

## *Film or Digital Revisited*

There's endless debate about the relative superiority of film versus digital, with film diehards routinely dismissing digital as fun stuff suitable for snapshots but no serious work, and digital converts dismissing the film diehards as ignorant reactionaries and Luddites who probably couldn't produce a good picture anyway. So that things wouldn't get too boring, I've decided to add some oil to flames. I shoot both film and digital, and intend to continue doing so -- so I don't fall completely in either camp, although it's clear where my sympathies lie.

### *The image quality issue*

First, let's get one thing out of the way: the main point the debate endlessly revolves around. Image quality. By image quality, I understand something analogous to fidelity in hi-fi equipment: the system that can more faithfully reproduce a given scene can be said to be capable of better image quality. Note that this is different from aesthetic quality, which I'll discuss a bit further.

In my considered opinion, at this writing, digital exceeds 35 mm film in practical image quality at every level... with a very few exceptions.

The keyword here is "practical." I've no doubt that a technically optimal Fuji Provia 100 frame from, say, the sub-\$100 Olympus  $\mu$  [ mju: ] II, if professionally printed chemically or scanned on a drum scanner and properly processed, can produce at least equal or better image quality than the same frame shot with royalty like the Canon EOS-1Ds. However, I can't see what practical importance this has. I have never heard of anyone using a  $\mu$  to create poster-sized prints, which is where the difference between it and a 1Ds (or even 10D or D60) would become readily apparent. In my opinion, this kind of comparison is a purely theoretical exercise, and a fallacious one.

To get a real idea of digital versus film image quality, we should consider the entire processing chain, from the moment the shutter is released to when it appears on paper (or, increasingly commonly, on-screen).

My mother, who's a very accomplished and experienced photographer with years of SLR experience, was the first in the extended family to go digital with her photos. Her main interest is album photography. She's been using a 2-megapixel Digital IXUS until recently, when she upgraded to a 4-megapixel Canon S45. She's been printing them at home with a mid-range inkjet printer. (Currently she has a Canon BJC8200 Photo).

Her prints are fabulous. They're extremely crisp and contrasty, the color is deep and saturated yet true to life, the tonal gradation is fine and subtle. By flipping through the family album, the effect of the digital transition is almost stunning. The pre-digital pictures look muddy, soft, grainy, flat, badly white balanced... generally pretty crummy. Things got a bit better when she changed from 35 mm to APS, but not a whole lot.

The reason is simple: the film snapshots were processed at the corner minilab.

I believe this kind of workflow is very typical of most amateur photographers who shoot for prints.

Therefore, it's pretty pointless to compare the image quality from a digital point-and-shoot to the image quality of a film point-and-shoot if the latter has been professionally processed and printed at a cost of maybe 500 Euro.

I believe the same holds true at higher levels. Compare an entry-level film SLR and minilab processing to an enthusiast-level digital system (I'm thinking high-end compact or ZLEV (Zoom Lens Electronic Viewfinder) and home printing, and the digital will win in a walk. Compare a (semi-) professional digital SLR system with a (semi-) professional film SLR system and home printing (wet or digital, using a reasonably-priced scanner), and again digital comes out on top: nearly equal in resolution and greater in enlargement potential due to lower noise. And finally, compare a top-of-the-line DSLR like the EOS-1Ds with a top of the line 35 mm film system and professional printing... and again, digital comes out with better image quality.

### *Projection*

There is one major exception here, of course: shooting for projection. If you load up the  $\mu$  [ mju: ] II with Provia 100 and your technique is good, and you project the slides with a good projector and a properly darkened room, you will get significantly better image quality than out of any of these digital systems. No matter how good the digital original, digital projectors are frankly pretty crummy. Even a several-hundred-thousand-Euro motion picture system can't match the quality you can get by basically shining a light through the damn thing. The few-thousand-Euro home theater or business data projectors are really bad for projecting still pictures -- shadow detail is as good as erased, not even considering the resolution issue. I won't argue against shooting film for projection... except to say that the limitations of this way of presenting them are pretty clear.

### *"Digital is only about convenience"*

Film die-hards dismiss digital as purely a convenience issue, as if there was something inferior about getting the same or better result for less work. Anyway, I don't hear many of the film die-hards dissing their "convenient" fancy zoom lenses!

This is a particularly silly argument, if we take a look at camera history. There's one red thread going through the whole thing: the development of convenience. The daguerreotype workflow could produce negatives that arguably exceed in quality anything any 35 mm camera can do nowadays. Yet without the Brownie, photography would be where cinematography was until the advent of camcorders -- a specialized profession, requiring great skill, dedication, and time. The Leica M was all about convenience. So was TTL light metering, the SLR, auto-exposure, auto-focus, the zoom lens, the motor drive, and so on. Digital is just one more step along that long road.

