The University of Chicago Press
Art Submission Requirements
Overview

Why We Prefer Original Photographs, Transparencies, and Line Art

There are several factors to consider when attempting to reproduce illustrations in printed books. Quality of original illustrations is foremost, but we also consider scanning resolution, the paper on which your book will be printed, and the printing press that will be used to produce your book. Failure to consider any one of these factors can lead to problems when printed books are on press and to disappointment with finished books. To avoid this, we prefer to handle the scanning of your photographs and illustrations, rather than having you provide scans. If this is not possible, have a professional graphic arts service bureau scan your art as indicated in the section on digital art requirements, beginning on page 12. Art that does not meet these guidelines may be rejected.
Requirements for Submitting Hard-Copy Originals

Photographs, Transparencies, and Line Art
There are several factors to consider when attempting to reproduce illustrations in printed books. The quality of the original illustrations is foremost. The following are guidelines for submitting the best possible originals for the best possible final image in your printed book.

### Black and white photographic images
- Black and white photographs are the preferred format for reproduction.
- Professionally produced prints from a library or photo service will ensure the highest possible quality.
- Prints can vary in size from 8” x 10” (preferred) to 4” x 5”.
- A full range of tonalities should be present in the prints. Prints with low or high contrast will not be improved by the printing process. Such qualities may instead become exaggerated.
- Photographs should be dust- and scratch-free. Retouching fees may be passed on to you.
- Glossy finish is preferred. Matte finish is acceptable.
- All prints should be identified following the labeling guidelines at the end of this document (see page 21).
- If a detail of an image is to be used, indicate the area of interest on a photocopy of the print (see figure 2.1 on page 6).
- Visual indicators such as arrows and numbered reference points should be noted on a photocopy of the document (see figure 1.2 on page 6).

### Color photographic images
- 8” x 10” to 4” x 5” (both sizes are equally acceptable) positive film transparencies provide the best color fidelity and detail and are the preferred format for reproduction. 35mm slides are also acceptable, but the larger the original transparency, the better the reproduction.
- Color photographs (8” x 10” preferred) are also acceptable (but again, transparencies are preferred).
- If a detail of an image is to be used, indicate the area of interest on a photocopy of the image.
- Submission of original fine art drawings, paintings, and collages should be done in consultation with the acquiring editor.

### Originals from books and magazines
- We prefer not to receive library books as sources for original art. However, submission of library books is preferable to having images in books scanned by our authors.
- Previously printed images from magazines and books must be rescreened by the printer to eliminate moiré patterns. A noticeable reduction in sharpness will result from the descreening process. See page 7 for an explanation of halftoning and descreening.

### Charts, graphs and maps (line art)
- See page 9 for detailed instructions.
Fig. 1.1. Indicate cropping on a photocopy.

Fig. 1.2. Visual indicators such as arrows and numbered reference points should be noted on a photocopy.
3. Halftones: A Necessary Step in the Printing Process

What Is a Halftone?

All photographs must become halftones (see sidebar) in order to be printed.

**HALFTONE** A halftone is an image formed by breaking up a continuous-tone image into a pattern of dots of varying sizes. In the lighter areas of the image, the dots are very small. In the darker areas, the dots enlarge to overlap one another. When printed, the dots, though clearly visible through a magnifying glass, merge to give the illusion of continuous tone to the naked eye.

**DESCREENING** A process by which evidence of the original halftone screen pattern is removed. This can be achieved through the use of both software and mechanical filters.

**MOIRÉ** In printing, an undesirable pattern created by the overlapping of halftone screens. Moirés occur when printed images are scanned and not descreened.

Scanning Images from Books and Magazines

In general, you should avoid using previously printed images (such as halftones from books and magazines) as your original art, as they can result in unwanted pattern effects called moirés. Printed photographs contain a dot pattern as a result of the halftone process, so rescanning printed images creates an overlapping array of patterns: (1) the pattern present in the printed piece and (2) the new pattern created from the scan. When these two patterns overlap, a moiré is formed. While descreening techniques can be used to minimize the effect of moirés, these techniques usually result in a softening of detail in the image.

