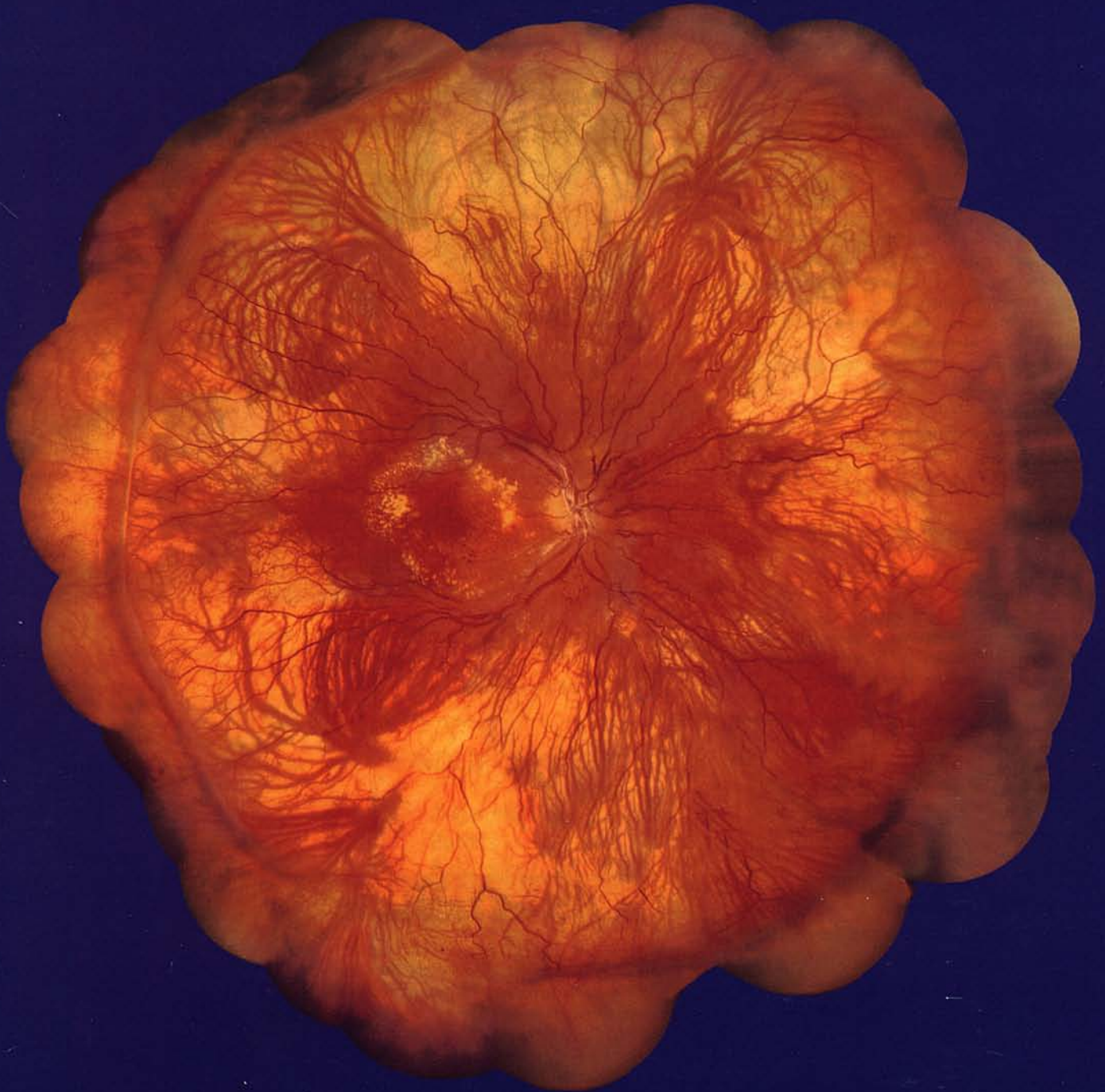




# The Journal of Ophthalmic Photography

Volume 17, Number 2  
October 1995



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Founded in 1977 by the Ophthalmic Photographers' Society, Inc.  
Don Wong, F.O.P.S., Founding Editor

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## About the Cover

The cover of this month's issue was a collaborative effort with Alan Frohlichstein, who originally photographed the series, and myself, who pieced 92 separate images together on a computer. Alan photographed this 18 year old patient during two separate sessions, carefully mapping out about 220 degrees of the retina. The patient has Central Serous Retinopathy and a ridge of preretinal gliotic membrane running 360 degrees around the peripheral retina.

The original montage, seen on this page, was assembled by Alan in the traditional manner of **overlying color prints** of adjacent areas. Since the field of view of most fundus cameras ranges between 30 - 60 degrees, ophthalmic photographers for years have used this montage technique to illustrate pathologies larger than one field. The technique involves making prints (usually from the original color slides, or black and white fluorescein angiography negatives) and then lining them up using the vasculature as guidelines. While useful and often quite dramatic, not only are alignments hard to perfect, but the print edges are impossible to disguise. Also, the final composite usually has to be rephotographed (thus losing some clarity) in order to be submitted for publication.

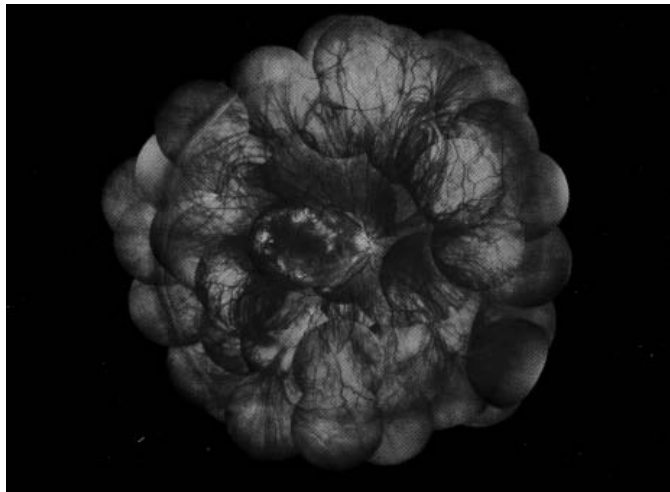
In need of a cover for this issue of *The Journal*, I placed a message on Optimal (the OPS' electronic bulletin board) seeking submissions from our membership. From those contributed, I found

Alan's to be interesting since I had just figured out how to digitally create seamless montages.

Recently, Adobe Systems released an update to their Photoshop software, version 3.0, which offers a method to digitally blend multiple photographs. While the basic technique is reasonably easy, a powerful computer is necessary to work effectively and efficiently with large image files.

Each of the 92 photographs was digitized using a film scanner and saved as individual picture

files. Within Photoshop there is a "layers" option that allows you to manipulate one picture independently of another. Using the "eraser" tool, you easily wipe off the top layer and blend it with the bottom layer. By rotating and stretching the image, perfect alignments are possible. A major drawback is that each additional layer increases the file size by one fold, so a fast computer helps process the additional data efficiently.



The original photo montage expertly executed with conventional photo technology by Alan Frohlichstein.

The early days of digital imaging at best replicated what film could also do just as well, but with no darkroom processing required. As the technology continues to evolve, photographers have more elaborate tools to describe information. While on one hand our job appears to be becoming easier than loading film onto a stainless steel reel in total darkness, we are also being challenged with extraordinary new tools with which to expand the capabilities of this documentary medium.

RICHARD HACKEL  
Managing Editor