

Negative: The New Positive

Unlocking Negatives for Access and Preservation

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NYU Libraries



*“Dwelling on the negative simply
contributes to its power.”*

- Shirley Maclaine

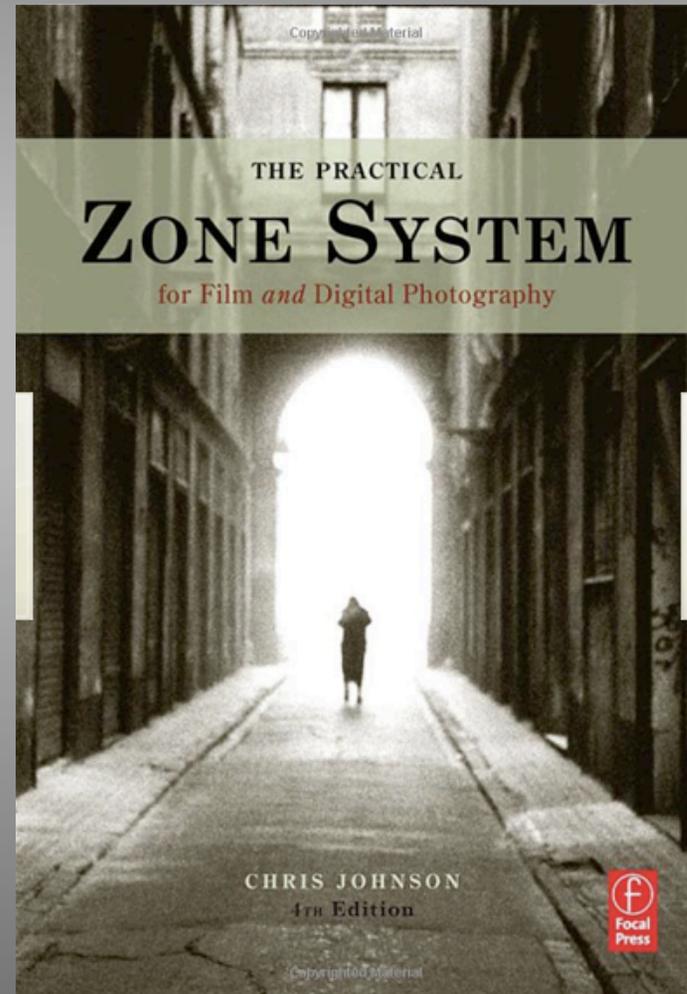
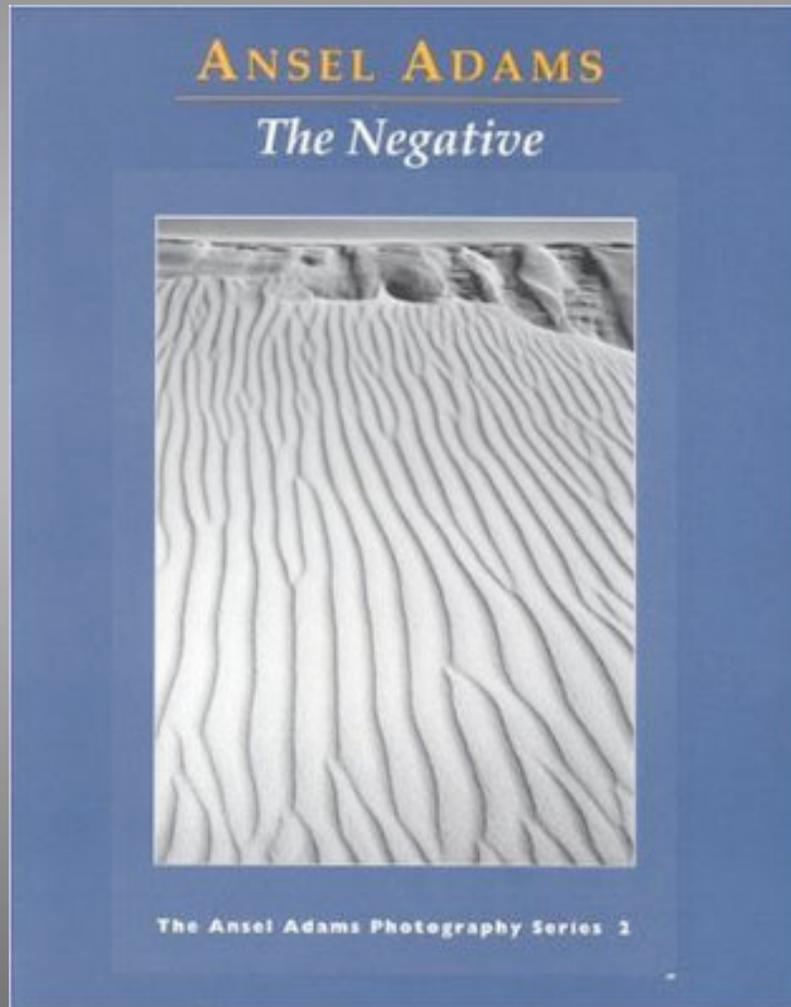
Overview

