

6 METER NET CHRONICLES

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PURPOSE

The purpose of this TEARA 6 meter special science issues is to provide science related information for the benefit of the readers of the **6 METER NET CHRONICLES**.

The topic for this issue will be some examples of Optical Illusions.

TEARA (Triangle East Amateur Radio Association)

The Triangle East Amateur Radio Association meets the fourth Tuesday of each month, at 7:00 pm, in the social hall of the Wendell United Methodist church. Individuals start arriving around 6:00 to 6:30 pm and bring their dinner and socialize until the meeting starts at 7:00 pm. TEARA has very good programs of interest to hams. Please give the club a visit and consider becoming a member. TEARA does not meet during the month of December.

SPECIAL NOTE! INDIVIDUALS WHO DO NOT CHECK INTO THE 6 METER NET AT LEAST ONCE EVERY TWO MONTHS, OR SEND ME AN EMAIL WITH A REQUEST THAT THEY REMAIN ON MY EMAIL LIST TO RECEIVE THE 6 METER NET CHRONICLES, WILL NO LONGER BE SENT THE NET CHRONICLES!

OPTICAL ILLUSIONS

Web Sources

The web has many locations that present "free" and very interesting optical illusions for your enjoyment. A few samples are as follows:

- (1) http://en.wikipedia.org/wiki/Optical_illusions - Again Wikipedia is our favorite web location. If you go to this site and scan down the pages you will run across a very large list of optical illusions that you can click on, etc.
- (2) <http://www.michaelbach.de/ot/index.html> - when you go to this site notice the eyes following your cursor! It is just an illusion!
- (3) http://www.patmedia.net/marklevinson/cool/cool_illusion.html
- (4) <http://www.ritsumeai.ac.jp/~akitaoka/index-e.html>
- (5) <http://www.colorcube.com/illusions/illusion.htm>
- (6) <http://www.colorcube.com/illusions/triangles.htm> - one of our favorites.
- (7) <http://www.du.edu/~jcalvert/optics/illus.htm>
- (8) <http://www.jimloy.com/puzz/moon.htm>
- (9) http://www.michaelbach.de/ot/size_shepardTables/index.html - This one is hard to believe.

Obviously nothing is free, there is always a cost involved. Some of the sites will attempt to place a cookie, etc. onto your computer. If you have spam-ware, etc. software you have nothing to worry about. If you do not, reader beware!!

Most Famous - The Moon Illusion

The most famous and easy to observe optical illusion is that of the rising Moon. It seems much bigger when it begins to rise over the landscape but is in fact the same size as when overhead. When you see a commercial picture of this effect it is always a fake. It is in fact a composite of two shots with the bigger Moon superimposed over the normal landscape. Take your digital camera and take a couple of pictures, of course changing your exposure, etc. settings. When you bring the pictures up on your screen, the Moon will seem to be its normal size, not what you thought you observed in the night sky!



Figure 1.

There are many explanations for this particular optical illusion. Just search the web using Moon Illusion. We are not in a position to say which theory is the most correct or if any one is correct or not. So you decide for yourself.

What is clear with respect to many optical illusions is the fact that your brain is controlling what you finally think you actually see. All of this "stuff" really brings to the surface the accuracy of what by-standers, or any human source, says about what they saw or heard! **However, what we all saw in the mirror this morning was no optical illusion!**

Other Illusion Examples

One example of the use of the concept of optical illusion is the placement of a black border around a picture or colors in a picture so that the individual colors are perceived as move vivid and bright. This application of this concept is demonstrated in the following two pictures. The colors in the two pictures

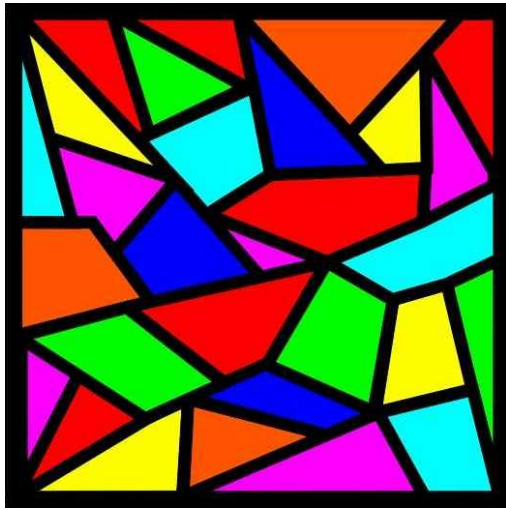


Figure 2.

