

Department of Photograph Conservation Bulletin

September 2024 No. 35



A New Chapter in the History of Conservation at The Met

Department News

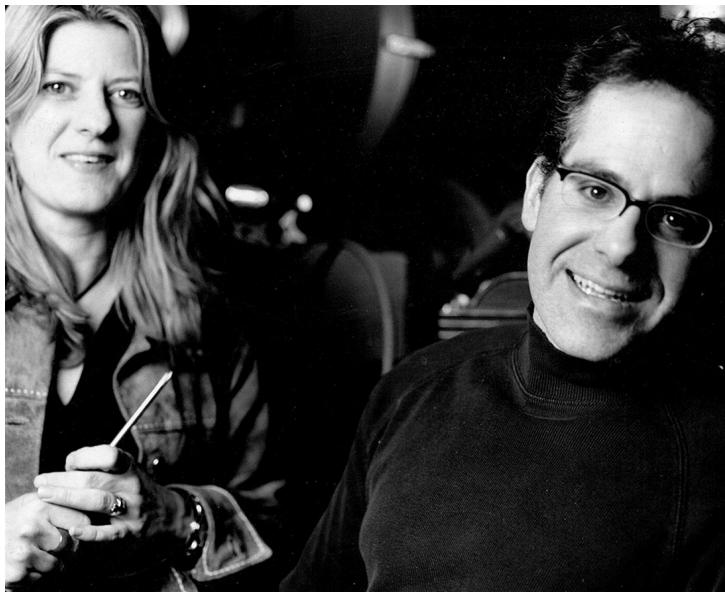
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In July of 2024, Jonathan Farbowitz's position as Associate Conservator of Time-Based Media was made permanent, signaling a new and important phase in the acquisition and care of contemporary art at The Met. Many thanks are owed to the individual donors and foundations, including the Keighley Foundation, Jade Lau, and Mary Jaharis, who supported this essential position for the last four and half years.

As of 2024, The Met has assembled a collection of over 300 time-based media (TBM) artworks, encompassing film, video, audio, slide, and software-based works. The Museum's departments of Photographs and Modern and Contemporary Art continue to acquire TBM art actively, and additional curatorial departments have taken a recent interest in acquiring these types of artworks from around the globe.

The first two TBM artworks entered The Met's collection in 2001: the Department of Photographs acquired Ann Hamilton's [abc](#), and later that





year, the department of Modern and Contemporary Art acquired [*The Quintet of Remembrance*](#) by Bill Viola. However, at that time, The Met did not have in-house staff with the specialized skills needed to conserve these vulnerable artworks. For many years, staff at the Museum in Photograph Conservation (Nora Kennedy), Film & Media (Jessica Glass, Robin Schwalb, and Paul Caro), and the Department of Photographs (Douglas Eklund and Malcolm Daniel) advocated hiring individuals with expertise in this unique area of conservation specialization.

In the intervening years, a growing team, including audiovisual staff, collections staff, fellows, and occasional contract conservators, were engaged in addressing the collection's most urgent needs. In addition, a small "support group" of the individuals mentioned above from conservation, curatorial, and technical services at The Met began meeting to discuss the challenges of acquiring and caring for works of time-based media art. In 2010, under the leadership of Jessica Glass, the group officially became The Met's Time-Based Media Working Group. Subsequently, under the spirited guidance of Anna Wall and Meredith Reiss, it grew to include over fifty members across sixteen departments within the Museum, including several curatorial and conservation departments, the Museum Archives, the Counsel's Office, the Development Office, the Digital Department, and the Office of the Registrar. The group helps develop museum-wide standards for collecting, preserving, and exhibiting time-based media art and educates Met staff on the unique challenges of TBM.



The Working Group is currently co-chaired by Catherine Burns, Jonathan Farbowitz, and Lauren Rosati and continues to advocate for the preservation of TBM works in the collection and to build collaborative partnerships with others in the TBM conservation community internationally.

