COLOR MANIA

The Material of Color in Photography and Film
07.09.–24.11.2019
Exhibition Texts

From their inception, photography and film have been colorful media and art forms. Color was added to early photography from as early as 1839 on, among them daguerreotypes. Likewise, early cinematic works from the 1890s on were tinted, toned and hand-colored spectacles. In the course of their histories, several hundred color processes have been devised, many of them in close connection and exchange between these two interrelated media. *Color Mania* examines these developments and the history of color as a material in photography and film.

Through a variety of original materials from photography and film, the exhibition sheds light on the fascinating abundance of color materials and the wide range of historical color processes. Autochromes, Technicolor originals, hand-colored glass slides and tinted film strips are presented here in their fascinating material aesthetic. At the same time, analogue and digital projections show how colors appear in motion. A timeline and an app further allow for a more in-depth exploration.

Finally, these historical processes enter into a dialogue with contemporary works of art, yielding a wide range of connections to the history of color photography and color film. They provide reflections on color techniques and allow for a sensual approach. In this way, the historical is addressed and (re-)contextualized from the point of view of the present, offering various entry points and readings that intersect and combine within the exhibition space.

Room 1

Alexandra Navratil, *All That Slides, Strikes, Rises and Falls*, 2015

Series of 3 woven cotton fabrics with woolen elements

With *All That Slides, Strikes, Rises and Falls,* Alexandra Navratil investigates the color technique of tinting and reflects, through a focus on (color) materiality, on the relationship between the motion picture and textile industries. The woven lengths of fabrics show greatly enlarged tinted film strips with images of cloud configurations – motifs Navratil has borrowed from silent nonfiction films. Next to cotton – or cotton cellulose, to be more precise – which served as a natural product for both textile materials as well as for celluloid film, both industries also used the same synthetic dyes, the so-called aniline dyes. The silent film industry made use of these following the textile industry, and similarly Navratil uses these dyes literally for her dyed yarns which are used to weave together her film strips. While the conventional tinting process saw the exposure of the whole surface of black-and-white film to the dye, Navratils textile films instead consist of a multitude of

individually dyed threads with different color gradation. Seen from afar, the weaving technique creates the impression of a monochrome orange, yellow or pink tone.

Room 2

Alexandra Navratil, *Split/Hatch/Mutate/Double*, 2019

16 mm double projection with sound, 2:28 min. and 9:09 min.

Split/Hatch/Mutate/Double, a work specially produced for *Color Mania,* focuses on stencil coloring – a color process from the silent film era, in which up to six colors were applied to a black-and-white film print using cut-out stencils (one stencil per color). The left-hand side of the projection shows original stencils used by the French film production company Pathé, in combination with text elements on the right-hand side. These were inspired by Navratil's viewing of numerous early films and express her poetic observations and associations relating, among other things, to color, the processes of transmuting substances, metamorphoses, and the beginnings of the chemical industry. Even though the work appears almost colorless – apart from the yellow tone of the stencils that derives from the film's cellulose nitrate base –, on a conceptual level the projection is fizzing with color: With the help of outlines that change from frame to frame and which, as breathing forms, contain all the color information, the work makes visible the material basis and functional principle of stencil coloring.

Room 3

Dunja Evers, from the series *Landschaften*, 1999–2000 and *Portraits*, 1997

Hand-colored C-prints on aluminium

Dunja Evers' *Landscapes* and *Portraits* present a fusion of the media of photography, film and painting. As a source material for her works, the artist used Super 8 films of landscape scenes or facial expressions of various people, which she projected and photographed from the screen, with an exposure time of one or two seconds. The result shows a transformation of a moving image into a "still" photograph that is not pin sharp but blurred and shadowy. Evers then colored the prints of the color negatives with an albumen glaze. The monochrome coloring of the entire surface references the technique of tinting, yet in its manual application by brush also creates a link to painting and hand coloring. As such, the series also pays homage to the early autonomous colors of the silent film era.

George Kleine’s Copyright Books, 1913 and 1914

Paper booklets with tinted nitrate film frames, 35 mm

In the early 1910s, the American film pioneer, producer and distributor George Kleine from Chicago stapled single film frames into booklets to secure copyrights for his films. At that time, moving images presented an entirely new category of copyright, and various types of copyright registers were created. One method was to send entire film reels or individual frames as paper prints to the Library of Congress for registration. It is unclear whether Kleine’s booklets also were meant to secure copyrights specifically for the color scheme of the respective films. Each film scene is represented by one tinted sample frame, so that the sequence of the pictures shows the unfolding of the color scheme in the film scene by scene.

