

NEH Application Cover Sheet

Humanities Collections and Reference Resources

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Field of expertise: Film History and Criticism

INSTITUTION

George Eastman House
Rochester, NY USA

APPLICATION INFORMATION

Title: *Technicolor Online Research Archive*

Grant period: From 5/1/2015 to 11/30/2017

Project field(s): Film History and Criticism

Description of project: George Eastman House will create a Technicolor Online Research

Archive that will allow access to its vast and significant Technicolor collection. This free, web-based resource will be available to researchers, academics and historians to study, understand and appreciate the tremendous influence that Technicolor had on film making and popular culture during the 20th century. In collaboration with the Academy of Motion Picture Arts & Science's Margaret Herrick Library and the Smithsonian's National Museum of American History, we will make important documentation, photographs, and equipment accessible for the first time in a comprehensive, annotated digital format. The project goal is to digitize and make available online 60,000 core artifacts from the Technicolor Motion Picture Corporation history from 1915 to 1955. Project activities will commence in May 2015 and will be completed by November 30, 2017.

BUDGET

Outright Request	25,000.00	Cost Sharing	234,092.00
Matching Request	209,092.00	Total Budget	468,184.00
Total NEH	234,092.00		

GRANT ADMINISTRATOR

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George Eastman House: *Technicolor Online Research Archive*

PROJECT DESCRIPTION

George Eastman House will create a *Technicolor Online Research Archive* that will allow access to its vast and significant Technicolor collection. This free, web-based resource will be available to researchers, academics and historians to study, understand and appreciate the tremendous influence that Technicolor had on filmmaking and popular culture during the 20th century. *George Eastman House International Museum of Photography and Film*, the world's oldest museum dedicated to conserving the history of photography and film, will launch this website to coincide with the centenary of Technicolor, whose beautiful and durable color process surpassed all others in the medium of motion pictures. Filmmakers as diverse as Cecil B. DeMille, Walt Disney, David O. Selznick, Vincente Minnelli, Luchino Visconti and Jean Renoir all employed the remarkable and expressive color process of Technicolor to creatively shape their films. Technicolor's impact on the filmmaking process provided new levels of artistic freedom to directors and cinematographers worldwide. The results of these collaborations are vividly preserved in films such as *The Greatest Show on Earth* (1952), *Fantasia* (1940), *Gone with the Wind* (1939), *An American in Paris* (1951), *Senso* (1954) and *The River* (1951).

By digitizing significant and unprecedented collections from *George Eastman House*, along with supplemental collections from the Academy of Motion Picture Arts & Science's *Margaret Herrick Library* and the Smithsonian's *National Museum of American History*, this project will make important documentation, photographs, and equipment accessible for the first time in a comprehensive, annotated digital format. This specially designed website will present the collections with appropriate curatorial context enabling users to browse and explore 40 years of Technicolor history from 1915-1955 in digital form.

George Eastman House requests a grant of \$271,485 from the National Endowment for the Humanities for the creation of the *Technicolor Online Research Archive*. The goal of this 31-month project is to digitize and make available online 60,000 core artifacts from the Technicolor Motion Picture Corporation (Technicolor) history from 1915 to 1955. Project activities will commence in May 2015 and will be completed by November 30, 2017.

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I. SIGNIFICANCE

In 2015, George Eastman House International Museum of Photography and Film (Eastman House) will mark the one hundredth anniversary of the incorporation of Technicolor through a series of high-profile events, publications, and educational activities aimed to engage the public in Technicolor's long-lasting significance and legacy. These celebrations will culminate in the creation of the *Technicolor Online Research Archive* in 2017. This digital resource will feature an unparalleled selection from the vast collection of documentation and technology donated by the Technicolor Company to the collections at Eastman House, complimented by selected items from the Margaret Herrick Library and the Smithsonian Institution. Although all originating from one company, the contents are broad and relate to Hollywood and international film production, technological and scientific breakthroughs, corporate history and to popular culture at large. This project will provide contextualization and remote viewing access to a curated selection of materials from these collections for researchers, scholars, and historians of film history worldwide.

Outstanding historic material in this collection that will be cataloged, scanned, and digitized includes 35mm rare nitrate Technicolor reference frames; the original Technicolor notebooks compiled by research chemists Herbert T. Kalmus, Daniel F. Comstock, and W. Burton Wescott, creators of the Technicolor process; the Natalie Kalmus papers from the Herrick Library; and the F. Daniel Comstock papers, from the Smithsonian Institution. The motion picture industry, film preservationists, archivists, researchers and students of film history around the world recognize the importance and impact of Technicolor, the beautiful and durable color process that for over 40 years dominated all others in the medium of motion pictures. During that historic reign Technicolor processed thousands of 35mm prints in Hollywood for legendary films that continue to be enjoyed and analyzed to this day, such as *Becky Sharp* (1935), *Snow White and the Seven Dwarfs* (1937), *Gone with the Wind* (1939), *Fantasia* (1940), *Black Narcissus* (1947), *Singin' in the Rain* (1952), *El Cid* (1961), *Deliverance* (1972) and *The Godfather Part II* (1974). We believe that the interpretation of this collection will reside in use by both the general public and scholarly studies in many humanities-related disciplines ranging from the fine arts, film studies, history, economics, business management, gender and ethnic studies, and photography.

The emergence of Technicolor as the industry standard was preceded by three decades of experimentation and development. Color itself was not fully embraced by the industry until Technicolor's three-strip process was introduced in the 1930s. Independent producers such as Walt Disney and David O. Selznick recognized the full potential of the process, creating such color masterworks as *Gone with the Wind* (1939) and *Fantasia* (1940).¹ Although expensive to use cameras, operators and color consultants had to be hired from Technicolor for each production, studios welcomed the added value of color and the new levels of creativity it allowed. Technicolor's dye-transfer imbibition (IB) process was a novel method of dye application that proved to be stable and long-lasting in contrast to rival color processes. Technicolor was the first fully realized color process that could be finely manipulated across the entire color spectrum to achieve any desired effect. The vividly shimmering Emerald City and Dorothy's sparkling ruby red slippers in *The Wizard of Oz* (1939) are far removed from the de-saturated, weathered palette selected by John Huston for his 1956 production of *Moby Dick*. (See Appendix A.) A color consultancy department advised studios on effective color combinations, and it employed the theory of 'Color Consciousness' allowing directors and cinematographers to better control the psychological and dramatic implications of color in narrative filmmaking.

As Technicolor's impact grew, new facilities were built in London and Rome, and briefly in France. Jack

¹ For an in-depth study of the use of color in the 1930s see: Higgins, Scott, *Harnessing the Technicolor Rainbow: Color Design in the 1930s* (Austin: University of Texas Press, 2007).

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Cardiff and other notable British cinematographers gave a distinctly regional interpretation of the Technicolor aesthetic yielding a much more subdued and nuanced color palette,² while Luchino Visconti and Jean Renoir experimented in Italy and France respectively with more lavish color saturations. Technicolor continued to offer its superior dye-transfer printing process well into the 1970s, even after it retired its three-strip cameras. A new generation of filmmakers such as Francis Ford Coppola and George Lucas utilized the process to its maximum creative effect. Coppola's *The Godfather Part II* (1974) was among the last features to be printed using the imbibition technique in Hollywood, and Lucas's *Star Wars* was released in stunning IB prints in Britain upon its first release in 1977.

The *Technicolor Online Research Archive* will follow a series of major Technicolor-related projects being undertaken by Eastman House in 2015. The Museum will publish the book *The Dawn of Technicolor, 1915-1935* in January, host the exhibition *In Glorious Technicolor* between January and April, and hold the academic conference *Technicolor 100: The Art of Dye-Transfer Printing* in April. Additionally, the website *Technicolor 100* will be launched simultaneously to historicize and contextualize Technicolor for the general public. This "online exhibition" will present an interactive timeline documenting Technicolor's many milestones over its 100-year history, illustrated by a sample of artifacts drawn from Eastman House's Technicolor collections. This website will merge with the *Technicolor Online Research Archive* in 2017 to provide an accessible and engaging framework to access the newly digitized and cataloged content.

Eastman House is the most appropriate institution to initiate the *Technicolor Online Research Archive*. Eastman House opened to the public in 1949 and is recognized as the world's oldest museum dedicated to conserving the history of photography and film, its curators and conservators are acknowledged worldwide as experts in the history and preservation of all film related media. Housed on the estate of George Eastman, founder of Eastman Kodak Company, the museum cares for the world's leading collections of photographs, motion pictures and related technology. George Eastman is heralded as the father of modern photography and motion picture film. Our world-renowned collections include more than 400,000 photographs and negatives; 28,000 motion picture films and more than 4 million stills, as well as tens of thousands of publications and pieces of photographic technology. The museum's dedication to the preservation of film and moving images is demonstrated by our commitment to maintaining a collection of rare nitrate film housed at our Louis B. Mayer Conservation Center and through frequent screenings of nitrate film in our Dryden Theatre. Eastman House is one of only four sites in the U.S. that is certified to screen volatile nitrate film.

Acknowledged worldwide as a leading force in photographic preservation and conservation, Eastman House educates the top archivists and conservators from around the world. Since 1996, The L. Jeffrey Selznick School of Film Preservation has graduated over 180 students representing 21 different countries. The school now offers a M.A. degree through the University of Rochester. Selznick School alumni are employed in public and private audio-visual archives around the world. Similarly, the Photograph Preservation and Collections Management Program offers a M. A. degree granted by the University of Rochester. These advanced educational programs ensure that collections rooted in the humanities are preserved and accessible.

The Moving Image Department (MID) staff bring a range of talent and experience to this project which includes curatorial expertise, technical archival handling and identification for both film and paper artifacts, research expertise, documentation and organization, and the over-arching ability to organize and execute a project of this magnitude.

² The unique color aesthetic of British cinematographers is explored in: Street, Sarah, *Colour Films in Britain: The Negotiation of Innovation, 1900-1955* (London: Palgrave Macmillan, 2012).

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Technicolor History:

The Boston-based Technicolor Motion Picture Corporation was incorporated in November 1915 by three research scientists and MIT graduates: Herbert T. Kalmus, Daniel F. Comstock, and W. Burton Wescott. Founded to develop a successful motion picture full-spectrum color process, the company introduced different two-color processes (red & green), before perfecting the three-strip “Glorious Technicolor” process.³ After a disastrous initial attempt to launch its first process with *The Gulf Between* in 1917, the engineers returned to the drawing board and worked on systematic improvements. The result was the subtractive two-color process used in the all-color feature film *The Toll of the Sea* in 1922. This film enhanced Technicolor’s position in Hollywood and producers became interested in using the process for short inserts into black and white silent films. A color boom occurred in 1929 following Warner Bros’ all-talking, all-color *On with the Show!* but it quickly faded as the Depression began to be felt by the Hollywood studios.

Technicolor found its footing in the 1930s when it secured a contract with Walt Disney to produce his animated shorts in full-color. This collaboration proved to be a technical and financial success paving the way for Technicolor’s ascendancy as the premier color system in the world. Technicolor consistently adapted itself to an ever changing industry and helped pioneer new tools for filmmakers. For example, Technicolor met the challenge of the widescreen processes of the 1950s by introducing its high-resolution Technirama system. In the 1960s and 1970s, after the retirement of the company’s founder Herbert Kalmus near the end of dye- transfer printing, Technicolor diversified its products and services, rebranded itself and began to offer consumer products, such as 8mm cameras and projectors for the amateur market. Its loop cartridge projection system was used in educational, medical and corporate training as it was compact and easy to use. Technicolor continued to offer its traditional laboratory services for the motion picture industry, adapting its facilities to operate with the widespread Eastmancolor process. Innovations continued to be introduced and in the early 1980s the Italian Technicolor lab pioneered a silver retention process (ENR), used for the first time in Warren Beatty’s *Reds* (1981), and later in Steven Spielberg’s *Saving Private Ryan* (1998). Working with the Oscar®-winning cinematographer Vittorio Storaro, research technicians at the Technicolor laboratory in Rome created alternative chemical treatments which gave an altogether new look to color printing. This process added realism and grittiness through de-saturation and increased contrast. This became a pre-eminent color choice for many cinematographers and was offered by Technicolor’s Hollywood and London laboratories through the 1990s and beyond.

A revival of the dye-transfer process in the late 1990s was spearheaded by Dr. Richard Goldberg, a leading chemist at Technicolor (1953-1964). Offered as a premium service, limited runs of new releases and restorations were distributed to US theaters. *The Wizard of Oz*, *Rear Window* (1954) and *Giant* (1956) were seen again in their original glory, and select new movies, such as Warren Beatty’s *Bulworth* (1998) and Terrence Malick’s *The Thin Red Line* (1998), benefitted from improved colors, definition and vibrancy on screen. Today the company continues into the digital age, offering digital cinema and restoration services.

Technicolor Online Research Archive:

Technicolor’s impact on the development of motion picture art was immense; it expanded the creative options available to filmmakers, directly influencing audiences and popular culture of the 20th Century. Its innovative technology and business model informed numerous fields and advancements to come. The

³ For a thorough technical overview of all Technicolor’s printing processes see: Haines, Richard W., *Technicolor Movies: The History of Dye Transfer Printing* (Jefferson, NC: McFarland & Company, 1993).

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Technicolor Online Research Archive will provide a carefully selected and curated resource for the study of Technicolor and its wide-reaching effects on arts and culture, technology and business.

This unique research tool will consist of digital images of documents, photographs, and technology dating from 1915 to 1955 selected from the Technicolor collections at Eastman House, the Margaret Herrick Library, and the Smithsonian Institution. These unprecedented collections encompass business, financial and technical documentation, interviews, production files, photographs and film frames from the 1910s to 2000, as well as motion picture filming, processing and printing equipment used to accomplish the company's signature dye-transfer printing process. (See Appendix B.)

Eastman House cares for the following sub-collections, collectively grouped as the Technicolor Research Archive: *Technicolor News & Views*, 1939-1955 donated by Kodak c. 1960; *Three-strip Technicolor camera*, donated by Technicolor, Inc., 1965; *Technicolor Notebooks collection*, donated by Kodak, 1980; *John M. Andreas collection*, donated by the Andreas family, 2005; *Richard J. Goldberg collection* donated by Goldberg, 2009; *Technicolor Corporate Archive* donated by Technicolor, 2009; *Edward T. Estabrook collection*, donated by the Estabrook family, 2013; *Leonard Troland & John F. Kienninger Notebooks*, purchased 2013; *Bill Gleason interviews with Technicolor personnel* donated by Karl Thiede, 2014; *Technicolor reference frames* – acquired from multiple sources.

Linda Mehr, Director of The Margaret Herrick Library in Beverly Hills, and Shannon Perich, Associate Curator for the Smithsonian National Museum of American History in Washington, D.C., will allow access to their significant Technicolor-related collections for the purpose of digitization and online publication.⁴ (See Appendix C.) These collections include: *Technicolor collection* (donated to the Herrick by Technicolor, Tom Tarr, Maria Tarr-on behalf of the Tom Tarr estate), and Clara Nielsen, 1977-1989; *Natalie Kalmus papers* (donated to the Herrick by Ronald Haver in 1992); *Technicolor cameras* (donated to the Smithsonian by Technicolor, Inc, 1965); *Daniel F. Comstock papers* (donated to the Smithsonian by Comstock, 1965).

Nature and Content:

The *Technicolor Online Research Archive* will draw from approximately 280 linear feet of:

Corporate documents: These 180 boxes contain approximately 300,000 paper documents (1916 to 2000). Included are internal and external correspondence, technical specifications, film script continuities, promotional literature, legal files, financial records, index cards, research files, scrapbooks, production files and reports. The bulk of these documents date from the 1930s to the 1970s. Of note are the production files for the Great Events series of 12 silent shorts (1927-1929) and the feature *The Viking* (1928), the only films Technicolor produced themselves; the 12 boxes of *Historical Technicolor Records*; the expansive research files of Head of Research John M. Andreas; and the *Richard J. Goldberg collection*, documenting the 1990s revival of the Technicolor dye-transfer printing process.

Notebooks: The earliest documents in the collection are the *Technicolor Notebooks*, dating from 1914 (pre-dating the incorporation of Technicolor) to 1948. Reports from Daniel F. Comstock, J. A. Ball, E. J. Wall, Leonard T. Troland, J. M. Andrews and John F. Kienninger document the design and construction of two-color and three-color cameras in the 1920s and 1930s, and the development of cemented prints, and later dye-transfer prints. These were the fundamental tools that enabled each stage of Technicolor's progress as its business, facilities and ambitions expanded. The 41 notebooks and diaries chart the

⁴ The Margaret Herrick Library will ship its collections to George Eastman House for digitization. The Smithsonian Institution will provide digital copies of its collection artifacts.

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previously “undocumented” early years of the company in immense detail and also include revealing information about Technicolor’s clients and commercial rivals at the time.

Technical diagrams: It is estimated that there are over 35,000 oversize technical diagrams and blueprints specifying every element of photographic, processing and printing equipment from 1929-1994. These vary in size, with the largest at A1 in size (33.1” x 23.4”). They contain designs for equipment used at the Boston, Hollywood and London laboratories.

Film frames: Technicolor clipped approximately 8,000 color reference frames from 35mm projection prints representing a significant portion of productions photographed using its processes. These range from frames of *The Gulf Between* (1917), the first feature made in Technicolor and now a lost film, to *The Greatest Story Ever Told* (1965). Additionally, thousands of printing tests document the continued refinement of the Technicolor process as new dyes, chemicals, and techniques were trialed. This unparalleled collection of frames enables the thorough study of Technicolor and Hollywood’s changing aesthetics over a 50-year period.

Photographs: Over 2,000 photographs, negatives, and slides document the full history of Technicolor visually. The earliest of these date from 1916 and include photographs of the company’s first railroad car laboratory which traveled to Jacksonville, Florida to film *The Gulf Between* along with several behind-the-scenes stills from the production itself. Later photographs and negatives from the 1920s-1950s chart the increasing use of Technicolor in the American film industry, including many images from the production of well-known films. Other shots display the expansion of the company’s laboratory facilities in Hollywood, London and Rome from the late 1930s into the 1970s, and there are some photographs from the 1990s related to the re-introduction of the dye-transfer process under Dr. Goldberg.

Interviews: 30 unpublished interview transcripts with former Technicolor and studio personnel conducted by film historian Bill Gleason in the 1970s. Interviewees include: A. Arnold Gillespie (Head of MGM’s special effects department), William Fritsche and Henry Imus (Technicolor color consultants), Edward Estabrook (Head of Technicolor’s Camera Department), Frank Blount (camera assistant on *The Gulf Between*), Henry Fonda (Hollywood actor), Ray Rennahan (Academy Award winning Technicolor cameraman) and Steffi Duna (star of *La Cucaracha*, 1934, and *Dancing Pirate*, 1936).

Equipment: The equipment at Eastman House and the Smithsonian includes numerous cameras and production accessories, processing and laboratory equipment, and artifacts related to Technicolor’s complicated dye-transfer printing process. It encompasses over 200 items. The first and only two-color additive camera (1916-1917) is present, as are 3 two-color subtractive cameras and prisms (1921-1935), three-strip animation (1932-1955) and live action (1933-1955) cameras, and a rare Technirama large-format widescreen camera (1957-1967). Unique dye-transfer equipment includes pinbelts, pinbelt spinning machines, a roll tank, and many other smaller accessories. Access to this equipment allows a clear understanding of Technicolor’s proprietary technology and how it defined its unique “look.”

Dyes: Samples collected by the Research Dept., 1929 -1975. Included are approximately 3,500 bottles of concentrated dye powders the company used in tests during active research and improvements to its dye-transfer process. Each dye is documented on index cards and many have corresponding film samples in the frames collection; they document adaptation of printing process to meet client needs.

A Unique Research Tool: *Technicolor Online Research Archive*

The *Technicolor Online Research Archive* will bring together physically disparate collections to create a comprehensive resource strengthened by the variety and diversity of separate collections. The collections at Eastman House, the Margaret Herrick Library, and the Smithsonian Institution chart almost the entire

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history of Technicolor through corporate, production, and technical documentation and artifacts. Taken together, these collections provide a historic overview of the company's internal working practices, its external relationships with clients, organizational structure and corporate consciousness, worldwide marketing and business practices, and as such offer a rare opportunity to explore the inner workings of the film industry. The digitization of these collections will create an online repository for researchers, academics and historians to explore Technicolor's rich history in one place. These collections are largely untapped and will provide heretofore unseen information to better understand Technicolor's innovations and impact.

The *Technicolor Online Research Archive* will contain a significant selection of research, business and production files of the Technicolor Motion Picture Corp. As a whole it encompasses the complete history of the company, from before its incorporation to the present day. Only a small portion of this private and proprietary corporate information has been accessible to researchers. The study and use of color in motion pictures and photography has become an area of particular interest in academic and commercial circles. Over the last decade, numerous publications and conferences on color film have been completed and further studies are underway.⁵ However, none have drawn upon the full potential of the Technicolor collections represented in this project.

It is reasonable to suggest that greater research and understanding in the fields of film history, theory, technology, and science have been impeded due to the lack of awareness and accessibility to these collections. Because of these limitations, previous studies have largely focused on the aesthetic analysis of Technicolor films. The context provided by Technicolor's business records offers a comprehensive insight into the corporate decision making process that profoundly affected the artistic development of Technicolor in the motion picture industry. For example, internal memoranda and research notebooks in the Technicolor collections give daily accounts of the meticulous testing made to improve and simplify the Technicolor process to make it commercially viable, and unpublished interviews with Technicolor personnel provide candid first-person accounts of Technicolor's relationships with the Hollywood studios.

Through organization, cataloging and digitization the *Technicolor Online Research Archive* will open up greater parts of the collections previously undocumented and inaccessible to the public. Selective digitization will facilitate remote access to curated parts of the collections anywhere in the world, minimizing future handling and risk of damage. More researchers will gain access to the collections, unburdened by the financial restrictions of travel, lodging and duplication. High resolution scans will preserve the content and aesthetic of the original and will allow lower resolution access copies for online hosting.

Significantly, the archives of major competitors and associates of Technicolor are not known to exist. Bell & Howell, the Mitchell Camera Co., and Ansco never donated historic corporate archives to academic or collecting institutions. Documentation of some of Technicolor's earliest rivals in the color motion picture field, such as Prizma, Multicolor and Cinecolor, have presumably been destroyed or dispersed as the companies were dissolved, bought and sold. As a result of this loss and the secretive nature of corporate business practices, very little is known about these competitors.

⁵ Within the past five years several notable conferences and workshops have been dedicated to the topic of motion picture color, including: "Colour and the Moving Image: History, Theory, Aesthetics, Archive" (University of Bristol, 2009), "Chroma: Workshop on Colour Image Between Motion Pictures and Media" (University of Florence, 2013), "Toute la mémoire du monde" (Cinémathèque française, Paris, 2013), "The Silver Screen: Theories and Histories of Cinematic Color" (University of Chicago, 2014), and "The Colour Fantastic: Chromatic Worlds of Silent Cinema" (EYE Film Institute, Amsterdam, 2015).

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Comparable collections, such as the Kodak Advertising Collection at the University of Rochester and the George Eastman Legacy Collection at Eastman House, are similar in scope and scale, but neither is yet available for online study. Similarly, the Special Collections Dept. of the British Film Institute (London, UK) cares for the Bernard L. Happé research collection. Happé was a research scientist at the British Technicolor plant in London from 1936 to the 1970s, but his extensive papers are limited exclusively to the work being undertaken in Britain at the time.

The *Technicolor Online Research Archive* will provide the opportunity to investigate in-depth Technicolor's superior and enduring motion picture color process, as well as contextualize the company's position within the film industry through its interaction with clients and competitors. Many highly regarded works of US and international cinema have benefitted from Technicolor's advancements and services. *The Wizard of Oz*, perhaps one of the most widely known and beloved examples of the art of Technicolor in cinematic storytelling, has been recognized by UNESCO in its *Memory of the World* initiative.

Research Requests and Inquiries

The participating institutions have done their best to satisfy all research requests for access to their respective collections. Academics and historians from such diverse institutions as the Cinémathèque française, the University of Bristol, Southern Methodist University, Stockholm University, School of Arts – University College Ghent and Rutgers University have utilized parts of the collections for publications, lectures and ongoing study. Texts derived from this research include:

- Belton, John, *From Paintbrush to Paintbox: A History of Motion Picture Color* (forthcoming book); traces the evolution of color in motion pictures, exploring its initial exploitation as spectacle and its subsequent identification with realism
- Higgins, Scott, *Harnessing the Technicolor Rainbow: Color Design in the 1930s* (Austin: University of Texas Press, 2007); a study of Technicolor's changing color aesthetics after the launch of the three-strip process
- Layton, James & Pierce, David, *The Dawn of Technicolor, 1915-1935* (forthcoming book); explores Technicolor's corporate and technological evolution in the company's first 20 years
- Ruivo, Céline, *Le Technicolor trichrome: histoire d'un procédé et enjeux de sa restauration* (forthcoming PhD thesis); explores the technical development of the Technicolor three-strip process
- Siraganian, Lisa, *A Cultural History of Corporate Persons: Commercial Aesthetics and Modernist Form* (forthcoming book); one chapter details the business accomplishments of Technicolor founder and President Herbert Kalmus
- Street, Sarah, *Colour Films in Britain: The Negotiation of Innovation, 1900-1955* (London: Palgrave Macmillan, 2012); provides an analysis of Technicolor Ltd. and the work of Natalie Kalmus in Britain
- Thompson, Kirsten Moana, *Color and Classical American Animation* (forthcoming book); a study of color's effect on animation, with special focus on the output of Walt Disney, Max Fleischer and Leon Schlesinger

Since the donation of the Technicolor Corporate Archive in 2009, George Eastman House has seen a marked increase in the number of inquiries about Technicolor and other motion picture color processes. This interest is anticipated to increase significantly with Technicolor's centenary in 2015 and beyond.

Potential Research Areas

The *Technicolor Online Research Archive* will provide comprehensive documentation on the first 40 years of Technicolor. These collections provide the opportunity for utilization in multiple disciplines across academic scholarship, film history, education, public programming, and general interest. A wide

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variety of research topics will benefit from this increased access:

- Film and photographic history and theory; the development of motion picture color
- Comparative study of color as applied in film, painting, photography, and theatre.
- The art and science of cinematography and color photography
- Film conservation, preservation and restoration
- Color as a cultural signifier of class, gender and sexuality.
- Technicolor's international standing and corporate presence in the film industry.
- Corporate and business history; Technicolor's relationships with film manufacturing companies and motion picture studios.
- The life and work of Herbert T. Kalmus, founder and President of Technicolor
- Local and family history, including personnel of Technicolor and its affiliations
- 20th Century American popular culture and industry; star culture, Hollywood history and Technicolor's impact on animation
- The use of color in ethnographic studies to represent diverse multi-cultural communities.
- Industrial and sponsored films; advertising history

II. HISTORY, SCOPE, AND DURATION

History of the Project

Eastman House has been the repository of choice for Technicolor related materials donated by Technicolor, Eastman Kodak Company and the families of Technicolor employees. The donation of the vast John M. Andreas Collection in early 2005 was the catalyst for the Museum to seek funding for the establishment of a research center for the study of motion picture color. The Museum has created separate vault and work spaces dedicated to conserving these collections and is now in a position to realize this goal digitally through this project. (See Appendix D).

