Random Shots

Shooting Shots Part I

Figure 1

Figure 2

With luck, this edition of *Bottles and Extras* should be appearing in your mailboxes before Thanksgiving, which means that Christmas is only a month or so away. So now might be a very good time to start dropping hints to Santa about what you'd like to find under the tree on the 25th. Shot glasses, yes, preferably a nice label-under glass or delicately-pasteled enamel shot, but how about shot-glass accessories? Maybe a shiny new digital camera to take pictures of your collection?

Creating photographic records of shot glasses is one of the more difficult and frustrating aspects of the hobby. Many who try are so traumatized by their first attempt that they give up. It's very different from taking snapshots of family or scenery – there's issues of reflection and contrast and blurring to deal with. While sympathetic to such misgivings, I'd like to try and convince you that producing great photos of your glasses is actually relatively simple provided that you take note of a few simple guidelines and that you're willing to spend 20 minutes or so experimenting with light and camera angle. The payoff will be that you'll create images that make your glasses (or bottles) look so irresistible that they'll foment bidding wars when you list them on eBay. Plus, you'll be able to show off an e-collection to family, friends, and fellow collectors by having the glasses showcased in a mini-web within www.pre-pro.com!

There's a common misconception that the quality of a photographic image is directly related to cost of the equipment used to create it. This is a source of great frustration to all those amateur photographers who see themselves as the next Ansel Adams, something that I can relate to personally. During my early days of pre-pro glass collecting, I was also a keen photographer and would spend many long hours traipsing around the countryside looking for that perfect combination of subject and light that would yield an award-winning photograph. Invariably, people's reaction

Figure 3

After hearing me claim that "equipment doesn't matter" when it comes to photography, one of my collecting friends asked if a cheap disposable camera could be used to catalog a collection. Disposables are ubiquitous and cheap, so it's a reasonable question. My instincts told me that it should be feasible, but before committing myself to paper here, I decided that a little research might be prudent. I purchased a generic drug-store camera for $4.50 and gave it my best shot: the result is shown in Figure 3a above. Figure 3b below shows the same grouping recorded using a digital camera so that you can see that the subject does actually comprise a triplet of pre-pro's.

While the disposable managed to capture an image of three glasses, it's worthless as a photographic record. The problem is that disposable cameras are wide-angle by design. They're unable to zoom in on small objects such as a shot glass to record the fine details of the etching. The only alternative is to zoom in on the image of the glass on the negative or print, but this just enlarges the grain, as you see here.

to seeing the matted and framed result would be "wow, you must own really great equipment", not realizing that while fine optics can give professionals an edge over the point-and-snap-shooters, good photography is 90% technique and only 10% equipment [note the disclaimer in **Figure 3**]. But since Christmas *is* coming and since a small investment in equipment can make the task of photo-documentation so much easier, I'll make some buying recommendations in this first installment of "Shooting Shots" and then come back to techniques in a subsequent issue

I'm going to assume that you already possess a conventional roll-film camera and you're now thinking about making the digital leap. Both types of recording medium are capable of outstanding images, but while a print can be scanned to create a digital image for submission and display online [e.g. **Figure 2**], a digital camera has the supreme advantage of providing immediate feedback. This is particularly important with shot glasses: imagine the frustration of having waited a week and spent $10 in processing costs only to discover that all of your prints are out of focus or marred by a reflected image of you holding a camera.

Digital is definitely the way to go when photographing shots.

Having decided on digital, then how do you choose what model to buy? If you can't wait until the 25th to start digi-clicking, you'll discover that your local discount warehouse has a dizzying array of silver shooters. I tend to gravitate to Olympus for small cameras that are sensibly designed, but any of the major brand names (Nikon, Olympus, Pentax, Canon, Minolta) manufacture products with fine optics and there's little to distinguish between them. So which one to choose?

There are three principal considerations.

The first is the ability to attach the camera to a tripod, so turn the camera over and check to make sure that it has a threaded mount. In practice, virtually all of them do (many stores use the tripod mount as a way to lock demo cameras onto a security device) but, as we'll discuss later, it's a vital feature and you should exclude any camera that lacks it.

The second requirement is the ability to produce close-up images. Shot glasses average 2" or so in height and you're going to have to get so close to one that it fills the height of the frame yet remains in crisp focus. This means selecting a camera with zoom capability, a feature that's usually written on the housing of the camera itself (e.g. "3x Optical Zoom"). It's important to make sure that it indeed says "optical zoom," referring to an ability to adjust the lens. This is very different from the "2x Digital Zoom" seen proudly displayed on some cameras. "Digital zoom" refers to the ability to magnify the image on the camera's view screen, a feature that comes standard on all digital models and does nothing to enhance image quality. The ability to focus on close objects (also referred to by manufacturers as "macro" or "super-macro" capability) is commonly indicated by a small tulip icon that appears adjacent to one of the buttons on the camera back **[Figure 4]**, although some models require that you scroll through an on-screen menu in order to access it. A dedicated button makes life that much easier.