Dye Recipes for Coloring Film and Plates with Colored Film Samples

Agfa Kine-Handbuch, Actien-Gesellschaft für Anilin-Fabrikation, Berlin ca. 1925
Publication, cardboard frames with tinted and toned nitrate film frames, 35 mm

Le Film vierge Pathé. Manuel de développement et de tirage, Pathé, Paris 1926
Publication, cardboard foldouts with tinted, toned and stencil-colored nitrate film frames, 35 mm

In the 1910s and 1920s, various film manufacturers such as Agfa, Pathé Frères and Eastman Kodak published manuals with colored film samples, formula and methods for tinting (German: *Virage*; French: *teintage*), toning (German: *Tonung*; French: *virage*) and (in parts) for stencil coloring (Pathécolor). On top of individual dye recipes and color samples these books also provide insights into the factories and production processes of the respective manufacturers. It is not unusual to discover in these pictures only female workers in the workshops, especially in the film coloring labs of Pathé. The plates with colored film samples further demonstrate how the various film images have survived over time: The brilliant colors of the tinting process in the Agfa manual have hardly lost any of their luminosity, while the sample pictures of the Pathé manual show signs of silver mirroring.

Bericht über den VIII. Internationalen Kongress für wissenschaftliche und angewandte Photographie. Dresden 1931, J. A. Barth, Leipzig 1932
Publication, cardboard frame with nitrate film frames in Pathécolor (stencil coloring), Technicolor No. III, Kodachrome Two-color, Multicolor, Ufacolor, Sirius, Busch, Cinécolor (Autochrome film) and Spicer, 35 mm, as well as acetate film strips from the Agfacolor lenticular film, 35 mm

Veröffentlichungen des wissenschaftlichen Zentral-Laboratoriums der photographischen Abteilung Agfa, Band VI, S. Hirzel, Leipzig 1939
Publication, cardboard frame with nitrate film frames of the Pantachrom process, 35 mm

Scientific publications and conference proceedings from the 1930s also contained plates with color film samples as illustrations of the film color processes discussed in the articles. A particular example is the work of physical chemist John Eggert, who in the 1920s was head of Agfa's Photochemical Lab in Berlin, founded the company's scientific "Zentrallabor" (Research Department) in Wolfen in 1928, and was a professor for photography at the ETH Zurich from 1946 to 1961. Under his direction, the university's photography department became the center of international research and education. In the field of film color processes, Eggert developed the additive Agfacolor lenticular film together with Gert Heymer. In 1931 he presented the new color film at the VIII. International Conference for Scientific and Applied Photography in Dresden. The cardboard with film samples in the conference proceedings embeds the 16 mm Agfacolor film within the context of other film color processes used at the time and presents the surface structure specific to this film: a pattern of thousands of tiny lenses. By exposure and projection through a color filter, this lenticular screen produced color on the black-and-white film. In 1939 Eggert and Heymer published an article about the Agfa-Pantachrom process, which also partly built on the lenticular film, but combined it with a subtractive multilayered color film for projection prints.

Barbara Kasten, from the series *Architectural Sites*, 1986–1989

Cibachrome prints

For her photo series *Architectural Sites*, Barbara Kasten staged icons of American postmodernist architecture using color projection and mirror reflection – elaborate artistic tools which present an extension of her previous studio work. She then photographed these settings or "stagings" with exclusively analogue means, detaching the architectural landmarks from the ways in which they are usually perceived by modifying perspective and color. The artist acts simultaneously as architect and director, bringing to life the meticulously arranged details of the architectural landscapes and reflecting on the materiality of color as light. Kasten's photographs are also materially entwined with motion picture film at the level of process: Her Cibachrome prints follow in the tradition of Gasparcolor, a color film process introduced in the 1930s that became popular for the intense luminosity and purity of its colors.

Roald Amundsen’s Expeditions to the South and North Pole

In the 1910s and 1920s, the Norwegian polar explorer Roald Amundsen carried out his expeditions to the South and North Pole equipped with photo and film cameras. The resulting glass slides and films were hand-colored, tinted and toned and used by Amundsen on international lecture tours for illustrative purposes. In fact, his lectures can be understood as early multimedia presentations in which color played an important role in combination with the white snowscapes of the Arctic and Antarctic. Theatrical versions of his expedition films were also released, among others for the Norwegian, English- and German-speaking markets.

