

New Tools for the Preservation of Modern Digitally Printed Materials

*Society of American Archivists –
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Types of Digitally Printed Materials

- Documents
- Photographs
- Ephemera
- Periodicals
- Monographs



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July 13, 2010

Potential Patron
Street address
City, ST Zip
Country

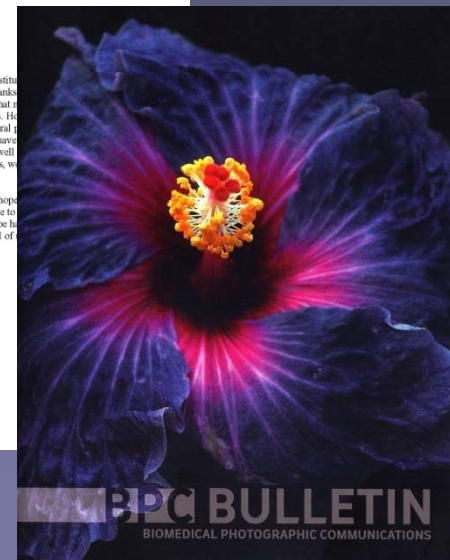
Dear Friend of IPI,

We are proud to inform you that 2010 is the Image Permanence Institute's 20th anniversary. We would like to celebrate this milestone by giving you special thanks for your generous support of IPI and our mission. You may already know that the research comes from government agencies and private foundations. However, we have always been to address the issues of national and global cultural heritage needs of the general public. It has been companies like yours that have made what we do for everyone, the museums, libraries, and archives as well as the amateur photographer. With support from companies such as yours, we can ensure that we could never have done on our own.

While we understand that economic times have been difficult, we hope that you will continue to support IPI in its mission. There are many ways to give to IPI in making a contribution, please contact either one of us. We will be happy to discuss that is beneficial for both our organizations. Thanks again, from all of us.

Sincerely,

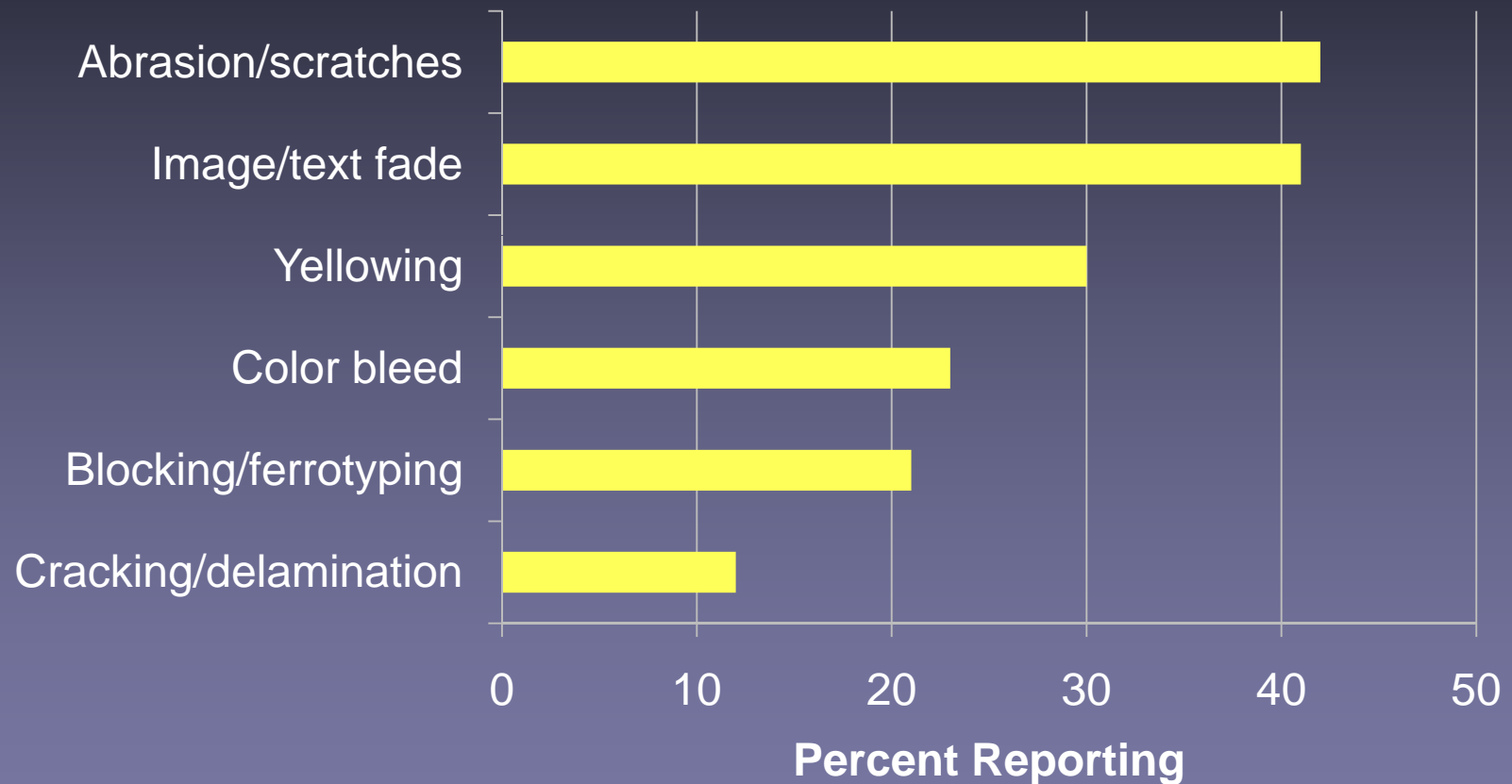
Daniel M. Burge
Senior Research Scientist



