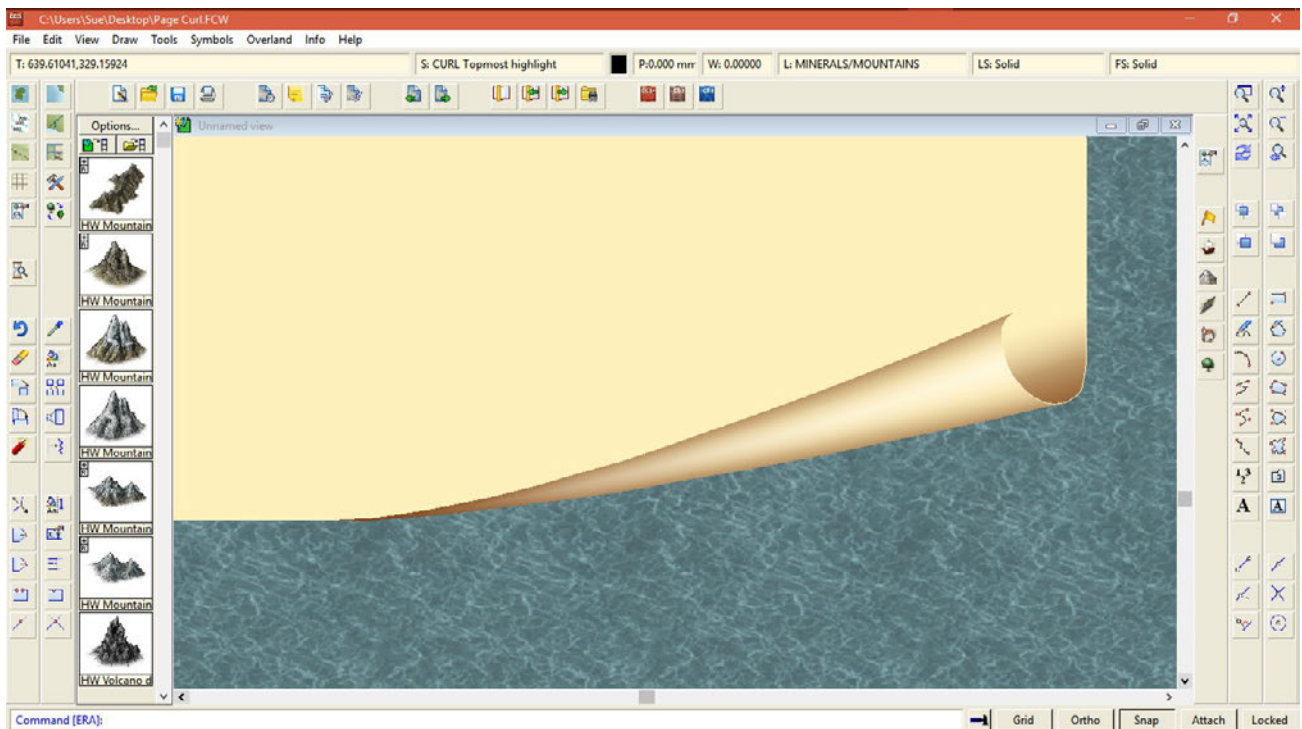# Constructing basic paper curls in CC3+

by Sue Daniel (aka "Mouse", or "Loopysue")



**PLEASE NOTE**

These instructions assume an understanding of and familiarity with CC3+, and also a basic grasp of the following Sheet effects:

Edge Fade, Inner
Colour Key (only available in CC3+)

**IMPORTANT INFORMATION**

The total length of the paper curl from tip to tip in map units in this example is 280.  This piece of information will help you convert the effect units I give in these instructions to better suit the size of your own paper curl.

**PART 1: Creating the "Paper Curl Tool":**

The reason for doing this is to make the rest of the process easier to follow, since I haven't included instructions on how to modify polygons drawn with drawing tools that behave differently to the Paper Curl Tool that I used to draw all the parts of the paper curl.

1. Click the drawing tool button (the hammer and pencil button), then click the *Advanced* button, and click the *New* button.

2. Name the new tool "Paper Curl Tool", then set the *Draw method* to "Path/polygon", and click the *Options* button and set the *Draw method options* to "Straight". Then click OK.

3. Click the *Properties* button and tick the box "Use current properties throughout" and delete whatever appears in the *Sheet* box.  This will have the effect of allowing you to create straight polygons on the current sheet with the current fill whenever you select the new *Paper Curl Tool*, which will greatly simplify the process of drawing the paper curl.
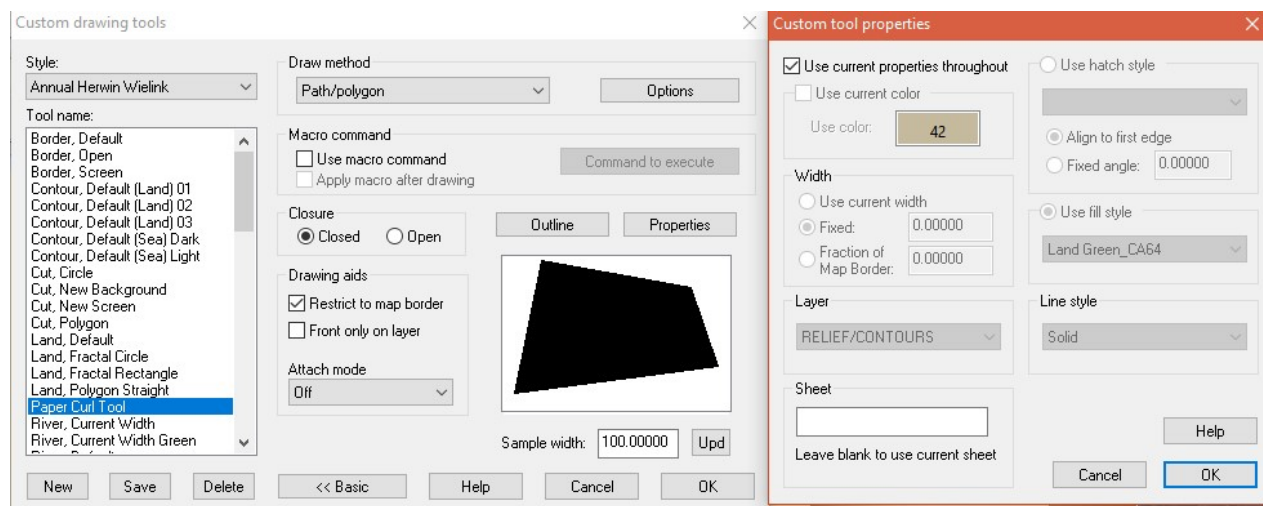
**PART 2: Setting up the CURL Sheets:**

