

## DIY- 3D SECOND PART THE OBJECT ESCAPING FROM THE PHOTO

Alejandro Ariel Garcia Arriaga Coacalco de Berriozabal Estado de Mexico Mexico

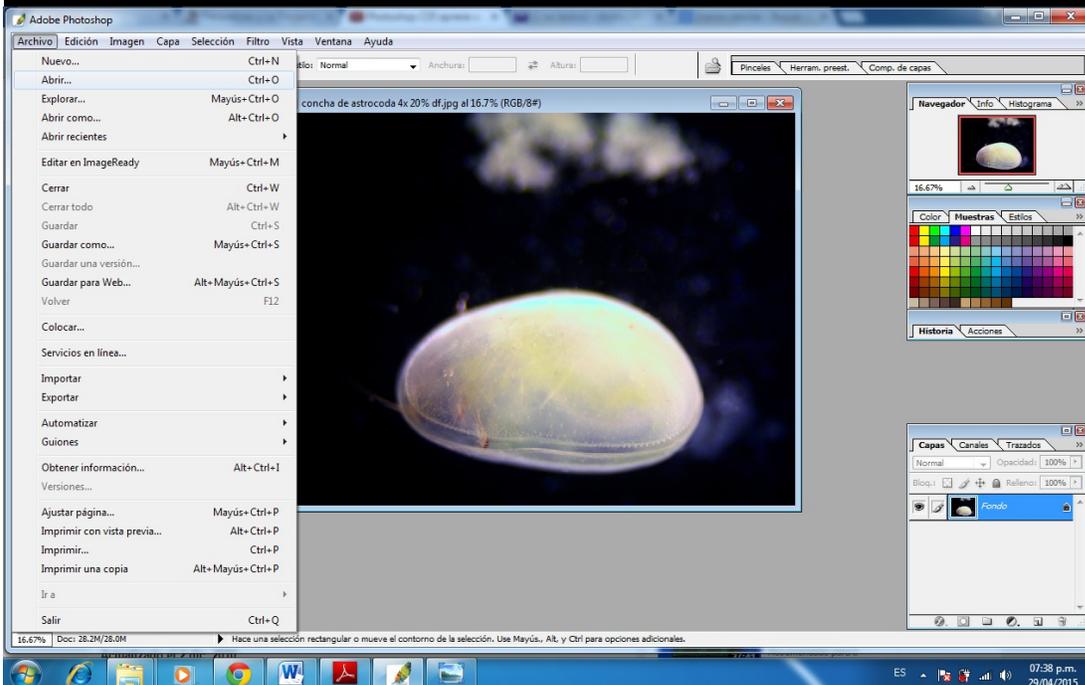
Last month I presented a very easy way of creating a 3D effect for our microscopic pictures, just by using Photoshop and the tool "MOVE" creating with this an anaglyph to be observed with red-cyan glasses or with the glasses that it is possible to create by ourselves.

In this article I want to present another form of giving a sensation of 3D that I learnt while looking for information on how to create a 3D effect with Photoshop. It is a little more elaborate, but very easy to do too and I can say that to some extent it's outstanding.

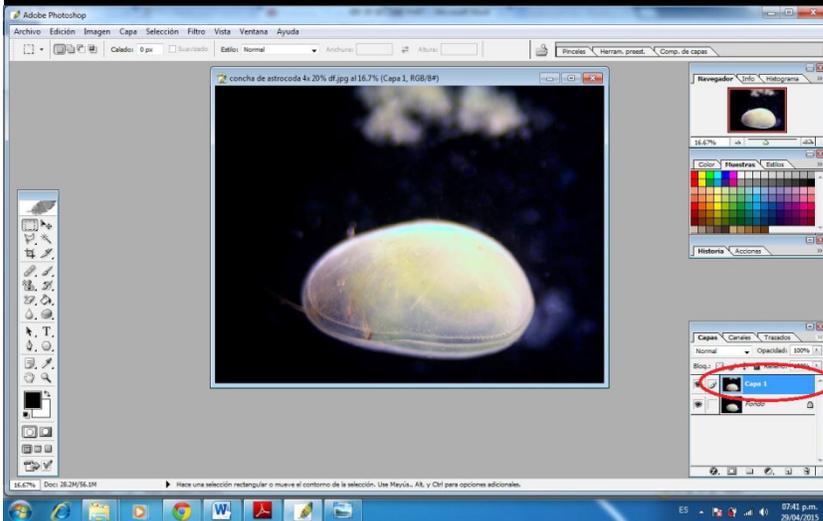
Today I am going to teach you how to create pictures that from the 3D effect they seem to be escaping from the frame of the picture they are contained in. The first time I saw this effect made with Photoshop seemed to me interesting and beautiful, I saw it for subjects in the macro world <https://www.youtube.com/watch?v=ID3Edqr1u4s>, but as my passion is microscopy I thought of it for THE MINIATURE WORLD WE ENJOY TO OBSERVE.

I present here the description of how it is possible to create this beautiful effect, and for doing it a little more impressively I converted the pictures into anaglyphs so we have today not only a 3D effect but two 3D effects mixed together in the same picture.

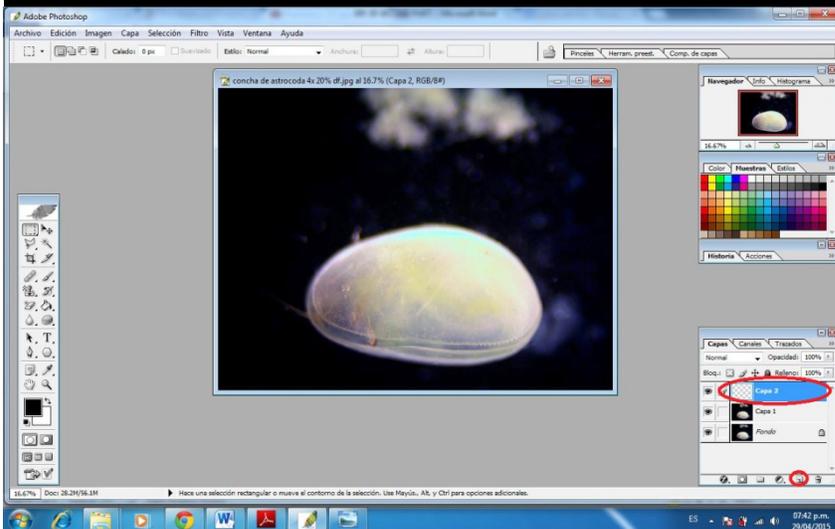
First you have to open with Photoshop the picture you want to convert to this 3D effect.



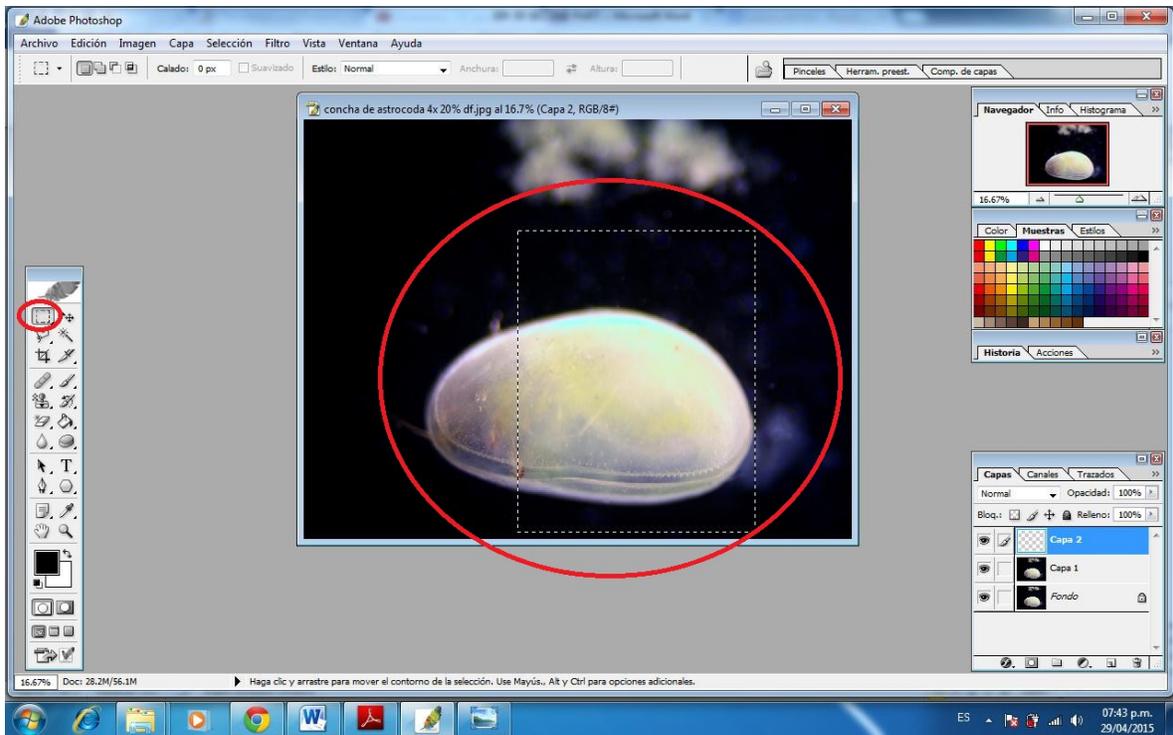
Then you have to press **CONTROL** plus **J** on the keyboard to copy the background layer to create the layer 1.