I'll listen to the "digital is only convenience" argument if it's coming from someone who only uses a view camera. Even so, I'll nod and smile. With the rest, it's just snobbery.

### *Why use film?*

I mentioned that I shoot both film and digital, and intend to continue doing so, despite my recent acquisition of a Canon EOS-10D. I have a number of reasons. Others will find more. The most significant ones are aesthetics and equipment.

### *The aesthetic question*

I've recently been engaged in discussion about the aesthetics of film versus digital with a photographer I greatly admire, Ed Leys. (Pay his gallery [[http://www.blackmallard.com/cal\\_ls/](http://www.blackmallard.com/cal_ls/)] a visit: his best work will make you catch your breath.) He's committed to film -- and no wonder, after having spent decades

perfecting his understanding of the medium. His theory is that film is capable of certain aesthetic qualities that digital simply cannot catch. He terms these "three-dimensionality" and "lively shadows." He's been trying to pin down these qualities, and has come to the tentative conclusion that the qualities have to do with film's characteristic tonal response curve -- the "toe" at the dark end, and the "shoulder" at the light end.



*One of my attempts at recreating the "film look" in digital. It was shot at ISO 400, by the way... something that would have had a serious negative impact had it been film.*

My theory is that given a good enough digital original, you can replicate these or any other qualities by adjusting the tonal curve. There's nothing new to the idea, of course -- many have trod this route before me. I'm having fun exploring these properties... and have reached some pretty promising results by applying a fairly steep S curve in the luminosity channel. Whether I've succeeded in capturing the "film look" is debatable, of course, but I have hopes.

However, there are certain aesthetic qualities that certain types of film indubitably have. My favorite is the look of high-speed black-and-white negative film. This is due to its subtle spectral response (in theory, this should be possible to fake in digital, and indeed some "canned" actions for precisely this exist), the quality of the grain, and especially the dynamic range. B/W negative really shines in dynamic range -- according to Ansel Adams, there's up to fifteen stops of it. That's six or seven stops more than digital on a good day. This makes it possible to capture scenes that digital simply couldn't do, not without bracketing anyway. And while the grain may be faked, to an extent, it won't be quite the same as the real thing.



*One of my favorite pictures of 2002, and one I think would have been very hard to capture in the digital medium.*

In any case, I believe that there are very solid aesthetic reasons to turn to film for specific purposes -- and I believe that many of these reasons will never be superseded by digital, because some of them stem from the "lo-fi" character of film.

*For a refreshing approach to lo-fi photography, check out Lomography [<http://www.lomography.com/>]. It would take a lot of work to replicate the aesthetic of the Lomo with a high-fidelity digital machine... and it just wouldn't be the same, would it?*

### *Equipment*

At this writing, film gear costs a pittance compared to digital. If you want the experience of shooting with a professional SLR body, you can get a used EOS-1N or 1V at half the price of a 10D. Personally, I can't give up the AE-1: no modern AF SLR has a viewfinder that big and that bright. When I put the AE-1 to my eye after the 10D, I suddenly feel that I'm pulled into the scene, instead of peering at it.

Similarly, there's something undefinably immediate about the buttery feeling of the classic brass-on-brass manual-focus lenses, the shutter response, and the simplicity of shutter-priority AE. It's a bit like the difference between driving a car with a stick shift and no electronic magic in the suspension and drivetrain, and one with automatic transmission, ABS, anti-skid, and whatnot. You might be able to take the bends faster in a 2003 Golf GTI, but I suspect many would still pick the E-type for touring the twisty country roads. Not that I've ever driven either...

Finally, there are certain types of cameras that just don't exist in digital versions. Rangefinders, for example, or unobtrusive yet high-quality compacts with instant shutter response.

### *Familiarity*

In the end, it boils down to what you do, and what you know. Once you know your style and your medium, you might benefit from a change... or you might not. If you shoot for projection, stick with film. If you've got your film workflow tuned to the point of perfection, it would be a waste to throw that away and start from scratch with digital. If there are specific reasons to stick with film, such as the film aesthetic, or a specific type of camera that you just can't get in digital (a rangefinder, for example), stick with film. But otherwise, I don't think there's any excuse for not going digital: not even price. Film costs. If you shoot more than a roll a month, it'll add up, and there's probably a digital system out there that'll do more for you for less money.

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