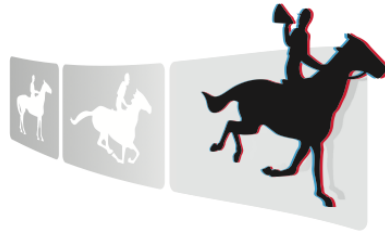


KEEPING AUDIOVISUAL CONTENT ALIVE



PRESTO
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Tutorial: Introduction to preservation



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Introduction

Audiovisual preservation is best described as the totality of the steps necessary to ensure the permanent accessibility – forever - of an audiovisual document with the maximum integrity (CCAAA definition).

To ensure permanent accessibility, maintenance is necessary. The reason for using the word maintenance is rhetorical: to promote the idea that preservation activity must be performed, funded, and included in the standing maintenance functions of any organisation responsible for audiovisual material. Organisations that don't actively maintain their assets will lose them.

1. Conservation

Conservation is about hanging on to what you have - preventing degradation and deterioration - rather than transferring to something new.

The fibreglass model of the Lascaux caves is a copy that does not preserve essential features of the original, and so the model does not preserve the original. But the copy allows the originals to be sealed off, a conservation measure to prolong the life of the 20,000 year old originals. So the fibreglass copy does support preservation, by allowing conservation to proceed (by taking away the pressure for access).

Film archives do exactly the same thing: they make access copies that in some cases (e.g. low-res files for use on the web) are in no way a replacement for the original – but they take pressure off the original, allowing it to be kept untouched in cold dry conditions. Generally film conservation is based on very cold storage at the appropriate humidity, and very limited use of masters.

Film archives also make high quality copies that are as close as technically possible to the originals. These copies can still be made by an analogue process (film to film transfer), though many film archives are

changing from analogue to digital methods for production of these 'new masters'.

Some film archivists (and some film manufacturers!) argue film can last for decades, even centuries, if stored in proper conditions and that digitisation in fact introduces new risks. This "film for film's sake" approach is thus making significant use of conservation as a method of preservation.

2. Restoration

Conservation is about maintaining originals, and preservation is about ways to "ensure ... permanent accessibility ... with the maximum integrity".

So what is restoration? Surely if it changes a document, that affects integrity. This is an area where we could get lost in the metaphysics. Leaving aside the definition of what is or is not preservation, modern restoration is a set of processes to allow old media to be appreciated as though it were new media, in the original viewing and listening experience at the time of creation.

Restoration can make old 'documents' and materials look like new. However, nobody may actually know what precisely a film did look like in its original projection – and improvements in projection and other technology means that some restorations literally are better than their originals.

Digitisation can play an important role in the restoration process. One example is the Technicolor process, which used three separate films and three projectors built into one. There were always synchronisation and registration problems with this process – whereas the digitised films can be registered (aligned) with far higher precision than was originally possible. Digital technology also provides mechanisms for recovering from colour fade that are far more flexible and accurate than for analogue methods.

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Figure 1: An example from restoration of the Austrian film 'Opernball' with digital technology from Joanneum Research.¹

Finally, film archives may use digitisation to produce a 'digital intermediate' before finally producing a new analogue master. They do this in order to use digital technology for restoration – because there are many defects that can be removed digitally in ways that could not be attempted by analogue processing.

3. Digitisation

Many activities contribute to “permanent accessibility – forever”. A lot of audiovisual material from the 20th century is in analogue form – and most of the options for trying to obtain permanent accessibility forever are digital options. So digitisation is of huge significance as one of the steps necessary to ensure permanent accessibility.

There are many standards and guidelines concerning the technical details of digitisation and the reasons for digitising. There is also some controversy about whether digitisation is or is not preservation. For the purposes of this guide, the answer is clear. Digitisation is conversion of an analogue signal to digital – but digitisation may or may not be “necessary to ensure ... permanent accessibility”.

Digitisation almost always supports measures to increase access (like encoding materials for web access) – but digitisation itself is not identical to

preservation, as it is only a step that may or may not contribute to permanent access.

Having said that, every category of audiovisual material except film in film archives (as opposed to film in broadcast archives) will probably have to be digitised for preservation – because all non-digital options are disappearing. All analogue audio formats are obsolete, and all analogue videotape formats are obsolescent as well – no professional equipment is in production it's only available used.

So digitisation is far and away the primary method used to rescue content, at the sacrifice of the original carrier.

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