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

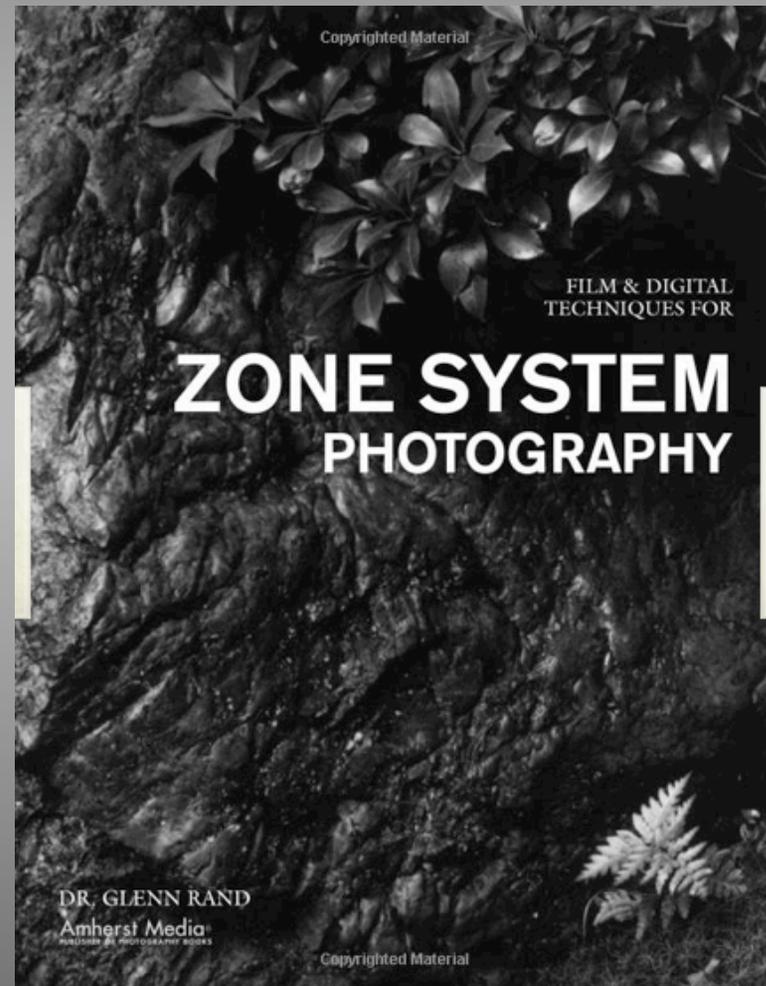
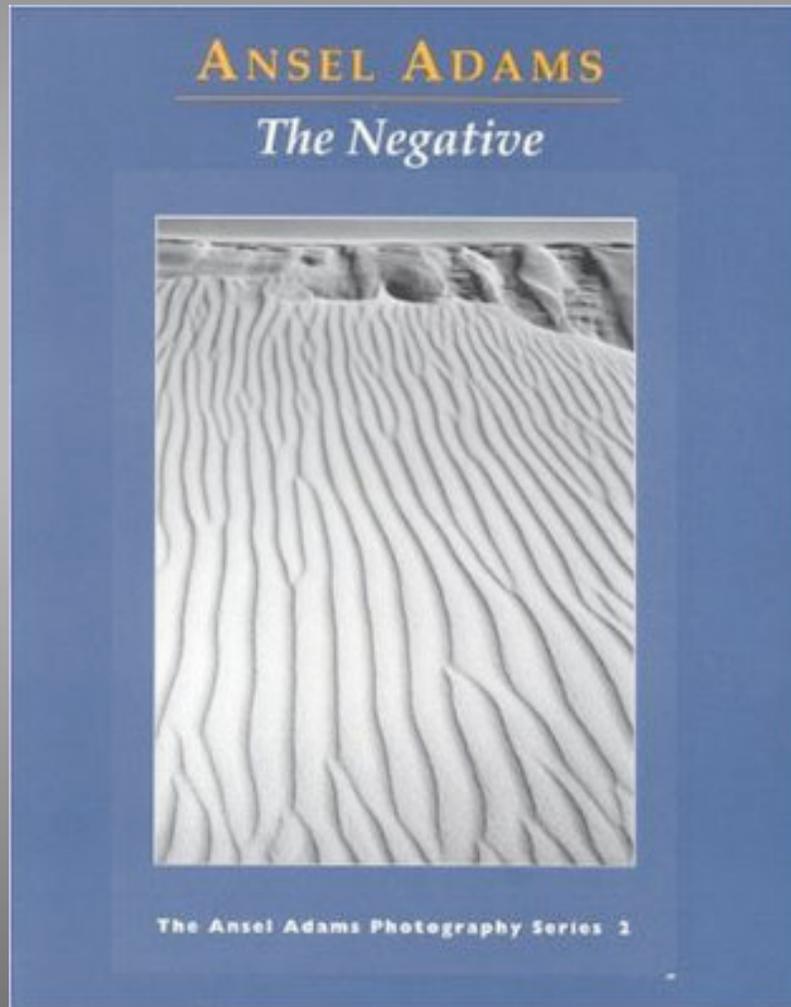
Understanding Negatives

