

CARE OF AV MATERIALS

REBECCA ELDER

ELDERPRESERVATION@GMAIL.COM

AGENDA

- Top preservation concerns
- Structure and deterioration of magnetic media
- Environmental concerns
- Storage practices for magnetic media
- Structure of CDs and DVDs
- Storage practices for optical media
- Disaster recovery

PRESERVATION CONCERNS

- Two major issues
 - Prolonging usable life
 - Ensuring continued accessibility

MAGNETIC MEDIA



MAGNETIC MEDIA STRUCTURE

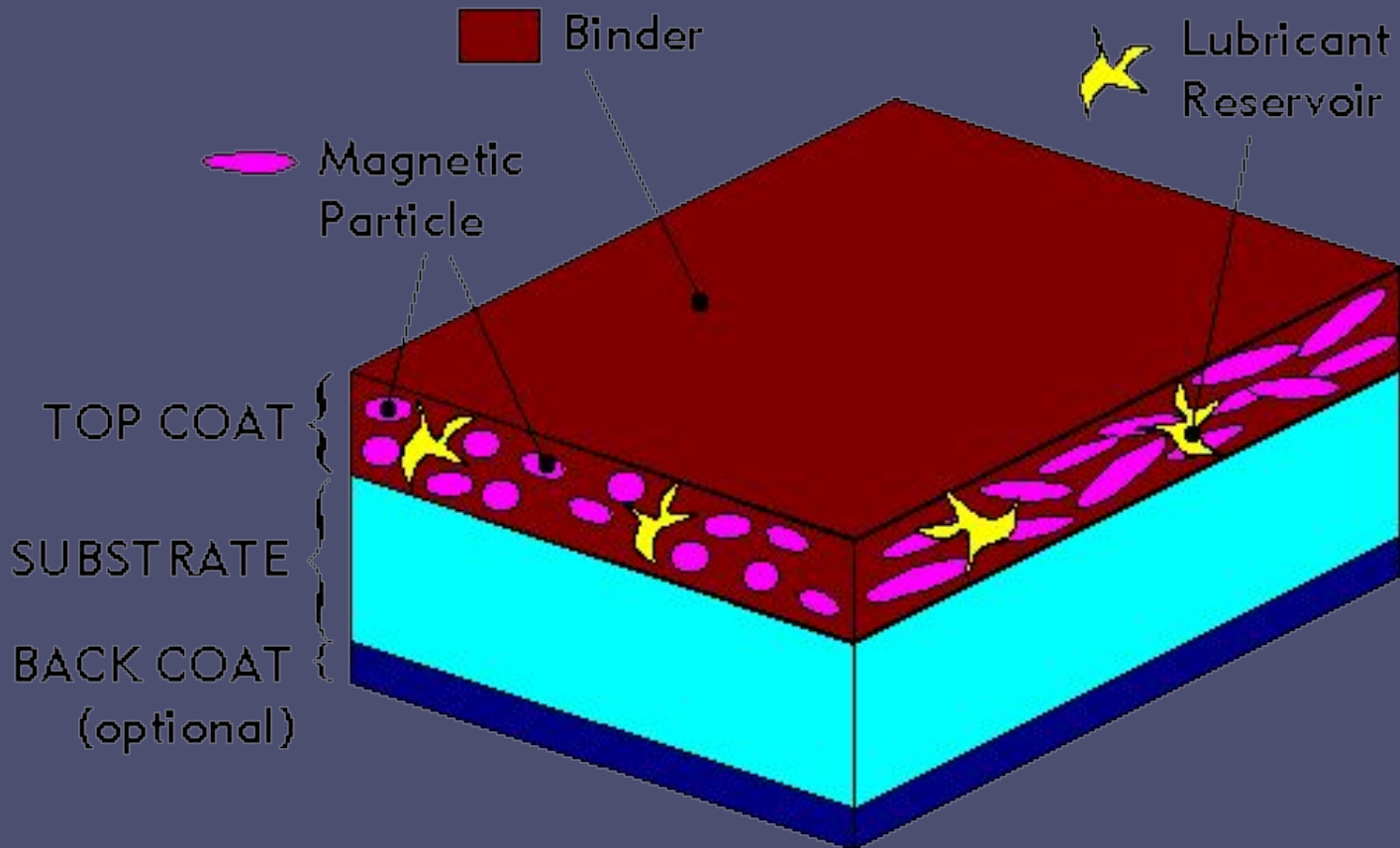
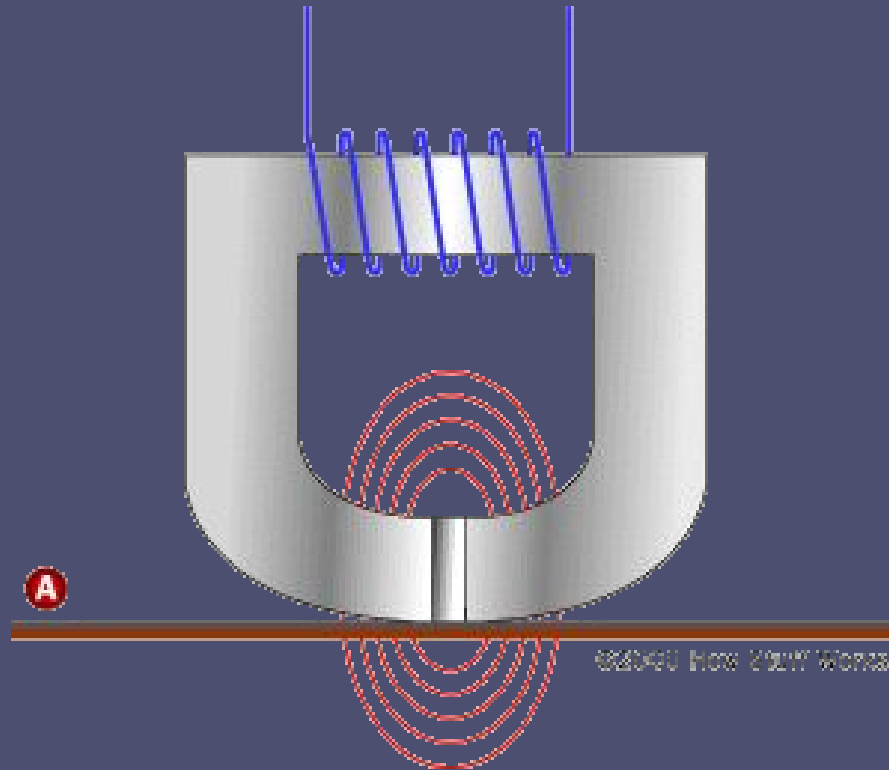


