With a completely new design for the G-series, the PowerShot G7 has enough resolution and response for serious photography.

BY RON EGGERS

Closer to *pro*

CANON POWERSHOT G7

The gap between professional and consumer digital cameras is narrowing. Some consumer cameras have high enough resolution and are responsive enough for pros to use for serious work. A number of features bring the Canon PowerShot G7 close to the pro rank, including its image post-processing, optical image stabilization system and broad lens coverage.

Even before taking a picture, you notice its styling. The G7's flat-black retro design recalls a smaller version of a classic rangefinder camera, the kind a pro might slip into a suitcase when he didn't want to carry heavier gear.

The G7 has a 10-megapixel CMOS sensor (3,648x2,736 pixels), but it's not the resolution that sets this camera apart—other consumer digitals can match it. What's unique is G7's pro-tier post processing with DIGIC III, the newest generation of Canon's highly regarded processing engine.

The DIGIC III Image Processor improves image quality, capture speed and data throughput. The engine also has Face Detection technology, which finds individual or multiple faces in a composition. The camera then sets the appropriate exposure and focus point to optimize those faces in the captured image. It works surprisingly well, detecting even faces in paintings or photographs hanging on a wall.

Canon has done it right with the controls. Rather than being buried in multiple levels of menus, the primary camera settings are easily accessible by various dials. For example, a small dial on top controls the ISO equivalence (80 to 1600), which is convenient for quick changes in varying lighting conditions. There are also Auto ISO and a Hi (high auto) settings. In the Scene menu you can set ISO as high as 3200.

Users control aperture and shutter speed with a dial around the navigation buttons on back of the camera. Turn the dial in the aperture-priority mode and the aperture setting displays on the LCD. Aperture extends from f/2.8 to f/8, a narrow range for a serious camera, limiting the depth of field control. Rotate the dial in shutter priority mode, and the shutter speed setting (1/2,000 second to 15 seconds) displays on-screen.

In the viewfinder, the top of the lifeguard tower and its reflection were exactly at the top and bottom of the frame, but the LCD accurately framed the composition.

The shooting mode is controlled by a dial on top of the camera. In addition to program, aperture and shutter priority modes, there's an SCN option for setting specific picture scenes, such as portraiture, sports, indoors and fireworks. There are also a couple of unique modes, such as Color Accent and Color Swap. With Color Swap, a defined color in the frame can be replaced with another color.

The G7 has a 6X optical zoom lens. It's the first digital camera with Canon's new SR coating technology, which significantly reduces ghosting. The G7 also incorporates Canon's advanced optical image stabilizer technology. With many years experience in 35mm lens stabilization systems, Canon has some of the best in the industry. While the G7 doesn't have interchangeable lenses, there are a number of auxiliary tele-converter lenses available to extend the zoom range. The G7 can also take EOS Speedlite flash units, and supports autoflash metering and flash exposure compensation.

The oversize LCD screen is bright and viewable. Rather than having the hybrid user interface of the XTi, the G7's interface has the same menu structure of earlier Canon digitals, but with larger, easier to see text. Sadly, unlike other cameras in the G-series line, the G7 LCD doesn't swing out or rotate. It doesn't even tilt for over-the-head shots.

While the G7 has a lot going for it, you do have to remember that it's a consumer camera, which has both advantages and disadvantages. There are some things that the G7 can do that digital SLRs can't. For one, it has serious, high-resolution video capabilities. Most consumer cameras take video at a 640x480 pixels or less, but the G7 can capture video at an XGA resolution of 1,024x768 pixels, at 15 frames per second (fps)—full screen, even on most graphic monitors. For a higher frame rate, it's possible to shoot 640x480-pixel video at 30 fps. Also, the LCD can be used to preview and frame compositions. Only a few DSLRs offer live preview.

The G7 is faster than most consumer cameras, yet still suffers a focusing lag. At first, I missed the critical shots when I was taking pictures of a girl doing cartwheels on the beach. The half-second or so between my pressing the shutter button and the camera firing was just enough to miss most of the action. I had better luck when I asked the model to slow down and repeat those cartwheels six or eight times.

Once the camera starts firing, however, it's quick. Very quick. Using one of the new Kingston 4GB SDHC memory cards and shooting in the continuous mode, the G7 captured 38 to 40 frames in just 20 seconds. That rate continued beyond 20 seconds; I was able to shoot 70 to 80 in a row with no hesitation.

Framing through the coupled viewfinder feels like shooting with a rangefinder. The viewfinder can be deceiving, though, as the frame capture area is larger than the area displayed in the viewfinder. Even more of a problem, the view isn't centered. The sensor captures more of the unseen view on the top of the frame than the bottom, further complicating getting accurate composition

specs:

Canon PowerShot G7

IMAGE PROCESSOR: DIGIC III
SENSOR: CMOS
RESOLUTION: 10 megapixel (3,648x2,736 pixels)
SHUTTER: 1/2,000 sec. to 15 sec.
FOCUS MODES: AiAF, Flexzone, Face Detect
ISO: 80 to 1600 (3200 Scene mode option)
LENS: 6X optical, 4X digital (accepts wide-angle and telephoto adapters)
FLASH: Built-in, compatible with EOS Speedlite flashes with hot shoe
STORAGE: SD cards, supports SDHC
STREET PRICE: about $539

In order to capture the cartwheel at the right position, I had to press the shutter as soon as the girl started to move.

when using the viewfinder. For precise framing and compositions, it's best to use the LCD.

As you'd expect, image resolution and compression are adjustable. However, the camera doesn't support the RAW file format, presenting a problem for many professional photographers who prefer to capture RAW.

The G7 is PictBridge compatible, so you can print directly from the camera to any PictBridge-supported printer. An interesting movie print option makes it possible to print a series of thumbnails of individual movie frames on one sheet.

The G7 isn't going to replace a digital SLR for most professional applications, but then it wasn't designed to. With its compact size and weight, and the quality of the images that it can capture, it can certainly be used to produce professional photos. ■

The G7 is an ideal take-along camera. It has a high enough resolution, and the Program mode does an excellent job of capturing difficult exposures. Model: Madison Nicole Broesder