Figure 2.1: Migrant Mother by Dorothea Lange. Courtesy of the U.S. Farm Security Administration Collection, Library of Congress.
4. Charts, Graphs, and Maps

Preparing Charts and Graphs

**Proportions**
Typically, charts and graphs are printed in books at sizes ranging from 3”x 3” to 4”x 7”. However, most people create their drawings at a larger size. This means drawings will have to be reduced to fit within the dimensions of the book. The relationship between font size, rule weight, and final printed size should be considered when creating drawings. See exhibit A on page 9 for an idea of acceptable figure layouts.

**Style**
1. One consistent line weight is preferred, but use no more than two line weights.
2. Use one font point size throughout the figure. If two sizes are used, they should vary from each other only slightly (e.g., 10 pt and 12 pt, not 10 pt and 18 pt).
3. Font styles should be used sparingly. In most cases, there is no reason to use bold or italic.
4. Do not use all caps, as this decreases overall legibility.
5. Do not use tints (or gray tones). To distinguish areas, use black and white where possible, and patterns such as diagonal stripes if additional areas need defining. Patterns should be composed of only black and white elements.

Preparing Maps
It is strongly recommended that all maps be prepared by a professional cartographer and coordinated to match a book’s design.

Submitting Final Art

**Laser Prints**
1. Follow the rules of proportion and style as outlined above.
2. Provide printouts on smooth, bright white laser paper.
3. Resolution of the laser printer should be a minimum of 600dpi (dots per inch).
4. Use patterns instead of tints to distinguish different areas.
5. All figures should be clearly labeled (see pages 21 and 22).
6. Laser prints representing all digital image files must accompany the submittal.
5. Preparing Charts and Graphs: Exhibit A

Proportion Sizing in Figure Layouts

Charts and graphs are usually drawn at sizes larger than needed for reproduction in a book. Reproduction sizes commonly range from 3”x 3” to 4”x 7”. To fit on the pages of a book, the original drawings must be reduced in size. The relationship between font sizes, rule weights, and final printed sizes should be considered when constructing the original figures.

Figures 5.1–5.4 illustrate good and bad figure preparation.

A chart reduced to the size dimensions of the printed page. Note the illegibility of the legend and column/row headings. The bar shadings are too similar in tone as well.

The same chart redrawn with the final production size in mind. Bars are clearly distinguishable, all text is legible, and the line rules are not faded.

A line graph in reduced size that will print poorly if no adjustments are made. The type is rendered unreadable. Also, the graph points are lost within the background shading.

This provides the same information as figure 5.3 but is laid out according to the guidelines. The text is now readable and the plotted points are clearly defined.
6. Preparing Charts and Graphs: Exhibit B

Anticipating the Effects of Reducing Image Size

**Line Rules**
Bounding rules that appear thin in the reduced image may fade or disappear when printed. The minimum rule size should be no smaller than 1 pt in the large original.

The boldness of rules that are too thick around data columns adds unnecessary emphasis. The maximum rule size should be no larger than 2 pts in the large original.

**Fonts**
Column and row headings that are legible at full size may become unreadable when reduced to fit in a book. If you are working upsize, reduce your printouts 50% to make sure your type is clear.

Use one font throughout the figure. If two sizes are used, they should vary from each other only slightly (e.g., 10pt and 12pt, not 10pt and 18pt).

Font styles should be used sparingly. Generally, there is no reason to use bold or italicized words.

Do not use all caps, as this decreases overall legibility.

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Fig. 6.1. Improperly prepared 8” x 10” chart before reduction

Fig. 6.2. A reduction of figure 6.1 to half its size. Note how labels for columns and percentage increments are now too small to read. The use of condensed type for the figure key adds to the general illegibility. Type for the y-axis is too large and too bold.
# 7. Hard-Copy Originals Check Sheet

Please fill out this form when submitting art.