Whatever other sheets you are using in the drawing you will need an additional 5 sheets to draw the paper curl. These should be arranged in the following order:

- **PAPER** (a straightforward sheet without any effects on which to draw the main outline of the sheet of paper)

- **CURL front** (the sheet on which the top part of the paper curl will be drawn)

- **CURL front mask** (objects drawn on this sheet will effectively trim the appearance of objects drawn on the CURL front sheet)

- **CURL inner shadow** (the shaded area inside the curl is drawn on this sheet)

- **CURL topmost highlight** (this is where the final pale highlight is drawn to make the curl look more rounded than flat)
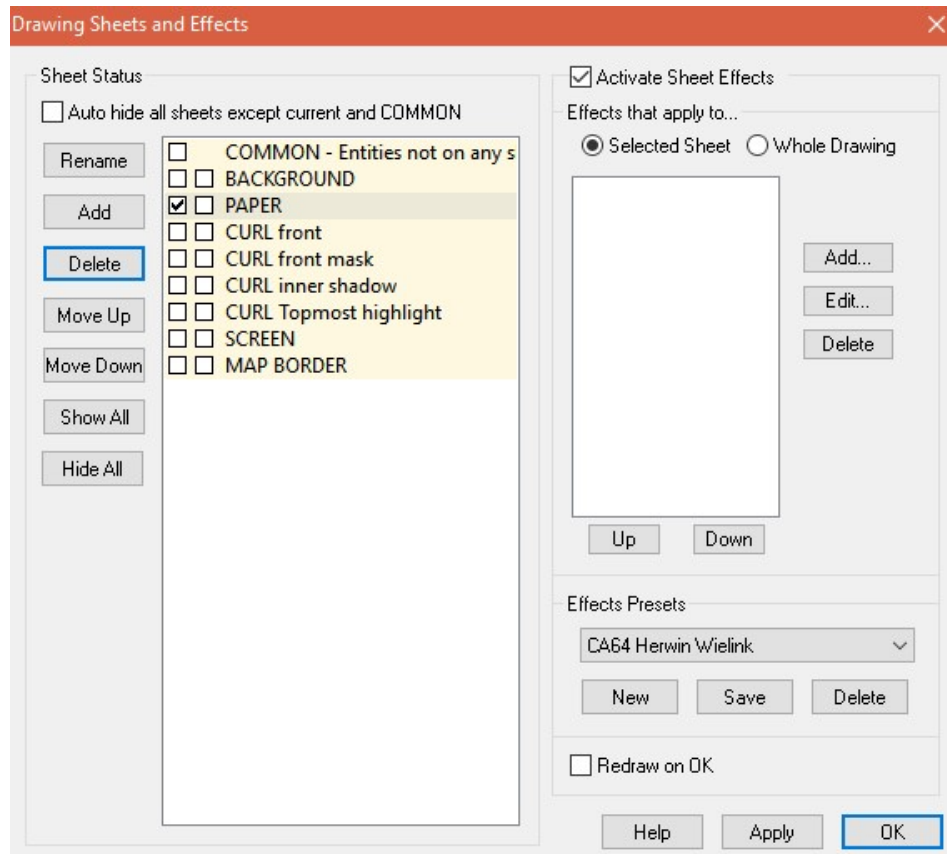


PLEASE NOTE: remember to Draw/Point at 0,0 on each of the new sheets to preserve them between sessions, or the unused sheets will disappear when you close CC3+.

**PART 3: drawing the paper curl**

Before drawing the paper, consider the shape that you will need to draw.

Most illustrated page curls and scrolls are relatively fanciful – some of them are so extreme that no amount of origami or paper craft could ever recreate such an appearance in the real world. This, however, is not the point. A paper curl is more of a decoration than an actual representation of the truth, and can be as florid and distorted as you like. The paper curl I used to illustrate these instructions is a fanciful curl along these lines.

If you want to create an accurate paper curl you might wish to browse the internet for images of paper curls before you start, so that you can pick something as a starting point to work with. Or you could roll up a piece of real paper, then unroll it and pin it down as you want it. Take a photograph of it from above to use as a reference. (Taking the photograph just helps to flatten the real world into 2 dimensions to make it easier to mentally analyse the shapes that you will need to draw).

Once you have a pattern to copy, or an image set clearly in your mind of how you want it to look, this is what you will need to do:

1.  Click the top bar where it says: FS:… and select the fill that you want to use as the paper colour.

2.  Make sure you are on the **PAPER sheet** and click the drawing tool button to find and select your new *Paper Curl Tool*.

    *(If you have skipped the creation of the Paper Curl Tool, then any tool that draws straight polygons without any fractalization will do, but you will have to reset the fill before you start to draw, and once you are finished drawing the polygon you will have to right click the sheet button and use the Move to sheet option to bring the resulting polygon back to the PAPER sheet).*

