1993) 68-84.

2. Kentwood D. Wells, “George Reed Cromwell (1859–1899): America’s Most Famous Forgotten Magic Lantern Showman,” The Magic Lantern Gazette, 25(4) (Winter, 2013), 3-45. Wells makes no explicit reference to color, but emailed the author (June 6, 2014:) to say that there were newspaper accounts of Cromwell’s use of color slides, and that he, Wells, believes it was used “regularly” throughout Cromwell’s career. There is no knowledge of Cromwell’s colorists.

3. “Colored Sceneries” and “Views of World-Renowned Places of Interest,” Catalogue of Stereopticons and Magic Lanterns With Extensive Lists of Views… (New York: T. H. McAllister, 1892) 90-91. “The ‘Colored Sceneries’ are all choice views, photographed from nature, and delicately yet brilliantly colored by experienced artists.” Experience has shown that an entertainment formed exclusively of uncolored views sometimes proves monotonous, while handsomely colored views introduced at intervals serve to give a pleasant variety, keeping the audience wide awake and always on the look-out for a ‘brilliant picture.’” McAllister also offered to have the showman’s own slides colored in their “Superior Style” for $1.25 or “not quite so handsomely, yet still producing a fine effect, at $1.00 each” (about $32 and $25 in today’s dollars). Translation of period dollars to today’s dollars in this and all other cases is from The Inflation Calculator, http://www.westegg.com/inflation/infl.cgi.


5. McAllister, op. cit., note 3, Supplement. McAllister offered various lantern “Outfits” with lanterns and slide assortments at the $50 level “for school houses of moderate size,” and at the $25 level “for the Family Circle, School Exhibitions, etc.” Each Outfit generally had a mixture of black-and-white and color slides, plus some moveable color comics—at the $50 level usually a dozen comics, plus a chromatope. The cited percentages total all slides in all Outfits, excluding the moveable color comic slides and chromatopes. Most of the color slides counted in the Outfits were French children’s cartoon slides (3-1/4 x 12) with very simple decal color. There were almost no “finely colored” views offered in these Outfits.

6. Edward Wilson, The Magic Lantern, 8 (April-June), 1882, 43. The “one maker” of colored slides that Wilson refers to is C. W. Briggs, to be discussed later. See also note 3 for a similar view, though of course McAllister’s views might be “colored” by the added revenue his “Superior” style brought him.

7. Terry Borton, “238 Eminent American ‘Magic-Lantern’ Showmen: The Chautauqua Lecturers,” The Magic Lantern Gazette 25 (1) (Spring, 2013), 3-34. A random sample of 50 of the Chautauqua illustrated lecturer’s brochures on the Library of Congress “American Memory” website was examined for references to coloring. Those who did not use color tended to concentrate on social issues, science, and current events. Of course it is possible that some of those not specifying color simply neglected to promote this benefit, but this seems unlikely.

8. Ibid, Appendix 1.

9. The pay scale for the top tier lectures is discussed in Lyceum Magazine, 32 (11) (September, 1922), 45.


11. A three inch slide magnified 60 times would make a twelve foot image. While it is true that a small defect in the slide might be very noticeable if you were sitting in the front row, a lot would depend of whether you were simply “looking” at the slide, or “examining” it for defects. (Thanks to Ludwig Vogel-Bienek for this distinction.) If you were sitting beside the lantern, any mistakes would be no more obvious than if you were to hold the slide up before you in your hand. (To prove this, hold a slide before you between your fingers; then remove the slide, and look at the space on the wall where the slide might be projected. Any defect may be bigger, but not in relation to the whole.) If you were sitting further back behind the lantern, any defect would be even less noticeable. — Lantern slides that were to be colored were likely printed with less density than those to be projected in black and white, as the coloring would tend to darken the image somewhat. (Thanks to Jody Dole for advice on this topic.)


15. Wilson, Edward, “Beware of Spurious Colored Slides,” The Magic Lantern, August and September, 1881, 57. The editor also reports that, “Mr. Briggs says said dealer has copied many of his slides—the more reason for rejecting them.” The copying or “duping” of original work would become a major problem in the future, just as it would in the early movie industry; indeed, just as it is today.