<table>
<thead>
<tr>
<th>AUTHOR/EDITOR NAME</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE OF BOOK</td>
<td></td>
</tr>
<tr>
<td>ADDRESS</td>
<td></td>
</tr>
<tr>
<td>PHONE/FAX</td>
<td>EMAIL</td>
</tr>
</tbody>
</table>

## Black and White. Photographic Originals to Be Reproduced in Black and White

### Prints

- **NUMBER OF BLACK AND WHITE PRINTS**
- **NUMBER OF COLOR PRINTS**
- **NUMBER FROM PRINTED MATERIAL (BOOKS AND MAGAZINES)**

### Transparencies and Slides

- **NUMBER 35MM SLIDES**
- **NUMBER 4" X 5" TRANSPARENCIES**

Has each print been labeled following the guidelines on pages 21 and 22?

## Color. Photographic Originals to Be Reproduced in Color

### Prints

- **NUMBER OF COLOR PRINTS**
- **NUMBER FROM PRINTED MATERIAL (BOOKS AND MAGAZINES)**

### Transparencies and Slides

- **NUMBER 35MM SLIDES**
- **NUMBER 4" X 5" TRANSPARENCIES**

Has each slide or transparency been labeled following the guidelines on pages 21 and 22?

## Line Art. Charts and Diagrams

### NUMBER ______

## Labels

HAS ALL ART BEEN LABELED FOLLOWING THE GUIDELINES ON PAGES 21 AND 22?
Requirements for Submitting Digital Art
What Is Digital Art?

Digital art is any image that has been captured through scanning or digital photography, or that has been created using a software program.

Types of Digital Art

Scans

Scans (or bitmap files) are images composed of pixels—the smallest building blocks of bitmapped art. The figures on the right show two basic types of scans. Figure 8.1 is a continuous-tone scan, and figure 8.2 is a bitonal scan.

Continuous-tone Scan (8-bit)

In continuous-tone scans, each pixel is one of 256 shades of gray, ranging from pure white to solid black. Because each pixel can vary in tonality, transitions from light to dark are smooth and realistic—as long as the resolution is high enough. Photographs and drawings with fine transitions between light and dark, such as figure 8.1, are ideal candidates for continuous-tone or 8-bit scanning.

Bitonal Scan (1-bit)

In bitonal scans, each pixel can be only one of two values: 100% black or 100% white. Images that lack gray values, such as figure 8.2, are good candidates for bitonal scanning.

Computer-Based Drawings

Charts, timelines, graphs, and other quantitative information-based images are often created (as opposed to being scanned) using a vector-based drawing application. Vector-based drawing applications build images by using mathematical formulas to describe points, lines, and shapes. Unlike scans, which depend on proper resolution for realistic rendering, vector graphics are resolution independent and can be enlarged to any size without loss of quality. See figure 8.3.

Digital Photography

For guidelines on requirements for digital photography, please contact the University of Chicago Press.

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**Tip on Terminology**

- **Continuous-tone** images are often referred to as “photographs.” In Adobe Photoshop, the term Grayscale is used (Menu: Image > Mode).
- **Bitonal** images are often referred to as “line art” or “monochrome” images. In Adobe Photoshop, the term Bitmap is used (Menu: Image > Mode).
9. Image Resolution for Continuous-Tone Scans

Resolution is a major factor in determining the quality of all scans. Resolution is the number of pixels per unit of measure (inches, in the United States, hence the abbreviation ppi) used to form an image. In general, photographic scans intended for print usage should be at least 300ppi at the final size for reproduction. Resolution should be determined at the scanning stage based on the qualities of the originating image: (1) whether it is continuous-tone or bitonal and (2) the size of the original. For further guidance, see the table below.

### Determining Resolution Settings for Continuous-Tone Resolution Scans

<table>
<thead>
<tr>
<th>Size of Original (inches)</th>
<th>Resolution (ppi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smaller than 5 x 7</td>
<td>600ppi</td>
</tr>
<tr>
<td>5 x 7</td>
<td>300ppi</td>
</tr>
<tr>
<td>8 x 10</td>
<td>300ppi</td>
</tr>
</tbody>
</table>

Save all scans in the TIFF or EPS format.

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**Continuous-Tone or Bitonal?**

To determine whether you should scan your original art in continuous-tone mode (8-bit) or in bitonal mode (1-bit), consider the following:

- If your original is a photograph or fine art drawing that contains multiple levels of gray tones, you should scan the original in **continuous-tone mode**.
- If the original is a line drawing without gray tonalities, and consists of only black and white lines and shapes, you should scan the original in **bitonal mode**.

