AstroChicago123

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some themes:
interconnectedness
wide-field surveys
optics

scattering in planetary atmospheres
Frank Ross 1926 ApJ 64, 243
Wadesboro, North Carolina, total eclipse of May 28, 1900: Mr. Wolff, unidentified man, George W. Ritchey, Ferdinand Ellerman, Albert A. Nijland (Utrecht Observatory director, seated), George Ellery Hale (standing), J. H. Wilterdijk (Leiden Observatory, seated), George S. Isham, Edwin Brant Frost, Edward Emerson Barnard.
LE PREMIER MODÈLE DE TÉLESCOPE APLANÉTIQUE (1)

Au cours de l'année 1910, nous avons étudié, à l'Observatoire du Mont Wilson, en Californie, un type de télescope nouveau, devant rendre plus facile la construction et surtout l'aménagement de très grands instruments astronomiques.

Le rapport d'ouverture devait rester de l'ordre de grandeur de celui des instruments ordinaires : $D = f/6$ ; le champ devait être amélioré, mais non nécessairement plus étendu.

Il s'agissait surtout de réduire la longueur d'encorement du télescope et, par suite, le diamètre de la coupole. De plus, on voulait ramener l'image à se former au centre de celle-ci, afin de simplifier les dispositifs d'accès à l'oculaire, toujours si

(1) Académie des Sciences, séance du 18 juillet 1927, Comptes rendus, t. 185, no 4, 25 juillet 1927, p. 266.
Ritchey’s 24-inch reflector
low-surface-brightness revealed:
Ritchey’s images of the Veil Nebula in Cygnus and Messier 81
Ritchey’s optical shop: grinding the edge of the blank that became the mirror for the Mount Wilson 60-inch telescope.
Dumbbell Nebula photographed with the Ross zero-power corrector on the 60-inch telescope, Mount Wilson. Photo by Frank Ross.
Frank Elmore Ross  1874 - 1960

Eastman Kodak 1915 - 1924
UChicago 1924 - 1939

Atlas of the northern Milky Way
(w/ Mary Calvert)  1934
Ross wide-field corrector designs

$F_m = 500$ inches

$\pm 50$ in.  $\pm 30$  $\pm 20$  $\pm 30$  $\pm 50$
Mary R. Calvert 1885 - 1973

Atlas of the Milky Way 1913
Atlas of the northern Milky Way 1934

“ON EQUAL TERMS”

Educating Women at the University of Chicago
An exhibition in the Special Collections Research Center
March 16 – July 14, 2009
The University of Chicago Library
Camp Charles A. Young, Green River, Wyoming, total eclipse of June 8, 1918: Mary Ross Calvert, Edward Emerson Barnard, and Oscar E. Romare at the coelostat.
Edward Emerson Barnard 1857 - 1923

Atlas of the Milky Way 1913
W.W. Morgan 1906 - 1994

with Catherine Wolfe Bruce
10-inch photographic telescope
Morgan, Keenan, Kellman 1943: spectral luminosity classification
Johnson & Morgan 1953: UBV photoelectric system
“Otto Struve and Edwin B. Frost stand next to equipment that will activate the lights of the Century of Progress, thus opening the Chicago world fair of 1933. The process involves the Yerkes Observatory 40-inch refractor telescope which will capture light from the star Arcturus and direct it into a photocell of a photo-electric photometer. The resultant current will be transmitted over phone lines to Chicago.”
Henyey-Greenstein 140-degree imager

Louis Henyey at UChicago 1937 - 1947
Jesse Greenstein at UChicago 1937 - 1948
66th meeting of the American Astronomical Society 1941:

Chandra, W.A. Hiltner, T. Page, G. Kuiper, W.W. Morgan, G. van Biesbroeck
Accordingly, the 6-inch UV telescope was dismounted for transporting to the site of observation to be selected. As for the long-focus camera, it appeared that a 2-inch doublet, which was available, would be inadequate to insure sufficient intensity of light during the short period of totality. Drs. L. G. Henyey and J. L. Greenstein therefore designed a 4-inch doublet, corrected for the green and the blue, and 20 feet in focal length. The lens was made in the optical shop of the Observatory by Mr. Fred Pearson on very short notice. This lens was used to obtain the large-scale photographs. A wooden framework for the camera was constructed at the Observatory. Further, a common drive was devised for both the 6-inch UV telescope and the coelostat.
George W. Ritchey 1929 (Paris):
The Development of Astro-Photography and the Great Telescopes of the Future