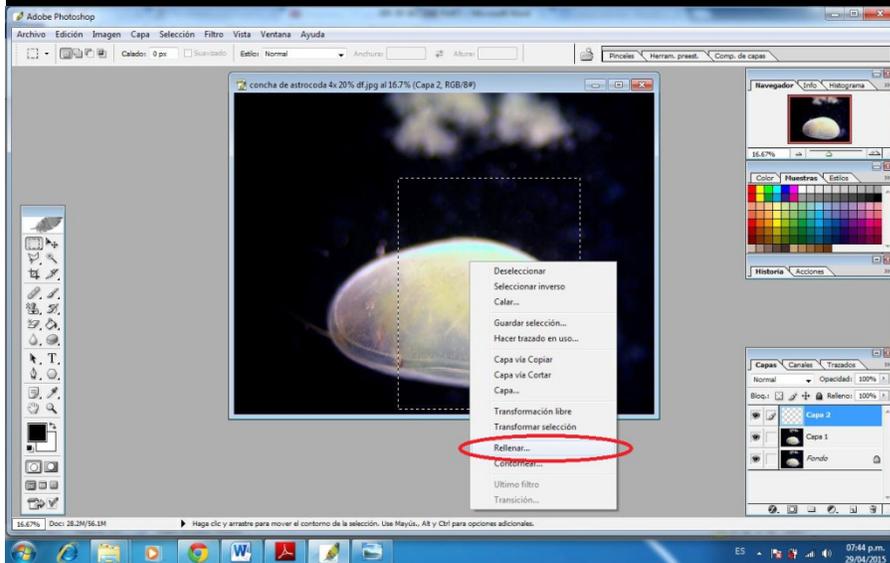
The next step is to create the layer 2 by clicking the the icon “CREATE A NEW LAYER” found at the bottom of the palette.



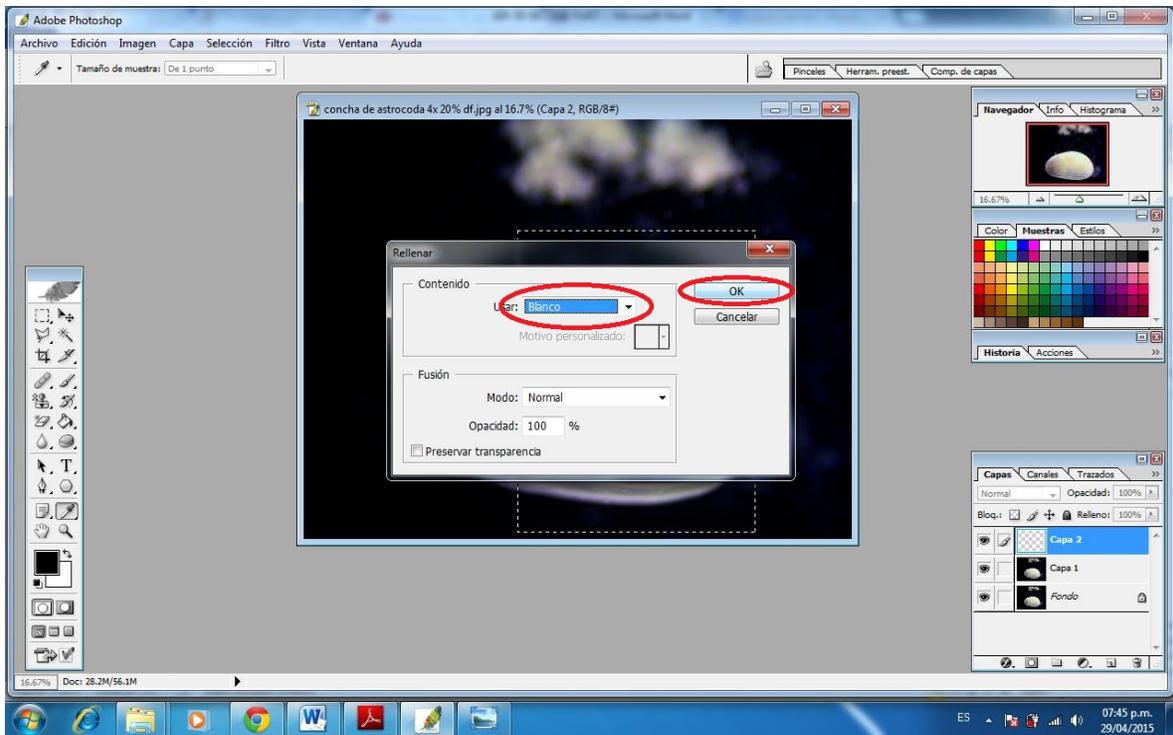
Then with the tool “RECTANGULAR FRAME” you select within the image the part you want to have within the frame of the picture. For example in the picture below I want more than a half of the ostracod’s shell so I selected this. Remember that the selection made can vary according to your preferences and the kind of image you have or if you want some part of the image or the complete image.



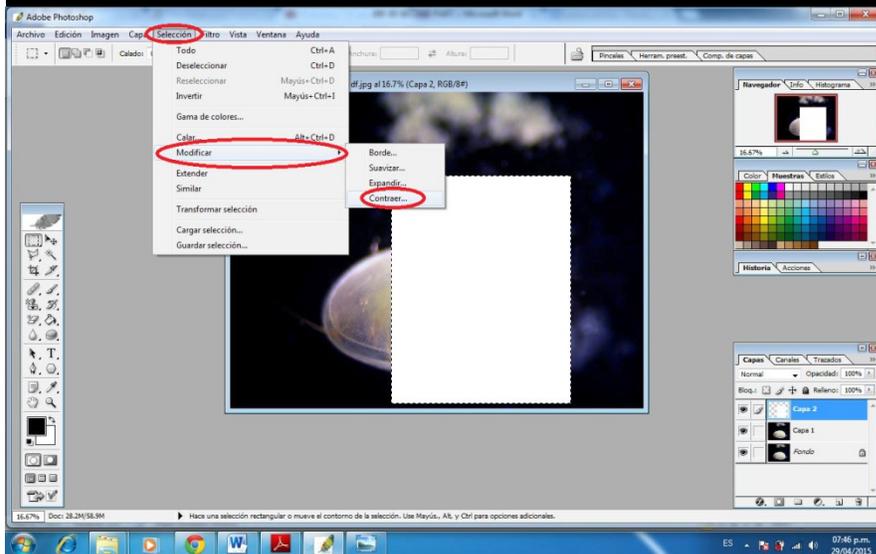
Then by pressing the right button of the mouse upon the selection you open a list, then click on "fill".



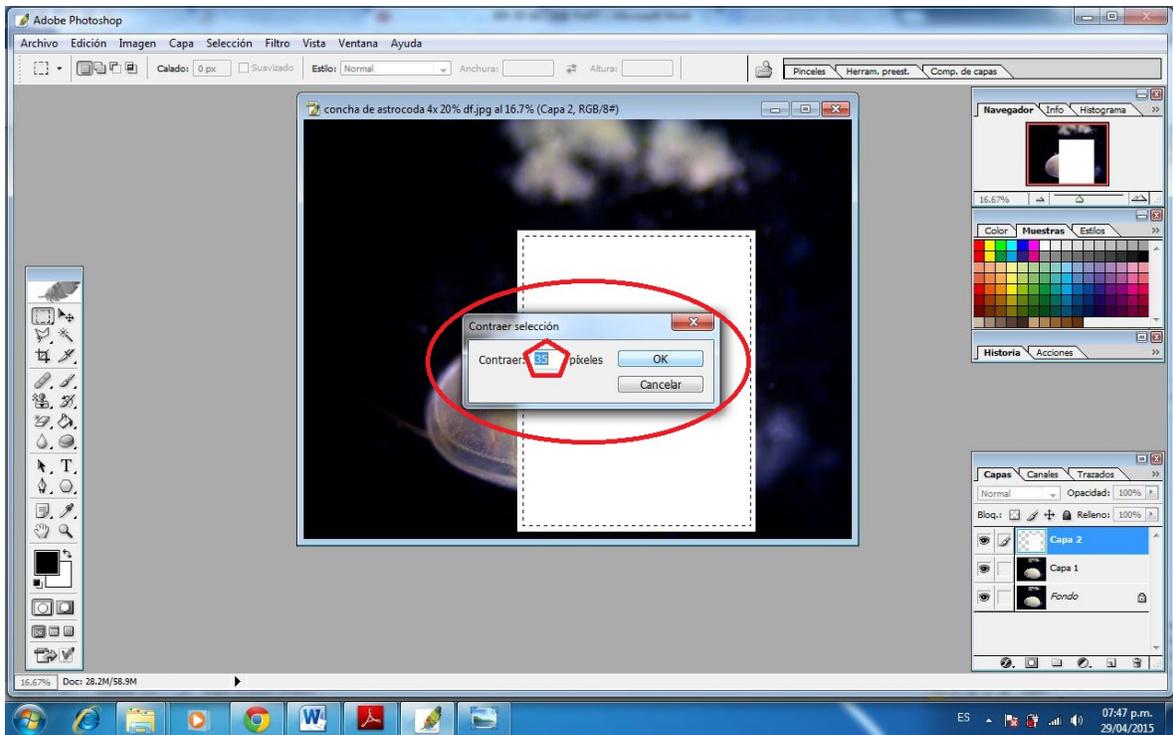
Once you click "fill" a chart will appear that will show "content" you have to select here white from the list of colors.