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**Pixelation**

A phenomenon in bitmap images that results from insufficient resolution or over-enlargement. Individual pixels become visible, especially on the edges of objects, creating a stair-stepped or jagged look.

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**Fig. 9.1** Example of a properly scanned, grayscale photograph at 300ppi. This resolution setting is suitable for high-quality offset print production.

**Fig. 9.2** Example of a photograph scanned at 72ppi, resulting in an image that appears blurry or out of focus. **Pixelation** is another phenomenon associated with a low-resolution scan. Low-resolution settings are not suitable for print.

**Fig. 9.3** Example of a low-resolution scan to which resolution has been artificially added.

**Fig. 9.3.** Scanned at 72ppi; with resolution artificially increased to 300ppi. (Compare the circled areas in the figures. Note that there is little improvement in detail in fig. 9.3 after resolution has been added.)
10. Halftones: A Necessary Step in the Printing Process

What Is a Halftone?

All continuous-tone scans must become halftones in order to be printed. A halftone is an image formed by breaking up a continuous-tone image into a pattern of dots of varying sizes. In the lighter areas of the image, the dots are very small. In the darker areas, the dots enlarge to overlap one another. When printed, the dots, though clearly visible through a magnifying glass, merge to give the illusion of continuous tone to the naked eye.

Scanning Books and Magazines

In general, you should avoid using previously printed images (such as halftones from books and magazines) as your original art, as they can result in unwanted pattern effects called moirés. Printed photographs contain a dot pattern as a result of the halftone process, so scanning printed images creates an overlapping array of patterns: (1) the pattern present in the printed piece and (2) the new pattern created from the scan. When these two patterns overlap, a moiré is formed. While descreening techniques can be used to minimize the effect of moirés, these techniques usually result in a softening of detail in the image.
11. Image Resolution for Bitonal Scans

Resolution determines the quality of all scans. Resolution is the number of pixels per unit of measure (inches, in the United States, hence the abbreviation ppi) used to form an image. In general, bitonal scans intended for print usage should be at least 1200ppi. Resolution should be determined at the scanning stage based on the qualities of the originating image: (1) whether it is continuous or bitonal and (2) the size of the original. See the table below for further guidance.

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**Fig. 11.1. 1200ppi**

Example of properly scanned *line art* at 1200 ppi. This setting is ideal for high-quality offset print production. Note the smooth curves.

**Fig. 11.2. 72ppi**

Example of line art scanned at 72ppi, which results in an image that appears blocky and sharp-edged. *Pixelation* will occur if line art is scanned at low resolutions. Low-resolution settings are not suitable for print.

**Fig. 11.3. Scanned at 72ppi; with resolution artificially increased to 1200ppi**

Example of a low-resolution scan to which resolution has been artificially added. This is still inadequate for printing.

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**Continuous-Tone or Bitonal?**

To determine whether you should scan your original art in continuous-tone mode (8-bit) or in bitonal mode (1-bit), consider the following:

- If your original is a photograph or fine art drawing that contains multiple levels of gray tones, you should scan the original in continuous-tone mode.
- If the original is a line drawing without gray tonalities, and consists of only black and white lines and shapes, you should scan the original in bitonal mode.

**Determining Resolution Settings for Bitonal Resolution Scans**

<table>
<thead>
<tr>
<th>Size of Original (inches)</th>
<th>Resolution (ppi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smaller than 5 x 7</td>
<td>2400ppi</td>
</tr>
<tr>
<td>5 x 7</td>
<td>1200ppi</td>
</tr>
<tr>
<td>8 x 10</td>
<td>1200ppi</td>
</tr>
</tbody>
</table>

Save all scans in the TIFF or EPS format.
12. Charts, Graphs, and Maps

Preparing Charts and Graphs

PROPORTIONS
Typically, charts and graphs are printed in books at sizes ranging from 3" x 3" to 4" x 7". However, most people create their drawings at a larger size. This means the drawing must be reduced to fit within the dimensions of the book. The relationship between font size, rule weight, and final printed size should be considered when creating drawings. See exhibit A on page 18 for an example of acceptable figure layouts.

