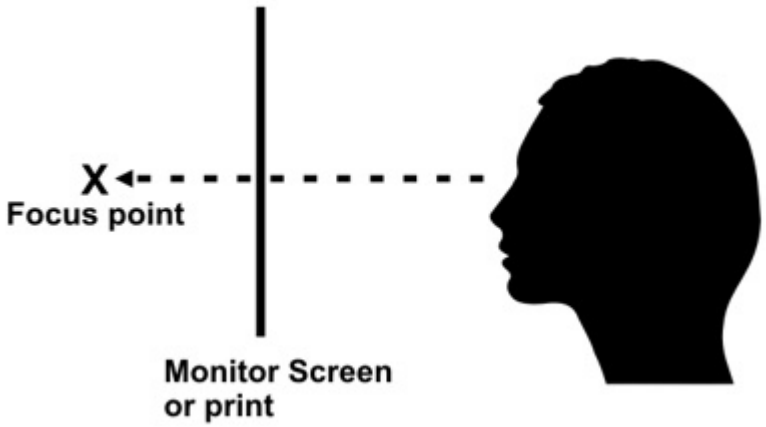
Viewing Stereograms

Note: Not all Trithemian Web™ pieces will contain stereograms. These instructions are for those that do.

I am going to show you how to view stereograms. This may work for some. There are more methodologies out there, but this option seems to work fairly well.

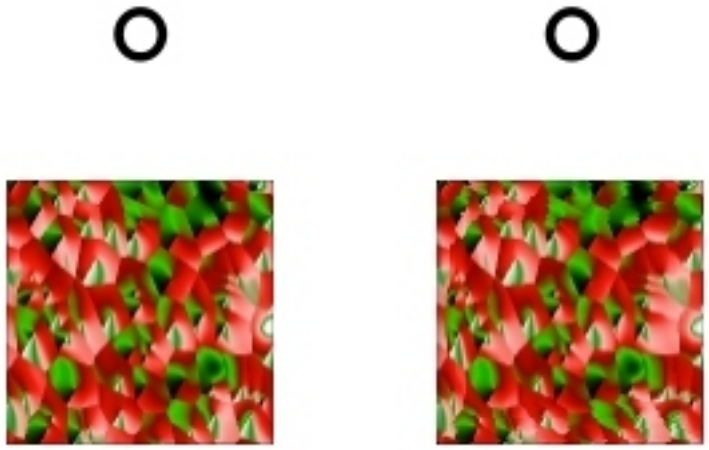
First, the designer must select the visual format he/she wants to use. There are two – diverging and converging. The diverging format relies on relaxed, parallel vision, while the converging format relies on cross-eyed vision. The converging format is a useful option for larger works that are meant to be viewed from a greater distance. I'll present converging and diverging examples.

The diverging format relies on totally relaxed vision. You may have experienced this when you are reading a book and get tired. At one point you may discover you are staring right through it. This graphic indicates the focal depth for a relaxed vision stereogram.

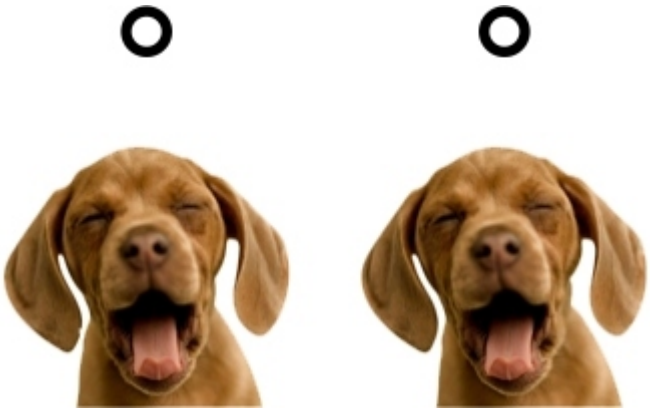


The next image is just two dots. You can use relaxed vision (looking through your paper or monitor like the above image) until you can see three dots, or you can use cross-eyed vision to see three dots. When you can see three dots using either technique, proceed to the next section or page if using the PDF file.

I assume you were successful seeing the three dots. Now try the diverging or converging technique with a simple square image added. You should see a three dimensional center square. If you use the diverging (relaxed vision) technique, the center square will appear to come out at you. If you use the converging (cross-eyed vision) technique, the square will have depth. When you can see three dots and three squares, the center one having dimension, you can move on to the next graphic.



Here is our dog example, a face instead of a simple square. The viewing technique is relaxed. When you see three faces, the center one will appear three dimensional. Try it.

