

Conserving digital cinema through legal deposit in France

The history of legal deposit in France

16th Century – The concept of legal deposit was introduced for books and subsequently in the **17th Century** for engravings.

1898 – Mr Boleslaw Matuzewski put forward the idea of establishing a legal deposit for cinematic works, along the lines of what already had already been introduced for printed or engraved publications and photos.

1907-1914 – The firms Gaumont, Lux and Pathé deposited two copies of their film scenarios with the respective video frames at the National Library of France to constitute a legal deposit, so as to protect their works from plagiarism.

1977 – The Decree on the legal deposit of cinema films produced in France entered into force. Films are collected by the National Library and stored in the CNC French Film Archives.

1993 - The CNC became the sole manager of the legal deposit of films produced on photochemical material.

2004 – The French Heritage Code entered into force. Part III of the Code contains the scope, practicalities and organisation of legal deposit as well as the penalties for non-compliance.

The purpose of legal deposit

- D** Legal deposit is a means of safeguarding the physical conservation of cinema films and of disseminating and preserving knowledge of this cultural heritage.
- D** It represents a guarantee for the French public, for the authors and for all right holders.

Which films should be deposited?

- D All French and foreign films shown in French cinemas: both feature films and short films, as well as institutional films and advertising films.
- D Approximately 800 works are deposited annually (approximately 900 hours).
- D To date, the total collection comprises 25 000 works: 30% feature films and 20% short films, the remainder being made up of advertising or institutional films, etc.

What happens to these films?

- D The copies and related material deposited are stored in the CNC French Film Archives (Bois d'Arcy), in the best possible security and conservation conditions (12°, 40% humidity).
- D The copies are kept exclusively for conservation and are not used for projection.
- D CNC French Film Archive staff draw up a catalogue of the works, which is open for public consultation at www.cnc-aff.fr, the CNC website.
- D Once they have been digitised (5 000 films), authorised professionals and researchers can access these films free of charge at Bois d'Arcy and the National Library of France, Paris.

How can the aim of transmitting this cultural heritage be safeguarded in the digital age?

In other words:

- D Should everything be digitised?**
- D Should the original photochemical material be conserved?**
- D How should French digital films be collected and conserved?**

Digital conservation

D Main challenge:

To date there is still no digital device able to guarantee long term storage (i.e. for about one hundred years) without the disappearance or corruption of some or all of the data.

Digital conservation

- D Existing data conservation devices (discs, tapes, etc) all require regular migrations (every 3 to 5 years).
- D The same applies to the equipment used to read these devices, and to the software programmes that provide access to the data.
- D Each item has its own life cycle and is not compatible with all the previous generations.

Digital conservation

- D These migrations have to be carried out via organised systems that allow the integrity and quality of the data to be checked during each migration. The systems themselves become rapidly outdated and may denature the data.
- D Lastly, the entire migration from one device, reading system and associated software to another is an activity which in itself is expensive in terms of technical and human resources.

Photochemical conservation

- D Conservation on photochemical material remains an acceptable provisional solution for at least ten years.
- D By then, other reliable conservation solutions may well have reached the stage of large-scale exploitation.

Photochemical conservation

- D Regrettably, there are also strong uncertainties with regard to film:
 - Fluctuation in the cost of film,
 - Availability of the device,
 - Capacity to support formats over 4k,
 - maintaining R&D by manufacturers.

Transmitting cultural heritage

- D Transmitting this heritage means that the relevant material must be kept in good condition and in a manner allowing them to be consulted.

- D Even if film is the most reliable conservation medium at present, digitisation offers many advantages:
 - virtual and remote consultation (safeguard of the physical medium),
 - proper restoration of films.

How can the aim of transmitting this cultural heritage be safeguarded in a digital age?

D Should everything be digitised?

- yes, so as to promote the restoration of the aspects that are most in danger and to promote virtual access to this cultural heritage throughout France.
- the requisite protection of authors and right holders requires special conditions.

How can the aim of transmitting this cultural heritage be safeguarded in a digital age?

D Should the original photochemical material continue to be archived?

- Yes, ongoing advances in restoration techniques still require having the originals as a starting point,
- What is more, maintained in good conditions, they allow conservation at a reasonable cost for at least one hundred years.

How can the aim of transmitting this cultural heritage be safeguarded in a digital age?

D How to collect and conserve French digital films?

- The constraints associated with the durability of digital data considerably reduce the 'collection time', which jeopardises the transmission of the cultural heritage of the 21st century.
- It is essential that the rights holders become aware of the need to ensure appropriate conservation conditions for the digital data of their works.
- To date the re-conversion to film, carried out at the end of the post-production so as to avoid all deterioration in quality, remains in our opinion the technically most reliable and affordable solution.

Many thanks for your interest and attention.