The making of the isometric town symbol set and the map of Corvallen

Corvallen

Legend

1. King's Gate
2. South Gate
3. Druid Square - Market
4. Guild Hall
5. St Mary's Church
6. Gulliver's Forge
7. Green Man Tavern
8. Red Lion Tavern
9. Royal Hotel
10. Ogram House
11. Kestrel Mill
12. Emmet's Pottery
13. Danaveer Road
14. Mira Road
15. Dallem River
16. Garashni Forest

Thank you, Profantasy, for including this article in the Profantasy Blog ☺

Credits:

Artistic and material support:
Ralf Schemmann, Simon Rogers and Mark Fulford

Software:

Campaign Cartographer 3 Plus (CC3+) with City Designer 3 (CD3)
and the February issue of the 2019 Cartographer's Annual

The FCW file for Corvallen is available with the February issue of Profantasy's 2019 Cartographer's Annual.

I wanted an isometric city set…

This all started several months ago when I decided I wanted to be able to draw isometric towns and cities in CC3 without having to spend hundreds of hours drawing everything from scratch every time in GIMP or Krita.

I have seen and used other isometric symbol sets before, and discovered that it was really difficult making a believable street that wasn't running in one of just two directions. The limitation is caused by the way that conventional isometric building symbols, no matter how beautifully drawn they are, have a very strong tendency to be orientated like this (right), whereas, what I really needed was a set that described enough different angles of each symbol that it would be possible to have a street going in any direction I pleased - a collection that could be arranged something like the circle of 24 symbols shown below.

True isometric cube
(2 front facing views)
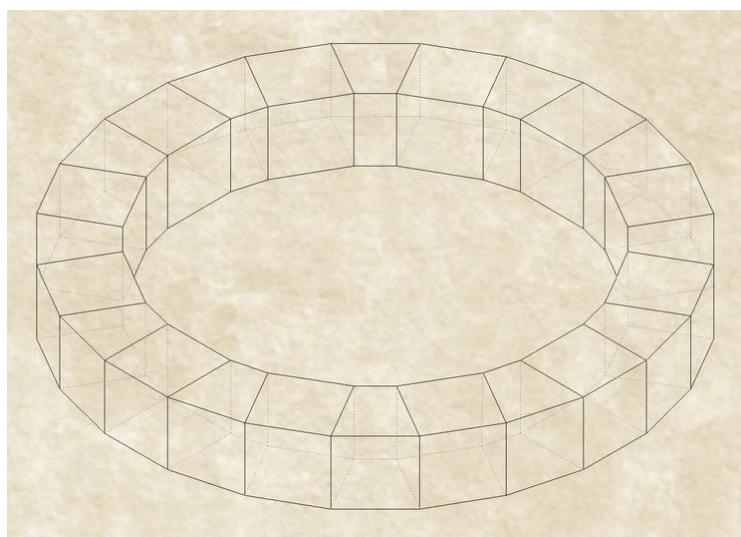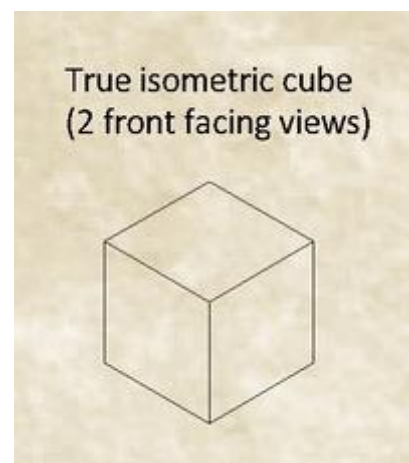
This plan (left) is an extract of a Perspectives drawing I made right back in the beginning when I started to discuss the idea with Profantasy. While it was easy enough to draw the plan in Perspectives, it soon became apparent that drawing the symbols would require a 3D modelling app to reduce the drawing time to an economic scale and allow each building to be rotated without having to completely redraw it each time.