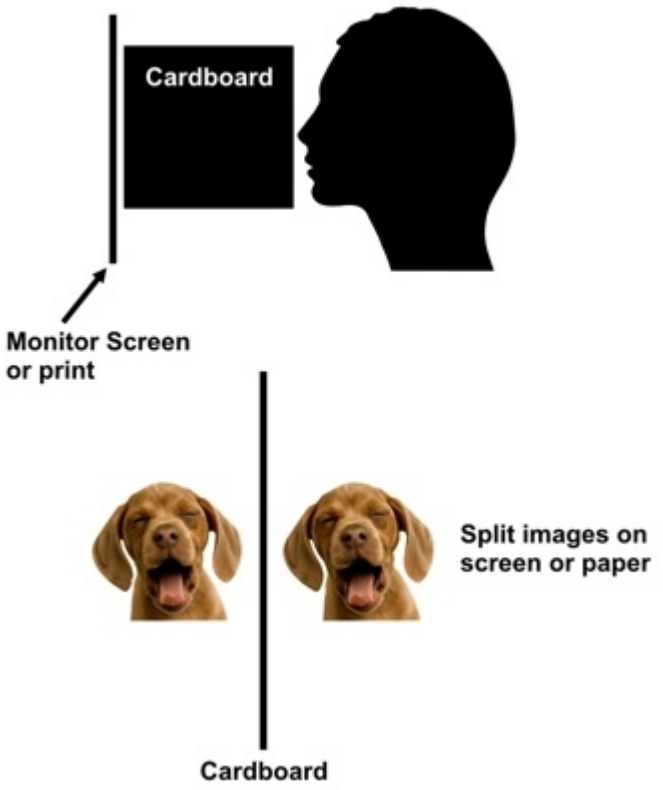


If you can see the three dimensional center face, then you can successfully view diverging stereograms. If you still cannot see the three dimensional center face, the following section or next page (if using the PDF file) may help.

Here is a technique that may help if you are having trouble. You can print the image on the next page (PDF file) or use your monitor if you are viewing this on my website. You will need a piece of cardboard, or something similar. It should be about the size of a piece of paper. Using the dog face image, touch the cardboard to your nose, essentially splitting your binocular vision. Center the cardboard between the two faces, nearly touching your print or monitor.

Now close your left eye. You should see only the right face and not part of the other. Then close your right eye. You should see only the left face and not part of the other. You may have to move the cardboard a little to the right or left until you can see only one image with each eye.

Now relax your vision and focus behind the faces. You should see one three dimensional face and one dot. If you can see the three dimensional face, try it without using the cardboard. If you still cannot see the three dimensional image, there is an explanation at the end of this presentation or on the last page if you are viewing the PDF file.



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Cross-eyed (Converging) Version

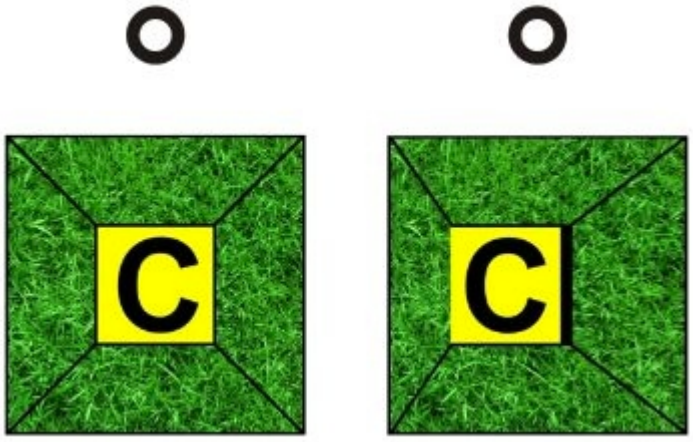
I wasn't a big fan of converging (cross-eyed) stereograms, but as I worked more on larger pieces, I liked the results. The cross-eyed method may be a little tiring to the eyes when viewing smaller pieces up close. But when you put some distance between you and a larger piece, it's very effective. The methodology used depends entirely on the piece.

Cross your eyes slightly until you see three dots. You then should be able to see a three dimensional face in the center. The converging method does not appear as deep, even though both examples were made using a depth factor of 20%.

Maybe the Best Viewing Example

This may be the best example. You can view these images using either the diverging (relaxed vision) technique or the converging (cross-eyed) technique.

If you use the relaxed vision option, the black C with the yellow background will appear to rest on top of an elongated green box. If you use the cross-eyed option, the C will appear to be at the bottom of a deep, green box.



