

MacroStop.com

by Michael Erlewine



Zeiss Otus = Close-Up

The New Zeiss Otus APO Lenses for Close-Up

Well, we all know that these three new APO lenses were not designed for close-up work, much less macro photography. And since I have a score or more of great macro lenses, why would I spend time working with these lenses that are by definition tele-photos? The answer is very simple. They are that damn good!

Some of you that hearken from the old days of Nikongear.com will know that about the only lens you ever heard about from me (or saw photos shot with) was the Cosina/Voigtlander 125mm f/2.5 APO-Lanthar. Except for occasionally, I never shoot with that lens any longer and for the reason mentioned above: the new Zeiss APO lenses surpass anything else I have, including the CV-125, a couple Leica APO macros, and my two Zeiss Makro-Planars (not APO). However, as mentioned, the new Zeiss Otus series were not made for what I use them for, so I thought I would discuss how I do use them in case anyone is interested.

Close-Focus and Extension

First, the close-focus distance of these three Zeiss lenses is not that close. The Otus 55mm is 19.7” (.50 m), which is getting back there, the Zess 135mm APO is not even close at all, 31.4” (.80m), and the Zeiss 85mm APO is 2.62’ (80 cm). That is way back there.

Now, with the Otus 55mm I can get away with adding the minimum extension tube that I have, which is the PK-11a, which adds 8mm of extension. This shortens the close-focus distance significantly, but also makes it imprudent to shoot wide-open as there is an obvious degradation of the image quality. In fact, it is not until something like f/4 (maybe less) that the micro-contrast is restored. Anything less than that sacrifices image quality at the micro-contrast level, which is why I bought the lens. And, of course, you can’t really add extension to the Zeiss 135mm APO. At least I don’t have a small-enough extension ring. I do add extension to the Zeiss 85mm APO, although again, small amounts. So how do I use these two for my close-up work?

First, I love these three Zeiss APOS. I love them all the same and alternate them from day to day, even from hour to hour. No one Zeiss Otus is better for my work, only different. I often take a couple of them with me into the field most of the time, although they are heavy as all-get-out. Who cares when the results are so stunning? And I don’t use them on my RRS tripod (TVC-33) with a RRS BH-55 full-size ball head like I used to. I tried that. Instead, I pretty much exclusively use the TVC-33 tripod with the Swiss-Arca Cube C1 mechanical head. With the D810 and these lenses, the slump that comes with tightening the BH-55 ball head is no longer acceptable. I need exact movement, and the Swiss-Arca Cube

gives me that. Unless I am shooting moving subjects, I am much better off with the mechanical Cube head than with a ball head. Now that I am used to the Cube, I will never go back.

You may find it odd that although I have shot some thousands of photos with my new D810 camera body, I have yet to look through the OFV even once. I will make a point of doing so soon, just to check it out. Instead, I have been totally happy with LiveView (relative to the D800E) and the ability to magnify it for focusing. I really, really needed that with these longer Zeiss lenses.

LiveView on the D810 is a total hog when it comes to battery life, which was at first a shock to me, especially since battery life is advertised for this camera to be improved, but that is just when you use the OVF, not with LiveView. I hate that it does that, but LiveView is so important that my own attitude has to be, “So what?” I bring an extra battery along in my kit. That’s about the size of the repercussions.

I can’t but come across many comments on why we don’t need to upgrade to the D810, but I just laugh at that. For my work, this new camera is such a bargain compared to anything I have ever had. It does what I most need done, thanks to the improved LiveView and ISO 64! Enough said.

Being forced to stand back farther than I would with a macro lens from my subject with these new Zeiss lenses is a little tough, but as mentioned the results make it a moot point. Again, thank god for LiveView and the ability to expand the magnification until I can see to finely focus. And fine focus with these Zeiss APOs is crucial. Of course I wish that instead of LiveView, we had a quality EVF screen instead, only because in low-light situations we get noisy grain at greater magnification. I am still waiting for a FF camera from Nikon that has a superior EVF, so that I can magnify and still see what I am doing in low light. It will come eventually, hopefully in my lifetime!

My whole process now has taken a step toward the Medium Format folks, not because I am comparing the results of the D810 with my old Mamiya RZ67 with its digital back, but because I find myself composing each shot more carefully and, yes, more slowly. I don’t mind, and I can see it could get slower yet if I start using more reflectors. As Lloyd Chambers remarked to me “Your “field work” is really like studio work.” That is true, or getting there.

Now there is one more caveat, and that is magnifying the LiveView screen. I use an old Zacuto Z-Finder viewer with 3x magnification. Some folks permanently affix a snap-frame to the back of the camera, but I tried it (years ago) and didn’t like it. Others, like Chambers, wear the Z-finder around the neck and hold it up as needed. I don’t like that either. What I do is strap the Z-finder on the camera using the little balls and elastics that

come with it. I just strap it right over the whole camera and have no real problems. Yes, it can shift around a bit, but I just manually shift it right back. I find it works great and gives me everything I need in terms of magnification, when used with the magnifier in LiveView. And that's my setup.