Thanks to an extraordinarily generous gift, I was able to use Sketchup Pro 2018 to model and render the buildings very nearly 'ready for use'.
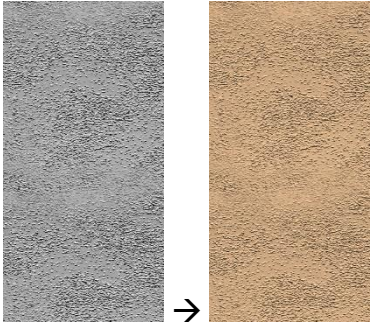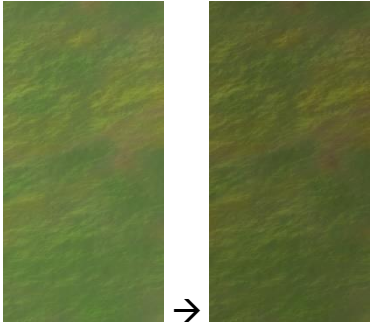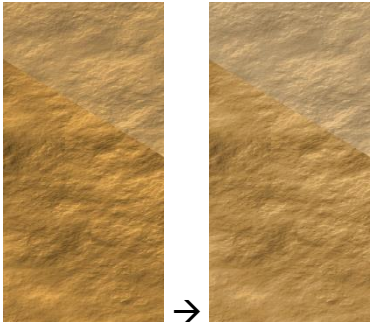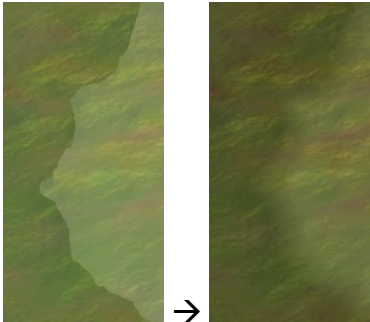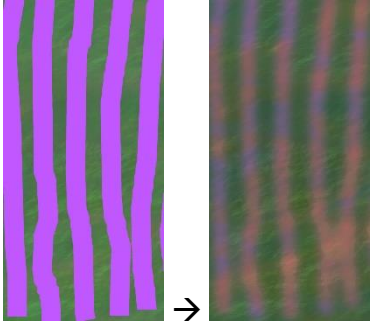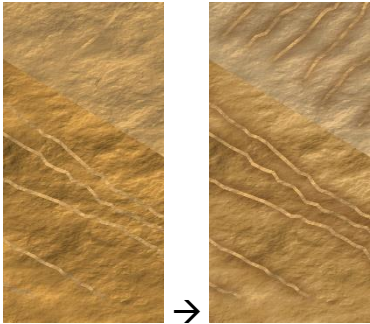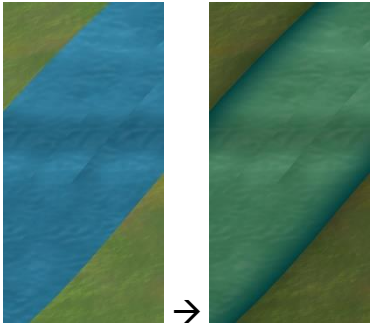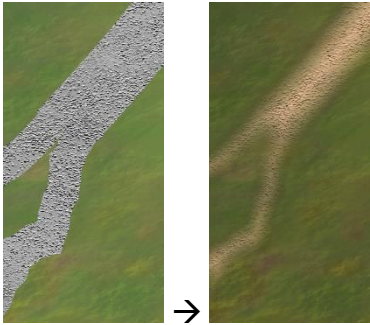
The Corvallen map