In 2018, The Met completed an institutional assessment of TBM conservation and a survey of TBM artworks with the guidance of Glenn Wharton, an outside specialist, and through the efforts of internal staff, including Mollie Anderson, Nora Kennedy, Milo Thiesen, and a fellow, Alex Nichols. Two NYU students were hired to carry out the item-level survey work: Lia Kramer from the Institute of Fine Arts Conservation Program and Lorena Ramírez-López from the Moving Image Archiving and Preservation program. The assessment

Cover:
Jonathan Farbowitz, newly
permanent Associate
Conservator of Time-Based
Media. Credit: Aleya Lehmann

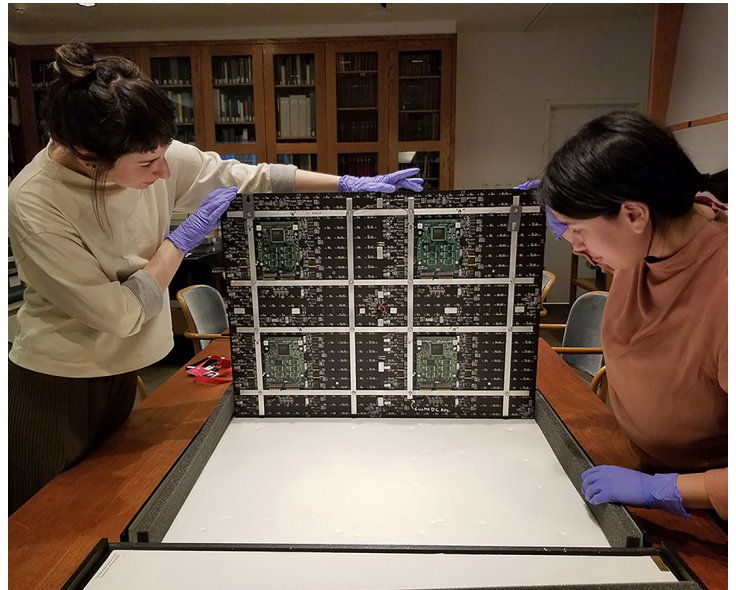
Above:
Jessica Glass and Paul Caro
(top left) and Robin Schwalb
(top right) from Film & Media
in the Education Department
were among the first Met staff
members to recognize the
preventive conservation needs of
time-based media and partnered
with Nora Kennedy, Douglas
Eklund, and Malcolm Daniel, to
form the initial TBM "support
group" in 2001. Credit: Jackie
Neale.



stated that "although the [TBM] collection...is small compared with the vast holdings of other artworks at the Museum, significant resources and active management are needed to ensure their long-term survival." TBM artworks are especially vulnerable due to their dependence on specific technologies and require proactive strategies for long-term preservation. The assessment recommended hiring a TBM conservator, a digital archivist, and establishing an onsite TBM conservation lab. The assessment and survey process is described fully in chapter 1.4, "Institutional Assessments and Collection Surveys for Time-Based Media Conservation", in the 2023 book [*Conservation of Time-Based Media Art*](#).

Meredith and Anna, both part of the collections management team in the Department of Photographs, laid the groundwork for TBM policies including those for the acquisition, exhibition, and documentation of artworks. With input from members of the TBM Working Group, these policies were then further developed by Alex, The Met's first fellow to work specifically in TBM.

As a result of the assessment and consistent advocacy efforts, in December 2019, Jonathan Farbowitz became The Met's first Associate Conservator of Time-Based Media thanks to generous support from the Keighley Foundation through the generosity of The Met's Digital Department. The Keighley Foundation funds also paid for setting up a time-based media lab hosted within the Imaging Department. From 2020 to 2022, the Museum received crucial support from donor Jade Lau via the



Above:
Assorted equipment used in the Met's time-based media conservation lab, located in the Imaging Department.
Credit: Jonathan Farbowitz

Top left:
Alex Nichols and Sasha Arden in 2019, examining the custom attaché case and the video compact discs for Jennifer and Kevin McCoy's artwork *Every Shot, Every Episode*. Credit: Katie Sanderson

Top right:
Lia Kramer and Lorena Ramírez-López engaged in the item-by-item survey that was part of the institutional assessment focused on the state of time-based media preventive conservation practices. Credit: Naoise Dunne



Department of Photographs to extend his position. The intervening years (2022–2024) have been supported by Mary Jaharis via the Modern and Contemporary Art department. Jonathan has worked to improve the documentation, storage, and overall care of these works, as well as shepherd new artworks into the collection and support exhibitions and loans of collection objects.