Physical processing of the Technicolor collections at Eastman House has been ongoing. As a preliminary basic inventories and archival assessments of the materials have been created. Information derived from this initial work serves as the foundation to structure the work plan for this project. In 2013, George Eastman House approached the Margaret Herrick Library and the Smithsonian Institution to collaborate on the *Technicolor Online Research Archive*. Both institutions have offered access to their Technicolor collections and support throughout the duration of this project.

Financial Support

In 2009, the Packard Humanities Institute (PHI) provided a gift of \$1.5 million in conjunction with the donation of the Technicolor Corporate Archive and the Richard J. Goldberg Collection. This funded:

- Temporary storage of the collection in Los Angeles prior to shipment to Rochester
- A temporary archivist (six months) to prepare a shipping inventory of the materials
- Oral interviews conducted by the archivist with Dr. Richard Goldberg
- All shipping costs associated with the acquisition
- The creation and equipping of the Gleason Conservation Ctr. to house the two collections

Current Research Facilities

The Museum currently offers opportunities to researchers to examine Technicolor documents and artifacts in the Museum's Gleason Conservation Center under staff supervision. Office space with multiple work tables is available for researchers to review the Technicolor documents. Research is necessarily restricted as it depends on staff availability to oversee visitors.

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Scope of the Project

The *Technicolor Online Research Archive* is designed to be the foundation of a long term effort to improve and broaden access to the Technicolor collections. The 31-month project will focus on the earliest years of the company, from its beginnings in 1915 to the end of its three-strip photography in 1955. This 40-year period encompasses Technicolor's accomplishments in developing and implementing its celebrated color processes.

The content of the *Technicolor Online Research Archive* will be drawn from 14 distinct collections held at three US collecting institutions. The project will prioritize the selective cataloging and digitization of documentation, photographs and three-dimensional artifacts from across all three institutions. The Sr. Curator of the MID at Eastman House will make these selections in consultation with the project Advisory Board to strengthen the project's appeal and relevance to researchers and the general public.

Duration and Outcomes

This project will take place from May 1, 2015 to November 30, 2017. Its main objective is to re-house, catalog and digitize selections from the collections. Approximately 20,000 digital images will be created and cataloged per year by a team of two Project Archivists. In excess of 40,000 digital images will be created over the length of the project and will be made available for online access. (See Appendix E.) The *Technicolor Online Research Archive* will be launched in November 2017. The site will form part of Eastman House's online collection catalog but will retain a distinct identity and URL.

Digitized content will continually be added to the site after its launch; Eastman House staff, students, and interns will add to the resource as more of the collections are processed. Additional phases are also planned to continue the digitization of the Museum's Technicolor collections after 2017, and to partner with other institutions that have related collections.⁶

III. METHODOLOGY AND STANDARDS

Methodology

Eastman House is a recognized leader in the fields of photograph, paper, motion picture and film technology conservation and preservation. The Museum's Conservation Dept. has trained hundreds of professional conservators and the practices it employs have become standards within the archival field. Likewise, The L. Jeffrey Selznick School of Film Preservation in the MID is a leader in similar training methods for moving images; the staff members directing the project are graduates of the school and now educate future archivists. Best practices and standards will be employed for the care and handling of all materials to be digitized.

The conservation and preservation of the paper artifacts and the three-dimensional objects of the Technicolor collection are conducted according to the policies and practices approved by the Museum's Conservators. Nancy Kauffman, Archivist in the MID Stills, Posters and Paper Collection and James Layton, Assistant Archivist, are tasked with ensuring that proper Museum procedures are followed at all times.

This project work will occur the Museum's Gleason Conservation Ctr. which has been specifically designed and retro-fitted to conserve, archive and digitize the Technicolor collections and is maintained at 55°F and 50% relative humidity. Processing of the collections will be conducted in a workroom that

⁶ For example, the National Archives and Records Administration (NARA) hold files related to the 1947 anti-trust case brought about by the United States government against Technicolor and Eastman Kodak. Additionally the personal papers of Technicolor's first president Herbert T. Kalmus are at the Library of Congress.

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allows for selection, organization and cataloging of collection artifacts. An adjacent dedicated clean room will be used for all scanning and digital image creation. This scanning area will be fitted with flatbed scanners and a copy stand and will continue to be used to digitize the collections following the completion of the project. Finally, all data and metadata generated from the digitization process will be entered on site into the Museum's TMS cataloging system using dedicated computers for this project.

The Museum has exemplary experience in large digitization projects. One example is the Davide Turconi Collection of nearly 24,000 frame clippings from deteriorating nitrate films, dating from 1897 to 1915. The frame clippings were re-housed, scanned, and cataloged by staff and students at the Museum over the course of ten years. A customized database was created for collaborative sharing and compiling of information as the collection was processed. The collection, including all the scanned images, is available online at <http://www.cinetecadelfriuli.org/progettoturconi/> and is searchable by filmographic information (title, director, country, year), as well as by physical characteristics of the film frames (the presence of tinting, toning, hand coloring, and decomposition).

Archival Conservation, Condition and Re-housing

The Technicolor collections were donated by a number of different sources and as such were stored under different conditions. It is unlikely any of these storage locations were environmentally controlled for long-term preservation. Some of the oldest materials were donated to Eastman House and the Margaret Herrick Library in the 1970s and 1980s and have been preserved under archival conditions since. A complete description of these materials, their source, and state of processing is included in Appendix D.

Cataloging

Eastman House utilizes The Museum System (TMS) museum-wide to catalog collection materials from Photographs, Motion Pictures, Technology, Library, the Eastman Historical Collection and Landscape departments. With such diversity, the Museum has broken new ground in developing a system that accommodates all of its descriptive needs for the wide range of artifacts conserved at the institution. The need to adapt has been recognized by other specialized institutions, most notably the British Film Institute, which conserves artifacts comparable to those in the MID at Eastman House. The BFI created a custom designed cataloging system that supports its diverse collections and enables effective online access (<http://collections-search.bfi.org.uk/web>). By the beginning of the proposed grant period the Museum will have upgraded to the most current version of TMS which will enable staff to augment the database with cross-referenced manuscript collection records, facilitating a broader, deeper and more accurate view of the collections as a whole. (See Appendix F.)

The diverse and specialized materials being cataloged on this project will utilize the following software and controlled vocabulary:

- *Software*
 - TMS (The Museum System)— collections management and database software
 - All new cataloging and indexing done as part of this project will be completed in TMS, which is the latest version of cataloging software from Gallery Systems. Digital access copies will also be stored here and backed-up routinely.
- *Controlled Vocabulary*
 - The Library of Congress's Subject Headings and Name Authorities will be used when appropriate.
 - Filmographic and film element cataloging will utilize Jon Gartenberg's *Glossary of Filmographic Terms* (International Federation of Film Archives, 1989) and standards developed by the *Moving Image Related Materials Committee* of the Association of

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Moving Image Archivists (AMIA).

- Additional controlled vocabulary will be developed; these terms will be determined before the project begins by the project staff, and will become fixed authorities.

Digitization

This project will follow digital capture standards developed by the National Archives and Records Administration (NARA) and the Library of Congress.

- *Digital Capture Standards*
 - Master scans and imaging will be created in TIFF lossless format at 600 ppi resolution, 24-bit color for digital preservation purposes. Scanning resolutions will be adapted as necessary for larger or smaller artifacts. For example, 35mm film frames will be scanned as 24-bit color TIFFs at 3200 ppi.
 - All documents, photographs and transparencies will be scanned alongside Kodak Gray Scale and Color Control Patches to maintain accurate tonal and color reproduction.
 - Smaller JPEG files will be batch produced as access files.
 - Archival materials smaller than 11" x 17" will be digitized on a flatbed scanner.
 - Larger or fragile documents will be duplicated on a digital copy stand. Three-dimensional artifacts will be digitally photographed by the Museum's Staff Photographer.
- *Hardware*
 - Two workstations with Epson 10000XL flatbed scanners will be set up in the dedicated clean room. Each will be connected to an HP Notebook 650 laptop attached to a calibrated Samsung S22A200B 23" LCD monitor to insure close inspection and reproduction of scanned artifacts.
 - One workstation will also connect to a Canon EOS 5D Mark II 21.1 MP digital camera with 24-105mm lens. The camera will be mounted on a Tarsia Technical Industries Repro-Graphic Workstation 3040 copy stand with 8 TTI Quartz Halogen DL-400 lights. This will be used for oversized documents.
 - Two laptops will provide flexibility for work that will be conducted both at the Gleason Conservation Center workroom and in the vault for additional collection cataloging and processing when necessary.
- *Software*
 - SilverFast 8 – scanning software <http://www.silverfast.com/>
 - Adobe Creative Suite Cloud (including Photoshop) – image management and editing <http://www.adobe.com/products/creativesuite.html>.
 - Digital images will be cropped and standardized using Adobe Photoshop.
 - Adobe Acrobat XI – OCR and PDF creation <http://www.adobe.com/products/acrobatpro.html>
 - Optical Character Recognition (OCR) software will be used to process scans of text documents enabling full-text keyword searching within and across digitized materials.
- *Web Development*
 - Drupal – website development <http://drupal.org/>
 - The *Technicolor Research Archive* will utilize and adapt the structure and design being developed for Eastman House's collections website (currently in progress). Drupal Content Management System (CMS) will be used to construct this site and create direct connections with collection information and content in TMS.

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Quality Control

Prior to the hiring of the Project Archivists the Project Team will collaboratively write procedures based on the standards outlined above in the Cataloging and Digitization sections (pages 13 and 14). The Project Director will train the Project Archivists in accordance with the written procedures. The Archivist for the Stills, Posters, and Paper Collection will supervise the re-housing of artifacts after scanning. The Head of Collection Information, Research, and Access will review entries in the TMS database to ensure accuracy. The Project Director will conduct weekly visual inspections of scanned images, with spot-check comparisons alongside original artifacts, and review all metadata and tags.

Digital Preservation

Eastman House is committed to maintaining its digital and analog assets for long-term access and preservation. Widely used image and document files such as TIFF, JPEG, and PDF will be used for digital content. The Technicolor Online Archive will be built using Drupal, a LAMP based content management system and MYSQL a back-end delivering dynamically responsive pages. All newly created digital preservation and access files will be stored on the museum's servers. We utilize a VMware cluster consisting of two redundant HP DL360p Gen8 servers and our Storage Area Network (SAN) which consists of multiple HP p2000 G3 iSCSI devices. In addition, we have backed up copies stored via a separate HP DL360p backup server and JetStor iSCSI storage device with archive to LTO6 tape. This system guarantees the long-term security and integrity of the museum's digital data and artifacts.

Copyright

Technicolor donated its historical company archive to George Eastman House with the express desire that its contents be made available through free internet access. While the company retains the intellectual property rights to its donated materials, it has endorsed Eastman House's creation of the *Technicolor Online Research Archive* so that the Museum may fulfill its educational mission by providing historic information through the broadest possible public access channels. (See Appendix G.)

IV. SUSTAINABILITY

The proposed project demonstrates Eastman House's mandate to provide access to its collections for educational endeavors, both for academic scholarship and for the more casual life-long learner. Central to the Museum's mission and vision is its desire to expand public knowledge of its collections and its commitment to preserving and conserving them within a devoted educational framework. The *Technicolor Online Research Archive* enables the Museum to meet its mission.

All digital files and metadata created during this project will be securely backed-up and migrated using the methods and hardware listed above. Online hosting of this content will be supported by the Museum and will continue indefinitely past the completion of this project. The original collection artifacts will be re-housed into archival appropriate enclosures as needed and will be stored under environmentally controlled conditions. These steps will ensure the long-term preservation of these artifacts and the resulting digital masters.

V. DISSEMINATION

The launch of the *Technicolor Online Research Archive* is designed to follow a series of activities inspired by Technicolor's centenary, and as such, it will receive an increased level of interest and promotion. Leading up to and following its launch, numerous avenues of dissemination will be pursued:

- The George Eastman House e-newsletter, blog, and social media sites will provide widespread exposure to Museum members and other local and international followers of the Museum.
- Press releases will be distributed via online forums and journals.
- Listservs of professional organizations will be targeted, such as those of the American Alliance of Museums (AAM), Association of Moving Image Archivists (AMIA), Society of American

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Archivists (SAA), Society of Cinema and Media Studies (SCMS) and many others.

- Presentations by project staff will be given at festivals and conferences, including the Association of Moving Image Archivists conference, the International Federation of Film Archives' Congress, the Society for Cinema and Media Studies conference, and the Pordenone Silent Film Festival.
- The website's launch will follow several other Technicolor initiatives by Eastman House beginning in 2015, including a new book *The Dawn of Technicolor*, dedicated to the formative years of the company; a major gallery exhibition, which will potentially tour; an international film series, with events in New York City, Berlin and Vienna; and an academic symposium in Rochester. All activities will be promoted heavily for maximum synergy.

VI. WORK PLAN

Year 1 (May 1, 2015 – April 30, 2016)

- Finalize selection of collection items to be re-housed, cataloged and scanned
- Complete remaining collections accessioning
- Create series level accession records in TMS cataloging software to prepare for the addition of component records at item level
- Determine cataloging standards and digitization workflow
- Approve internal authority terms and add to TMS
- Implement short digitization and cataloging trial
- Improve IT infrastructure and hardware at Gleason Conservation Center
- Upgrade network connections
- Purchase and install digitization equipment and computer workstations
- Hire and train Project Archivist (See Appendix H.)
- Ship Margaret Herrick Library collections to Rochester, New York
- Project Archivists re-house, scan and catalog Technicolor artifacts (See Workflow, p.14)
- Prioritize scanning and cataloging of the Margaret Herrick Library Technicolor collections
- Museum Photographer photographs 3-dimensional objects
- Quality control
 1. Monitor digital files and cataloging metadata throughout project
 2. Inspect and verify files and identify defects
 3. Ensure cataloging templates are being followed
- Reporting
 1. Document daily progress and ensure work is completed on target
 2. Complete regular progress reports for internal monitoring and external funding bodies

Year 1 Completion Goal: 20,000 artifacts scanned or photographed, cataloged

Year 2 (May 1, 2016 – April 30, 2017)

- Project archivists continue re-housing, scanning and cataloging artifacts (See Workflow)
- Quality control processes continue
- Interim reporting
- Website design and development
 1. Adapt existing Drupal modules from George Eastman House website
 2. Conceive user-interface design and web page relationships with outside contractor Dumbwaiter Design and the Museum's IT staff
 3. Develop templates for staff text additions
 4. Research and write new text for select web pages
 5. Create connection between TMS and Drupal; implement regular automatic data updates/imports

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Year 2 Completion Goal: 40,000 artifacts scanned or photographed, cataloged

Year 3 (May 1, 2017– November 30, 2017)

- Website soft launch for test users; public launch and associated promotion online and in print
- Presentation of project information and website promotion at Association of Moving Image Archivists conference
- Eastman House hosts *Google Art Talk* to promote site and encourage access

Workflow

All work will be supervised by the Project Director. Each Project Archivist will be responsible for the re-housing, digitization and cataloging of the selected collection artifacts in the order as described below. For every assigned collection or portion of a collection, the Archivist will follow each stage of processing from beginning to end. Re-housing process (as needed, for George Eastman House collections only) will include replacing folders and fasteners as needed, placing groups of loose items into archival folders, re-housing and relocating photographs, negatives, and slides. The digitization process will include creating digital preservation copies of artifacts in TIFF standard at 600 ppi (or higher for 35mm frames), 24-bit color on flatbed scanner, digital copy stand or by in-house photographer; image editing and correction using Adobe Photoshop software (cropping, rotation, brightness and contrast adjustments); batching and producing compressed access copies in JPEG standard; combining related files (such as multiple page documents or books) into PDF documents and applying OCR software for full-text searching where appropriate. Cataloging and metadata processing includes batch uploading JPEG and PDF access copies to TMS cataloging software daily; automatically creating template 'component' records under the relevant accession number; adding descriptive metadata and completing basic cataloging in TMS; tagging each record with the relevant keyword attributes selected from recognized external and internal authority lists

VII. STAFF

The *Technicolor Online Research Archive* project staff will be comprised of a core team of Moving Image Department (MID), Collection Management (CM) and IT staff. Individual roles and qualifications are addressed below; percentage of time devoted to the project follows each in parentheses. (See Appendix I).

1. Daniel Bish, Associate Registrar (CM): Mr. Bish will work directly with MID staff to assist with the acquisition, accessioning and cataloging of the MID Collections, he will review all data entered into the TMS database to ensure the accuracy of the data. (10%)
2. Marc Blumenfeld, Web, Development & Interactive Technology Manager (IT): Mr. Blumenfeld will structure and design the *Technicolor Online Research Archive* as part of the George Eastman House website. (1%)
3. Jared Case, Head of Information, Research and Access (MID): Mr. Case will be responsible for quality control of all project cataloging activities. He will collaborate with Mr. Layton and Ms. Kauffman to apply and create controlled vocabulary. Mr. Case has been head of cataloging for the Moving Image Department since 2003 and is actively participating in ongoing Museum discussions to prepare for a major upgrade in its TMS cataloging database. (15%)
4. Paolo Cherchi Usai, Senior Curator (MID): Dr. Cherchi Usai will provide curatorial leadership which will include research, identification, and selection of all materials to be included in the exhibition. He will be responsible for contextualization through descriptive text and wall labeling and will oversee the arrangement of objects for a descriptive exhibition. He has served as Senior Curator since 2011 and previously from 1994 through 2004. As a founding member of the

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International Federation of Film Archives (FIAF) and Co-Founder of the L. Jeffrey Selznick School of Film Preservation, he is recognized throughout the world as an authority in film preservation and exhibition. (15%)

5. Chris Puckey, Manager of System and Network Administration (IT): Mr. Puckey will be responsible for additions to the storage area network (SAN) and upgrades to the existing IT infrastructure at the Gleason Conservation Center. (10-15%)
6. Barbara Galasso, Head of Rights & Reproductions Department: Ms. Galasso is the Staff Photographer and oversees the Rights and Reproductions of photographic collection materials for public use. She will photograph all three dimensional objects in the Technicolor collection. (3%)
7. Nancy Kauffman, Archivist, Stills, Posters and Paper Collection (MID): Ms. Kauffman will assist with selection of the Project Archivists and will provide training to ensure that Museum protocols, practices and standards for the handling of all paper materials are followed. She will collaborate with Mr. Layton and Mr. Case to apply and create controlled vocabulary. Ms. Kauffman has been an Archivist at Eastman House since 2007. (10%)
8. James Layton, Assistant Archivist (MID): Mr. Layton will serve as the Project Director. Together with David Pierce, Mr. Layton has co-authored the book, *The Dawn of Technicolor*, which has a January 2015 publishing date. Mr. Layton will organize the workflow, oversee the Project Archivists, maintain quality control, and ensure that project goals are met. Mr. Layton will collaborate with Ms. Kauffman and Mr. Case to apply and create controlled vocabulary. (25%)
9. Caroline Yeager, Assistant Curator (MID): Ms. Yeager will coordinate, track and report all grant activities as required. She will assist with the hiring of the Project Archivists, oversee the purchasing of equipment and supplies, and maintain project records and reports. Ms. Yeager joined the Museum staff in 1998. (10%)
10. Project Archivists (2): The Project Archivists will work exclusively on this project. They will be trained in the standards and procedures of the MID in working with museum artifacts. They will carry out all re-housing, scanning and cataloging of the Technicolor collections. (100%)

Advisory Board:

The following individuals represent the broadest and strongest peer support board for the *Technicolor Online Research Archive*. They will assist by providing additional context to the artifacts included in the online archive and they will review and give feedback on the design and function of the website. (See Appendix G).

- Barry Allen - Film Preservation and Restoration Consultant; Retired Head of Preservation, Paramount Pictures
- John Belton - Professor of Film, Rutgers University
- Kevin Brownlow - Photoplay Productions, Ltd.; Independent Film Preservation and Restoration; Documentarian; Film Historian and Author
- Richard P. May - Administrator for Preservation Oversight, Film Technology Co., Inc.; Retired Vice-President for Preservation, Warner Bros.
- Shannon Perich - Associate Curator, Smithsonian National Museum of American History
- Frank Ricotta - Retired Eastman Kodak Company, Product Manager; former Senior VP, Worldwide Technical and Engineering Operations, Technicolor, Inc.
- Céline Ruivo - Curator of Film Collections, Cinémathèque française
- Ralph N. Sargeant III - President and Founder, Film Technology Co. Inc.
- Sherk, Warren - Manager, Special Collections, Academy of Motion Picture Arts and Sciences, Margaret Herrick Library
- Sarah Street - Professor, Department of Drama: Theatre, Film, Television, University of Bristol
- Joshua Yumibe - Director of Film Studies and Assistant Professor in English, Michigan State University

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4. History of Grants

George Eastman House has received the following grants to support the *Technicolor Online Research Archive*.

- 2009 - \$1.5 million dollars received from the Packard Humanities Institute (PHI)
- 2010 - \$16,000 received from the Packard Humanities Institute (PHI)
- 2012 - \$40,000 received from the Packard Humanities Institute (PHI)

George Eastman House Proposal: *Technicolor Online Research Archive*

5. List of Participants

- Allen, Barry (Film Preservation and Restoration Consultant; Retired Head of Preservation, Paramount Pictures) * *advisory board member*
- Belton, John (Professor of English, Rutgers University) * *advisory board member*
- Bish, Daniel, Associate Registrar, Collection Management, George Eastman House
- Blumenfeld, Marc (Web, Development & Interactive Technology Manager, George Eastman House)
- Brownlow, Kevin (Film historian) * *advisory board member*
- Case, Jared (Head of Collections Information and Access, Motion Picture Department, George Eastman House)
- Cherchi Usai, Paolo (Senior Curator, Motion Picture Department, George Eastman House) * *advisory board member*
- Kauffman, Nancy (Archivist, Motion Picture Department, George Eastman House)
- Layton, James (Assistant Archivist, Motion Picture Department, George Eastman House)
- May, Richard P. (Administrator for Preservation Oversight, Film Technology Co., Inc.; Retired Vice-President for Preservation, Warner Bros.) * *advisory board member*
- Mehr, Linda (Director, Margaret Herrick Library)
- Perich, Shannon (Associate Curator, National Museum of American History, Smithsonian Institution) * *advisory board member*
- Ruivo, Céline (Curator of Film, Cinemathèque française) * *advisory board member*
- Sargent, Ralph N., III (President and Founder, Film Technology Co. Inc.) * *advisory board member*
- Sherk, Warren, (Manager, Special Collections Academy of Motion Picture Arts and Sciences, Margaret Herrick Library) * *advisory board member*
- Street, Sarah (Professor of Film, University of Bristol) * *advisory board member*
- Yeager, Caroline (Assistant Curator, Motion Picture Department, George Eastman House)
- Yumibe, Joshua (Assistant Professor, Michigan State University) * *advisory board member*

**SALARY AND FRINGE BENEFITS INFORMATION
REDACTED PURSUANT TO FOIA EXEMPTION 6**



NATIONAL ENDOWMENT FOR THE

Humanities

Budget Form

OMB No 3136-0134

Expires 7/31/2015

Applicant Institution: *George Eastman House*

Project Director: *James Layton*

Project Grant Period: *05/01/2015- 11/30/2017*

[click for Budget Instructions](#)

	Computational Details/Notes	(notes)	Year 1	(notes)	Year 2	(notes)	Year 3	Project Total
			05/01/2015 - 04/30/2016		05/01/2016 - 04/30/2017		05/01/2017- 11/30/2017	
1. Salaries & Wages								
Assistant Curator		5%		5%		5%		
Archivist		10%		10%		10%		
Assistant Archivist		25%		25%		25%		
Cataloger		15%		15%		15%		
Assistant Registrar		10%		10%		10%		
IT Desktop Support		5%		2%		2%		
IT Systems Mgr.		15%		2%		2%		
IT Webmaster		0%		1%		1%		
Photographer		3%						
Project Archivists [2]		100%		100%		100%		
2. Fringe Benefits								
Assistant Curator	28% x							
Archivist	28% x							
Assistant Archivist	28% x							
Cataloger	28% x							
Assisant Registrar	28% x							
IT Desktop Support	28% x							
IT Systems Mgr.	28% x							
IT Webmaster	28% x							
Photographer	28% x							
Project Archivists [2]	28% x							

3. Consultant Fees								
Web Development Services	Est. \$50/hr., 40 hrs./mo., 12 mos				\$4,000		\$20,000	\$24,000
Web Design Services	Dumbwaiter Design, est. \$20,500						\$20,500	\$20,500
4. Travel								
Assistant Archivist	2-day trip to NEH (Rochester to D.C. Air: \$700; per diem \$135 x 2 days)			\$970				\$970
5. Supplies & Materials								
Computers - 3 HP Probook 450 G1 laptops	3 @ \$550 ea.			\$1,650				\$1,650
Computer Software - MS Office, 3 licenses	3 @ \$200 ea.			\$600				
Adobe Photoshop CS6	3 @ \$440 ea.			\$1,320				\$1,300
Silverfast Scanner Software	2 @ \$450 ea.			\$900				
Epson 11000XL scanner	2 @ \$2,130			\$4,260				\$4,260
Optical Character Recognition (OCR) Software	2 @ \$375 ea.			\$750				
Adobe Photoshop CS6	3 @ \$440 ea.			\$1,320				\$1,320
TB Storage on GEH SAN	1 TB @ \$1,000			\$1,000		\$1,000	\$1,000	\$3,000
Internet connection	Mthly. Service fee, \$222/mo., 31 mos.,			\$2,664		\$2,664	\$1,554	\$6,882
Archival boxes	50 @ \$6.00			\$300				\$300
Archival folders (letter)	20 pks of 100 @ \$39.00			\$780				\$780
Archival folders (legal)	5 pks of 100 @ \$56.00			\$280				\$280
Archival folders (map size)	36 pks of 10 @ \$80.00			\$2,900				\$2,900
Map cases (36" x 48")	30 @ \$800			\$24,000				\$24,000

6. Services								
7. Other Costs								
TTI- Graphic Copy stand & LED lighting	1 @ \$25,000		\$25,000					\$25,000
8. Total Direct Costs	Per Year		\$130,194		\$122,164		\$119,246	\$371,604
9. Total Indirect Costs								
26%	Per Year		\$33,837		\$31,750		\$30,992	\$96,580
10. Total Project Costs	(Direct and Indirect costs for entire project)							\$468,184
11. Project Funding	a. Requested from NEH <div> Outright: \$25,000 Federal Matching Funds: \$209,092 TOTAL REQUESTED FROM NEH: \$234,092 </div> b. Cost Sharing <div> Applicant's Contributions: \$25,000 Third-Party Contributions: \$209,092 Project Income: \$0 Other Federal Agencies: TOTAL COST SHARING: \$234,092 </div>							
12. Total Project Funding								\$468,184

Total Project Costs must be equal to Total Project Funding ----> (\$468,184 = \$468,184 ?)
Third-Party Contributions must be
greater than or equal to Requested Federal Matching Funds ----> (\$209,092 ≥ \$209,092 ?)

