

Caring for Video Art

Best Practices Guide for Organizations

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As Canada's leader in video art distribution, Vtape provides services to individual artists, audiences and institutions that participate in the production, exhibition and acquisition of video art and that contribute to its critical appreciation.

The development of the *Caring for Video Art: Best Practices Guide* is a result of Vtape's 30 year commitment to the preservation of video art. Active intervention in the preservation process has been made necessary by the unpredictable nature of videotape technology and the need to preserve this art form for future generations. This guide is intended to be used as a tool for organizations to develop best practices that will assist in documentation and inventory, and the creation of suitable storage environments, as well as the handling and maintenance of their video art. The techniques and processes discussed in this guide are for video works created and found on magnetic videotape formats such as 1/2" open-reel, 3/4" Umatic, VHS, Betacam SP, MiniDV and Digital Betacam. In this guide the steps follow current best practices in the field of video preservation and conservation and have been designed so that they are practical, feasible and accessible in terms of language used and expertise required.



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401 Richmond Street West, Suite 452
Toronto, ON, Canada M5V 3A8
t 416.351.1317
f 416.351.1509
e info@vtape.org

TERMINOLOGY EMPLOYED IN THE GUIDE

The language that you use to describe the condition of your videotapes should be decided upon before beginning the assessment. Vtape recommends the following terms and definitions:

Archival Format

A video format that provides reliable playback without information loss. This should be a contemporary and professional format supported by the industry.

Binder

The polymer used to bind the magnetic particles containing videotape information to the videotape base.

Conservation

The action taken to identify and assess the risks to a work of art or artifact from agents of deterioration and changes in format or technology.

Dub

To transfer or to copy a video recording.

Head

The magnetic reading device in a videotape recorder which records, erases and reproduces video and audio signals.

Head Clogging

The buildup of dirt or debris on video playback heads. Clogged heads cause dropout and reduced image quality.

Hydrolysis (Sticky Shed Syndrome)

A sticky residue on magnetic videotape that occurs when the binder begins to deteriorate. This process is often triggered by temperature and humidity conditions.

Migration

The process of copying the content of an existing videotape to a new video format.

Pack Slip

The slippage of sections of tape on the spool within the videotape pack. Pack slip causes damage to the edges of a videotape when played.

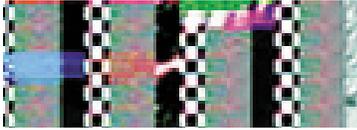
Restoration

The process of restoring the sound and image quality of a video that has experienced some degree of deterioration.

Vinegar Syndrome

The chemical reaction that occurs when acetate-based magnetic videotape decomposes and produces acetic acid, thereby giving off a vinegar-like odour.

Vtape recommends the Texas Commission on the Arts 2004 *Videotape Identification and Assessment Guide* for a visual guide to videotapes and their common problems. See link on page 17.



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Toronto, ON, Canada M5V 3A8
t 416.351.1317
f 416.351.1509
e info@vtape.org

VIDEOTAPE HANDLING

Handling videotapes improperly and disregarding the maintenance of playback equipment can cause severe damage to a videotape and contribute to its deterioration.

DO NOT

- ... store videotapes in direct sunlight.
- ... place videotapes near transformers or electric motors because of potential exposure to magnetic fields.
- ... place videotapes near heat sources.
- ... handle videotapes with exposed hands, in particular open-reel videotapes; instead use lint-free gloves.
- ... use hand lotions, perfumes or creams when handling videotapes.
- ... hold a cassette by the moveable door that shields the videotape.
- ... have food or beverages in the area where you handle videotapes or use playback equipment.
- ... put open-reel videotapes or cassettes down on a surface unless it is completely clean and flat.
- ... allow a videotape to circulate if you think that it is the only copy that exists.
- ... insert a videotape into playback equipment unless you are sure that the equipment works.
- ... play videotapes that are visibly mouldy or have a vinegar-like smell.
- ... play a videotape that is wet, dirty or contaminated with visible dust.
- ... play a videotape that has the record-disable button or tab still intact.
- ... throw away videotapes after you have migrated them.