In addition, TBM conservation at The Met has benefitted greatly from the efforts of graduate interns and fellows, including sasha arden, Caroline Gil Rodríguez, Kayla Henry-Griffin, Alex Nichols, and Felice Graciela Robles. Thanks to the efforts of all mentioned above, as well as colleagues in Digital, Photographs, and Modern and Contemporary Art, most of the digital files in the collection have now been transferred to safer storage for long-term preservation (as discussed in [Bulletin 21](#) and [Bulletin 32](#)). This fall, our department is excited to welcome a new Andrew W. Mellon Foundation Conservation Fellow in TBM, Jenny Hsu, introduced in this issue.

Our gratitude goes to the many departments at The Met that have collaborated with us on supporting and advocating for time-based media conservation over the years and to the Museum's leadership for recognizing this position as vital within our program to acquire, conserve, and exhibit contemporary art. This work is not done. We are energized by this important step forward as we look towards the next phase of growth and development of this important conservation specialization at The Met. You can learn more about time-based media conservation by listening to the "Time" episode of the second season of The Met's podcast [Immaterial](#), which includes an interview with Jonathan Farbowitz.

Above, from the left: Catherine Burns, Meredith Reiss, Nora Kennedy, Alex Nichols, and Mollie Anderson in 2018. Each played a role in advancing the Museum's program of caring for the time-based media artworks in the collection. Credit: Katie Sanderson

Introducing Tess Hamilton

We are excited to share the news that Tess Hamilton joined the Department of Photograph Conservation as Assistant Conservator of Contemporary Art in June of this year. This new position encompasses her specialization in photograph conservation as well as training in time-based media conservation—a new area for Tess, which she is eager to embrace. This newly conceived job description is intended to support the increased demand for both areas of specialization within the Museum, as well as the upcoming needs of the Oscar L. and H.M. Agnes Hsu-Tang Wing for modern and contemporary art.

Tess received her BA Magna Cum Laude in Art and English with distinction in both majors from Yale University in 2017 and her MS in Conservation and MA in Art History from New York University's Institute of Fine Arts Conservation Center in 2022. She completed her graduate school internship at the Weisman Preservation Center, Harvard University. Since October 2022, she has been the Robert Mapplethorpe Foundation Fellow at the Solomon R. Guggenheim Museum, working on a research project to conduct technical analysis on the Museum's collection of nearly 200 Robert Mapplethorpe prints. Tess presented the results of this fascinating research at the American Institute for Conservation Annual Meeting this past May and, more recently, at the Lens Media Lab Symposium, [Darkroom to Data](#), at Yale University. The latter presentation, *A Characterization of Robert Mapplethorpe Prints at the Solomon R. Guggenheim Museum*, [can be viewed online](#).

Tess is exceptional for many reasons, including her deep experience with recreating historic photographic processes. She has been working in the darkroom since age 13 and has been practicing the wet collodion process for 11 years, creating [mesmerizing portraits](#) and moody abstractions. Tess shares her passion for the history and practice of photography with others through volunteering at [Penumbra Foundation](#), where she assists with weekend workshops on making tintypes, platinum prints, gum bichromate prints, lumen prints, and gelatin silver prints and introduces students to large format photography.

Some of Tess' first assignments in the lab include condition reporting and documentation of what we call "hybrid artworks," which incorporate a digital element but whose ultimate execution is in analog form. Moving forward, she will work on photographs requested for exhibition as well as assist



Jonathan with time-based media conservation projects. Tess also has a strong interest in oral history and its powerful ability to document the recollections of photographers, printers, and allied professionals for the benefit of future generations.

