



**60,000 Film Reels Undergo
Extensive Conservation for
Preservation at the
National Film Archive of India**





About the Client

The National Film Archive of India (NFAI) was established with the principal objective to trace, acquire, and preserve for posterity the heritage of Indian cinema; to classify, document data, and undertake research relating to films; and act as a centre for the dissemination of film culture.



Business Need

NFAI recognized the gradual deterioration of a portion of its collection due to natural aging and environmental factors. The archive embarked on a proactive approach to physically restoring as many reels as possible while also undertaking digitization and digital restoration, all with the primary goal of preserving these films for future generations



The Challenge

NFAI has an extensive collection of both filmic and non-filmic materials spanning every period and era of Indian Cinema. In their efforts to preserve the national Heritage, NFAI intended to digitize their collection and realized that around 60,000 reels had to undergo preventive conservation efforts, including chemical treatments, before scanning.

The preventive conservation effort faced several challenges: age of the film, exposure to moisture, heat, light and the chemical composition. This led to many defects in the films, which included,

- Film tears
- Reels with a warped, curled film base
- Reels blocked completely/partially
- Reels with loss of plasticizer
- Reels with low/high Stickiness
- Mold on the reels
- Silver/Dye color fade
- Detachment of emulsion from the reel
- Advanced vinegar syndrome, resulting in channeling



Prasad's Solution

While some of these issues are irreversible, Prasad took on the project as a challenge, committing to physically restore as many reels as possible. This project demanded the adoption of various technologies, processes, and innovative thinking to

physically restore almost 1/3rd of their inventory, amounting to 60000 reels. This involved manually assessing every reel to understand the state of degradation before each reel was put through the designed workflow.

We also developed and discussed tailored workflows and processes for each type of film in the collection. These workflows outlined the specific treatment procedures necessary for each film class, including desiccation, rehydration, softening, unblocking, repair, ultra-cleaning/manual cleaning, rejuvenation, etc.

Preservationists repaired film tears, damaged splices, and broken sprocket holes and stored the films in ambient temperature and humidity conditions to minimize further deterioration. For reels that had reached or exceeded the autocatalytic point, special measures were taken by securing them with molecular sieves in polythene bags to prevent further damage.

Additionally, the leadership, management, and executive structure of the project were carefully designed to oversee and monitor the various stages of the project. This included implementing training and motivation programs for the executive cadre, ensuring they were well-equipped to deliver as per expectations.

Benefits to the client

- Over 10% of the film reels considered for preventive conservation required chemical treatment to prepare them for scanning and subsequent preservation.
- More than 70% of the reels that were taken through the chemical restoration process were successfully salvaged and preserved.
- While the nature of this project is not uncommon, its immense scale and complexity set this project apart. The constant need for innovation in response to unexpected challenges made this project unique. Despite the difficulties faced, we successfully navigated every obstacle, ensuring that India's rich film heritage is safely preserved for future generations and the journey will continue.

