The 35mm f/1.4 Aspherical Summilux vs. The ASPH — Which is Better?

by Dick Gilcreast and Ed Schwartzreich

This has been one of the most frequently asked questions at the last two annual meetings of the LHSA. Ed Schwartzreich owns the earlier "Aspherical" model with the two aspherically ground glass element surfaces, and Dick Gilcreast owns the later "ASPH" model with the single aspheric surface of pressed plastic bonded onto one of the glass elements. During the summer Ed proposed getting together to compare the two lenses, so he and Dick agreed to conduct a shootout at the Tucson meeting.

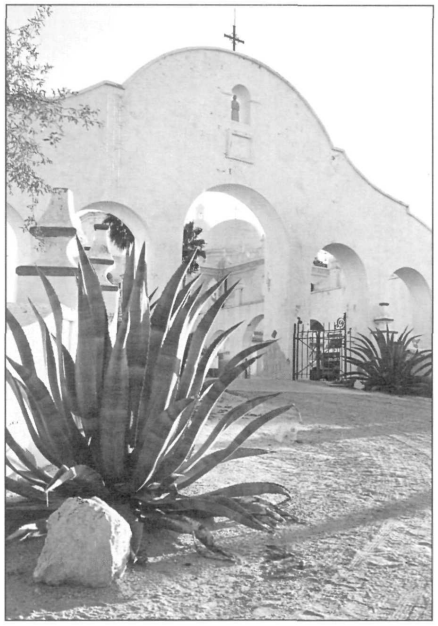
Ed's "version 1" 35mm f/1.4 Summilux-M Aspherical is No. 3461073. Dick's "version 2" 35mm f/1.4 Summilux-M ASPH is No. 3659497.

The "O.K. Corral Shootout" was actually carried out in three locations. One was on a lawn next to the annual meeting hotel — the Tucson East Hilton — just after sunset where there was an infinity view to the south toward a condominium complex, and north toward the Santa Catalina Mountains and Mt. Lemmon, with a shopping center in the middle distance. At dusk, both views included distant detail as well as lighted street lights, and could be photographed on slow film with the lenses wide open at f/1.4. The resulting negatives would show any differences in field curvature or edge sharpness at infinity. The street lights were photographed on three successive frames at the top edge, the center, and the bottom edge, and served to compare control of coma and other aberrations from the center into the corners of the negatives. The second location was inside the lobby of the hotel, where thoughtfully placed white Christmas tree light bulbs outlined the stairs and elevator cars in their glass enclosures, and served to compare any coma problems at closer distances. The third location was on the University of Arizona campus, after the presentations at the Center for Creative Photography were concluded, where Dick and Ed did some creative photography of their own directly into the late afternoon sun to compare backlight control and find any tendency toward internal reflections in the lenses.

What We Found — Dick Gilcreast
(Testing done on Ilford Delta 100 and Kodak Tri-X Pan)

The lenses are pretty darn close in performance. The severe back light tests are identical. Both lenses are excellent when

These two photographs (in the lobby of the Tucson East Hotel) were made with the two lenses handheld at f/1.4 on Tri-X film. Number 1 (left) is the older "Version 1" Aspherical; Number 2 is with "Version 2" ASPH. The only discernable difference between the two images is in the amount of coma correction, seen here as a slight difference in the flare spots around the small "Christmas Tree" light bulbs delineating the stairs and elevator cars. Both lenses perform extremely well at their widest apertures.



