

POST-PRODUCTION

## Archival Footage Post-Production Guide

A technical reference for editors, colorists, and post-production supervisors on handling archival film scans — covering color grading, grain management, format conversion, timeline integration, and quality control workflows.

AUDIENCE

Editors & Post-Production Teams

READ TIME

11 min

CATEGORY

Technical

### 01 Assess Source Material Before Importing

Every archival scan has unique characteristics. Evaluate before you conform — blind importing leads to avoidable rework.

- Check native resolution, frame rate, and codec. 8mm scans commonly arrive at 2K or 4K, often at 16fps or 18fps rather than 24fps.
- Inspect for gate weave, registration errors, and splice artifacts. These are period-authentic features — fix only what disrupts the cut, not what adds character.
- Note the color profile: Kodachrome, Ektachrome, and Tri-X each have distinct color science. A single correction LUT won't work across all stocks.
- Catalog any embedded audio. Home movie audio is often camera motor noise, not usable sync sound — plan to replace or remove it.
- Create proxy files for offline editing. Full-resolution archival scans can exceed 200 MB per minute and will slow timeline playback.

### 02 Conform Frame Rates Without Destroying Motion

Most archival home movies were shot at 16fps or 18fps. Converting to 24fps or 25fps incorrectly creates unwatchable motion artifacts.

- Use optical flow interpolation sparingly. It works for smooth pans but creates ghosting on fast movement and film grain.
- Frame blending is safer than optical flow for archival footage. It preserves the original motion character while smoothing playback.
- For footage intended to feel “vintage,” consider leaving it at native frame rate and using a 2:3 pulldown or direct playback at 18fps for that authentic stutter.
- Test the conformed clip against your main timeline at full resolution before committing. Frame rate issues only become visible at 100% playback.
- Document the original frame rate and conforming method in your metadata. The colorist and sound team need to know what was changed.

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## 03 Color Grade Archival Film for Modern Delivery

The goal is integration with your project's visual language, not erasing the film's history. Grade with restraint.

- Start with a base correction to neutralize scanner bias, not to “fix” the film's original color balance.
- Preserve the film stock's native color character. Kodachrome's warm reds and saturated blues are features, not defects.
- Use secondary color corrections to match skin tones and key colors to your modern footage. Let the grain and contrast stay period-authentic.
- Build a show LUT that bridges archival and contemporary footage. Apply it as a starting point, then adjust per-clip.
- Grade in a color-managed pipeline (ACES or DaVinci YRGB). Converting between color spaces without management introduces banding and clipping.

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## 04 Manage Film Grain in the Final Output

Grain is not noise. It's a visual signature of the original film stock. Handle it correctly.

- Never apply blanket noise reduction to archival scans. It destroys fine detail and makes the footage look artificially processed.
- If grain reduction is necessary for compositing or text overlays, apply it only to the affected layer and restore grain on the output.
- When intercutting archival and digital footage, consider adding a light grain overlay to digital shots rather than removing grain from archival ones.
- Test grain behavior at delivery codec compression levels. Heavy grain in ProRes may artifact badly in H.264 at lower bitrates.
- If delivering to multiple codecs, create separate grain management presets for broadcast (higher bitrate) and streaming (lower bitrate) outputs.

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## 05 Quality Control and Delivery Checklist

Run these checks before final export to prevent technical rejections and rework.

- Verify all archival clips are at the correct frame rate and resolution for the delivery spec. Mixed frame rates cause playback errors.
- Check for black frame flashes at edit points — common when splicing archival and modern footage with different head/tail padding.
- Confirm audio is properly filled. If archival clips had embedded camera noise, verify it was replaced or removed in the final mix.
- Run a closed-caption and subtitle pass to ensure archival segments are properly timed and described.
- Export a reference QC file at the lowest planned delivery bitrate. If grain or detail breaks at this level, adjust your encode settings before batch export.

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## Source High-Quality Archival Scans

Browse Stockfilm's archive for 4K-scanned 8mm and Super 8 footage ready for professional post-production workflows.

**Archive Index** — [stockfilm.com/all-collections](https://stockfilm.com/all-collections)

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