

**Image Research using Print Material and Digital Collections**  
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Scanning Print Material: Books and Magazines

**Image size = dimensions (pixel W x pixel H) + resolution (ppi: pixels per inch)**

For printing images, we recommend a resolution of 300 to 400 ppi. In most cases, the scanner is fabricating information if the number is any higher due the print resolution of the book/magazine. However, when scanning images for digital use (monitors and projectors), the resolution can be as low as 72-96 ppi, standard screen resolutions. Determine how your images will be used early on and scan at the highest necessary resolution. *Images can be downsized but not upsized.*

Downloading Images from the Internet

**Size:** When downloading images from the internet, there are a few ways to ensure you are getting an appropriately sized digital file. The same standards apply: 300 ppi for print, 72-96 ppi for digital presentation, plus a pixel dimension equal to or greater than your intended output.

If you are unsure whether the image is high enough resolution for either print or a digital presentation, check the file properties. Tips for identifying the dimensions/resolution of a digital image are at the end of this document. Knowing the pixel dimensions is sufficient. For example:

2400 x 3000 pixel image = 8 x 10" image at 300 ppi (PRINT)  
AND  
2400 x 3000 pixel image = 25" x 31 1/4" image at 96 ppi (DIGITAL)

**Quality:** Identifying image size is only one step. Next you should evaluate quality. If you are gathering images for a digital presentation, you should use your own eyes to evaluate if it is good enough for your purpose. Look for pixelated edges and other user-added information, such as borders, text, etc. If you are distracted by any aspect of the image, find another one. (See below for reverse image search tips.) You can also filter images by size in a Google image search.

There are many online image resources, some specific to art, others more general. Licensing varies from educational use only, to open access, to copyright protected, and all the gray areas in between. We suggest using Creative Commons images when possible: <https://creativecommons.org/licenses/>.

Below is a selection of databases to get you started on your research. It's the tip of the iceberg; new resources are being created regularly!

### Colorado College Digital Collections

#### **Artstor (transitioning to JSTOR)**

Artstor is a comprehensive online database accessible using your coloradocollege.edu email address. Images can only be downloaded at screen resolution (longest side around 1024 pixels), but with the online viewer you can zoom in to see more detail.

<http://www.artstor.org/>

#### **CCDID (Colorado College Digital Image Database, aka MDID)**

CCDID is a local repository of images accessible using your CC login. It is only available to the campus community and reflects the strengths of the departmental faculty. CCDID is a work in progress, and therefore will not cover the full extent of our slide collection.

<https://ccdid.coloradocollege.edu>

#### **Colorado College FAC Museum**

Founded in 1936, the Museum's permanent collection of over 20,000 objects showcases the rich history and vibrant contemporary cultures of the Southwest and the Americas. This collection contains works of art from Native American (Pueblo, Plains, Plateau, and Great Basin cultures), Hispanic and Spanish Colonial, and 20<sup>th</sup> Century American art.

<https://fac.coloradocollege.edu/museumcollections/>

#### **Digital CC**

Digital Archives and Digital Repository for Colorado College.

<https://digitalcc.coloradocollege.edu/?ln=en>

### Other Online Resources for Images

#### **Google Images**

Google images are sourced from all over the web. The number of hits can be intimidating, but you can sort and filter your search to find exactly what you need. Under *search tools*, you can select *size*, *color*, *type*, *time*, and *usage rights*.

[www.google.com](http://www.google.com)

#### **The Google Cultural Institute**

The Cultural Institute is a new initiative by Google to make it possible to explore art and history on the web. Images are high quality, but it is not possible to download them. However, there is often accompanying text.

<https://www.google.com/culturalinstitute/u/0/project/art-project>

#### **Flickr**

Look through other peoples' photos! Size, quality, and usage rights vary, but it has powerful search filters. This is a good site for images of art in museums, galleries, or public spaces.

<https://www.flickr.com/>

### **Wikimedia Commons**

Images on Wikimedia are from thousands of contributors who have uploaded them for your own use and enjoyment. Some museums have even started sharing their images. You can search by categories or keywords. Every image is tagged with its usage rights.

[https://commons.wikimedia.org/wiki/Main\\_Page](https://commons.wikimedia.org/wiki/Main_Page)

### **Openverse**

Explore more than 600 million creative works. An extensive library of free stock photos, images, and audio, available for free use.

<https://wordpress.org/openverse/>

### **Getty Museum**

The Getty has open content and copyright protected content.

<http://www.getty.edu/about/opencontent.html>

<http://search.getty.edu/gateway/>

<http://www.gettyimages.com/>

### **OpenGLAM (Galleries, Libraries, Archives, and Museums)**

OpenGLAM brings together digital collections from around the world that can be used without restrictions.

<http://openglam.org/open-collections/>

### **National Archive**

The US national archive has extensive documents, photos, and records online.

<https://www.archives.gov/>

### **Library of Congress**

The Library of Congress is one of many public libraries with online collections.

<https://www.loc.gov/collections/>

There are numerous digital collections online. Check out various museum collections, public libraries, historical societies, government archives, and more.

## Image Citations

There are two ways to think about image citations. You can:

1. Capture the information that describes the original object/building/work of art and give credit to the artist or creator—and/or,

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2. Capture the information that describes the digital reproduction of the original and give credit to the photographer and copyright holder of the image. This often includes the source (book, website, magazine, etc.)

Depending on whether it is a caption or footnote/endnote the notation will vary. To learn more about the College Art Association standards, read over the publication guidelines for *The Art Bulletin* and *Art Journal*: <https://www.collegeart.org/publications/preparation>

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### How to check properties of your files

From the desktop

- Mac: Command-I or go to **File→Get Info**
  - On a Mac you can also use Preview.
  - Go to **Tools→Show Inspector**
- PC: **Right Click→Properties**
  - On a PC you can also use Windows Photo Viewer.
  - Go to **File→Properties**

In Bridge

- Open folder in Bridge. Select image by clicking on it once. View File Properties in Metadata side menu.

In Photoshop

- Open image, go to **File→File Info**

### What to look for in your file

**Format** (extension)

- raw: unprocessed, greater editing capability, need to convert in most cases, not compressed.
- tiff/tif: good master file format, archival, supports layers, not compressed.
- jpeg/jpg: most versatile file, widely used, but compressed (lossy) format.
- png: often used for internet application, supports transparency, compressed (lossless).
- gif: often used for internet application, limited to 256 colors—better for graphics than photographs, compressed (lossy).
- psd: specific to Photoshop, supports layers, not compressed.

**Image Size** (resolution + dimensions)

- dpi (dots per inch)/ppi (pixels per inch)
- dimensions (width x height)

## **Metadata**

- all information embedded in your file, both by the camera and by you

### Reverse Image Search

Use the following search engines to seek out higher quality digital copies of images you have downloaded to your computer (or, for Google, search an image linked online).

TinEye: <https://tineye.com/>

Google Images: <https://tineye.com/>