DO

- ... dust videotape cases before you open them in order to prevent contaminating the videotape.
- ... remove all videotapes that you find in plastic bags.
- ... remove all adhesive tape or stickers.
- ... keep videotapes in their cases when you are not using them.
- ... ensure that the videotapes in your inventory appear on more than one videotape format.
- ... label your videotapes with acid-free archival quality labels and inks.
- ... quarantine mouldy videotapes by sealing them individually within plastic containers and keeping them dry and cool.
- ... rewind videotapes to the beginning before ejecting them to reduce the chance of damage to the recorded area of the videotape and to ensure an even videotape wind.



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Toronto, ON, Canada M5V 3A8
t 416.351.1317
f 416.351.1509
e info@vtape.org

Step 1: Do an inspection of your videotape storage environment, including an examination of your shelving system, in order to identify any potential risks to the safety of your videotapes.

VIDEOTAPE STORAGE ENVIRONMENT

It is important to survey the environment that your videotapes are stored in as well as the storage method that you are using. This will help you identify potential problems that the storage area may pose to your videotapes and their expected longevity. Document any issues that you find and make a list of necessary changes.

Videotape Storage Location

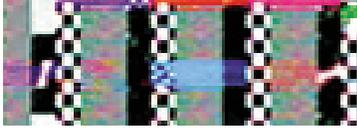
- Videotape storage environments should be locations that are dry, cool, clean, free of dust and debris, free of food and beverages, and away from windows.
- Do not store videotapes in a location that is carpeted because carpets promote the circulation of dust and also retain moisture.
- Do not store videotapes in basements that are damp, musty or prone to flooding. These factors promote the growth of mould.
- Shelf videotapes vertically on shelving unit.
- Store videotapes away from magnetic fields created by devices such as television sets, loudspeakers and portable air conditioners.
- Inspect storage area biannually.

Dirt and Dust

Check to see if the area is dusty by running a cloth along different surfaces of your storage environment. Wipe different areas of the storage area including the outsides of different video cases. If the cloth becomes dirty, the storage area is prone to dust collection and should be more regularly cleaned or videotapes should be moved to another area.

Temperature and Humidity

Significant fluctuations in temperature and humidity can have serious negative effects on the longevity of videotape. Use a regular household thermometer to check the temperature of the room your tapes are stored in. The temperature should not be above 26°C or below 8°C. The temperature should not fluctuate more than 6°C during the day or 12°C during the year. Relative humidity (RH) is the percentage of water vapour in the air, in a controlled space at a specific temperature. It can have a negative effect on videotape if the RH is too high or low. As humidity changes with temperature, humidity must be maintained at a consistent level to create a stable environment. To check the humidity of the storage area, use a hygrometer (these can be purchased for under \$40 at a hardware store). The ideal environment for your collection would be to maintain your storage at around 30 percent RH when the temperature is around 10-20°C.



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Possible Results of Improper Storage

Magnetic Fields

Videotapes should not be stored anywhere near magnetic fields in order to avoid the accidental erasure of videotape material. Magnetic fields are often found near electrical wiring or electrical equipment such as television sets, loud speakers and portable air conditioners.

Leaks, Flooding, Fires

Check the visible pipes in your storage location for signs of leaking. Water stains on the floor, ceiling or walls as well as rust on pipes could indicate possible leakage and an increased potential for flooding. Remove videotapes from storage locations that may be affected by water damage. Water damage will cause immediate physical harm to videotapes, and will also drastically increase the chance of later mould growth. Fire damage is also a concern for those with videotape collections. In addition to fire, smoke, and the chemicals used to fight fires, the presence of debris from the event also poses serious risks to videotapes. In the event of a disaster such as a fire or flood, videotapes are not always destroyed on contact, yet are often damaged by improper handling after the fact or from waiting too long to attend to them. In the event of a disaster seek professional advice as soon as possible in regards to how to proceed with videotape handling. Do not attempt to play videotapes that have been exposed to these conditions.

Videotape Storage Systems

Videotape Storage

Ensure that videotapes are shelved vertically as though they were books. It is important to house videotapes this way in order to prevent edge damage to the videotape and slippage within the pack.

