

Photography, Art Shows, and the Digital Realm

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The rapid development of digital imaging technologies in the last decade has thrown an enormous and intriguing ball of excitement into the photographic community. However, along with the excitement has come many questions about the creative and technical possibilities of these new tools. This report attempts to address some of these questions and shed light on some of the confusion. Both authors are actively involved in the digital imaging community, and have over five decades of combined experience in traditional photography (are we really getting that old?)

The report is divided into two sections:

1. Technical Basics on digital photography and digital output
2. Specific Issues for Art Fairs

Technical Basics

The word digital as it pertains to photography encompasses a wide spectrum of tools and tasks. Digital cameras can now be used in place of film-based cameras to create images. While currently somewhat expensive on the high-end side, their ability to capture a wider spectrum of light values does and will continue to allow the artist to capture more of what the eye sees than does film. Film only captures a relatively narrow spectrum of light values. It should be noted that the cost of digital cameras continues to drop, and the quality continues to rise. It is becoming increasingly “economically realistic” to create very high quality photographic images without using film at all.

Once a film or digital image is captured with the camera, it can then enter another digital realm, often referred to as the digital darkroom. Taking the place of the chemical darkroom, the image is transferred into a computer. From film this would be accomplished by scanning the image and recording it onto a CD, DVD, hard drive, or various other data storage media, then opening the image file in the computer. From a digital camera you could also transfer the image to similar storage media or directly into an image editing program in the computer.

Once in a computer, the image is adjusted in similar ways that it would be in a traditional darkroom. Careful printers, either traditional or digital, spend enormous amounts of time and effort meticulously creating the right color balance, determining contrast, maintaining highlight and shadow detail, etc; in other words nudging the final print in the direction they originally envisioned.

It must be stressed that master printers working in either a wet darkroom or a digital darkroom are concerned with *exactly* the same issues. The software programs created for digital darkroom work are geared towards artists with a solid and deep understanding of traditional darkroom printing. One advantage to digital darkroom work is that you can work at a very meticulous level without the constraints of a traditional darkroom determining when you are finished, or what you can accomplish. For example, the artist can try many different ways to open the shadow areas in an image, select one, study it against other choices, and finish it to be just as desired. Much greater creative control is possible in the digital darkroom.

Once an image is worked to the artist's satisfaction on the computer, it can be output in many different ways. One option is to have the digital file output to traditional photographic film, then go back into the wet darkroom and print from the film containing all the careful digital manipulations that were made.

However, much more common among photographers working in the digital realm is the use of high-end "direct digital" printing processes. With one of these processes, the finished digital "negative" is transferred to a machine that burns laser light onto traditional photographic paper which in turn is developed in standard chemistry. The papers in this process are a new generation of very fade resistant photographic papers. These prints are often referred to as LightJet or Lambda prints, which simply refers to the name of the manufacturer of the printing machine.

In a second "direct" process the digital image file can be transferred to a giclee (pronounced "zhee-clay") inkjet machine that sprays extremely fine drops of ink onto various types of high quality paper. There are several manufacturers of giclee printers, and each uses different technology to create the print, adding additional creative choices for the photographer seeking true photographic output. The term "giclee" has caused some confusion, but it is simply another term for a very high quality inkjet print. It is not a trademarked name.

Early generation giclee prints suffered badly from quick fading, but there are now many ink and paper combinations that offer extraordinary fade resistance, with some types lasting to 100 years and longer (based on accelerated aging tests performed by Wilhelm Imaging Research). Also, early generations of the printers had poor resolution, producing prints with a noticeable "dot pattern" from the drops of ink. The newest generation of printers have eliminated this problem, producing drops of ink so small that they are virtually impossible to detect even with a 20X magnifying loupe. In short, when properly printed, they are indistinguishable from traditional color photographic prints. It is also important to note that with the vast assortment of digital fine art paper and ink combinations, the digital photographer now has a greatly expanded choice in the subtle printing characteristics of various combinations of the new media.

The cost of high quality giclee printers continues to drop, and has reached a point

where many photographers are purchasing their own printers, even large format printers, and doing all printing in house. Thus, from initial image capture to the finished photographic print, a photographer working with digital tools can have complete creative control over the artistic expression desired. It should also be noted that digital printing, like traditional photographic printing, requires great care and craftsmanship on the part of the person doing the printing. The digital workflow introduces its own unique set of challenges for the artist, and many technical and aesthetic decisions must be made in order to produce a photographic print that is true to the original vision of the photographer.

Specific Issues for Art Fairs

We will attempt to address some concerns and questions that have popped up in the Art Fair community.