Institutions Surveyed:

- 87 % have digital prints
- 70% have seen decay
- 83% do not feel informed enough on how to care for these objects

Types of Deterioration



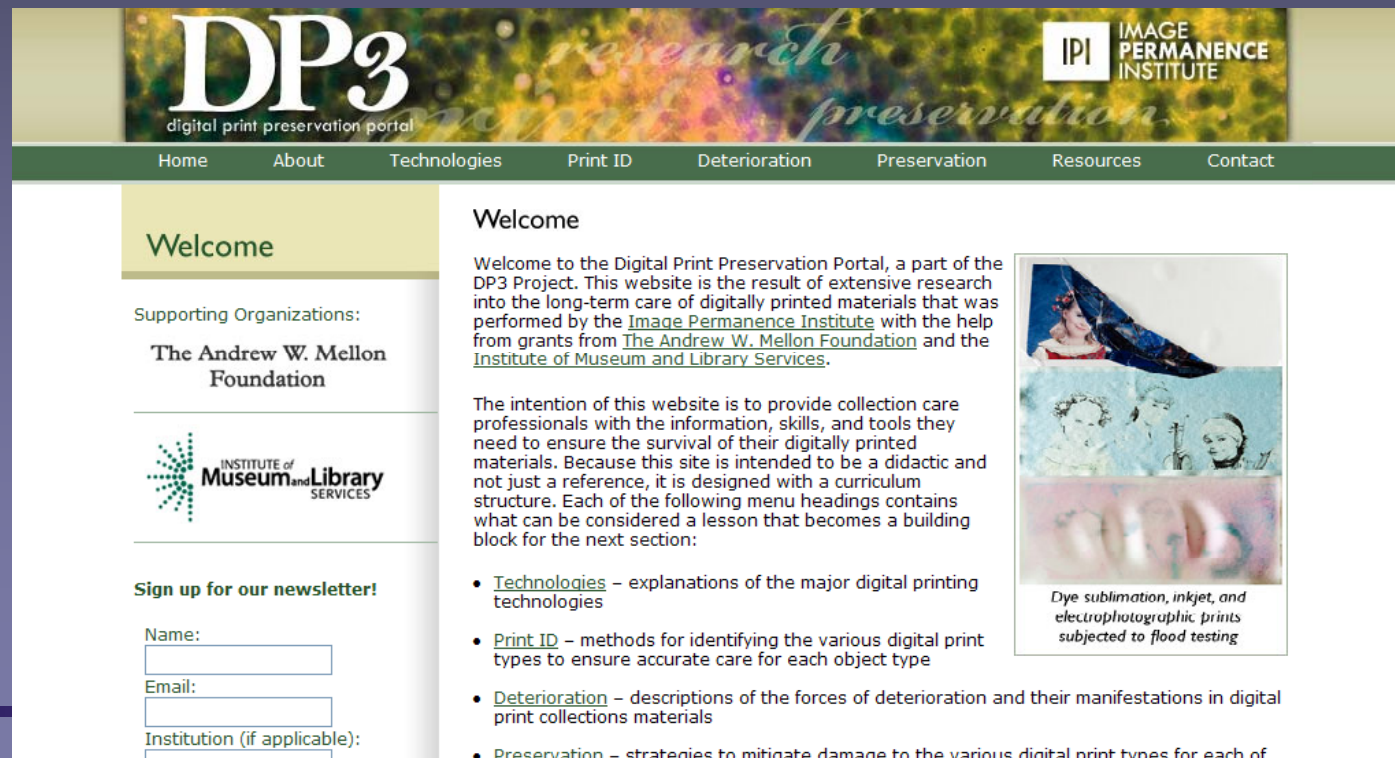
Project Experimental

- Heat
- Humidity
- Light
- Pollution
- Enclosures
- Abrasion
- Water



IPI's New Tools - Digital Print Preservation Portal

www.DP3Project.org



The screenshot shows the homepage of the Digital Print Preservation Portal (DP3). The header features the DP3 logo with the tagline "digital print preservation portal" and the IPI (Image Permanence Institute) logo. A navigation bar includes links for Home, About, Technologies, Print ID, Deterioration, Preservation, Resources, and Contact. The main content area is divided into two columns. The left column has a "Welcome" section, followed by "Supporting Organizations" listing The Andrew W. Mellon Foundation and the Institute of Museum and Library Services. Below this is a "Sign up for our newsletter!" section with input fields for Name, Email, and Institution. The right column also has a "Welcome" section with a paragraph about the project's goals and a list of four menu items: Technologies, Print ID, Deterioration, and Preservation, each with a brief description. To the right of the text is a vertical stack of three images showing different types of digital prints (dye sublimation, inkjet, and electrophotographic) that have been subjected to flood testing.

DP3
digital print preservation portal

research
print
preservation

IPI IMAGE PERMANENCE INSTITUTE

Home About Technologies Print ID Deterioration Preservation Resources Contact

Welcome

Supporting Organizations:

The Andrew W. Mellon Foundation

INSTITUTE of Museum and Library SERVICES

Sign up for our newsletter!

Name:

Email:


Institution (if applicable):

Welcome

Welcome to the Digital Print Preservation Portal, a part of the DP3 Project. This website is the result of extensive research into the long-term care of digitally printed materials that was performed by the [Image Permanence Institute](#) with the help from grants from [The Andrew W. Mellon Foundation](#) and the [Institute of Museum and Library Services](#).

The intention of this website is to provide collection care professionals with the information, skills, and tools they need to ensure the survival of their digitally printed materials. Because this site is intended to be a didactic and not just a reference, it is designed with a curriculum structure. Each of the following menu headings contains what can be considered a lesson that becomes a building block for the next section:

- [Technologies](#) – explanations of the major digital printing technologies
- [Print ID](#) – methods for identifying the various digital print types to ensure accurate care for each object type
- [Deterioration](#) – descriptions of the forces of deterioration and their manifestations in digital print collections materials
- [Preservation](#) – strategies to mitigate damage to the various digital print types for each of