Videotape Shelving

Make sure that all of your videotapes are housed on steel shelving or within boxes that are raised above the floor so that in the event of a flood water damage is prevented. To ensure the safety of videotapes, make sure the shelves have been installed correctly and are well anchored to the floor and/or wall. As videotapes can be quite heavy, make sure to distribute them evenly across the shelving unit.

Videotape Casing

Make sure that your videotapes are housed within solid, inert plastic archival cases. This will help to protect them from various types of physical damage, as well as prevent debris and other contaminants from settling on the actual videotapes. Cases for open-reel videotapes, especially the heavier formats such as 1" open reels, should support the reel at the hub.

Videotape Winds

It is important to ensure that the videotape is wound (packed) correctly in order to reduce tension on the videotape, as well as to minimize the amount of recorded videotape that is exposed. If a videotape pack is wound so that the edges of the



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Videotape Winds [continued]

videotape are protruding, these exposed sections are more susceptible to damage and contamination. An ideal videotape wind should be fairly tight and should appear even (no gaps between wraps of videotape, no edges protruding). Fast forward then rewind the videotape to ensure a good pack.

Step 2: Take an inventory of the videotapes and titles in your collection. The inventory process includes gathering information such as the title of the work, artist's name, date of production, total number of copies of a title, videotape formats of each title, material type (i.e. master, submaster, preview copy), etc.

CREATING AN INVENTORY OF YOUR COLLECTION

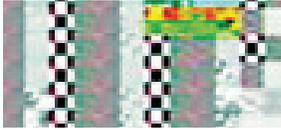
It is recommended that you build your inventory using a spreadsheet, or use the form [inventory.pdf](#) (found in the *Downloadable Forms* section of the Vtape website) to record this information. When creating your inventory sheets make sure you have space for all appropriate information. Also keep in mind that you may need a space to make notes when doing the physical inspection and playback quality check.

Important Considerations When Taking Your Inventory

- When taking your inventory, be sure to check that the labeling on the case matches that of the videotape inside.
- If your videotapes are unlabeled and you need to play them to identify the content, conduct a physical assessment in order to determine if there are any problems that will potentially damage the videotape or the equipment. Clean any videotapes which appear on ½" open-reel, 1" open-reel and ¾" Umatic formats. This will need to be done by a facility that has the resources to do so. Refer to **Appendix A** for a list of videotape restoration services.

Organize the Collection by Title and Include

- Artist's name.
- Title.
- Total number of videotapes for title.
- Intended videotape usage (i.e. master, submaster, preview etc.), the format (i.e. ¾" Umatic, VHS, MiniDV, DVD etc.) and whether it is NTSC or PAL.
- Age range of videotape copies for the title, and if known, the date each copy was made.
- Any notes written on the labels or cases of the videotapes (record location of notes and ephemera in the inventory).



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Step 3: Prioritize the videotapes and titles you will assess. Begin the physical inspection by selecting the videotapes that are most important from a historical or organizational perspective. If they are all of seemingly equal priority, select the oldest group of videotapes in your collection by an individual artist. Select all the videotapes that you have by one artist and arrange them chronologically with the oldest title first.

PHYSICAL VIDEOTAPE ASSESSMENT

When assessing a title it is important to evaluate every copy you hold of that title; this way you will have a more thorough understanding of the condition of all copies of a specific title.

Prioritization for Assessment

A key component of the assessment is examining the various formats that make up your collection. This is important because certain formats are more at risk than others. Open-reel video formats, $\frac{3}{4}$ " Umatic, Betamax and VHS videotapes older than ten years should be considered priorities because both the formats and playback equipment are rare, obsolete or becoming increasingly scarce. These formats need to be handled with care because it is more likely that they have experienced some degree of deterioration. Hi8, Digital 8, MiniDV, VHS and SVHS videotapes, although newer, are also susceptible to damage and require the use of playback equipment that is becoming increasingly obsolete. Priority should also be given to any videotape that is an only copy.

