## Video: Identification & Risk Assessment

Howard Besser

NYU Moving Image Archiving & Preservation Program

http://besser.nyu.edu/howard

http://www.nyu.edu/tisch/preservation/

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### Video: Identification & Risk Assessment-

- Physical examination of carriers
- Physical Properties of Tape
- Handling Tapes
- Tape Storage
- For both Tape & Film
  - Macro Environment
  - Setting Priorities

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#### Physical examination of carriers

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#### **Physical Properties of Tape**

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# Structure of Tape Van Bogart http://www.clir.org/pubs/reports/pub54 Binder Magnetic Particle TOP COAT SUBSTRATE BACK COAT (optional) • Binder-Functions as a carrier for the recording material & Bonds it to the substrate • Substrate-Base material on which the recording material is coated (eg. an aluminum platter or a thin ribbon of polyester film) Besser: Vadeo ID & Rick Assess, 16/R/11

#### **Tape Substrate**

- Early tape used cellulose acetate
  - Moisture/hydrolysis
  - Vinegar syndrome
- More recent tapes are polyester terephthalate (PET) or polyethylene napthalate (PEN)
  - Chemically stable
  - Resist hydrolysis and oxidation

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#### **Magnetic Particles**

- Store recorded information
- Change in magnetic properties can result in loss
  - Magnetic remanence ability to retain a magnetic field
  - Coercivity ability to resist demagnetization
  - Magnetic deterioration of the metal particulate and chromium dioxide materials

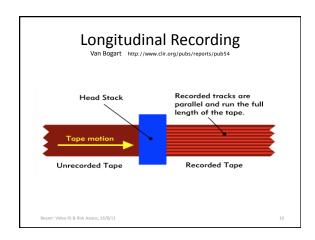
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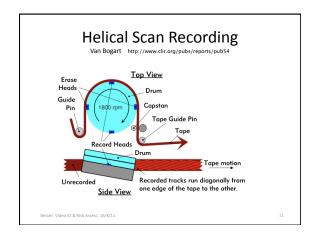
#### Binder Layer

- Holds the magnetic particles to the base
- · Where the problems are likely to occur
  - binder-base adhesion
  - oxide shedding
  - dropoff
  - hydrolysis
    - sticky shed
    - magnetic head clog
- Tape baking as one solution

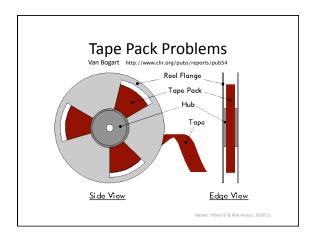
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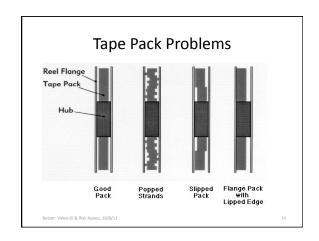




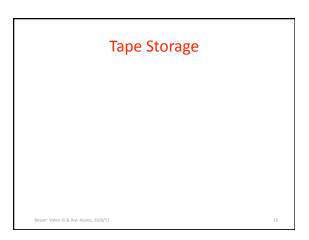








## Packing problems can lead to playback problems • Tracks for helical scan can be skewed



#### **Storing Tapes**

- Tapes should be stored fully wound in one direction or the other
- Store tapes upright (like a book)
- Do not store near potential magnetic fields
- Storage cases should be opaque and kept away from source of light and humidity
- Do not store tapes in plastic bags
- Exercise the tape every few years

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## Temperature & Humidity for Tape Storage

- Variance of less than 2°C and 5% RH per 24 hours
- Ideally 8ºC and 25% RH
- Other options
  - 20°C (68°F) and 20-30% RH
  - 15°C (59°F) and 20-40% RH
  - 10°C (50°F) and 20-50% RH
- Never store below 8ºC

amianet.org 2003, & ISO 18923

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### VidiPax Video Preservation (Internation)



#### Film & Video: Identification & Risk Assessment

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- http://besser.tsoa.nyu.edu/howard/Talks/
   http://www.nyu.edu/tisch/preservation/research/libraries/resources.html
   http://www.amianet.org/
   http://sunsite.berkeley.edu/Longevity/
   http://www.imagepermanenceinstitute.org/
   http://www.screensound.gov.au/screensound/screenso.nsf/
   http://www.iasa-web.org/tc04/
   http://www.digitalpreservation.gov/
   http://www.interpares.org