George Eastman House Proposal: Technicolor Online Research Archive

Budget Narrative

A grant of \$ 234,092 is requested from the National Endowment for the Humanities for the entire 31-month project and includes outright funding of \$25,000. This funding is critical to the creation of the *Technicolor Online Archive*. Grant funds will support the following:

Key Personnel: Support is requested for two full-time project archivists (100% FTE), designated solely to the project. Associated fringe benefits are calculated at the rate of 28%. A 3% cost of living adjustment (COLA) is added each year. Salary and benefits, \$(b) (6)

Consultant Services: Support is requested for consultant services related to website development. A website development consultant will work with the project team to ensure the development of a robust and well-adapted structure for the website. It is estimated that web development services will be required for approximately 40 hrs./mo., 12 month, \$50/hour est., \$24,000.

Consultant Services: Support is also requested for website design services to provide an appealing site that assures ease of use, search and functionality. It is projected that a company such as Dumbwaiter Design may be used, and based on past experience with this vendor an estimated fee of \$20,500 has been budgeted.

Supplies, Equipment and Materials: Grant funding of \$71,672 is requested to support the purchase of required supplies, equipment, and materials necessary for project activities. These items are:

- **3 HP Laptop Computers** – Dedicated for use by the 2 Project Archivists; equipped with TMS, Adobe Photoshop CS6, Word 8. Computer mobility required to move through different sites within the archive.
- **2 Epson 10000XL scanners** – Two dedicated scanning stations for digitizing paper artifacts to maximize archivist's time. Based on several time tests, we have estimated that 20,000 objects will be scanned, cataloged for inclusion into the online archive.
- **Adobe Photoshop CS6** –The most up-to-date version of Photoshop is essential in the digitization process. Images will be cropped, re-sized, graded and adjusted for color.
- **TTI- Graphic Copy stand & LED lighting** – dedicated for use in photographing oversized documents such as blueprints. This copy stand is the largest available and is equipped with cost saving LED lights and will be customized for this project.
- **Canon EOS 5D Mark II & Macro lens** – dedicated camera for use with TTI Graphic Copy stand to photograph oversize paper objects.
- **TB Storage on George Eastman House SAN** – Cabling, infrastructure; network switch Hardware
- **Archival boxes, archival folders (letters, legal, and map sizes)** – required for the rehousing of letters, memos, oversized and smaller paper based artifacts.
- **Map cases (36" x 48")** – archival map cases are required to re-house all of the original Technicolor blueprints and designs.
- **Internet Connection Service** – Provided by Time Warner Cable, a 35MB/5MB connection is required for the Gleason Conservation Center to allow appropriate network speed for both upload and download to enable both archive work and web site/building work. The monthly rate is \$222/month, for 31 months, \$6,882.

George Eastman House Proposal: Technicolor Online Research Archive

Indirect Costs

George Eastman House has a negotiated Indirect Cost rate of 25.99% with the U.S. Department of the Interior, Interior Business Center for all locations and all programs. A copy of this agreement follows. This rate is effective for the period January 1, 2013 through December 31, 2015. The Indirect Cost Rate as applied in the attached budget automatically calculates at 26%. Indirect costs requested for the entire 31-month project total \$96,580.

Cost Share

The *Technicolor Online Archive* will be supported by cost sharing that totals \$234,092 as follows:

The Packard Humanities Institute (PHI) - PHI provided a major grant to George Eastman House in 2009 along with the donation of the Technicolor Corporate Archive and the Richard J. Goldberg Collection. PHI funds of \$209,092 will be used to support:

- Space rental to house the Technicolor Collection, 31 months, 50% of aggregate rent, \$105,900.
- Archivist salary, 10% FTE salary and fringe benefits, 31 months, \$ (b) (6)
- Assistant Archivist/Project Director, 25% salary and fringe benefits, 3 years, \$ (b) (6)

George Eastman House - will provide in-kind staff support toward this project totaling \$25,000. Support includes a portion of the annual salaries for designated key staff whose efforts are integral to the successful implementation of this project. Staff from the Motion Picture Department, Collections Management, IT Department, and Photo Reproductions Department is included in this project. The associated prorated portion of fringe benefits for designated staff is calculated at 28%.

George Eastman House IT staff will design and build the *Technicolor Online Research Archive* and will provide maintenance over the course of the project and beyond.

The Cecile B. DeMille Foundation – A cash donation toward this project has been provided in the amount of \$12,000 to be used toward the purchase of required equipment to conduct project activities.

The Development Department will raise the remaining \$54,592 to support the project completion.

**Nonprofit Organization
Indirect Cost Negotiation Agreement**

EIN: 16-0743991

Organization:

George Eastman House
900 East Avenue
Rochester, New York 14607-2298

Date: May 6, 2013

Report No(s) .: 13-A-0747(13)
13-A-0748(14)
13-A-0749(15)

Filing Ref.:

Last Negotiation Agreement
dated September 13, 2010

The indirect cost rate(s) contained herein are for use on grants, contracts, and other agreements with the Federal Government to which 2 CFR 230 (OMB Circular A-122) apply, subject to the limitations contained in Section II.A. of this agreement. The rate(s) are negotiated by the U.S. Department of the Interior, Interior Business Center, and the subject organization in accordance with the authority contained in 2 CFR 230.

Section I: Rate(s)

Type	Effective Period		Rate*	Locations	Applicable To
	From	To			
Predetermined	01/01/13	12/31/13	25.99%	All	All Programs
Predetermined	01/01/14	12/31/14	25.99%	All	All Programs
Predetermined	01/01/15	12/31/15	25.99%	All	All Programs

***Base:** Total direct costs, less capital expenditures and the portion of subgrants or subcontracts in excess of the first \$25,000.

Treatment of fringe benefits: Fringe benefits applicable to direct salaries and wages are treated as direct costs; fringe benefits applicable to indirect salaries and wages are treated as indirect costs.

Treatment of paid absences: Vacation, holiday, sick leave, and other paid absences are included in salaries and wages and are claimed on grants, contracts, and other agreements as part of the normal cost for the salaries and wages. Separate claims for the costs of these paid absences are not made.

Section II: General

Page 1 of 3

A. Limitations: Use of the rate(s) contained in this agreement is subject to any applicable statutory limitations. Acceptance of the rate(s) agreed to herein is predicated upon these conditions: (1) no costs other than those incurred by the subject organization were included in its indirect cost rate proposal, (2) all such costs are the legal obligations of the grantee/contractor, (3) similar types of costs have been accorded consistent treatment, and (4) the same costs that have been treated as indirect costs have not been claimed as direct costs (for example, supplies can be charged directly to a program or activity as long as these costs are not part of the supply costs included in the indirect cost pool for central administration).

B. Audit: All costs (direct and indirect, federal and non-federal) are subject to audit. Adjustments to amounts resulting from audit of the cost allocation plan or indirect cost rate proposal upon which the negotiation of this agreement was based will be compensated for in a subsequent negotiation.

C. Changes: The rate(s) contained in this agreement are based on the organizational structure and the accounting system in effect at the time the proposal was submitted. Changes in organizational structure, or changes in the method of accounting for costs which affect the amount of reimbursement resulting from use of the rate(s) in this agreement, require the prior approval of the responsible negotiation agency. Failure to obtain such approval may result in subsequent audit disallowance.

D. Rate Type:

1. **Fixed Carryforward Rate:** The fixed carryforward rate is based on an estimate of the costs that will be incurred during the period for which the rate applies. When the actual costs for such periods have been determined, an adjustment will be made to the rate for future periods, if necessary, to compensate for the difference between the costs used to establish the fixed rate and the actual costs.

2. **Provisional/Final Rate:** Within 6 months after year end, the final rate must be submitted based on actual costs. Billings and charges to contracts and grants must be adjusted if the final rate varies from the provisional rate. If the final rate is greater than the provisional rate and there are no funds available to cover the additional indirect costs, the organization may not recover all indirect costs. Conversely, if the final rate is less than the provisional rate, the organization will be required to pay back the difference to the funding agency.

3. **Predetermined Rate:** The predetermined rate contained in this agreement is based on estimated costs which will be incurred during the period for which the rate applies and is normally not subject to subsequent carry-forward adjustments. However, if material changes occur in the grantee/contractor's cost structure, adjustments to the rate may be necessary to compensate for the effects of such changes.

E. Agency Notification: Copies of this document may be provided to other federal offices as a means of notifying them of the agreement contained herein.

F. Record Keeping: Organizations must maintain accounting records that demonstrate that each type of cost has been treated consistently either as a direct cost or an indirect cost. Records pertaining to the costs of program administration, such as salaries, travel, and related costs, should be kept on an annual basis.

G. Reimbursement Ceilings: Grantee/contractor program agreements providing for ceilings on indirect cost rate(s) or reimbursement amounts are subject to the ceilings stipulated in the contract or grant agreements. If the ceiling rate is higher than the negotiated rate in Section I of this agreement, the negotiated rate will be used to determine the maximum allowable indirect cost.

H. Use of Other Rate(s): If any federal programs are reimbursing indirect costs to this grantee/contractor by a measure other than the approved rate(s) in this agreement, the grantee/contractor should credit such costs to the

affected programs, and the approved rate(s) should be used to identify the maximum amount of indirect cost allocable to these programs.

I. Central Service Costs: Where central service costs are estimated for the calculation of indirect cost rate(s), adjustments will be made to reflect the difference between provisional and final amounts.

J. Other:

1. The purpose of an indirect cost rate is to facilitate the allocation and billing of indirect costs. Approval of the indirect cost rate does not mean that an organization can recover more than the actual costs of a particular program or activity.

2. Programs received or initiated by the organization subsequent to the negotiation of this agreement are subject to the approved indirect cost rate(s) if the programs receive administrative support from the indirect cost pool. It should be noted that this could result in an adjustment to a future rate.

3. This negotiation agreement is entered into under the terms of an Interagency Agreement between the U.S. Department of the Interior and the cognizant agency. No presumption of federal cognizance over audits or indirect cost negotiations arises as a result of this Agreement.

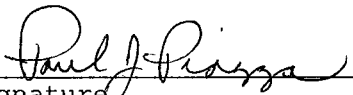
4. New indirect cost proposals are necessary to obtain approved indirect cost rate(s) for future fiscal or calendar years. The proposals are due in our office 6 months prior to the beginning of the year to which the proposed rate(s) will apply.

Section III: Acceptance

Listed below are the signatures of acceptance for this agreement:

By the Nonprofit Organization:

George Eastman House
Grantee/Contractor

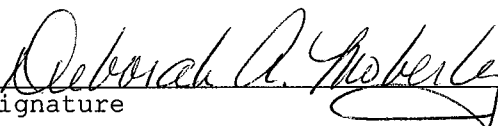
 /s/
Signature
PAUL J. PIAZZA
Name (Type or Print)

CONTROLLER
Title

5/2/13
Date

By the Cognizant Federal Government
Agency:

National Endowment for the Arts
Cognizant Agency

 /s/
Signature
Deborah A. Moberly
Name

Assistant Director
Title
Indirect Costs Services Directorate
Title
U.S. Department of the Interior
Interior Business Center
Agency

MAY 06 2013
Date
Negotiated by Wayne Guanzon
Telephone (916) 566-7008

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Appendix A. Examples of Technicolor's Color Aesthetics

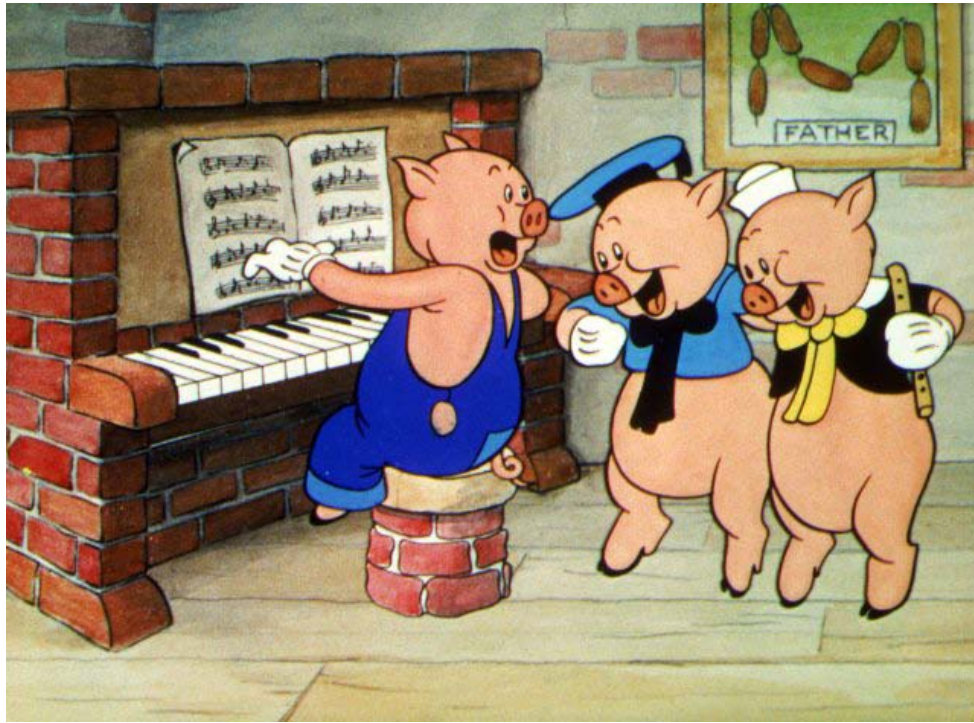


Toll of the Sea (1922)



Stage Struck (1925)

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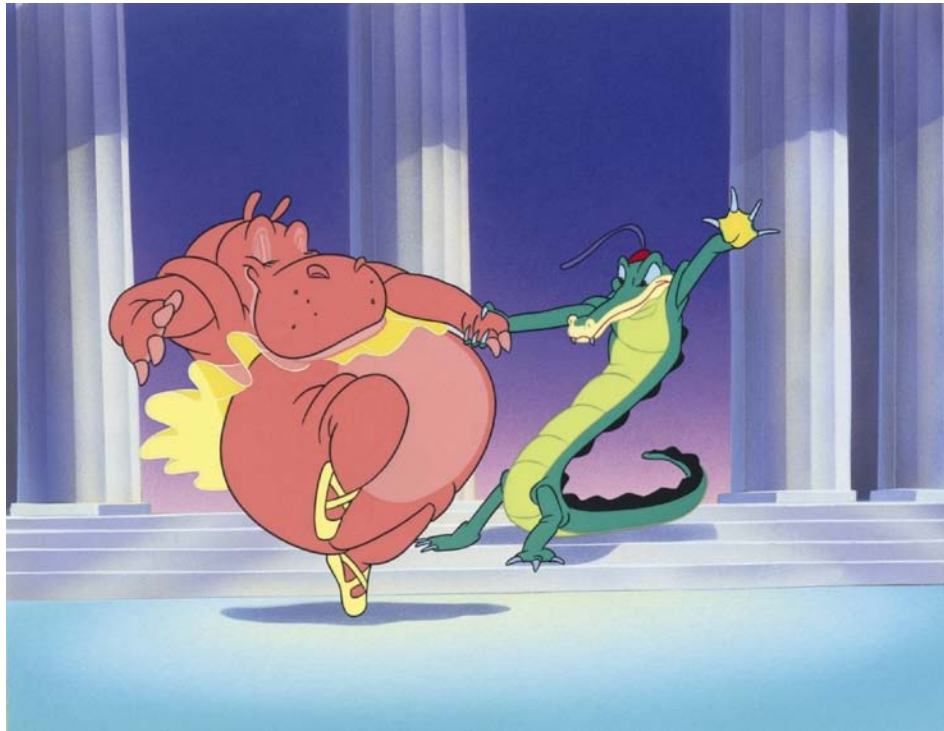


Three Little Pigs (1933)



The Wizard of Oz (1939)

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Fantasia (1940)



Black Narcissus (1947)

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Moby Dick (1956)



Godfather Part II (1974)

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Saving Private Ryan (1998)

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Appendix B. Highlights from the George Eastman House Technicolor collections

Memorandum for
Messrs. Bates
Andrews
Troland

Date: Sept. 30, 1925.

SUBJECT: Print Orders from Famous Players
for delivery during October.

The following is a memorandum of my conversation with Messrs. King and Gain on this subject, but is to be definitely confirmed from them by letter. If there is any discrepancy between these notes and their confirmations, please let me know promptly.

(1) Stage Struck

General release date - November 16th

Pre-release date - November 1st.

They plan to give us the cut negative on October 12th which they say should run between six and seven hundred feet. They would like us to have all prints delivered to them by November 1st, although it is not strictly necessary to have them all under their schedule. I have told them, however, that I thought there would be no trouble whatever in meeting the November 1st date.

The order will be for 190 prints approximately 600 feet in length - total 114,000 feet.

They note that there were three scenes missing in their rush prints when I talked with them yesterday re "Stage Struck," which I understand were lunch-room scenes. They say they must have these immediately if they are to meet their cutting dates of October 12th.

(2) The King ~~X~~ Main Street - Monta Bell.

They contemplate having an opening in Technicolor and a closing, in which case they estimate the footage will be 500 feet. They want 164 prints, or a total of 82,000 feet.

General release date - November 9th.

They are to have (although this is still confidential) an opening October 15th in Washington, which is Monta Bell's home at which place he was editor and manager of one of the important newspapers some years ago, and they are going to open the new Famous theater in Boston on or about October 15th with the same production, so that they will want four or five bang-up good prints for those two pre-releases. They will deliver us the cut negative October 3rd and they want all the prints by October 19th.

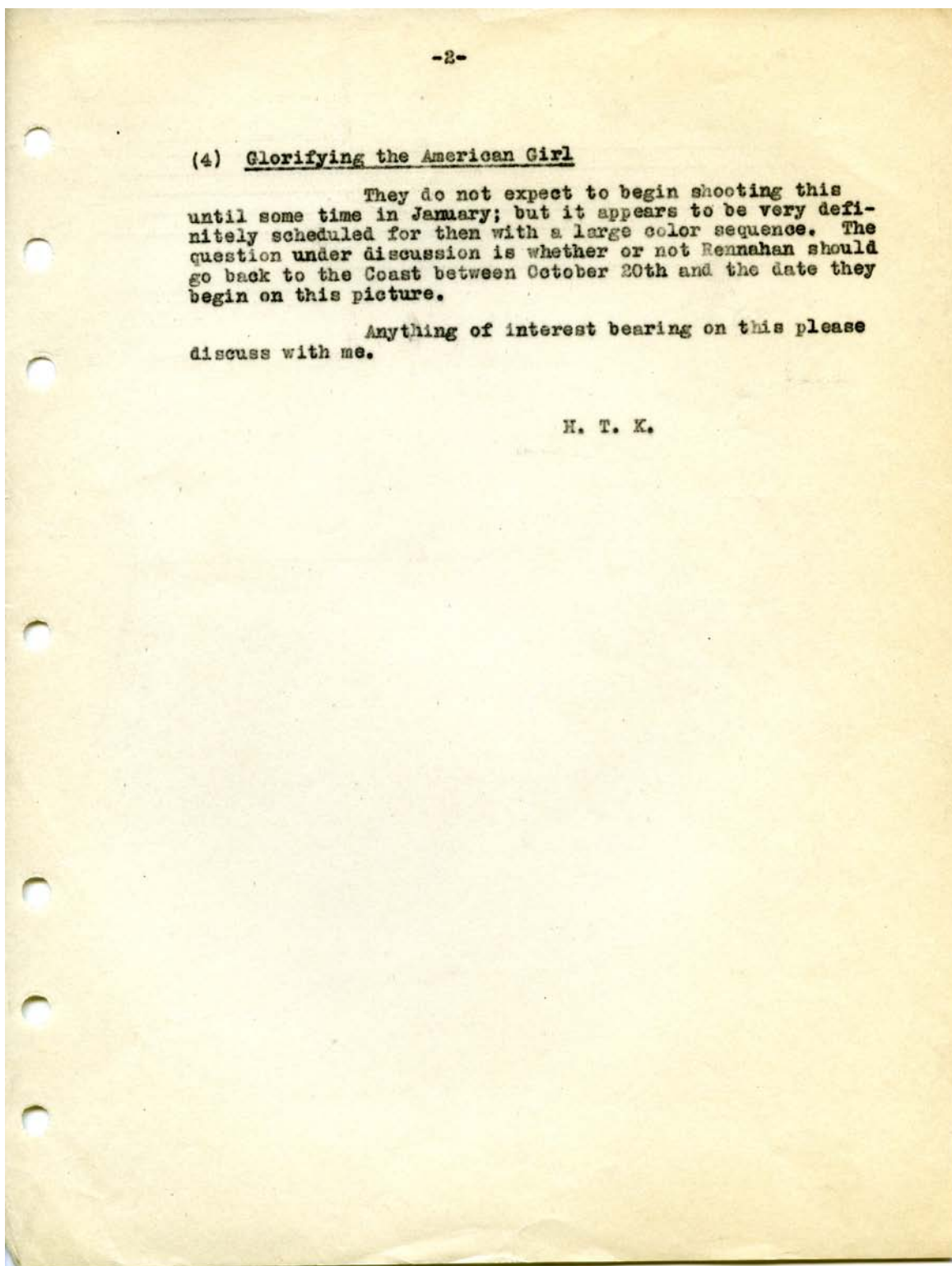
(3) The American Venus

They expect to ~~xxx~~ shoot the last color sequence of "The American Venus" on October 20th. They expect to deliver us the cut negative on November 10th and require delivery of the prints December 10th.

General release date January 4th.

The estimated footage is 1500 feet; estimated number of prints 200; total 300,000 feet, November 10th to December 10th.

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Internal memo, Herbert T. Kalmus to Leonard Troland, September 30, 1925,
Technicolor Corporate Archive

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3D Technicolor camera rig, 1953, *Technicolor Corporate Archive*

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**SOME OF THE
 TECHNICOLOR
 PRODUCTIONS**

BRIDE OF THE REGIMENT, with Vivienne Segal (First National); **BRIGHT LIGHTS**, with Dorothy Mackaill (First National); **DIXIANA**, with Bebe Daniels (Radio Pictures) Technicolor Sequences; **GOLDEN DAWN**, with Walter Woolf and Vivienne Segal (Warner Bros.); **HIT THE DECK**, with Jack Oakie and Polly Walker (Radio) Technicolor Sequences; **KING OF JAZZ**, starring Paul Whitman (Universal); **MAMBA**, with Eleanor Boardman and Jean Hersholt (Tiffany); **MAMMY**, starring Al Jolson (Warner Bros.) Technicolor Sequences; **PARAMOUNT ON PARADE**, all-star revue (Paramount) Technicolor Sequences; **PUTTIN' ON THE RITZ**, starring Harry Richman (United Artists) Technicolor Sequences; **RADIO RAMBLERS**, with Bert Wheeler, Robert Woolsey and Dorothy Lee (Radio) Technicolor Sequences; **SALLY**, starring Marilyn Miller (First National); **SHOW GIRL IN HOLLYWOOD**, with Alice White (First National) Technicolor Sequences; **SONG OF THE FLAME**, with Bernice Claire and Alexander Gray (First National); **SONG OF THE WEST**, with John Boles and Vivienne Segal (Warner Bros.); **THE ROGUE SONG**, with Lawrence Tibbett and Catherine Dale Owen (Metro-Goldwyn-Mayer); **THE VAGABOND KING**, starring Dennis King, with Jeanele MacDonald (Paramount).

MAURICE CHEVALIER — whose personality wooed and won the whole United States in his sensational Paramount successes — stars again in "Paramount on Parade."

Maurice Chevalier was a sensation in the drab black-and-grays. But in **TECHNICOLOR** . . . he steals your heart for keeps! For it is the real Maurice who carries you along on the crest of many emotions . . . talking, laughing, dancing . . . singing his newest hit, "Sweeping the Clouds Away," from "Paramount on Parade." Technicolor, too, you realize, has "swept the clouds away." The dim shadows of yesterday's "movie" today glow with life. Scenery, costumes, the characters, all seem to awaken as Technicolor imparts a personality that is fresh, life-like, enchanting.