Image from CLIR pub 54

MAGNETIC PIGMENT



PRINT THROUGH

- Magnetization by one layer of tape to another
- Avoid by recording on one side of the tape only

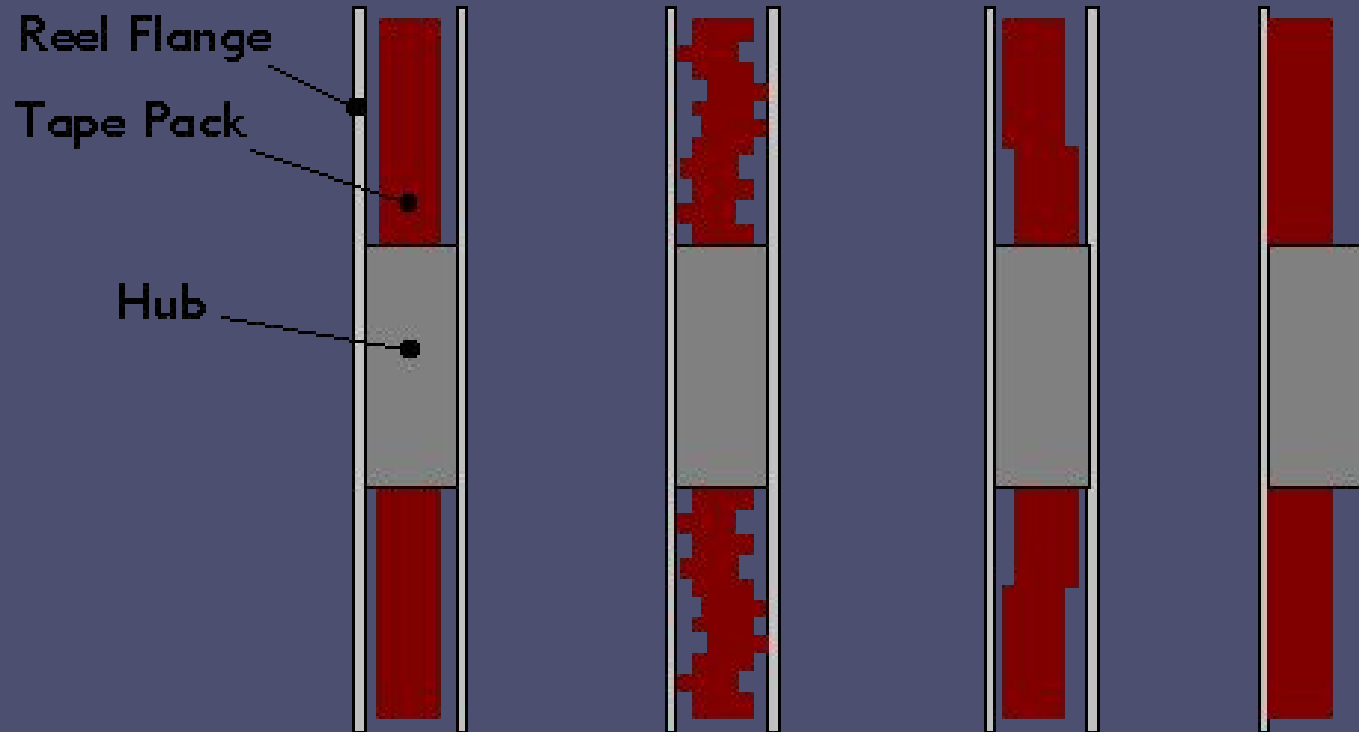
BINDER

- For most tape, the first component to fail
- Two types of deterioration
 - Hydrolysis
 - Lubricant loss
- Terms you should know
 - Sticky tape syndrome
 - Sticky shed syndrome