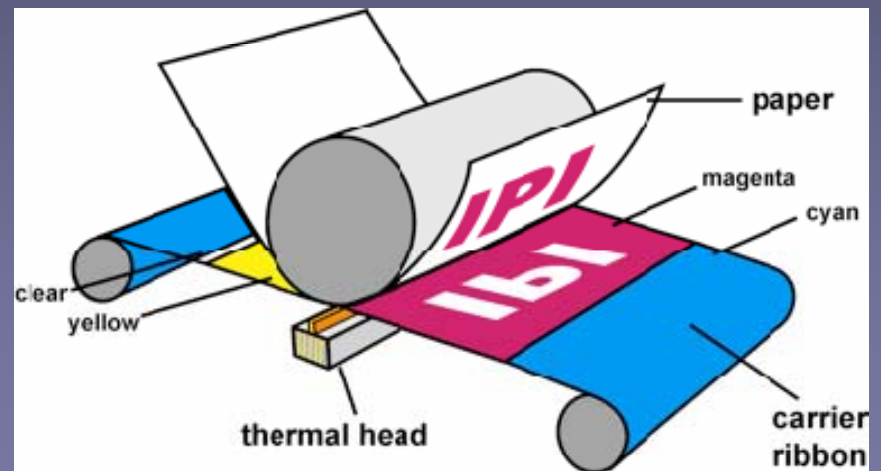
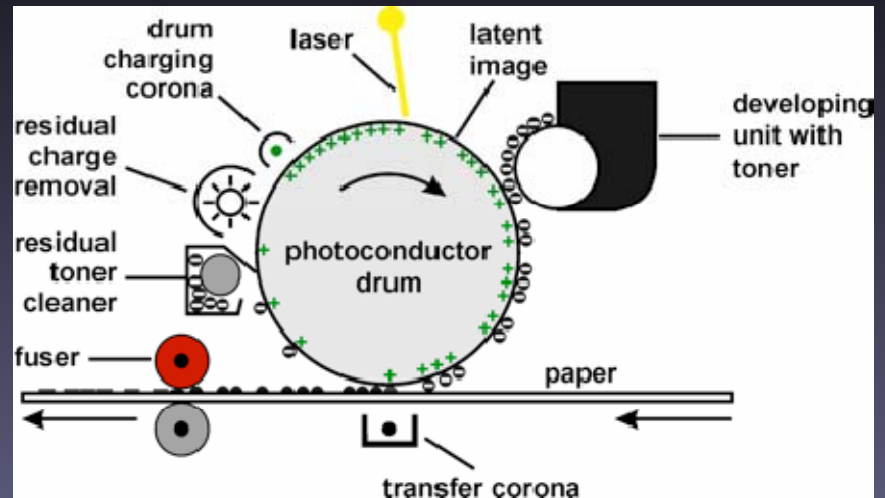
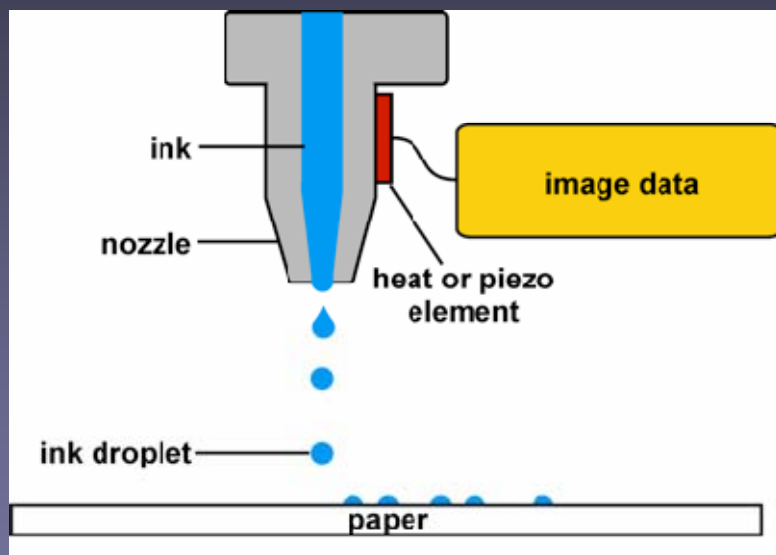
Dye sublimation, inkjet, and electrophotographic prints subjected to flood testing

Curriculum



- Technologies
- Identification
- Deterioration
- Preservation

Technologies



Identification

DP3
digital print preservation portal


research
imaging
preservation

IPI IMAGE
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Print Comparison Tool

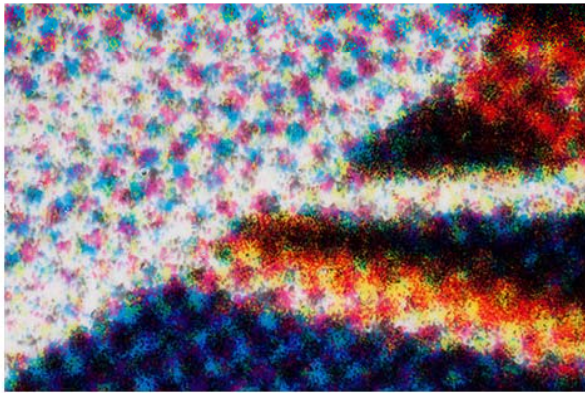
Dye Sublimation

from the group: Dye Sublimation



Digital Press (Dry Toner on Coated)

from the group: Electrophotographic



WHAT TO NOTICE:

- Polyethylene-coated support
- No image forming dots
- No image grain
- Possible faint lines from printer heater array
- Possible pixilated image

SIDE: front back

ORIENTATION: surface edge

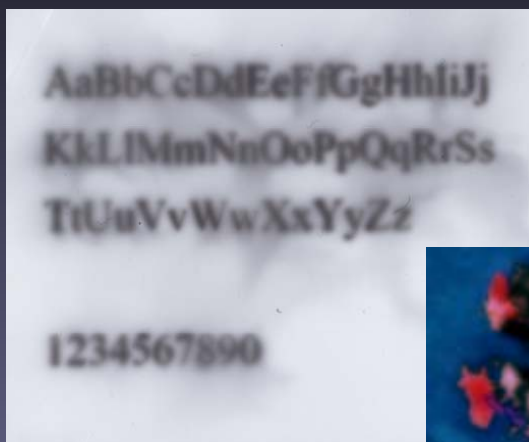
LIGHT SOURCE: 0° 45° 90°

Q- Q+

WHAT TO NOTICE:

- Coated or uncoated papers - matte or glossy
- Image created by dots
- Dot edges rough
- Four toner colors - black, cyan, magenta, and yellow
- Satellites

Deterioration

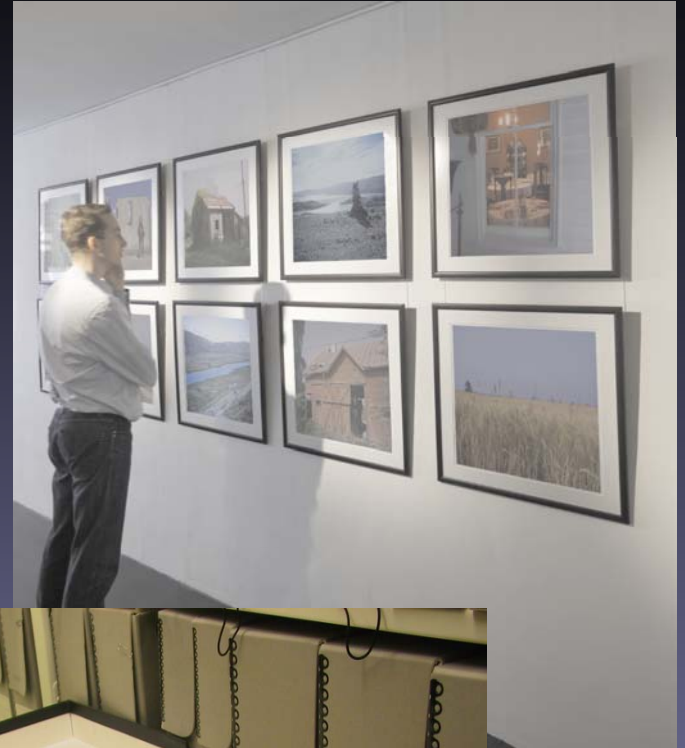


The quick brown fox jumps over the lazy dog.
The quick brown fox jumps over the lazy dog.
The quick brown fox jumps over the lazy dog.
The quick brown fox jumps over the lazy dog.

10pt: The quick brown fox jumps over the lazy dog.
12pt: The quick brown fox jumps over the lazy dog.
14pt: The quick brown fox jumps over the lazy dog.