16. Wilson, op. cit., April-June, 1882, 43.


18. Elmdorf, op. cit., note 13, 59. The wet-plate collodion emulsion that Briggs used, and continued to use and promote long after others abandoned it, had the same purpose. The grain was so fine that it could reveal microscopic detail.

19. This description of time and wages is not Briggs-specific, but is in a discussion of high-quality slide coloring, mentioning Katherine Gordon Breed by name. (We will meet her later.) The description comes from “Illustrated lecturing: Pleasant and Lucrative Field Open to Women of Ability—The Preparation of Text-slide Painting, Camera Operating and Booking of Dates All Said to Be Within Her Scope.” New York Daily Tribune, July 3, 1898, 6. Another source, thanks to Larry Cederblom, “Are You an Aspirant?” Pullman Herald (Spokane, WA), Sept. 3, 1904, offers jobs with the US civil service at $900 per annum, roughly comparable to the $2- a week mentioned in the first citation. (Compare these output and wage estimates to those discussed in the text referenced by note 32.)

21. For instance Beale includes a note on the color of flowers in the margin of one of the images of *The Brook*, and sent along sketches of military uniforms with the colors carefully indicated. The former is at the Brandywine River Museum of Art; the latter is in a notebook of Beale’s at the George Eastman House International Museum of Photography and Film (GEH).

22. A copy of the *Old Black Joe* letter of Beale to Briggs (11/22/05) discussing the coloring of slides is in the Author’s Collection; whereabouts of the original, which was at The George Eastman House International Museum of Photography and Film, is unknown.

23. Colorists seem to have been mostly women, though, as we shall see, there were male colorists also. “Color was explicitly coded as feminine, being grouped as an ornament and compared to feminine cosmetic. Females were not only cheaper to employ, but they were also thought to be innately suited with their supposed sensitivity, nimble fingers, and feminine color sense…” Joshua Yumibe, *op. cit.*, note 12, 46.

24. Terry and Deborah Barton, *op. cit.*, note 14, 39–40. It is not clear if a colorist created one slide at a time, or worked in an assembly line fashion, one color to a person, as did some French companies. (Yumibe, *op. cit.*, note 12, 48). This plan of organization seems doubtful, however, given the delicate shading of colors in the Briggs slides.

25. Author’s Collection.

26. Yumibe, *op. cit.*, note 12, 47. Why didn’t Briggs himself begin coloring films? The simple answer may be that he just didn’t like them. The flicker in particular bothered him; he seems to have thought of film as another sorry competitor to his beautiful slides.


28. Harriet Stryker-Rodda, “Scott and Van Altena, Masters of the Song Slides,” *The Journal of Long Island History*, 5 (3) (Summer, 1965), 17–27. Tom Rall, who has probably studied more photographic slides than any other member of the Magic Lantern Society, believes that the NYSDE slides have some of the best coloring of any American photographic slides. Now we know why. ~ Capturing the colors for 100 master works at the Met was Scott’s biggest challenge. Negatives were themselves tinted to control color density. Then three or four slides were made by the company’s best colorists, sitting in front of the actual painting to check for accuracy. Finally, only the best was chosen for projection. ~ Scott also traveled with Joseph K. Dixon on a trip to the Crow Agency in Montana, did “sample coloring on the spot,” and colored his slides for lectures on Indians presented as part of the Wamakater lectures.

29. Letter from Gladys R. Scott to John W. Ripley, August 27, 1971; from John D. Scott to John W. Ripley, June 29, 1956; and July 22, 1958, all courtesy of Margaret Bergh of The Marnan Collection, Minneapolis. The July 22 letter is cited in Yumibe, *op. cit.*, note 12, 43. The Scotts also mention Mr. Joseph Hawkes, “a fine colorist (none better)” who was a partner in the Monitor Slide Co. Gladys, born Silvera, appears to have been of Jewish heritage. Her parents immigrated via Jamaica in 1892, the year she was born. She left high school at age 16 and began work at Scott and Van Altena because of financial difficulties at home.

30. Margaret Bergh, The Marnan Collection, telephone conversation with the author, July 29, 2014 and following. Thanks to Margaret for clarifications and a great deal of research assistance on this whole section about Scott and Van Altena.


32. “The Wages of Girls Who Color Slides,” *Moving Picture World*, January 2, 1909, 830. The commentator does not appear to be writing about Scott and Van Altena because he references slides made “ten years ago” (1899), while Scott and Van Altena, according to Gladys Scott (*op. cit.*, note 29) did not begin making song slides until 1904.