SUBSTRATES

- Paper
- Acetate
- Polyester

TAPE PACK



GOOD! Popped Strands Pack Slip Flange Pack

LONGITUDINAL VS. HELICAL SCAN

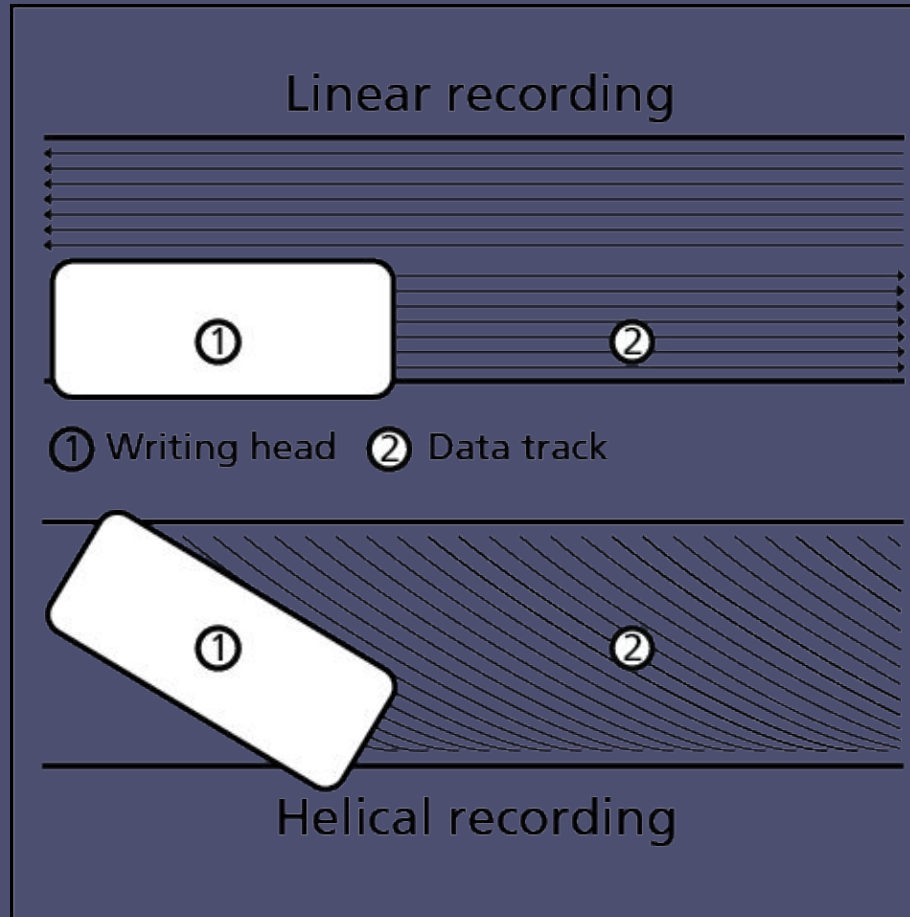


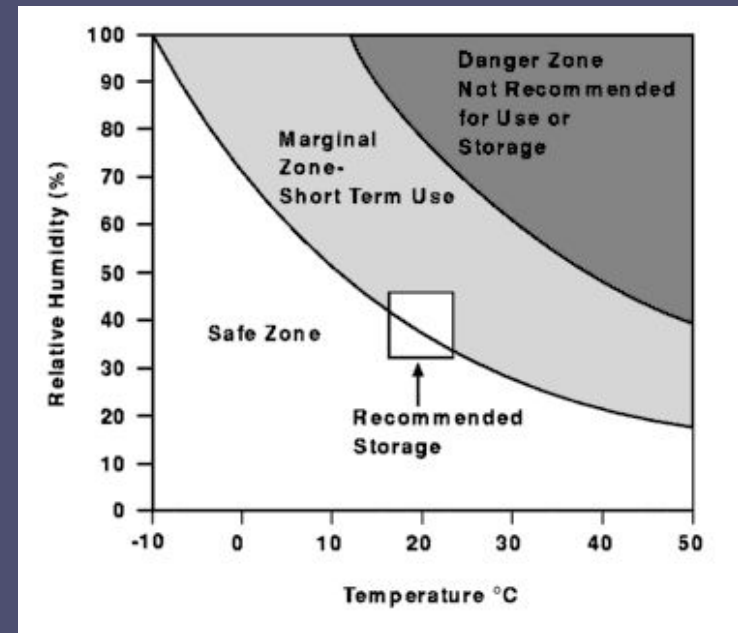
Image from <http://geschichte.inf.tu-dresden.de>

STORAGE

- Good storage is one of the best ways to extend the life of your collection!