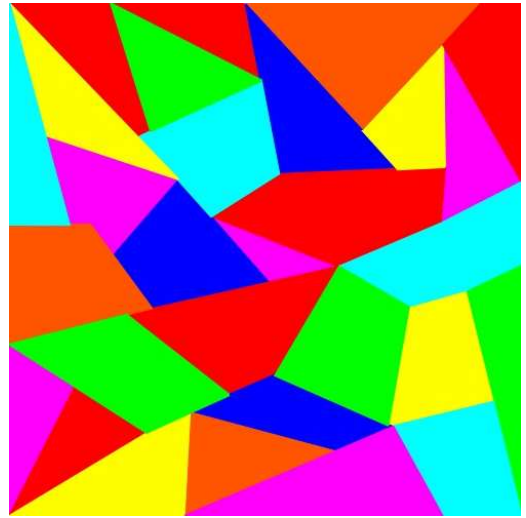


Figure 3.

are identical, but the addition of the black borders in the first makes the colors stand out and appear deeper, etc. In the following example the two reds are the same color.

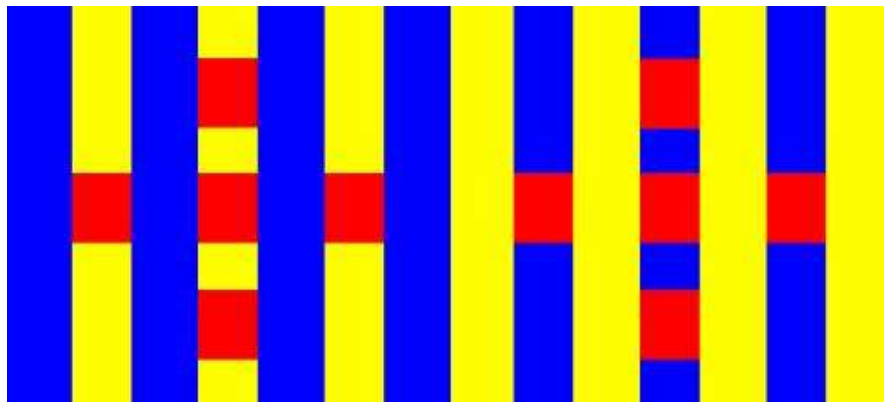


Figure 4.

Another example makes use of the fact that your brain will fill in what it perceives to be true; whether it is or not makes little difference. Of course then you will swear that what is not true is true! In the picture that follows the four

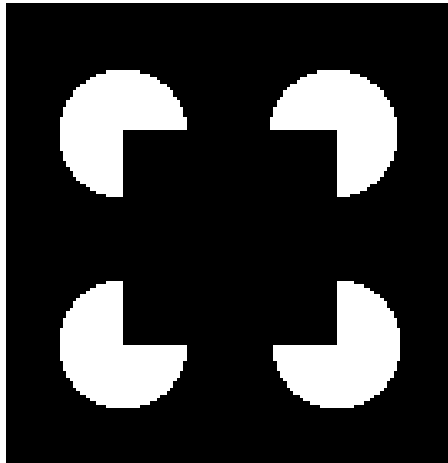


Figure 5.

white circles have had one-quarter of their surfaces removed. However, when you look at the picture you perceive that a flat rectangle has been placed over the four white circles. Again, your brain fills in what it perceives to be the truth!