Tess' background and expertise in photography, her eagerness to learn more about time-based media conservation, and her overall enthusiasm and curiosity make her an excellent addition to our active lab. We are thrilled to welcome our newest colleague.

Above:
Assistant Conservator Tess Hamilton,
with one of her large-format cameras.
Credit: Danna Singer

Welcoming Jenny Hsu

Our department is pleased to welcome Jenny Hsu as an Andrew W. Mellon Foundation Conservation Fellow in time-based media. Jenny hails from Taiwan and is a recent graduate of New York University's Moving Image Archiving and Preservation (MIAP) program, where she developed her passion for time-based media conservation.

Jenny comes to The Met with many exceptional experiences. During her graduate training, she completed internships at [La MaMa Experimental Theater Club](#) and video art distributor [Video Data Bank](#), where she gained hands-on experience with creating inventories of analog audio and video materials as well as digitizing videotapes from the Phil Morton Memorial Research Archive collection. Jenny gained additional experience handling film through an internship with the Barbara Goldsmith Preservation and Conservation Department of NYU Libraries.

Also at NYU, she was a Graduate Archival Assistant in the Martin Scorsese Department of Cinema Studies, where she worked on cataloging the department's archive. Prior to her studies at NYU, Jenny completed a degree in Foreign Languages and Literature at National Sun Yat-sen University in Sizihwan, Kaohsiung, Taiwan. She then trained in film preservation and archiving through courses at the Tainan National University of the Arts in Guantian, Tainan, Taiwan.

In 2023, along with other MIAP students and staff, and with the support of NYU's [Audiovisual Preservation Exchange](#) (APEX), Jenny aided disaster recovery efforts after devastating floods affected the archives of [Appalshop](#), a cultural center in Whitesburg, Kentucky, which uses film, video, and the performing arts to document and tell stories about Appalachia.

Jenny's graduate thesis, [Beyond Bytes and Beats: The Preservation of Digital Live Performance Art](#), explores the challenges of preserving a unique form of live performance—artists using computer programs and analog or digital technology to generate and modify music and visuals in real time. Her thesis looks at models for documenting these kinds of events and the processes necessary for acquiring performances in museum collections.

Jenny joins The Met during a period of increased acquisition and exhibition of time-based media art. She will work closely with Jonathan Farbowitz to bring many new artworks into the collection, and she is especially excited to work on improving documentation workflows for time-based media artworks. Join us in welcoming Jenny Hsu to the lab!



Above:
Andrew W. Mellon Foundation
Conservation Fellow in time-based
media, Jenny Hsu. Credit: Amy Hsu

Update: The Fold Endurance of Adhesives

Our 2022-2024 Research Scholar in Photograph Conservation, Catherine E. "Cat" Stephens, has recently completed her study measuring the folding endurance of adhesives used in book, paper, and photograph conservation. See our March 2024 [Bulletin 33](#) for full details. In this study, Cat applied a variety of adhesives to strips of laboratory-grade chromatography paper and evaluated these papers with a 1960s MIT-style folding endurance tester. This machine allowed Cat to compare the relative brittleness or flexibility of these adhesives, an important consideration when conserving photograph albums, which can be simultaneously heavy and quite fragile and whose pages must retain the ability to move when the album is in use. Conservators have many adhesives to choose from, and each one behaves a little differently when applied to paper. Cat hopes that her research will help book conservators make longer-lasting repairs to historical books so that they can remain functional and accessible for longer periods of time.

During The Met's annual [Research Out Loud: Met Fellows Present symposium in May](#), Cat presented the preliminary results of her research into the folding endurance of three commonly used conservation adhesives: wheat starch paste, a generic methylcellulose, and a photographic-grade gelatin. In this first phase of her research, Cat learned that methylcellulose provided the best folding endurance to a standard paper. This led her to conduct a second phase of research, in which she compared the relative folding endurance of the generic methylcellulose alongside five similar adhesives that belong to a family of polymers known as cellulose ethers.