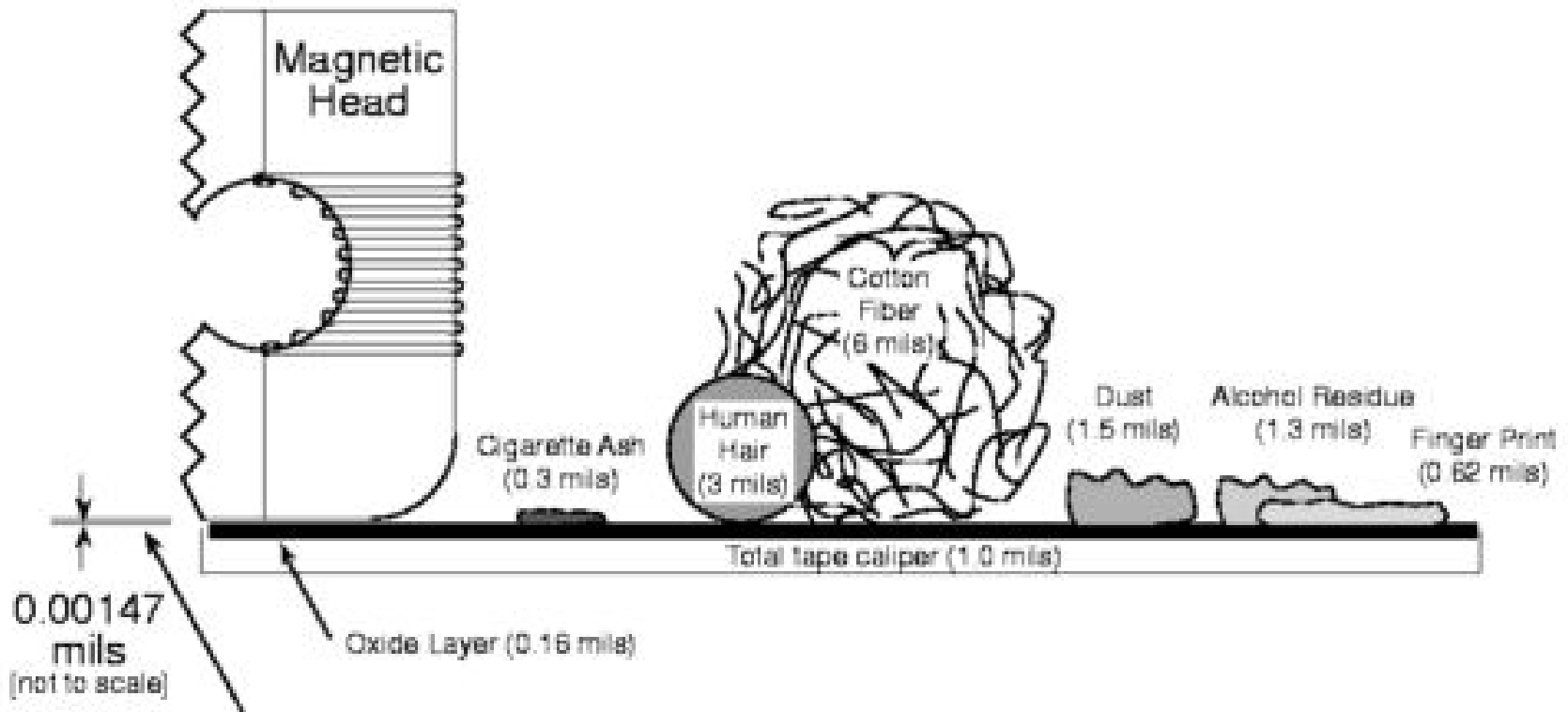
ENVIRONMENTAL RECOMMENDATIONS

- Medium Term
 - 65-70° F
 - 45-50% rH
- Archival Storage
 - 45-50° F
 - 20-30% rH
- Make sure you're monitoring your environment!