- 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

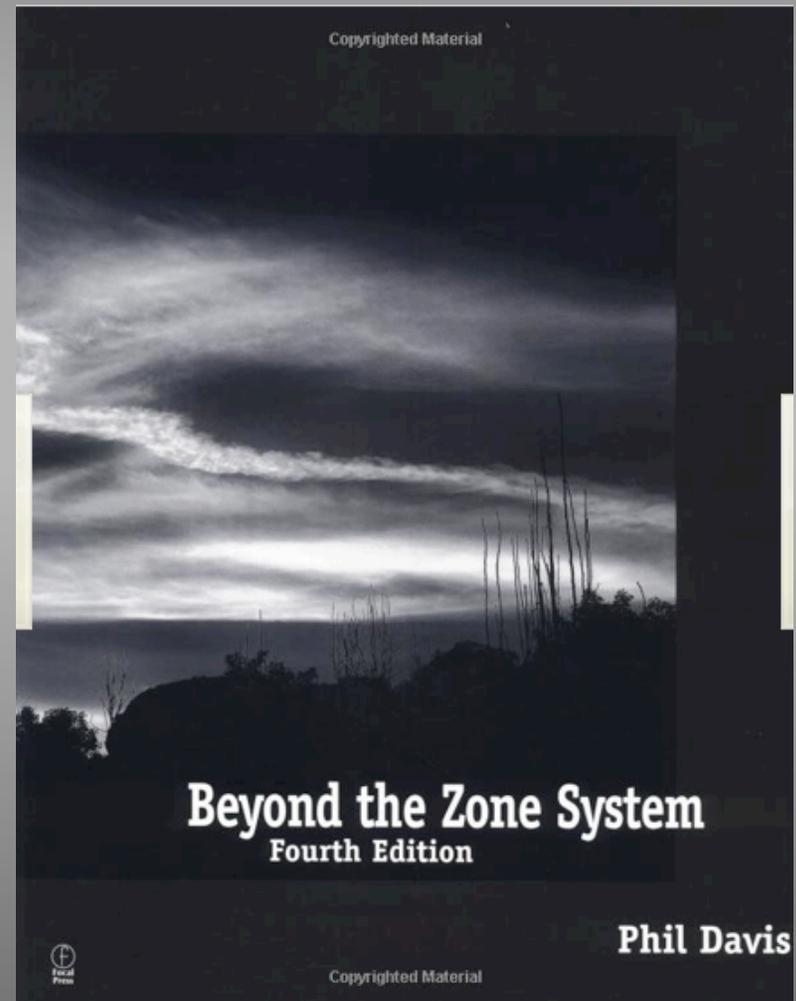
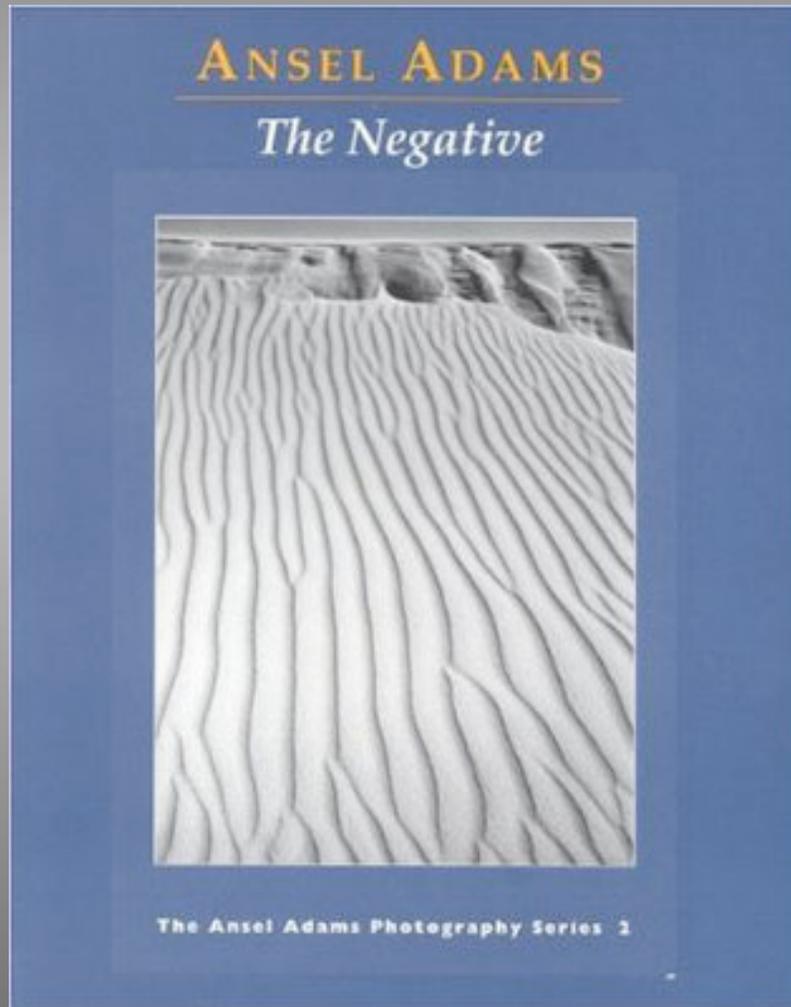
Ansel Adams