Now I will say something about how I use these new Zeiss APO lenses in the field.

Shooting at Narrow Apertures

Believe it or not, I regularly shoot these lenses, at least the Otus 55ms, at f/16 and don't seem to see the image suffering too much from diffraction, if any. I am sure the pixel-peepers can prove me wrong, but if I can't tell, and that is enough for me. Anyway, the Zeiss 55mm APO does better IMO at small apertures than any other lens I own. It's big brother the Zeiss 135mm, f/2, APO does just about as well at f/16, and so I use it a lot too. It just works. And the Zeiss 85mm APO is incredible.

I either shoot with a very small aperture, like f/16, or a very wide aperture (f/2 or something like that). With the small aperture (f/16) I am going for a subject that can survive having the background also pretty much in focus, which I don't like much. In other words, it won't do well for shooting one leaf against a background of leaves, because all the leaves will be in focus. However it will do well if the foreground subject is naturally different from the background or if the foreground subject and the background, together, make an interesting pattern. I offer some example images below.

Shooting at Wide Apertures

At wide apertures I am going to have a narrow depth-of-field, so only the subject will be in focus. The background will blur out to bokeh. I can choose how much depth-of-field the subject will have by playing with the aperture and mid-range stops, from f/4 to f/8 for single-shot photos.

If I want to shoot wide open or nearly so, I either have to be happy with a very narrow depth-of-field or focus stack a little. I am not talking about stacking the whole subject, but rather stacking enough of the subject to define it so that it stands out against the rest of the photo, which will have gone to bokeh.

If you stack, stack at an aperture at which the lens is sharpest, usually a couple of stops up from wide open, but of course this depends on the lens. Some few lenses are sharp wide open. The advantage of keeping the aperture wide is bokeh. We say we want everything in focus, but what most of us really want is part of the image razor sharp and the rest a lovely blurry bokeh. At least I try for that.

I will stack as wide-open as I can, as long as the lens is sharp. I kind of paint focus on layer by layer in a block using stacking just enough to create my foreground focus, and let the rest be bokeh. I

I have included some examples of what I described above.

The Zeiss Otus 85mm

This lens is the new Zeiss APO on the block, and I have not had enough time to work with it as winter is with us here in Michigan. A shot taken with the Nikon D810 and the new Otus 85mm APO f/1.4 lens, with 8mm of extension at ISO 64, f/11, and 1/5 sec is included below. Also included are some crops, to give you some idea of the power of this new Zeiss APO.

The Zeiss 85mm APO looks to be as good as the other two, and perhaps better for my work. Yes, it is big and heavy (2.51 lbs., 1.14 kg) but not nearly as heavy as my Nikon 70-200 f/2.8 which is 3.39 lbs (1.54 kg). Anyway, I am not a journalist and always use a tripod, so the weight thing is not that important. What is important to me is the quality of the lens, and it has that, which few other lenses I have do. So, I am on the ground and running with the new Otus-85 and, so far, lovin' it.

As for the future, all I need is for Zeiss to give me a wide-angle lens (21mm?) and a macro lens of this caliber and I will be good to go.

A Note on the 55mm vs. 135mm Zeiss Sharpness

The reviews seem to say that the 55mm f/1.4 Zeiss Otis APO is the "sharpest" of the first two new Zeiss lenses, the other being the Zeiss 135mm APO f/2 lens. Of course both of these lenses are outstanding in my experience, either one better than all of the other lenses I own, and I have bunch of the best I am aware of. I am shooting with these lenses on the Nikon D810.

In my experience, it is the 135mm Zeiss APO that is the sharper of the two. Perhaps some of you out there with both lenses can see what you come up with. Of course, a lot depends on which camera body you are using.

I include some photos below taken with the Zeiss 135mm f/2 APO lens on the Nikon D800E (no extension), with a 100% crop of a common fly which shows you how sharp this lens is, and the lens it quite a distance away from the subject.

There is no reason why Nikon could not match these because I have three of the four Printing Nikkors (95mm, 105mm, and 150mm) and they are all of this caliber, but lack the newer coatings that the Zeiss have. Perhaps this is because they never went outside of a film-transfer machine and had no need for the coatings or they were not available back then.

To Stack or Not-to-Stack

This has become a real question for me since advent of the new Zeiss Otus APO lenses. I have been stacking photos for many years, quite religiously and had planned on doing it from here on

out. However, these new Zeiss APO lenses have thrown a monkey-wrench into the works. I swear, these new Zeiss Otus lenses can take a single-shot at f/16 and I can't really see any significant sign of diffraction as I mentioned earlier, certainly none that would stop me from using this f-stop. That amazes me.