To create her samples, Cat measured, cut, and labeled 140 strips of chromatography paper, a very pure paper with no coatings, fillers, or additives. She randomly divided the paper strips into groups of twenty. One group was not treated with any adhesive (the "Control" group), and the other six groups were coated with one of the six adhesives. Half of each group was then artificially aged in an oven for three weeks at 90°C and 50% relative humidity. Artificial aging provides an approximate idea of how a material will appear and function after several decades of "natural aging." Some of the artificially aged strips of paper turned slightly brown, a common sign of the degradation of the cellulose fibers that make up a piece of paper. Cat tested the folding endurance of each of the 140 strips of paper by loading them into the machine one by one and recording each sample's unique folding endurance

number—the number of times the paper is folded before it breaks. The stronger or more flexible a sample is, the longer it will survive as this machine bends the sample back and forth. The longer the sample survives, the higher its folding endurance number will be. The chart on the following page shows the results of this study; the blue bars represent the ten "fresh" or unaged strips of paper in each group, and the pink bars represent the ten strips in each group that were artificially aged. The number above each colored bar is the average folding endurance number of the ten trials.

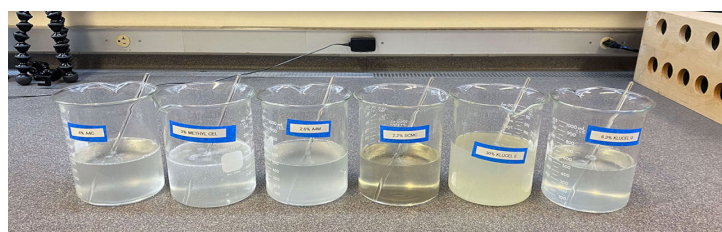


Above:
Research Scholar, Cat Stephens,
preparing to work with our 1960s MIT-
style folding endurance tester. This
machine allows the comparison of the
relative strengths of different papers.
Credit: Katie Sanderson

Update: The Fold Endurance of Adhesives

The results of this study show that all six cellulose ether adhesives improve the folding endurance of chromatography paper to a greater or lesser degree, both before and after artificial aging. The control group, which did not receive any adhesive, lasted an average of 12 double folds when fresh and 9 double folds after artificial aging. One adhesive, Methocel A4C, provided the best folding endurance to the chromatography paper, allowing the paper to survive an average of 1,409 double folds before artificial aging and an average of 475 double folds after aging. Another adhesive, the Cellofas B-3500 SCMC, illustrates a known phenomenon that some adhesives are very flexible when fresh, but they can become brittle after many years, possibly by accelerating the deterioration of the underlying paper. This data can help conservators determine which adhesive is best for a particular task.