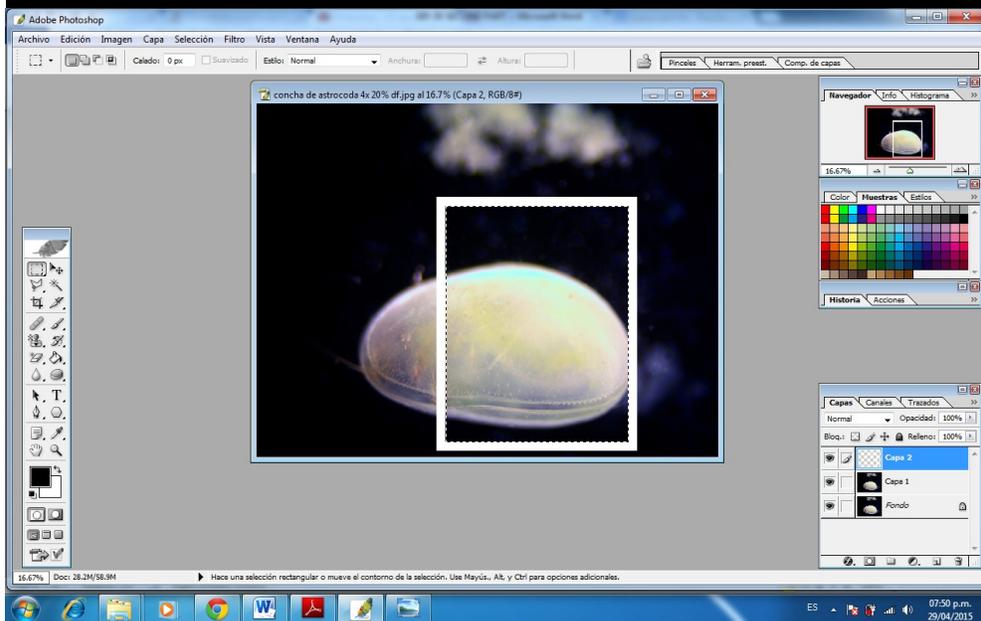
The selection then will appear in white and with the menu button SELECTION you go to “modify” then “contract”.



Once you click “contract” it shows a dialog box, here you have to write the number of pixels you want to contract the selection, this will be the width of the frame of your picture so it can vary from 2 or 3 for small pictures like my streptococcus of yogurt to 30-35 or more for big pictures like my mosquito. For the picture below that is an ostracod shell I used 35 but this is just my preference - you can do it wider if you want.

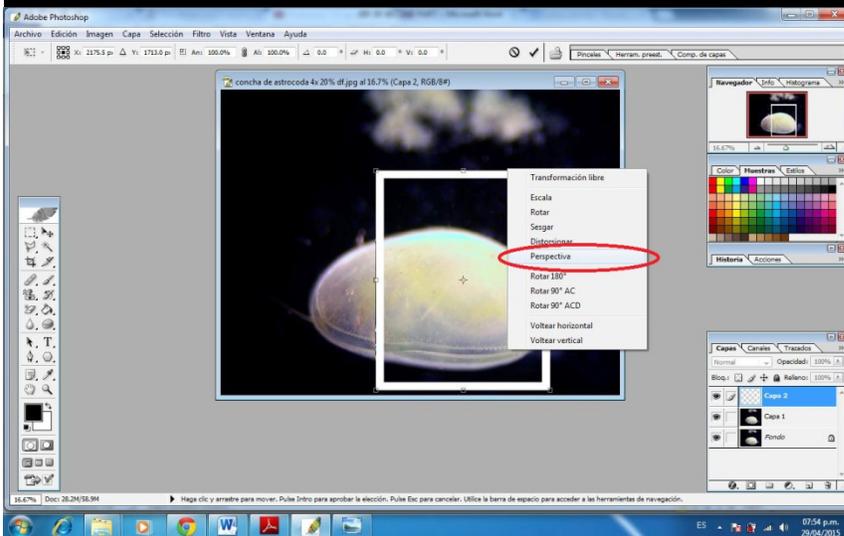
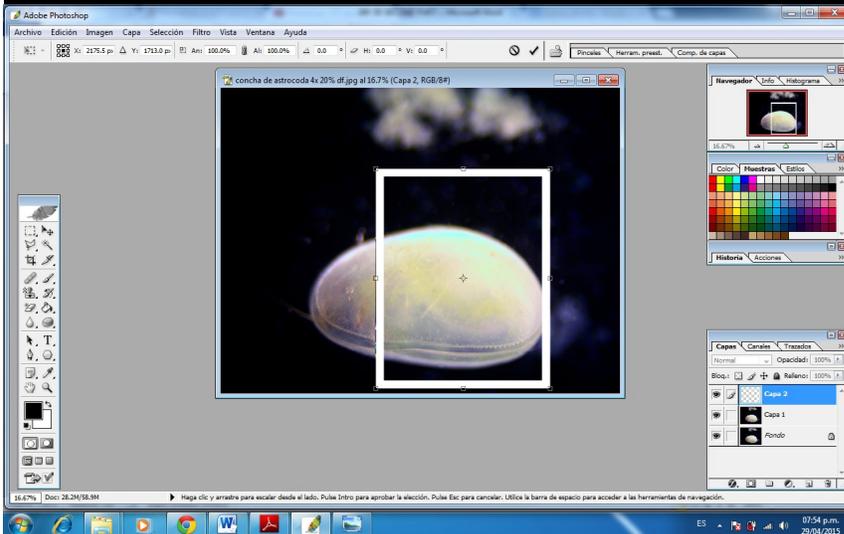


Once you apply contract by clicking OK then with the key DELETE of the keyboard you clear again the image but now it is within a frame.



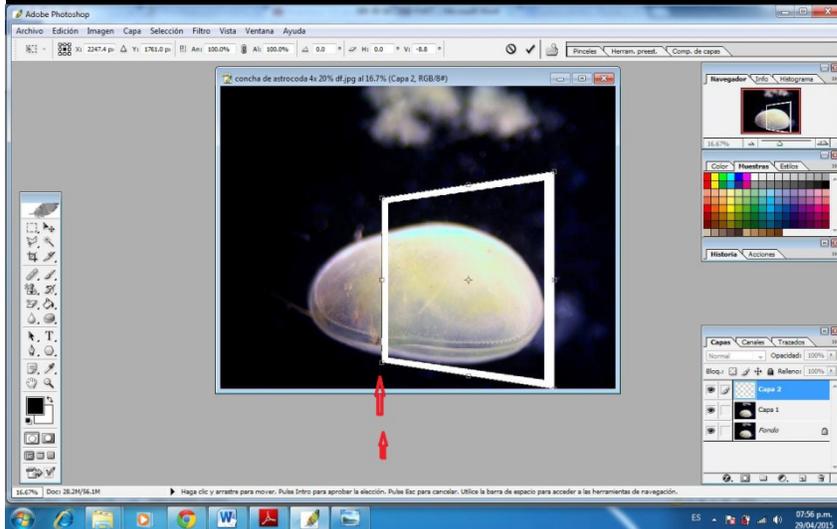
With the keys CONTROL plus D you remove the selection inside the frame, then with CONTROL plus T to select the exterior part of frame. As you can see, now it is a transformable rectangle because the small charts in the middle of each side indicate that you can vary width and/or height or move the position of the frame - but in this case we are going to use it to create a perspective of

the frame into the picture. So by pressing again with the right button of the mouse you obtain a table and click on "PERSPECTIVE".



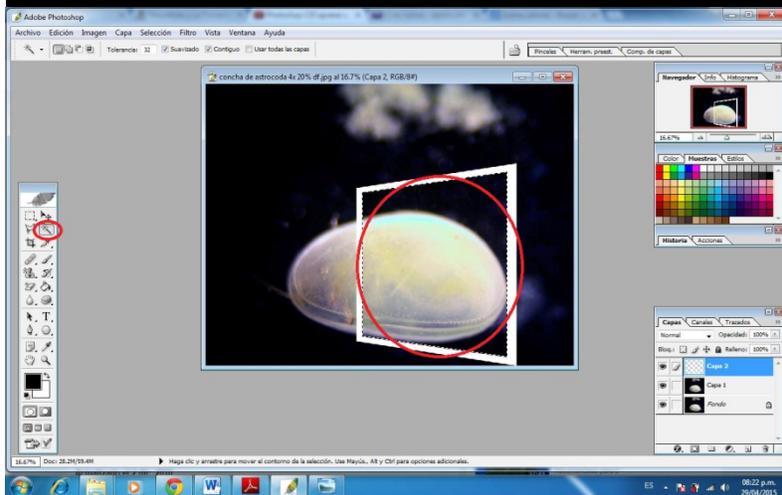
Then with the help of the mouse with the left button you move one of the corners of the frame. It's recommended to select the lower ones to create the effect as if the rectangle were inside the

background of the photo like this:

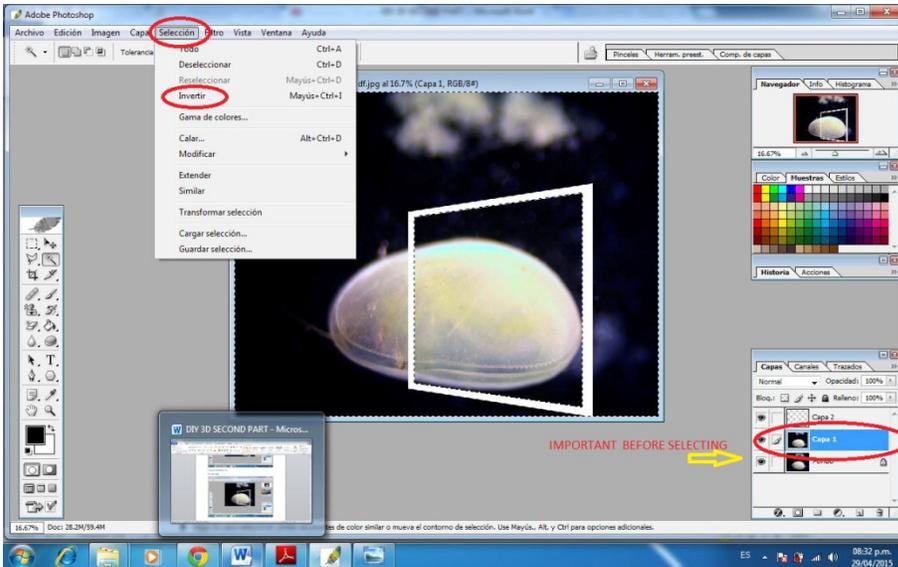


Then you press the key enter to apply the changes in the perspective of the frame.