3.  Draw the outline of the main sheet of paper, remembering to follow the outside line of the curled section rather than just drawing a straight rectangle. The resulting shape should look a bit like this
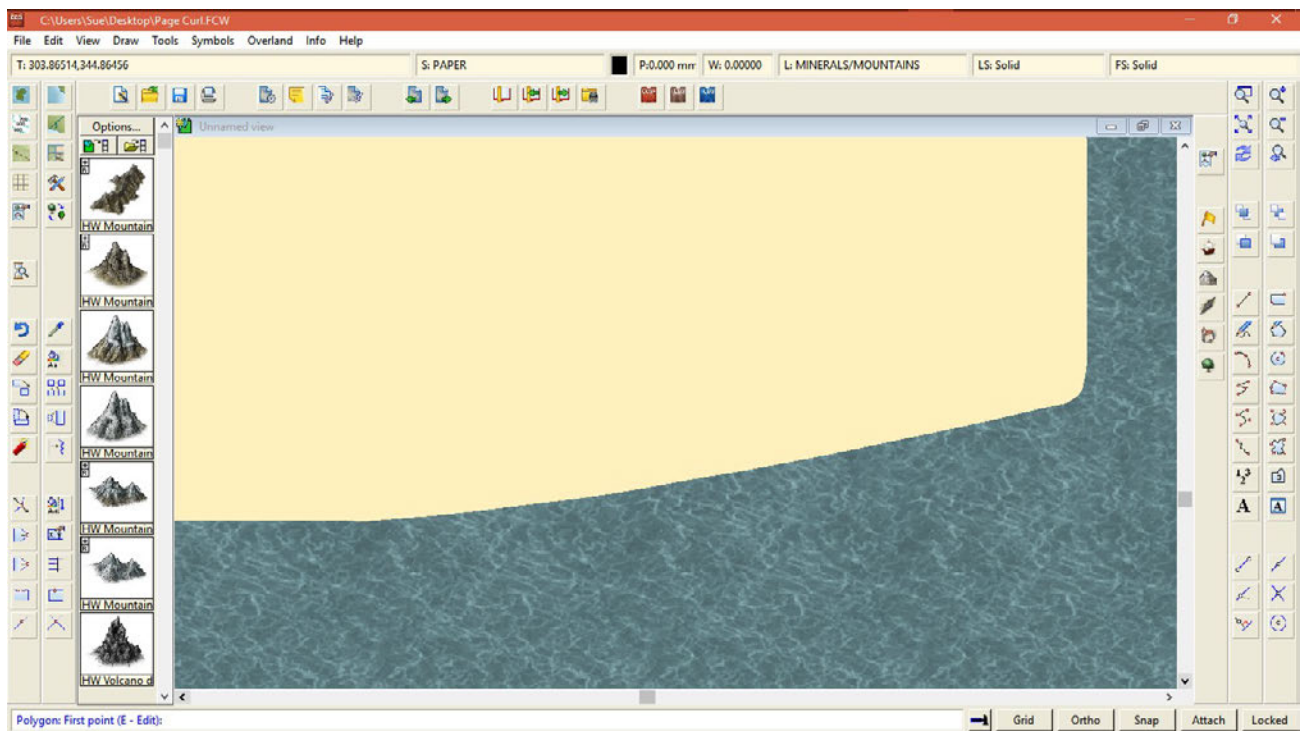
4. Open the Sheets dialogue and add a glow effect to the **CURL front** sheet:
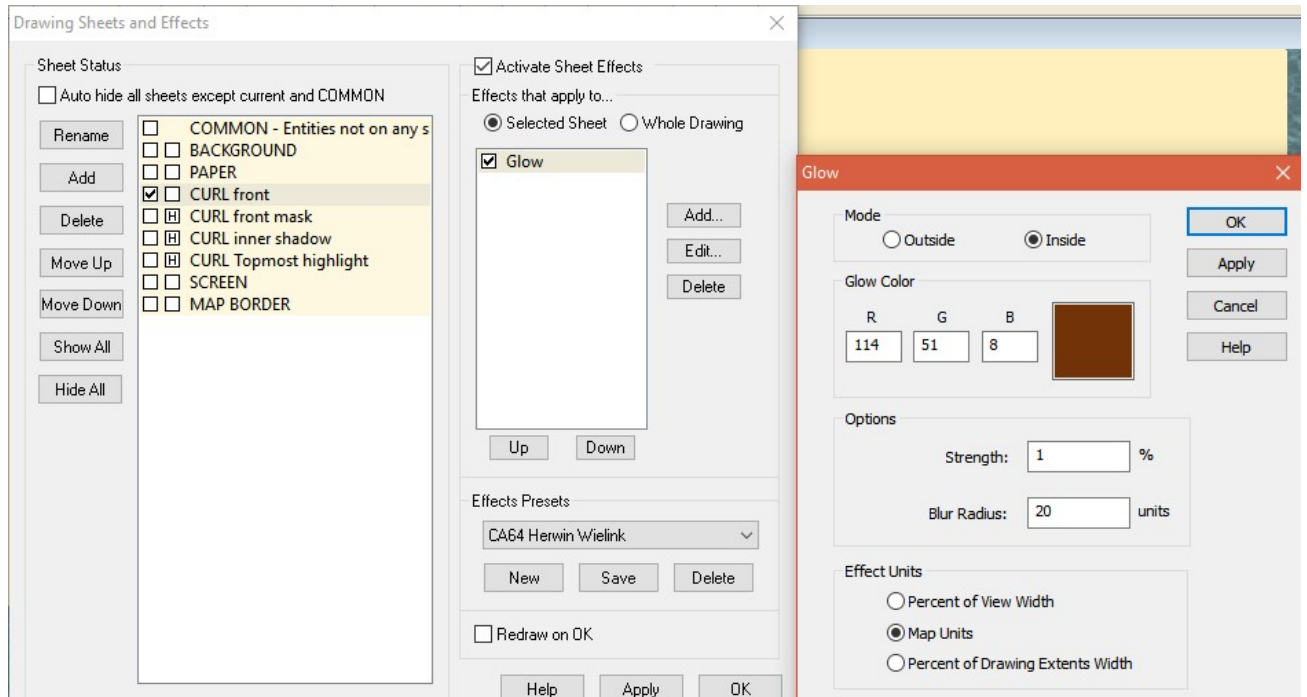


**PLEASE NOTE: depending on the scale of your drawing and the size of the curl you may need to adjust the settings shown in the effects dialogue to make them appear as they do on my drawing. This applies to all the effects settings shown throughout these instructions.**

*BEFORE YOU START instruction 5… If you find it a bit tricky to draw a curve with a straight line tool you can prepare the way by drawing any necessary guide lines with the smooth line tool, converting them to straight lines, and then tracing them with the Paper Curl Tool instead of having to draw them 'cold'.*

