



# HUNTINGTON

## IMAGING SERVICES GUIDE



*Last updated 10 July 2009*

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THE DEPARTMENT of Photographic Reproductions of the Henry E. Huntington Library and Art Gallery was established for the

purpose of supplying photostats, photographs, lantern slides, and other reproductions of printed and manuscript material and works of art in its collections, to readers, visitors, accredited scholars, and institutions, for study, research, bibliographical comparison, or other educational purpose.

The activities of the department are divided into several distinct branches, each defined and regulated in accordance with the kind of service it is intended to render, with the co-operation and at the discretion of the officials of the institution.

Imaging Services provides a variety of services for readers and staff, including scans, photocopies, duplicating and consultation. An overview appears below; detailed information follows.

### Digital Imaging

Color or black-and-white scans, from web to exhibition sizes. Images can be provided in a variety of formats including Adobe PDF.

### Digital Printing

Inkjet prints are available in sizes from 8 × 10 inches to 24 × 30 inches on matte paper, and glossy prints in 8 × 10 inches only. Panoramic printing is also available. Color prints are matched to the originals.

### Photocopies

Black-and-white photocopies can be made from manuscripts, printed books, ephemera, and photographs in the collections.

### Microfilm

We can produce 35mm black-and-white microfilm in negative or positive reels. Microfilm is recommended for research only, not for publication.

### Special Services

Imaging Services is able to create images that show hidden details by using beta-radiation, infra-red, and ultra-violet light sources. We can also provide audio and video duplication and recording, and we offer PDF book creation.

### Legacy Services

Conventional photography is available through our legacy services: archival printing, toning and resin-coated prints, color transparencies, and digital printing to film.

## Turnaround Time

The standard turnaround time is ten days. Rush orders are accommodated, when possible, on a two-day or five-day schedule; there is an extra charge.

## Shipping

Orders may be shipped through all major carriers. Images can also be delivered via e-mail and through an FTP server of your choice.

## PLACING AN ORDER

Orders should be directed to the appropriate department or curator, depending on the collection to which the original belongs. Prepayment is required.

**General Collection books:** Reader Services

**Rare books, maps, historical photographs, ephemera, and prints:**

Rare Books

**Manuscripts:** Manuscripts

**Paintings, sculptures, and other artworks:** Art Division

## CONTACT INFORMATION

### Reader Services

Christopher Adde: [cadde@huntington.org](mailto:cadde@huntington.org), 626-405-2375

### Rare Books

Erin Chase: [echase@huntington.org](mailto:echase@huntington.org), 626-405-2129

### Manuscripts

Bert Rinderle: [erinderle@huntington.org](mailto:erinderle@huntington.org), 626-405-2211

### Art Division

Elizabeth Clingerman: [eclingerman@huntington.org](mailto:eclingerman@huntington.org), 626-405-2225

## TURNAROUND TIME

The turnaround countdown begins on delivery of the order to Imaging Services; regular orders require ten days. Delays may occur due to needed conservation treatments or unforeseen scheduling conflicts. **Special services** assignments, audio, video, and PDF books have a turnaround estimated by the photographer. **Microfilm orders** have a turnaround of four weeks due to film reel size and processing delays. Microfilm duping will add two weeks to the turnaround time, for a six-week turnaround. **Rush service** is available by advance request at a 50 percent surcharge for a five-day turnaround, and a 100 percent surcharge for a two-day turnaround. Please pick up or arrange to have orders shipped no later than 30 days after completion.

## IMAGING SPECIFICATIONS

### Resolution: 300 ppi Standard

Image resolution is measured in pixels per inch (PPI), also referred to as dots per inch (DPI) when an image is printed. All images are initially scanned and stored at the highest resolution. Low-resolution images, best for web pages or for viewing on a monitor, can easily be uploaded or e-mailed. Publishing in print requires a file that can be reproduced at a line count between 80 and 130 for best results. High-resolution images, which support extreme enlargement and allow for detailed visual examination, are appropriate for research as well as printing at exhibition size. Our scanning stations use camera-based scanners; this allows the best possible lighting and most flexible setups. Imaging resolution is set at 300ppi, at the largest image dimensions our scanning systems can deliver.

### Bit Depth

Bit depth relates to the number of pixels used for each of the three colors, red, blue, and green, that make up the image. Eight-bit images have a range of 65,000 colors (256 per channel  $\times$  256  $\times$  256). Our standard for delivered images is 8 bits in depth. We can deliver 16-bit images on request.

### Color Matching

To maintain color fidelity to originals as closely as possible, our scanners, printers, and monitors are color-calibrated. Some pigments may reflect wavelengths of light that cause color distortions, however. Custom color matching to the original is available at an hourly rate.

### STORAGE AND FILE TYPES

JPEG files are compressed, and some information is inevitably lost during the compression process. If a JPEG file is opened, changed, and re-compressed, image degradation can occur, and if it is damaged, it will fail to open. For these reasons, JPEG files are not appropriate for archival storage. They are excellent for the web and for e-mailing. TIFF files are the standard for archiving and publishing. These files are not compressed, and can be very large. They require postal mailing, or an FTP site for electronic transfer.

### Web Resolution

These low-resolution files work well for websites. They download quickly and can be emailed in batches. They lose visual quality, however, if they are enlarged. Our default size is 8x10 inches, but other sizes may be requested.

