

CONSERVING TAPE IN, AROUND, AND UNDER PAINTINGS

Recent case studies from the modern and contemporary paintings collection at the American Art Museum

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Introduction

Adhesive tape is commonly used by modern and contemporary artists in the painting process and in the final presentation of their work. It is often used to help the artist create a hard edge, and in some cases tape adheres collage elements or may be a collage element itself on a painted surface. Artists and framers also use tape to cover tacking edges. All of these uses present unique challenges in conservation treatments.

At the American Art Museum conservators have recently explored different approaches to conserving tape as part of treating a number of 20th-century paintings. Three case studies involving artist-applied adhesive tape are presented here. The thought processes behind each treatment are shared to encourage discussion and to provide a reference for similar situations encountered by conservators.

Tape as a compositional element



Michael Goldberg (1924-2007)
Sardines
1955
80 ¾ x 66 in.
Oil paint, adhesive tapes on canvas

Michael Goldberg's *Sardines* is a heavily painted Abstract Expressionist work that prominently features two types of adhesive tape in the composition. Goldberg often used collaged elements in his paintings, sometimes removing elements or adjusting their location throughout his active creation process.

In *Sardines*, masking tape is partially covered with paint in the lower half of the painting. Most 1950s-era tape would use either natural or synthetic rubber adhesive, which would be affected by solvents such as paint thinner. Fourier transform infrared spectroscopy (FTIR) showed a dominance of drying oil such as linseed oil in an adhesive sample. This indicates that the adhesive became infused with paint components, and the cross-linking of the oil has likely helped stabilize the tape. Thus, the primary risk to the masking tape is visitor interaction, as the curled areas are tempting to touch. A prominent loss was filled to discourage such interactions.

Filament tape applied in the top left quadrant is also infused with oil paint media, and the backing has discolored. The edges of this tape are particularly fragile due to delamination of the backing, likely exacerbated by the glass filaments that once provided tensile strength but now are a barrier to cohesion. A digital image demonstrating the likely color of the filament tape at the time of application was created based on the color of current commercial filament tapes (for documentation). The presence of painted glazes on top of the tape prevented any attempts at visual adjustment on the painting itself. As part of standard practice at American Art, a padded backing board was constructed for the painting, which will reduce vibrations that could damage the painting's surface and the fragile filament tape.



Detail of curled masking tape.



Detail of fragile filament tape in its current condition.



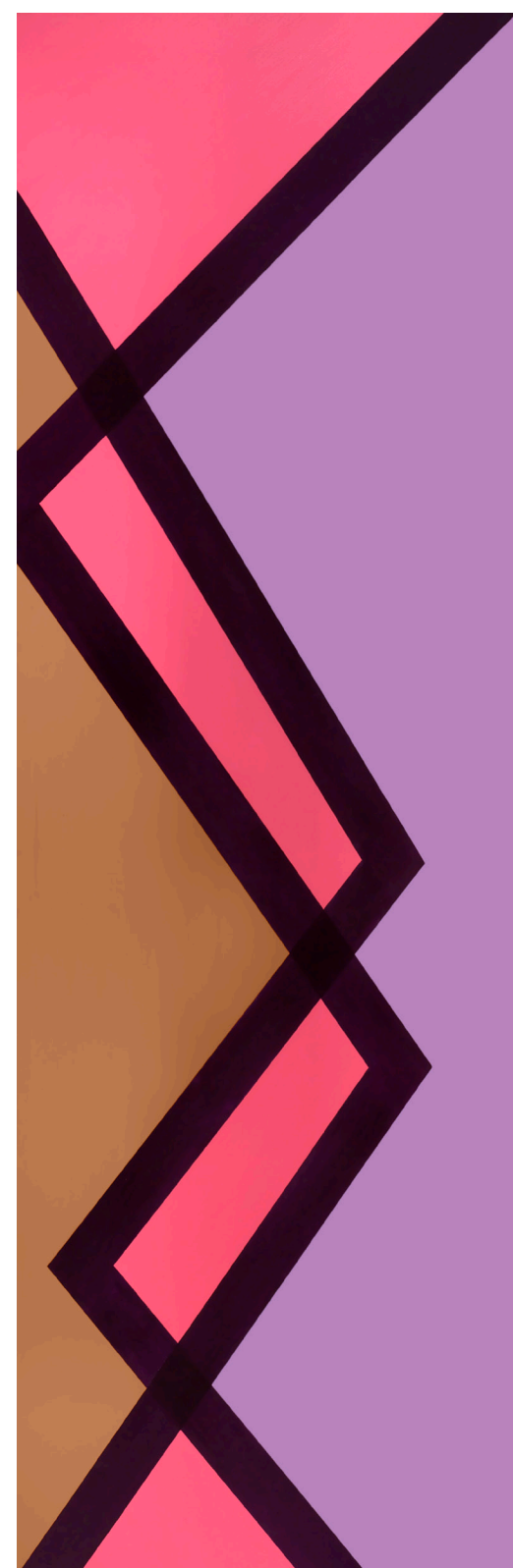
Digitally altered detail of possible original color and condition of filament tape.