33. Silvera, Gladys, R., “Hand Coloring of Motion Pictures,” advertisement, *Film Year Book*, 1922-23 (The 1922-23 Film Daily Yearbook of Motion Pictures), 80.


35. Ibid. The only Chautauqua lecturer, other than Monsen, who colored his own slides was Karl Bolander. Carveth Wells claimed his lectures were “Beautifully Illustrated with Exquisitely Colored Lantern Slides and Motion Pictures, chiefly made by Mr. Wells himself,” but this phraseology does not make it absolutely clear whether he created the pictures, the coloring, or both. Frank Chapman’s bird slides—where accurate coloring was essential—were “all…accurately colored under Mr. Chapman’s supervision.”

36. Both quotations from the brochure, “The Frederick Monsen Lectures, Illustrated” Travelling Culture: Circuit Chautauqua in the Twentieth Century, University of Iowa Digital Library.


40. “San Diego to Portland—Beauties of the Pacific Coast Interestingly Described and Illustrated by Dwight L. Elmendorf,” *The Brooklyn Daily Eagle*, Nov. 8, 1903, 6.


42. “Elmendorf Travel Talks,” *The Dramatic Mirror*, May 19, 1917, 30. Presumably Elmendorf meant that he would lecture for the soldiers, not fight himself.


44. Email to the author from family member Richard Edwards Breed, May 25, 2014.


47. Ibid.

48. “A Pretty Young Woman in a Private Car.” Typed mimeographed transcript of what appears to be a newspaper interview conducted with Breed in Denver, CO about 1898. Author’s Collection. The article reports that her uncle gave the process “into her hands because she was already a distinguished artist, and capable of making the most of this valuable invention.” The quotation in Fig. 11. is from the same source. Rev. Breed was a Presbyterian minister based in St. Paul, MN; President of the Directors of the Western Theological Seminary; and author of *The History and Use of Hymns and Hymn Tunes*. It would appear that Katherine, with her slightly unconventional life style, was intent on keeping to his good side by giving credit where he probably thought it was due.

49. “Young Chicago Woman Achieves Success as an Artist,” *Chicago Daily Tribune*, Nov. 16, 1895, 1.
50. In the promotional brochure for her own lecture series, Breed puts the following over the “Testimonials” section on page 2: “Miss Breed cheerfully acknowledges that the success she has achieved with her pictures is largely due to the able instruction and advice of her uncle, REV. DAVID R. BREED, D. D.” Breed, op. cit., note 46.

51. Breed, op. cit., note 48. It is unclear if Breed accompanied Stoddard on his trip to Yellowstone in 1896; probably not, though she was almost certainly the colorist for his Yellowstone lecture. It is notable for the emphasis Stoddard gave in his text to color. Crane (op. cit., note 1, 183-184) said of it, “His word pictures of the marvelous canyon in particular is surpassed by nothing in his lectures except the view of the Himalayas.” Those “word pictures” of Stoddard’s were written to accompany Breed’s coloring. See also note 60.

52. The Yellowstone image is labeled “F. J. Haynes, Publisher,” and is signed on the glass image but reading in reverse from the other side, “Katherine Gordon Breed.” The jungle image is from the Charles R. Pancoast Company in Philadelphia, and is signed in the same manner. Four other images of what appear to be the same location are from Pancoast and Hand of Philadelphia, are from the same source, are signed by Breed on the label, and have numbering in the same handwriting. Author’s Collection.


54. Breed, op. cit., note 46.

55. Ibid.

56. Ibid.


58. The signature is usually on the mat, not the image itself, or sometimes on the glass plate, off the image, and covered by the label, so that it only appears as mirror writing on the verso, as described in note 52. Many “Photographic Studios” printed their names on labels, but the handwritten signature of a single colorist appears to be unique.