Med Roald Amundsen’s nordpolsekspedition til første vinterkvarter (*With Roald Amundsens North Pole Expedition to the First Winter Quarter*), Leidar Lund, NO 1923
Tinted and toned nitrate film strips, 35 mm

Only 165 short film strips and single frames of the German version of the film have survived. The originally complete print made part of the collection Albert Fidelius, which together with the collection of director Gerhard Kamprecht formed the basis of the Stiftung Deutsche Kinemathek archive in the early 1960s. In 2006 decomposition of an advanced stage was stated for the nitrate print and – since a Dutch copy was preserved in Amsterdam – only the uninfected single frames were cut out and archived. By this treatment, the decomposition of the single frames could be slowed down/delayed. Moreover, we can consider ourselves lucky that the Amundsen film strips exist in this way since they allow for the presentation of the original film material in the exhibition space and make the colorful nature of the various film scenes even more tangible by arranging them side by side. In addition to the color nuances and combinations of the tinted and toned film material, the reversed presentation of a selection of images shows the aesthetic consequences of the silver mirroring effect.

Film Samples Collection of Gert Koshofer

Single film frames of various color film processes, 35 mm and 16 mm

Gert Koshofer, originally trained as a lawyer, is one of the distinguished connoisseurs of the technical history of color photography and color film. The two books that were published by this photo and film enthusiast – *Farbfotografie* (Color Photography, 1981) and *Color: Die Farben des Films* (Color:The Colors of Film, 1988) – are regarded as reference texts that were long left uncontested in the German-speaking world. In the 1960s and 1970s, the freelance author and publicist worked in the marketing department of Agfa-Gevaert AG in Leverkusen. Since the 1970s, he has been giving lectures on the history and techniques of color photography and color film at home and abroad. Koshofer has also built up an

extensive collection of historical materials on color photography and color film. In 2017, Barbara Flueckiger, professor for film studies at the University of Zurich, acquired his collection of single film frames as part of her research projects on film colors. The collection includes a large number of original materials of historical color film processes. It is presented in exactly the order that Koshofer created himself. Some of the images are in slide frames containing Koshofer's notes that demonstrate how he used the film images.

1	Agfacolor, faded negative and positive, early test around 1938
2	Positives of no. 1, enlarged color reconstruction, duplicate
3	Agfacolor, *Münchhausen* (Josef of Báky, DE 1943), later print
4	Agfacolor, *Opfergang* (Veit Harlan, DE 1944), frame of Agfacolor positive on Agfa-Gevaert Duplichrome stock
5	Agfacolor, *Das kalte Herz* (Paul Verhoeven, GDR, 1950), frame printed on Orwocolor
6	Agfacolor, negatives, *Rauschende Melodien* (Ernst Wilhelm Fiedler, GDR 1955)
7	Pantachrom, duplicate of a test film
8	Pantachrom, frames of a test film
9–10	Ansco Color, positives of Ansco Color negative, ca. 1952
11	Ansco Color, positives of the first Ansco Color negative film *The Wild North* (Andrew Marton, USA 1952)
12–13	Biocolour, Friese-Greene, two-color, ca. 1912
14	Busch Farbenfilm, title card, ca. 1926
15	Busch Farbenfilm, positive, horizontal arrangement of film frames, ca. 1926
16	Gaumont Chronochrome, ca. 1913
17–20	Cinecolor, two-color, 1932–1950
21	Spicer-Dufay, line screen, 1925–1933
22–24	Dufaycolor, line screen, reversal, 1933–1936
25–28	Dufaycolor, line screen, negative-positive process, ca. 1936–1939
29	Dufaycolor, print of Agfacolor negative, test 1945
30–31	DuPont Color, release positive, USA ca. 1949–1953
32	Unknown Gevaert two-color film, collection of Dr. Rudolf Fischer, ca. 1925
33–37	Gasparcolor, frames from the collection of Brian Coe, no. 35 possibly *Colour on the Thames* (Anonymous, GB 1936)
38	Gasparcolor, experimental animation *Tanz der Farben* (*Dance of the Colors*, Hans Fischinger, DE 1939), duplicate on Agfa-Gevaert Duplichrome stock
39	Fujicolor reversal, *Karumen kokyô ni kaeru* (*Carmen Comes Home*, Keisuke Kinoshita, JP 1951)
40–42	Chromolithography, DE ca. 1900
43	Hand coloring, possibly carnival in Basel, ca. 1910
44	Hand coloring, possibly before 1900