I Cannot See The Images

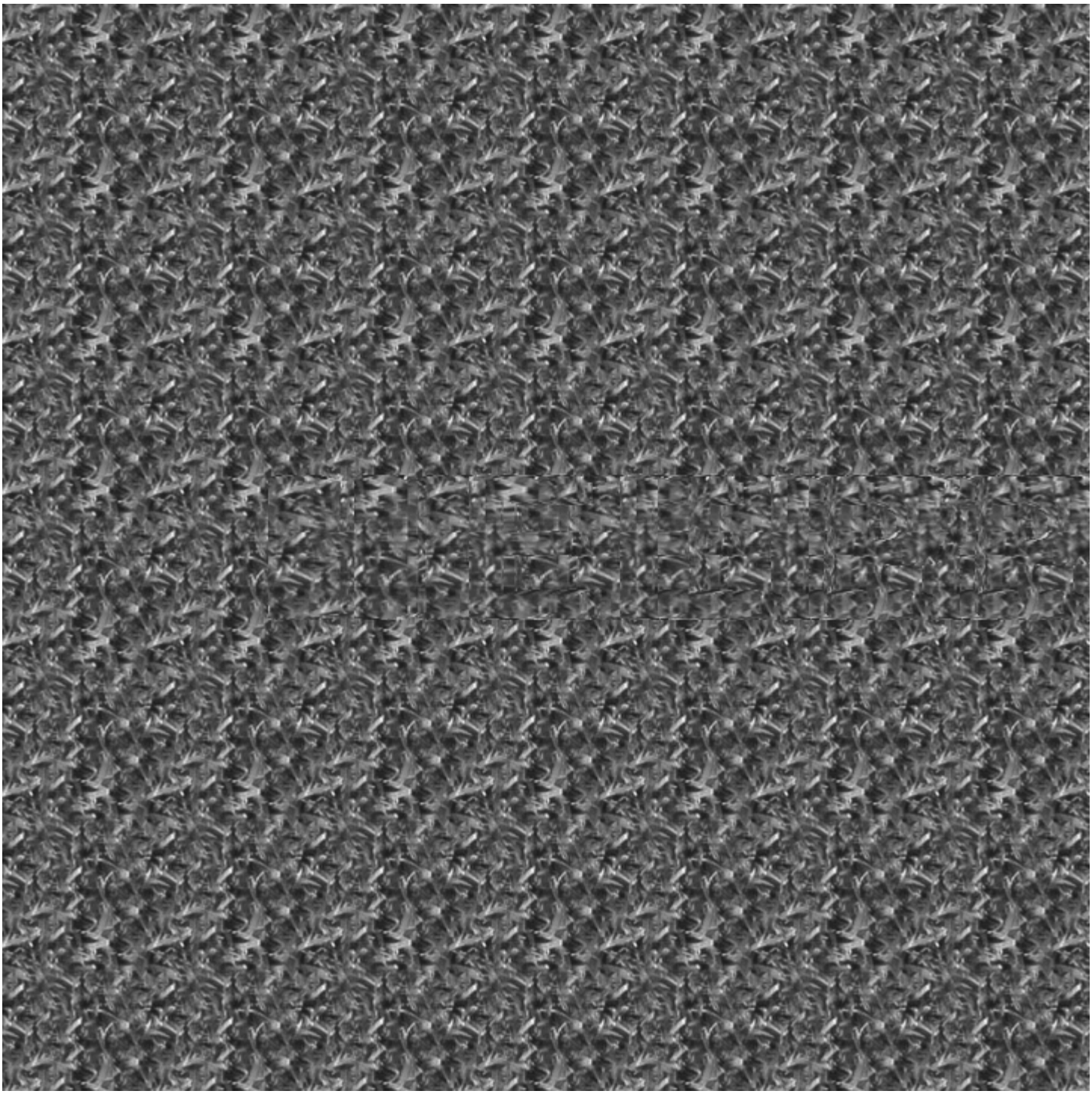
Why Some People Cannot See Hidden Stereogram Images
by Jason Weekley A.B.O.C., L.D.O.

The basic principle behind a stereogram depends on the ability for a person to merge multiple objects into one. There are many factors that could inhibit a person's ability to see the object hidden beneath the initial surface. As an example …place your thumbs and index fingers together in the shape of a triangle, and find an object in the distance to look at through the triangle. It must be a distant object! Independently close one eye, then the other…you will notice that you were only able to see the complete object through one eye without moving the triangle. This concept is called eye dominance. Sometimes the brain will shut off one eye, and rely on the dominant eye, if the object to be viewed doesn't come in focus. There are many people who need corrected vision that don't realize it because of the human ability to adapt.

Another possible cause is convergence. At close range (12-18 inches), your eyes converge an average of 3mm…but this is not so for everyone. Just as you have a dominant eye for distance, you will also have a dominant eye for near. After years of depending on one eye to do the majority of the work, you can depend less on convergence and adaptability. By allowing your eyes to relax, and blur…you attempt to override your brain's intent, and allow both eyes to be equally dysfunctional. Thus, images begin to overlap and the muscles that control your eyes are less likely to fix at the same point that they normally would. The same people that have problems crossing their eyes…even a little…will have the greatest frustration when attempting to view stereograms.

Other conditions such as esophoria and esotropia can cause the eye to move inwards… (commonly called a lazy eye), and exophoria and exotropia (a tendency for an eye to shift toward the temple), will have an impact. I would suggest that people could adjust their distance from the stereogram and have a greater rate of success. A distance that works for the majority, doesn't always work for everyone. And last but not least…I would enjoy the statistics relating the ability of a person to see stereograms with regard to their profession. Analytical/Artistic mind set?

Diverging Stereogram



Reads HELP in the center.