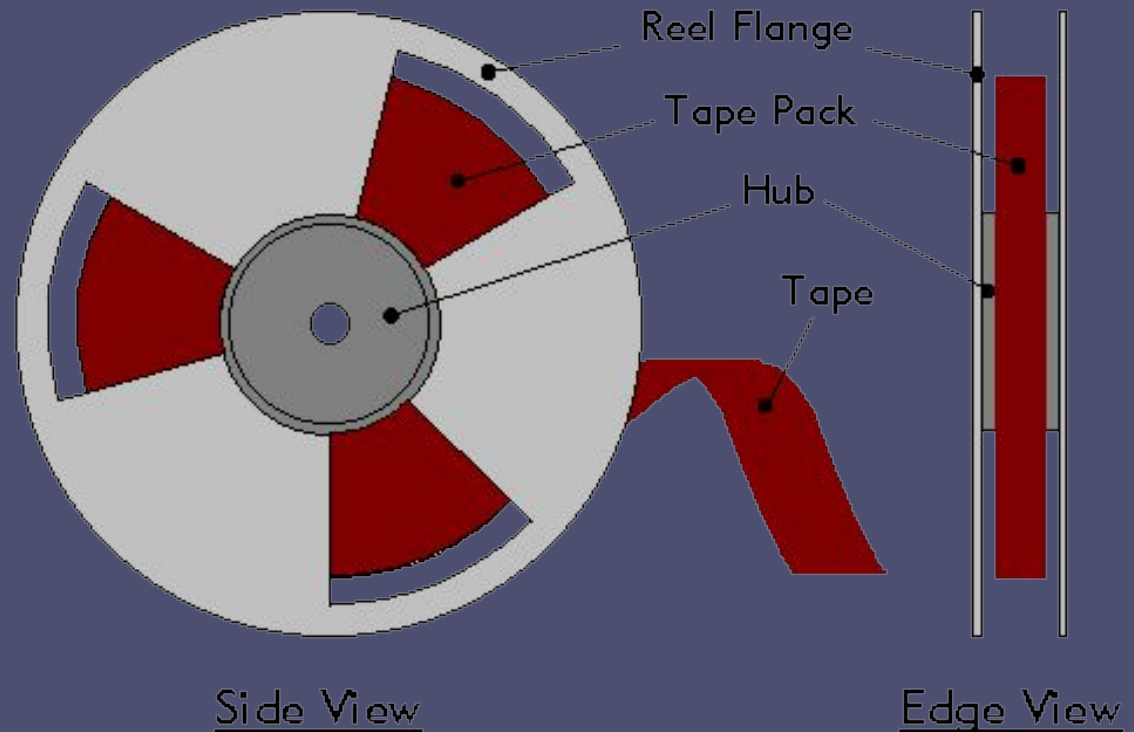
KEEP IT CLEAN

Debris Perspective on High Density Digital Recording Tape



STORAGE ENCLOSURES

- Reels
- Boxes
 - Polyethylene
 - Polypropylene
 - Paper?
- Store vertically



PLAYBACK

- Do not use pause button
- Do not rewind after use
- Do not eject in the middle of a recording