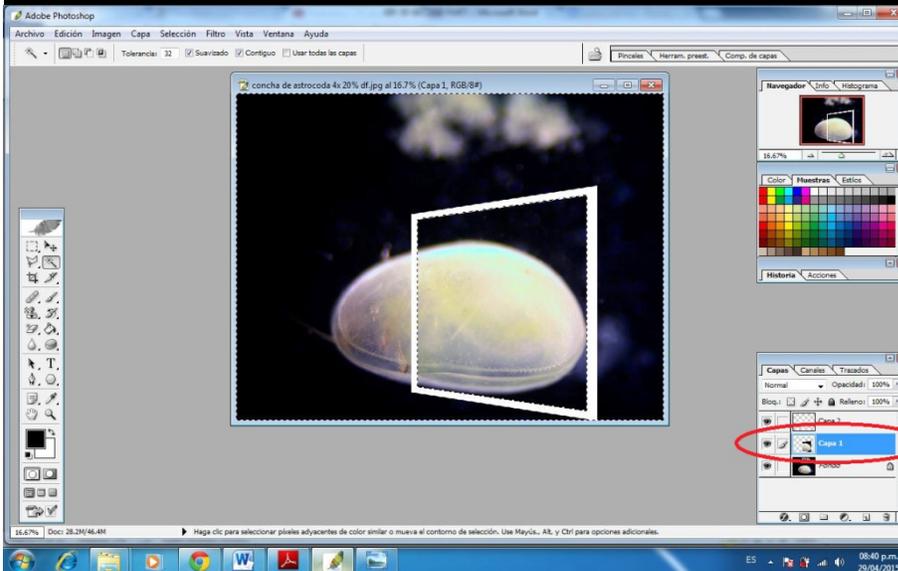
Then with the tool MAGIC WAND you select again the inside of of the frame



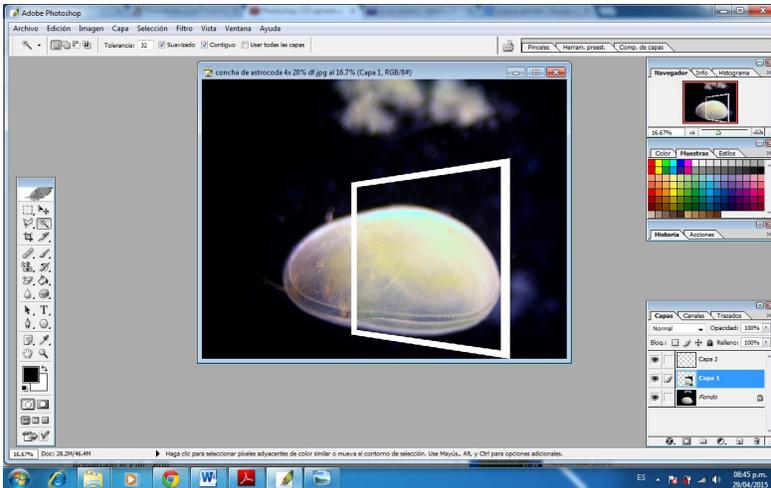
Then this **IS VERY IMPORTANT** you have to change to the layer 1 before this step and press the menu SELECTION option "invert".



It will produce something like this, then by pressing DELETE on the keyboard you must obtain the layer 1 as shown below.



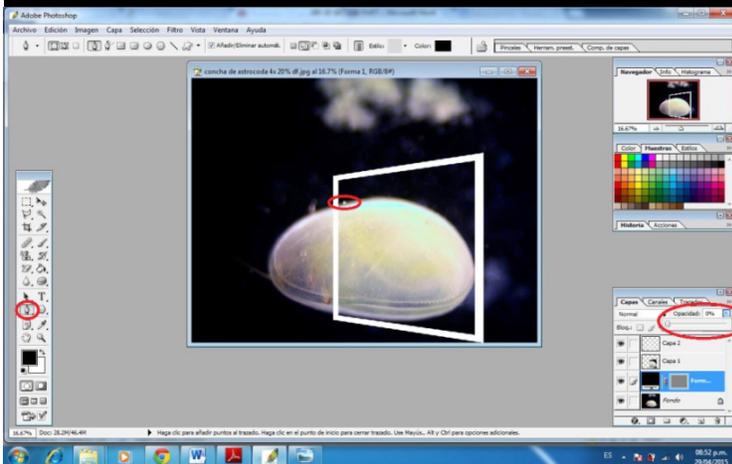
Then by pressing CONTROL plus D you remove the selection of the picture and obtain something like this.



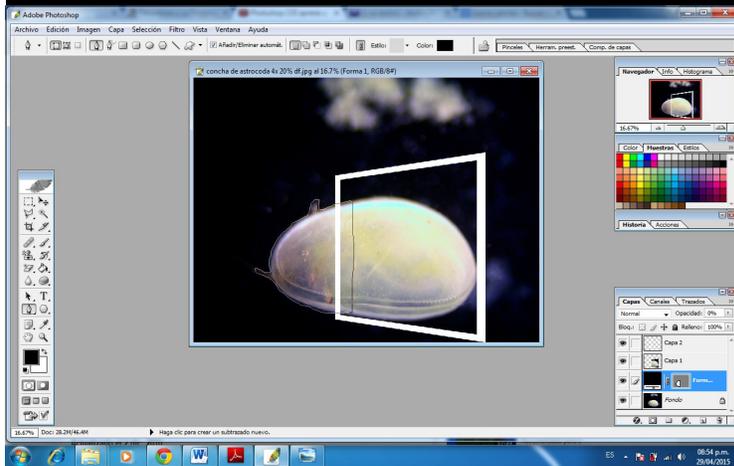
The following step is to create the part that is going to come out of the frame so it **IS VERY IMPORTANT** to change to the layer **BACKGROUND**.



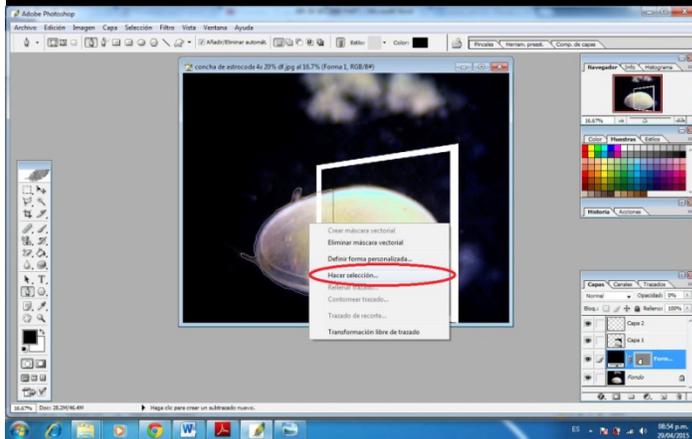
Almost finished - with the help of the tool **PEN** you are going to select manually the part of your picture that will be outside the frame.



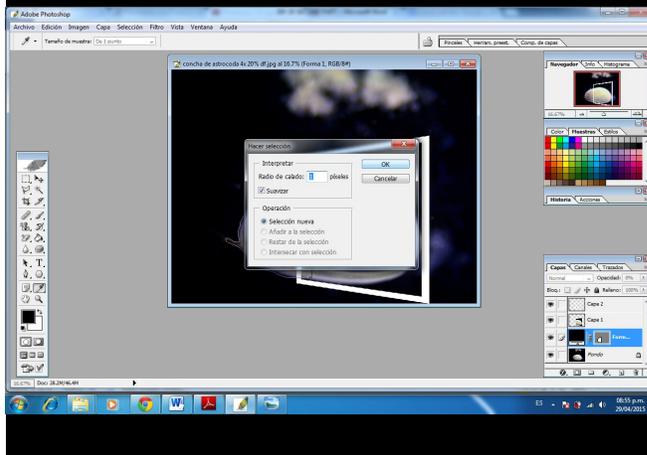
Once you finish selecting with the tool "PEN".



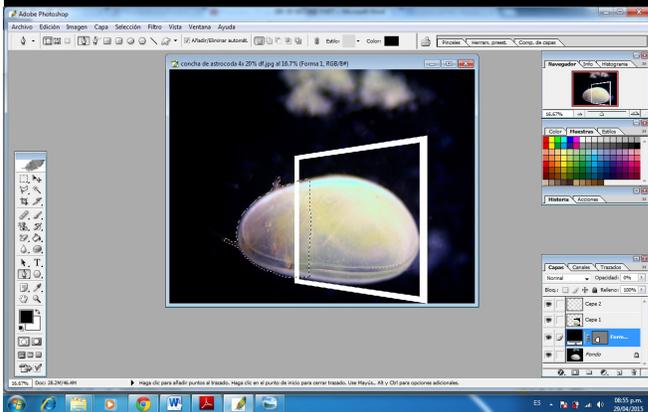
Then you have to select this part by clicking upon it with the right button of the mouse.



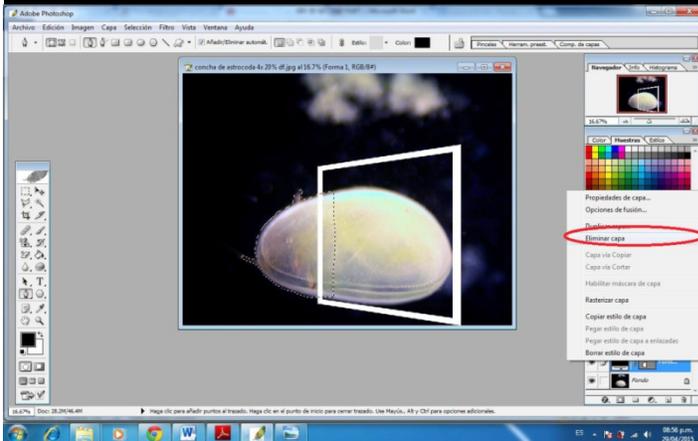
You press OK in the dialog box.