Exterior of San Xavier Mission - photo by Ed Schwartzreich - This photograph was made with the "Version 1" 35mm f/1.4 Summilux-M Aspherical on Kodak Technical Pan film. The slow film was exposed at the relatively large aperture of f/5.6, showing the great depth and crisp detail these lenses are capable of in bright light without the necessity stopping a whole lot.

used with bright light sources in the frame (with a shade and without a filter). There are almost no internal reflections when the light source is in or just out of the frame. And they are virtually identical on ordinary subject matter from f/2 on down the aperture scale. We found the only differences worth noting were with the lenses wide open at f/1.4. At f/1.4, focussed at infinity, both lenses show an extremely small amount of coma (those little "butterfly wings" on two sides of a point source of light) around the distant street lights at the edges of the test pictures. Control of coma is of course one of the principal reasons for going to the expense of aspherical elements in the first place. The earlier Aspherical lens has a tiny bit more uncorrected coma showing at the far edges and corners and there is also a touch of positive field curvature (focus is closer to the camera at the edges of the frame) at infinity. The ASPH lens has a flatter field at infinity. Both lenses lose resolution in the last millimeter of the extreme corners at infinity, but not at closer distances. Indoors and at shorter distances the performance of the two lenses is quite difficult to tell apart.

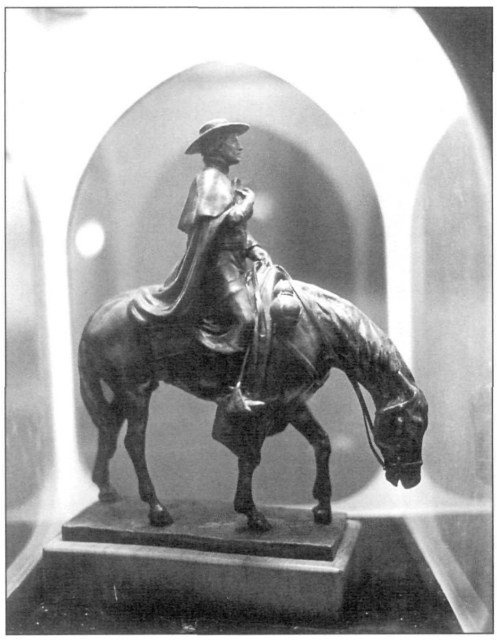
At f/1.4 the earlier Aspherical lens has perhaps a bit more of what I call "gross contrast," meaning the major darks and brights are a little better separated. But the ASPH lens however has slightly better "micro contrast," that is the separation of brights and darks in very fine detail, resulting in visibly better resolution across the frame. Individual roof tiles are separated more clearly in the distant shopping center facade, for instance, and tiny signs can be more easily read off the negative with a powerful magnifier. But these tests were done on a slow high-resolution film with the lenses wide open, and these small differences would probably not show up on a high-speed film with which ultraspeed lenses such as these would normally be used.

So I think I have to declare the contest pretty much of a draw. Price and collectibility seem to be considerably bigger factors than performance between these two excellent lenses.

Ed Schwartzreich
(Testing done on Kodak Technical Pan)

Several horizon shots were taken at infinity one evening at dusk. Distant mountains, telephone poles and street lights served to measure sharpness, and field curvature could be measured in the foreground margins. Version 1 appeared to show slightly higher overall contrast at f/1.4, but less resolution and more field curvature than Version 2. The differences were small but visible. Nighttime shots of the hotel atrium at f/1.4 were both excellent, but a slight degree of coma is visible in the "Christmas tree" lights at the frame edges in version 1, much less so in version 2. Freedom from back-light-induced flare is excellent in both lenses and indistinguishable, but there is a slight internal reflection in each version when the sun is actually present in the frame (at f/8).

Overall impression of both lenses is that they are superb picture takers: sharp, contrasty, low in flare, with wonderful plasticity of image, and very usable at f/1.4 in just about any situation which might arise. The differences noted above are indeed present between the two lenses tested, but they are small and could even represent the differences possible between two identical lenses of either version, within quality control parameters. Either lens version should perform admirably.



Sculpture of Spanish Missionary - photo by Dick Gilcreast - This sculpture is quite small, housed inside a glass case in the San Xavier Mission, and lit by a single small overhead light bulb. It was made with the "Version 2" 35mm f/1.4 Summilux-M ASPH at full aperture, and at the closest focus of 28 inches. The flat field and excellent correction of these two lenses are fully maintained into the closeup range, and therefore allow this sort of photograph to be made handheld.