STYLE
1. One consistent line weight is preferred, but use no more than two rule sizes.
2. Use one font point size throughout the figure. If two sizes are used, they should vary from each other only slightly (e.g., 10 pt and 12 pt, not 10 pt and 18 pt).
3. Font styles should be used sparingly. In most cases, there is no reason to use bold or italic.
4. Do not use all caps, as this decreases overall legibility.
5. Use tints (gray tones) sparingly and only if you are submitting digital originals using one of the recommended software programs listed below. Use solid black and white where possible. Tint variations that are not easily distinguishable from each other may confuse the reader. Use 20%, 50%, and 80% tint values.
6. Patterns: If you are submitting laser prints and areas of a figure need to be distinguished with more variation than solid black and solid white allow, then patterns should be used. Do not submit laser prints that include tints.

Preparing Maps

It is strongly recommended that all maps be prepared by a professional cartographer and that they be coordinated to match a book’s design.

Submitting Final Art

LASER PRINTS
Many of the programs used to create charts and graphs, such as WordPerfect, Microsoft Word, PowerPoint, and Excel, cannot output valid POSTSCRIPT files. These programs are meant for more limited use in presentations or for output via desktop printers. However, prints from these applications may be submitted and scanned successfully if these basic guidelines are adhered to:
1. Follow the rules of proportion and style as indicated in the section above.
2. Provide printouts on smooth, bright white laser paper.
3. Set the resolution of the laser printer at a minimum of 600dpi (dots per inch).
4. Use patterns instead of tints to distinguish different areas. See item 6 in the Style section above.
5. Label all figures clearly (see the guidelines on pages 21 and 22).

DIGITAL FILES
Digital files are acceptable if they have been created in one of the following programs: Adobe Illustrator, Macromedia Freehand, or CorelDraw. These guidelines should be adhered to:
1. Follow the rules of proportion and style as indicated in the Style section above.
2. Include all fonts used in digital drawings with your submission.
3. Include all images placed within digital drawings with your submission.
4. Save digital drawings in the EPS file format.
5. Include laser prints of all digital image files with your submission.
13. Preparing Charts and Graphs: Exhibit A

Proportion Sizing in Figure Layouts

Charts and graphs are usually drawn at sizes larger than can be used in a book. Reproduction sizes commonly range from 3” x 3” to 4” x 7”. To fit on the pages of a book, the original drawings must be reduced in size. The relationship between font sizes, rule weights, and final printed sizes should be considered when constructing the original figures.

See the comparisons below for a clarification of the requirements of vector images.

A chart reduced to the size dimensions of the printed page. Note the illegibility of the legend and column/row headings. The bar shadings are too similar in tone as well.

The same chart redrawn with the final production size in mind. Bars are clearly distinguishable, all text is legible, and the line rules are not faded.

A line graph in reduced size that will print poorly if no adjustments are made. The type is rendered unreadable. Also, the graph points are lost within the background shading.

A graph that provides the same information as figure 13.3 but is laid out according to the guidelines. The text is now readable and the plotted points are clearly defined.
14. Preparing Charts and Graphs: Exhibit B

Anticipating the Effects of Reducing Image Size

**LINE RULES**
Bounding rules that appear thin in the reduced image may fade and disappear when printed. The minimum rule size should be no smaller than 1 pt in the large original.

The boldness of rules that are too thick around data columns adds unnecessary emphasis. The maximum rule size should be no larger than 2 pts in the large original.

**FONTS**
Column and row headings that are legible at full size may become unreadable when reduced to fit in a book. If you are working with oversized art, reduce your printouts to the width that will be used in the book to make sure your type is clear.

Use one font throughout the figure. If two different sizes are used, they should vary from each other only slightly (e.g., 10 pt and 12 pt, not 10 pt and 18 pt).

Font styles should be used sparingly. Generally, there is no reason to use bold or italic.

Do not use all caps, as this decreases overall legibility.