45–46 Stencil coloring by Oskar Meßter, Germany, ca. 1920

47 Stencil coloring, Pathécolor film, *Gli ultimi giorni di Pompeii* (*The Last Days of Pompei,* Carmine Gallone and Amleto Palermi, IT 1926)

48–52 Stencil coloring, Pathécolor films, ca. 1907–1920

53–55 Stencil coloring, Gaumon films, ca. 1920

56–57 Kodachrome Two-color, *Concerning $1000* (Anonymous, USA 1916), reproductions on Kodak Dupe film

58–65 Kodachrome Two-color, 1920s

66 Kodachrome, 16 mm reversal, from the collection of Dr. Leo Busch, 1939

67 Kodachrome, 16 mm reversal, 1938

68–69 Cinécolor, mosaic screen, ca. 1929

70 Cinécolor, mosaic screen, ca. 1929, reproduction

71–73 Multicolor, two-color, possibly *Stepping Ahead* (Anonymous, USA 1930)

74 Orwocolor, negative stock NC 3, ca. 1980

75 Orwocolor, positive stock PC 7, positive of no. 74

76 Orwocolor, positive stock PC 7, ca. 1980

77 Panacolor, USA 1962

78–80 Polychromide, two-color, GB ca. 1930

81 Prizma II, two-color *The Glorious Adventure* (J. Stuart Blackton, GB 1922)

82 Rota Farbenfilm, two-color, ca. 1932

83 Rouxcolor, four-color, black-and-white negative and positive, ca. 1948

84 Rouxcolor, four-color, duplicate of a black-and-white negative

85 Combination of the positives no. 84 on a color print, multilayer film

86 Sirius, two-color, NL and DE ca. 1929

87–88 Supercinecolor, three-color, USA ca. 1950

89 Technichrome, three-color print of bi-pack negatives, 1948

90–91 Technicolor No. III, two-color dye-transfer, possibly *On with the Show!* (Alan Crosland, USA 1929), no. 90 reproduction

92–93 Technicolor No. III, two-color dye-transfer, ca. 1930

94–95 Technicolor No. IV and V, dye-transfer, color separations and recombination

96–96a Technicolor No. IV, first feature film *Becky Sharp* (Rouben Mamoulian, USA 1935), reproductions

97–99 Possibly dye-transfer prints of Technicolor tests in England, ca. 1936

100–102 Technicolor No. IV, animation by Walt Disney, 1930s

103 Technicolor No. IV, *The Adventures of Robin Hood* (Michael Curtiz and William Keighley, USA 1938)

104–106 Technicolor No. IV, feature film, possibly *Jesse James* (Henry King and Irving Cummings, USA 1939)

107 Technicolor No. IV, unknown film, 1943

108–109	Technicolor No. IV, *The Jungle Book* (Zoltan Korda, USA 1942)
110	Technicolor No. IV, *Blood and Sand* (Rouben Mamoulian, USA 1941)
111	Technicolor No. IV, unknown film, 1943
112	Technicolor No. IV, *Rogues of Sherwood Forest* (Gordon Douglas, USA 1950)
113	Technicolor No. IV, documentary *A Queen is Crowned* (Michael Waldman, GB 1953)
114–115	Technicolor No. V, *Heidi und Peter* (*Heidi and Peter*, Franz Schnyder, CH 1955)
116	Ufacolor, Agfa bipack process, DE 1930s, reproduction
117–119	Ufacolor, *Bunte Tierwelt* (Ulrich K.T. Schultz, DE 1931), prints on Agfa-Gevaert Duplichrome stock
120	Ufacolor, *Potsdam* (Anonymous, DE 1933), prints on Agfa-Gevaert Duplichrome stock
121–122	Tinting green, intertitles, 1910s or 1920s
123–124	Tinting (orange and blue) and sepia toning, *Scott's Antarctic Expedition* (Anonymous, GB 1911)
125–137	Tinting, no. 125 and no. 128 are duplicates of the *Agfa Kine-Handbuch*, ca. 1926
138–139	Toning, iron blue, 1920s
140–141	Tinting, 1910s and 1920s
142–144	Mordant toning, 1920s
145	Tinting, 1910s or 1920s
146–147	Tinting and toning, 1920s
148	Tinting, 1910s or 1920s
149–152	Toning, 1920s
153–157	Tinting, 1910s or 1920s
158	Toning, duplicate of the *Agfa Kine-Handbuch*, ca. 1926
159	Toning, duplicate
160	Zoechrome, experimental three-color process, GB 1920–1929