Technicolor
is natural color

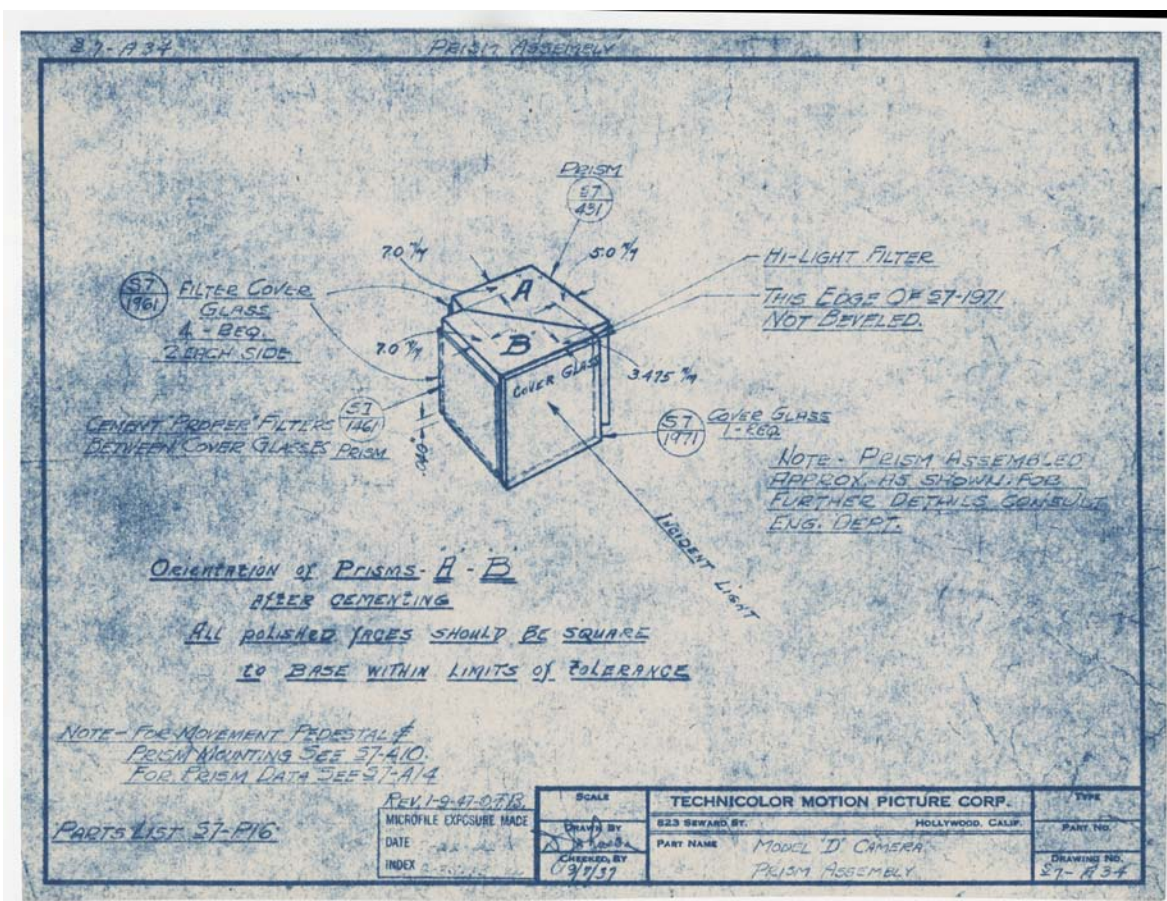
Full-page advertisement, 1930, *Technicolor Corporate Archive*

Technicolor Online Research Archive



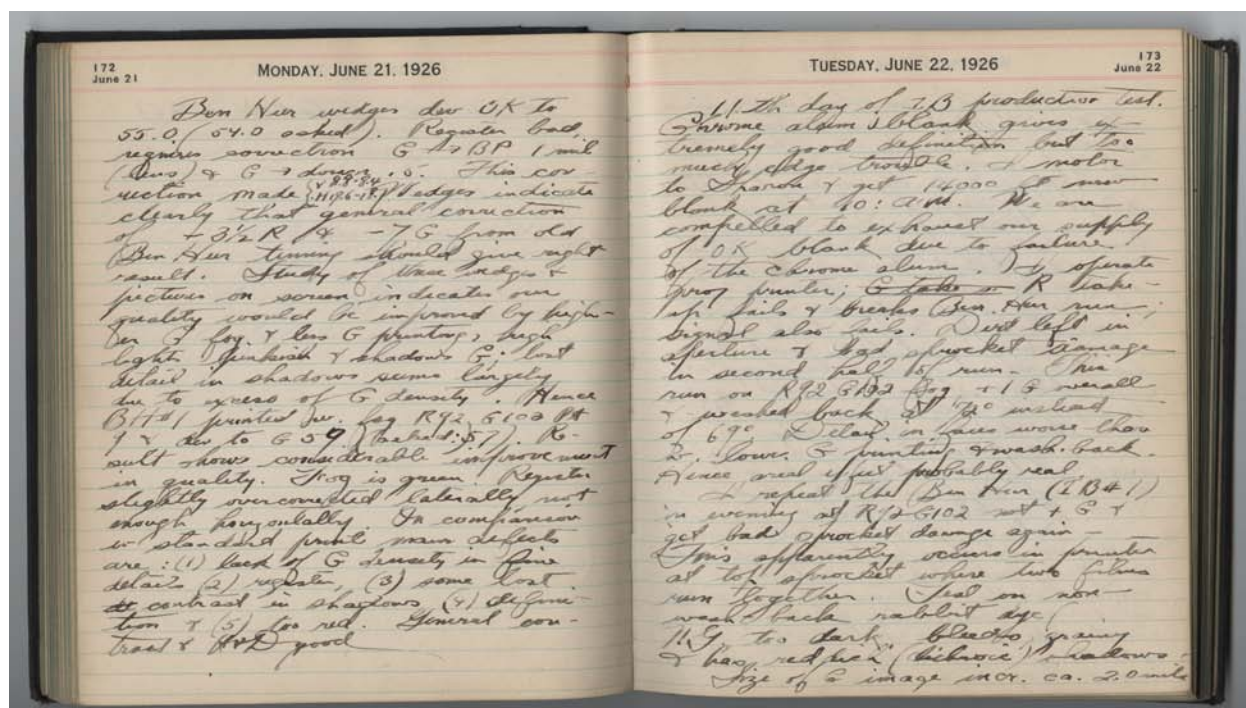
Organizational chart, ca.1950, *Technicolor Corporate Archive*

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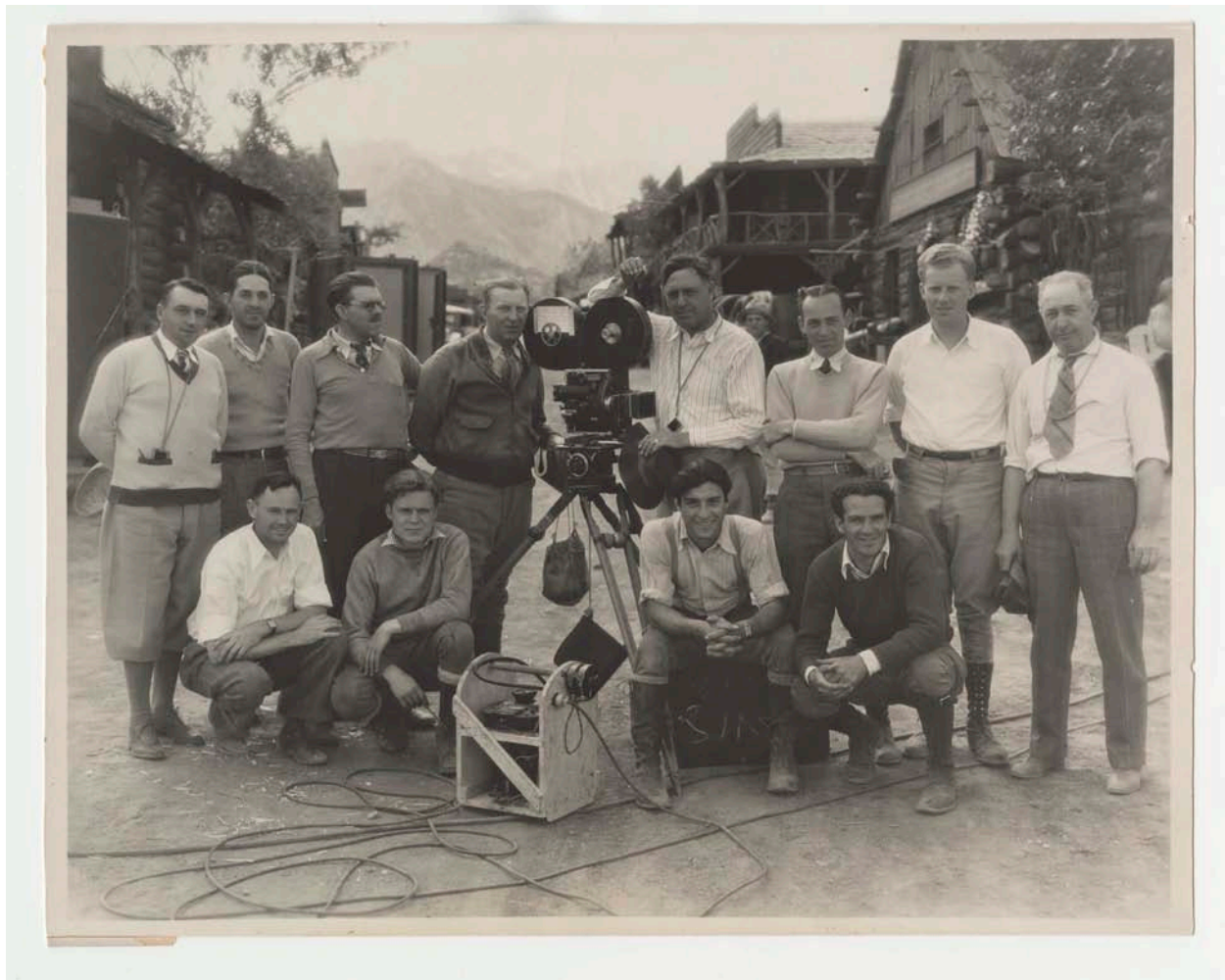
Three-strip prism design, 1937, *Technicolor Corporate Archive*

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Leonard Troland diary, June 1926, *Technicolor Notebooks* collection

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Technicolor camera personnel on the set of *Song of the West*, 1929,
Edward T. Estabrook collection

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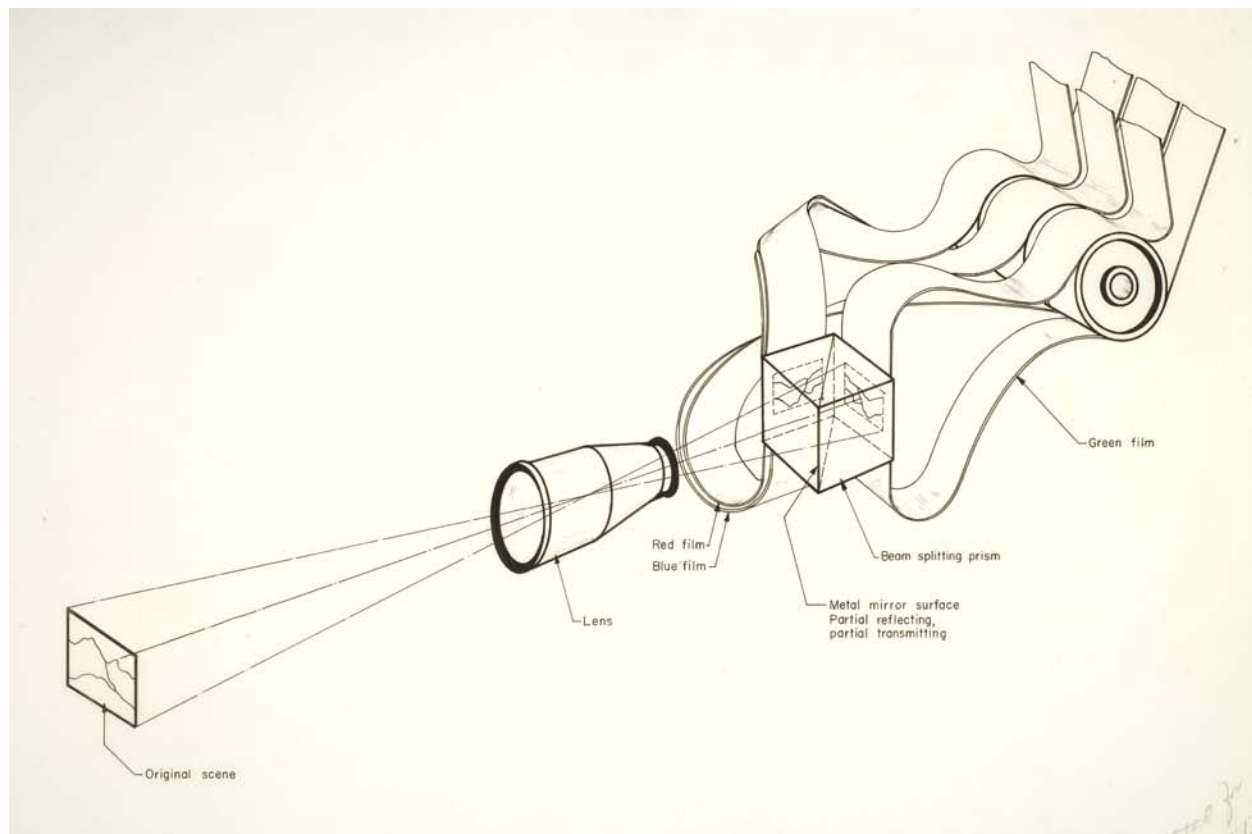
Three-strip Technicolor camera, ca.1937

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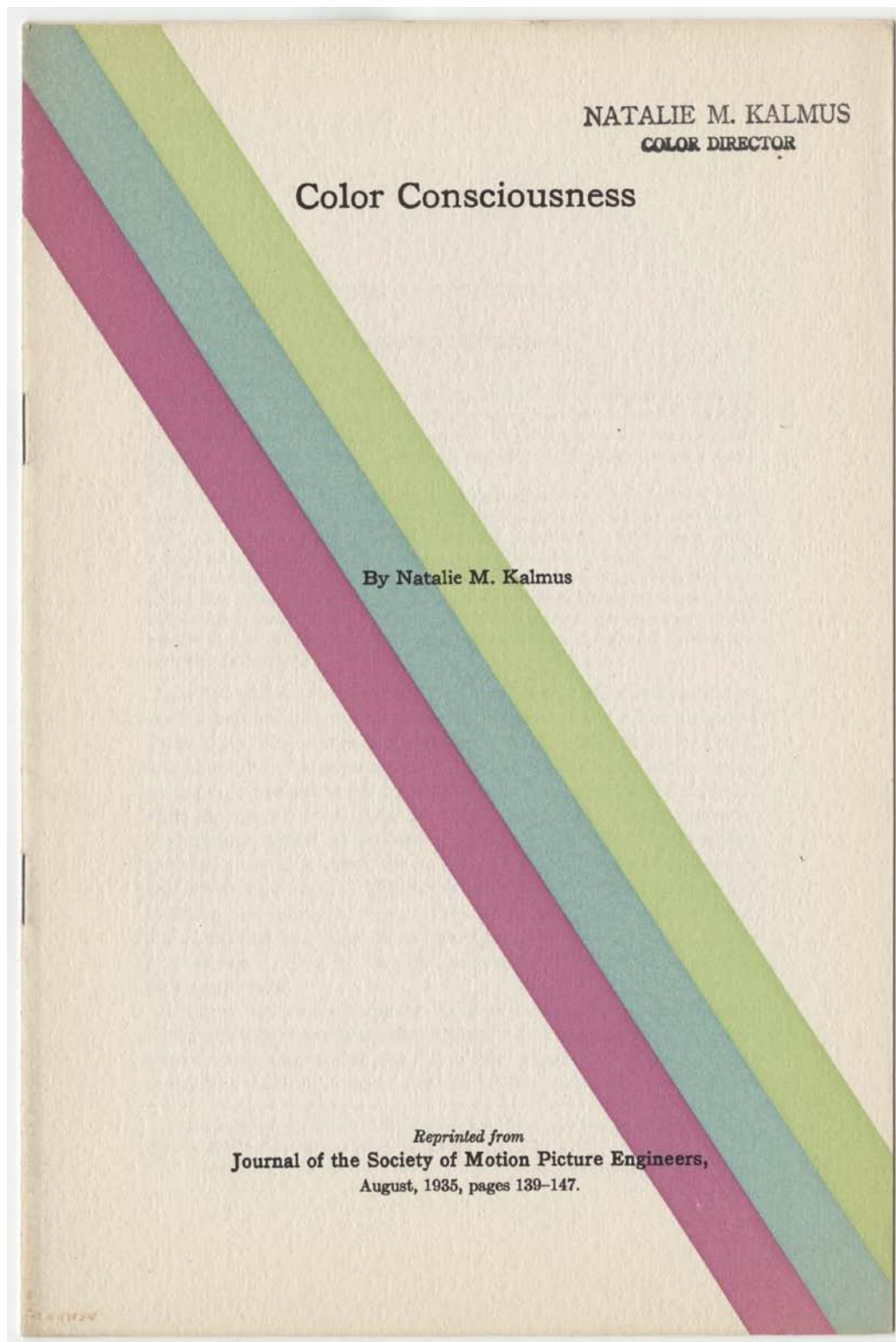
Duel in the Sun nitrate Technicolor print, 1946, *Technicolor reference frames*

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Three-strip prism schematic, ca.1950, *Technicolor Corporate Archive*

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Color Consciousness booklet, 1935, *Technicolor Corporate Archive*

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Herbert T. Kalmus portrait, 1929, *Technicolor Corporate Archive*

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Technicolor

Current Techniques of 35mm Color Motion Picture Printing

Successful printing of 35mm color motion picture film requires experience and laboratory skill. Faulty prints wipe out accurate color values achieved in photography and production.

Color printing procedures begin with white light. Optically speaking, white light consists of three primary colors—blue, green and red. This is one way of saying that when proper amounts of blue, green and red light are subtracted from white light, any color visible to the human eye will be produced.

Negatives used in color motion picture photography separately record the red, blue and green aspects of the scene. After development, negative images may be silver (black and white to the eye) or dye-colored. Only **TECHNICOLOR** laboratories prepare dye-transfer release prints from both kinds of image.

DYE-TRANSFER RELEASE PRINTS

Developed negatives are evaluated to determine the printing light required. The negative is then run through a matrix printer, a device in which special matrix film is exposed by light coming through the negative. Matrix means what it does in other forms of printing—a relief image from which multiple copies are made.

After printing, the matrix is developed and etched to produce a colorless gelatin relief image—the positive of the negative from which it was printed. A matrix is prepared for each color aspect of the scene.

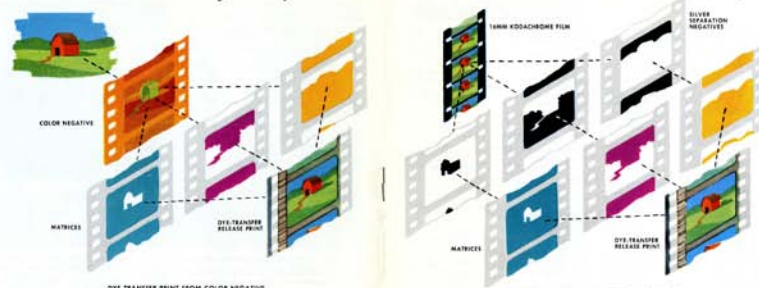
While the matrices are being made, a special dye-receptive blank film is prepared. If the customer wants prints with optical sound tracks, the silver sound record is incorporated in the blank film at this stage; if the customer's prints are to carry magnetic sound tracks, the silver sound record is omitted and the magnetic tracks are applied after the dye transfer.

The matrix film carrying the blue aspect of the scene passes through a yellow dye solution. It absorbs the yellow dye, and is then brought into contact with the blank film on a dye transfer machine.

While the two films are traveling in contact, the yellow dye from the matrix is transferred to the blank film. At the end of the dye transfer machine the first matrix is removed.

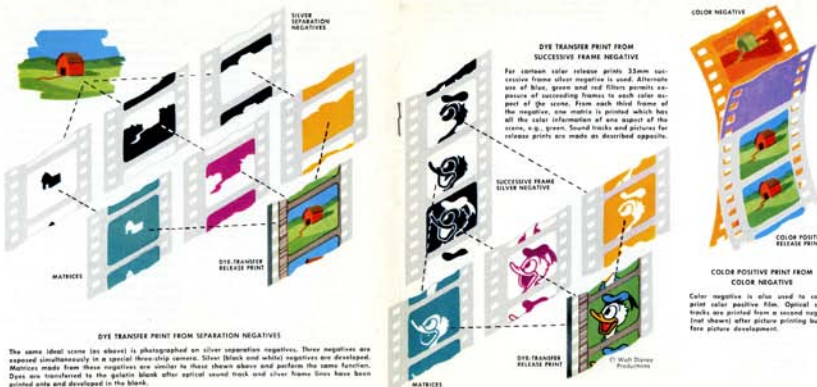
The blank is now brought into contact with the second matrix, which corresponds to the red light in the scene. The second matrix has been traveling through a cyan (blue-green) dye solution, and the dye is transferred to the blank which is carrying the yellow image.

After the blank has imbibed cyan and the second matrix has been removed, it is brought into contact with the third matrix, which corresponds to the green



Here a scene is recorded on color negative from which matrices are printed and subsequently dyed. Where cyan dye is present, red light will be subtracted from the scene. The cyan dye is present in the area of the red walls of the barn. Negative dye will subtract green light—no negative is present in the green area scene. Yellow dye will subtract blue light; note its absence in the blue sky portion of the picture.

When the scene is initially recorded on 16mm Kodachrome film, enlarged 35mm silver separation negatives are optically printed and developed. Matrices and sound tracks are utilized as explained opposite. Release prints for "The Living Desert" and "The Vanishing Prairie," among others, were made in this way.



The same ideal scene (as above) is photographed on silver separation negatives. Three negatives are exposed simultaneously in a special three-strip camera. Silver (black and white) negatives are developed. Matrices made from these negatives are similar to those shown above and perform the same function. Dyes are transferred to the gelatin blank after optical sound track and silver frame have been printed onto and developed in the blank.

light in the scene and has been increased in magenta dye. Finally, the third matrix and blank are separated.

The blank film is no longer blank, it now has all the colors necessary for excellent reproduction of a color scene and is ready for delivery to exhibitors for projection. Where yellow dye is present, blue light is subtracted from the projector's white light source; similarly red is subtracted where cyan is present and green where magenta occurs. Absence of all dyes results in white light on the screen and presence of all dyes in sufficient quantities creates an absence of light, or black on the screen.

Wet matrix and blank emulsions have a consistency approximating wet chewing gum, but all dyes have been transferred in super-posed registration within tolerances of ten-thousandths of an inch.

Only **TECHNICOLOR** offers the producer the alternative of having film printed on color positive stock or by the dye transfer method. Dye transfer release prints offer a cost advantage when a large number of prints are required for world-wide release. And by dye transfer printing from matrices valuable negative is saved from constant re-use.

COLOR POSITIVE RELEASE PRINTS

Color positive release prints are manufactured only from color negative. Color positive stock is similar to color negative in that it has three superposed emulsion layers. Color positive stock is contact-printed by light coming through the color negative. Color negative has different colors correlated to the sensitization of color positive emulsion layers.

Color positive stock records one color image aspect in each of its three emulsion layers and, after printing, is developed.

When optical sound tracks are required for color positive release prints, the picture images are printed first. The sound track image is then printed and developed. Development of the picture image is the last step.

When magnetic sound tracks are required, they are placed on the release prints after printing and developing.

From squeezed (anamorphosed) or large area negatives, **TECHNICOLOR** manufactures Cinema, CinemaScope, VistaVision and SuperScope high quality color release prints for world-wide distribution.

Technicolor News & Views, 1955

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Railroad car laboratory, 1916, *Technicolor Corporate Archive*

Barry Allen
Film Preservation and Restoration Consultant

(b) (6)



June 20, 2014

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Letter of Commitment

From the earliest days of the moving image filmmakers have used various methods to create a sense of color in their images. Those efforts ranged from tinting and toning the film stock to elaborate hand painting of individual frames. The goal of these creative and imaginative technicians was to create a natural, realistic color image. In this, Technicolor surpassed all others.

In the 1920s the Technicolor Corporation achieved a major breakthrough with their two color process which was capable of producing multiple projection prints that were, while not absolutely true to nature, generally consistent in the visual look from print to print.

However, it was not till the early 1930s when Technicolor introduced a full spectrum, three color process that enabled the production of projection prints that looked natural to the viewer. In a very short time, Technicolor was not only known to the public as a process for motion pictures, with the expectation of a stunning visual experience, but the very word Technicolor became a part of the language, an adjective to describe an object or setting containing vivid colors.

Processes such as Technicolor were highly proprietary. Information was held very close. Today, more than 40 years since imbibition was a full time production process, very few people are living who had operational knowledge, and worked extensively with the process.

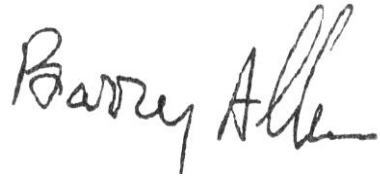
The organization and presentation of accurate technical information about Technicolor as a motion picture production process is essential to overcome the fog of myth and misrepresentation that has surrounded it for too long. The true history and procedural methods

used to make the legendary films so carefully crafted by the great cinematographers, directors, and art directors deserves to be known and studied.

I view the organization and digitization for online access of those collections that would comprise the content of the *Technicolor Online Research Archive* to be an essential research tool for all scholars, and anyone with an interest in the history of motion picture technology.

I very much look forward to consulting on the Advisory Board.

Sincerely,

A handwritten signature in black ink that reads "Barry Allen". The signature is written in a cursive, flowing style with a large initial 'B' and a long, sweeping underline.

Barry Allen
Film Preservation and Restoration Consultant

June 6, 2014

National Endowment for the Humanities
Preservation and Access: Humanities Collections and Reference Resources
Support for George Eastman House Proposal
Technicolor Online Research Archive

I am writing in support of the collaborative endeavor by the George Eastman House, the Margaret Herrick Library at the Academy of Motion Picture Arts and Sciences, and the Smithsonian Institution to digitize and place on line data related to the history of Technicolor, a corporation which will be observing its one-hundredth anniversary in 2015. This anniversary will undoubtedly be celebrated by museums and archives around the world which will mount extensive retrospectives of Technicolor films themselves. Equally important for scholars engaged in studying Technicolor are the thousands of paper artifacts, photographs, and individual frames from Technicolor films. If the film are well known and widely appreciated, these corporate documents are essentially orphans— desperately in need of being catalogued, preserved, and circulated.

I have been fortunate enough to have had the opportunity to work with primary research materials deposited by a major film company. In the 1980s, I was part of a team within the SMPTE that oversaw the deposit of the files of Twentieth Century-Fox 's Research and Development Unit at Columbia University Libraries. These papers, known as the Sponable Collection proved indispensable in guiding my research on the CinemaScope process for my book *Widescreen Cinema* (1992). I was fortunate to be teaching at Columbia University at the time, so I was able to complete much of my research without incurring the expense of travel to a research collection. Digital technology has since leveled the playing field for film scholars. Major trade publications, such as *Variety* and the *Motion Picture Herald* are now searchable on line. But it remains difficult to obtain access to corporate papers. Technicolor and its engineers are to be congratulated for holding onto these papers and recognizing the unique opportunity presented by George Eastman House, the Margaret Herrick Library, and the Smithsonian in spearheading a campaign to put this incredible material online.

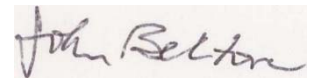
I am particularly gratified by the timing of this project which dovetails with my own research interests. In 2008, I received an Academy Film Scholar Fellowship from the Academy of Motion Picture Arts and Sciences to research a book on motion picture color. The Margaret Herrick Library and George Eastman House stand at the top of my list of archives with research collections. In fact, in the Fall of 2008, I spent a week looking at rare color films of the silent era in the Eastman House collection. After that, I was informed of the Technicolor paper collection and spent two full days working with Leonard Troland 's lab notebooks at GEH.

My research in the 1980s revealed a complex process of give-and-take in which the idealistic goals of the engineers came into conflict with studio heads and exhibitors that ultimately shaped the final form that the technology took. In his book on *Silent Film Sound* (2004), Rick Altman introduces the concept of "crisis historiography" as a means of understanding technological change. Altman argues that the identity of a new technology is not fixed. The cinema, for example, is not a single stable object of study but a site where its identity is always under construction. For Altman, the identity of a new technology is both socially and historically contingent: it depends on the way users develop and understand it. In other words, it is subject to an identity crisis (thus the term "crisis historiography") whereby its initial identity is subject to redefinition. Thomas Edison's phonograph, for example, was designed for one purpose—the recording of business dictation—but transformed by its users to accomplish something else—the recording of music. This unintended use spawned the phonograph industry.

Troland's notebooks suggest a similar trajectory of development. The technology that he sought to perfect was the product of uneven development and a cauldron of economic and technological influences. Amazingly, Troland's experiments with sound led him down the path of an improved color technology.

The materials described in this proposal are astonishingly rich and promise to stimulate a treasure-trove of research devoted to one of the most illustrious color systems Hollywood has ever seen. I whole-heartedly recommend this project to you for funding.

John Belton

A handwritten signature of John Belton in cursive script, written in black ink on a light-colored rectangular background.

Professor of English and Film



l e o n a r d m a l t i n

July 16, 2014

National Endowment for the Humanities

Re: Support for George Eastman House Proposal: Technicolor Online Research Archive

To whom it may concern:

I am writing, as a keenly interested party, in support of the proposal to fund George Eastman House's Technicolor Online Research Archive.