60. Ibid. In the Foreword to his published travelogues, Burton Holmes recognizes not only Breed, but also Helen E. Stevenson, “to whose exquisite skill and artistic discrimination are due the color-beauty and convincing truthfulness of the illustrations in the later Travelogues.” Stevenson also colored the slides for Chautauqua lecturer John J. Lewis’s “Passion Play of Oberammergau.” She was a president of the New York Camera Club, and illustrated books as well as coloring slides. See “Pictures from Nature,” The Inter Ocean, Nov. 8, 1893, “Hand Painted Colored Slides,” Burton Holmes, Extraordinary Traveler, www.burtonholmes.org. Holmes also acknowledges his colorists Grace Nichols and Mildred Petry, but nothing is known of their art background. Edward Scott also colored for Holmes. (See discussion of Scott and Van Altena.)

61. Toyokichi Iyenaga’s programs on Japan were “illustrated with a magnificent collection of colored lantern slides, all hand-made in Japan by the best native artists.” The other two made no mention of Japan, but mentioned other colorists.: Fr. McCorry slides were “colored expressly by Joseph Hawkes of the Metropolitan Museum of Art.” (See note 29.) Frank Chapman’s bird slides were painted by John Folkerth under Chapman’s supervision. — A comment on Arthur Peck’s use of Stoddard’s slides of Yellowstone, colored by Breed: What might account for this very unusual occurrence—the use of the slides of the most famous lecturer by a lecturer who was relatively unknown? Stoddard’s Yellowstone lecture was prepared at the request of the United States Congress, which was anxious to promote the park. (Crane, op. cit., note 1, 183-184 ) Presumably they paid Stoddard’s expenses, and paid for Breed’s coloring as well. Part of the arrangement might well have been that if Stoddard stopped performing the lecture, he would turn it over to someone else.


63. Talent, Dec. 1897, 11. Most of Alexander Black’s “picture plays” consisted of a single, evening-long story illustrated with life-model slides that changed every 15 or 20 seconds. “Miss America” is different. It contains some short story vignettes, but overall is a kind of beauty pageant in essay form.

64. For Marshall’s paints search for Marshall’s Photo Oil Kits; coloring instructions for them can be found by searching for Marshall’s Photo Coloring System.

65. The Lyceumite, Nov. 1903, 130.

66. For “Hiawatha,” search for “Imaging Hiawatha, Bowden.”

67. Some of Pinkerton’s slides are marked “Made and Colored by Charlotte M. Pinkerton, 874 Jackson Boulevard, Chicago, ILL., others at 2151 Jackson Boulevard, and others, “From the Studio of Charlotte Pinkerton Blazer, Pasadena, California.” Pinkerton married James Blazer in 1914, so the “Blazer” slides are after that date. Pinkerton was also called “Charlotte M. Lenkестon Pinkerton.” See also the Annette Karge entry in Appendix A. (Thanks to Artemis Willis for pointing out these two Chicago studios.)

68. McIntosh Stereopticon Company, open letter to customers, about June 1, 1925. Author’s Collection. The letter says that the company has been purchased by new parties, and that “the entire stock of general slides has been disposed of to the Chicago Public Library.” The new company would continue to manufacture some lanterns, and “Lodge Slides.”

69. The patent, filed in 1931 and patented in the name of D. P. Mossman on Feb. 19, 1935, was U. S. Patent # 1992128, with trademark registration # 303747. My thanks to Tom Rall for pointing this out, and for sharing his collection of “Trucolor” and Japanese slides with me.

70. “Kodachrome,” Wikipedia.com. This article goes into great detail about the development of the process.


73. Yumibe, op. cit., note 12, 5. Yumibe says that, “color processes were used occasionally on [movie] prints through 1907.” On the next page he cites an estimate of three percent of early film using hand coloring. After 1907, coloring in the form of tinting, toning and stenciling became common.

