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When is a dSLR NOT a dSLR?

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Simple question but very indicative of what the future holds for some of us photo buffs. In simple terms, it is a camera that is devoid of a mirror box assembly. In other terms it is an interchangeable lens camera, but unlike a single lens reflex (SLR) it does NOT have a mirror to redirect the light from the lens to the optical viewfinder. All SLR cameras, digital and otherwise, use a mirror assembly to intercept the light that comes through the lens and redirects the incoming light to the viewfinder rather than to the film (or sensor) at the back of the camera. Generally the light will also pass through a prism or fixed mirrors at the top of the camera on its way to the viewfinder. It is this complex configuration that gives a SLR a distinctive look. It is also this configuration that gives a SLR a distinctive sound as the mirror swings out of the path of the incoming light and then returns to redirect the light back to the viewfinder.

To answer the question we need to go back in time. The entire dSLR world started changing in September of 2004 with Olympus's introduction of their E300 dSLR. Here was a camera that didn't look quite like anything else, not SLR nor rangefinder. It sported a mirror that worked different, didn't have the traditional top bulge and was based upon the Four Thirds sensor design. In September of 2005 Olympus came out with their E500 a dSLR looking camera and then in January of 2006 they introduced the E330, another dSLR type, but a camera with "Live View", the ability to see the image on the LCD before the shot was taken. That feature caused an uproar among the traditional SLR manufacturers.

In February 2006 Panasonic introduced their unique looking L1 which was also based upon the Four Thirds sensor.. While the L1 still incorporated a mirror it did not have the look of a SLR, but more closely the rangefinder cameras of the `1950-1960 period. That camera bombed primarily because of cost. In August of 2007 Panasonic introduced the L10 which now resembled the traditional look of the SLR and had Live View but again did not do as well as hoped for by Panasonic.

In September of 2008 Panasonic brought forth the G1 a Micro Four Thirds camera that looked like a dSLR in that it had the characteristic bulge on the top of the camera, had interchangeable lenses, but it did NOT have a mirror box assembly. In the G1, light passed directly through the lens onto the imaging sensor. This was a much different camera. The camera was different for several other reasons. It was based upon the

Four Thirds sensor size introduced several years earlier, but used Micro Four Thirds mount lenses, and used an electronic viewfinder (EVF) in place of the traditional optical viewfinder of the digital single lens reflexes (dSLR) cameras. Though it looked like the smaller dSLR cameras, Micro Four Thirds cameras are not dSLRs. They are also smaller because they don't house a dedicated autofocus image sensor. The autofocus on the G1 uses the Four Thirds image sensor. This is exactly like autofocus on a compact camera. But here, autofocus is speedier because on the Micro Four Thirds cameras they use both a faster autofocus algorithm and a faster processor. This makes autofocus feel faster and more like a dSLR, at least on some cameras.

Up to this time, two companies, Olympus and Panasonic had adopted the Kodak developed Four Thirds sensor design. The major advantage, and to some old diehards, the only advantage, was the reduction in both size and weight of the lenses and to a certain extent, the size and weight of the camera body as well. But these earlier cameras although smaller and lighter in weight, still could NOT do what every point and shoot camera could, show the image on the LCD or EVF before taking the picture and shoot movies. The G1 still lacked the movie ability. The movie mode was just peeking its head up in regular dSLR at about that time with "Live View". Panasonic changed that with the arrival of the GH1 in March 2009, a new movie mode had been added. Up to this point in time, all these cameras still utilized the mirror box, nothing really had changed until the earth shattering (somewhat an exaggeration) introduction of the new mirrorless cameras in 2009, the Olympus E-P1. This was a rangefinder looking camera, albeit, without a rangefinder but having the rangefinder look. However, this breakthrough camera lacked two important built-in features, no flash and no viewfinder of any type. Olympus partially corrected this "whoops: with the introduction of the E-P2 in November 2009. This camera had a port for connecting a high resolution EVF. In February of this year, Olympus announced its newest edition to this family, the E-PL1. This camera had a built in flash and a port for connecting the EVF.

Panasonic finally took the plunge into a rangefinder style camera with the introduction of the GF1 in September of 2009. The GF1 uses an optional EVF and has a built-in flash unit. In March of this year, Panasonic announced two new cameras, the G2 and the G10. These are almost identical cameras resembling SLR designs more than anything else. Interchangeable Micro Four Thirds lenses but no mirror boxes.

But this question about dSLR cameras doesn't end here, other cameras with interchangeable lenses but lacking a mirror box have been introduced, have been announced, or are rumored to be in the works. I have deliberately skipped talking about Leica cameras since, IMHO they are just largely rebadged Panasonics. Sony showed their non-working prototype based upon a full APS-C sensor. Ricoh's GXR comes with interchangeable units containing a lens and a sensor in a rangefinder style camera. Can't say much about the sensor size since it is dependent upon the lens that is part of the system. I have strong reservations about this concept.

The Samsung NX10 is a rangefinder style camera using a new lens format called NX. What is most interesting about this camera is that it uses a APS-C size sensor, that is

about 1.5x that of the Four Thirds sensors. Of course, this means larger and heavier lenses than that of the Panasonic or Olympus cameras of similar designs. While Canon and Nikon have said nothing, rumors are rampant. I suspect that we will see new mirrorless digital cameras from these mammoths of the industry in the later part of this year. I suspect that the designs will be that of rangefinder styles reminiscent of earlier Nikon RF cameras of the 1940-1960 and the same with Canon except they may base it more on their popular G series of cameras such as their G11.

So here we have it, a whole new class of cameras, you might say SLR cameras minus the R. I prefer to say RF style since in my mind they are truly reminiscent of cameras from the 1940-1960 time period. The advantage to this new group of cameras is smaller size and lighter weight while maintaining the excellent image quality associated with the dSLR cameras. Disadvantage, fewer lens choices and, for the time being, relatively more expensive. Some of these cameras tend to be slower focusing but that is changing in the newer models.