As a film scholar and enthusiast I have always had an interest in the history and workings of the process that became synonymous with color in the movies, namely Technicolor. I regret that no one has undertaken a serious, comprehensive study of its origins, development, and impact until now. The idea of using the Internet to bring this program to the widest possible audience is a perfect melding of research and "outreach," it seems to me.

For decades, Technicolor was a brand name as familiar to the moviegoing public as Kleenex: a corporate product that became a generic in the average person's consciousness. Its name was used to help promote movies in the 1930s, 40s, and 50s, as it represented a mark of excellence that was worth paying to see. Its dominance was eventually undercut by lower-priced competitors in the 1950s, and by the 1970s its ground-breaking methodology was deemed obsolete. This not only prevented new movies from being shot in Technicolor, but made it almost impossible to accurately reproduce its bold appearance in older films.

With its matchless collections and experience in the field of film preservation, and a dedicated staff, George Eastman House is in a unique position to trace the history of Technicolor. The idea that GEH will also make use of numerous outside sources (including personal and corporate papers and holdings at the Academy of Motion Picture Arts and Sciences) will surely make this a definitive study. I know that fans as well as scholars would welcome the opportunity to see, and study, examples of early experiments as well as famous achievements in Technicolor's fabled history. Having a one-stop resource online would be a dream come true for many film students and enthusiasts.

Thank you for your consideration of this proposal. On behalf of film buffs everywhere, I hope you will choose to support this endeavor.

Sincerely,



(b) (6)

June 18, 2014

National Endowment for the Humanities

Preservation and Access: Humanities Collections and Reference Resources

Support for George Eastman House Proposal: Technicolor Online Research Archive

Dear Sirs or Madams,

I am writing you today on behalf of the George Eastman House (GEH) to voice my support for the proposal for the Technicolor Online Research Archive. As a former Technicolor executive, now retired, I have a great appreciation for the value of the subject materials in terms of documenting the rich history of the production and distribution of motion pictures. In my former role as Senior Vice President of Worldwide Technical and Engineering Operations at Technicolor, not only am I extremely familiar with the materials in the Technicolor collection donated to the GEH, I was also the Project Manager for the re-introduction of the dye transfer process at Technicolor Hollywood in 1998.

To date I have spent several hours with staff at the GEH in order to get a cursory look at the donated materials in order to make a preliminary judgment as to the historical value of the contents. To be honest, I was very pleasantly surprised at the depth and scope of those materials donated by Technicolor. It would be a great shame if the collection could not be fully catalogued and made available to film historians, film students, and the general public by virtue of the assistance of the endowment requested by the George Eastman House. Of course, given my experience at Technicolor, and also as a manager at the Eastman Kodak Company, I stand ready to further assist the GEH in their endeavors as they request. It is my hope that the National Endowment for the Humanities sees fit to approve of their request.

Please feel free to contact me (see below) if need be. Thank you for your consideration.

Sincerely,

Frank J. Ricotta

Frank J. Ricotta

(b) (6)

A large black rectangular redaction box covers the signature area, obscuring the name and any handwritten notes.

MICHIGAN STATE UNIVERSITY

June 12, 2014

National Endowment for the Humanities
Division of Preservation and Access
Humanities Collections and Reference Resources

RE: George Eastman House, Technicolor Online Research Archive

To the NEH Selection Committee:

It is my pleasure to write in support of George Eastman House's proposal for a Technicolor Online Research Archive. I am a historian of color film and media, and over the past twelve years I have been fortunate to use GEH's collections extensively, initially as a graduate student and now as professor, to examine their substantial pre-Technicolor, color cinema holdings. What they propose to do now with their even more extensive Technicolor collections promises to have a lasting impact on scholarship and public knowledge.



College of Arts and Letters

Department
of

English

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The significance of the Technicolor collections that GEH hold and have access to, through their collaborative arrangement with the Margaret Herrick Library and the Smithsonian Institution, is remarkable. Over Technicolor's long history, from the 1910s on, it transformed the way that the world looked at cinema. Initially competing with numerous color techniques and technologies, by the 1930s Technicolor had established its dominance visually, industrially, and globally as the premier technology of color cinema—a position that it held until the 1950s. Still today, Technicolor continues to have a lasting effect on media cultures. While the basics of Technicolor's history have been charted, the collections that GEH have brought to this project will rewrite media history, as this material details the inner workings of the company's technical innovations and corporate dealings, both domestically and internationally. The majority of this material has not been accessible to researchers, and to date, I know of five ongoing, major research projects by top experts in the field of cinema and media studies that will be able to draw on this material. Beyond film scholars, the collections will also be of interest to scholars of corporate history and of the history of technology, as the type of technical and industrial innovations that Technicolor archived are of profound importance and relevance, particularly for today's rapidly transforming digital media environment.

By conceiving this effort as an online, digital humanities project, GEH aims also to make this material widely accessible well beyond archival and academic communities. Technicolor, after all, was not just an industrial color technology, but also an aesthetic "look" that produced moving images of profound popularity

and appeal. From *Gone with the Wind* and *Fantasia* to *The Red Shoes* and of course *The Wizard of Oz*, these resplendent images, and the history behind them, will be of immense draw to the general public.

It is worth noting that GEH has renowned expertise and a proven track record in this type of digital, archival project. In 2011, GEH, in conjunction with a number of other archives, launched the Davide Turconi Project (www.progettoturconi.it), a massive, online archival project focused largely on pre-Technicolor, early color cinema holdings. I have been fortunate to collaborate with GEH on the Turconi project now for over a decade, and because of their commitment and archival diligence, the project has had a dramatic influence since its public debut. Given the scope, ambition, and vital importance of the Technicolor project, I believe that it will have an even larger and more pronounced resonance when it launches, significantly on the 100th anniversary of the Technicolor Corporation.

I recommend this innovative project to you with the highest confidence, both in the vital importance of its aim and in George Eastman House's ability to achieve it. If I can be of any further assistance, I am available at your convenience.

Sincerely,



Joshua Yumibe

Director of Film Studies

Assistant Professor of English

YEAR ONE (May 1, 2015 - April 30, 2016)	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
STAFFING												
Project Archivists job posted												
Project Archivists hired												
Project Archivists arrive and begin training												
DATABASE DEVELOPMENT												
Cataloging fields confirmed and implemented												
Controlled vocabulary authority terms finalized and added to TMS												
IMPLEMENTATION: Re-housing, digitization and cataloging												
Preliminary accessioning of collection												
Shipping of Margaret Herrick Library collections												
PROMOTION												
Announce award of grant												
STAFFING												
Project Archivists begin work												
IMPLEMENTATION: Re-housing, digitization and cataloging												
Edward Estabrook photographs (100)												
Technicolor Notebooks collection (5,000 pages)												
Technicolor Corporate Archive 3-dimensional objects (100)												
Technicolor Corporate Archive documents (5,000 pages)												
Technicolor collection & Natalie Kalmus papers (Herrick, 10,000 pages)												
Quality control												
PROMOTION												
Museum blog posts noting progress												
REPORTING												
Interim Report sent												
YEAR TWO (May 1, 2016 - April 30, 2017)	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
STAFFING												
Project Archivists work continues												
DATABASE & WEB DEVELOPMENT												
Web design and development begins												
IMPLEMENTATION: Re-housing, digitization and cataloging												
Technicolor Corporate Archive documents (5,000 pages)												
Technicolor collection & Natalie Kalmus papers (Herrick, 10,000 pages)												
Technicolor News & Views (500 pages)												
Technicolor Corporate Archive photographs (500)												
Technicolor Corporate Archive documents (5,000)												
Daniel F. Comstock papers (Smithsonian, 200 pages)												
Delivery of Smithsonian Collections digital files												
Technicolor collection & Natalie Kalmus papers (Herrick, 4,000 pages)												
Bill Gleason interviews (150 pages)												
Quality control												
PROMOTION												
Museum blog posts noting progress												
REPORTING												
Interim Report sent												

YEAR THREE (May 1, 2017 - November 30, 2017)	May	Jun	Jul	Aug	Sep	Oct	Nov					
STAFFING												
Project Archivists work continues												
WEB DEVELOPMENT												
Web development												
Website soft launch												
Website public launch and website live												
IMPLEMENTATION: Re-housing, digitization and cataloging												
Technicolor Corporate Archive technical diagrams (5,000 pages)												
Shipping of Margaret Herrick Library collections												
Richard J. Goldberg collection (1,000 pages)												
John M. Andreas collection (4,000 pages)												
Quality control												
Final Quality control and co-ordination												
PROMOTION												
Museum blog posts noting progress												
Announce website launch												
Presentation: AMIA Conference												
Host Google Art Talk to promote website												
Announce completion of project												
REPORTING												
Final Report sent												

George Eastman House Proposal: Technicolor Online Research Archive
Appendix D

Description of Archival Materials, Current Condition and State of Processing

Technicolor News & Views: These two bound volumes have been fully cataloged and have been conserved in the Museum's Menschel Library environmentally controlled vault. *100% processed.*

Three-strip Technicolor camera: The camera is cataloged, has been maintained in excellent condition, and has been on display for years in the Museum's North Gallery. *State of processing: 100%*

Technicolor Notebooks collection: These bound notebooks and ring binders have largely been preserved in their original condition. There is some minimal damage. All film and photograph samples found in the binders have been removed to more appropriate storage. *State of processing: 100%*

John M. Andreas collection: This collection contains papers, film samples and dyes. The papers have been re-housed and 90% are searchable in a FileMaker Pro database at the folder or document level; the film samples were relocated to the Museum's Safety Film Vaults and await cataloging; the powdered dye samples were assessed by an environmental service specialist for re-housing. *State of processing: 70%*

Richard J. Goldberg collection: This collection is being processed. The papers and photographs have been re-housed in acid-free folders and archival boxes, and a finding aid is close to completion. Film samples were assessed for re-housing; equipment has received a basic inventory and awaits assessment. The entire collection is stored at the Gleason Conservation Center. *State of processing: 45%*

Technicolor Corporate Archive: A basic inventory was completed. The *Historical Records* and *Technical Files* were re-housed into acid-free folders and archival boxes, and 50% of the photographs were separated. The oversized technical diagrams and equipment needs to be assessed or re-housed. A basic finding aid has been completed. *State of processing: 40%*

Edward T. Estabrook collection: This collection of approximately 50 photographs needs to be re-housed and cataloged. *State of processing: 0%*

Leonard Troland & John F. Kienninger Notebooks: This collection of seven notebooks is still in the acquisition stage and has yet to be re-housed or inventoried. *State of processing: 25%.*

Bill Gleason interviews with Technicolor personnel: These 28 interviews are still in the acquisition stage but have been entirely re-housed and await cataloging. *State of processing: 50%*

Technicolor reference frames: Each 35mm frame clip has been inventoried and is housed in an inert mylar sleeve within an acid-free photographic negative envelope. The frames are stored at 40°F and 30% relative humidity in the Museum's Safety Film Vaults. *State of processing: 100%*

Technicolor collection (Margaret Herrick Library): This collection of papers, film frames and photographs has been fully re-housed and documented. A complete finding aid is available online: <http://catalog.oscars.org/vwebv/holdingsInfo?bibId=66590> *State of processing: 100%*

Natalie Kalmus papers (Margaret Herrick Library): This collection has been fully re-housed and documented. A complete finding aid is available online: <http://catalog.oscars.org/vwebv/holdingsInfo?bibId=65816> *State of processing: 100%*

George Eastman House Proposal: Technicolor Online Research Archive
Appendix D

Technicolor cameras (Smithsonian Institution): This collection has been fully conserved and documented. It is maintained in environmentally controlled storage at an off-site location. *State of processing:* 100%

Daniel F. Comstock papers (Smithsonian Institution): This small collection has been fully re-housed and documented. *State of processing:* 100%

National Endowment for the Humanities
Preservation and Access: Humanities Collections and Reference Resources
George Eastman House Proposal: Technicolor Online Research Archive

Appendix F. Cataloging Technicolor collections using The Museum System (TMS)

As artifacts will be scanned and run through OCR software as part of this project, only minimal cataloging will need to be undertaken for each record. An Attributes field will be used to add controlled metadata and to define relationships between records, increasing searchability. The following are examples of the type of fixed attributes that will be used within the Museum's TMS software.

- **FILM TITLE**
 - The Gulf Between (1917)
 - The Toll of the Sea (1922)
 - The Ten Commandments (1923)
 - Scaramouche (1923)
 - Janice Meredith (1924)
 - The Heritage of the Desert (1924)
 - ...
 - Drums Along the Mohawk (1939)
 - Hollywood Cavalcade (1939)
 - Jesse James (1939)
 - The Little Princess (1939)
 - Dodge City (1939)
 - The Private Lives of Elizabeth and Essex (1939)
 - Dr. Cyclops (1940)
 - Northwest Mounted Police (1940)
 - ...
- **FORMAT**
 - Dyes
 - Equipment
 - Camera
 - Camera accessory
 - Laboratory equipment
 - Film
 - Acetate
 - Nitrate
 - Polyester
 - Film clipping
 - Acetate
 - Nitrate
 - Polyester

National Endowment for the Humanities
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George Eastman House Proposal: Technicolor Online Research Archive

- Manuscript
 - Letter
 - Memo
 - Report
- Photograph
 - Black & white negative
 - Black & white print
 - Color print
 - Color negative
- GEOGRAPHY
 - Boston
 - Pilot Plant
 - Plant 2
 - Hollywood
 - Plant 3
 - Plant 4
 - ...
 - London
 - Paris
 - Rome
- PERSONNEL
 - Andrews, J.M. (1889-1934)
 - Ball, J. Arthur (1894-1951)
 - Callaghan, Andrew J. (1889-1934)
 - Cave, George A. (1899-1952)
 - Comstock, Daniel F. (1883-1970)
 - Estabrook, Edward T. (1893-1979)
 - Greene, W. Howard (1895-1956)
 - Kalmus, Herbert T. (1881-1963)
 - Kalmus, Natalie (1882-1965)
 - Kienninger, John F. (1898-1963)
 - Kruse, J. Henry (1904-1970)
 - Musgrave, E. Roy (1898-1977)
 - Oates, Frank R. (1888-1987)
 - Rennahan, Ray (1896-1980)
 - Riley, Robert (1902-1990)
 - Troland, Leonard T. (1889-1932)
 - Weaver, Eastman A. (1894-1971)
 - Wescott, W. Burton (1883-1952)
 - ...
- PROCESS
 - Two-Color additive (Process #1)

National Endowment for the Humanities
Preservation and Access: Humanities Collections and Reference Resources
George Eastman House Proposal: Technicolor Online Research Archive

- Two-Color subtractive
 - Cemented (Process #2)
 - Dye transfer (Process #3)
- Three-Color subtractive
 - Three-Strip Negative (Process #4)
 - Monopack (Kodachrome)
 - Color Negative
- Technirama
- Super-Technirama70
- Techniscope
- ...



International Museum of Photography and Film

900 East Avenue, Rochester, NY 14607-2298
www.eastmanhouse.org Tel (585) 271-3361 Fax (585) 271-3970

Copyright Agreement

George Eastman House — International Museum of Photography and Film (“GEH”) received unconditional gifts described below during the period, 1960–2010 (“Collection”). Collection is comprised of tangible objects received from multiple donors, whereas the intellectual property held in the Collection is solely owned and controlled by Technicolor, Inc. (“Copyright Holder”). In order to realize the full benefit of Collection, GEH intends to create a publicly accessible online database on Technicolor and hereby requests the Copyright Holder to agree to and sign the terms of Non-Exclusive, Non-Commercial Copyright Agreement set forth below.

Copyright Holder: Technicolor, Inc.

Description of “Collection”

Various research and production records relating to Technicolor from ca. 1914 through 2000, including, but not limited to, correspondence, images, diagrams, research papers, notebooks, publicity material, cameras, equipment, film test samples, and dyes.

See attached [Inventory for Technicolor Copyright Agreement](#) for itemized descriptions.

Non-Exclusive, Non-Commercial Copyright Agreement:

Name of the Copyright Holder: Technicolor, Inc. (Please print)

Address: 6040 Sunset Blvd., 6th Floor, Hollywood, CA 90028

Represented by: John Oliphant / General Counsel Technicolor, Inc.

Copyright Holder believes that it is the lawful, sole owner of copyrights held in the Collection described above, free from any other claims, and hereby unconditionally grants a permanent, non-exclusive, non-commercial copyright license to GEH, provided however, such license is granted without any representation or warranty, and *all warranties, statutory, written, oral, or implied in connection therewith are hereby disclaimed by Copyright Holder*. This non-exclusive copyright license shall be in the name of GEH permanently for its research, educational mission, and promotion of public access, excluding any explicit commercial use, but specifically granting GEH the right to publicly display, exhibit, and digitally reproduce the Collection, and distribute the digitized contents, including but not limited to, reproduced images, texts, correspondence, audiovisual works, trademarks, and sound recordings, in any and all media. Whenever the Collection is publicly displayed or reproduced for pertinent publicity, GEH will credit respective donors and acknowledge Copyright Holder with the copyright notice “© Technicolor, Inc., all rights reserved”. Copyright Holder further acknowledges that GEH may extend this non-exclusive, non-commercial copyright license to allow other museums to engage in the same activities permitted to GEH hereunder to facilitate institutional loans or touring exhibitions that may include the Collection. Furthermore, Copyright Holder acknowledges that GEH may publish or otherwise distribute technical data and information of the Collection, notwithstanding that the same may have been protected under certain expired patents and certain trade secrets and Copyright Holder hereby agrees to release GEH of any and all liability arising from such dissemination of technical information.

► Please sign here: 

Date: June 1, 2013

Please sign, date and return this copyright agreement to the Collection Management office at George Eastman House at your earliest convenience. You may keep the duplicate copy (yellow) for your record. Thank you very much.

Collection Mgt./GEH

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Technicolor Donates Archive to George Eastman House

Collection of cameras and technology is cornerstone in study of color in film; Completes museum's holdings of largest Technicolor film collection and rare papers

For Release 2010-03-25

ROCHESTER, N.Y. and HOLLYWOOD, Calif. — George Eastman House International Museum of Photography and Film today announced a major gift to the museum — the historic archive of Technicolor dating from 1915 to 1974. The donation includes rare cameras, documents and drawings, photographs, printers and processing machines, corporate records, and other important materials that represent the history of Technicolor's groundbreaking contributions to motion pictures. This collection joins the Eastman House's current Technicolor holdings of early research papers, technology, and the world's largest collection of Technicolor camera negatives, including *The Wizard of Oz* and *Gone With the Wind*.

"Many of the iconic films of the 20th century were photographed and presented in Technicolor, and this archive is the cornerstone piece in the study of color in motion pictures," said Dr. Anthony Bannon, the Ron and Donna Fielding Director of George Eastman House, the country's third largest film archive and world's largest technology collection. "The importance of this collection and monumental donation cannot be overstated."

Technicolor, a trademark for a series of color film processes, was established close to a century ago with the goal of bringing "natural" color to motion pictures. Technicolor has played a significant role in the film industry, progressing through several color transfer methods. From 1927 to 1974, Technicolor films were the industry standard, with the year 1932 to 1955 marked as the "Glorious Age of Technicolor," featuring the three-strip dye transfer system used in the production of many classic Technicolor films.

"Technicolor is proud to announce the gift we've made to George Eastman House, to preserve our corporate collection put together by Dr. Richard Goldberg," said Joe Berchtold, head of Technicolor's Creative Services division. "This commitment will ensure the history of Technicolor's three-strip process — as well as two-color before it — will be preserved with full integrity."

Goldberg, now retired, was the last head of the Technicolor Research Division and is heralded as one of the greatest color scientists in motion picture history. Eastman House worked with Goldberg to identify, clean, and catalog the materials for acquisition and preservation. Goldberg has taught classes in color technology for Eastman House's L. Jeffrey Selznick School of Film Preservation and was a personal friend of the late Jeffrey Selznick, co-founder and namesake of the school.

The museum's existing Technicolor holdings include the historic collection of films, totaling more than 3,000 reels, as well as important documents from Technicolor pioneers, such as Kalmus's letters and notebooks detailing the earliest processes; the diaries of Leonard Troland, Technicolor chief engineer; and the papers and letters of Dr. John Andreas, former head of Technicolor Research Department.

The Eastman House collection also includes a two-color camera dating from 1922 — one of only three known examples — plus a three-strip model D camera from 1939, one of fewer than 20 that survive.

"Combined with the existing George Eastman House archive of Technicolor papers, including those donated by our founder, Dr. Herbert Kalmus," Berchtold notes, "the Technicolor collection will provide future generations access to the insight surrounding the many inventions and innovations Technicolor has provided the motion picture industry over the past 95 years."

The Technicolor collection has been successfully relocated from Los Angeles to Rochester, with the transfer and storage of this collection supported by a grant from the Packard Humanities Institute. The Eastman House estimates the collection will be open to the public as soon as researchers complete itemizing, cataloging, and researching the artifacts.

About George Eastman House

George Eastman House International Museum of Photography and Film is located on the estate of Kodak founder George Eastman, the father of popular photography and motion picture film. Founded in 1947, the archive houses 30,000 film titles and 4 million film-related publicity stills, posters, scores, scripts, and pre-cinema artifacts. Eastman House also holds the world's largest collection of camera technology. The Eastman House's L. Jeffrey Selznick School of Film Preservation is regarded as the premier venue of professional training in film preservation, restoration, and archiving. Annually George Eastman House restores more than 500 reels of film. The Eastman House is also the archive in which many filmmakers have chosen to preserve their films, including Cecil B. DeMille,



Martin Scorsese, Spike Lee, Ken Burns, and Kathryn Bigelow. For more information: eastmanhouse.org

About Technicolor

With more than 95 years of experience in technological innovation, Technicolor is a leading provider of production, postproduction, and distribution services to content creators and distributors. Technicolor is one of the world's largest film processors; the largest independent manufacturer and distributor of DVDs (including Blu-ray™ Disc); and a leading global supplier of set-top boxes and gateways. The company also operates an Intellectual Property and Licensing business unit managing more than 40,000 patents. For more information: technicolor.com

Media Contacts:

Dresden Engle, George Eastman House

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cell: (585) 319-1812

Robert Hoffman, Technicolor

robert.hoffman@technicolor.com

(323) 817-6809

For high-res photos:

<https://secure.eastmanhouse.org/pressroom/technicolor>

Location: 900 East Avenue, Rochester, NY 14607 · [More Information](#) · RTS Routes [17](#), [18/19](#), [21](#), and [22](#)

Hours: Tue - Sat : 10am - 5pm . Sun : 11am - 5pm . · [More Information](#) · [Buy Tickets](#)

Admission : Adults \$12, Seniors (65+) \$10, Students (with ID) \$5, Children 12 and Under Free · [Members Free](#)

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Appendix G – Resumes: George Eastman House Staff and Advisory Board

DANIEL BISH

dbish@geh.org

EXPERIENCE

George Eastman House - Rochester, NY

Associate Registrar of Motion Pictures / Coordinator of Film Loans and Digital Media Access, April 2010 – Present

- Manage traffic control of 400,000 35mm films and 150,000 16mm films, ensuring the successful transfer to the TMS database.
- Process new acquisitions, i.e., donations, extended loans, purchases and archive exchanges
- Assign accession numbers and update electronic Accession Book on a daily basis
- Strategize all aspects of registration, film loans, and digital media access to ensure optimal positioning at all times
- Assist with the Selznick School Curriculum by helping students acquire proper collection management practice

Associate Registrar, Collection Management Office, January 2010 – Present

- Coordinated shipments and develop new exhibitions
- Devised a sophisticated tracking system with enhanced legal protections to better manage valuable media assets
- Provided leadership to expedite the museum's commitment to digital media processing/access
- Managed the Traveling Exhibition Program, including marketing and the drafting of all contractual agreements

Registrar of Loans, August 2011 – Present

- Presides as the chair of the Film Loan Committee to approve loan requests, establish strategy, and set priorities
- Expanded significantly the Film Loan business through enhanced marketing and digital media access efforts
- Initiates coordination with preservation team to effectively transfer and deliver digital elements to clients
- Oversees all incoming/outgoing loans, prepares transfer agreements, and tracks loan history

Archivist / Eastman Legacy Collection, January – April 2010

- Reduced the un-accessioned collection by identifying incomplete transactions and contacting all relevant parties
- Assisted with access requests for the George Eastman Legacy Collection

EDUCATION

- **State University of New York at Albany, Master of Arts, Public History**, May 2011, Albany, New York
- **State University of New York at Geneseo, Bachelor of Arts, History / Minor: Political Science**, May 2008, Geneseo, New York
- **London School of Theology, Study Abroad Program / History and Theology**, 2006, London, UK

COMPUTER SKILLS

Proficient in Microsoft Office applications (Word, Excel, Access, PowerPoint)
Data management: FileMaker Pro, The Museum System (TMS)
Graphics: Photoshop CS5

Appendix G – Resumes: George Eastman House Staff and Advisory Board

MARK R. BLUMENFELD
mblumenfeld@geh.org

EXPERIENCE

George Eastman House - Rochester, NY

Web, Development & Interactive Technology Manager, March 2013

- Designs, structures, implements and maintains the Museum's website

Clean Energy Design LLC

IT Consultant, November 2011 – May 2012

- Handled IT aspects of the design, construction, installation, and sales of residential and commercial solar photovoltaics and solar thermal panels and systems.
- Implementation of renewable energy systems including professional advice on financing, rebates, tax incentives and the sale of renewable energy credits (SREC's). Serving South Eastern New England.

DigitalXtractions Inc. / Global4site LLC

Founder / President, February 2004 – November 2011

- Directed the development, production and sale of a remotely controlled, self contained, cellular, web camera.
- Focused on alternative power sources and offering customers cameras that work from any where within range of a cell tower.
- DigitalXtractions Inc. and The Rochester Institute of Technology formed a sponsored research partnership to develop advanced versions of the Self Contained Internet Remote Camera system known as 'SCIRC' technology. DigitalXtractions is part of the Rochester Institute of Technology's High Tech Incubator known as Venture Creations.