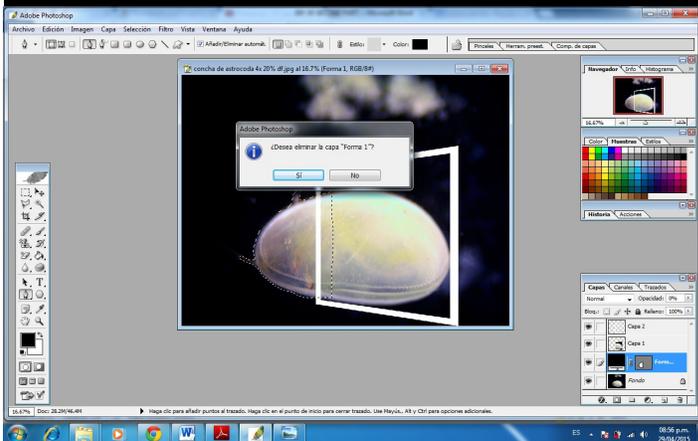
And obtain something like this:

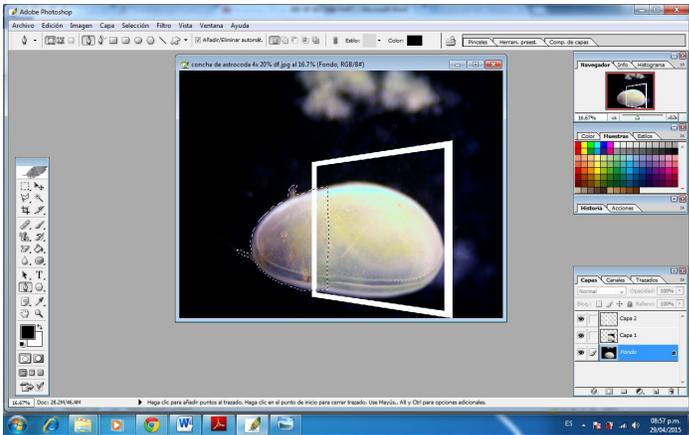


Then by clicking again with the right button of the mouse you eliminate the mask layer created when using the tool "PEN"

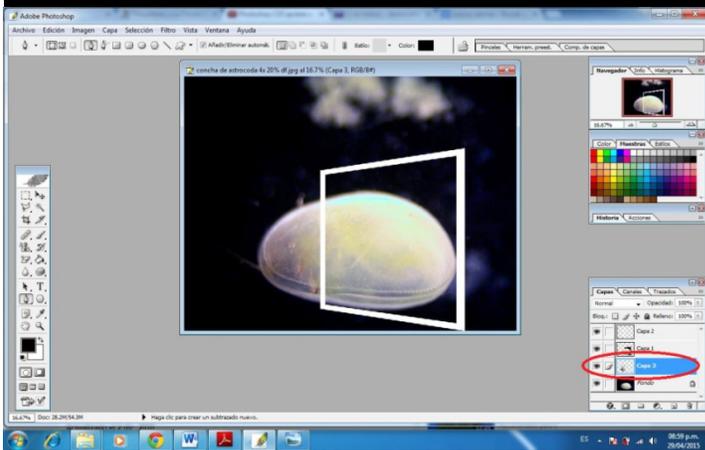


You will obtain a dialogue box asking you if you want to eliminate it. Click "yes"

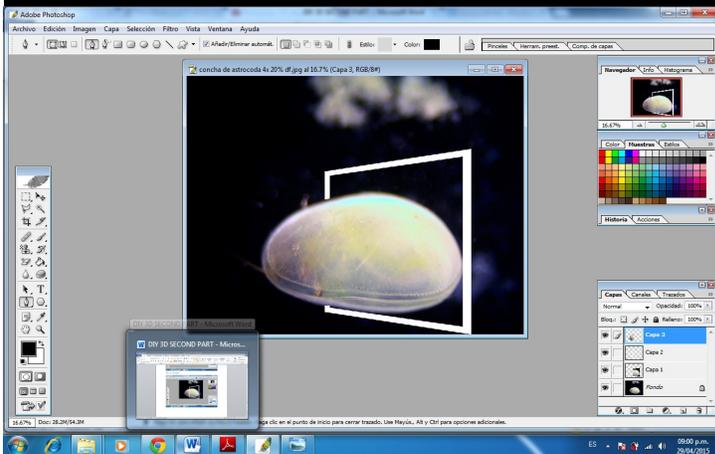




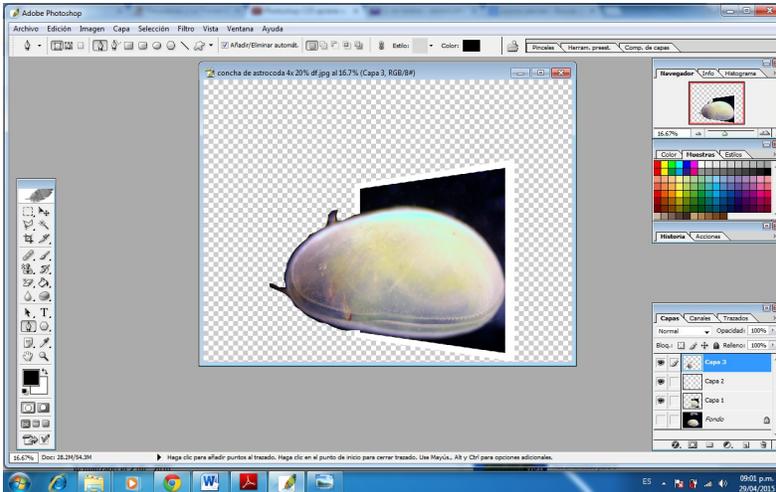
The Press CONTROL plus J and obtain automatically with this action the layer 3.



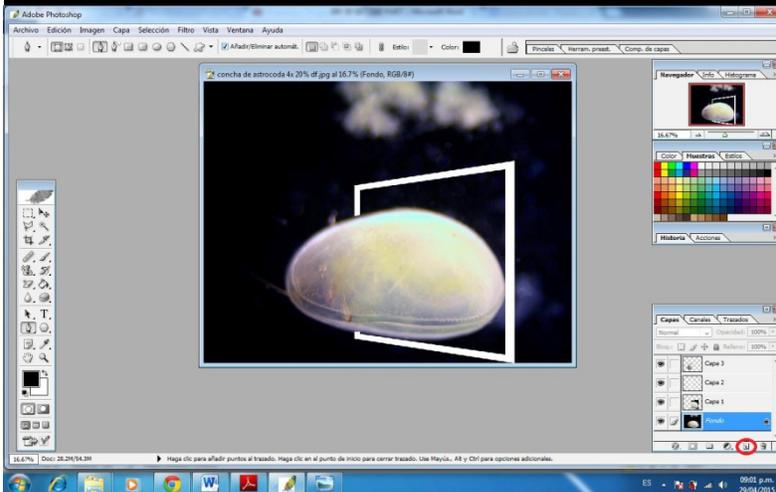
Then with the help of the mouse by pressing constantly the left button you can move to the first place the layer 3 obtaining the wanted effect that seems as if the object is escaping from the frame.



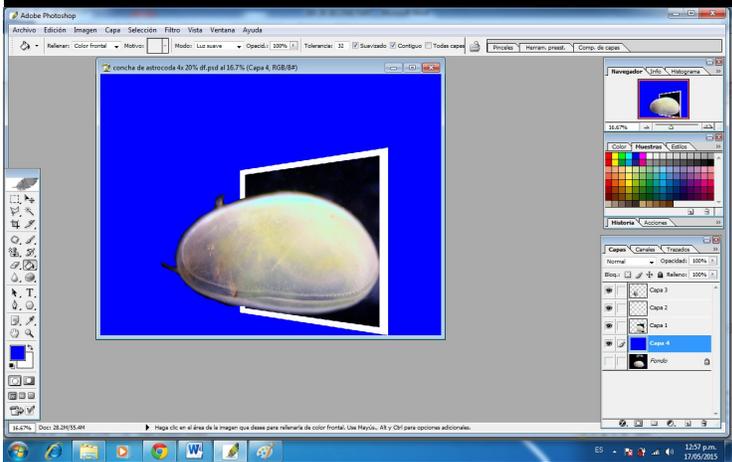
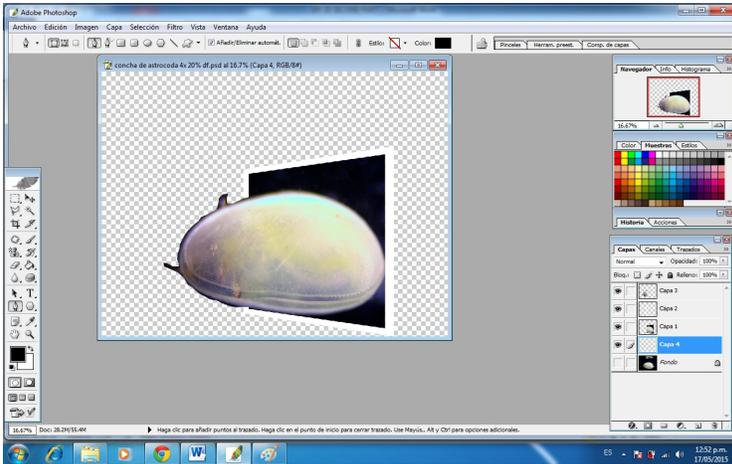
Then by clicking on the eye beside the background layer you hide it so you will have the effect totally done :



Then if you one to create a new background, go again to the layer background and by clicking the icon create a new layer which you can give a new color to your picture's background.