5. Using your new *Paper Curl Tool* draw the overall outline of a triangular shape on the **CURL front** sheet. (If you find this difficult you could draw a curved guideline before you start as described in the note above). This is the point at which you will start to appreciate the value of using a drawing tool rather than the freehand tool, since you would be <u>strongly advised</u> to trace the section of the curl that follows the outside line of the main piece of paper to avoid any under or overlaps. The result should look a bit like this:
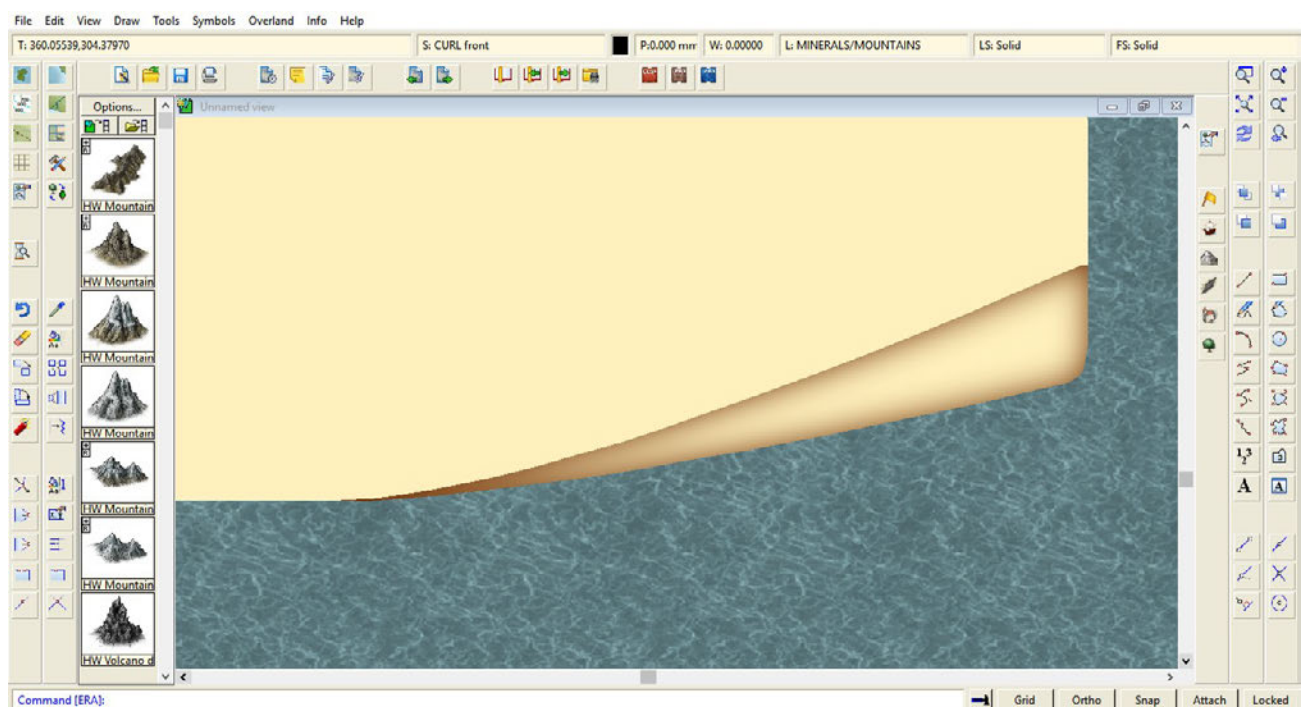


*If your glow doesn't look anything like this you may need to adjust the settings of the effect until it does, since your drawing and mine may not be the same scale, and the paper may be a different size.*

The open end of the curl (it might help to imagine this as the visible base of a cone that exactly fits the triangle you have just drawn) now needs to be drawn on the **CURL front mask** sheet, to mask the base of the triangle in such a way that the open end of the curl is created. *(NB - using a Colour Key effect on the CURL front sheet, and cutting it out of the triangle that way doesn't work to cut off the unnecessary edge glow)*

6. Using the *Paper Curl Tool* on the **CURL front mask** sheet (and preparing the way with any necessary guidelines), trace the outside line of the main sheet of paper from a point just above the fat end of the triangle, around the corner to where the line of the curled-in section would start, and draw (or trace) across the triangle to form the inner line of the curl until you reach the hypotenuse (the long side). Complete the new polygon. The shape you draw should have this effect on the drawing:
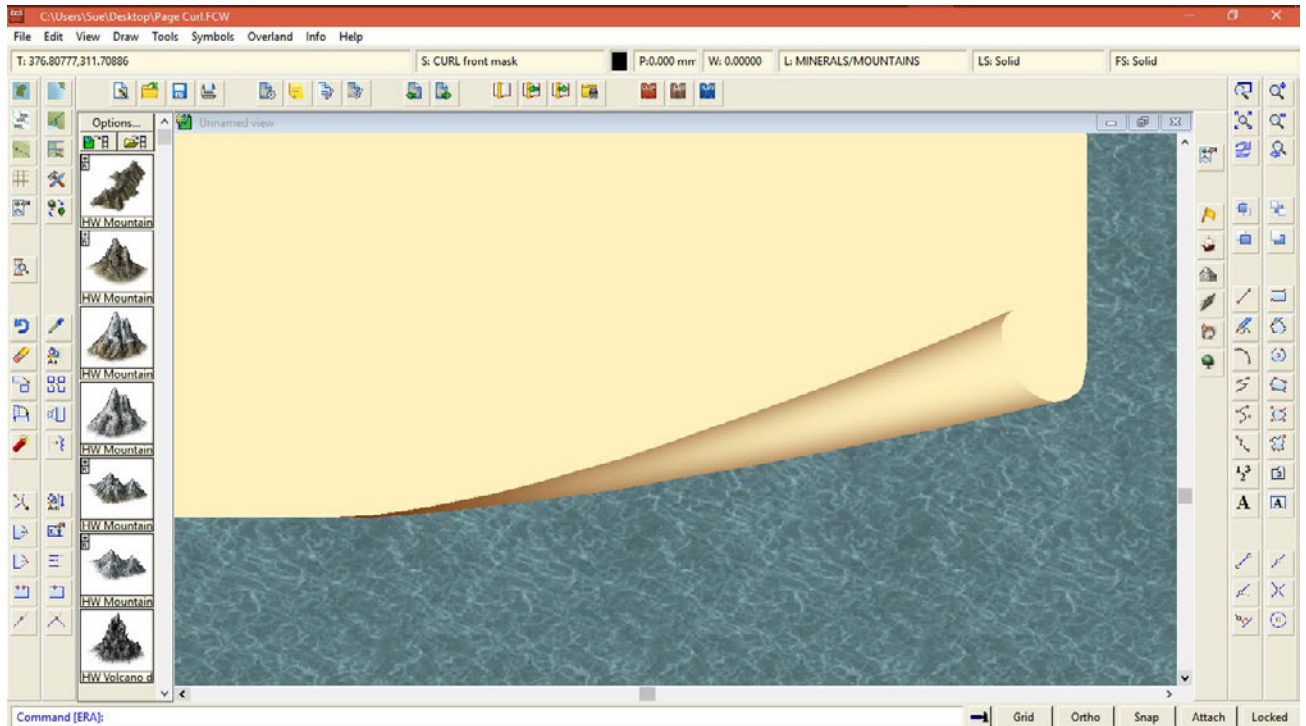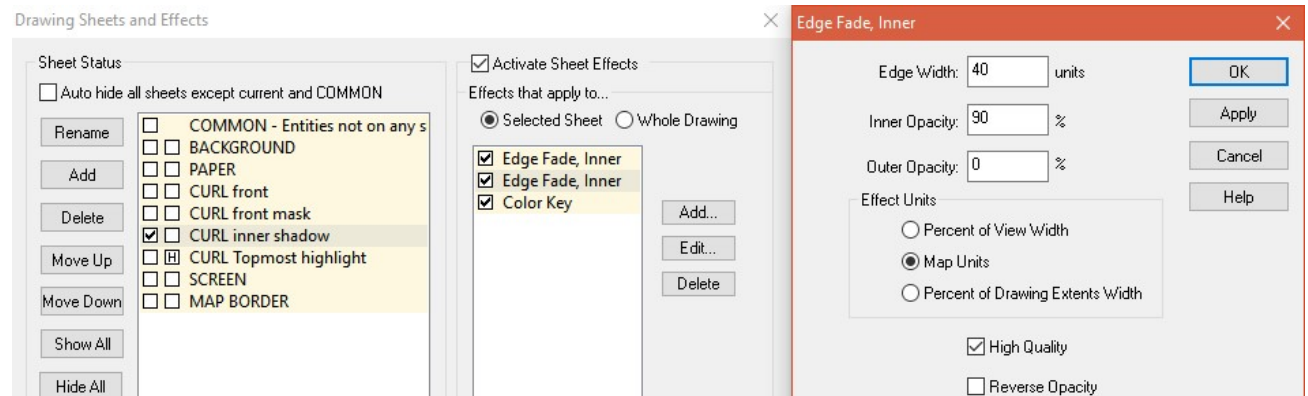