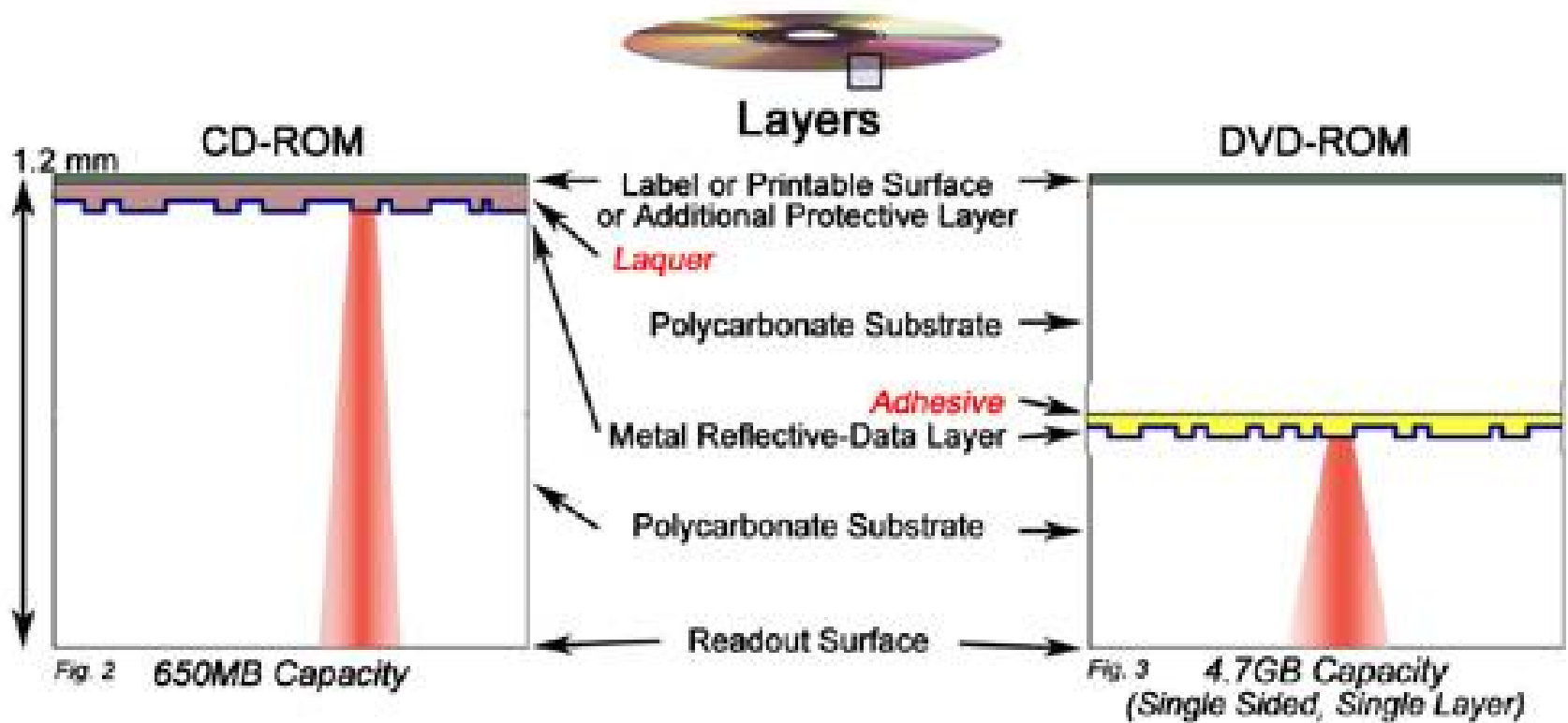
EXERCISE

- Usually recommended every 3 years
- Helps relieve prolonged tape pack stresses

CARE AND HANDLING TIPS

- Food and drink-free environment
- Keep away from heat and sun
- Do not touch the tape
- Maintain your playback equipment
- Leave cleaning to professionals

STRUCTURE OF CDS AND DVDS



CD DETERIORATION MECHANISMS

- Physical damage
- Disk rot
- Color changes
- Delamination

ENVIRONMENTAL RECOMMENDATIONS

- Medium term storage
 - 65-75° F and 20-50% rH
- Long term storage
 - 40-50°F and 20-40% rH
- What did I say about monitoring?

STORAGE ENCLOSURES

- Rigid boxes are best
- Avoid plastic sleeves
- Cabinets and drawers

CARE AND HANDLING TIPS

- Labeling
 - Never use stickers
 - Write on the clear plastic inner circle
- Cleaning
- Handling
- Maintain playback equipment
- Have a migration plan so media stays accessible

DISASTER RECOVERY

- Do you have a disaster plan?
- Make sure you know your salvage priorities

SALVAGE OF MAGNETIC MEDIA

- Air dry out of boxes
- Clean and dry containers
- Dry outside of open reels
- Do NOT play tapes when wet
- Clean professionally

SALVAGE OF OPTICAL MEDIA

- Clean with a dry, lint-free cotton cloth
- Clean containers
- Copy media as soon as practical

FOR MORE INFORMATION

Rebecca Elder
rebecca@elderpreservation.com