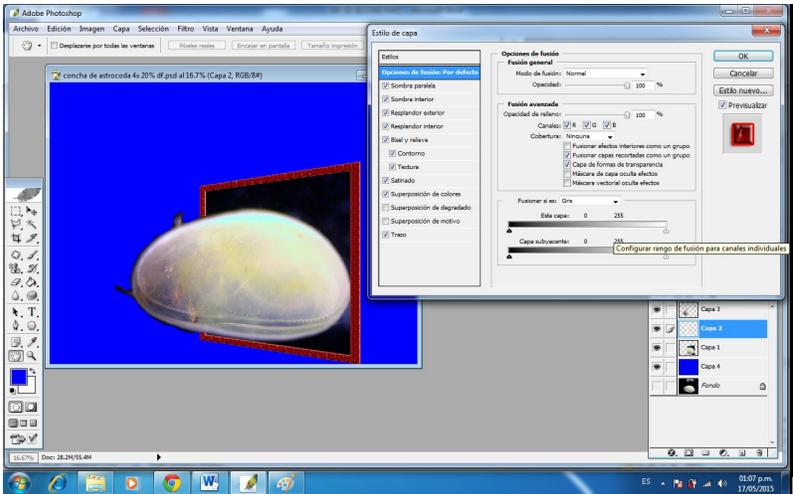


For achieving this you have to hide the layer BACKGROUND and select with the mouse the layer 4 previously created. Then you select your favorite color and with the help of the tool "BOTTLE PAINT" by clicking with the mouse you can create the new background of your picture.

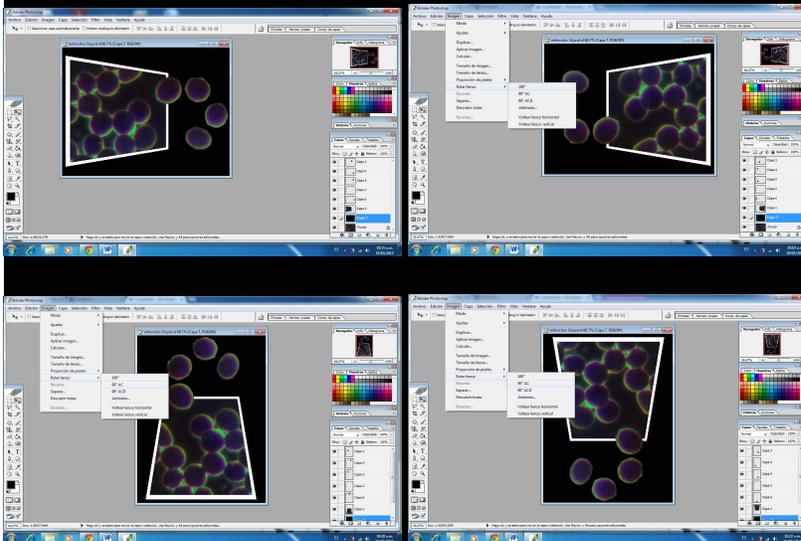


Any color is great, but if you have to create the anaglyph too I have observed that dark backgrounds are the best, but red or blue are good options too since once you wear the glasses the object seems to be suspended TRY IT! IT'S FUNNY.

Another detail that I want to comment on, is that you can also modify the frame the object is coming from, obviously if you want, but if you prefer you can keep it white - it is up to you. If you want to change it, it is simple, only click with the mouse then with the right button of the mouse click upon it and you will obtain a dialogue box call LAYER STYLE. Here you select the ones you prefer according to the availability that your Photoshop version has and your likes.



Another thing that you can do is to rotate the image with the perspective you want. So you can have the image as if the object were ascending or descending from the photo or in the opposite direction as the one you created originally. There are two ways you can achieve it, the first one is by using Photoshop by going to menu IMAGE then to "rotate the canvas".



And the other one once you have kept the photo as jpg image it is possible by using the WINDOWS DISPLAY SCREEN

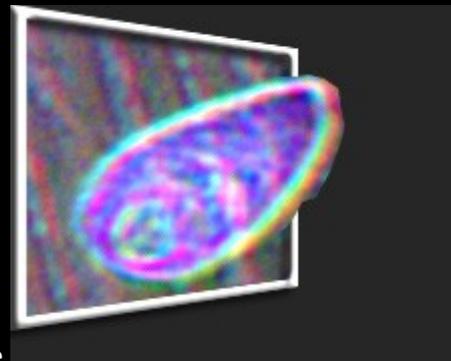


Once you are satisfied with the presentation you can keep it as a Photoshop file as this will allow you to modify it whenever you want, or to keep it as a JPG image.

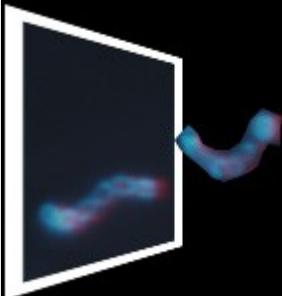
As I mentioned above I also like to use the red-cyan anaglyph to enhance the 3D effect and observe them with the red-cyan glasses. It is optional because this one that we learnt to create is by itself a kind of 3D effect. If you want to create the anaglyph please consult my previous article called [DIY-3D MICROSCOPY](#) here at MICSCAPE in this year [May issue](#).

So all the images below are going to have the anaglyph effect too.

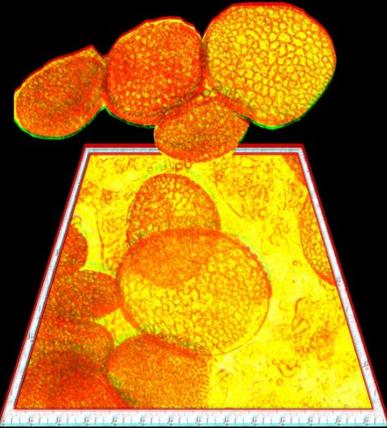
RESULTS:



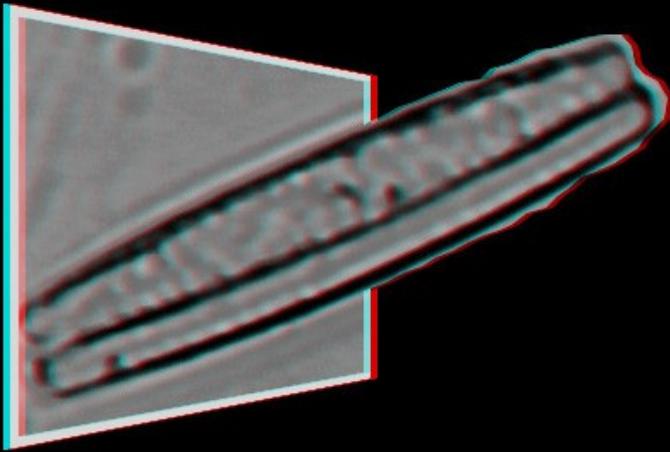
Euglena 40x brightfield white balance application negative



Streptococcus of yogurt 40x darkfield

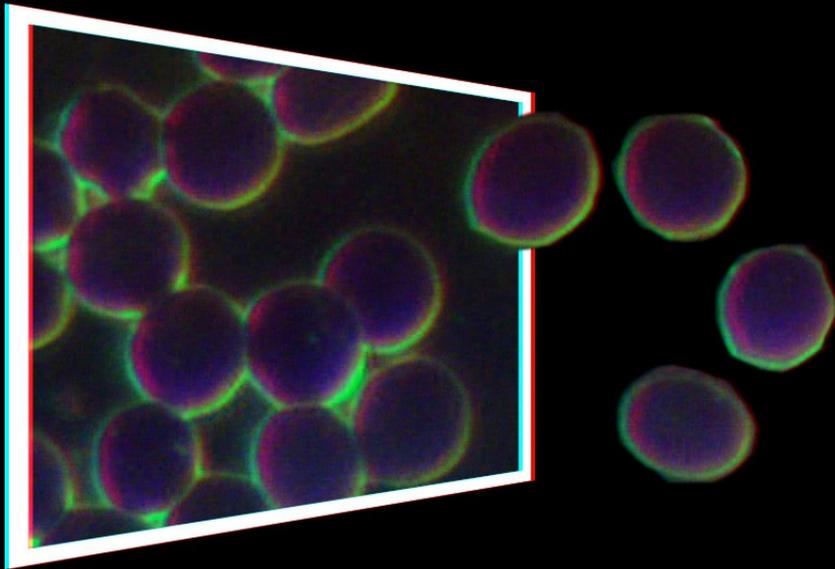
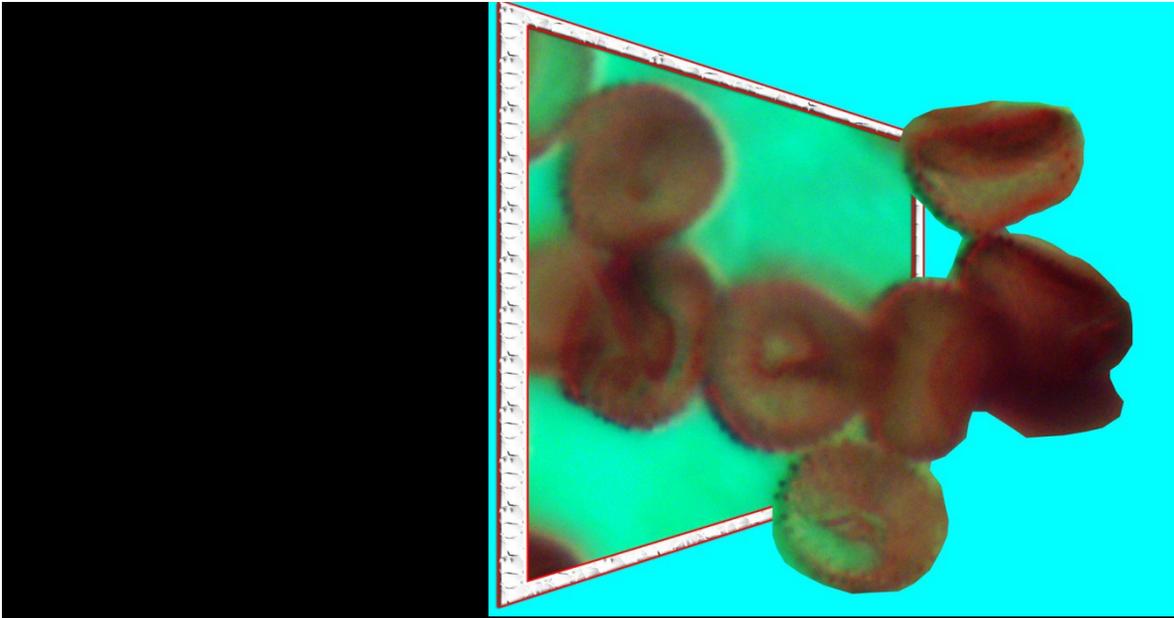