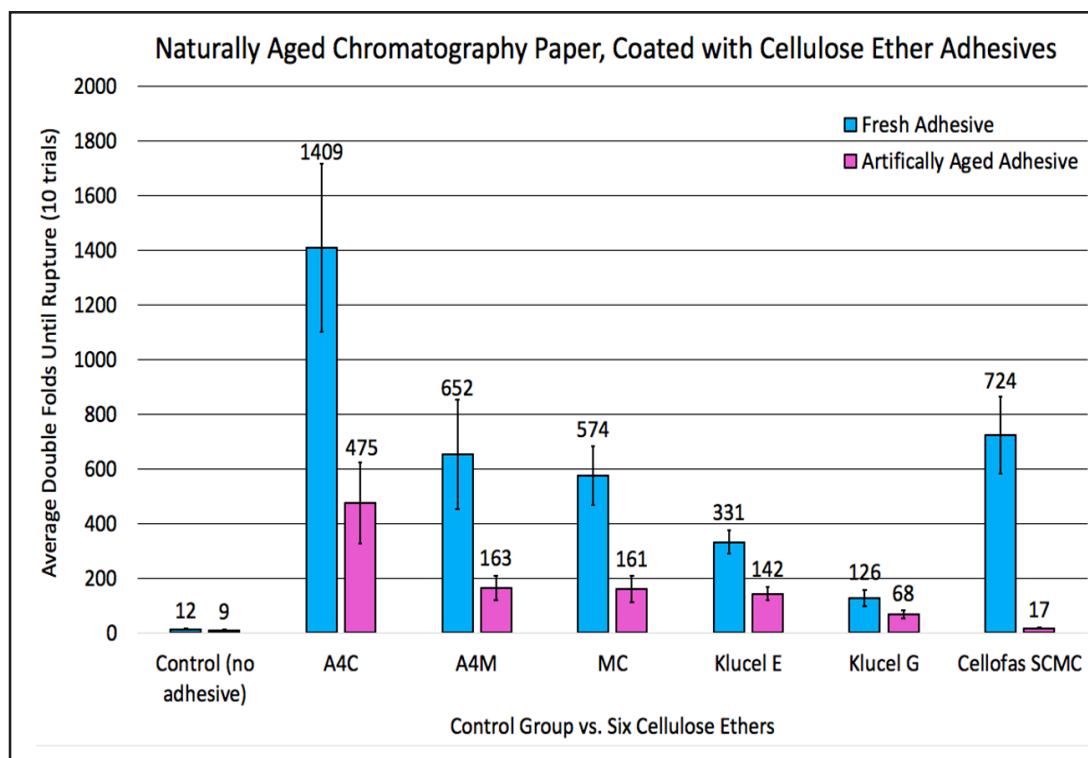
There are more conclusions to be drawn from this data, and Cat hopes to present the full results of her research next spring at the 2025 Annual Meeting of the American Institute for Conservation. Cat's significant and impactful research is one of the ways The Met's fellowship program contributes to growing scholarship and understanding in the book, paper, and photograph conservation fields. We congratulate Cat and wish her all the best as she moves on to a fellowship at The Morgan Library & Museum.



Above top:
One sample strip from each group after three weeks in an artificial aging oven displayed against a black and white background. The strip of paper lying horizontally was not artificially aged and is provided for color comparison. From left to right: the control (no adhesive), 4% Methocel A4C, 4% Methocel A4M, 3% generic methylcellulose, 16% Klucel E, 6.3% Klucel G, and 2.2% Cellofas B-3500.

Above center:
Beakers filled with six different cellulose ether adhesives, before they were applied to strips of chromatography paper. From left to right: 4% Methocel A4C, 3% generic methylcellulose, 2.6% Methocel A4M, 30% Klucel E (later diluted to 16%), and 6.3% Klucel G.

At left:
The folding endurance results of six cellulose ether adhesives. The number above each colored bar is the average folding endurance number of the ten trials and the error bars show the standard deviation. The blue columns correspond to the "fresh" samples, and the pink columns correspond to the artificially aged samples. The "fresh" and artificially aged control samples, which were not coated with any adhesive, are shown at the far left.



Exhibitions



Current Exhibitions

Afterlives: Contemporary Art in the Byzantine Crypt
January 29, 2024 through January 25, 2026

Ink and Ivory: Indian Drawings and Photographs Selected with James Ivory
July 29, 2024 through May 4, 2025

Mexican Prints at the Vanguard
September 12, 2024 through January 5, 2025

Robert Wood Johnson, Jr. Gallery Rotation
September 12, 2024 through February 18, 2025

Materialized Space: The Architecture of Paul Rudolph
September 30, 2024 through March 16, 2025

Upcoming Exhibitions

Floridas: Anastasia Samoylova and Walker Evans
October 14, 2024 through May 11, 2025

Jesse Krimes: Corrections
October 28, 2024 through July 13, 2025

The New Art: American Photography, 1839–1910
April 11, 2025 through July 20, 2025

Location

The Met Fifth Avenue
Sunday–Tuesday and Thursday:
10 am–5 pm
Friday and Saturday: 10 am–9 pm
Closed Wednesday

The Met Cloisters
Thursday–Tuesday: 10 am–5 pm
Closed Wednesday

Date Night at The Met Fifth Avenue!
Fridays and Saturdays 'til 9 pm
Friday and Saturday evenings are made possible by the Ruth Lapham Lloyd Trust and the William H. Kearns Foundation.