Herbert T. Kalmus' Technicolor Cards

Cardboard frame with Technicolor No. IV dye transfer nitrate film frames, 35 mm

The Technicolor cards from 1939 to the 1940s stem from the private collection of Herbert T. Kalmus, co-founder and president of the Technicolor Motion Picture Corporation. They consist of sample frames of various films produced with Technicolor No. IV and show excerpts from the color schemes of some of the most famous classic movies such as Walter Lang's *The Little Princess* (USA 1939) with child star Shirley Temple or Victor Fleming's *The Wizard of Oz* (USA 1939) with Judy Garland, as well as color examples from documentary and test films. The surface of the film images shows the relief structure of the

Technicolor No. IV dye transfer process. It is unclear for what purpose these cards were produced, but it seems likely that Dr. Kalmus used them to convince potential customers of the beauty, quality, and color spectrum of the three-color Technicolor process introduced in 1932. A more personal explanation could also be possible, namely that the cards were film examples of which "Mr. Technicolor" was particularly proud.

Timeline – Color in Photography and Film

When we speak of color photography and color film, it is necessary to envision it as a history of discovery in which findings from physical, chemical and optical experiments of numerous international pioneers and scientists merge and intersect. Color photography and color film have thus been invented more than once, and their development has always been in close connection with other media, such as graphics and painting. Over the decades, the processes were gradually improved; a development which was often driven forward by reproduction techniques and subject to commercial interests. Socio-cultural factors also had a decisive influence on the range of their applications, as well as their integration into various practices connected to publishing, exhibiting, screening and production – and not least on their institutional recognition.

In the course of the history of photography and film, several hundred color processes have been devised, many of them in close connection and exchange between the two media. Screen processes like Autochrome, for example, were originally developed for photography before being utilized in film production from the 1920s onwards. On the other hand, the Gasparcolor film color process from the 1930s was revived in the second half of the twentieth century in the field of photography as Cibachrome.

Just like the exhibition, this timeline addresses and (re-)contextualizes the historical from the point of view of the present through a reflexive and experimental approach. By way of short texts on color, techniques, materiality, image production processes and movements, the timeline allows for various entry points and readings that intersect and create a dialogue with the exhibition space.

Room 4

Raphael Hefti, from the series *Lycopodium*, 2015

Photogram on Fujicolor Crystal Archive Paper, exposed with the gently burning spores of the *Lycopodium* moss

Experiment and coincidence are central to the work of Swiss artist Raphael Hefti, who investigates traditional photographic processes and chemical materials to determine their material properties and aesthetic potential. In the series *Lycopodium*, he takes up the photogram as an early photographic practice, enhancing it by adding "witch powder" – spores of the moss species *Lycopodium clavatum* – to photosensitive paper. The moss was used both for its pyrotechnic qualities and to produce color effects through a reaction taking place as it is highly flammable. Color is thus based on the principles of experiment and chance. This evokes similarities to the early color processes from the history of photography and film which were often experimental in nature, just as the history of color film and color photography embraced methods of trial and error.

Gallery

Film Colors Research

Barbara Flueckiger, professor for film studies at the University of Zurich, has devoted herself to the scientific research of film colors since the beginning of the 2010s. Thanks to the ERC Advanced Grant for the project *FilmColors: Bridging the Gap between Technology and Aesthetics,* she was able to extend her research considerably in 2015, and in the following year her work was supplemented by another project funded by the Swiss National Science Foundation entitled *FilmColors: Technologies, Cultures, Institutions*.

It is these projects and the tireless work of the researchers involved that have given Fotomuseum Winterthur the unique opportunity to develop an exhibition with selected materials from ten years of research on film colors – and to link this thematically with photography. At the same time, *Color Mania* is an unprecedented opportunity for the *FilmColors* teams to share their scientific research. The three projections presented here illustrate some of their results.

