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DIGITAL PHOTO ADVICE FROM EXPERT STAFF

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British Journal of Photography

Letter written in defense of film scanning
http://www.bjp-online.com/public/showPage.html?page=298336

The article (Quality Matters) preview
http://www.bjp-online.com/public/showPage.html?page=337015

Title: Quality matters
Feature: Market report
Date: 19 July 2006

*Minilabs' developing and processing business has declined with falling film sales but digital capture has introduced new opportunities too, **finds Jon Tarrant***

Despite the undeniable decline in film sales there still remains a market for High Street development and processing services, driven largely by the continued strong use of disposable film cameras. But healthy though this sector remains, it is unlikely to provide sufficient volume to ensure a minilab's survival. Fortunately, the periodic need to replace ageing equipment also brings with it opportunities to expand into new digital printing services. Many of these can help compensate for business lost elsewhere, and they have also lead to a new age in print quality.

In a letter published in BJP last year, Michael Gilligan complained that the prints he got from minilabs failed to do justice to the quality of his Contax cameras and Zeiss lenses. In one of the replies, Lee Wells - owner of Photovision Services in Seven-oaks - wrote to say that his Fujifilm Frontier 570 can produce uncompressed scans up to 57MB that 'will knock the spots off a six million pixel resolution digital camera film'.

Wells responded enthusiastically when I asked him to put his statement to the test, comparing Frontier 570 scans with images captured using a variety of digital cameras. I made a few black-and-white and colour film images, the latter in both negative and transparency form, using formats from 35mm to 6x7cm. In all cases

I also took comparison images at the same time, using a variety of digital cameras with resolutions from two million pixels to six million pixels.

It's tempting to dismiss lower-resolution digital images as inevitably inferior to images captured on film, but tests that I have done in the past suggest that this is not necessarily the case. It was therefore interesting to see whether a more sophisticated minilab scanning system produced a clearer difference in quality at different levels of resolution, when comparing digital with scans from film originals. The results of these tests are presented in the box out overleaf.

Analogue to digital

Prior to installing his Fujifilm Frontier 570, Wells used an analogue minilab and sent digital media off-site for printing. In addition, he created large-format prints from in-house scans, also sent off-site for outputting. 'All scanning was time-consuming,' he recalls. 'I found that the curve adjustments in the scanner software were not as complex as those in Photoshop, therefore all files needed to be corrected manually before going out. Now it's a few tweaks on the keyboard and the scan is done.

(Previously) we were unable to offer scanning from a whole film due to the time involved but now a whole uncut roll of film will only take about 20 minutes from start to finish.'

Wells, like other Fujifilm-based minilabs, offers his customers CDs of their film images at multiple resolutions. The low-resolution images are only really suitable for emailing and are supplied specifically to make that process easier. The highest resolution files are at 300dpi, up to a maximum of 12x18 inches. This means there is the potential to obtain a 3600x5400 pixel scan, which equates to 19.4 million pixels and an (approximately) 57MB file.

Wells estimates his current film throughput to be around 160 rolls per week, down from about 420 rolls in 2002. But given that around 60% of his work is from digital originals, he's working with the equivalent of about 400 rolls of film per week: little different, despite the shift from film to digital. This statistic is comforting but hardly surprising - the long-term success of any business depends substantially on its ability to adapt to changing circumstances.

'Two years ago film seemed like it almost stopped but it is still being used and I'm expecting it to stay about the same for now,' he says. 'Some professionals are going back to film simply because the quality we can get from a scan is just incredible. The work is all done by the scanner so you're not paying hand-print prices but you're still getting a fantastic result.

'The Frontier gives the option of Tone Adjust when scanning, which affects the softness/hardness of the shadow and highlight details. For negative scanning

I would normally opt for the All Soft setting because this gives detail in both shadows and highlights with a view to customers making their own adjustments to the images if needed.

‘Another quality of the Frontier 570 is its complex dust and scratch removal. It is totally automated and very effective even on relatively deep scratches. It works on both sides of the film but does not affect the machine’s processing speed.

‘However, like Digital ICE, it does not work on black-and-white films other than C-41 types. If we need to get black-and-white scans from colour films I convert from RGB to Greyscale in Photoshop as I find that this gives a far more neutral tone than the Frontier’s Monochrome Conversion.

‘Also, if I’m making large prints from these scans for my personal work I find that applying a slight amount of Unsharp Mask filter will benefit the final print.

‘We also offer wide-format inkjet prints, canvases, high-quality prints from prints and, more importantly, advice. There is not enough information about digital: amateurs are told by retailers that the best cameras have the highest resolution and therefore we get customers with 1GB cards full up with only 100 images all shot at nine million pixels for 6x4 inch prints.

‘It’s not just amateurs: the questions asked and assumptions made by some professionals and students can be somewhat basic at times - or downright disturbing! What people across the board need to realise is that it is a whole new medium, a new learning curve for us all, and some people are selling equipment for selling’s sake by giving out misinformation.’