At left:
Anna Atkins (British, 1799–1871),
Spiraea aruncus (Tyrol), 1851–54.
Cyanotype, 13 13/16 x 9 11/16 in.
Purchase, Alfred Stieglitz Society Gifts,
2004. (2004.172)

On view in the Robert Wood Johnson, Jr. Gallery

Support & Acknowledgements

Acknowledgements

Afterlives: Contemporary Art in the Byzantine Crypt is made possible by The Jaharis Family Foundation. ♦ The exhibition brings together modern-day works that reckon with death and visualize the afterlife and Byzantine Egyptian funerary art and artifacts in part of the Mary and Michael Jaharis Galleries known as the Byzantine Crypt (Gallery 302).

Ink and Ivory: Indian Drawings and Photographs Selected with James Ivory is made possible by The Hagop Kevorkian Fund. Additional support is provided by the Lavori Sterling Foundation Endowment Fund. ♦ The exhibition presents a selection of superlative drawings from the courts and centers of India and Pakistan (with a few related Persian works) dating from the late sixteenth to the twentieth century.

Floridas: Anastasia Samoylova and Walker Evans is made possible by The Robert Mapplethorpe Foundation, Inc. ♦ This exhibition brings together two distinct but related bodies of work depicting the idiosyncratic visual landscape of Florida: paintings and photographs by Walker Evans and photographs and collages by Anastasia Samoylova.

Jesse Krimes: Corrections is made possible by Joyce Frank Menschel. ♦ This exhibition pairs contemporary installations made in prison by American artist Jesse Krimes with 19th-century photographs from The Met collection by French criminologist Alphonse Bertillon, who developed the first modern system of criminal identification

Mexican Prints at the Vanguard is made possible by Jessie and Charles Price. Additional support is provided by The Schiff Foundation. Accompanied by an issue of The Metropolitan Museum of Art *Bulletin* made possible in part by Allston Chapman and The Met Americas Council. The Metropolitan's quarterly *Bulletin* program is supported in part by the Lila Acheson Wallace Fund for The Metropolitan Museum of Art, established by the cofounder of *Reader's Digest*.

Materialized Space: The Architecture of Paul Rudolph is made possible by The Modern Circle. Additional support is provided by The Daniel and Estrellita Brodsky Foundation, and Ann M. Spruill and Daniel H. Cantwell. The exhibition was organized by The Metropolitan Museum of Art in collaboration with the Library of Congress's Paul Marvin Rudolph Archive. The catalogue is made possible by the Samuel I. Newhouse Foundation, Inc.

The New Art: American Photography, 1839–1910 is made possible by the Diane W. and James E. Burke Fund and the Diane Carol Brandt Fund. The catalogue is made possible by The Peter Jay Sharp Foundation. ♦ The exhibition proposes a bold new history of American photography from the medium's birth in 1839, through the Civil War, to the advent of the Kodak in the 1880s, and onward to the first decade of the twentieth century.

Support

With steadfast commitment and support from our friends, The Met's Department of Photograph Conservation continues to thrive as a crucial resource for the preservation of works of art, as well as a vibrant center for research.

To learn more about how you can become involved and support this critical area at The Met, please contact:

Hannah F. Howe
Deputy Chief Development Officer of Individual Giving
(212) 731-1281
hannah.howe@metmuseum.org

Contribute Online
Donations can be made [online](#). Please indicate within the "Donation Note" box that your donation is "For Department of Photograph Conservation."

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Contributors to Bulletin No. 34:

Jonathan Farbowitz, Nora Kennedy, Aleya Lehmann, Katie Sanderson, and Cat Stephens.

Bulletin Archive

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Above:
Graciela Iturbide (Mexican, born Mexico City, 1942), *Doña Guadalupe, Juchitán*, 1988. Gelatin silver print, 8 3/4 × 5 3/4 in. Purchase, Alfred Stieglitz Society Gifts, 2023 (2023.77)

On view in the Robert Wood Johnson, Jr. Gallery