Before the Restoration

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Restoration of Film Heritage

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Principles

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- digitisation
- conservation

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An Ounce of Ethics

- The probability that a work is available in its integrity in the future is increased.
- All the options that existed before taking an action remain open after the action.
- Every step is carefully documented.

Conservation

Conservation encompasses all activities for the care of an object, which delay its further decay and ensure that it remains in the most intact condition for the future.

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Live in the real world!

There is only one efficient way:

- keep the sources
- more prevention:
 - → better insulation
 - → more efficient air conditioning
- less handling of the sources
- make access copies

Restoration

Restoration includes all interventions and treatments that serve to retrieve a certain historical state and contribute to the legibility, aesthetic integrity or reuse of an object.

Restorative actions may be irreversible and require great care in planning, justification, execution and documentation.

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File Formats

- The archive must be able to handle the file formats it holds.
- open source
- simple to use and well documented
- widely used by the community

Different Purposes

archive master format:

→ for preservation

mezzanine format:

→ for professional use in postproduction dissemination formats:

→ for widely spreading and easy access

Preparation

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Film

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- film as document or work of art
- elements of the film
- actual reel

Sources

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- splices repair
- perforation repair
- film cleaning
- chemical treatments
- ... and beyond

Splices

- cement
- tape
- re-splicing

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Cleaning

PTR

- manual cleaningmachine cleaningusing a solvent
 - re-washing

Perforation

- tape bridges
- film bridges
- acetone
- notches
- V-cuts

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Chemical Treatments

- drying
- humidifying
- mould fungus
- swelling the emulsion
- re-development
- hardening the gelatine

Beyond

- transfer the emulsion onto a new base
- keep only the emulsion

Digitisation 18

Scanner

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- film transport
- light source
- camera
- image section
- wet scanning
- file format

Film Transport

- sprocket
- PTR
- tension
- film path, guide and gate
- reels

Light Source

diffusewhitecoloured

illuminant

Camera

• image sensor

resolution

bit-depth

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Image Section

camera

projector

• safe area

over-scan

• edge to edge

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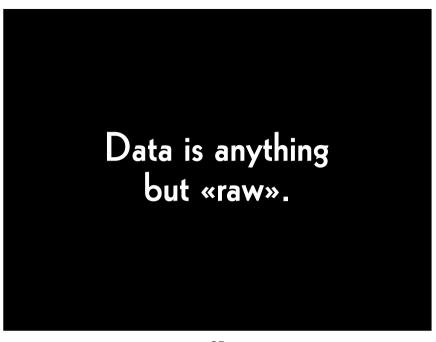
Wet Scanning

• wet transfer

• full immersion

pre-wet

solvent



File Format

single image: stream:

DPX
TIFF
JPEG 2000
OpenEXR

stream:

Y'CBCR 10-bit uncompressed
FFV1

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What is inside my DPX?

- log neg encoding
- log RGB encoding, quasi-log encoding
- gamma encoding, power function encoding

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• scene-linear encoding



Conservation

Source

- de-restoration
- cleaning
- preparation

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Documentation

• [...]

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