WEB 72 PPI SIZE	COLOR					
	TIFF MB	IMAGES PER CD	PIXELS SHORT	PIXELS LONG	JPEG MB	IMAGES PER CD
4x5	0.3	2,100	288	360	0.1	6,500
8x10	1.1	590	576	720	0.17	3,800
11x14	2.28	285	792	1008	0.212	3,000
16x20	4.75	136	1152	1440	0.252	2,500
20x24	7.12	90	1440	1728	0.3	2,100

### Publication Resolution

This is for a printed result up to 11x14 inches. This resolution exceeds most publishers' requirements.

PUBLICATION 300PPI SIZE	COLOR					
	TIFF MB	IMAGES PER CD	PIXELS SHORT	PIXELS LONG	JPEG MB	IMAGES PER CD
8x10	20.6	30	2400	3000	0.508	1,200

### High Resolution

High resolution is used for research or for exhibition-size printing. It supports both detailed examination and extreme enlargement.

HIGH RESOLUTION 300PPI SIZE	COLOR					
	TIFF MB	IMAGES ON DVD	PIXELS SHORT	PIXELS LONG	JPEG MB	IMAGES PER CD
11x14	40	100	3300	4200	0.728	890
16x20	82	48	4800	6000	1.2	540
20x24	123	32	6000	7200	1.6	400
26x35	229	17	8000	10000	3.4	190
40x53	515	7	12000	15000	5.3	120

\* 40x53 size incurs partial software interpolation.

### PRODUCT DELIVERY

**Shipping:** Files on disk can be shipped through conventional mail or through other shipping carriers. Barbara Quinn (626-405-2182; bquinn@huntington.org) will provide an estimate.

**E-mail:** Image files may be e-mailed, but the Huntington's servers impose a maximum of 4 megabytes per e-mail; however, if necessary, even very large files can be compressed and e-mailed. These files will not have the high quality of uncompressed TIFF files. The cost is \$5 per e-mail.

<b>WEB 72DPI SIZE</b>	<b>COLOR JPEG Size/MB</b>	<b>IMAGES PER E-MAIL</b>	<b>PIXELS SHORT</b>	<b>PIXELS LONG</b>
4x5	0.1	40	288	360
8x10	0.17	23	576	720
11x14	0.212	18	792	1008
16x20	0.252	15	1152	1440
20x24	0.3	13	1440	1728

<b>PUBLICATION 300DPI SIZE</b>	<b>COLOR JPEG SIZE/MB</b>	<b>IMAGES PER E-MAIL</b>	<b>PIXELS SHORT</b>	<b>PIXELS LONG</b>
8x10	0.508	7	2400	3000

**FTP:** File Transfer Protocol servers are the best means of transferring large files without compression, or a large number of images. You will need to provide the Internet address of the site, the user name, and password. The cost is \$5 per transfer. FTP transfers are limited to 2 gigabytes per transfer session.

#### **IMAGE SIZES**

<b>HIGH RES 300DPI SIZE</b>	<b>COLOR TIFF SIZE/MB</b>	<b>IMAGES PER FTP</b>	<b>PIXELS SHORT</b>	<b>PIXELS LONG</b>
11x14	40	50	3300	4200
16x20	82	24	4800	6000
20x24	123	16	6000	7200
26x35	229	8	8000	10000
40x53	515	3	12000	15000

## **PHOTOCOPY SERVICES**

The Photocopy Services area is located in the northwest corridor of the Old Library Building, near the Reference Reading Room. General Collection books can be taken directly there for copying and payment. Photocopying of Rare Book and Manuscript materials must originate through those departments or through the Ahmanson Reading Room.

## **MICROFILMING SERVICES**

Microfilming, including negatives, positives, and duplicates, is also available through Photocopy Services. A staff member will contact Barbara Quinn or Rob Maine for an estimate.

## **SPECIAL SERVICES**

### **Beta-Radiograph, Infra-Red, Ultraviolet**

Beta-Radiograph photography utilizes a radioactive plate to expose X-ray film through paper. It is the best method for revealing watermarks and paper structure. We provide images captured with infra-red and ultraviolet frequencies as well.

### **Studio Photography, Special Setups**

Our studio can accommodate large objects and complex setups. We can also go on location for scanning or photography. Ask a staff member to contact John Sullivan, Head of the Imaging Services Department, for an estimate.

### **PDF Book Creation**

Image files can be converted to the Adobe Portable Document Format. This format allows users to access a set of files as a document in a manner independent of the application software, hardware, or operating system. We can create a basic PDF or add a searchable index. For more information on this format see the Adobe website, [www.adobe.com/products/acrobat/adobepdf.html](http://www.adobe.com/products/acrobat/adobepdf.html). A staff member will contact Manuel Flores in Imaging Services for an estimate.

### **Audio/Video Duping and Recording**

Digital video and audio recording services are available for recording lectures or interviews. Our duping services can copy media from a variety of sources: LP records, VHS, or reel-to-reel tape can be re-mastered to CD or DVD. A staff member will consult a department photographer to schedule this service.

### **LEGACY SERVICES**

#### **Film Negatives, Archival Printing, Toning, 35mm Slides, Transparencies, and Resin-Coated Prints:**

Copy-work onto film and printing onto fiber-based and resin-coated papers can be accommodated by appointment. Certain films and papers will need to be ordered for these jobs, which may add extra time. Duplicate 35mm slides and transparencies will be produced with our Laser-graphic film printer. Orders for this material, like standard orders, should originate with the appropriate departments; General Collection materials can be ordered through the Reader Services Department, Rare Books or Manuscripts through those departments.

Estimates and schedules must be agreed upon in advance. For other information, please contact John Sullivan, Head of Imaging Services (626-405-3435; [jsullivan@huntington.org](mailto:jsullivan@huntington.org)).

**Price lists are available from Imaging Services.**