Gannett / Democrat and Chronicle

Webmaster / New Media Manager, October 2000- February 2004

- Administrative manager responsible for all platforms; creating and supporting Cold Fusion, ASP and XML applications that deliver dynamic news updates, multimedia projects and interactive advertising vehicles.
- New Media technology manager, Webmaster of 24 branded domains
- Project manager of redesign initiatives, architected web publishing applications and integrated front and back-end systems.
- Managed online content publishers.
- Worked with all newspaper departments to develop convergence both internally and externally.
- Principal member of the Online Operating Committee responsible for strategic direction for all online initiatives

EDUCATION

- **Monroe Community College** 1993-1994
Rochester, NY
Associates Program, Computer Technologies
- **University of California at Davis** 1984-1985
Davis, CA
Graduate Level Courses in Animal Science

Appendix G – Resumes: George Eastman House Staff and Advisory Board

- **Southern Connecticut State University** 1980-1983
West Haven, CT
Bachelor of Science Coursework Major: Animal Science, Minor: Computer Science
- **Franklin Pierce College** 1975-1976
Rindge, NH
Undergraduate Studies, Liberal Arts, Computer Science

TECHNICAL BACKGROUND

- Experience with Windows, Mac, Linux, Windows Mobile, Android and Java-based technologies and relational database eCommerce package solutions.
- 14 years managing deployments of HTML, DHTML, XML, ASP and Perl, Cold Fusion, SQL, CGI, JavaScript and Avid Programming
- Eight years of Internet administration and integration on; UNIX/Solaris, CITRIX, NTServer 200X, IIS, Apache, .Net and Tomcat
- Expert user of Macromedia, Adobe, Catalyst, Omniture, Google Apps, TCP/IP, Citrix, DNS/DHCP, FTP, ODBC, Celebro City Server, Quark, SEO Proficient in Microsoft Office applications (Word, Excel, Access, PowerPoint)
- The Museum System (TMS)
- Graphics: Photoshop CS5

CONTRACT CONSULTING

- **BusinessEdge Solutions**
Project leader/ Manager Dot Com Group, February 2000 – September 2000
- **Internet Solutions**
Internet Integration Specialist, July 1999-January 2000
- **Xerox**
Webmaster Digital toys Team, March 1997-February 1998
- **General Electric Multi-media**
Ecommerce Team Leader, February 1998-April 1998
- **Atlantic Mutual Companies**
Ecommerce Team Member, June 1998-July 1999
- **Eastman Kodak Company**
Web Team Lead / Integration Specialist, June 1996-March 1997
- **NetAccess Inc.**
Web Development Specialist, August 1994-June 1996
- **T.G.I. Fridays Inc.**
Web Designer, February 1993-August 1994

Appendix G – Resumes: George Eastman House Staff and Advisory Board

JARED CASE

jcase@geh.org

EXPERIENCE

George Eastman House, Rochester, New York

Head of Collection Information and Access, Motion Picture Department,

September 2011 – present

- Maintenance of Motion Picture Department records in The Museum System (TMS)
- Catalog and inventory collection materials
- Provide reference services and access to the public
- Collate access of motion picture artifacts for use internally and worldwide
- Develop and implement cataloging policies
- Inspect film prints
- Answer external and internal requests for information on the collection
- Track usage of collection materials and document changes in status
- Staff instructor for The L. Jeffrey Selznick School of Film Preservation (Collection Management, Digitization of Collections, Frame Enlargements)
- Supervise volunteers and interns

George Eastman House, Rochester, New York

Head of Cataloging and Access, Motion Picture Department

August 2009-September 2011

- Maintenance of Motion Picture Department records in The Museum System (TMS)
- Catalog and inventory collection materials
- Provide reference services and access to the public
- Collate access of motion picture artifacts for use internally and worldwide
- Develop and implement cataloging policies
- Inspect film prints
- Answer external and internal requests for information on the collection
- Track usage of collection materials and document changes in status
- Staff instructor for The L. Jeffrey Selznick School of Film Preservation (Collection Management, Digitization of Collections, Frame Enlargements)
- Supervise volunteers and interns

George Eastman House, Rochester, New York

Cataloger, Motion Picture Department

June 2003 – August 2008

- Maintenance of Motion Picture Department records in The Museum System (TMS)
- Catalog and inventory collection materials
- Provide reference services and access to the public
- Develop and implement cataloging policies
- Inspect film prints
- Answer external and internal requests for information on the collection
- Track usage of collection materials and document changes in status
- Staff instructor for The L. Jeffrey Selznick School of Film Preservation (Collection Management, Digitization of Collections, Frame Enlargements)

Appendix G – Resumes: George Eastman House Staff and Advisory Board

George Eastman House, Rochester, New York
Curatorial Assistant, Motion Picture Department
August 2002 – June 2003

- Inspection and repair of films for outgoing loans, films returned from screening venues, and new acquisitions
- Preparation of detailed print condition reports and cataloging records

EDUCATION

The L. Jeffrey Selznick School of Film Preservation at George Eastman House
Rochester, New York

- Certificate in Film Preservation, 2002

SUNY Cortland and SUNY Brockport, 1990-1993

COMPUTER SKILLS

- Microsoft Office applications (Word, Excel, Access, PowerPoint); FileMaker Pro, The Museum System; Photoshop CS5

PROFESSIONAL ACTIVITIES

- 2013 Collective Imagination conference (TMS)
- 2013, 2012 guest lecturer for University of Rochester class “Civil War in Cinema”
- 2012, 2011, and 2009 guest lecturer for University of Rochester class “Film as Object”
- 2012, 2010 panel member at NoirCon, Philadelphia, PA
- 2012, 2011 guest lecturer at Turner Classic Movies Film Festival
- 2012, 2011, 2010 programmed “Essential Film Noir” series at the Dryden Theatre, including special guest authors and academics
- 2011 guest programmer spot on Turner Classic Movies network during 24-hour salute to George Eastman House
- 2011, 2004 guest of the Toronto Film Society
- 2010 Association of Moving Image Archivists (AMIA) Conference, Philadelphia, PA; 2007 AMIA Conference, Rochester, NY; 2001 AMIA Conference, Portland, OR
- 2007 Cataloging and Metadata for Moving Images conference, New York, NY
- 2004 guest of Il Cinema Ritrovato, Bologna, Italy

PROFESSIONAL MEMBERSHIPS

- Association of Moving Image Archivists

Paolo Cherchi Usai, Ph.D.

EDUCATION: Dottore in Lettere e Filosofia,
University of Genoa, Italy
Faculty of Literature and Philosophy

PROFESSIONAL EXPERIENCE:

2011 – present
1994 – 2004: SENIOR CURATOR, Motion Picture Department
George Eastman House
International Museum of Photography and Film
Rochester, New York
1994: CURATOR
1989 – 1992: ASSISTANT CURATOR

Overall responsibility and delegated authority over a staff of ca. 20 full time / part-time employees, with responsibility for the acquisition, selection, preservation, development of, and public access to the collection of moving image artifacts. A portion of these activities is coordinated with other departments, such as the Photography and Technology Departments, and the Registrar Office. Responsibility and authority for the administration of the department budget, with proactive fundraising in collaboration with the Development Office for outside support from private and public agencies. Average annual budget: US \$ 1.5m plus grant support.

2011 – present
1996 – 2004: DIRECTOR
1996: CO-FOUNDER (with L. Jeffrey Selznick)
The L. Jeffrey Selznick School of Film Preservation

2012 – present
1995 – 2004: ADJUNCT PROFESSOR OF FILM
University of Rochester, Department of English, Film
and Media Studies

1994 – 1995: ADJUNCT ASSOCIATE PROFESSOR OF FILM

1989 – 1992: ADJUNCT ASSISTANT PROFESSOR OF FILM

2008 – 2011: DIRECTOR
Haghefilm Foundation
Amsterdam, The Netherlands

2008: FOUNDER

Overall responsibility and delegated authority for all the activities of a non-profit organization dedicated to the education and training of conservationists in the field of analog and digital preservation. Planning, leading, and managing the program with the collaboration of two Project Coordinators and of a staff of ca. 45 full-time employees of the Haghefilm Conservation Laboratories in Amsterdam. Administration and management of the Foundation's resources, including gift funds, awards, guest lectures and film preservation projects. Additional teaching responsibilities at universities, archives, and museums.

2010 – present: CURATOR EMERITUS

2004 – 2008: DIRECTOR

National Film and Sound Archive
Canberra, Australia

Overall responsibility and delegated authority over a staff of ca. 153 full-time employees, with responsibility for collections at the highest national level. Planning, leading, and managing the collections, services and programs to ensure that the organization is a major contributor to national information, comprehensive knowledge and understanding of moving image and recorded sound. Administration and management of the organization's resources, including gift funds; responsibility for and participation in the formulation, presentation, and execution of the organization's budgetary responsibilities. Average annual budget: AUS \$ 14m.

1993 – 1994: PRESERVATION OFFICER

Royal Film Archive, Brussels

1993 – 1994: ASSOCIATE PROFESSOR OF FILM

University of Liège, Belgium

1985 – 1989: DEPUTY CURATOR

Cineteca del Friuli
Gemona del Friuli, Italy

1982 – 1988: FILM CRITIC

Il Lavoro (daily newspaper), Genoa, Italy

1986 – 1988: EDITOR, Arts & Books Section

1982 – 1986: JOURNALIST

1981 – 1982: MEDIA CONSULTANT

Federindustria Liguria, Genoa, Italy

OTHER POSITIONS HELD:

2009 – present:

GUEST LECTURER
University of Amsterdam,
Department of Media Studies

2006 – present:

RESIDENT CURATOR
Telluride Film Festival

2005-2006:

ADVISORY COUNCIL

2004 – present:

STEERING COMMITTEE
The L. Jeffrey Selznick School of Film Preservation

2003-2005:

VICE PRESIDENT
International Federation of Film Archives

1995-2005:

EXECUTIVE COMMITTEE

2002-2004:

MEMBER, The Association of Art Museum Curators

Appendix G – Resumes: George Eastman House Staff and Advisory Board

BARBARA PUORRO GALASSO

bgalasso@geh.org

EXPERIENCE

George Eastman House - Rochester, NY

Photographer, Photo Lab Manager, Rights and Reproductions, 2003 – present

- Re-assumed Rights and Reproductions, turning it into an online business with digital delivery

George Eastman House - Rochester, NY

Photographer and Photo Lab Manager, 1990-2003

- Continued photographic responsibilities while integrating digital technology

George Eastman House - Rochester, NY

Photographer and Photo Lab Manager, Rights and Reproductions, 1985-1990

- Responsible for providing original photography and photographic reproductions of George Eastman House collections as requested by museum staff and general public.
- Working within the museum's protocols, devise and implement production systems for the efficient crafting of high quality 4x5 B&W negatives, 4x5 and 35 mm color transparencies, B&W photographs.
- Manage business aspect of lab operation including budgeting, purchasing and hiring.
- Order materials and maintain equipment, darkrooms and studio. Supervise and train part-time staff, museum interns and volunteers.

George Eastman House - Rochester, NY

Darkroom Assistant, Print Service Coordinator, 1980 –1985

- Performed all photographic tasks as assigned by supervisor necessary for the orderly processing of work requests
- Responsible for all correspondence, invoicing payment receipt and filling of orders for Rights and Reproductions

George Eastman House - Rochester, NY

Intern, 1979

- CETA Grant Library and Photographic Collections

University of Rochester, Rush Rhees Library, 1980

- Library Assistant , Collection Development and Acquisitions

EDUCATION

Nazareth College of Rochester, 1978

- Bachelor of Science, Studio Art

George Eastman House 1993

- Certificate of Training in Archival Practice

Appendix G – Resumes: George Eastman House Staff and Advisory Board

WORKSHOPS ATTENDED

Cape Cod Photo Workshops

- Pinhole Photography and Camera Making 1999
- Alternative Processa and Papermaking 1998

Visual Studies Workshop

- Drawing for Photographers 2012
- Hand Sewn Book Binding 2005
- InDesign 2004
- Web Design 2000

Appendix G – Resumes: George Eastman House Staff and Advisory Board

NANCY KAUFFMAN
nkauffman@geh.org

EXPERIENCE

George Eastman House - Rochester, NY
Archivist, Stills, Posters and Paper Collections, Motion Picture Department,
July 2007 – present

- Conservation and preservation of paper and photographic materials
- Catalog and inventory collection materials
- Provide reference services and access to the public
- Digitization of photographs and other collection items
- Frame enlargements from 35mm and 16mm films
- Vault management
- Maintain historical department records
- Curate exhibitions of motion picture related collections
- Staff instructor for The L. Jeffrey Selznick School of Film Preservation (Collection Management, Digitization of Collections, Frame Enlargements)
- Supervise volunteers and interns

George Eastman House - Rochester, NY
Curatorial Assistant, Motion Picture Department
May 2006 – June 2007

- Conservation and preservation of audiovisual materials
- Inspection and repair of films for outgoing loans, films returned from screening venues, and new acquisitions
- Preparation of detailed print condition reports and cataloging records

Oregon Historical Society Research Library, Portland, OR
Intern, January - August 2004

- Arranged and described the Seattle Public Library Moving Image Collection of 16mm films comprised of early 1950's regional television programs produced in Washington State,
- Created a finding aid to the collection (available online at Northwest Digital Archives: <http://nwda.wsulibs.wsu.edu/>).
- Viewed programs on VHS and wrote summaries of programs
- Assigned Library of Congress subject headings
- Researched television program listings in Seattle newspapers for original broadcast dates

Miller Nash LLP, Portland, Oregon
Paralegal (Environmental Law and Litigation), 1988 - 2004

- Created numbering systems and databases for document collections; inventoried documents
- Analyzed case documents and prepared chronologies of key facts and events; located and obtained public records; prepared supporting documentation for legal briefs
- Interviewed witnesses for factual evidence and scheduled witnesses for trial; coordinated document productions to opposing counsel; assisted at trial

Appendix G – Resumes: George Eastman House Staff and Advisory Board

EDUCATION	<p>The L. Jeffrey Selznick School of Film Preservation, at George Eastman House International Museum of Photography and Film, Rochester, New York</p> <ul style="list-style-type: none">• Graduate Certificate in Film Preservation, 2005 <p>Emporia State University, Emporia, Kansas – Oregon Cohort</p> <ul style="list-style-type: none">• Master of Library Science, 2004 <p>Arizona State University</p> <ul style="list-style-type: none">• Bachelor of Arts in English, 1987
COMPUTER SKILLS	<ul style="list-style-type: none">• Proficient in Microsoft Office applications (Word, Excel, Access, PowerPoint)• Data management: FileMaker Pro, The Museum System• Graphics: Photoshop CS5
PROFESSIONAL ACTIVITIES	<ul style="list-style-type: none">• 2012 Exhibition: “Ballyhoo! The Art of Selling the Movies”• 2012, 2011, and 2009 guest lecturer for University of Rochester class “Film as Object”• 2012 guest lecturer for University of Rochester class “Civil War in Cinema”• 2010 Film Lost and Found Symposium, University of Rochester and George Eastman House, presentation and panel discussion about the motion picture collections at George Eastman House• 2009 guest lecturer for University of Pittsburgh class “Moving Image Archives”• 2009 Association of Moving Image Archivists (AMIA) Conference, St. Louis, MO; 2007 AMIA Conference, Rochester, NY; 2005 AMIA Conference, Austin, TX; 2004 AMIA Conference, Minneapolis, MN; 2003 AMIA Conference, Vancouver, BC; 2002 AMIA Conference, Boston, MA• 2004 Visual Resources Association Conference, Portland, OR• 2003 Society of American Archivists Conference, Los Angeles, CA• Member of review panel for AMIA Poster Session, 2004, 2005 and 2006 AMIA Conferences• Home Movie Day volunteer, print inspection, 2006, 2007, and 2009• MIC: Moving Image Collections, Education and Outreach Committee, 2003-2004• Access and Programming Task Force, 2003 - selected resources and wrote content about access issues in film archives for MIC website• General Public Portal Task Force, 2004 - selected and compiled links to web resources about film for MIC website
PROFESSIONAL MEMBERSHIPS	<ul style="list-style-type: none">• Society of American Archivists
AWARDS	<ul style="list-style-type: none">• Technicolor Fellowship, 2005 (Intern, Aug. - Sept. 2005)<ul style="list-style-type: none">○ Preservation of 35mm black and white nitrate print of <i>Married on Credit</i> (1915)○ Inspected, repaired, and prepared film for printing of preservation elements

Appendix G – Resumes: George Eastman House Staff and Advisory Board

JAMES LAYTON
jlayton@geh.org

EXPERIENCE

George Eastman House - Rochester, NY

Assistant Archivist, February 2012 – present

- Responsible for multiple duties across the Collections Management and Stills, Posters and Papers Collections departments including film accessioning, assessment and inspection; videotape cataloging, digitization of audio materials, and physical management of the Gleason Works off-site storage
- Assists with collections management and access requests for the Stills, Posters and Paper Collection
- Assists with the organization, documentation and planning of the Technicolor Corporate Archive and equipment for its strategic development and to facilitate access.
- Teaches and supervises students, interns and volunteers
- Prepares written reports and assessments of collection items and contributes research, text and preservation suggestions to grant applications
- Co-author of a book dedicated to the early years of Technicolor

East Anglian Film Archive, University of East Anglia – United Kingdom

Workflow Coordinator, January 2010 – 2012

- Project manager of EAFA's 'Building the People's Digital Film Archive for the East of England' to inventory, catalog and digitize a significant portion of the Archive's collection of television, amateur and industrial films and home movies
- Responsible for over twenty staff based at the Archive and off-site
- Monitored progress and budgets, directly reporting to the Archive's director and funding bodies
- Introduced and maintained raised standards across all departments and trained new staff and archiving students in advanced film handling, inspection and repair
- Operated as vault manager, retrieving, staging and returning films from the vaults
- Assisted in developing the Archive's digital infrastructure and new web-based access strategies
- Worked with researchers, academics, other archivists and members of the public to provide access to collections
- Founded the EAFA Research Library in 2011 making the Archive's book and special collections available to the public for the first time

KRRR! 70mm Film Festival, Czech Republic

Programmer, 2010 – 2011

- Sourced 70mm prints worldwide and cleared subsequent exhibition rights

Appendix G – Resumes: George Eastman House Staff and Advisory Board

East Anglian Film Archive

Cataloger, November 2006 – August 2008

- Worked as a Team Member to undertake a complete inventory of approximately 100,000 films and videotapes in the Archive's Anglia Television collection (1959 to present).
- Gathered metadata for each item and entered it into the Archive's custom designed collections management database.
- Assessed physical condition of materials and recommended remedial actions as necessary
- Wrote a detailed 20-page report and analysis on Vinegar Syndrome within the collection which was presented at the Association of Moving Image Archivists Conference in Philadelphia, November 2010

EDUCATION

The L. Jeffrey Selznick School of Film Preservation at George Eastman House Rochester, NY

- Graduate Certificate in Film Preservation, 2009

Surrey Institute of Art & Design, Surrey, United Kingdom

- B.A. (Hons) in Film & Video, 2002 –2005

AWARDS

Le Giornate del Cinema Muto, Pordenone, Italy and The L. Jeffrey Selznick School of Film Preservation at George Eastman House

- Pordenone Silent Film Festival Fellowship, October 2009

Association of Moving Image Archivists - Image Permanence Institute Internship in Preservation Research, July – Sept 2009

EXHIBITION & TECHNICAL SKILLS

George Eastman House - Rochester, NY

- Co-curating an exhibition celebrating 60 years of Cinemascope 2013-2014

Le Giornate del Cinema Muto, Pordenone, Italy

- Provided program notes for and introduced newly preserved films 2011-2012
- Adobe Premiere; Final Cut Pro; Excel; Word

Christopher J. Puckey

Manager of System and Network Administration ▪ George Eastman House

585.271.3361 x397 ▪ cpuckey@geh.org

900 East Avenue ▪ Rochester, NY 14607

Summary of Qualifications

Over 15 years of IT experience in start up and established companies. Proven record of success in high-profile system migrations. An IT professional who continues to learn new technologies.

Work History

George Eastman House - Rochester, NY

12/2013 - present

Manager of System and Network Administration

Responsible for the maintenance, support, and ongoing operations of the network, servers, data center, security, enterprise applications, and databases at George Eastman House in Rochester, NY. Part of a team that focuses on technical research and development to enable continuing innovation within the infrastructure. Worked to consolidate all domains and workgroups to a single company domain. Migrated all legacy physical servers to clustered VMWare environment. Implemented Veeam backup solution for onsite and offsite backups of Museum systems and data.

Structured Technologies - Rochester, NY

11/2011 - 09/2013

Information Technology Consultant (8/2012 - 09/2013)

Responsible for Managed IT services for small to medium sized businesses. Led a team of highly certified staff with a focus on delivering enterprise-class expertise to our customer. Mentored technicians on the importance of consistent documentation and knowledge sharing. Personally performed customer migrations including Exchange 2010 deployments, Windows Server 2008/2012 installs and ESX 5.1 deployments and upgrades. Maintained multi-host VMware deployments in several data centers and customer locations. Worked with customers and their budgets for IT infrastructure, disaster recovery and business continuity solutions.

Virtual Chief Information Officer (11/2011 - 8/2012)

Provided CIO functionality and value for small to medium sized businesses. Worked with customers and vendors to develop customized solutions for their unique business. Responsible for strategic planning, decision making and technology recommendations for the customers. Specialized in standardization and preventative maintenance of systems to ensure customer uptime. Provided management of IT related projects, focusing on project deliverables and success by owning the project and providing a single point of contact and accountability.

PAETEC - Victor, NY

05/2011 - 11/2011

Technical Consultant

Responsible for the data center migration of multiple customers using a hosted application. Coordinated with customers to upgrade to the latest software and migrate with minimal downtime to a new data center in Bethlehem, PA. Evaluated servers and determined customer placement in the new environment. Acted as a customer liaison post migration to escalate any issues not found during testing.

Current Group - Rochester, NY

07/2005 - 04/2011

Director of IT Services (03/2007-04/2011)

Responsible for teams in Rochester, NY and Germantown, MD. Added support for Germantown, Madrid and Switzerland offices. Maintained all back office infrastructure including data center operations, VPNs, VoIP phone system as well as all colleague equipment for domestic and international offices. Developed budgets and remained under budget every year. Migrated all locations to VoIP systems for improved features and an annual cost savings. During budget freeze performed self-sparing saving over \$100,000 in maintenance the first year while maintaining 99.9% uptime. Decommissioned the Rochester data center as company restructured. Worked to separate systems while avoiding customer downtime as systems were migrated and some environments duplicated for the new companies.

Christopher J. Puckey

Manager of System and Network Administration ▪ George Eastman House

585.271.3361 x397 ▪ cpuckey@geh.org

900 East Avenue ▪ Rochester, NY 14607

Manager of IT Services (07/2005 - 02/2007)

Responsible for the health and stability of the internal network as well as many aspects of our external sites. Support local and remote offices including phone and video conference systems. Maintenance of laptops, desktops, servers, network switches, firewalls, routers, and VPNs. Support of business critical software for users, QA and developers, including but not limited to Windows, Office, SQL databases, Visual Studio, TFS, SharePoint, Confluence, Great Plains, Agile, CAD, VMware, and Exchange. Used Commvault software to backup production data including all network files,

email, source code and database information. Worked with vendors on construction of a new building and data center. Designed hot and cold isles to maximize server density and minimize cooling requirements. Set up NOC systems to monitor customer deployments. Championed the use of virtualization. Overcame developer and departmental concerns and showed VMware was a viable solution to physical servers.

Choice One Communications - Rochester, NY

12/1998 – 06/2005

Sr. Manager of LAN Operations (09/2003 – 06/2005)

Managed team of LAN administrators and helpdesk team leader. Part of change control team which ensured applications rolled out quickly but with minimal impact to the organization and proper support. Worked with operations teams to create Virtual servers using Microsoft's Virtual Server product. Liaison between IT development, application support, business units and end users. Led team to upgrade existing citrix server farm allowing us to support more users and applications with less servers and greater security. Deployed dummy terminals and citrix desktops to remote sales offices which allowed an unprecedented 24 hour turnaround time for account and system access.

LAN Administrator/Manager of LAN Operations (12/1998 – 09/2003)

Helped the company grow from 30 person office to over 1500 colleagues with 29 markets in 12 states. Performed day to day troubleshooting/assisting users with any computer problems they may be experiencing. Monitored, tested and deployed hot fixes/patches/service packs for servers and users. Managed business critical servers. Performed software and hardware upgrades/modifications. Set, configured, tested, and deployed server systems in Rochester and other cities. Travel to other cities for initial setup/upgrade of systems. Responded to all incoming technical issues in a professional, courteous and timely manner. Implemented Citrix farm for business critical applications which allowed a faster deployment of applications, less end user troubleshooting and greater uptime.

Technologies

- | | | |
|--------------------------------|------------------------|--------------------------------|
| ▪ Active Directory 2000 - 2012 | ▪ VMware ESX 3.5 - 5.5 | ▪ Symantec Ghost |
| ▪ Exchange 5.5 - 2013 | ▪ Cisco PIX/ASA | ▪ Symantec Endpoint Protection |
| ▪ Windows Server 2000 - 2012 | ▪ SonicWall VPN | ▪ ASP.NET / IIS 5-7.5 |
| ▪ SBS Server 2003-2011 | ▪ Juniper SSL VPN | ▪ Visual Studio 2003/2005 |
| ▪ Office 95 - 2013 | ▪ TrixBox | ▪ EMC SANs |
| ▪ Windows 2000/XP/7/8 | ▪ AppAssure | ▪ NetApp SANs |
| ▪ SharePoint 2007/2010 | ▪ Backup Exec | ▪ Citrix Metaframe / |
| ▪ SQL Server 7-2008 | ▪ CommVault | Presentation Server |

Education

State University of New York at Utica/Rome
Bachelor of Arts, Psychology

Appendix G – Resumes: George Eastman House Staff and Advisory Board

CAROLINE YEAGER

cyeager@geh.org

PROFESSIONAL EXPERIENCE

George Eastman House - Rochester, NY

Assistant Curator, Motion Picture Department, August 1998 – present

Lecturer, Curatorial Administration, The L. Jeffrey Selznick School of Film Preservation, August 1998 – present

- Grant Administrator, Motion Picture Department: Prepares, researches, writes or co-writes, tracked and administered film preservation and department support grants from the following funding institutions: The Film Foundation; The Louis B. Mayer Foundation; The National Endowment for the Arts; The National Endowment for the Humanities; The National Film Preservation Foundation; The New York State Council on the Arts; The Packard Humanities Institute; Saving America's Treasures (The National Park Service); The Women's Film Preservation Fund
- Budget Manager: Manages and supervises department budgets
- Curator and Programmer for Senior Citizen Matinees (2005 – present): selects, creates descriptive text, introduces and monitors Senior Matinees in the Dryden Theatre (March – October)
- Acquisition officer: Assists donors with acquisitions; donor access to film materials; drafts and edits donor and deposit agreements
- Access Officer (1998-2009): provided access to the motion picture collection through archival film loans and stock footage requests
- Alternate Responsible Officer: USIA J-1 Visa Program for the Motion Picture Department
- Department representative at national and international film festivals and conferences: Association of Moving Image Archivists, Minneapolis, MN; Locarno International Film Festival, Locarno, Italy; San Francisco Silent Film Festival; Joint Technical Symposium, Toronto, Canada; Taormina Film Festival; Copyright Law in the Digital Age Conference, Rochester, N.Y.; General Assembly, International Federation of Film Archives, Helsinki, Finland.

