Negative: The New Positive
Unlocking Negatives for Access and Preservation

Melitte Buchman
NYU Libraries
“Dwelling on the negative simply contributes to its power.”

- Shirley Maclaine
Overview

- Understanding negatives
- A reasonable strategy for conversion of color and black and white negatives
- An efficient and visually supportable workflow
- Suggest technical benchmarks
Understanding Negatives

- Not the thing-in-itself but a carrier of information
- Bears no relation to size of original object
- By its nature it insists on interpretation
- Mechanical conversions are no closer to the truth than visual conversions
- Consider it analog encoding
Ansel Adams
Ansel Adams
Ansel Adams
Ansel Adams
Master Photographers
BBC Series
1993
Understanding the Negative

• It’s not the thing itself
• It needs interpretation
• This can be dealt with legitimately and in a way that does not mis-represent the primary source material
Images were often an add-on to text conversions that were largely about long term permanence.

Historically the preservation tools for imaging were coarse.
Historical Conversion of Images

- Images were often an add-on to text conversions that were largely about long term permanence
- Historically the preservation tools for imaging were coarse
Harry Randall

Guide to the 15th International Brigade Photography Unit

Photo Unit #: A290

Fascist posters on the square, Belchite
Photo Unit #: A290
Fascist posters on the square, Belchite
Libraries and Preservation / Conversion

Librarian/Photographer dialog

- Focus on the primary source
- The print will never resemble the negative
- Tampering
- Human Eye can perceive detail that is hard to quantify (though GEH has done work in that regard)
A Reasonable Process for Conversion

or how photographers look at pictures

• Contact sheet
• Strip test
• Work print

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• Exhibition Print
Contact Sheet and Strip Test
The Workprint

Achieving the visualized image is a difficult process, with a multitude of factors that need to be aligned. Such factors include: size of print, developer temperature and time, type of paper, dry-down, burning and dodging, etc. A work print is an intermediate step which is not exhibition quality.

http://www.anseladams.com/content/care_collecting/glossary.html
Archives and Libraries can appropriately present workprints as a respectful representation of a photographer’s work.

- It is not particularly difficult to create
- It affords researchers a much truer idea of what the print would have looked like
- If anxiety persists website explanation preferable to direct inversion
• Film structure

The orange mask is present in most modern films to correct for imperfections in the response of the dye layers especially cyan.
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Color Negative Conversion
The C-41 family

• The contrast is low due to solely to economic reasons, it is not an indicator of dynamic range
• The mask value changes depending on film type, development, temperature of chemicals at the lab etc.
Collection for Conversion

Guide to the Creative Time Archive
1973-2006
MSS 179

Fales Library and Special Collections
Elmer Holmes Bobst Library
70 Washington Square South
New York, NY 10012
Phone: (212) 998-2596
Fax: (212) 995-3835
Email: fales.library@nyu.edu

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New York University Libraries, Publisher
Machine-readable finding aid created by Luke Martin. Description is in English.
16 bit master file, dng best, not raw for archiving
16 bit workflow, neutralize orange mask
16 bit workflow, neutralize orange mask, histogram
16 bit workflow, invert
16 bit workflow, pick black and neutral points
convert to 8 bit, minor adjustments if needed, less than 1 minute total time
Interpretation
Dust, dirt, and grain
Black and White Negative
Complicating issues

• Contrast
• Masters and Dupes
• May need special equipment due to the classic issue of exposing for the shadow detail and other non-linear oddities of film
Richard Hell Papers, 1944-2003 (Bulk 1969-2003), MSS 144
Technical Benchmarks for Negatives Master files

A surprisingly contentious issue, unless you are used to photographers

- **NEGATIVE UNALTERED FILE**
  - High ppi – native of imaging device, or not less than 6000ppi on the long dimension or whatever you can give it
  - 16 bit, especially ISO of original film was low
  - Deep colorspace embedded – CIE RGB, Adobe RGB or Kodak ProPhoto RGB
- **DO NOT USE RAW** — use .dng if possible or 16 bit tiff
Technical Benchmarks for Negatives Derivative making files

• **POSITIVE WORKPRINT QUALITY FILE**
  • High ppi
  • 8 bit
  • Deep colorspace embedded (or not)
  • Jpeg2000, tiff
Technical Benchmarks for Negatives
Access files

From the derivative making file

- 8 bit
- Carefully convert deep colorspace to sRGB for web use
- Jpeg
CONCLUSION

- Negatives are information containers not the *ding au sich*
- Use suggested workflow or alter
- We now have the excellent tools to do visually responsible and respectful conversions.
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Melitte Buchman  melitte@nyu.edu