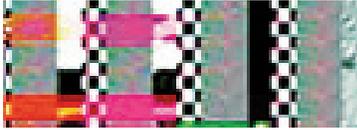
Step 4: Carry out the physical assessment of the videotapes that you have selected. Document your findings to keep track of the condition of the videotapes. Always do the physical assessment before the playback assessment in order to prevent playing a damaged videotape.

The physical assessment will identify damage to specific videotapes, and should reveal any problems with your storage environment.

Templates for documenting the assessment process have been included in the Downloadable Forms section of the Vtape website. These forms serve as a place to record observations about the condition of the videotapes. Please refer to **Appendix B** for Vtape's physical assessment and playback quality check forms. There is a form for open-reel tapes, videocassettes and DVDs.

What to Look For – Signs of Physical Deterioration and Possible Damage

- The physical condition of the container (case, box, etc.). Look for structural damage like dents, chips or cracks, liquid stains or visible dust
- Odours that resemble wax, must or vinegar
- Structural damage to the interior cassette



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t 416.351.1317
f 416.351.1509
e info@vtape.org

What to Look For [continued]

- The presence of mould
- Damage to the wind of the videotape such as folds or wrinkling of the videotape
- Debris, particles or signs of liquid contamination on the videotape
- White powder or crystalline residue on the videotape edge, or black/brown flakes on the inside of the container
- Pack Slip

Some Common Problems Include

Pack Slip

The quality of the wind or “pack” of the magnetic videotape plays a significant role in determining the condition of the videotape. Magnetic videotape expands and contracts with changes in temperature and humidity. The videotape gets thicker as the temperature and relative humidity rises. This can cause the videotape wind, also known as the “pack,” to tighten. When the temperature and/or relative humidity decreases the videotape wind can loosen. The changes in thickness of a videotape and the tightening or loosening in the pack can cause parts of the videotape to slip out of its wind resulting in the folding or bending of the videotape. Videotapes with tightly or loosely wound “packs” should be fast forwarded then rewound to prevent damage or warping.

Sticky Shed Syndrome

High temperature and high relative humidity can accelerate the deterioration of videotapes through a chemical reaction called hydrolysis, commonly referred to as “Sticky Shed Syndrome.” This process occurs when the binder used to hold the metallic particles to the videotape absorbs moisture and weakens, becoming sticky. When this occurs, if the videotape is played back the oxide particles may rub off the videotape and build up onto the equipment. Information on the videotape is lost as a result of this process, and the heads on playback machinery can become severely clogged.

Fungus/Mould

High temperatures and high relative humidity encourage the growth of mould. The presence of mould on a videotape can affect both the videotape’s physical structure and its playback quality. Mould can be very contagious and can easily spread throughout the collection and onto playback equipment. If you find a mouldy videotape, quarantine it immediately and contact a professional organization who can clean the videotape for you.

NOTE: Although signs of videotape decomposition are more common among older formats, decomposition can also occur with more contemporary formats. If you do not have experience or training in correcting these issues you should not attempt to fix videotapes yourself. Trying to remedy these situations without expertise can lead to further videotape damage. Mouldy videotapes, as well as those with vinegar syndrome, can compromise your entire collection. Not attending to videotapes with these conditions can lead to further deterioration and may place the rest of your collection in jeopardy. **DO NOT** attempt to play a videotape with any of these conditions. Immediately quarantine videotapes that are mouldy or smell like vinegar. Refer to **Appendix A** for a list of videotape restoration services.



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Making Sense of the Results from the Physical Assessment

After you have completed your physical assessment, the observations you have made about the state of the videotapes will help you determine which videotapes/titles are preservation priorities. Physical inspections that show a significant degree of videotape deterioration or damage (such as wrinkles, mould, a strong odour of vinegar or wax, brown or white crystalline particles on the videotape, damaged cassettes or reels) should be referred to Vtape. Videotapes that show these signs and appear on open-reel video formats, $\frac{3}{4}$ " Umatic, Betamax or VHS videotapes older than 10 years, should be considered the highest priorities, particularly if there are few or no other copies of the title.

