

## The Alpa Pinhole

Stephan Meier, March 15<sup>th</sup> 2009

Initially I thought about building everything myself, but quickly learned that the quality of the pinhole edges is crucial for the achievable image quality. After checking Lenox Laser's homepage I found out that they offer inserts for Copal 0 shutters. With ISO 100 this doesn't make much sense, but when you use ISO 1600/3200 films, images can be made without tripod, 1/30 sec. in broad daylight.

I mounted a Copal on a standard Alpa camera protection cover and started taking images. Worked fine, but:

- the insert doesn't go too deep into the shutter, which resulted in mechanical vignetting on 6x9
- the pinholes are laser drilled into silver aluminium film, together with the exposure to sidelight of the hole in the shutter I got too much sensibility for stray light which resulted in reduced contrast

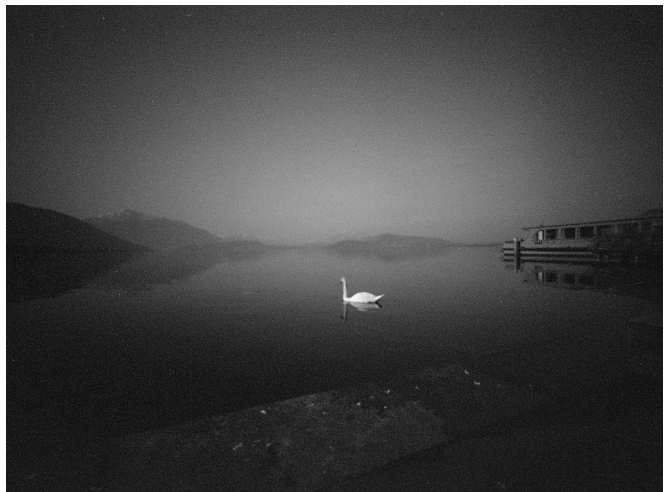
On the positive side there was almost no light falloff due to the high quality of the hole.



As a result of this I had a camera technician build me an insert for Copal shutters which would place the hole as close as possible to the shutter leaves. Additional features are the possibility to replace the hole discs, a built in lens shade (kind of) and a 42mm filter thread in front (think about screw-on lens shades or pinhole infrared!). From Lenox I got some blackened holes which reduce reflection significantly. The results were as expected, very good images with a resolution that matches the calculations.

One additional benefit of the Copal: you get a flash sync signal to use the pinhole with digital backs. It works fine, but the resolution that can be achieved with pinholes is defined by the size of the hole. 36\*48 might be already too small, 6x9 works fine. To get really detailed images, large format might be the better solution.

For me it is definitely a valuable addition to my lens arsenal, don't regret a minute of the efforts to build it :-)



<http://www.lenoxlaser.com/>  
[http://www.lenoxlaser.com/pinholephotos/pinhole\\_calculator.html](http://www.lenoxlaser.com/pinholephotos/pinhole_calculator.html)