And of course, the depth-of-field of f/16 is quite adequate for many of the subjects I photograph and there is no arguing that a one-shot photo has less artifacts than a stacked image. Stacking, like all sampling methods, by definition, is lossy.

Part of me doesn't like the idea of not-doing a meticulous stack of images; it's such a habit for me by now, the whole ritual of stacking. So when I first stopped to inspect some single-shot photos I made with the Otus 55mm at f/16 prior to stacking, I was surprised to find that many were better images than my carefully-assembled stacked-photos. And they were, of course, flawless when it came to artifacts and required no painstaking retouching in. Hmmmm.

That send me into a tail-spin. What does this mean? What it meant for me was that maybe there was no reason, other than habit, for stacking so much. I felt like one of those folks venturing out on thin ice to see if I could hear any cracks. None came.

Honestly, I think I went into a slump for a week or two at the very thought of not stacking everything. After all, much of my career and expertise hung on stacking-well, and if I didn't stack, well, what am I doing?

The answer came slowly, but with a lot of light. What I have begun to do is to enjoy more the art of composition and the freedom from form that not-stacking involved. Part of me was thrilled to inspect each one-shot photo like I would a stacked photo, looking for artifacts, of which of course there were none. Wow!

I have since returned to a fair amount of stacking, but also I am assembling more and more a catalog of un-stacked one-shot images, just like everyone does. It feels good. They look good too. I guess Zeiss just bit the bullet, as we say, and produced the best lens they could, regardless of price. I have scores of lenses, many of which I am currently unloading as fast as I can. I will never use them anymore. I have sold most of my eleven medium-format lenses and a bunch of Nikkors. I tell myself that I am not making a museum here.

As for what I am keeping? Of course I would never part with my Voigtlander 125mm f/2.5 APO Lanthars. Although not as fine as the new Zeiss, they are fine enough and they actually go 1:1 and are real macro lenses. Well, I sold one copy of that lens, but I have two others.

I am keeping my industrial Nikkors, most of which are APO lenses of great quality, like my three Printing Nikkors (95mm, 105mm, 150mm), my Repro Nikkor, my Multiphot Nikkors, and my CRT Nikkor-O lens (not APO). And of course I couldn't part with my EI-Nikkor APO 105mm. That is a treasure of an enlarger lens.

But my Nikkor 70-180mm Zoom macro lens that I spent so many years using, Goodbye! And the same for the Nikkor 200mm Micro-Nikor. Already gone!

Perhaps the other lens makers will get on the bandwagon and produce highly-corrected APO lenses. The "Ah!" of my photo journey was when I realized that sharpness did not just depend on only acutance and resolution, but color-correction was, for my work, the deciding factor in what looked sharp. Fine APO lenses are where the micro-contrast lives. That is what satisfies my photo yearning.

I include a few of the industrial Nikkors that I still enjoy. You can reach me with comments and questions at Michael@Erlewine.net

All photos are copyright Michael Erlewine 2015. I have many free books, articles, and videos on photography at MacroStop.com. Also, some 35 or so video tutorials on photography on YouTube (scroll down for the photography section):

<https://www.youtube.com/channel/UC3cL8v4fkupc9IRtugPkkWQ>

Zeiss 135mm APO
(original photo)






100% Crop of the
above photo.



Zeiss 85mm APO
(original photo)



Zeiss 85mm APO
(Crop)



**Zeiss 85mm APO
(100% Crop)**

One-Shot (wide-open)



Stacked (front only)





One-Shot at f/16
(foreground and
background too
similar)

One-Shot
(mid aperture
fore/aft OOF)





Zeiss 135mm
f/16

Zeiss 135mm
f/16 100% crop



Zeiss 135mm
f/8 (original)



Zeiss 135mm
f/8 100% crop





**Nikkor Multiphot
35mm f/4.5**



**Nikkor Multiphot
35mm f/4.5**



**Nikkor Multiphot
65mm f/4.5**



**Nikkor Multiphot
65mm f/4.5**

Nikkor Multiphot 65mm f/4.5 Dual Helicoids



Nikkor Multiphot 120mm f/6.3





**Nikkor Multiphot
120mm f/6.3**



Repro Nikkor
85mm f/1.0



Repro Nikkor
85mm f/1.0



CRT Nikkor-O
55mm f/1.2



CRT Nikkor-O
55mm f/1.2



Printing Nikkor
95mm f/2.8



Printing Nikkor
95mm f/2.8



**Printing Nikkor
105mm f/2.8**



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105mm f/2.8**



Printing Nikkor
150mm f/2.8



**Printing Nikkor
150mm f/2.8**

Printing Nikkor
150mm f/2.8





APO EL-Nikkor
105mm f/5.6



**Nikkor Multiphot
35mm f/4.5**



Carl Zeiss S-Planar
74mm f/4



**A few extensions
and helioids**

Reverence for the Roots

Voitlander 125mm f/2.5 APO-Lanthar



The Author