Step 5: Once you have completed the basic physical assessment of your videotapes and have the necessary playback equipment in proper working order, conduct a playback assessment to determine the condition of the video content on the videotape. Clean both the videotapes and playback equipment before use. If you do not have the proper playback equipment for the formats in your collection, or the expertise to clean them, refer to [Appendix A](#) for a list of services.

VIDEOTAPE PLAYBACK ASSESSMENT

- Make sure you have completed a physical assessment of each videotape before playing it.
- If you are not certain that both the videotape and equipment you are using to play the videotape are in proper working order, **DO NOT** attempt playback.

Cleaning Your Videotapes and Playback Equipment before Use

If you have the appropriate equipment to play $\frac{1}{2}$ " open-reel, 1" open-reel, or $\frac{3}{4}$ " Umatic formats, you should clean both the videotapes and the equipment before use. Cleaning of videotapes is an important process for all open-reel formats and $\frac{3}{4}$ " Umatic videotapes. These videotape formats and their playback equipment should be cleaned before and after use.

What to Look For – Conducting the Playback Assessment

During your playback assessment you should be looking for any abnormalities in visual and audio quality. These are often revealed as dropout on the screen (video dropout appears as a white spot or streak on the video monitor; when several video dropouts occur per frame, the TV monitor will appear snowy), warped and slurred images, audio that sounds distorted or cuts in and out. If you have multiple copies of a title they should be watched in succession to determine whether the problem is consistent throughout all copies. If this is the case this may suggest that the videotapes were dubbed from a poor-quality copy. Remember to document your observations on the assessment forms provided (see [Appendix B](#)).



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f 416.351.1509
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Step 6: Based on your assessment notes, prioritize works that appear on older, obsolete formats such as any open-reel videotape, ¾" Umatic, Betamax and VHS videotapes older than ten years. These videotapes are even higher priority if they show signs of deterioration, or are master copies.

MIGRATION OF VIDEOTAPES

Migration

Migration is the process of copying the content of a videotape from one format to another. With respect to preservation, migration is the process of copying a videotape from an older format to a more stable format while minimizing changes to the original artwork.

Videotape migration is necessary in order to maintain playable access to works housed on older videotapes. As video technology has gone through a wide variety of formats since its inception, and the equipment used to play many of these formats is now out of date, it is imperative to consider migration from an older video format to a contemporary one as a crucial step in your preservation plan.

Prioritizing Titles to Migrate

The need to migrate videotapes depends on the videotape format the work is currently on, the physical and playback condition of the videotapes, and whether you already have copies of the work in more stable formats. The answers to these questions will be available in the information you gathered through the inventory, and physical and playback assessments.

Ideally, there should be a "preservation master" copy of each title on Digital Betacam. (Betacam SP may also be considered as a lower-cost solution.) The preservation master is used as the most secure copy of the work and is only accessed when the sub-master you use to make copies from is no longer usable for this purpose. A title should also have a submaster on Digital Betacam or Betacam SP that is used to make exhibition copies and preview copies. Prioritize titles for migration when the master appears on an older format (any open-reel videotape format, ¾" Umatic, Betamax and VHS videotapes older than 10 years). Consider migrating to Digital Betacam or Betacam SP to create a preservation master.

The next priority for migration should be titles with masters that are on Hi8, Video 8, Digital 8, MiniDV, VHS, SVHS, or DVD, particularly if the only copy of the title is found on one of these formats, or there are multiple copies of the title but they are all on "unstable formats" (these include the obsolete formats mentioned in the paragraph above). If these formats show signs of physical or playback deterioration they are a priority, especially if there is only one copy of the title.



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Step 7: Before migrating a work, you MUST identify who owns the rights to it by contacting the artist, their distributor or estate holder. Artists must be involved in the migration process and be consulted in order to discuss which copy should be used as the master. Transferring from one format to another — or between digital video and analogue video — can result in changes to the visual aesthetics of the work. The artist must be involved in determining what level of change is acceptable, if any. This information should be written into a contract or signed permission form with the artist before proceeding.

Step 8: Determine which is the best existing copy of the work; this will have been revealed in the playback assessment that you conducted. A videotape that is the highest priority for migration is one that is the only copy of a work, and is showing signs of deterioration. Identify if another organization, the artist, or a distributor has a better-quality copy of the work. The copy that is deemed to have the highest playback quality, and is closest to the original, should be used for migration.