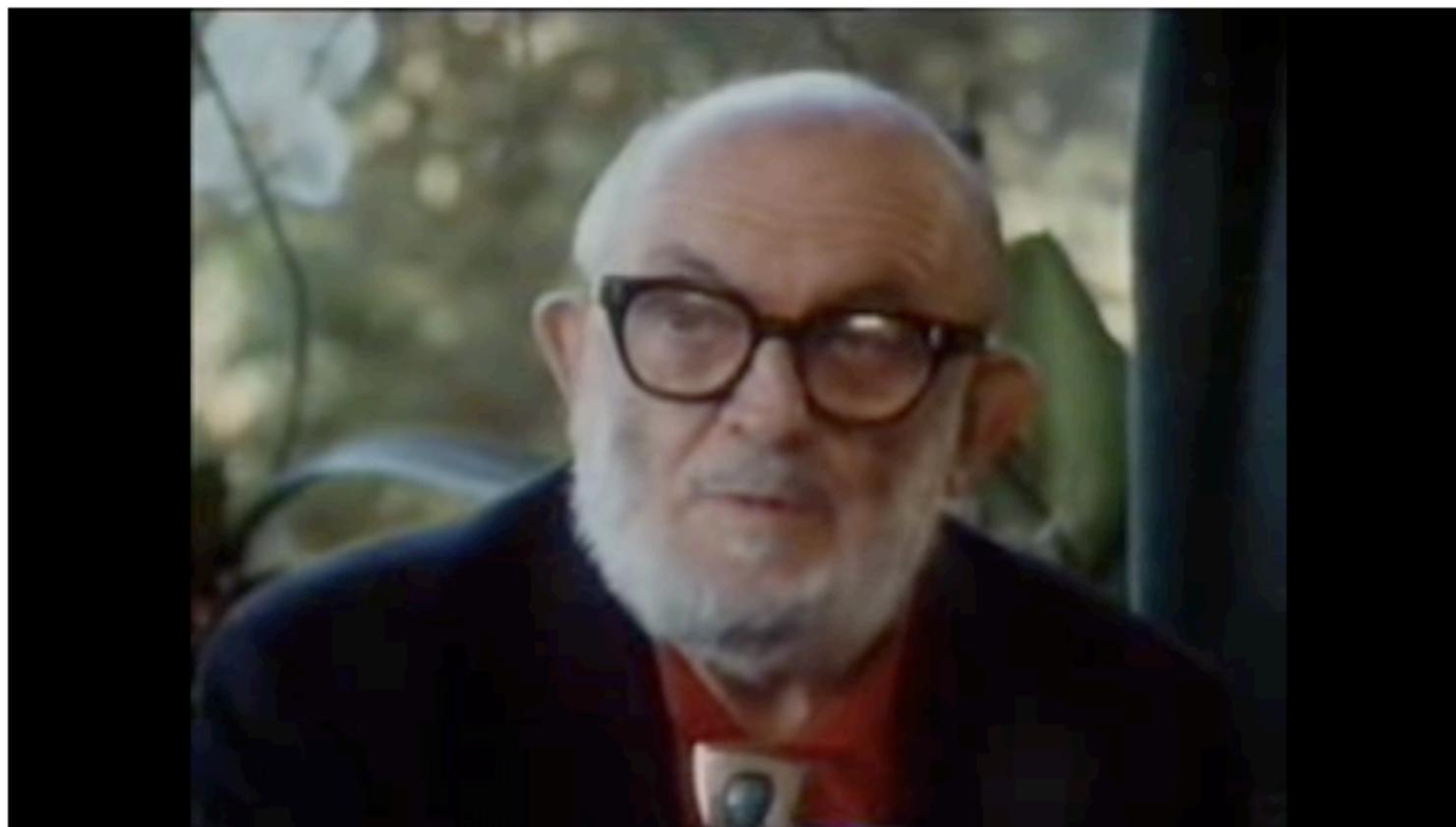
Ansel Adams



Ansel Adams



Ansel Adams part2



00:04 / 10:05

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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

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



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Harry Randall

[Guide to the 15th International Brigade Photography Unit](#)



Photo Unit #: A290Fascist posters on the square, Belchite



Photo Unit #: A290Fascist 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

- 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.