Conservation of tape:
Materials for loss compensation

- Hand-creped paper
- Golden® MSA Conservation Paints
- Dilute BEVA® 371

Overall photo credit: Michael Goldberg, *Sardines*, Smithsonian American Art Museum, accession # 1981.109.9, Gift of Mr. and Mrs. David K. Anderson, Martha Jackson Memorial Collection

Tape as a paint application tool



Freddy Rodriguez (b. 1945)
Amor Africano
1974
96 x 32 in.
Acrylic paint on canvas

Freddy Rodriguez's *Amor Africano* is a painting where a minimal aesthetic, inspired by music, creates an asymmetrical geometric abstraction. Rodriguez used tape during the painting process to create hard-edged lines in the composition. He also used masking tape to help delineate the long, vertical borders of his work while painting on the loose mounted canvas. Masking tape remains under the paint on the vertical edges of this painting and others from the same period. According to the artist, the canvases were rolled after painting and mounted to stretchers later. The staples used to mount the painting were clearly applied through a dried paint surface.

In terms of conservation, there are some areas where paint has separated from and flaked off of the underlying tape layer at the edges of the work. This has resulted in some minor loss along the edge on the front of the painting. Although the function of the tape is no longer active, removal is impossible and it remains as a record of the artist's technique.

The cracked, delaminated paint film was consolidated using Beva® 371. The losses to the paint film at the two top corners were filled and retouched. The final texture in the lavender painted area was made with Paraloid® B-72 Retouching Gels.

Conservation of paint on top of tape:
Materials for consolidation

- Dilute BEVA® 371

Materials for consolidation

- Paraloid® B-72 Retouching Gels
- Flügger Acrylic Putty
- Gamblin® Conservation Colors
- Schminke gouache

Overall photo credit (above): Freddy Rodriguez, *Amor Africano*, Smithsonian American Art Museum, accession # 2011.10.3, Museum purchase through the Luistia L. and Franz H. Denghausen Endowment



Detail of loss where paint has separated from the underlying masking tape.