7. Next we will add the shadow inside the open end of the curl, which will require the use of three sheet effects that you should add in this order to the **CURL inner shadow** sheet:
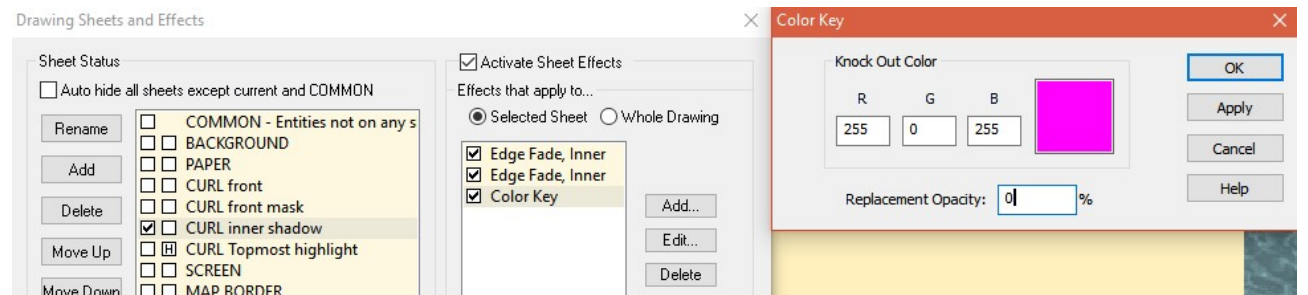
First *Edge Fade, Inner* – remember that you may need to adjust the settings if the scale and size of your drawing is different to mine…
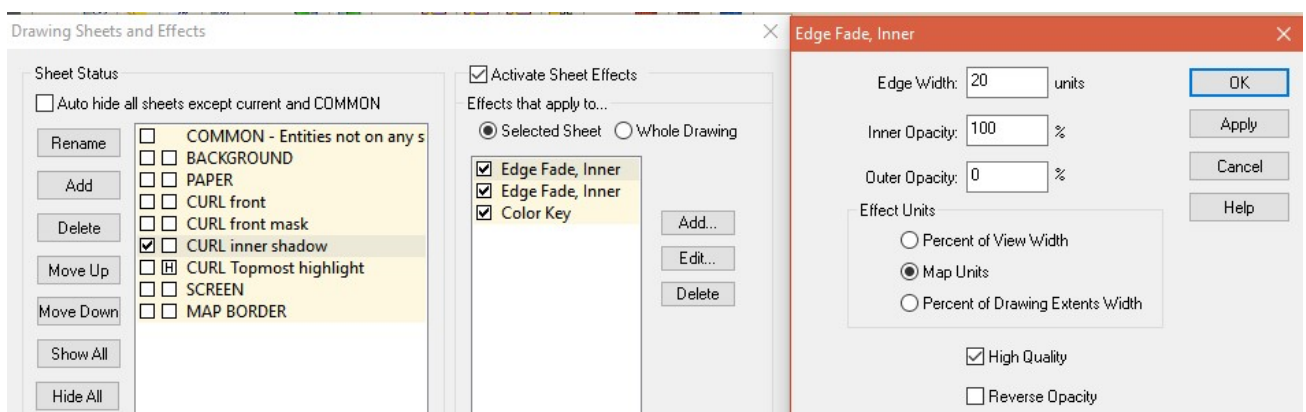
Second *Edge Fade, Inner*…



*Colour Key* (these are the default settings and will do just fine)…



The shadow will be drawn with a solid black or brown fill. The double Edge Fade, Inner sheet effects adjust the appearance of the fade and make the shadow itself look like its curving with the paper.

8. Change the fill style to solid and the colour to a dark brown or black (to match the colour of the glow you set up on the *CURL front* sheet), and make the **CURL inner shadow** sheet the active sheet.

