



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

MHC Interim Guidelines for Inventory Form Photographs - May 2006
[updated March 2007]

MHC requires that a current photograph of the property in question be supplied with all inventory forms. Photographs should be 3½" x 5" or 4" x 6" prints on photographic paper and physically attached either to the front of the inventory form or to one or more continuation sheets.

The following "Interim Guidelines" modify the MHC's policy for producing hard-copy photographic prints for inclusion with Massachusetts Historical Commission inventory forms in light of changes to photograph technology. These Guidelines now include prints generated from images taken with digital cameras. MHC expects to update and expand these Guidelines as additional information becomes available.

Changes in Availability of Film Photography

Since its inception, the Massachusetts Historical Commission has set true black-and-white film process prints as the standard for photographic documentation for inventory forms. Black and white printing from film was a widely available and low-cost method of producing a high quality, permanent image that when stored properly could be expected to last well over 100 years.

Changes in photographic technology have resulted in the virtual disappearance of true black and white film photography as an option for inventory form documentation. Decline in demand for black and white prints has for a long time meant that most photo shops sent film directly to Kodak for development and printing. Some photo shops offered hand printing. Kodak has now withdrawn its support of black and white film photography. It no longer provides print services and it has stopped producing Kodak Professional paper, which was the standard for high permanence prints. Some photo shops may still offer hand printed black and white images on Ilford paper. MHC does not have information on the permanence qualities of black and white prints on Ilford paper, but this now appears to be the only acceptable option for traditional black-and-white film prints. *MHC is provisionally accepting true black and white prints on Ilford paper.*

C-41 Color processing to produce "black and white" film prints. For a number of years photo developers have offered low-cost, machine printing from black and white film using C-41 color processing and color print paper. This color chemical process does produce "black and white" like images, although these are often sepia toned and/or washed out. They may be printed on Fuji or other paper. If you walk into a photo shop and ask for black and white film prints, this is most likely what you will get. These prints are not stable and degrade rapidly. They are not an acceptable choice for high permanence documentation for inventory forms. *C-41 prints do not meet MHC standards.*

Color Film Prints. The best, widely available commercial film processing currently is the so-called "Fuji Crystal Archive" color print. Because of the manufacturer's marketing claims, photo developers will often offer this as an "archival" print solution. Independent testing services rate these prints as having only a 40-year permanence rating. *These prints do not meet MHC standards.*

Summary: At the present time, the only prints made from film negatives acceptable for Survey Inventory forms are true black and white prints on Ilford paper.

Digital Photography

Given the very limited options now available in traditional film photography, MHC has developed digital photographic standards for inventory. MHC will currently accept 3½ by 5 inch or 4 by 6 inch digital prints on papers and inks that meet a minimum 75-year permanence rating. Black and white or color prints that meet the permanence rating are acceptable.

Digital Prints, Printers, Inks and Papers: To ensure archival longevity, prints must be made using a photo-quality printer using appropriate brand name paper and inks. MHC has compiled a list of "*Inks and Papers recommended for printing of digital images*" that meet the 75-year permanence standard, based on research by an internationally recognized testing laboratory, Wilhelm Imaging Research, Inc. This list of papers is attached as an Appendix to these guidelines. The list *excludes* non-glossy papers, whose texture interferes with precise rendering of detail.

Printers, paper, and ink must all be from the same manufacturer and must be from the approved list. For example, prints made on an Epson printer must be on Epson paper with Epson brand inks. The archival stability of third-party papers and inks cannot be guaranteed and is therefore unacceptable.

Both Epson **Picture Mate** series (recommended) and Hewlett Packard **PhotoSmart** series (accepted) are low-cost, 4 by 6 color printers that have base models that start around \$100 and that when used with manufacturers papers and inks produce prints that meet MHC standards. Other larger format Epson and Hewlett Packard printers also produce acceptable prints. Manufacturers claim print costs run approximately .50 per print.

Either color or black and white images are acceptable. If the original digital image was in color, the print should also be in color. Black and white images should **only** be submitted if the photographs were taken with a digital camera set to black and white mode, and **not** if original color images are converted to black and white by PhotoShop or some other imaging program.

While MHC has begun to accept the electronic submission of inventory forms which may include photographs and digital maps, these forms must be accompanied by prints on photo-quality print paper, separately attached to the inventory form, and labeled on the back as per MHC guidelines for photographic prints. (See MHC Historic Properties Survey Manual)

Commercial Digital Prints are NOT Acceptable. Commercially available digital print services are geared toward production of fast, low-cost prints. All these prints have a very low life-expectancy of 20 years or less. *They are not acceptable for inventory form documentation.* This includes prints from photo shops, drug store and supermarket kiosks, and internet print services. We have to date not found commercial services that produce 4 by 6, high permanence, digital prints at a reasonable cost. *You must produce your own prints using a printer with archival quality paper and ink.*

Permanence Ratings. You can check on permanence ratings for printers, inks and papers at <http://www.wilhelm-research.com>. See in particular the ratings on desktop printers and dedicated 4 by 6 photo printers.¹ As noted above, Epson and Hewlett Packard manufacture acceptable printers. You should confirm with MHC that the printer papers and inks you intend to use are acceptable if they are not clearly identified as such in the annexed Inks and Papers recommended for printing of digital images.

Camera Guidelines. Survey photographs should be taken with a good quality camera and lens system. A minimum 2 megapixel camera is acceptable, 3 to 6 megapixel is recommended.

Summary: At the present time, prints made from digital images must be produced using papers and inks that meet a minimum 75-year permanence rating, as reflected in the attached *Inks and Papers recommended for printing of digital images*.

Questions/Comments: Michael Steinitz michael.steinitz@state.ma.us 617 727-8470

¹ http://www.wilhelm-research.com/4x6/WIR_4x6_Prints_2006_09_08.pdf

Appendix

Inks and Papers recommended for printing of digital images²

NOTE: Printers, paper, and ink must all be from the same manufacturer. However, any model printer of the designated manufacturer that accepts the following papers and inks may be used.

<i>Inks</i>	<i>Papers</i>
Epson UltraChrome pigmented inks and Epson UltraChrome K3 pigmented inks	Epson Premium Glossy Paper
Epson Picture Mate inks	Epson PictureMate Photo Paper - Glossy Epson Ultra Premium Glossy Photo Paper Epson Premium Glossy Photo Paper
Epson Claria Hi-Definition Inks	Epson Ultra Premium Glossy Photo Paper Epson Premium Glossy Photo Paper
Hewlett-Packard (HP) 84/85 dye-based inkset	HP Premium Plus Photo and Proofing Gloss HP Premium Plus High Gloss Photo Paper HP Premium Photo Paper, Gloss
HP 59 gray photo cartridge	HP Premium Plus and HP Premium Photo Papers (high gloss and glossy)
HP 100 gray photo cartridge	HP Premium Plus and HP Premium Photo Papers (high gloss and glossy)
HP Vivera inks (95 and 97 tri-color cartridges)	HP Premium Plus and HP Premium Photo Papers (high gloss and glossy)
HP Vivera Pigment inks (announced 2006)	HP Advanced Photo Paper (glossy)
Lexmark Evercolor Photo Color #31 and Lexmark #33 and #35 Color Print Ink Cartridges	Lexmark Premium Photo Paper High Gloss

² For more information about longevity tests, consult the web site <http://www.wilhelm-research.com>.