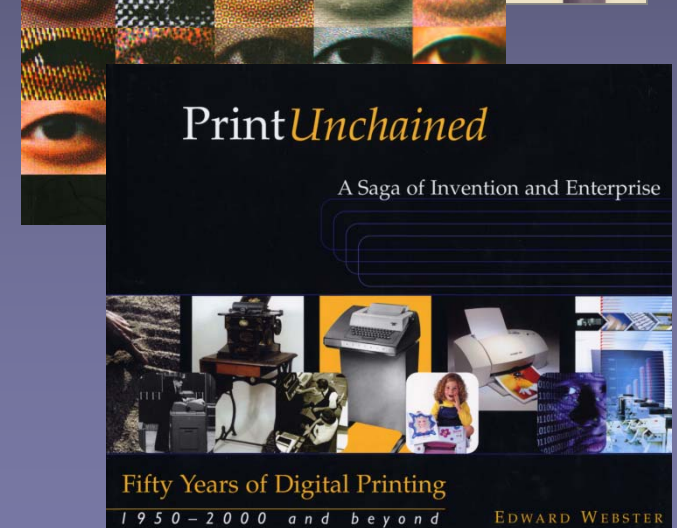
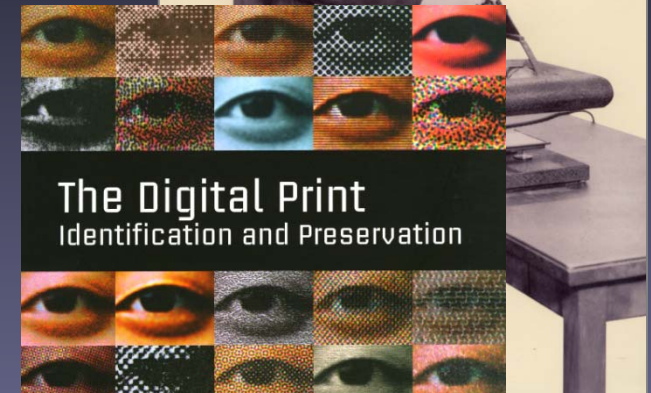
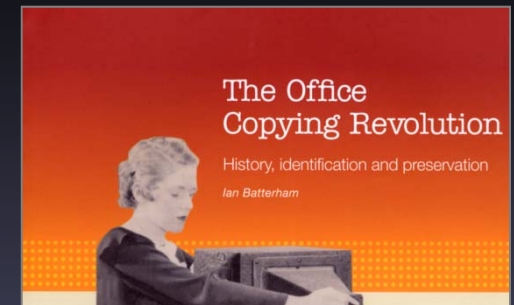
Preservation

- Storage
- Display
- Handling
- Disaster response




Resources

- Glossary
- Newsletter Archive
- Recommended Reading
- Other IPI Websites



DP3 Newsletter

- Project updates
- Research findings
- News & Events
- Publications

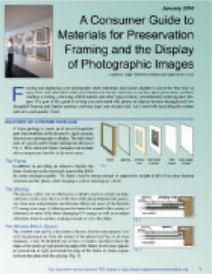


The DP3 Newsletter cover features a colorful, abstract background. The title "DP3" is in a large, bold, sans-serif font, with "digital print preservation portal" in smaller text below it. The word "Newsletter" is in a large, elegant script font. Below the title, it says "IMAGE PERMANENCE INSTITUTE" and "Issue: 5".

IN THIS ISSUE

- Can Traditional and Digitally Printed Photographs be Stored Together?
- Martin Jürgens Receives the HP Image Permanence Award
- ID Ideas – Dye Sub or Traditional Color Photo?
- Recent Publications
- Digital Print Research at RIT
- Upcoming Events
- IPI's 25th Anniversary

RECENT PUBLICATIONS



The thumbnail shows the cover of a publication titled "A Consumer Guide to Materials for Preservation Framing and the Display of Photographic Images". It features a photograph of a framed image and some text.

Can Traditional and Digitally Printed Photographs be Stored Together?

Or will they need to be kept separate in individual sleeves or boxes? In general, there are two types of interactions that can occur between prints stored directly in contact with each other: physical and/or chemical. Physical interactions include blocking (bonding between prints), ferrotyping (alterations to surface gloss of prints), color transfer, and abrasion. IPI's research has found that digitally printed photos are much more resistant to blocking and ferrotyping than traditional photographs. To be on the safe side, it is recommended that photographs be stored face-to-back or in separate enclosures and never face-to-face or in contact with framing glass. Color transfer could be an issue for prints exposed to high humidity. IPI's studies on humidity-induced color bleed are still underway, but preliminary results suggest that it should not be an issue for those maintaining proper storage conditions.

Abrasion is a potentially serious problem for pigment inkjet photographs, as the pigment colorants can sometimes be smeared from the dark areas of the image into the light areas with only light rubbing. It is best to store these prints in plastic sleeves (and not paper envelopes as they may be too abrasive) to prevent adjacent objects, including the backs of other prints, from rubbing against the print surface. While other types of digital photos, such as dye inkjet and dye sublimation, are not prone to smearing, they are susceptible to surface scratches that can affect the print's gloss. Again, to prevent scratching, separate

Acknowledgements

- **Andrew W. Mellon Foundation**
- **Institute for Museum and Library Services**