

First I would like to state that I am not a microscopist; my background is in physics (MS 1975) with some early laser experimental work; however I don't consider myself an optics expert. Most of my latter background has been in the field of pulsed power. I retired from the federal government in 2006 and afterward have been doing part time government contract work when available.

I like to decorate my surroundings with objects that inspire me; I have always liked seeing microscopes in laboratory settings because they seemed cool to me; probably from the influence of the 50's B grade movies. It wasn't until a few years ago that I got my first professional microscope (about 1927 vintage). I never prepared a microscope slide in my whole life so I used what I could find in storage; later I purchased prepared slides from eBay. To this day I haven't prepared a slide.

Most of my microscopes have been purchased from eBay; many were obviously stored in a warehouse for many years; many I got for low to medium cost: manual adjustments frozen from hardened grease; some damaged from various condensation; cracked slides associated with X97 and X 100 objectives being used roughly; very dirty optics, etc. Lots of light scattering (terrible contrast) from internal dirty optics. Dirty and in some cases scratched objectives. Some of microscopes were in amazingly good condition; that I got at a very low cost because (amazingly) no one bid against me.

I enjoyed the challenge attempting to restore as best I could; several have been restored to fairly decent condition (at least for me): cleaning the mechanics from frozen grease; optical cleaning to a level of deducing light scattering significantly to the point that I have surprised myself (or I am damned lucky). Several of the late 40s or early 50s BL stereo microscopes and 60s BL (dynaoptic) single eyepiece version had very flakey prism silvering (needed to be resilvered) ; amazingly I was able to resilver both; the former not perfect but very acceptable image quality; the latter near perfect. I have converted many of my microscopes to high power LED illumination; so I am not restoring everything to their original condition.

I have several BL dynaoptic and zoom units (my favorite types) ; several BL later versions ; a couple AO microscopes type 50 ; 150 etc. Several 20s AO types without cases; and two BL (1915 & 18) with cases.

I have been developing manually adjustable 300mw LED illumination inserts for my BL flat field and dyna zoom. The electronics is based on one I found on the Web because of its extreme simplicity; the mechanical part is my own doing. I am having thoughts of designing a more efficient electrical unit using low electrical noise switch mode PS . The power used is the kind found in Goodwill 6 to 12 V plug in variety that plugs into the LED module. I have modified the AO type 50 to where it has adjustable LED illumination. Anyways there is a lot more that I have done regarding modifications to other type microscopes; not to mention displays and containers.