9. Draw the shape of the shadow, making sure this time that it extends at least as far again outside the edge of the paper as the size of the intended shadow on all sides but the top edge. The shape you draw should look a bit like this:
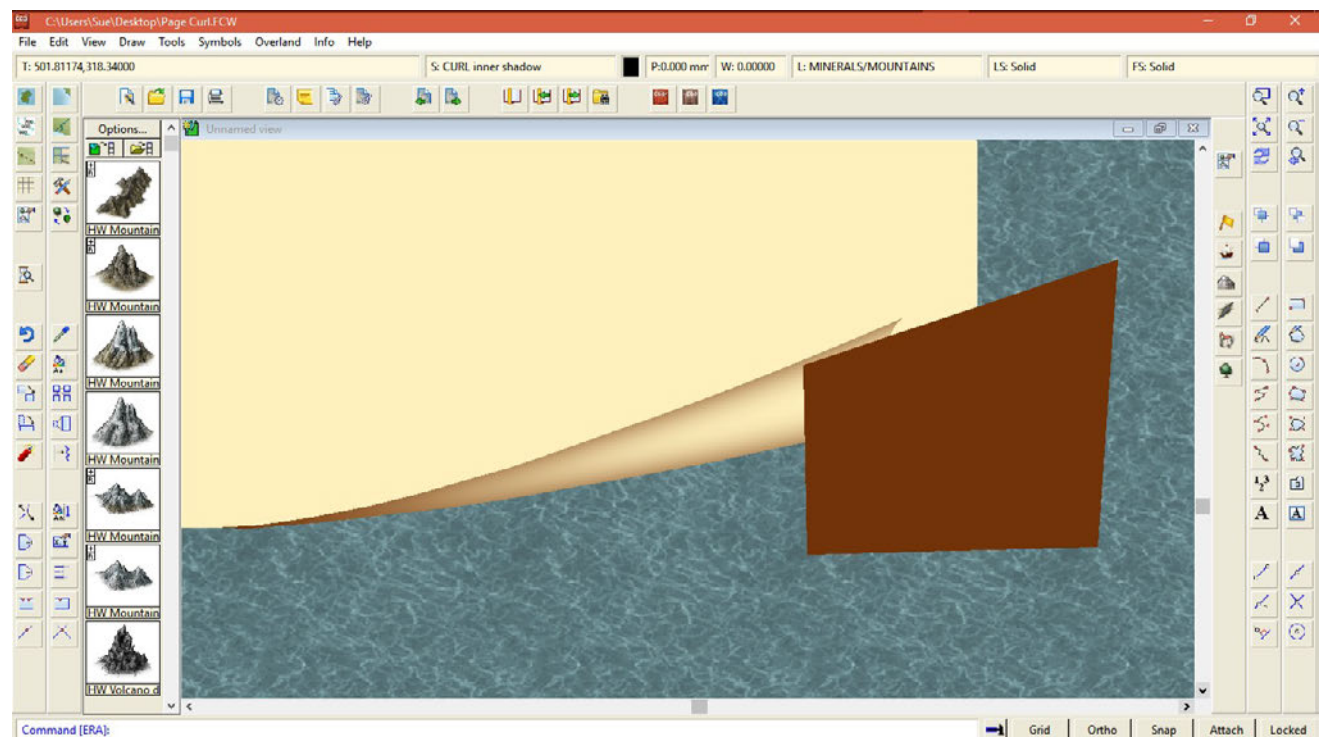


Notice how the top line follows the angle created by the top line of the paper curl, and how far outside the edge of the paper and over the paper curl the shadow extends. This is to ensure that the edge fade only affects the top line of the visible shadow.

10. Change the selected colour to match the Colour Key (in this case magenta), and draw a polygon by tracing the edges of the underlying shapes to trim the shadow to lie only inside the open end of the paper curl.
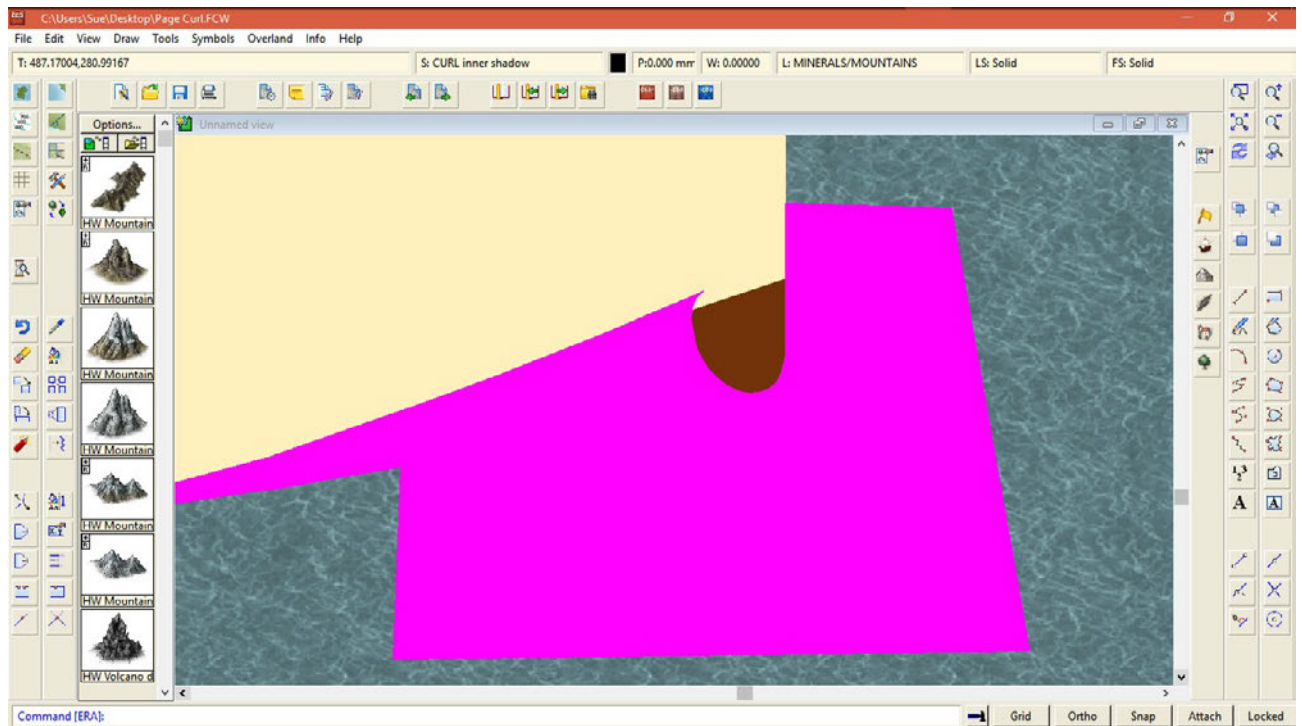