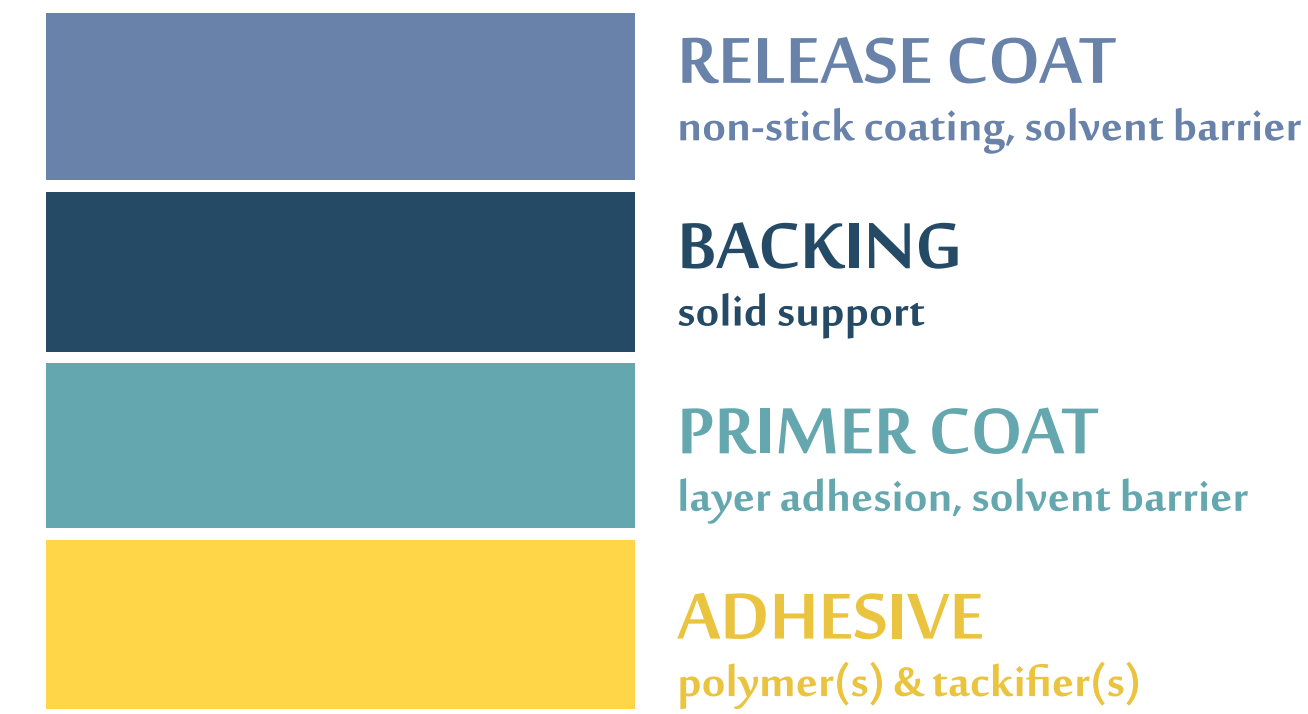


Detail showing tape that remains under the paint layer on only two sides of the painting.

Concluding remarks

The main goal in each of these treatments was to be minimally invasive, with consideration for the natural aging process of most adhesive tapes. Practically speaking, souibility tests and/or technical analysis to discern the adhesive composition and degradation stage helped guide treatment. The artists' intent in adding the tape — functional, aesthetic, or both — also informed decision-making. Passive stabilization measures, local reactivation and consolidation, and loss compensation were utilized where appropriate, and thorough documentation was performed in all cases.

Generic structure of tape



Stages of adhesive deterioration

(For rubber adhesives, such as that in masking tape)

1. Induction time: stable and easy to remove
2. Oxidation: difficult/impossible to remove
 - a. Discoloration and degradation of polymer to sticky, oily, mobile substance
 - b. Loss of adhesion, possibly delamination of tape structure
 - c. Embrittlement due to cross-linking of residues

Tape as a framing device



Arturo Rodriguez (b. 1956)
Sin Titulo
1998
50 x 42 in.
Oil paint on canvas

Arturo Rodriguez's *Sin Titulo* has black tape that covers the tacking margins and folds over the front edge of the display surface. The painted surface is built up with layers of transparent glazes, and some imagery

overlaps the front edge of the tape, indicating the artist continued to work on the painting after creating a clean black frame with the tape. The tape has a black creped paper backing, and the adhesive is still pliable and somewhat tacky — the early stages of oxidation. Due to handling of the painting prior to acquisition, however, the tape had accumulated numerous nicks, tears, losses, and distortions that disrupted the intended clean border.

Some of the distorted tape could be manipulated back into place using mild heat and pressure. Methyl cellulose was applied as a consolidant in areas where the original adhesive was no longer evenly distributed along the backing. For losses that were visible from the front, imitation tape inserts were created. Methyl cellulose was used to adhere the fills in place.

Conservation of tape:
Method for readhesion

- Zephyrtronics® AirPencil™ ZT-2
- Silicon-tipped tools

Materials for consolidation

- 2% Methyl cellulose applied by brush

Materials for loss compensation

- Hand-creped paper
- Golden® Fluid Acrylics

Overall photo credit (above): Arturo Rodriguez, *Sin Titulo*, from the series The Tempest, Smithsonian American Art Museum, accession # 2013.10, Gift of Liza and Pedro J. Martinez-Fraga



Using hot air and a silicon-tipped tool to readhere distorted tape.



Imitation tape inserts made with hand-creped paper and acrylic paint.



Before treatment with heat and inserts.



After treatment with heat and inserts.



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