Figure 4: The ability to focus on objects close at hand is usually denoted by a small tulip icon, as seen on the back of this Nikon.

The final consideration is price. Basic models possessing the features mentioned above start at around $150 and these will more than meet your shot photography needs. The more expensive models have added refinements, but the most obvious difference between cheap and expensive is that more money buys you more pixels: from an average of 2-4 Megapixels for the basic units to 8+ Megapixels for top-of-the line models. While a testosterone surge may tempt the male readers among you to go for the biggest numbers available, it might be helpful to review what these numbers mean in practical terms.

Digital photography was born over two decades ago with the promise that it would eventually replace roll film. If you were to examine an old-fashioned black-and-white negative under a microscope, you'd see that the image is composed of millions of tiny black dots. The dots are silver grains, deposited as a result of interaction with light and the chemical changes caused by developer. Color film works essentially the same way, with the image being composed of millions of microscopic colored dots (a million is abbreviated "Mega," as in Megapixel or Megabyte). Because the technology is silver-based, it's also expensive, but replacing it with digital "film" was implausible because the ability to create an array of tiny light detectors to replace the microscopic grains was beyond our technological means. First efforts to create digital cameras were scorned by professional photographers because images were composed of only a few thousand individual squares of color (commonly referred to as pixels) and hence the ability to resolve fine details of a subject was impossible. To get an idea of what the technology was like, turn on your TV and sit about a foot away from the screen. Although you'll be aware of the overall image, you'll be distracted by the fact that it's composed of thousands of small rectangles of red, blue, and green.

Twenty years on and we've now arrived at the point where light-detectors can be crammed into cameras at such high density that the resolution of images captured by the more expensive digital models approximates that seen with film-based technology. This news is welcomed by the professionals because they're now able to create large display prints from electronic images without a viewer being aware of the individual pixels. But the high resolution afforded by 8 Megapixel cameras turns out to be gross overkill for an average shot-glass photographer.

To understand why, consider what you're going to do with the images you create. Most likely you'll have a set of 4" x 6" prints made, or you'll load them onto the Web to support an auction on eBay. Optimum size of an auction image when displayed on a computer monitor is again around 4" x 6". To create an image of this size that displays without any hint that it's composed of individual color squares requires an array of approximately 300 x 350 pixels [see **Figure 5**], orders of magnitude less than an 8 Megapixel camera is capable of.

But let's imagine that you did photograph your shots using one of these Mega-cameras at their maximum

Figure 5

Small is beautiful when it comes to digital photography.

