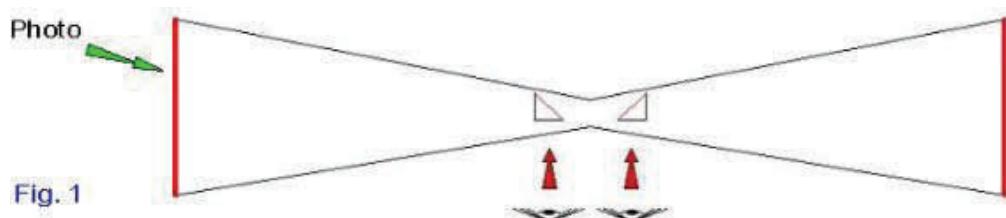


A different Stereo Viewer for your prints

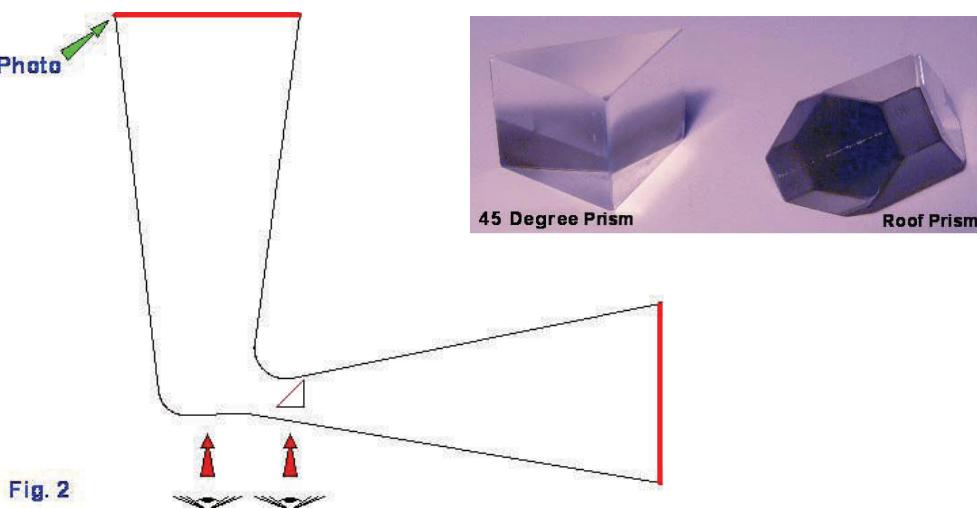
Viewing stereo photos has always been desirable for the extra detail and information it reveals. Unfortunately, while producing the photos is fairly easy, viewing the results is not always straightforward. Over the years many solutions have been sought, varying from simple pairs of lenses to the expensive technical masterpieces produced by Zeiss and Wild to view 3D aerial reconnaissance photos. The quick solution for those with the ability is to go ‘cross eyed’, a technique which is neither comfortable nor much good for the eyes.

Most of the simpler solutions have a major drawback, it is impossible to put larger images into a side by side twin lens viewer. Almost fifty years ago this problem vexed me as I wanted to view my stereo prints. Photos were taken by the simple method of moving the camera on a slide the width of the eyes between shots. Results were remarkably good, even those of people, providing the subjects kept fairly still during the few seconds of the take.

My first idea was the one in fig.1, two 45° prisms looking out at right angles.



Although it worked, the images were laterally inverted, and the whole thing was fairly bulky. After some thought I realised another type of prism, the roof prism doesn't laterally invert and I substituted the standard prisms for this type. Roof prisms do however vertically invert the image, so it was necessary to invert the photos in the mounts.



To further refine the design I constructed the viewer as shown in fig 2. This was necessary as I only had one roof prism left! The left eye views the image directly while the right eye uses the roof prism. The distance between the

photos and each eye is adjusted to account for the redirection of the line of sight, the prism is adjustable to allow perfect superimposition of the stereo pair.



My plywood prototype made 44 years ago is shown in the photo. In that distant time computers were not available. Nowadays the ability to laterally invert the right hand image with one press of a button in a graphics program makes the roof prism itself redundant. This makes the construction of a stereo viewer with one simple 45 degree prism and a few bits of plywood simplicity itself. The photos can be held on the vertical back plates using a tiny spot of double sided tape.

Using the adjustable prism there is no eye strain at all. Any user can set the adjustment to suit their own eyes. The system works perfectly with glasses.

If you have two prisms spare you may prefer to make the original design, but the one prism type works perfectly - just don't forget to laterally invert the right hand photo of the stereo pair unless you use a roof prism. If you want to view stereo A4's or larger all you have to do is scale the viewer up. If you can't make a three screw tilting adjuster for the prism - a dollop of 'Blue Tack' or Plasticine will probably work just as well as an adjuster!

In the last few years the viewer has proved its worth for viewing 3D home snapshots and both macro and micro photo pairs.

The advantage of the two versions using roof prisms is of course that you can view other people's stereo pairs without lateral inversion of one or both images.

My latest version is collapsible - but I'll leave that to your ingenuity!

Comments to the author: raymondsloss AT aol DOT com are welcome