

The preservation of John Ford's *Upstream*

John Ford's 1927 comedy melodrama *Upstream*, one of his last completely silent films, was thought to be lost. At least until an archivist from the Academy Film Archive in Los Angeles toured the New Zealand Film Archive whilst on vacation in the country. Seventy-five early American films were discovered, including *Upstream*, which is the first to be preserved and publicly screened.



1



2



3



4

Given its age and largely unknown storage history, the 5700-foot nitrate print was in surprisingly good condition. It had originally been printed onto tinted stock in five colours and these tinted sections had retained their colour remarkably well. Some nitrate decomposition was evident, but was only severe in several small sections. The decomposition was in direct relation to the tinted base colours, with some tints exhibiting more degradation than others.

Negotiations got underway to repatriate the print to the United States, but as it was the only known copy of the film it was considered too valuable to ship the nitrate without first creating a back-up copy in New Zealand. Thus Park Road Post Production, with its long history of 16mm and 35mm archival preservation and restoration, was approached by Frank Stark, head of The Film Archive in Wellington.

The nitrate print of *Upstream* was inspected in PRPP's archive section by head of laboratory Brian Scadden and Lynne Reed, colour timer and archive preservationist. The pair supervised the preservation process; Reed taking responsibility for reproducing the colour tints. Reed's trainee, Gareth Evans, was also involved. "We are committed to cross-training, not only to future-proof our operation but also as part of the KODAK IMAGECARE Program," remarks Scadden.

Scadden explains the preservation process: "Work began with the repeated cleaning of the print over particle transfer rollers, with some areas being hand cleaned. Shrinkage of the original base by 1.5 to 1.9-percent meant that the nitrate print had to be step-contact printed on our archival printer. The black-and-white duplicate negatives were created from the original nitrate print onto EASTMAN Fine Grain Duplicating Panchromatic Negative Film 5234. A black-and-white print was then made from the new dupes to assess the quality of the original, before proceeding

to the full grading of the dupe negative and the assignment of colour values to achieve a tinting match with the original. Colour prints were struck, which enabled us to match the originals."

"Colour matching was the most demanding aspect, as a close match over the light bench often appeared totally different when screened," continues Scadden. "Many test sections were struck to achieve a result that screened well. This was apparent with tinted sections that included lemon, amber, green, lavender and uranium. The latter was particularly problematic as the highlights had completely 'blown out' on the original print. This prompted a light-hearted comment from Fox Filmed Entertainment that certain shots looked like a nuclear holocaust! The black-and-white scenes also posed their own problems with printer tolerances, having to be kept within half a trim to prevent picking up a colour cast."

Two of the three original end credit frames were damaged, so PRPP optically froze the undamaged frame on an Oxberry Optical Printer. The credit now runs for around four seconds.

"Since the original print was made on a tinted base, it was impossible to replicate exactly the look that the nitrate displayed. As expected, there was some loss of definition as well as a slight increase in contrast introduced by the duplication process, but the image held up very well. We are pleased with the final result," concludes Scadden. Archiving on film is the only sure way to protect your image as film is the only format with a demonstrated archival lifetime of 100+ years.

Park Road Post Production is currently working with the New Zealand Film Archive on its Saving Frames project and is also involved in preservation and restoration projects with Archives New Zealand.

- 1 Park Road Post Production team, Gareth Evans and Lynne Reed working on the original print.
- 2 Nancy Nash and the knife thrower. One frame from the original nitrate print.
- 3 New York city. Uranium tint exhibiting the "nuclear holocaust" look. Frames from the original nitrate print.
- 4 Lead actor Earle Fox as Eric Brashingham striking a pose. Amber tint. Frames from the original nitrate print.