74. Ibid., 43-48.

### Appendix A. Other American Colorists

<table>
<thead>
<tr>
<th>Colorists</th>
<th>Photographer/Lecturer</th>
<th>Comment</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Anderson, Grace Adele, nee Smith</td>
<td>Frances Benjamin Johnson</td>
<td>Johnson was America’s most famous garden photographer, a field that required an excellent colorist. Many of the slides Anderson colored for her are beautifully done, with subtle renderings of the flowers reflected in pools. Contrasting b&amp;w and color images in the Watters book are fully colored pictures [are] reproduced for the most part from Mrs. Henshaw’s own photographs and painted by her with exquisite delicacy.</td>
<td>Sam Watters, <em>Gardens for a Beautiful America, 1895–1935: Photographs of Frances Benjamin Johnson</em> (New York: Acanthus Press, 2013), 39–41.</td>
</tr>
<tr>
<td>Curtis, Eva</td>
<td>asahel Curtis</td>
<td>The sister of Asahel, Eva worked with him in his studio coloring lantern slides and photographs. Asahel was the brother of the famous art photographer of Indians, Edward, but tended to concentrate on more-</td>
<td>Richard Frederick and Jeanne Engerman, <em>Asahel Curtis: Photographs of the Great Northwest</em> (Tacoma: Washington State Information from the Dick Moore Collection.</td>
</tr>
</tbody>
</table>
| Glaser, Emma                     | Glasier, Frederick        | Frederick (1866-1950) was a photographer, known for his slides of fairs and Wild West shows. His wife started out to be an artist in her own right, and became a colorist for the fair slides, which were in the cou-
| Griffith, the Misses             | Underwood and Underwood of | Slide of "He Hath Loosed His Fearful Lightning," with very dramatic, dark coloring, delicately done.                                                                                                             | Colored by The Misses Griffith, *New York* on slide in Author's Collection. |
| Henshaw, Julia                   | Self                      | Julia Henshaw was an illustrated lecturer, author, colorist. "The beautifully colored pictures [are] reproduced for the most part from Mrs. Henshaw's own photographs and painted by her with exquisite delicacy. See | Julia Henshaw, "Illustrated Lectures," Promotional brochure in Auckland Collection; Julia Henshaw, *Wild Flowers of North America* |
| Jackson, William Henry Jackson, Mollie, and Peters. | Detroit Publishing Company, Fred Harvey | Jackson, the famous photographer of the West, colored some of his own slides, most likely those in his own lantern show, "One Hundred Minutes in Strange Lands," as well as supervising the coloring at his company, Detroit Publishing, where his wife also worked. Pete, "the Wonder" colored for Jackson, and also for Fred Harvey, the hotel magnate. | T. C. McLuhan, *Dream Tracks: The Railroad and the American Indian, 1890–1930* (New York: Harry N. Abrams, Inc., 1985), 34, 36. |
| Karge, Annette                    | Walter McClintock         | Karge apparently shared a studio with Charlotte Pinkerton (note 67) at 2151 Jackson Boulevard, Chicago, who also colored for McClintock, as did Charles Pancoast of Philadelphia (See # 8). The McClintock archive at Yale contains his correspondence, which probably includes discussions with Pinkerton and others. | Walter McClintock Collection at Yale University’s Beinecke Rare Book and Manuscript Library; Steven Grafe, *Lanterns on the Prairie: The Blackfeet Photographs of Walter McClintock* (Norman, OK: University of Oklahoma Press, 2013), 39–41. |
| Simpson, Ida (nee Willax)        | Alfred L. Simpson Company (Illustrated) | Chief colorist for the company, which featured beautifully colored close-ups of their models as the finale of their song sets, just before the chorus slide of text.                        | A. MacArthur, "A Day with Simpson," *Moving Picture World* (9 Sept., 1911), 704-705. |
| Smith, Laura, nee Rauch          | Douglas Light Company     | Laura Rauch, as she was called when she worked at Douglas Light Company, was the only colorist there, and did many other jobs besides, for which she was paid a dollar a day, plus room and board. | Group NW [of the Magic Lantern Society of the U. S. and Canada], *The Magic Lantern in the Northwest* (Seattle: Group NW, 1986), 39–41. |
| Taylor, James                    | Ezra Ripple               | Taylor, a colleague of Joseph Boggs Beale’s at Frank Leslie’s Weekly, created rough-hewn illustrations for Ripple’s grim lecture on the horrors of Andersonville Prison. His coloring is equally rough-hewn, and dra-
| Tibbitts, H. C. Photo, San Francisco, | Mildred Clemens           | Clemens was a lecturer of the 1920s, specializing in Hawaii. The Tibbitts slides are of her in other settings; presumably the studio did her Hawaiian slides as well. They are exquisitely done, capturing, for in-

**NOTE:** Any "Studio" that produced lantern slides probably had a colorist.
Color figures (see interior pages for complete captions)

Top row: Fig. 6 and Fig. 8

Above left: Fig. 10

Right: Fig. 11 (two Japanese photos)