Take a look at the next Figure. The tops of the tables are identical in size! You can go to the web site and get an animated demonstration:
<http://www.michaelbach.de/ot/>

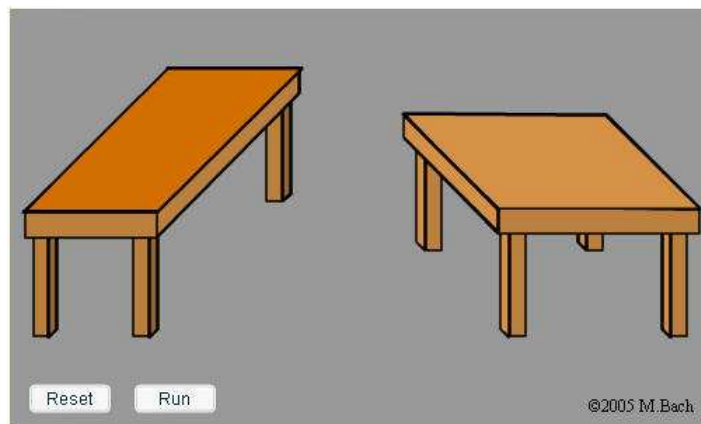


Figure 6.

The Real Power Of Suggestion

Finally, there are very interesting optical illusions that have rotating systems for which you can change their direction of motion by your thoughts. As an example, consider the following collection of dots:

http://www.michaelbach.de/ot/col_equilu/index.html

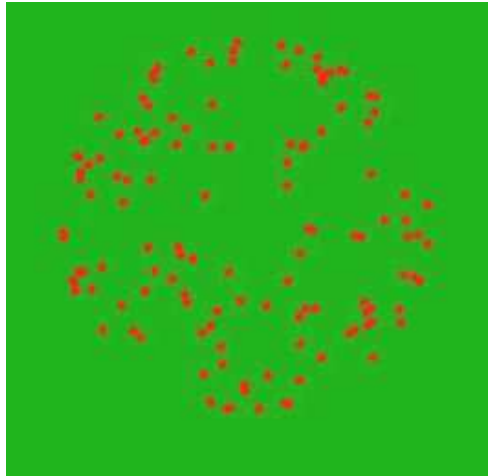


Figure 7.

If you go to the website, the dots will appear to be rotating. Watch the rotating dots in Figure 7 at the listed website. You can determine by thinking which direction they will appear to rotate in.

In Figure 8 the words in the center seem to be rotating at varying speeds, but if you go to the web site and remove the dots, they rotate at a constant speed. Of course they are rotating at a constant speed all the time; it is simply an optical illusion: <http://www.michaelbach.de/ot/>.



Figure 8.

And then there are the wheels that do not actually rotate, but they will appear to move just for you!

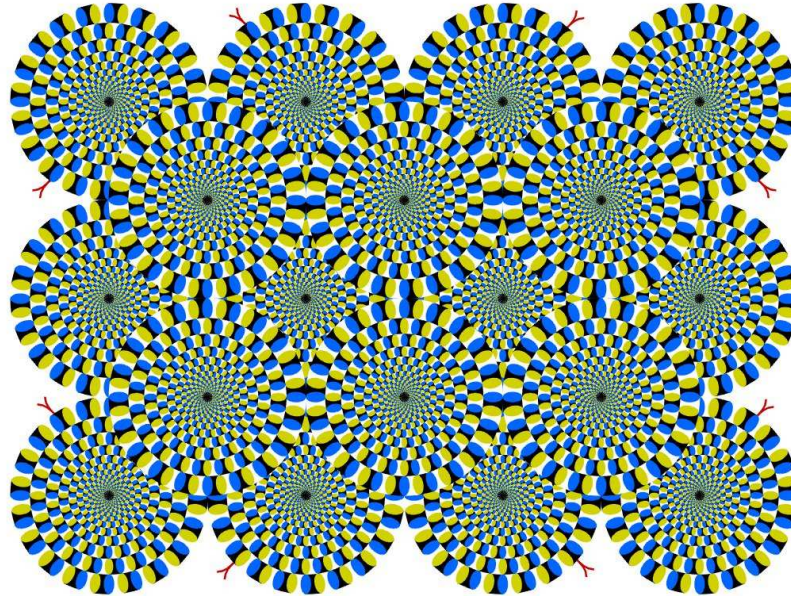


Figure 8.

Note! To get the correct response to Figure 8 you might have to increase its size, etc. Going to the referenced web site will give you a good view.

Summary

The above optical illusion examples are only a very small sample of all those that you can experience on the web. Of course, you should expect to have to deal with some junk, but just search and keep looking. The web addresses listed at the beginning should get you started.

However, when all is said, what have you truly seen today and what was an illusion????????????????

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