Pollen of a yellow lily upon a petal 10x brightfield

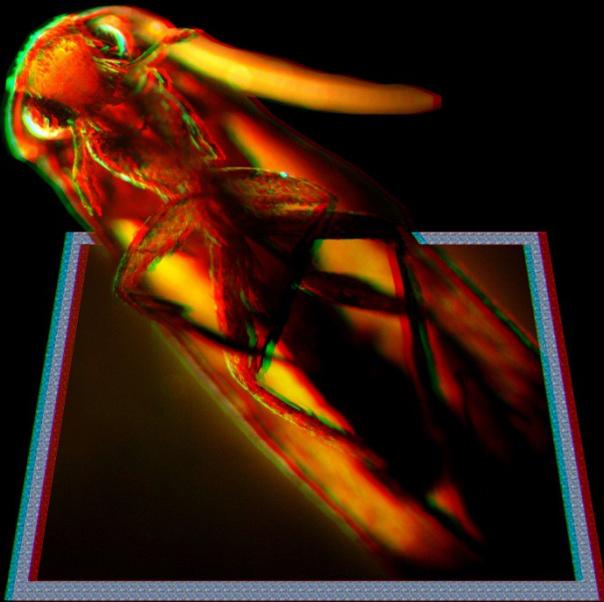


Diatom 40x gray scale

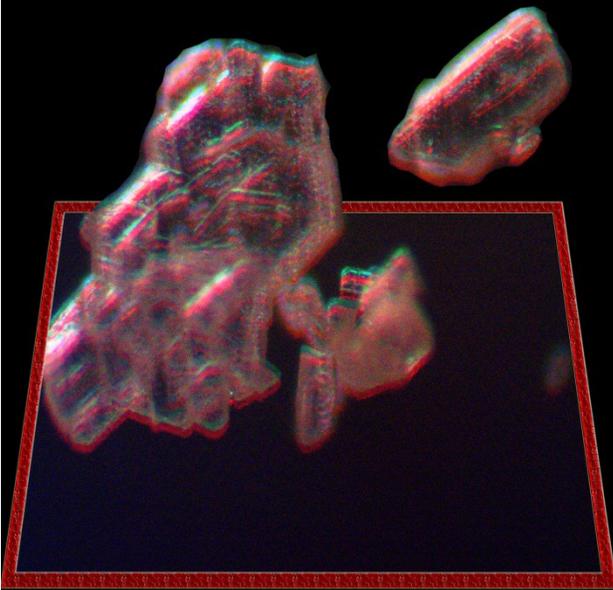
Fungus found upon a leave of geranium according to the morphology of this fungus probably it is *Hemileia vastatrix* 40x 50% zoom



Erythrocytes 40x 100%

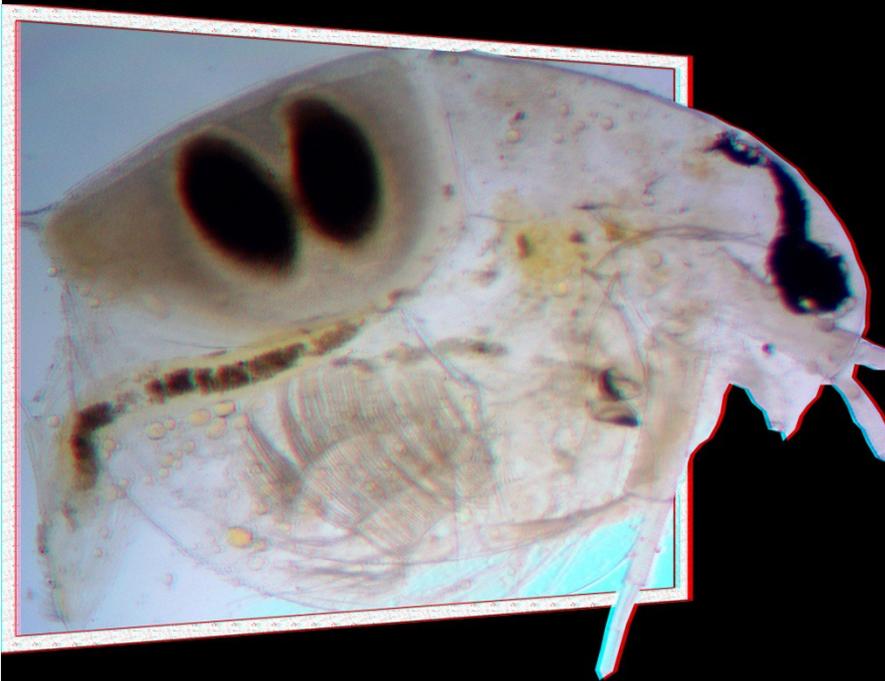
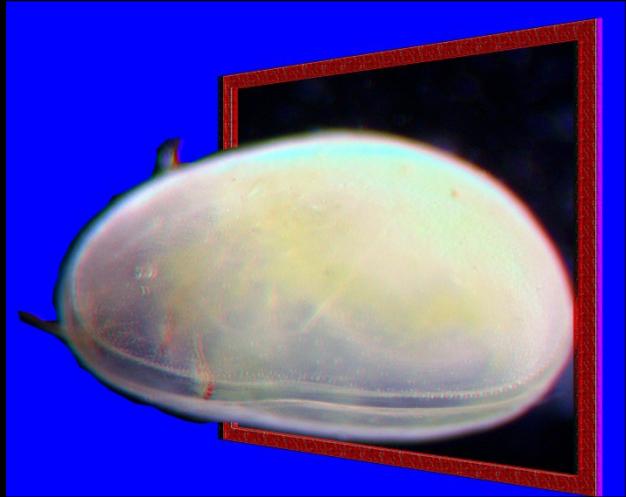


Moth 4x 20% darkfield



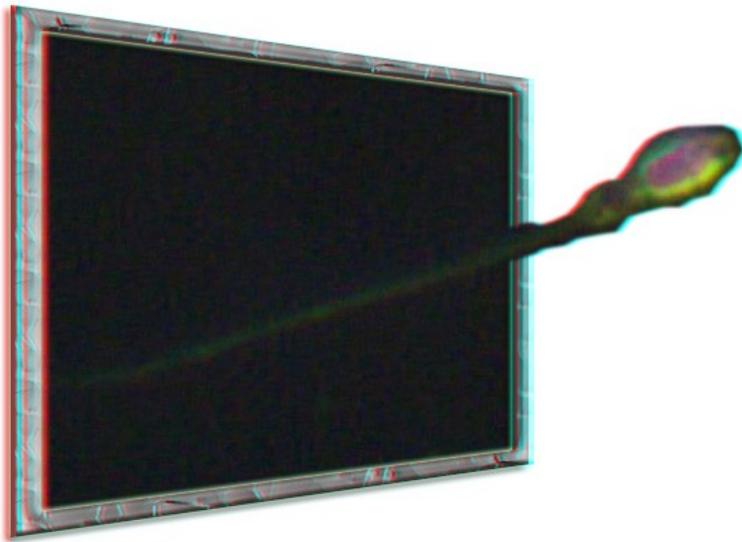
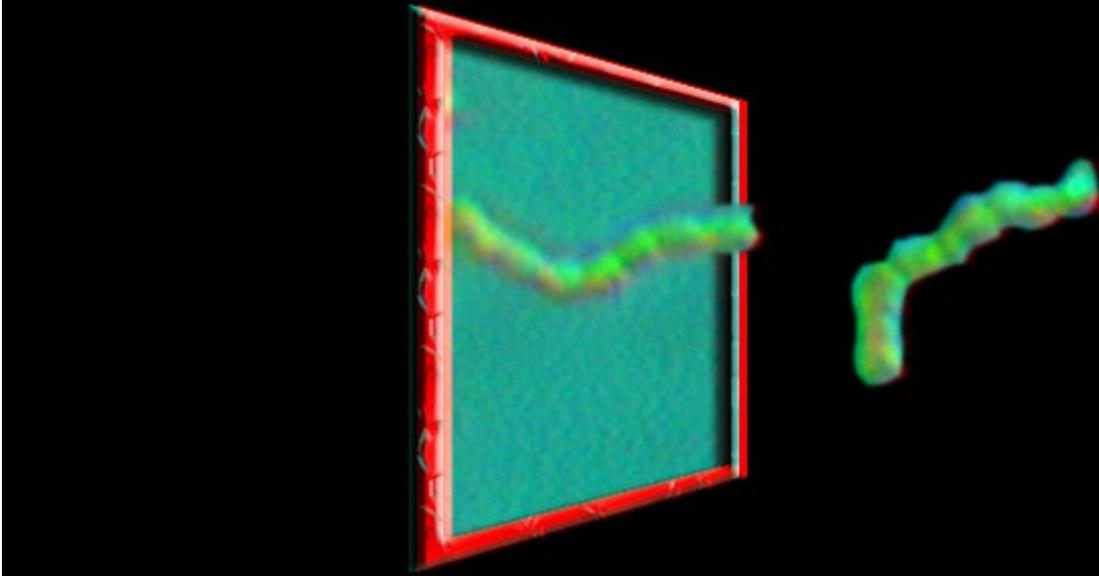
Sodium bicarbonate crystals 10x 100%