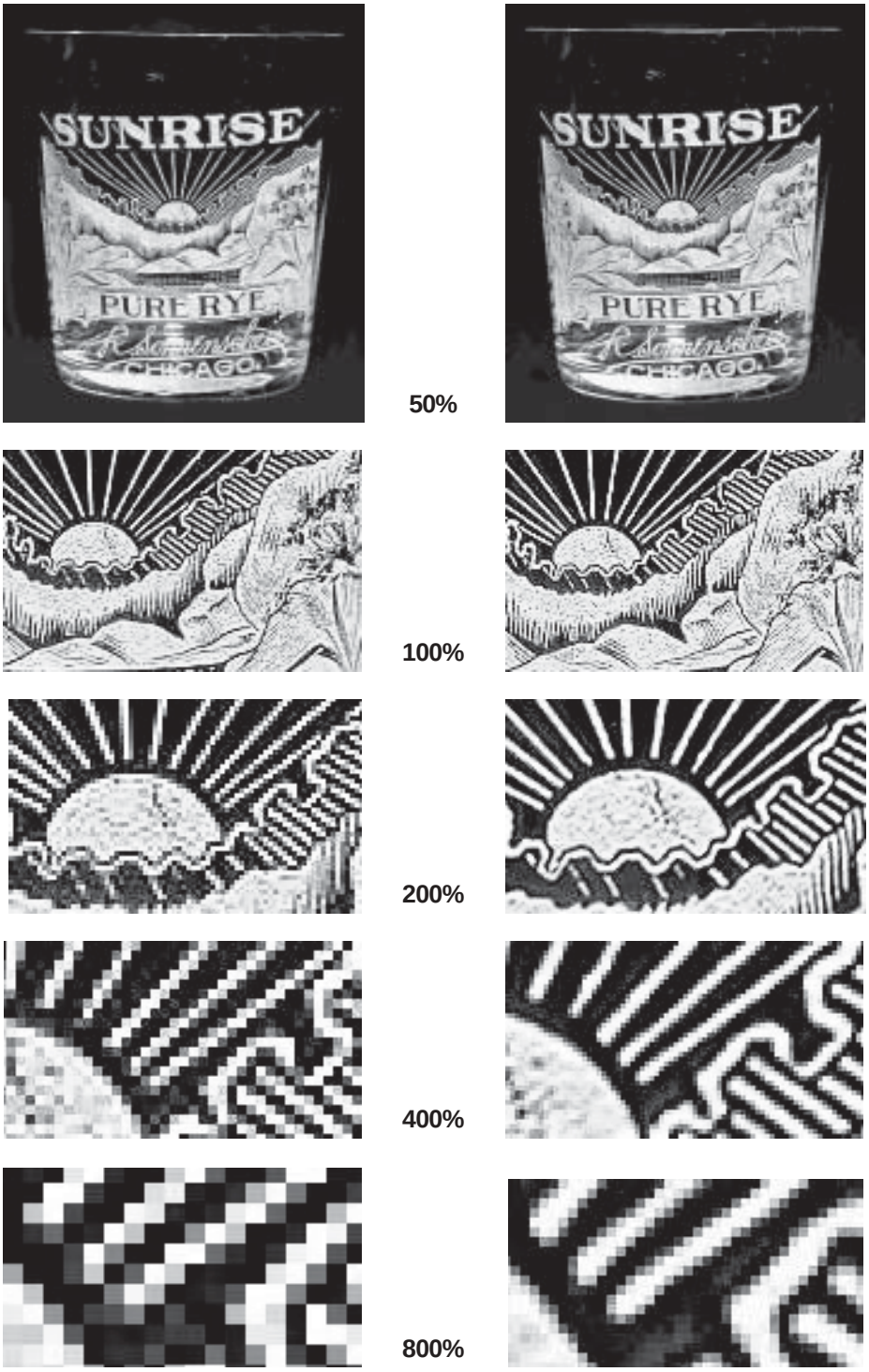
These images were created using an Olympus 1.3 Megapixel point-and-shoot camera focused on a "Sunrise Pure Rye" shot glass, from Sonnenschein of Chicago.

The images in the left column were created with the camera set at its lowest resolution, the images on the right at its highest.

The photos in the top row show the entire glass and have been reduced to 50% of actual size for printing. The image on the left is composed of a 306 x 363 pixel array and displays 4-3/4" wide x 5-3/4" high on a 17" computer screen. The jpeg file is 31kb on disk.

The panels printed at actual size (100%) show that this 31 kb image is crisp and clean and perfect for display. The image shown at right was generated from a 95 kb, high-resolution jpeg. There is no difference in image quality: all that the extra resolution buys you is increased demands on storage space and upload time.

The differences between the low- and high resolution images only begin to show when they're enlarged. At 200%, the low-resolution image (left) begins to reveal its pixels and at 400% becomes unusable. By contrast, the high-resolution image on the right is still holding together well at 200%. Only at 800% do the individual pixels become obvious in the high-resolution image, corresponding to a print size of approximately 38" x 46".



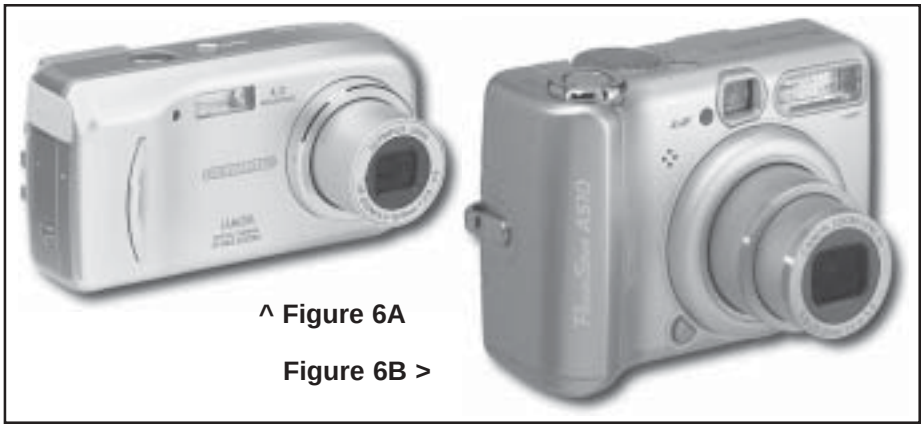
resolution. The jpeg file required to save such an image is gargantuan and, if you're one of those unfortunates who access the internet using a dial-up connection, would require impossibly long to upload. To add insult to injury, eBay's auction software would then resample the file and discard 90% of it to create an image of 3" x 5" or less. By contrast, an image composed of a 300 x 350 pixel array creates a file that is about 30 kb in size, which is far friendlier in terms of both uploading to the web and storing on your hard-drive.