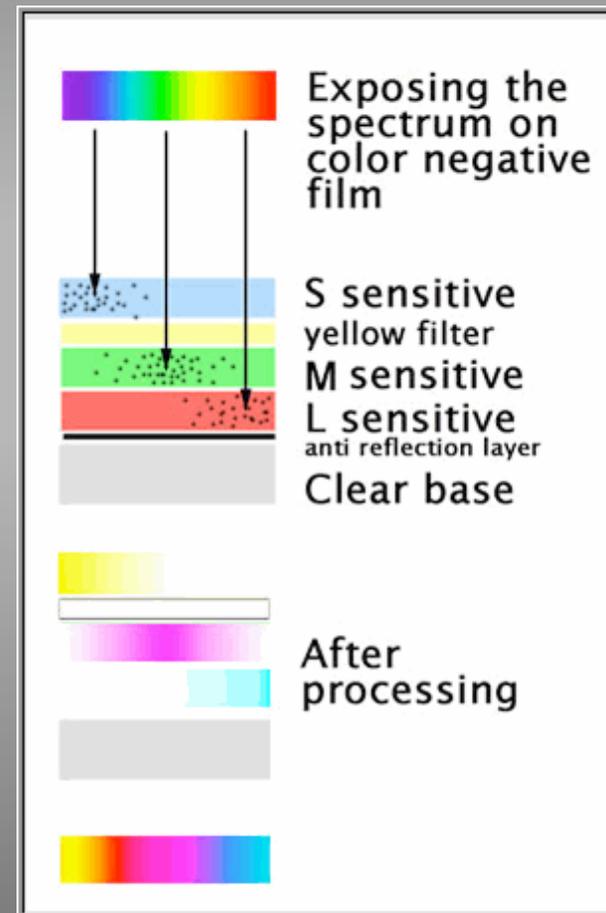
- It is not particularly difficult to create
- It affords researchers a much truer idea of what the print would have looked like
- If anxiety persists website explanation preferable to direct inversion

Color Negative Conversion

The C-41 family

- Film structure

The orange mask is present in most modern films to correct for imperfections in the response of the dye layers especially cyan

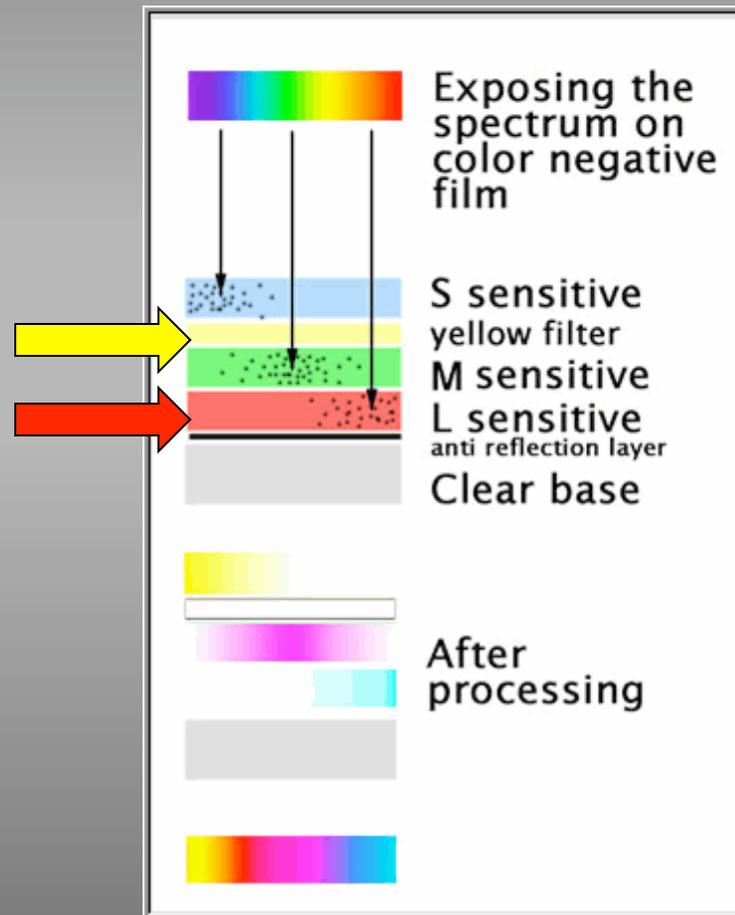


Color Negative Conversion

The C-41 family

- Film structure

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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

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Guide to the Creative Time Archive 1973-2006 MSS 179

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Machine-readable finding aid created by Luke Martin. Description is in English.