This is what it should look like with all the sheet effects turned on and properly adjusted to suit the size and scale of your drawing.
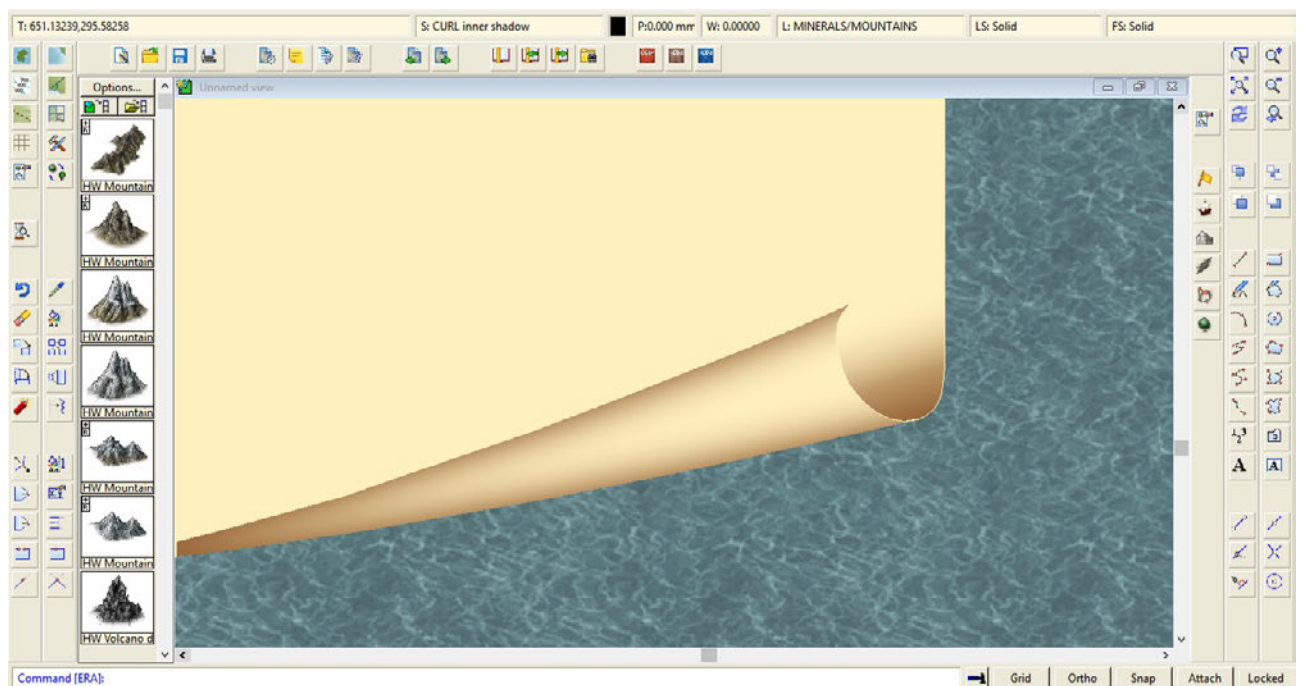


In its basic essence the page curl is now complete. However, this particular curl works reasonably well without an additional highlight to pick out the front bow of the curl, because it is relatively narrow. If you wish to add the optional highlight this is covered in *Part 4* below.

**PART 4: Adding an optional highlight to the curl**

Adding a highlight is a matter of taste. Some people prefer the curl without the highlight, while others prefer the curl to be highlighted, even though this may at times make the curl look like it is a slightly different colour to the rest of the paper – especially if the highlight is too strong.

1.  Make the **CURL topmost highlight** sheet the active sheet and add an *Edge Fade, Inner* sheet effect to soften the edge of the highlight, then add a *Colour Key* effect with the default settings.

2.  If necessary change the fill to Solid, and the colour to white (or a colour that is a couple of shades lighter than the paper). You can use the original paper fill, but if you do you will need to add a third effect to this sheet to lighten the texture (*Adjust Hue, Saturation* with the *Lightness* set to at least 10 above normal)

3.  Using the *Paper Curl Tool* draw the highlight onto the curl. I recommend that you trace the outline of the curl at the narrow end to make sure that none of the highlight falls outside the curl. Deliberately extend the highlight into the open end of the curl. This will be trimmed away in step 5. The shape you draw should look a bit like this:
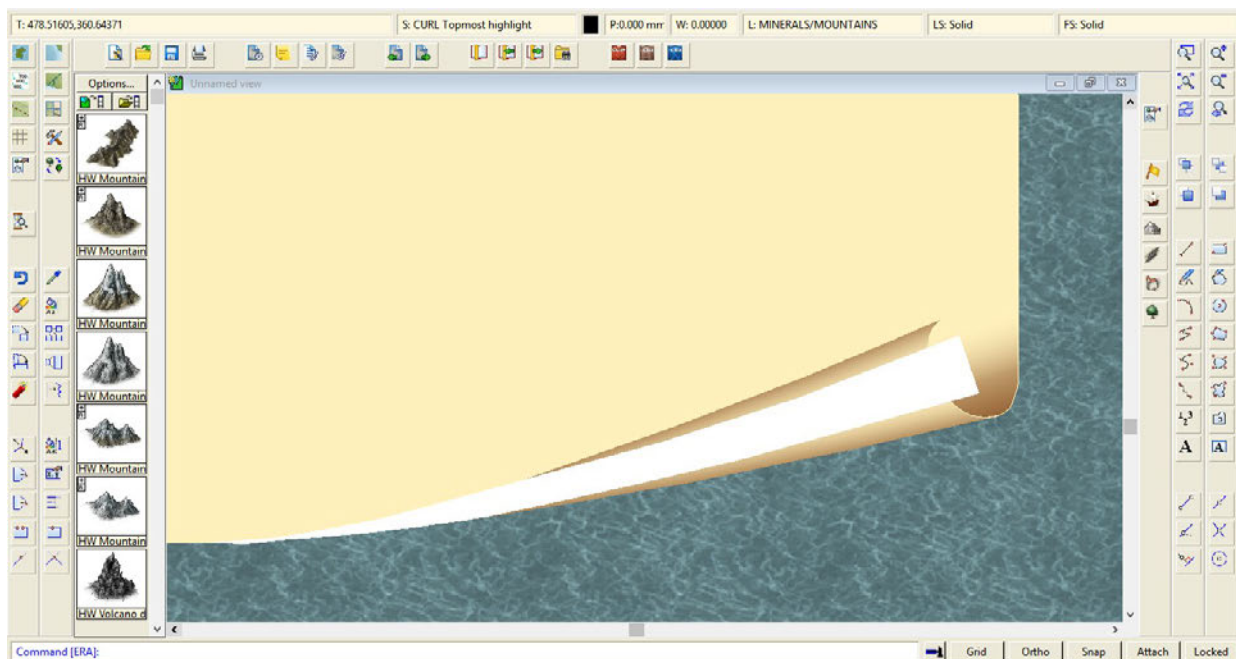


4.  At instruction 6 in part 3 above, you drew a paper coloured shape on the *CURL front mask* sheet. Hide all sheets but the *CURL front mask* and copy that shape to the *CURL topmost highlight* sheet.