Project Manager, Dryden Theatre Renovation, 2000-2013

- Contacted vendors for quotes on all areas of the restoration from new seating to projector, sound, screen and masking systems
- Created departmental budget for the project
- Acted as liaison for architectural firm and technical contractor for new theatre projection equipment
- Completed: Phase I, Dryden Lobby 2001; Phase II technical upgrade of Dryden Theatre Booth and theatre sound systems 2007; Phase III – Auditorium and Projection 2013

Professional Actress, 1972-1996

- Appeared in over 100 plays, film, television and radio productions

Appendix G – Resumes: George Eastman House Staff and Advisory Board

EDUCATION	<p>The L. Jeffrey Selznick School of Film Preservation, George Eastman House Rochester, N.Y.</p> <ul style="list-style-type: none">• Graduate Certificate in Film Preservation, 1998 <p>Temple University, Philadelphia, Pennsylvania</p> <ul style="list-style-type: none">• Master of Fine Arts, Acting; Department of Theater, 1975 <p>State University of New York at Brockport, Brockport, N.Y.</p> <ul style="list-style-type: none">• Bachelor of Science, Department of Theater, 1972
PUBLICATIONS	<ul style="list-style-type: none">• <i>Image, The Magazine of George Eastman House</i>, Spring 2005, "Fate, Chance, & Good Luck: The Michael Ruggieri Poster and Paper Collection"• <i>Le Giornate del Cinema Muto</i>; 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th 31st Edition Catalogue, 2002-2012, Contributor
EXHIBITIONS	<ul style="list-style-type: none">• <i>Ballyhoo! The Art of Selling the Movies</i> (2012) Coordinator• <i>Americana: Hollywood and the American Way of Life</i> (2011) Co-Curator• <i>Reel Histories: The Civil War in Motion Pictures</i> (2011) Curator• <i>Hollywood Lost: The Power of Louise Brooks</i> 2006-2007, Curator• <i>Site Seeing: Photographic Excursions in Tourism</i> 2004, Curator of Motion Picture Materials• <i>Right Before Your Eyes: The Best of Photo and Film, Celebrity</i> 2003-2004, Curator of Motion Picture Materials
PROFESSIONAL AFFILIATIONS	<p>Association of Moving Image Archivists (AMIA); Advocacy Committee co-chair AMIA conferences in Philadelphia, PA, 2010; Rochester, N.Y., 2007 Cataloging Conference, London, Ontario, Canada, 2001</p>

Appendix G – Resumes: George Eastman House Staff and Advisory Board

Barry Allen

Film Preservationist and Restoration Consultant

(b) (6)

A large black rectangular redaction box covers the contact information and other details of Barry Allen's resume.

Qualifications:

Barry Allen has over 40 years in television distribution and film preservation. Mr. Allen has extensive experience in photochemical and digital processes for B&W and color films including the restoration and preservation of films made in the Technicolor three-strip negative dye imbibition process.

2010: Independent Film Preservationist and Restoration Consultant

- Selected HD mastering projects: *Four Faces West* (1948), *The Private Affairs of Bell Ami* (1947), *The Story of GI Joe* (1945), *The Big Combo* (1955), *God's Little Acre* (1958), *Cover Up* (1949).
- In progress: research for the missing elements from Cinecolor (2 strip process) films owned by consultancy client.

2005: Anthology Honors Award for work to preserve the Republic Library.

2005: Head of Preservation, Paramount Pictures, Hollywood, CA.

- Initiated the manufacture of new 35mm film elements for both mastering to HD and for long term preservation of the film assets.
- Directed the preservation and restoration of dozens of films in the Paramount Pictures film catalog including *Roman Holiday* (1953), *Sabrina* (1954), *Stalag 17* (1953), *Sunset Boulevard* (1950), *Once Upon a Time in the West* (1968), *Days of Heaven* (1978), *Rosemary's Baby* (1968), *Harold and Maude* (1972), *The Conformist* (1971), and many other library titles.

1999: Head Preservationist, Republic/NTA Film Library for Viacom/Paramount Pictures, Hollywood, CA.

- Instituted a worldwide search for elements to preserve endangered titles due to deterioration following the demise of production and distribution by Republic Pictures.
- Initiated selective preservation on the 600 titles acquired by National Telefilm Associates, owner of the copyrights to the Republic library, later merged into Republic Entertainment. Films preserved from the Republic library include *Macbeth* (Welles 1947) *The Red Pony* (Technicolor 1949), *Miracle of the Bells* (1948), *The Sands of Iwo Jima* (1949), and all surviving John Wayne B Republic films from 1935 to 1939. In 2001 a special project produced what is the only known modern print of a Trucolor (Red/Blue 2 strip negative) Roy Rogers film, *Trigger Jr* (1950), with excellent results.

Appendix G – Resumes: George Eastman House Staff and Advisory Board

Barry Allen, cont'd

During the '90s, supervised the stock footage library that culled, and catalogued the reusable trims and outtakes from features.

1987: Head of Syndication Distribution Department, Paramount Pictures, Hollywood, CA.

- Initiated core changes in the servicing of film distribution to hundreds of local TV stations. Supervised staff of 5.
- Directed the transition from 16mm prints to videotape and satellite delivery of the syndication product. Instituted the creation of edited video versions of theatrical films that would meet the general censorship standards for free TV.
- Initiated the use of transfers from 35mm prints for improved image quality. Interacted with the editorial staff.

1983: Head of video editing, WXIN Indianapolis, IN.

- Video editor for movies prepped for air on videotape. Supervised staff of 2.

1977 -1983: Film Programmer and Advertising Manager, Heaston Theatre group, Indianapolis, IN.

- Booked all film prints and coordinated advertising for the Heaston chain of art house and review cinemas.

1972-1977: Film programmer for Classic Film Revivals, Rivoli and Heaston Theatres, Indianapolis, IN

- Selected and booked 35mm prints for revival cinemas.

1967: Film editor, Film Department at WISH-TV in Indianapolis, IN.

- Physically edited 16mm prints for television broadcast (included selecting break points and editing in 16mm commercials.)

1964-1966: Film Inspector, 16mm film library of the Indianapolis School system.

- Inspected, repaired and maintained rotating library of 16mm film prints for use in schools.

Education:

1962-1967: Indiana University, Bloomington and Indianapolis, IN.

Appendix G – Resumes: George Eastman House Staff and Advisory Board

John Belton

(b) (6)

A large black rectangular redaction box covers the contact information and other details of John Belton's resume.

EDUCATION:

Ph.D. Harvard University (June 1975) in Classical Philology.

TEACHING EXPERIENCE:

1995-on Rutgers University, English Department, Professor of Film
1992-95 Rutgers University, English Department, Associate Professor of Film
1988-92 Rutgers University, English Department, Assistant Professor of Film.
1988, 2001 New York University, Cinema Studies, Adjunct Assistant Professor of Film.
1986 Yale University, Visiting Lecturer in Film Studies.
1978-86 Columbia University, Film Division, School of the Arts: Assistant Professor of Film.

HONORS AND AWARDS:

2008 Academy Film Scholar Fellowship, Academy of Motion Picture Arts and Sciences (History of Color in the Cinema).
2005-06 Fellowship, John Simon Guggenheim Memorial Foundation (Digital Cinema).
1997 Board of Trustees Award for Excellence in Research, Rutgers University.
1994 Kraszna-Krausz Award for Books on the Moving Image (Widescreen Cinema).
1993-94 Presidential Award for Distinguished Public Service, Rutgers University.
1992-93 Trustees Research Fellowship, Rutgers University.
1987 Fellowship for Independent Study and Research, National Endowment for the Humanities (CinemaScope: Technique and Technology).

PROFESSIONAL ASSOCIATIONS:

2005-09 Member, Public Policy Committee, Society for Cinema and Media Studies.
1996-99 Member, Archival Papers and Historical Committee, Society of Motion Picture and Television Engineers.
1991-92 Chair, Preservation and Access Committee, Society for Cinema Studies.
1989-96 Member, National Film Preservation Board, Library of Congress.
1987-91 Chair, Task Force on Film Integrity, Society for Cinema Studies.
1989-95 Member, Edison Motion Picture Centennial Committee
1985-96 Chair, Archival Papers and Historical Committee, Society of Motion Picture and Television Engineers.
1984-87 Member, Eastman Kodak Gold Medal Award Committee, Society of Motion Picture and Television Engineers.

PROFESSIONAL ACTIVITY

2005 Member, Review Panel for NEH Grant Applications, National Endowment for the Humanities, January 25, 2005.
2003 Co-curator, "50 Years of Widescreen Moviemaking," Film Society at Lincoln Center Retrospective, Walter Reade Theater, August 15-September 4, 2003.

Appendix G – Resumes: George Eastman House Staff and Advisory Board

John Belton, cont'd

2001	Consultant, Satellite Media Tour, The Film Foundation.
1999	Consultant, The Story of Movies Project, The Film Foundation/Directors Guild of America.
1994	Chair, Task Force on Public Access and Educational Use of Motion Pictures, National Film Preservation Board, Library of Congress.
1993	Member, Film Preservation Hearings Board, National Film Preservation Board, Library of Congress.
1992-2012	Associate Editor, <u>Film History</u> .
1990	Advisor, "Motion Picture and Television Technology: Machines at the Intersection of Art and Culture" Exhibit, American Museum of the Moving Image.
1989-on	Series Editor, Columbia University Press series of books on Film and Culture.

PUBLICATIONS:

Alfred Hitchcock's "Rear Window" (editor). Cambridge Film Handbooks. New York: Cambridge University Press, 2000.

Movies and Mass Culture (editor). New Brunswick, N.J.: Rutgers University Press, 1996.

American Cinema\American Culture. New York: McGraw-Hill, 1994; second edition, 2004; third edition, 2008, fourth edition, 2012.

Widescreen Cinema. Cambridge: Harvard University Press, 1992.

Film Sound: Theory and Practice (co-edited with Elisabeth Weis). New York: Columbia University Press, 1985.

Essays on Color:

"Color and Meaning in *Marnie*," Color and the Moving Image: History, Theory, Aesthetics, Archive, ed. By Simon Brown, Sarah Street and Liz Watkins. AFI Film reader. New York: Routledge, 2013.

"Glorious Technicolor, Breathtaking CinemaScope and Stereophonic Sound," The Classical Hollywood Reader, ed. Steve Neale. New York: Routledge, 2012.

"Color: From Novelty to Norm," Storia del Cinema, vol. IV, ed. Gian Piero Brunetta. Turin: Einaudi, 2001.

"Glorious Technicolor, Breathtaking CinemaScope, and Stereophonic Sound" for Hollywood in the Age of Television, ed. Tino Balio. Boston: Unwin Hyman, 1990.

"Painting by the Numbers: The Digital Intermediate," Film Quarterly 61, No. 3 (Spring 2008): 58-65. "Cinecolor," Film History 12, No. 4 (2001).

"Getting It Right: Robert Harris on Color Restoration (interview)," Film History 12, No. 4 (2001). Response to Sarah Street, "Blithe Spirit and the Lure of Technicolor in Wartime Britain," Columbia Film Seminars, October 8, 2009.

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KEVIN BROWNLOW
Photoplay Productions
21 Princess Road
London NW1 8JR
Tel: 020-7722-2500; Fax: 020-7722-6662
Kevin@photoplay.co.uk

Filmmaker, Editor and Film Historian, Author
Founded Photoplay Productions (1990) with David Gill and Patrick Stanbury

1955 - 1960

Assistant at World Wide Pictures; Editor in 1958.

1960 - 1975

Editor with Lindsay Anderson on *THE WHITE BUS*

Supervising editor on Tony Richardson's *THE CHARGE OF THE LIGHT BRIGADE* (1968) Co-directed with Andrew Mollo, *IT HAPPENED HERE* (1964), and *WINSTANLEY* (1975).

1980 – 1997

Television Series:

HOLLYWOOD [Based on Brownlow's book *The Parade's Gone By...*]

Selected Film Restorations:

Napoleon (1927), *Ben-Hur* (1925), *The Thief of Bagdad* (1924), *The Crowd* (1928), *The Four Horsemen of The Apocalypse* (1921), *Wings* (1927), *The Iron Horse* (1924), *Sunrise* (1927), *The Phantom of The Opera* (1925), *The Wedding March* (1928), *The Iron Mask* (1929), *The Orphans Of The Storm* (2001), and *The Cat aAnd The Canary* (2004).

Film History Documentaries:

Unknown Chaplin (1983); *Buster Keaton: A Hard Act to Follow* (1987); *Harold Lloyd: The Third Genius* (1990). *British Cinema* (1985) - Three programs directed by Alan Parker, Lindsay Anderson and Sir Richard Attenborough, *D.W. Griffith - Father Of Film* (1993), *Cinema Europe - The Other Hollywood* (1995), *Universal Horror* (1998), *Lon Chaney – A Thousand Faces* (2000), *The Tramp and The Dictator* (2002), *Cecil B Demille – American Epic* (2003), *Buster Keaton – So Funny It Hurt* (2004), *Garbo* (2005), and *I'm King Kong!* (2005). [The last three were co-directed with Christopher Bird.]

Awards:

Honorary Academy Award by the Academy of Motion Picture Arts and Sciences in Los Angeles
“for the wise and devoted chronicling of the cinematic parade.” November 13, 2010

Selected Publications:

How it Happened Here (1968; reprinted 2005); *The Parade's Gone By...*(1968); *The War the West and the Wilderness* (1978); *Hollywood: The Pioneers* (1979); *Napoléon - Abel Gance's Classic Film* (1983; reprinted 2004); *David Lean - a Biography* (1996); *Mary Pickford Rediscovered* (1999); *The Search for Charlie Chaplin* (2005) and *Winstanley – Warts and All* (2006).

Richard P. May

(b) (6)

History of Involvement in Motion Picture Industry

After local theater employment in Oklahoma City, OK, joined the staff of Universal Film Exchange in 1952, from clerical work to booking.

1956 –60

Universal Film Exchange – Oklahoma City, Houston, New Orleans, Los Angeles
Head Booker, Office Manager

1960-77

Buena Vista Distribution Co. (Disney) Office Manager, covering Los Angeles, San Francisco, Seattle, Portland distribution territories.

New York Home Office

Branch Operations Manager – Treasurer

Supervision of operations in all U.S. branch offices, supporting sales staff.

1977-83

Twentieth Century Fox

Branch Operations Manager

1983-84

MetroColor Film Laboratory

Consultant, working on development of new laboratory ordering system.

Wrote staff operating instructions, and directed users in its implementation.

1985-86

Metro-Goldwyn-Mayer Manager – International Film Services

Liaison between sales representatives and film laboratories to service prints for international distribution.

MGM controlled the United Artists and pre-1950 Warner Bros. libraries. Turner Entertainment Co. acquired MGM and Warner Bros. libraries in August, 1986, followed by RKO pictures in 1988. MGM Film Service staff became Turner employees at that time.

1986-96

Turner Entertainment Co.

Vice-President, Film Preservation

Continued existing programs of copying nitrate film elements (pre-1951) to safety film. The library at that time consisted of about 6,000 features, shorts and cartoons.

Much of the original material was deposited at George Eastman House (MGM), and Library of Congress (Warner Bros. and RKO). Arranged temporary loans of these

Richard P. May, cont'd

negatives for preservation work in Los Angeles area laboratories.
Scheduled and supervised results.

1988-1996

Conceived and directed a program of new restoration of the MGM and Warner Bros. pictures that were photographed in Technicolor. This consisted of about 150 features and numerous shorts and cartoons. At the same time, continued with preservation of black and white films which had only nitrate elements.

1996-2005

Warner Bros. - Vice-President, Film Preservation

In 1996 Turner Entertainment Co. was merged with Warner Bros. Retained position supervising protection of a very large number of films from both Turner and Warner libraries.

Participated in creating and implementing a 15-year preservation plan to project costs.

Handled interface with several specialty laboratories to handle this work.

Set up budgets, and negotiated prices with labs.

Retired from Warner Bros. in December 2005.

2006-present

Film Technology Company, Inc.

Administrative and preservation supervisor

Appendix G – Resumes: George Eastman House Staff and Advisory Board

Shannon Thomas Perich

Curator of Photography
Photographic History Collection
Smithsonian's National Museum of American History
PO Box 37012, MRC 0635
Washington, DC 20013-7012
phone: 202-633-3832/ fax: 202-357-4256
perichs@si.edu

Education

1996 MA Museums Studies (emphasis on photographic collections)
George Washington University, Washington, DC
1993 BA, Art History, University of Arizona, Tucson
1993 BFA, Studio Art (emphasis in photography), University of Arizona, Tucson
1988 Balboa High School (DOD), Panama City, Republic of Panama

CURRENT RESEARCH PROJECTS

Inventing American Photography: A pan-institutional and international study examining the technological, aesthetic, business and social inventions and innovations of photography from 1830-1860.

Ambrotypes: A photographic process that existed in the transition between daguerreotypes and negative to print processes, from 1854-post Civil War, has rarely been the subject of research. Currently the PHC collection is under survey, initial cataloging and research has begun. Also, **T.P. Collins ambrotype** of a tableaux after David's *Death of Marat* depicting the death of Jefferson Davis with Abraham Lincoln looking at him.

Rolling Stones *Let It Bleed* Tour and photographer Ethan Russell. Russell photographed the 1969 tour of the Rolling Stones as they performed on the Ed Sullivan show, on the road, in concert and up to the concert disaster at Altamont.

CURRENT ASSIGNMENT

3W Project Director: Leading the team that will present the history of American culture in the renovated space on the third floor, west side of the building. This will consist of a large anchor exhibition, Hall of Musical Instruments, three changing galleries and an entry landmark and entry experience. Projected opening date: Fall 2016

SELECTED EXHIBITIONS

Co-Curator American Identity Through Country Music
In collaboration with the Country Music Hall of Fame
For the Annenberg Space for Photography, Los Angeles, CA
June 2014

Curator Capturing Identity: Photographs by Robert Weingarten
International Gallery
Smithsonian Institution
July 2- October 14, 2012

Appendix G – Resumes: George Eastman House Staff and Advisory Board

Shannon Thomas Perich, cont'd

Co-Curator

Pictures for Everyone
National Museum of American History
May 16, 2011 to present

Curator

The Kennedys: Photographs by Richard Avedon
National Constitution Center, Philadelphia, PA
October 5 2007 to present

TEACHING

Adjunct Professor

History of Photography
Maryland Institute College of Art
Fall 2009, Fall 2010, Fall 2011,
Spring & Fall 2012, Spring 2013

SELECTED PUBLICATIONS/ PRESENTATION

Material Girls in a Digital World: Curating in the 21st Century, presentation with Sheila Hoffman at ICOM's Inclusive Museum Conference, Copenhagen, Denmark. April 2013

Blog contributor to NPR Picture Show, 2009 to present,
www.npr.org/blogs/pictureshow/

Regular blog contributor to *Oh! Say Can You See*, 2009 to present
blog.americanhistory.si.edu

Perich, Shannon. *Changing Faces in Portrait Photography: From Daguerreotype to Digital*.
Smithsonian Books. Oct. 2011

Perich, Shannon. "A Quick History of High Speed Photography," essay for LA County Fair catalog,
Fall 2008

Perich, Shannon. Foreword for New American Photographs by Rodger Kingston, Dec. 2007.

Perich, Shannon. *The Kennedys: Portrait of a Family Photographs by Richard Avedon*,
HarperCollins (NY) Oct. 2007
(serialized in a number of national and international publications)

Perich, Shannon. Afterword for Close Relations, by Henry Horenstein. PowerHouse (Boston),
January 2007

Appendix G – Resumes: George Eastman House Staff and Advisory Board

FRANK J. RICOTTA

(b) (6)

(b) (6)

Home: (b) (6)

Cell: (b) (6)

SUMMARY

Senior technical oriented manager with significant business, marketing, and manufacturing-related skills and experience.

EXPERIENCE

Eastman Kodak Company, Rochester NY

Product Manager / Product Commercialization Manager 2011

Managed a diverse portfolio of chemical products for worldwide sale; coordinated the commercialization process for each of two new film products.

- Managed a \$5M worldwide chemicals business, including P/L responsibility, portfolio management, and quality/conformance.
- Ensured the financial stability (revenue and EFO) of the chemicals business during a period of steep decline (>20%) in associated film sales.
- Managed the commercialization process for the development of each of two new film products. Personally performed ‘Voice of the Customer’ interviews with leading customers, and coordinated all product development, marketing, and customer assessment activities.

Customer Service Technical Manager 2001-2010

Managed business unit Customer Technical Services group that provided product quality and product application-related technical services for worldwide customers.

- Coordinated activities with regional sales associates and manufacturing resources to successfully resolve 500-1000 customer inquiries per year.
- Convened annual conference of worldwide technical associates for the purpose of training and for the communication of customer issues.
- Convened biannual customer conference to discuss various topics including product quality, new products, industry trends, and environmental issues.
- Involved extensive travel to Europe, Asia, and Latin America to meet with customers in order to resolve quality and product application issues, and to provide customer training.
- Senior technical resource with gatekeeper/approval rights as customer representative for 4-6 new products each year.
- Assigned to manage start-up and operations of a new customer service group that provided multi-level technical services 24/7 for a new digital cinema business on a worldwide scale.

Prior experience includes additional Business Analyst / Customer Liaison / Technical positions with the Eastman Kodak Company, as well as the position of Senior VP, Worldwide Technical and Engineering Operations for Technicolor, Inc.

Appendix G – Resumes: George Eastman House Staff and Advisory Board

FRANK J. RICOTTA, cont'd

Technicolor, Inc., North Hollywood, California

Senior VP, Worldwide Technical and Engineering Operations, Technicolor, Inc. 1994-1998

Responsible for worldwide technical and engineering operations at four manufacturing facilities: Los Angeles, New York, London, and Rome.

- Responsible for all day-to-day technical and engineering operations at the largest manufacturing facility of its kind, worldwide, processing in excess of 2 billion feet of film per year.
- Responsible for capital budget process and implementation of capital improvement projects in all locations (with regular travel to all locations).
- Project Manager for a \$20M capital project that culminated in the re-introduction of the Technicolor dye transfer process for motion picture printing.
- Primary source of vendor contact for quality and overall fitness of use for all raw materials used in the manufacturing processes.
- Led a variety of special projects and initiatives related to satisfying the creative requirements of film industry leaders such as Steven Spielberg, William Friedkin, and Clint Eastwood.
- Served as the lead company liaison to all important industry associations.

EDUCATION AND TRAINING

BS in Chemistry

Rochester Institute of Technology, Rochester, NY

AFFILIATIONS

- Fellow of the Society of Motion Picture and Television Engineers serving as Editorial Director for Motion Pictures, Regional Governor, and Hollywood Region Section Manager
- Founding Member of the Technology Council of the Motion Picture Industry
- Member of the Academy of Motion Picture Arts and Sciences; awarded Technical Academy Award (1996) and Academy Scientific and Technical Special Commendation Award (2006)
- Past President of the Association of Cinema & Video Laboratories
- Member of the American Film Institute
- Founding Member of the Association of Moving Image Archivists

Céline Ruivo

(b) (6)



Professional Experience

2011-present

Cinémathèque française, Paris (France)

Curator of the film collection

- Restoration, preservation of the nitrate and safety films
- Digitizing the collection for access at the library
- Supervising the cataloguing and print checking for loans
- Supervising a team of 17 people
- Access to the collections (restoration projects, loans, right holders)
- Writing articles and program notes (website, catalogue)

2011-2011 (5 months)

National Gallery of Art (Washington DC)

Archivist of the 16mm educational collection

2007 – 2010

Éclair, Motion Pictures Laboratories, Epinay-sur-Seine (France)

Project Manager

- PM for the digitization of 4000 hours of the Associated Press Archives
- Supervising restoration services for Gaumont Distribution
- Expertise of the original elements
- Tracking the lost elements
- Training a team
- Developing storage and cataloguing architecture
- Quality control of the digital scans and compressed formats
- Project estimation, schedule, find resources

2008 – 2009

Lobster Distribution, Paris (France)

Writer

- Online articles for Europa Film Treasures (Video streaming website)

2007 – 2007

Cinematheque Ontario, Toronto (Canada)

Operator, translator

- English subtitling services for French films exhibitions

2006 – 2006

Museum of Modern Art, (MoMA) New York, NY (USA)

Intern

- Administrative assistant for film exhibitions
- Loan agreements with foreign distributors, and artists

2005 – 2005

Centre Pompidou, Paris (France)

Intern

- Cataloguing the avant-garde collection, writing blurbs for the Museum program, film inspection

Appendix G – Resumes: George Eastman House Staff and Advisory Board

Céline Ruivo, cont'd

2005 – 2006

Abraham House, Non-profit organization, Bronx, NY

Volunteer

- Teacher for an after school program, rehabilitation

2000 – 2006

City Hall (Mairie de Paris) Paris, France

Organizer

- Summer Camps, after-school program

Education

2009 – present

PHD in Film Studies

Université Paris III Sorbonne-Nouvelle

- Research on the Technicolor process and history

2006 – 2007

Certificate of Film Preservation

The L. Jeffrey Selznick School of Film Preservation.

George Eastman House, Rochester, USA

- Inspection of film archives (safety and nitrate, various formats)
- Cataloguing and archiving film, video, stills/ Vaults management
- Research of Study Material (stills, documents) for projects. Blurbs and introductions for the Dryden Theatre programs
- Personal Project: assessing the silent Gaumont collection
- Image and Sound quality control workshops
- Lab Workshops, photochemical restoration
- Administration: Budgetary activity –loans agreements, shipping, exhibitions and preservation projects. Acquisition process. Writing of grants applications (NEA)

2004 – 2006

Master Film and Museum Studies

Université Paris VIII Saint-Denis, France

- Film exhibition, museum activities, loans, project management

2005 – 2006

Undergraduate Film Studies (Exchange program)

CUNY, Brooklyn College, New York, USA

- Production in 8mm, Screenwriting, Film History

2002 – 2004

PhD degree Philosophy of Art

Université Paris I Pantheon-Sorbonne, Paris, France

2000 – 2002

Master Film Studies & Aesthetics

University Paris I Pantheon-Sorbonne, Paris, France

Appendix G – Resumes: George Eastman House Staff and Advisory Board

Ralph N. Sargent III
Film Technology Co., Inc.
726 North Cole Avenue

Qualifications: Forty-three years of experience in management and operation of motion picture and video post-production facilities. Thirty-eight years of specialized experience in the restoration and preservation of motion pictures and television programming. Six years experience in teaching motion picture and television production. Forty-eight years of varied experience in the motion picture and television industry as a producer, director, author, inventor, technical consultant and engineer.

Work Experience

1971 to present:	Film Technology Company, Inc., Hollywood, CA President and Founder Manages the Company’s overall operations with a particular emphasis on technical operations, project coordination and staff development. Directs the design, engineering, installation and maintenance of film, video and sound facilities within the Company. Secures the necessary staff and equipment to support ongoing operations, new services and changing market requirements. Establishes quality control procedures for film and video products and monitors the attainment of quality levels achieved by film and video technical staff. Trains newly hired technical staff and instructs staff in the operation of new equipment. Provides general supervision for Company managers, financial and office staff, marketing and technical personnel.
1968 to 1971	University of California, Los Angeles, CA Lecturer, Film Production Instructed graduate students in production of feature films, including script breakdown, storyboarding, shot visualization, sound stage and location direction, lighting, sound recording and cinematography.
1965 to 1968	Production Supervisor Supervised technical operation of UCLA’s Motion Picture Division, Theater Arts Department. Duties included the purchase of lighting, sound and photographic equipment, maintenance and distribution of same. This position also required the instruction of students in the use of this equipment.