In other words, unless you plan on making a 6-foot tall poster of a Hayner to put behind your bar, a 2- to 4-Megapixel model will serve all of your photographic needs. If I were shopping for a camera today, I would take a very close look a Nikon Coolpix **[Figure 1]**, an Olympus Camedia **[Figure 6A]**, or a Canon Powershot **[Figure 6B]**, all in the $150 - $200 range.

If budget is more limited, then you might want to look at used cameras. All of my shot photography is carried out using a three-year old Olympus. Even though it's only rated at 1.3 Megapixels, that's still more power than is necessary **[Figure 5]** and hence I always have it set at its lowest resolution.

One of the secrets to great photography is the religious use of a tripod. In fact, I would argue that tripod use is essential, even though you might feel that owning one labels you a photo-geek. Thus, since

we *are* making a wish list, let's consider what one looks for when selecting a camera support. The function of a tripod is to eliminate blurring of the image caused by camera shake, an inevitable consequence of hand-holding. While seldom a problem for snapshots taken outdoors, the problem is accentuated by low light levels (which leads to longer exposure times and hence the tendency for shake to declare itself) and close proximity, which is precisely the situation one faces when shooting shots. This is demonstrated in **Figure 7**.



^ Figure 6A

Figure 6B >

Figure 7

Two sets of images of a beautifully-detailed "Monteagle Pure Rye" glass. The photos in the top row were created using a digital camera mounted solidly on a tripod. The right-hand image enlarges the head of the eagle to show how crisp the lines are, although the pixels are beginning to show.

I then removed the camera from the tripod and braced it against the side of a chair to provide at least a modicum of support. Even so, you can see from the images in the lower row that the crisp lines are now blurred.

Increasing the resolution at which the image was recorded would not have helped: it would simply have recorded the blur in finer detail. There really is no good substitute for a tripod in preventing camera movement.

If the goal of using a tripod is to eliminate camera movement, it follows that the heavier and more stable it is, the better, but not so heavy that it's a chore to position and maneuver. For ease of use, I would also highly recommend selecting one with a three-way pan and tilt head because this allows for painless and precise adjustments of camera position. Fortunately, a sturdy tripod can be obtained at modest cost, particularly if you're willing to consider buying second-hand. If you restrict your choice to a professional brand (e.g. Bogen), you'll be acquiring one that's rugged enough to have withstood whatever abuse might have been thrown at it, plus spare parts are readily available. New, a suitable tripod might cost as much as $150, but you should be able to find one at less than a third that price used. But if you're baulking at the thought of making such an expensive investment in a piece of equipment that you'll use rarely, any tripod is better than none and you can easily find compact, table-top models for around $20 in a local camera or electronics store.

If Santa needs yet more ideas for items to fill the stocking, then you might also consider obtaining an extra camera card. These are storage devices that hold the digital images generated by the camera and that, once full, have to be uploaded to a computer hard-drive and then erased. Keeping a spare handy allows for an uninterrupted photography session when the card reaches capacity. Card format is typically brand-specific, so buy one only after buying the camera. A 128 Mb card costs around $35, a 256 Mb card costs $20 more. In a similar vein, it's much easier to take the card out of the camera and upload using a dedicated card reader than it is to attach the camera itself to the computer. Card readers connect to the computer using a USB port and once the card is inserted, the computer treats it as a disk drive. Indeed, my nephew uses his camera to hold all of his term papers and sundry other program files; neither the camera nor computer seem to care! A multi-format card-reader and USB cable costs around $25. You'll also find a battery charger and two sets of rechargeable batteries for powering the camera invaluable ($18 for a set of batteries, $40 for a set of batteries and a charger). While they're more expensive than the regular copper-tops, they'll pay for themselves many times over within a surprisingly short time.

And finally, for reasons that will become apparent in the next installment, you may also want to buy a clip-on halogen desk lamp **[Figure 8]**. You can find 20W versions online at Amazon and Target for $12.99, while a bricks-and-mortar Target sells a 35W version for $9.99. I'm sure you can find them elsewhere, but be certain that the bulb is a halogen. This will be indicated by the fact that that the bulb is covered with a UV filter bearing an exposure warning.

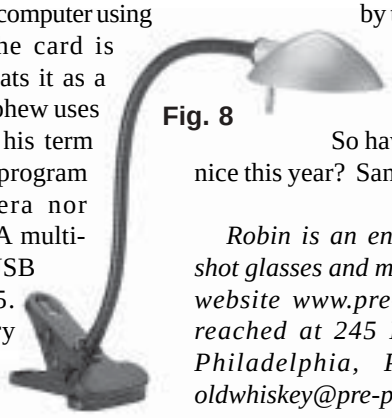


Fig. 8

So have you been naughty or nice this year? Santa wants to know.

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