Editor's Explanation: Reaching the Right Resolution

by Maggie Jarman

Frequently, contributors send photos that may have looked sharp on the small screen of a phone or camera but are too low in resolution for print. This is a real pity if they were of an event that cannot be repeated; of a quilt, it is not such a problem since it can be re-photographed. To see how to capture excellent quilt images, please read Delyse Upton's advice on page 18.

300 dpi is the resolution we ask for, but what does that mean? Actually, dpi is not particularly helpful; it is a printing term, dpi standing for dots per square inch. Luckily, it equates to ppi, pixels per inch, which is the screen resolution, in tiny squares, not circles. As quilters, we should be familiar with the concept of building images out of squares.

The key measure to ascertain is the pixel x pixel size of your photo which you'll find using Inspector or Get info on a Mac, for example. Ignore the MB (megabytes); that is a data storage figure, not necessary here.

Perhaps a good way of explaining it is to say that for a photo to print well at 8 x 6 inches (the very largest an image on our pages can be) at 300 dpi it needs 300 pixels per inch. Multiply the dimensions 8 x 6 inches by 300 and one gets 8 x 300 = 2,400 and 6 x 300 = 1,800. So, your photo's pixel reading needs to be close to 2,400 x 1,800 pixels to be sure that it will print in detail.

When you send us an image, we cannot know precisely what size the printed image will be on the page until Annie starts the layout. Almost certainly it will be smaller than 8 x 6 inches but any resulting surplus pixels will not matter at all.

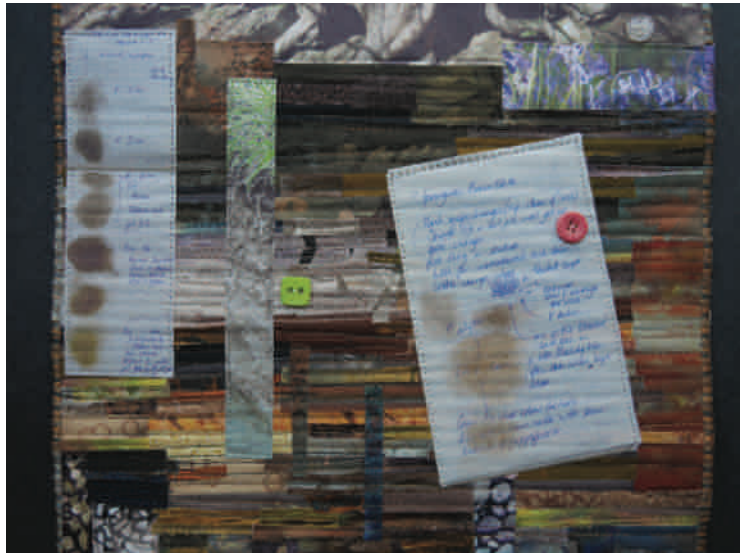
Before sending, check the pixels in the image in your email, especially if you have done any editing on the computer; some software will degrade the image when saving so its quality will no longer be the same as when it left your camera. The method of transfer can affect the size of the image; always choose actual size when attaching, if your email allows it, otherwise the image is too compressed.

Ultimately, what it boils down to is simply this: a high resolution image for this newsletter is a high quality JPEG, the largest file size your camera can manage, with enough pixels to provide at least 300 ppi for whatever dimensions it is printed.

These two references provide more detailed explanations but don't blind with science:

Is this image big enough? Image resolution and DPI explained **by Danielle Baird**
daniellebaird.com/image-resolution-and-dpi-explained

Digital Photos Frequently Asked Questions. This is from a website by **Ken W Watson** that is a treasure trove of information about digital images
rideau-info.com/photos/faq.html



4,592 x 3,448 pixels, 9.1MB, 180ppi

490 x 360 pixels, 68KB, 72ppi

As an example, I photographed part of a piece I made called 'The Colours of Soil: A Field Notebook'. I chose it because it has plenty of detail, including writing, so it is easy to see what a difference the resolution makes. The high resolution image (top) is 4,592 x 3,448 pixels; the low resolution version (below) is 490 x 360 pixels.