

You have to see the *real* thing!

BUT WHAT DOES *real* really mean? Is there only one reality or are there multiple realities? These questions have been asked over and over again *ad nauseum* throughout humanity's history only to end up with the same paraphrased answer: 'Dear Sir, we can't give you a definite answer since up to now we are not sure enough of what we are really speaking about.' Socrates said reality is One, The Matrix says that the reality we experience is an illusion, while Stephen Hawking argues that reality is made up of distinct sets of laws of physics interwoven together into what he — plus a few other scientists — calls M-Theory.

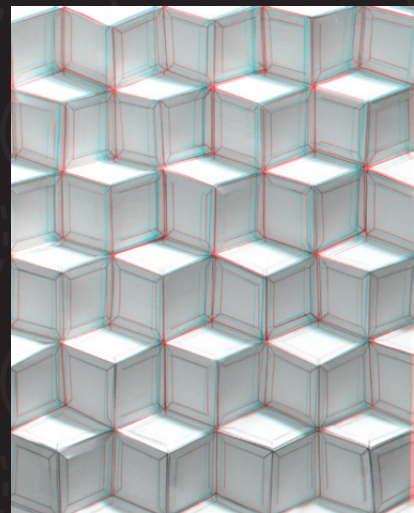
Indeed the digital era has not improved the situation. What was once the domain of the tangible and spiritual world ended up expanding exponentially into virtual worlds entirely created by humans — a hyperreality! Indeed the hyperreal has found its way in the visual arts. In the 60's Photorealist painters created paintings indistinguishable from photographs. Their successors, the Hyperrealists, depicted photoreal realities that never actually happened.

How can a painting feel more *real* and tangible than reality? Up to the beginnings of the last century mimesis (roughly means to imitate) was one of the main preoccupations of western art. Artists made use of various visual tricks such as perception, oc-

clusion, and chiaroscuro to fool the eye and give life to their works. But no matter how hard they tried they were doomed to failure because in an instant the brain would discover the illusion and reveal the flatness of the painted surface. The reason is simple, painted surfaces are monoscopic, from one point of view, whereas the brain builds a picture from what two eyes see to understand space and depth, a binocular system.

For this reason, Darren Tanti harnessed binocular vision to his advantage and implemented stereoscopic principles into his paintings to create 3D images. 3D images form in our brains when two images (a left and a right image) are set slightly apart. Our brain fuses the two images together giving the illusion of depth and form. The trick is to recreate the two images onto the same canvas with two different paints, to align them slightly apart as precisely as possible, and to calibrate colours to match the colour filters of 3D glasses. The right combination of all three creates a fully functioning 3D painting.

At first glance, 3D artwork might seem simple but there is a lot of work behind it. This technique cannot be used for its own sake. By combining it with other drawing or painting methods then there is a good chance to break 'through the looking glass' and enter a whole new world. ●

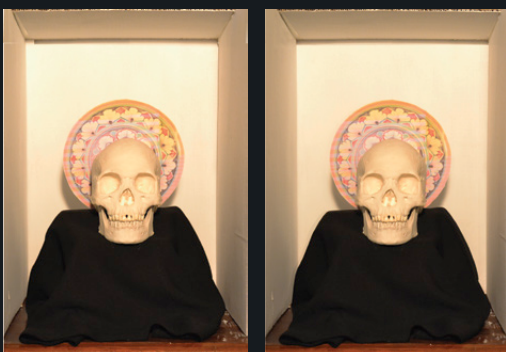


Artworks by Darren Tanti exhibited at the MFA in Digital Arts Exhibition 2013

GIVE IT A TRY

Below is a simple method to create an anaglyph 3D image. Words by **Darren Tanti**

- 1/ Get hold of a high resolution digital camera.
- 2/ Build a simple camera slider (www.youtube.com/watch?v=W9BrPCVUqCo). It is important that it allows smooth horizontal movements, which do not lead to vertical variations.
- 3/ Set a simple object as a model and put it within 1 to 2 meters from the camera (for the first attempt use a white plain background).
- 4/ Take the first picture and drag the camera smoothly on the slider about 2.5–4cm to the right and take the second shot (keep steady and avoid tilting, changing the angle of the camera, or zooming, at least for the first trials).
- 5/ Once you have the two pictures (referred to as chips) you have your stereo pair that can be viewed by a stereoviewer to make 3D images.
- 6/ The images are ready to be turned into a type of 3D image called an anaglyph. For this step, you need to edit them in Photoshop or software like StereoPhoto Maker (<http://stereo.jpn.org/eng/stphmkr>). Do not overdo the 3D effect because it will look unpleasant.
- 7/ For your first experience I recommend StereoPhoto Maker. It's free, easy to use, and spares you the technicalities of converting a stereo pair into an anaglyph image.
- 8/ There you go, you have your first anaglyph image. You need to view it from 3D red/cyan glasses which are cheap to buy (www.3dglasesonline.com) or make.
- 9/ Now paint it! There are different ways how to turn a 3D anaglyph image into a painting. It really depends on your artistic skills. The trick is precision. Initially, you have to find the correct paints that match the 3D glass filters that are going to be used. The red paint has to be perceived as white when viewed through the red filter and the cyan paint has to be perceived as white when viewed through the cyan filter. If not, you will have 'ghosting' problems that will ruin your 3D image.
- 10/ When the filters are swapped, the red paint will be seen as black through the cyan filter and the same for the cyan paint through a black filter. The luminosity of the two painted colours should be equal when viewed through the coloured filters. If not, the effect won't work.
- 11/ Now paint the outline of your painting using 'the grid' technique, a very mechanical (and tedious) method but my favourite for precision drawing. As long as you are precise any method will do.
- 12/ Try to replicate as accurately as possible the anaglyph (red/cyan) picture. Remember any distortions will make it extremely difficult for your brain to fuse the anaglyph image into a 3D image.
- 13/ If you succeeded, remember that this is only the beginning. Art is about self expression and creativity; give this technique your own twist and context to develop it into something authentic.



Above: The resulting images as described in step 4
Right: Painting the image as described in step 9