*Urlaub an der Nordküste Afrikas,*1932 (Anonymous)

Projection installation and Kodacolor lenticular film, 16 mm

In the 1920s and 1930s, Agfa, Kodak, and Keller-Dorian developed lenticular films that were mainly used by amateur filmmakers. The lenticular process was based on additive color mixing and combined a black-and-white film with an extra layer on the film carrier consisting of countless small lenses. By exposure and projection through a three-color filter, this lenticular layer produced a colored film image.

Chromolithographic Film Loops, 1898–1930

Vintage movie projector with crank mechanism, digitally restored and newly printed chromolithographic film in a loop, 35 mm

From the 1890s to the late 1920s, various tin toy manufacturers produced short animated films for private use, which were printed in color using chromolithography, a stone printing process. The films were shown as loops and enjoyed great popularity. The projector was often a combination device for magic lantern slides and the colorful litho films and was hand-cranked. A candle or fuel tablets probably served as a light source.

FilmColors

Eva Hielscher, Martin Weiss and the Color Mafia, CH 2019
Compilation of various color film excerpts and enlarged frames as well as quotes, digital
Total 21:00 min.

“Tinted films from the silent era show an interaction between the black-and-white silver image and the applied colors – with copious nuances and a rich interplay especially in the middle gray tones, where many interactions between the silver grains and dyes take place.”
Barbara Flueckiger, professor for film studies, University of Zurich

“The first fashion films in color demonstrated designer opulence in fabrics and color as a visual spectacle. This is especially evident in the detailed stencil colorings in delicate pastel shades as well as in the dense, saturated two-color splendor of trendy fashion designs in Kodachrome Two-color in the 1920s.”
Olivia Kristina Stutz, ERC Advanced Grant *FilmColors*

“In the 1920s and 1930s, color in abstract animation films became of central interest for avant-garde filmmakers. As *absolute films* and *visual music* they combined the representation of light, form and rhythm with visual color effects. For his series *Lichtspiel Opus I* to *IV*, Walter Ruttmann applied the techniques of tinting and hand coloring.”
Noemi Daugaard, SNF *FilmColors*

“From 1928 Josef Mroz experimented with a two-color-process for 9.5 mm amateur film. He used a rotating red-green filter during filming; for the projection the exposed black-and-white film was colored alternately red and green. Due to the slower projection speed and the unstable picture steadiness, the result was unsatisfactory.
With today’s technology, we can combine the colors and stabilize the color registration. From the point of view of conservation ethics, however, the question arises whether this is justifiable.”
Martin Weiss, ERC Advanced Grant *FilmColors*

“During the first years of Technicolor No. IV, producers of color films were obligated to rent not only the Technicolor camera but also the services of a cameraman and a color consultant. The resulting Technicolor ‘look’, although often associated with striking saturated colors, often favored pastel shades and earthy backgrounds.”
Michelle Beutler, ERC Advanced Grant *FilmColors*

“After the end of World War II, Agfa split into two companies, one in Leverkusen, West Germany, and one in Wolfen in East Germany. Only Wolfen took over the formula and aesthetic of the original Agfacolor.
In the films which were produced in the GDR on Wolfen Agfacolor, colorful costumes and socialism were not mutually exclusive. Rather, these films often show a self-reflexive approach that testifies to both a shortage in material and playful creativity.”
Josephine Diecke, SNF *FilmColors*

“In 1963, the French filmmaker Éric Duvivier made the experimental educational film *Images du monde visionnaire* in collaboration with the Belgian French artist Henri Michaux. In this film on drug-induced hallucinogenic vision, color is a very important element. Shot on Kodachrome II 16 mm reversal film, the film was distributed by Eastman Color and Gevachrome. The different film materials show significant differences with respect to their coloring, which becomes evident when comparing the prints.”
Bregt Lameris, ERC Advanced Grant *FilmColors*

“In the 1970s, a young generation of filmmakers espoused a new realism based on grainy images, desaturated colors and natural light. These aesthetic patterns of *New Hollywood* were made possible by developments to the sensitivity of the film stock: the ability to double the film’s sensitivity from 1968 onwards made it possible to extend the range of lighting, but at the cost of grain size, color saturation, and sharpness. It is these aspects that were embraced for artistic purposes and characterize the *New Hollywood* aesthetic.”
Joëlle Kost, ERC Advanced Grant *FilmColors*