EDUCATION

University of California, Los Angeles	M. A., Motion Picture Production	1965
University of North Carolina, Chapel Hill	B. A., Radio, Television, Motion Pictures	1964

Condensed Biography:
Ralph N. Sargent III received his B. A. in radio, television and motion pictures from the University of North Carolina, Chapel Hill in 1964. He earned his M. A. in motion pictures from the University of California, Los Angeles and joined the technical staff of UCLA’s Motion Picture Division of the Theater Arts Department following graduation in 1965. In 1968 he was appointed a lecturer at UCLA teaching both technical and production courses.

Ralph N. Sargent III, cont'd

Sargent left UCLA to form Film Technology Co., Inc. in 1971. The company has grown to become one of the premiere restoration laboratory facilities in the United States serving both film, video and sound clients throughout the world.

Sargent is the author of “Preserving the Moving Image” published by the National Endowment for the Arts and the Corporation for Public Broadcasting in 1974. He was a contributing editor and advisor for the National Film Preservation Foundation’s publication, “The Film Preservation Guide: The Basics for Archives, Libraries and Museums,” published in 2004. He is a life member of the Society of Motion Picture and Television Engineers and a member of the Association of Moving Image Archivists. He has contributed lectures and presentations to both organizations touching on a wide variety of technical devices and techniques of interest to the field.

In less directly related fields, Sargent is a past chairman and honorary life member of the Los Angeles Theatre Organ Society and a producer of numerous silent film scores and theatre organ recordings. He is also a member of the Society for Astronomical Sciences and an astrophotographer whose deep space photographs have appeared in *Astronomy Magazine*.

Warren M. Sherk

Special Collections
Margaret Herrick Library
333 S. La Cienega Blvd.
Beverly Hills, CA 90211
(310) 247-3000, ext. 2265
wsherk@oscars.org

Work Experience

Academy of Motion Picture Arts and Sciences

Margaret Herrick Library

Manager, Special Collections

Apr 2013 to present

- Oversee departmental operations, including acquisitions and collection development, collection management and processing, and research access and use.
- Manage a staff of 10 full-time and 2 part-time employees.
- Oversee databases for management of archival manuscript collections, including Accession Manager, Collection Manager, Location Manager, and Manuscript Inventories.
- Provide oversight for collection processing and inventory of archival and manuscript materials, including adherence to departmental standards and database input guidelines.

Music Specialist (part-time), Special Collections

c. 1992 to present

- Manage and oversee the preservation, use, and care of 45,000-item music and recorded sound collection within Special Collections that includes audio recordings and sheet music.
- Acquire, operate, and maintain equipment to support playback of current and obsolete formats, preservation re-recording, and digitization of analog audio recordings.
- Provide staff/patron support for research requests in person, by phone, and via e-mail.
- Generate and make available listening or use copies based on staff and patron requests.

Database Archivist (part-time), Special Collections

Mar 2001 to Apr 2013

- Designed, developed, implemented, maintained, and administered Inmagic databases for collection management of archival manuscripts, including Accession Manager, Collection Manager, Location Manager, and Manuscript Inventories. Collectively, these databases contain more than a quarter million records.
- Developed and wrote database input guidelines and developed and maintained departmental processing manual.
- Provided training and oversight for collection processing, including adherence to departmental standards, and wrote processing plans for Archive Processors.
- Developed collection-level records for the Library's Voyager catalog.

Archival Assistant (part-time), Special Collections

June 1987 to Mar 2001

- Processed (selected list) the papers of Sammy Cahn, George Cukor, Mack Sennett, and Fred Zinnemann, the records of the Screen Composers Association and Tallmantz Aviation; and music manuscripts in the collections of Jerry Goldsmith and Alex North.

Warren M. Sherk , cont'd

Academy Service and Committees

Academy Film Scholars program, staff judge

Digital Collections team member

Library Technology committee

Community Service

Board of Directors, The Film Music Foundation

Board of Directors, Secretary, The Film Music Society

Education

University of California, Los Angeles, Master of Arts (Composition) 1988

University of Arizona, Bachelor of Music (Theory and Composition) 1982

Conference Presentations

“Preserving and Disseminating Film Voices: The Academy Oral History Program,” Association of Recorded Sound Collections (ARSC), Kansas City, Missouri, May 2013.

“The Materials of Film Music Research,” Society for American Music, California State University, Long Beach College of the Arts, April 2012.

“*Sources and Archives III*, Roundtable,” panelist, sponsored by the American Musicological Society and the Cinematic Arts Library, Doheny Memorial Library, University of Southern California, Los Angeles, February 2009.

Publications

Books

Film and Television Music: A Guide to Books, Articles, and Composer Interviews, 1906–2005. New Jersey: Scarecrow Press, 2011.

Film Music 2: History, Theory, Practice. Co-editor, with Claudia Gorbman. Los Angeles: The Film Music Society, 2004.

The Films of Mack Sennett: Credit Documentation from the Mack Sennett Collection at the Margaret Herrick Library. New Jersey: Scarecrow Press, 1998.

An Oral History with Hans J. Salter, Academy of Motion Picture Arts and Sciences, Margaret Herrick Library, 1994.

Chapters in books

“Looking for Richard: Archival Resources at the Margaret Herrick Library,” in *Wagner and Cinema*, ed. Jeongwon Joe and Sander L. Gilman, Indiana University Press, 2010.

“Dimitri Tiomkin (1894–1979),” introduction in *The Dimitri Tiomkin Anthology*. Milwaukee, Wisconsin: Hal Leonard, 2009.

“Paul Beaver: Analog Synthesist Extraordinaire,” in *Film Music 2*, ed. Claudia Gorbman and Warren M. Sherk, Los Angeles: The Film Music Society, 2004.

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PROFESSOR SARAH STREET

Department of Drama: Theatre, Film, Television
University of Bristol, UK
sarah.street@bristol.ac.uk

PRESENT APPOINTMENT

Professor of Film and Foundation Chair of Drama

PREVIOUS APPOINTMENTS

1985-93: Archivist at the Bodleian Library, Dept. Western Manuscripts, University of Oxford

ACADEMIC QUALIFICATIONS

1985: D. Phil., 'Financial and Political aspects of State Intervention in the British Film Industry, 1925-39', St. Peter's College, University of Oxford

1980: B.A. History (Hons), University of Warwick

PUBLICATIONS: BOOKS

Colour Films in Britain: The Negotiation of Innovation, 1900-55 (British Film Institute/Palgrave Macmillan, 2012), pp. 316.

British National Cinema (2nd expanded edition, Routledge, 2009, 1st edition 1997), pp. 282.

Film Architecture and the Transnational Imagination: Set Design in 1930s European Cinema, co-authored with Tim Bergfelder and Sue Harris (Amsterdam University Press, 2007), pp. 316.

Black Narcissus (I.B. Tauris, 2005), pp. 102.

Transatlantic Crossings: British feature films in the USA (Continuum, 2002), pp. 280.

Costume and Cinema: Dress Codes in Popular Film (Wallflower Press, 2001), pp. 120.

British Cinema in Documents (Routledge, 2000), pp. 194.

Cinema and State: the Film Industry and the British Government, 1927-84, co-authored with Margaret Dickinson (British Film Institute, 1985), pp. 280.

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PROFESSOR SARAH STREET, cont'd

CO-EDITED BOOKS

British Colour Cinema: Theories and Practices (co-ed. with Simon Brown and Liz Watkins, BFI/Palgrave Macmillan, 2013), pp. 320.

Color and the Moving Image: History, Theory, Aesthetics, Archive (co-ed. with Simon Brown and Liz Watkins, Routledge, 2012, pp. 256.

Queer Screen: The Screen Reader (co-ed. with Jackie Stacey, Routledge, 2007), pp. 304.

The Titanic in Myth and Memory: Representations in Visual and Literary Culture (co-ed. with Tim Bergfelder, I.B. Tauris, 2004), pp. 241.

European Cinema: An Introduction (co-ed. with Jill Forbes, Macmillan, 2000), pp. 207.

Moving Performance: British stage and screen, 1890s-1920s (co-ed. with Linda Fitzsimmons, Flicks Books, 2000), pp. 175.

RECENT ARTICLES AND CHAPTERS ON COLOUR CINEMA

2013: 'The Temporalities of Intermediality: Colour in cinema and the arts of the 1920s' (co-authored with Joshua Yumibe), *Early Popular Visual Culture*, vol. 11, no. 2, pp. 140-57.

2011: 'Negotiating the Archives: The Natalie Kalmus papers and the "branding" of Technicolor in Britain and the United States', *The Moving Image*, vol. 11, no. 1, pp. 1-24.

2011: 'The Mutability of Colour Space', introduction to Colour Dossier edited by Sarah Street in *Screen*, 51: 4, pp. 379-82.

2010: "'In Blushing Technicolor": Colour in *Blithe Spirit* (1945)', *Journal of British Cinema and Television*, vol. 7, no. 1, pp. 34-52.

2009: 'Colour Consciousness: Natalie Kalmus and Technicolor Films in Britain' in *Screen* 50: 2, pp. 124-50.

MAJOR GRANTS AND AWARDS FOR COLOUR PROJECTS

2012-2015: 'Colour in the 1920s: Cinema and its Intermedial Contexts', Leverhulme Trust Project Grant, Principal Investigator Sarah Street, Co-Investigator Dr Joshua Yumibe (St Andrews and Michigan State University). Post-doctoral researchers, Dr Vicky Jackson and Dr Bregtje Lameris.

2007-2010: 'The Negotiation of Innovation: Colour Films in Britain, 1900-1955' – AHRC Research Grant for 3 year project; Principal Investigator Sarah Street, Co-Investigator Dr Simon Brown, Kingston University. PhD student Vicky Jackson and post-doctoral researcher Dr Liz Watkins.

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JOSHUA YUMIBE

Michigan State University | Department of English
C639 Wells Hall | East Lansing, MI 48824
yumibe@msu.edu | (b) (6)

EDUCATION

- 2007 Ph.D. in Cinema and Media Studies, University of Chicago
Fields: Historiography, Classical Film Theory, Color Cinema
- 2000 M.A. in Religious Studies, University of Chicago
- 1995 B.A. in English Literature, University of Texas at Austin, Highest Honors

PROFESSIONAL EMPLOYMENT

- 2013–present Michigan State University, Director of Film Studies and Assistant Professor in English
- 2010–present University of St Andrews, Lecturer in Film Studies; full time through 2012, part-time appointment beginning in 2013
- 2007–2010 Oakland University, Assistant Professor in Cinema Studies and English
- 2009 University of Michigan, Ann Arbor, Visiting Assistant Professor, Department of Screen Arts and Cultures

SELECTED PUBLICATIONS

- Moving Color: Early Film, Mass Culture, Modernism*. New Brunswick, N.J.: Rutgers University Press, 2012. Honorable Mention for the SCMS First Book Award, 2013. Selected for festival distribution (200 copies purchased for donors) by Le Giornate del Cinema Muto, 2012.
- “The Illuminated Fairy Tale: The Color’s of Paul Fejos’ *Lonesome*.” In *Color and the Moving Image: History, Theory, Aesthetics*. Ed. Simon Brown, Sarah Street, and Liz Watkins. 127–137. New York: Routledge, 2012.
- “Visual Diplomacy: Projections of Power from the Field in Ethiopia.” *Early Popular Visual Culture* 9.4 (November 2011): 309–323. Shortlisted for the British Association of Film, Television, and Screen Studies’ Best Article in a Refereed Journal Award, 2011–2012.
- With Paolo Cherchi Usai. “The Davide Turconi Collection of Nitrate Film Frames (1897–1944).” *Journal of Film Preservation* 85 (October 2011): 46–49.
- “On the Education of the Senses: Synaesthetic Perception from the ‘Democratic Art’ of Chromolithography to Modernism.” *New Review of Film and Television Studies* 7.3, Special Issue: Synaesthesia (September 2009): 257–274.
- “‘Harmonious Sensations of Sound by Means of Colors’: Vernacular Color Abstractions in Silent Cinema.” *Film History* 21.2, Special Issue on Color (2009): 164–176.
- “From Switzerland to Italy and All around the World: The Josef Joye and Davide Turconi Collections.” In *Early Cinema and the “National.”* Ed. Richard Abel, Giorgio Bertellini, and Rob King. 321–331. Bloomington: Indiana University Press, 2008.

Appendix G – Resumes: George Eastman House Staff and Advisory Board

JOSHUA YUMIBE, CONT'D

SELECTED LECTURES

“Silent Colour Cinema and Its Intermedial Contexts.” Glasgow Colour Studies Group, University of Glasgow. November 14, 2012.

“Colour Space as Play Space: On Children’s Books, Silent Cinema, and Olafur Eliasson.” Drama Research Seminar. University of Bristol. May 18, 2011.

“The Colors of Early Cinema: Attractions and Transitions.” University of Wisconsin Film Colloquium. Madison. February 26, 2009.

“Vernacular Color Abstractions in Silent Cinema.” The Realm of the Senses: Synaesthetic Aspects of Perception, Conference, Freie Universität. Berlin. April, 2007.

“Preserving the Colors of Early Cinema through the Davide Turconi Film Frame Collection.” Imaging Science Seminar Series. Rochester Institute of Technology. September, 2006.

SELECTED AWARDS AND HONORS

2012–2015 Leverhulme Trust Research Project Grant, for “Colour in the 1920s: Cinema and Its Intermedial Contexts”; Co-Applicant with Sarah Street; £246,243 for research support and postdoctoral funding

2006–2007 Mellon Fellowship for Dissertation Research in Original Sources, Council on Library and Information Resources

PROFESSIONAL SERVICE

2013– Director of Film Studies, Michigan State University

2012–present *Co-Investigator of “Colour in the 1920s: Cinema and Its Intermedial Contexts” Research Project*, with Sarah Street.

2012 Director of Postgraduate Studies in Film, University of St Andrews

2011–present *Executive Committee of Domitor*, the International Society of the Study of Early Cinema.

2011–present *Coordinator of the Cinema St Andrews Research Project*, with Tom Rice.

2003–present *Co-Director of the Davide Turconi Project*, with Paolo Cherchi Usai

PROFESSIONAL SOCIETIES

British Association for Film, Television and Screen Studies, since 2012

Domitor, the International Society of the Study of Early Cinema, since 2005; elected member of Executive Committee from 2011–present

Society of Cinema and Media Studies, since 2003

National Endowment for the Humanities
Preservation and Access: Humanities Collections and Reference Resources
George Eastman House Proposal:
Technicolor Online Research Archive

Appendix H - Technicolor Project Archivists – Job Description

Project archivists will be required to:

- Handle, identify, inspect, catalog, and scan documents, blueprints and other paper items from the Technicolor Research Collection.
- Work with the Museum photographer to photograph Technicolor technology artifacts and create 3-D digital files.
- Provide required tags and metadata for all scanned and photographed materials.

Project Archivists must also demonstrate:

- Extensive knowledge of conservation and handling requirements for a wide range of documents, photographs, and artifacts.
- Excellent written and oral communication skills.
- A working knowledge of Adobe Photoshop, Word, Excel, FileMaker Pro and The Museum System (TMS) database.
- Excellent organizational skills, flexibility and multi-tasking abilities.
- An exemplary professional demeanor with strong interpersonal skills.
- A strong background in motion picture history.
- Able to work well independently and as part of a team.
- Able to lift 50 pounds; able to stand, bend, and climb a ladder.

Annual

Report ID: 115497

Application Number: PW-228298-15

Project Director: James Layton

Institution: George Eastman House

Reporting Period: 5/1/2015-4/30/2016

Report Due: 5/31/2016

Date Submitted: 6/1/2016

Grant ID No.: PW-228298-15

Project Title: Technicolor Online Research Archive

Project Director: Jared Case

Institution: George Eastman House

Annual Performance Report Period: 5/1/2015 – 4/30/2016

Report Due: May 31, 2016

Date Submitted: May 31, 2016

Project Activities

In accordance with the Technicolor Online Research Archive (TORA) project work plan, Project Director Jared Case worked with the Museum's Human Resources Manager to recruit the two grant-funded project archivist positions. The full-time position was filled by Kelsey Eckert, a graduate of the Museum's L. Jeffrey Selznick School of Film Preservation. Previously, Eckert gained experience in transcription while working with the William H. Seward papers at the University of Rochester. Since transcription is a vital requirement for this project, Eckert was an excellent choice.

The part-time archivist position was filled by Ryan Conrath, a University of Rochester Fellow. Conrath previously worked with the museum to develop the exhibition *"In Glorious Technicolor"* and also provided research support for the IMLS grant-funded project *"Technicolor 100."* Prior to the archivist's start-date, Project Director Case collaborated with the museum's Information Technology (IT) staff to identify the best and most efficient solution for scanning the large quantity of items required for this project. It was determined that a Bookeye scanner provided the best option since it allows books and journals to be cradled while scanning, without damage to publication binding. The Bookeye scanner also creates individual files as it scans, which supports archivist efficiency. In addition to scanning books and bound materials, the Bookeye scanner may also be used for flat scanning, thereby allowing the archivist to efficiently scan loose paper documents.

Project Archivist Eckert has primary responsibility to scan artifacts from the various collections that comprise the museum's Technicolor holdings. Contained within the collections are the notebooks of Technicolor employees John M. Andreas, Leonard Troland, and John F. Kienninger, as well as corporate notebooks, that span the period 1915 through 1955. These notebooks were identified as key collection artifacts that will provide a significant resource to researchers and others for charting the progress of both the Technicolor process and the company's growth during its early years. Once the notebooks were scanned, Eckert directed her efforts toward scanning bound publications of *"Technicolor News and Views,"* dating from 1939 to 1955. These corporate newsletters are maintained in the museum's Richard and Ronay Menschel Library.

Contemporaneous to scanning activities, Conrath investigated the Technicolor collection using inventory lists that were created by previous Selznick School students, Shannon Fitzpatrick and Almudena Escobar Lopez. Conrath focused his efforts toward identifying and tagging documents for the period 1915-1955, to complement the notebooks. While Conrath's work involved the John M. Andreas Collection and the Richard J. Goldberg Collection, the most appropriate items were contained in the Technicolor Corporate Archive. These files include business reports, financial statements and building construction documents, as well as research and testing reports from the development of four distinct Technicolor processes. An efficient workflow was devised with Conrath tagging files while Eckert scanned them, focusing first on the bound materials and then the loose files.

To facilitate digital conservation, .tiff files were created for all document scans at 300 dpi resolution. These files will be drawn upon to create images appropriate for publication on the museum's website. Though not yet finalized, we plan to offer web visitors three options for file downloads: 1.) thumbnail images for organization; 2.) .jpeg files for ease of loading and reading; 3.) .pdf documents.

Accomplishments

We are pleased to report that the TORA project staff have exceeded the targeted goal of scanning 35,000 documents from the collection (per grant negotiation, April 2015). As of December 31, 2015 the project archivists had identified and scanned over 38,000 documents from the various Technicolor collections. While the documents were scanned, some contextual metadata (location, type, size) was entered. These scans were periodically imported into the museum's digital asset management (DAM) system.

Since January 2016 Eckert and Conrath have focused their efforts toward metadata tagging. To date, 12,000 of the 38,000 documents that were scanned have been fully catalogued with contextual and content metadata. Transcription has been completed for 4,739 documents with 10,640 documents remaining to be transcribed. To ensure that these documents will be searchable online, Eckert and Conrath have used optical character recognition (OCR) software to create text files of the typed documents; have transcribed hand-written documents so that all files may be searched in the same text field; and have tagged each document with its physical and content description. Although this process has been both time-consuming and challenging, it is a vital step toward making the end product—the Technicolor Online Research Archive—as functional and user-friendly as possible. In addition to the text of the documents, the digital files are being tagged with context information that includes:

- title assigned to the object
- location in the collections and in the vault
- type of object
- date of creation
- provenance

Content tagging includes:

- author
- geographical notes
- Technicolor processes,
- people
- film titles

Keywords are also used to collect information on disparate subjects that are related to film, its evolution, and its presentation. Some of the disparate subjects that may become facets of

study within this collection are: carbon arc projection, the purity of processing chemicals, the aesthetics of color, and the effect of war on film production.

Prior to the end of the project's first year, Ken Fox was hired as the second full-time archivist. Fox, who has earned a Master's in Library Information Systems, previously served as an archivist on the grant-funded project: *Documenting Their Films: Hidden Collections of Four Independent Filmmakers*.

Changes

While there have not been any major changes within the TORA project, there have been some institutional developments within the last eight months that will support progression of the project and development of the online archive. In October 2015, in conjunction with the museum's rebranding and name change to George Eastman Museum, an entirely new Drupal-based website was launched (eastman.org). Our new website serves as the museum's primary means of sharing information with audiences including potential visitors, students, researchers, potential visitors and others. In addition, the museum upgraded its collection management software. These two developments made it possible for the museum to achieve the first milestone toward making its collection database accessible to the public, which now can search records for more than 240,000 photographs (more than half of which are illustrated online). These institutional efforts will have a very positive impact toward the development of the Technicolor Online Research Archive.

Fund Raising to Meet Federal Match Requirements

To date the museum has certified matching funds totaling \$61,192 to support the federal matching funds requirement for this project. We continue to fund raise for this project. To this end, in April 2016 a grant application was submitted to the Council on Library Information Resources (CLIR) to support continued digitization efforts for the Technicolor Collection. We are confident that our proposal will be successful based upon the strength of this NEH-funded project, the significance of the Technicolor Collection, and the ability of online access to benefit humanities-based research efforts.

Annual

Report ID: 2885862

Application Number: PW-228298-15

Project Director: James Layton

Institution: George Eastman Museum

Reporting Period: 5/1/2016-4/30/2017

Report Due: 5/31/2017

Date Submitted: 5/25/2017

Project Activities

During the second year of the Technicolor Online Research Archive project, efforts were focused on contextualizing images, adding metadata to the completed image scans, and building the infrastructure for the online published database. Project archivists Kelsey Eckert and Ken Fox applied Optical Character Recognition (OCR) to the images of documents that were typewritten, using the ABBYY FineReader text scanning software. In addition, the archivists transcribed the documents that were handwritten. These two sets of data will populate a single field called "Document Text" that will allow the content of the documents to be searchable. In addition, Fox has applied a consistent metadata schema to the files and included the use of Library of Congress subject headings to group the documents by specific content. As of April 30, 2017 about 30,000 documents, or 75% of the nearly 40,000 documents that are the focus of this project, have text identified and are completely tagged with the metadata schema set forth. The content-related metadata tracked in this project are:

- Title (of the object, assigned by the archivists)
- Sub-Title (if applicable)
- Subject Headings
- Collection (provenance)
- Page #
- Date (of the original document)
- Author (of the original document)
- Dimensions
- Format (of the digital file)
- Document Text
- Location (of the physical object in the collections)
- File Name

Note: Technical metadata about the scans will also be retained and displayed on the final website.

In addition to the digital files for each page scanned, the archivists created .pdf documents of the pages, in context of where they may be found. Some of the pages are contained in books or journals, in which case the entire bound item may be found in a single .pdf document. Other documents were in loose files, which required the entire folder to be scanned, regardless of the date of the material in the folder. Pdf documents were created for each file in the order encountered, thereby preserving the original order as much as possible and allowing researchers to discover links among the documents, as they are organized. These .pdf documents will be available on the TORA website alongside the original scans.

In early 2017 the Museum underwent an upgrade to its Digital Asset Management System (DAMS), moving to the current version of Canto Cumulus (10.2.4). The TORA was the primary driver of this upgrade. This upgrade will allow the museum to better publish and display the digital files in the TORA, as well as accommodate other institutional projects that may be undertaken in the future. While the final design of the website is still in progress, the Project Director and the Project Archivists have provided the Museum's

Information Technology team and the software consultants with requests and questions to resolve. These queries were designed to improve the website so that researchers and others who visit the TORA will be able to easily locate the information they seek.

Project Promotion Efforts

On Saturday, November 19, 2016, Project Archivist Kelsey Eckert presented a talk entitled "Glorious! The Technicolor Digital Library Project." This talk was part of the museum's monthly Focus 45 series for members, museum visitors, and the general public. Eckert provided an overview of the project, the significance of NEH funding to support this effort, and anticipated outcomes. She also shared information about project staff and their professional credentials.

On Tuesday, November 22, 2016, in celebration of the 101st anniversary of Technicolor's incorporation, Project Archivists Ken Fox and Kelsey Eckert published a blog post at Eastman.org: <https://www.eastman.org/glorious-technicolor-online-research-archive>. In addition to discussing the project and the website, the blog also served as the launch of a new social media endeavor, "Technicolor Tuesdays." Since the launch of Technicolor Tuesdays, the museum has published an image from the Technicolor Collections on its Twitter account every Tuesday: @EastmanMuseum. The anticipated outcome for use of the hashtag #TechnicolorTuesday is that it will garner excitement for publication of the website. Project Archivist Eckert has collaborated with the museum's Manager of Online Engagement Kate Meyers Emery to curate the images and to provide historical context for the scans, such as examples of dye samples, on-set photography, and schematics for equipment designed by the company.

Accomplishments

In the last year, the project team has solidified their approach to organizing the information in the TORA by using Library of Congress standards both for content and for the successful capture and storage of digital images via the Federal Agencies Digital Guidelines Initiative (FADGI).

The project archivists have worked to enhance the metadata attached to the digital scans by creating searchable Document Text for each file and parsing the content for subject headings that will be used to classify the information in the documents. This has been done for nearly 75% of the documents that will be published on the website.

The museum has successfully upgraded the DAMS system to Cumulus 10.2.4 in an effort to create a better-looking and more functional website for the end-user. Efforts are underway to customize the web publishing arm of the database to accommodate the information found in the TORA.

Changes

With just three months remaining for completion of grant activities, it is unlikely that all of the documents that are published online will have complete Document Text and metadata tagging, especially as the project archivists shift their attention to the refinement of the TORA website appearance and navigation. However, the procedures that were established by the project archivists will allow for continued metadata enrichment, even after the website is published.

When the project was envisioned in 2014, it was anticipated that the museum would use the DAMS to publish the TORA website. The release of an updated version of Canto Cumulus software in 2016, and its implementation at the museum, has led to the realization of this goal earlier than expected. The Cumulus upgrade will result in a more robust and easier to read TORA website. The end user—researchers, students, historians, and the general public—will benefit from a dynamic site that is easier to navigate.

Fund Raising to Meet the Federal Matching Funds Requirement

On January 12, 2017 a formal request for a no-cost grant extension was submitted to NEH Senior Program Officer Jesse Johnston. This action was taken due to concern over whether the remaining federal matching funds would be secured within the original time frame provided by the NEH (April 30, 2017). The museum was grateful to receive a gift of \$40,000 from Technicolor S.A., which allowed us to certify the remaining portion of matching funds on May 4, 2017. NEH Grants Management Specialist Pamela Thompson receipted these funds on May 17, 2017. Completion of our matching funds requirement has put the project on target for completion as of July 31, 2017 with final report submission by October 31, 2017, as originally planned.