An ostracod shell found in the sediment of the pond where I have the ostracods 4x 20 zoom



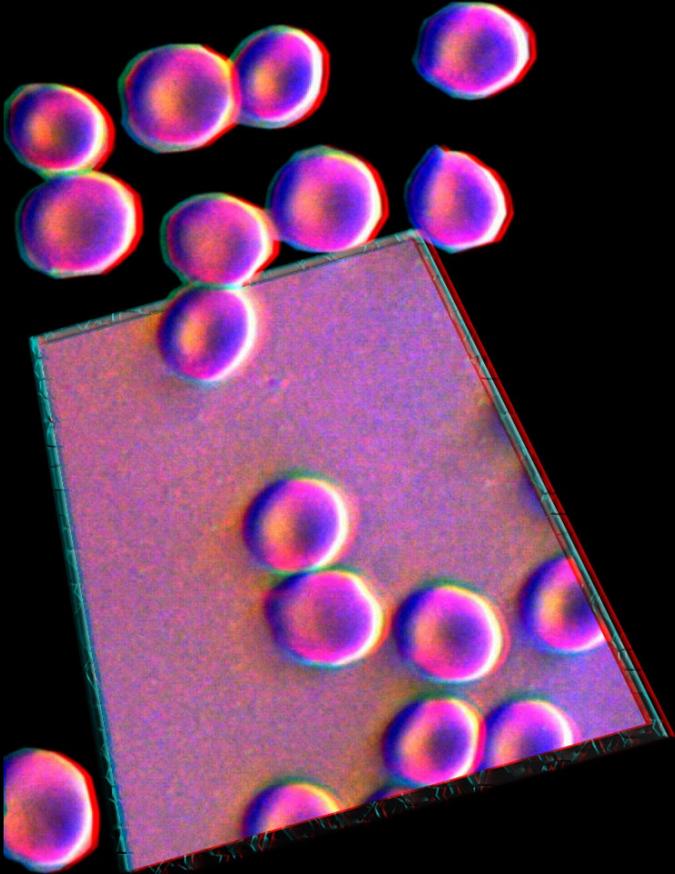
Daphnia 4x brightfield

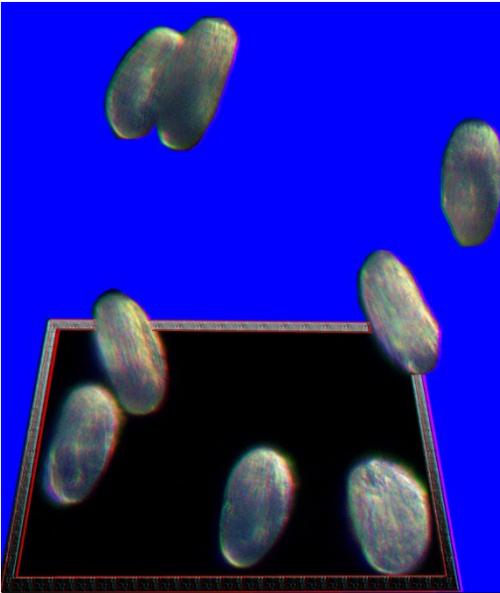
Streptococcus of yogurt 40x blue DIY-DIC



sperm 40x darkfield

Erythrocytes 40x 100% oblique illumination

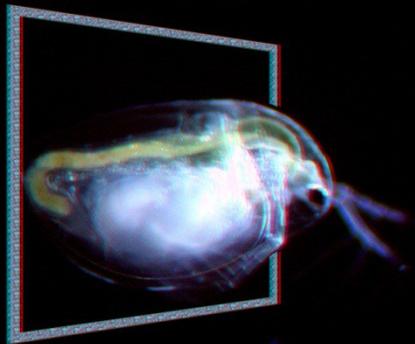




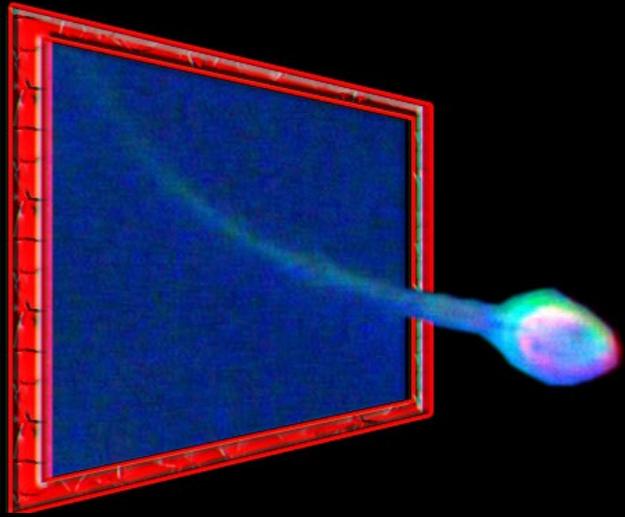
Pollen of *Spathiphyllum wallisii* 40x darkfield



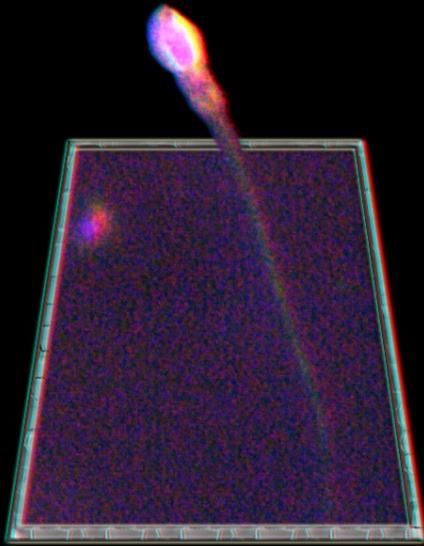
Sperm 10x



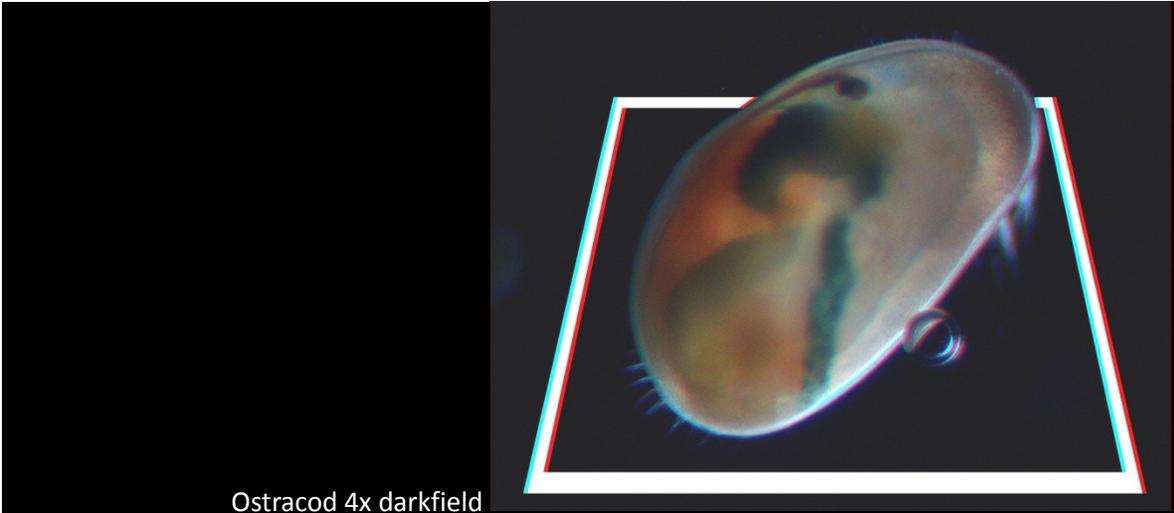
Daphnia 4x darkfield



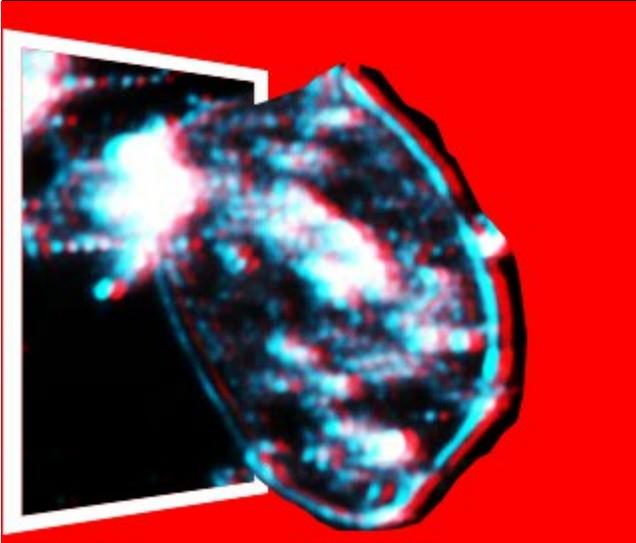
Sperm 40x



Sperm 40x



Ostracod 4x darkfield



Epithelial cell 40x darkfield

Conclusion:

Here is my presentation of this Photoshop technique. At the beginning it may seem difficult to create, nevertheless if you practice and practice soon it will take just a few seconds to create your 3D photographs.

Any questions or comments about the technique, please email me, I will answer a.s.a.p.

Email author: doctor2408 AT yahoo DOT com DOT mx

(Above in anti-spam format. Copy string to email software, remove spaces and manually insert the capitalised characters.)

Published in the June 2015 issue of Micscape magazine.

[www.micscape.org](http://www.micscape.org)