

General Notes on Caring for Videotapes

Storage of Videotapes

- Tapes are best stored in a dust-free, cool temperature and low humidity environment.
- The storage temperature should be cool and fluctuate as little as possible. A climate controlled area of 68 F or lower is safe, though some sources suggest temperatures as cool as 37 F (magnetic media cannot be frozen). A set relative humidity of 30% is suggested for 68 F. Playback areas should have a higher relative humidity to minimize static electricity.
- Dust or air-borne pollutants can interfere with the playback of videotape, causing image deterioration known as dropouts. Minimize handling and never eat or drink near storage areas. Keep playback areas clean to minimize contamination of the machinery or the videotape.
- Tapes should be placed vertically in their shipping container or other inert container.

Tape Deterioration and Obsolescence

There is no "red-flag" that indicates when a tape needs to be reformatted. The appearance of white spots or flashes (dropouts) during playback means that there is a likely permanent deterioration of the tape; it can also mean that the head on the playback machine is dirty or worn. If you use the viewing method to analyze your videotape collection, thoroughly clean the playback machine at every use.

Poor housekeeping often contributes to poor handling, and finally to premature deterioration of the tape; however, research shows that the primary mechanism for tape deterioration is through hydrolysis of the tape's polyurethane binder. When the binder breaks down it becomes sticky and adheres to the parts and tape head of the playback machine, literally shedding onto the surrounding machinery. This is called "sticky shed syndrome," and cannot be permanently reversed. The predicted life span of all magnetic media is ten to 30 years.

A policy of continual upkeep via reformatting old and obsolete tapes is important to insure that your collection does not permanently lose any information due to damage or obsolescence. Become familiar with the videotape formats in your collection and determine which ones are oldest or most in need of reformatting. Many formats are no longer manufactured or supported by the companies that developed them. There are few vendors who specialize in old, obsolete formats, and expertise in playing back old tapes is dwindling.

Prioritization Recopying

All videotape will need to be recopied onto a new format. Ranking videotapes in a collection by age, obsolescence, and use will help establish reformatting priority.

How to Choose a Preservation Format

- It should be of the same or better quality format than your original. For instance, you would copy a V" U-matic tape to BetaCam SP. You would not copy a 1" SMPTE Type C to VHS (in fact, VHS is the lowest quality format, so it would never be a preservation copy). Also, consider making two preservation copies, one in analog (like BetaCam SP) and one in an uncompressed digital format (like D3).
- Choose a format that has a proven track record of use and a large population of users. This may ensure that there will be equipment to play back your tapes for a long while after that technology is unsupported by manufacturers.
- Do not use formats that employ compression (many digital formats including DVD) for preservation masters. Compressed formats are acceptable for user copies, dubbing masters, or materials that will go onto the Internet.
- Choose a tape by a reputable, well-known manufacturer.
- Use metal particle (MP) tape. Recent studies suggest that this type of tape has longer life expectancy.
- When purchasing blank stock, make a "bellwether" tape which can be checked periodically and monitored for deterioration.

Reformatting Guidelines

- Have tapes cleaned before they are transferred to another format. There is a chemically neutral cleaning operation using non-woven polyester that is adequate.
- There is a preparation procedure where tapes are baked at 130F for 8 to 16 hours to harden sticky polyurethane. This has not been tested and is not recommended except for very difficult tapes.
- Make sure that slates, color bars and sound tones are placed on new copies to identify the videotape and calibrate it.

Preservation Management for Videotape

Preservation Management is a global approach to caring for an entire collection, rather than focusing on restoration treatments for individual items. It is based on the principle of preventive conservation, since prevention is more effective overall than restoration of deteriorated records. There are three elements to preservation management:

1. Assess

Determine the preservation needs of your collection through a survey(s). How does your institution meet those needs with respect to the building and facilities, the condition of the collection (often called "risk assessment"), staff practices and procedures.

2. Plan

Information from the assessment will drive the development of short-, mid-, and long-range plans that must be taken to ensure the safe storage and use of the collection. Planning also includes the development and implementation of policies, procedures, and strategies to achieve preservation goals. Policy can be written on exhibition and public access, acquisition, integrated pest management, and other key areas of archives management.

3. Act

Activities are the systematic implementation of policies developed during the planning phase. It may involve writing requests for grant monies, or engaging the services of an A/V expert to help define restoration priorities within the collection. The four important areas of action are environment, determination of collection priorities for preservation, holdings maintenance, and restoration

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