**TINT VARIATIONS**
Tint variations that are not easily distinguishable from each other may confuse the reader. To avoid identical columns or graph points, use 20%, 50%, and 80% tint values.

Legibility of the accompanying chart legends and keys should also be confirmed.
15. Digital Art Check Sheet

Please fill out this form when submitting art.

**FILE FORMATS**

Scans should be submitted as EPS or TIFF files.

*IMPORTANT NOTE: Files in the following formats will not be accepted: GIF, PSD, PNG, or BMP.*

**A Word on JPEGs**

The JPEG format is commonly used for file transfer because of its high compression qualities (smaller file size makes it easier to transport). Unfortunately, JPEG compression is accomplished by discarding some of the data that makes up the image. Each time a JPEG is opened, edited, and resaved in the JPEG file format, image degradation results.

If you acquire an image from a library, museum, or stock photo agency, request the EPS or TIFF format. If JPEGs are the only file format available, do not open, edit, or save the image before submitting it.

This includes digitally drawn charts, graphs, and maps. Please see pages 17–18 for further information regarding line art.

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**Digital Scans**

TOTAL NUMBER OF SCANS __________

FOR CONTINUOUS-TONE SCANS

- Number of scans from original art (glossy photos, transparencies, or original drawings)

  **RESOLUTION**
  - 300
  - 600
  - 1200
  - 2400

  **FILE FORMAT:**
  - TIFF
  - EPS

- Number of scans from previously printed material (illustrations and photos from books)

  **RESOLUTION**
  - 300
  - 600
  - 1200
  - 2400

  **FILE FORMAT:**
  - TIFF
  - EPS

FOR BITONAL SCANS

- Number of scans from original art or previously printed material

  **RESOLUTION**
  - 1200
  - 2400

  **FILE FORMAT:**
  - TIFF
  - EPS

Are laser printouts provided for each continuous-tone and bitonal scan? YES NO

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**Computer-Based Drawings**

TOTAL NUMBER OF FILES __________

**APPLICATION(S) USED**

- Adobe Illustrator
- Macromedia Freehand
- CorelDraw
- Canvas
- Other

Have fonts been used in files? (If so, they must be included on disk) YES NO

**FONTS USED**

Have fonts been used in files? (If so, they must be included on disk) YES NO

**SCAN NAMES** (OK to attach separate sheet)

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**Method of Transfer**

- FLOPPY DISK
- ZIP DISK
- JAZ DISK
- CD-ROM
- DVD

**NUMBER CONVENTIONS FOR DIRECTORIES (FOLDERS) AND FILES**

The following examples indicate the appropriate form in which directories/files should be labeled. Note that underscores are *always* used in place of blank spacing within the names.

![Fig. 15.1](Smith_chp1_images.png) - For directories (folders): author last name_chapter number (or other designator)_subcategory

![Fig. 15.2](Smith_chp1_01.tif) - For files: author last name_chapter number (using the abbreviation chp and the number)_image no. (with zeros preceding single digits)
Art Labeling Guidelines and Checklist for Authors

General

- Have you labeled or marked with your name and the figure number?
- Have you provided an up-to-date list of all art to appear in your book?

Hard-Copy Original Art

- Have you marked laser prints intended as final art to distinguish them from Press printouts that are visual accompaniments to digital art?
- If you used labels to mark your art, have you affixed them to the actual piece of art (see attached graphic on page 22). In the case of 4” x 5” and oversize transparencies, it is OK to place the label on the protective sleeve in which the transparency is housed.
- To ensure that labels do not fall off the art during the production process, please use semi-permanent labels.

Digital Art

- Have you followed these naming conventions:
  - Smith_chp1_001.tif (for images numbered discretely by chapter)
  - Smith_001.tif (for images numbered sequentially throughout book)
- Do the names on your list of art match the names of files on disk?
- Have you provided a labeled printout of each digital file?
Labeling Art

35mm slide
Attach label under bottom or to the left of image (depending on orientation of image) on right reading side of slide

4" x 5" transparency
Attach label to plastic carrier in lower left corner

glossy photograph
Attach label to the back of print in the lower right corner

camera-ready laser print
Attach label to the front of print in the lower left corner