

## My MFD Journey, summing up

Written by Administrator

Sunday, 02 February 2014 21:36 - Last Updated Thursday, 13 February 2014 13:29

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I have been using my Hasselblad 555ELD / P45+ combo for a bit over half a year now. So it is a decent time to sum up the experience.

This is my experience, Your Experiency May Vary!

I am a camera on tripod kind of photographer. The Hasselblad V-series combined with the P45+ suits my style. This is not an integrated camera, it is a mechanical box, even if the ELD 555 has some support for P-series backs.

I have:

- No exposure meter, I use the histogram instead. I tried a digital spotmete, but just using the histogram suits me fine.
- No AF
- A sync cable from lens to back

Most of the discussion is based on just two images. I shot those two images mid day on a sunny November day. I happened to shoot both with my Hasselblad and Sony and the images were close enough in both exposure and crop for a good comparison. These are no test images, just two images taken with two cameras at about the same time.

This article is not finished but will be updated now and than. [An older page describing my initial experience&nbsp;is here.](#)

[This page contains a little bit of info how to use these pages.](#)

Image quality I don't have much to compare with, I have two Sony cameras, full frame 135, shooting 24 MP, the P45+ has 39 MP, quite a difference. Now, observing that difference is not really simple. A very good way to compare image quality is to make large prints, but even a camera like the Sony Alpha 99 at 24 MP can produce decent size prints that match the resolution of the eye. Bart van Der Wolf has a nice [tool for calculating print sizes](#) . If we assume 20/20 vision and a viewing distance of 50 cm that tool gives the following print sizes.

SLT 99	867x578 mm
P45+	1048x786 mm

Now, I normal print in A2 size, that is 420 x 594 mm, so at that size differences may not be very visible. I actually see little difference in A2 size prints.

Another way to see the images is to compare them pixel for pixel, viewing each at actual pixels. That comparison ignores the number of pixels, such a comparison always puts the camera with the lesser amount of pixels to advantage. One way to do a comparison is to resize the images to a common size. Here I chose to resize the Sony SLT images by 136%, which gives a similar vertical crop. The images here has been downscaled to fit in a narrow page. The actual pixel

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crops are [here](#).

I would say that image quality at the pixel level is good on both P45+ and Sony 99. The P45+ has 1.62 times the number of pixels and that is an advantage, but both are good enough for A2 size prints with little visual difference.

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## Dynamic range

The raw histograms of these two images processed by RawDiger are shown below:

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We can see that the histograms are similar. But we can also see that the histogram on the SLT drops much more rapidly on the SLT99 compared with the P45+. The P45+ has counts down to -12 EV, but the Sony (SLT99) goes only to -8EV. That difference is probably caused by the P45+ having more readout noise. We can see that -8EV corresponds to about 30-40 counts. Each count may correspond to an electron charge, by and large, assuming 60000 electron charges of FWC. If we assume something like 16-20 electron charges of readout noise we would expect the noise spreading down to a couple of EVs, this is what I think we see.

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The images below are shown "as is". Exposure was increased 4EV and the noise reduction parameters are set to zero but I am still using sharpening, without sharpening the noise is even more ugly. In my view the Sony image has less and better noise.

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## Colour rendition

A more extensive article on colour rendition is posted [here](#). I have created DNG profiles using an Xrite ColorChecker, using Adobe's DNG Profile Editor and with QPCard card and software. The images below show a P45 image processed using LR5.3, Capture One 7 and RawTherapy, an image from my Sony Alpha SLT 99 is included for comparison. The images in LR5 were processed to my taste. The Capture One image was processed as well as I could, on RawTherapy I am just a beginner. Color balance interpretation differs. C1 is warmer than LR5. Other than that I don't think it is a world of difference.

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Below I compare LR5 rendition of the P45+ and the SLT image side by side, both use camera white balance, and both are processed to my taste, so they are not supposed to be identical.

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## Aliasing

The main article is: [here](#).

Aliasing arises when lens resolution exceeds the resolution of the sensor. Aliasing creates false detail, mostly observed as moiré. What I see is that a very significant part of my images show some color aliasing or moiré. This is a disadvantage of today's medium format, where sensors don't match the resolution of the lenses and the sensors lack [OLP](#) filtering.

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## An odd comparison

Here are a bunch of images from a shot where I used both cameras. The images here were all scaled down to fit within a 4000x4000 box. The reason for this is mostly that the images are intended to be viewed on screen, and 1:1 view on screen represents a 2-4 times magnification

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compared to print. Downsizing in web browsers is probably not optimal. Some visitors reported their ratio of correct guesses and it was about 50% hit ratio. The images are clickable for large view.

Click [here for the correct answers](#) .

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## Some thoughts on real world images vs. formal testing

- I have a strong belief in formal testing.
  - In a studio like setup we have something called repeatability. If I feel doubt about something I can always go back and reshoot. In real world shooting, especially outside, there are too many variables.
  - Everyday images are processed to taste. In testing it's more about finding out differences. In 'lab conditions' I always have a ColorChecker, that gives me a good reference point for white balance and also for exposure. In an ad hoc situation I don't even have WhiteBal shot (really because I am stupid).
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## On economy and feasibility

- It may occur that I don't find the Hasselblad 555 ELD/P45+ combo superior to the Sony equipment I have. This is largely true, except for the resolution thing. It is also true that the I have found, so far, that the resolution thing doesn't really matter at my standard print size which is A2.
  - For the price I paid for the stuff I could have bought a decent Nikon D800 equipment, matching my Sony's in versatility or then new Sony A7r, although I am a bit skeptical about that latter camera. The reasons for me buying into MF was curiosity, wanting to find out. What I can say it worked as expected from specs. Neither better or worse.
  - Why I don't sell? **Well I like working with the stuff, nice to own a Hasselblad**, I also like the CF lenses - not so with the older series 'C' and 'CB'. I am pretty sure I would miss it. Also, I could put the P45+ on a technical camera.
  - After shooting for half a year I am still undecided on the P45+ stuff. I normally carry a dual kit, the Hasselblad 555ELD/P45+ combo with my five lenses and DSLR with 24-70/2.8 and 70-400/4-5.6 lenses. That make for a heavy pack. For longer walks the MF stuff is left behind.
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Raw images and links

The raw images used for this article are here:[{htmlfile}/srv/www/htdocs/ekr/Articles/MFDJourneyEOY/RawImages/index.html{/htmlfile}](#)

### Random raw images from P45

[{htmlfile}/srv/www/htdocs/ekr/Articles/MFDJourney/RawImages/Samples/index.html{/htmlfile}](#)[{htmlfile}/srv/www/htdocs/ekr/Articles/MFDJourney/RawImages/Samples2/index.html{/htmlfile}](#)

[{htmlfile}/srv/www/htdocs/ekr/Articles/MFDJourney/RawImages/Samples3/index.html{/htmlfile}](#)

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### Comparison images with Son Alpha 99

These images are mostly for real shooting situations, I normally carry both systems.[{htmlfile}/srv/www/htdocs/ekr/Articles/MFDJourney/RawImages/MFDB\\_VS\\_DSLR/index.html{/htmlfile}](#)

[{htmlfile}/srv/www/htdocs/ekr/Articles/MFDJourney/RawImages/MFDB\\_VS\\_DSLR2/index.html{/htmlfile}](#)