Step 9: Create a new master (which will become your preservation master), a submaster, new exhibition copies and new preview copies.

NOTE: Since video technology is constantly evolving, there is no one video format that is certain to last. In fact, the only certainty with video is the deterioration of the videotape, and the continual need for migration in order to preserve the information on the videotape. Archival formats should only be considered as the current archival standard, they should not be considered the only long-term solution. The term “archival video format” refers to formats that are currently considered easily available in terms of videotape and equipment and are widely used and supported by the broadcast and production industry. Betacam SP and Digital Betacam are considered robust, sturdy, and reliable, and require minimal compression in the migration process. These formats also provide the best-quality video image currently available.

Visual Integrity

Migrating works to a new format while attempting to retain the visual integrity of the original can be a complex process that requires the right equipment and expertise. When faced with decisions relating to the visual qualities of a work it is important to be clear whether a proposed migration will challenge “aspects of an image that are part of the historical nature of the technology being used at the time and are part of the original work” (BAVC) or whether it will rectify

damage which has occurred after the piece was made due to deterioration, poor handling or bad transfers. It is important to recognize that the artifacts of the original technology are of historical value and are part of the texture of the work. These should not be removed. However, where damage has occurred after the work was finished there may be a case for intervention. (BAVC)



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t 416.351.1317
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e info@vtape.org

Preservation Master

The preservation master should only be used to dub submaster videotapes. This videotape is the most secure copy of a title, and should be stored in an environment with stable temperature and humidity.

Create a preservation master on Digital Betacam or Betacam SP. Record the preservation master onto unused, high-quality videotape stock. Clearly label the videotape and case “preservation master” and put one minute of colour bars and tone at the beginning to use as a technical reference. The preservation master should be stored in storage conditions with a 20-30% RH, and a consistent temperature as close to 8°C as possible. The preservation master should also be stored in a separate location from other copies of the title. Refer to Step 1 for instructions on creating an optimal storage environment.

Preservation masters should be as similar to the original title as possible. There should be no visible change in image or sound between the original and the new preservation master. It is acceptable to record the new master through a time-base corrector in order to stabilize the signal and improve picture and audio for the purposes of exhibition. This is only done in consultation with the artist.

Submaster

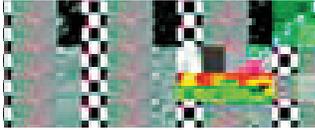
The submaster is the videotape that should be used to produce exhibition and preview copies. The submaster should be the only videotape that is dubbed from the preservation master. Create a submaster by dubbing from the preservation master to Digital Betacam. Having an alternate submaster on MiniDV is also acceptable. Clearly label the videotape “submaster,” and put one minute of colour bars and tone at the beginning to use as a technical reference. The submaster should be stored in a separate location from the preservation master.

Exhibition Copies

Exhibition copies are videotapes that are used for the purpose of public exhibition. Exhibition copies are often made to match the format requested by the exhibitor or screening venue. Create exhibition copies upon request by dubbing from the submaster. The ideal format for your exhibition copies is contingent on where the work is being shown. Digital Betacam and HDCAM provide the best image quality and are the most stable and reliable formats for exhibition. However, Betacam SP, Blu-Ray disk, Digital Quicktime files and MiniDV may also be requested by exhibitors and screening venues. DVDs are not recommended by Vtape as an exhibition format because of their low-quality image and unreliable nature. DVDs are not considered a reliable storage medium.

Preview Copies

Preview copies are copies used for quick viewing and access by curators, educators and for research purposes. In your collection you should have a minimum of two DVD preview copies for each title. For preview purposes DVDs are good because they are inexpensive, easy to make, easily played and take up little space.



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Preservation Risk Factors Associated with Hi8, MiniDV, VHS and DVD

Hi-8, Video 8, Digital 8 and MiniDV

The physical design of Hi-8 and MiniDV make these formats prone to damage and they should not be used for long-term preservation purposes. The fragility of the cassette and the thinness of the videotape leave these formats highly susceptible to physical damage; dropping one of these videotapes once is often enough to cause permanent damage.