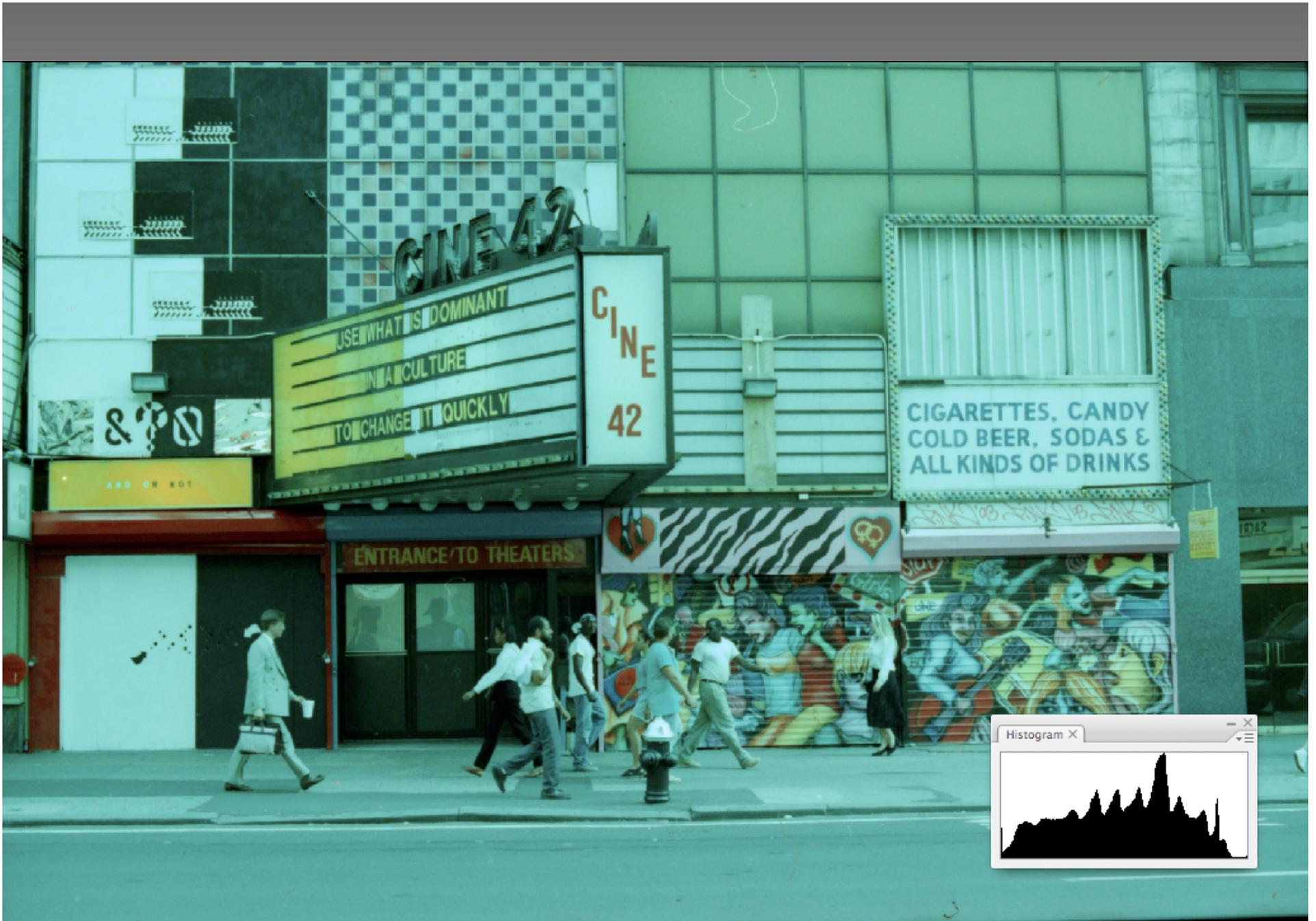
16 bit master file, dng best, not raw for archiving



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

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

IT8.7/1-1993
2007: 10

 LaserSoft Imaging™



T071019

Printed on Kc

14

GOLD 400-4

15

KODAK 400-4



14

14A

15

15A

Targeting issues

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Printed on Ko

IT8.7/1-1993
2007:10



T071019

14

GOLD 400-4



14

14A

15

KODAK 400-4



15

15A



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



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 an sich*
- Use suggested workflow or alter
- We now have the excellent tools to do visually responsible and respectful conversions.

Acknowledgements and Contact

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