1. *If it has a digital component, it is not photography.* The Art Fair community is the only place where this idea has surfaced. The mainstream gallery, museum, and fine art photography communities have accepted and embraced digital technology as simply another tool in the arsenal of the photographer. We asked a colleague working for a digital photographic lab what clients he had of national recognition. He mentioned The Whitney Museum, The Museum of Fine Art in Boston, The Ansel Adams Trust, Irving Penn, Pete Turner, David Muench, to name a few. At The Santa Fe Photographic Workshops the list of national and international photographers that use and teach digital printing is larger than those that do not. All of these photographers and institutions consider their work “photography”, they are simply in pursuit of the highest print quality possible.

Ideas suggesting that once an image has been in a computer it is no longer a photograph, but is now “digital art”, overlook two key facts. First, most photographers working digitally today are not concerned with manipulating an image to the extent of moving trees or altering colors and so on. They are simply in search of a finer photographic print, with often obsessive commitment to the integrity of how the image was originally shot. Secondly, the concern about big scale “manipulations” overlooks the history of photography. Since its inception, some photographic artists have made images by compositing many images and/or components together. Photography has always had an experimental side. The computer, like the traditional darkroom, is simply another creative tool for the dedicated artist.

2. *Digital prints are reproductions.* For the first time, we are dealing with a printing devices and technology that is capable of producing both reproductions and original prints from the *exact same printing device*. Confusing? You bet! Painters and other two dimensional artists are able to have their work scanned and REPRODUCED by a skilled technician using a giclee printer. At the same time, photographers are able to output their images on the same machines to produce an ORIGINAL photograph. How can an art show deal with the confusing definitions? One key difference of course is the fact that a painting already exists, and the artist is simply handing it over to a

printing house with the instructions to reproduce the original as closely as possible. Duplication is the goal, with no creative interpretation. With the digital photograph, however, the final print IS considered the original. All creative interpretations and adjustments have been made in the computer, by the photographic artist, and the final result is the finished photograph. The creativity expressed through the computer is inherent in the final piece. This is no different from traditional, chemical based darkroom printing, only a different tool is used. In this regard then, digital photography is not unlike the Digital Art category, as both are capable of producing original prints via giclee or LightJet printers (described above).

3. *If it has a digital component, the artist should enter in the Digital Art category.* With widespread and respected international acceptance, digital tools have already become a part of *photography*. We would suggest that use of digital tools by photographers at Art Fairs should not require any special treatment by shows much in the same way that alternative and historic photographic processes do not. The suggestion here would be **full disclosure of printing methods** in an Artist Statement. We would also suggest that the statement “photographs must be printed from the artist’s original negative”, found on many applications, needs updating, as it will become more and more likely that a traditional original “negative” does not even exist, as some photographers will certainly migrate to the use of digital cameras.

4. *Digital photographic prints are easy to make, just push a few buttons.* To this, we would only ask, have you ever had ANYTHING work on a computer that was as “seamless” and “productive” as the advertising claimed? Artists who are exploring the digital frontier are encountering enormous technical and creative challenges. The authors can personally attest to this! It is a never ending quest to keep up with, understand, and properly implement the technology. Of course, it *is* certainly possible to push a few buttons and get an “image” out of a computer. Just as it is possible to push a button on a camera, put a brush to canvas, throw a hunk of clay on a wheel, and get “something”. The reality of digital photography, much like anything else, is far more complex than what meets the eye. Much attention is currently being paid to the craftsmanship involved in the making of high end digitally printed photographs. Again, we wish to emphasize the vast difference between the artist striving for the highest standards, versus the hobbyist.

5. *Digital photographic prints are inexpensive to make, and are of “cheap” quality.* We hope to have debunked this myth in the Technical Basics area of this report because actually the exact opposite is true for photographers making high-end digital prints. The excellent quality of these prints can only be obtained with expensive scans, followed by extremely detailed digital darkroom work requiring a high-end monitor and a computer with enormous amounts of memory to hold and work with the large files from the scans. This is followed by output onto a very sophisticated printer. Also, the raw material costs are much higher than traditional color photographic materials. Having said all that, we must state that of course it is also possible to take a digital file down to the copy shop and have them run off a stack of laser copies. The quality of digital photography, like all art, runs the gamut.

Conclusion

We like humorist Dave Barry's take on computer technology. Dave advocates that computer stores should place large trash dumpsters near their checkout lines, so that you can conveniently throw away the obsolete computer you just bought. The same thinking could easily apply to the rapidly evolving area of digital photography! Still, the digital technology of *today* is capable of producing photographic prints of extraordinary quality, and the photographer is presented with an entirely new realm of creative choices and challenges. The digital technology of *tomorrow* will bring even higher quality, and more choices for the artist.

Certainly, not every photographer is going digital, nor should they. Although this paper may sound as if we are extolling the "glorious perfection" of digital photography, what we are really hoping to accomplish is to simply present the idea that digital photography is here, and is being used by an increasing number of photographers. We have tried to supply some basic technical information, but realize that this report may raise questions regarding processes, techniques, etc. We invite your questions and comments.

Sincerely,

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