VHS and SVHS

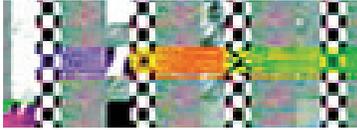
VHS is the most recognizable analogue format. Due to the low-quality image that it produces and its susceptibility to deterioration, this format should not be used for archival purposes. It is expected that VHS videotapes over 10 years old will show the effects of deterioration.

DVD

DVDs are not considered an appropriate storage medium for master copies of video works. DVDs are highly compressed when created, which means that information is deleted during their creation. This results in video information that is lower in quality than the original. DVDs are also fragile and prone to physical damage such as cracks and scratches.

What to do with Old Videotapes

- Do not throw away old videotapes after they have been migrated to a new format. These are often closer to the originals and can be remastered again in the event that something happens to your newer format copies. Keep them within your “archive.”
- Ensure the record disable button or tab has been activated (removed) to guarantee the videotape cannot be erased or recorded over.
- Store these videotapes in temperature and humidity controlled conditions with your preservation masters because they are often older, more fragile, and more likely to have experienced some effects of deterioration.



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f 416.351.1509
e info@vtape.org

Step 10: Label every videotape in your collection with the appropriate information, making sure that the label information corresponds correctly with the label on the videotape. Visibly label which videotape is a “preservation master,” “submaster,” “exhibition copy” and “preview.” If possible, use archival quality acid-free labels and make sure there is a label on the videotape case and the videotape itself. Add all new videotapes to the inventory in order to keep track of them and keep your collection organized.

VIDEOTAPE LABELING PRACTICES

Videotape Labeling

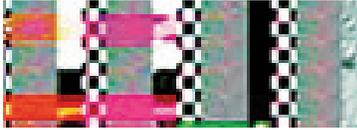
Labeling videotapes and their cases is very important. Labeling allows you to organize videotapes, locate them within your collection, and make distinctions between masters and preview copies. Labeling videotapes in your collection also enables you to distinguish what the videotape content is without having to play it. Labels should include the following information:

Label Information for Completed Works

- Title
- Artist
- A unique number that you use for identification purposes within your collection (i.e. catalogue number)
- Date the work was made
- Date the copy was made and from which specific videotape it was made
- Intended use of videotape (i.e. Preservation Master, Preview etc.)
- Colour or Black and White
- Audio information (i.e. Mono, Silent, Stereo, etc.)
- Running time of the title

CONCLUDING VIDEOTAPE ASSESSMENT PROCESS

Step 11: Place videotapes back in your storage area, ensuring that you follow the recommendations for suitable storage area.



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401 Richmond Street West, Suite 452
Toronto, ON, Canada M5V 3A8
t 416.351.1317
f 416.351.1509
e info@vtape.org

ADDITIONAL INFORMATION — NOTES ON EQUIPMENT

Storing and Maintaining Playback Equipment

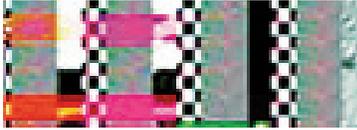
As older videotape playback equipment such as 1/2" open-reel and 3/4" Umatic players are no longer in production, it is imperative to keep these machines functional so that videotapes can continue to be played. Since the equipment used to play back contemporary formats will also face obsolescence, these machines need to be cared for and maintained to prolong their working life. Without the correct playback equipment for a particular videotape format, it becomes impossible to access the content on those videotapes, and videotapes often last longer than the production life of their playback equipment. Attention to the storage conditions of equipment is important because these machines are susceptible to damage caused by poor environmental conditions.

Equipment Storage Recommendations

Video playback and recording equipment should be kept in cool, dry and clean environments. The machines should not be used if it is suspected that they are damaged. If you are unsure of the condition of the equipment, refer to its manual, consult the manufacturer, or contact an organization specializing in antiquated video equipment for assistance.