Learning curve

Like Wells, Clive Coutanche of Professional Colour Services in Jersey stresses that High Street minilabs must offer better quality products than multi-purpose stores. But, he warns: ‘You can’t bury your head in the sand. We’ve gone to the market where people want things done well.’

Coutanche has also seen local professional photographers switch back to film because it gives them better results. But this doesn’t mean that digitised film images are automatically better than digitally-captured images: its just that people aren’t putting enough effort into the new medium.

‘People are buying digital cameras but they’re not spending time learning to use them properly, so the pictures are awful,’ he says. ‘People don’t realise that you’ve got to under-expose digital, because if you over-expose with it the results can be hugely disappointing. Less technical people are completely lost and as a result the average quality of pictures has definitely gone down since digital. In many cases disposable cameras can produce a better result.’

But what about the fear, first voiced a decade or so ago, that home digital printing would kill high street minilabs?

Coutanche believes it won't happen. 'A lot of people work with computers every day and they certainly don't want to go home and go through their pictures on another computer,' he says.

What people do seem willing to do, however, is spend their lunchtimes standing in front of kiosk screens, going through memory cards or CDs and ordering numerous prints that are then output automatically on conventional photographic paper. This approach is cost-sensitive at the high-volume end of the market though, with the typical price being around 10p per print.

Professional Colour Services has expanded into premium-quality inkjet printing using a wide-format Epson 9600, underlining its commitment to quality as well as its intention to supply commercial and exhibition prints.

And although files are normally supplied with colour profiles, Coutanche insists that fully automated printing does not give the best results.

'You can set the machine by the book but you can't beat experience,' he says. 'We test all of our prints and take the tests to wherever the prints will be displayed: you've got to see the prints under the right lighting.'

Growth areas

'The other big growth market is scanning prints for which there are no negatives,' says Cout-anche. In days of old this comment would have referred to early black-and-white images, either printed by commercial photographers who had long ceased trading (and in which copyright had lapsed) or family pictures for which the negatives had been lost.

That market still remains, but it is now dwarfed by digital prints for which a negative never existed, and for which the electronic files have been mislaid, deleted or lost in fatal computer crashes. 'There is going to be a real shortage of aide-memoir photographs in years to come and I think people are realising that,' says Coutanche.

And, he says, the large format end of the market is also booming. 'Years ago people used to go out and buy a nice picture: now, instead of buying somebody else's pictures, they are having their own pictures printed big.

People ask for odd sizes and are coming in with tiny little images surrounded by lots of white, black or dark brown borders. They are getting more aware of the possibilities and the only way we will survive is by giving them good service and trying our hardest to please them.

‘We’re even thinking of not selling cameras any more, because people are buying them on the internet. We get people coming in asking us how to use cameras they’ve bought on the internet and we spend time with them hoping they’ll think: “They were nice, we’ll go back there for our prints”.’

Interestingly, Coutanche still operates as a photographer in his own right, specialising in events.

He uploads the images onto www.jerseyphotographers.com and allows customers to order prints online. The final prints can then be collected from his High Street premises. Profes-sional Colour Services also fulfils the online print-ordering service for Jersey’s only daily newspaper and is currently investigating remotely-placed kiosks. All of these services are in line with a business model the lab has identified, based around online or remote ordering supported by physical collection from a lab. This may not be an attractive model in more remote locations but in Jersey nowhere is more than about six miles away, so physical-collection models are attractive here.

And in fact, a recent PMA survey found a shift towards exactly this model - as well as a decline in the percentage of prints being made at home.

Homeprints are expected to account for less than 50% of the output images in the US this year, and this figure is only slightly higher in the UK.

Coutanche highlights a different behavioural shift. ‘Monday used to be our busiest day because of wedding photographers but if you shoot digitally it takes a couple of days to get the pictures onto the computer and sorted, so now our busiest day is usually Wednesday or Thursday,’ he says. But whatever the day, the fact is that digital capture has only changed, not removed, the role of the High Street minilab.

Digital vs film

The images reproduced here were chosen from 15 photographs scanned by Photovision Services using its Frontier 570 minilab. Several general observations can be made by comparing the complete set of scans with the same images captured digitally.

Firstly, it is clearly possible to get better image quality from a film original than from digital cameras with resolutions up to six million pixels. This has not always been the case - as previous BJP reports have shown. The improvement in film’s standing must therefore be due to the scan quality produced by Fujifilm’s Frontier 570 over previous scanning systems.

Secondly, the best results are obtained using colour negative film. Black-and-white film tends to scan with a lot of grain and colour transparencies lack subtlety. There may be a slight gain in quality from 35mm negatives to larger formats, but these

differences may be just as much due to the negative stock and camera handling (especially accuracy of focusing).

Thirdly, the Frontier 570's raw scans are remarkably good in terms of colour balance and freedom from blemishes. Among the test images it was far more common for the digitally-captured image to look in need of improvement than the corresponding film scan.

Overall it has to be said that Lee Wells' claim that his Frontier 570 'will knock the spots off a six million pixel resolution digital camera film' was true. Having previously failed to prove the superiority of film over digital, I am delighted to see that scanning technology can now match the quality that film has to offer.