5.  Hide all but the *CURL topmost highlight* sheet to make it easier to see the shape you just copied across, and using the change properties button change its colour to magenta (this will trigger the *Colour Key* effect)
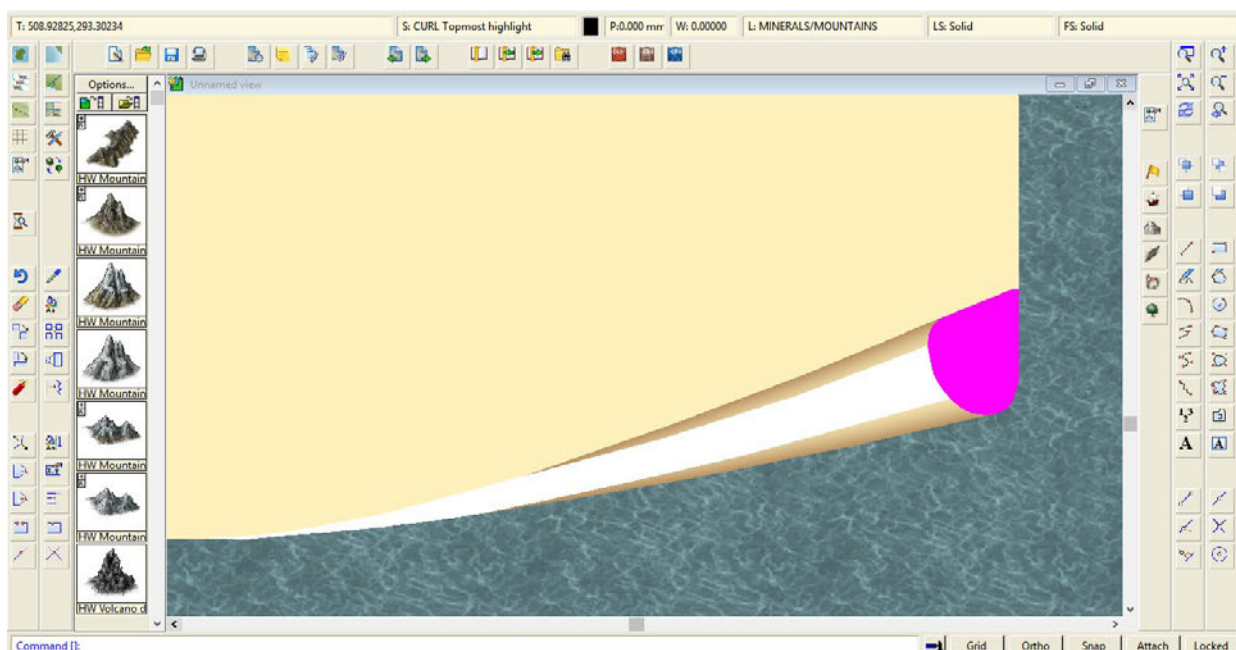
With the sheet effects turned on there should now be a faint highlight showing on the curl.
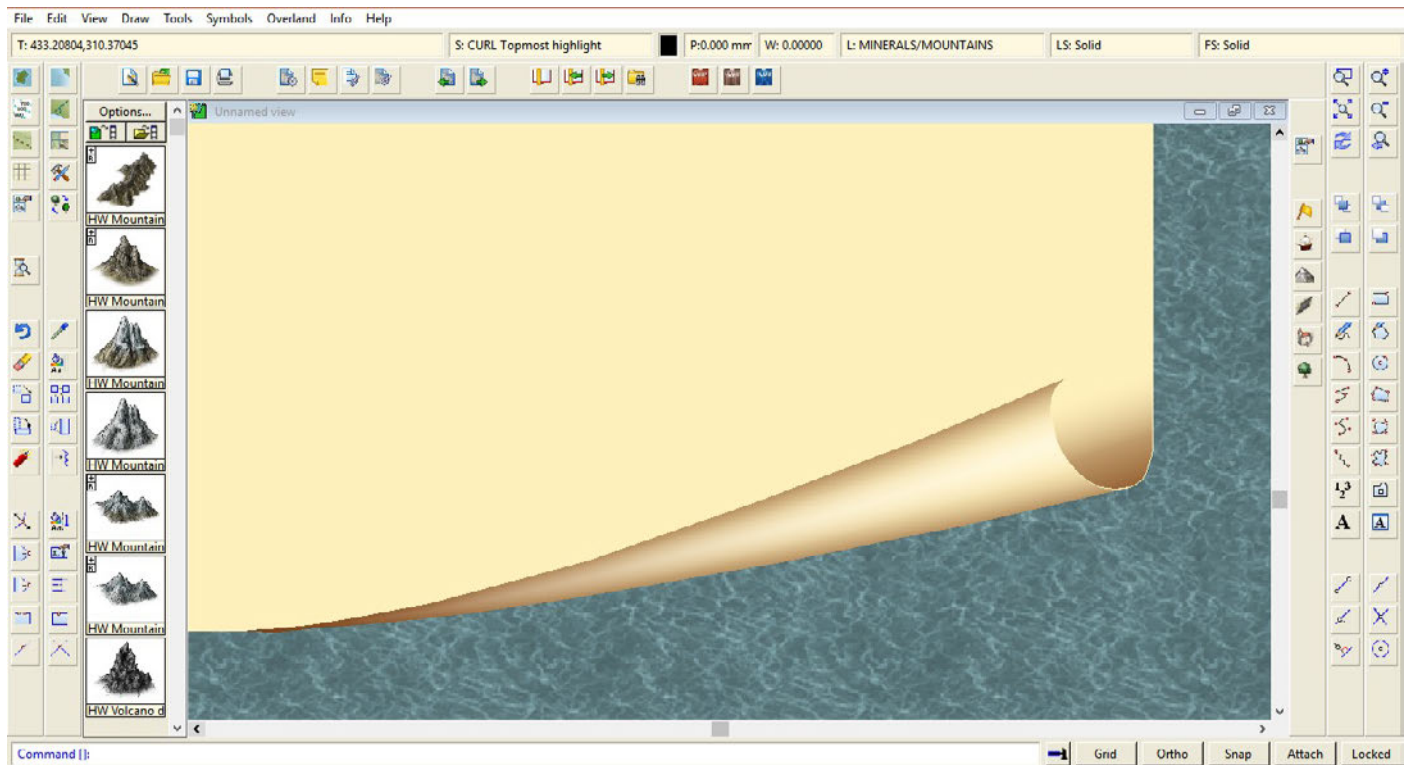


A highlight is a tricky thing to get right without overdoing it, so you may need to tweak the settings of the sheet effects till you get it just right.