What to do with Old Playback Equipment Manuals and Machines

DO NOT throw away old video equipment, remotes or equipment manuals. If you have ANY obsolete videotape playback equipment, particularly for open-reel formats, 3/4" Umatic or Betamax, and are not intending to use, maintain, or keep it, **DO NOT THROW IT OUT**. Contact Vtape to investigate donations and future use in restoration environments. Also retain equipment manuals and partially damaged equipment – these can be used for spare parts or donated to video restoration organizations or facilities.



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[APPENDIX A] Videotape Restoration Services & Resources

Services

These organizations provide video restoration and migrations services. They maintain obsolete equipment in good working condition and are able to work with older video formats. In some cases they may be able to make new copies of damaged or deteriorating materials on more stable formats. For a detailed list of Vtape's restoration and dubbing services, see [Appendix C](#).

Bay Area Video Coalition (BAVC)

<http://www.bavc.org>

2727 Mariposa Street, 2nd Floor
San Francisco CA 94110 USA
Phone: 415.558.2166
E-mail: preservation@bavc.org

Vtape

<http://www.vtape.org>

401 Richmond Street West, Suite 452
Toronto, ON M5V 3A8 Canada
Phone: 416.351.1317
E-mail: tech@vtape.org

Resources

Vtape would like to acknowledge multiple organizations and associations that have dedicated their resources to researching and implementing practices for the preservation of video. The information in *Caring for Video Art: Best Practices Guide for Organizations* has been gathered through Vtape's experiences and expertise in this field as well as through the information made accessible by various organizations and publications. The resources below have significantly informed the text of this document:

- Association of Moving Image Archivists (AMIA) <http://www.amianet.org>
- The Audio-Visual Preservation Trust of Canada <http://www.avtrust.ca>
- Bay Area Video Coalition (BAVC) <http://www.bavc.org>
- Canadian Filmmakers Distribution Centre (CFMDC) <http://www.cfmcd.org>
- Electronic Arts Intermix (EAI) <http://www.eai.org>
- Image Permanence Institute <http://www.imagepermanenceinstitute.org>
- Independent Media Arts Preservation (IMAP) <http://www.imappreserve.org>
- Media Matters <http://www.media-matters.net>
- Library and Archives Canada <http://www.collectionscanada.gc.ca>
- LUX: Keep Moving Images <http://www.lux.org.uk>
- Netherlands Media Art Institute (NIMK) <http://www.nimk.nl/eng>
- Training for Audiovisual Preservation in Europe (TAPE) <http://www.tape-online.net>
- Texas Commission on the Arts: Video Identification and Assessment Guide <http://www.arts.state.tx.us/video>
- National Technology Alliance <http://www.clir.org/pubs/reports/pub54/index.html>
- Experimental Television Center – Video History Project <http://www.experimentalcenter.org>



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[APPENDIX B] Assessment Forms

The forms for this appendix are found in the *Downloadable Forms* section of the Vtape website. They are as follows:

- [dvd_assessment.pdf](#)
- [cassette_assessment.pdf](#)
- [open_reel_assessment.pdf](#)
- [inventory.pdf](#)

BEST PRACTICES GUIDE CREDITS

Vtape would like to acknowledge the following for their participation in the production of this guide:

Deirdre Logue	Lead Coordinator / Researcher / Writer / Editor
Kim Tomczak	Lead Technical Supervisor / Writer / Editor
Rachel Miles	Interviewer / Researcher / Writer / Editor
Jessica Wilson	Researcher / Writer / Editor
Lena Hesse	Researcher / Writer / Editor
Mark Pellegrino	Technical Consultation
Helen Button	Proof Reader
Larissa Fan	Proof Reader
Chris Gehman	Copy Editor
Lisa Kiss Design	Design

Special thanks to the all of the artists and organizations consulted for sharing their expertise with us; to Vtape staff, Interns and Board of Directors for their guidance; to the Canadian Museums Association and the Young Canada Works Program for their essential employment support; and to the Canada Council for the Arts – SOFI Program, for their contribution to the research, design and dissemination components of this project.



Canada Council
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Conseil des Arts
du Canada



ONTARIO ARTS COUNCIL
CONSEIL DES ARTS DE L'ONTARIO