The map itself started as a simple test map. There are 223 symbols in the set with all the trees, walls, and special buildings, so instead of overloading the annual with a whole lot of new textures and having to cut back on the number of symbols to make room for them, I decided to use the existing CD3 fills. These were close enough to the general colour scheme and only required a little adjustment.
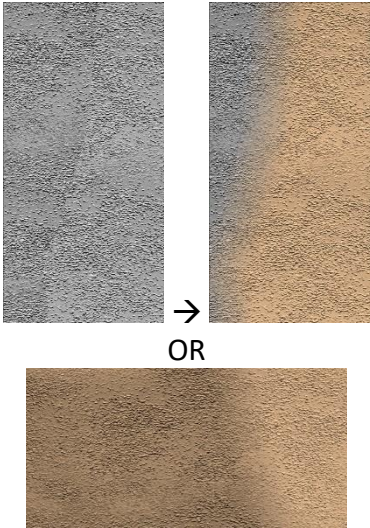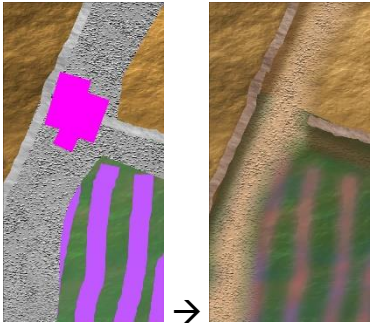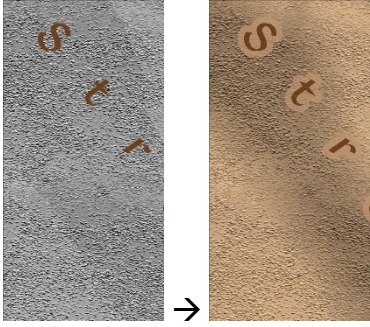
As work on the map progressed I started adding more sheets and effects. A couple more sheets and effects were added by the Profantasy Team to remedy some of the remaining issues once I had finished testing everything, so the FCW in the annual is really a group production – thank you Profantasy ☺

I have listed the sheets that I and/or Profantasy added or modified and explained the effects used on each one in the table below, where I have listed only the new or greatly modified sheets to keep the table as short as possible. Some adjacent sheets with related purposes or very similar effects have been grouped together.

The map of Corvallen - Sheets and effects

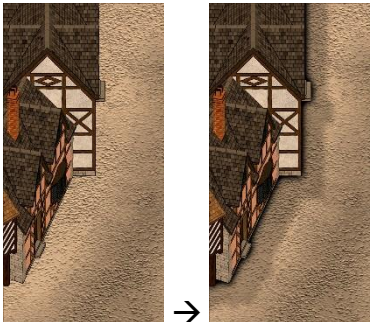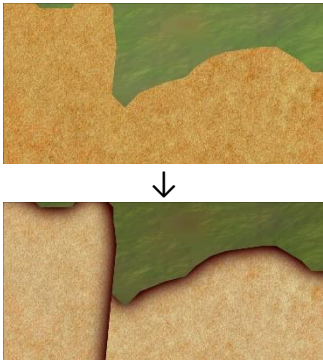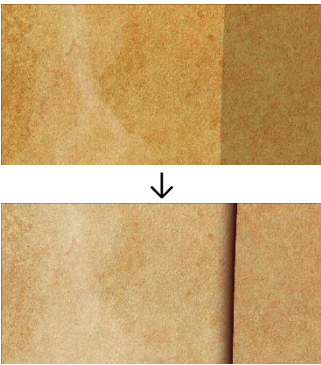| Sheet name & description	Effects	Before and after
BACKGROUND This sheet mimics the ROADS sheet and provides a background for the town within the wall to make drawing the roads there unnecessary for the most part. I used the available CD3 Bitmap B cobble textures.	**Blur** – a small blur to reduce the sharp contrasts of the Bitmap B cobble textures so that they don't overpower the rest of the map. **Adjust Hue/Saturation** – to lighten the texture ready for the next effect. **RGB Matrix Process** – a little used effect which completely alters any texture placed on this sheet to be shown in shades of a particular colour – to match the new symbols better.	
FIELDS 1 (or garden grass) Polys drawn in one of the three available grass textures on this sheet can be either fields outside the town, or the grass base of gardens within it.	**Adjust Hue/Saturation** – to darken, reduce the saturation, and nudge the overall colour of the fields and basic garden grass slightly more towards yellow. The intention here was to reduce a slight colour clash between the symbols and the natural colour of the three grass textures. It also brings out the texture a little more.	
FIELDS 2 (bare earthen fields) Polys drawn in the available soil textures on this sheet are the ploughed or bare fields outside the town.	**Adjust Hue/Saturation** – to lighten and reduce the saturation of the soil textures and provide a pleasing contrast with the darker grass areas without too much colour glare. The intention here was to soften the texture and give the impression of a shallow chalky soil on which you might expect to find lavender in the warmer temperate regions of Europe.	
FIELDS 3 (garden grass) An extra sheet to draw different grass textures on top of the main grass texture to give the garden areas in the town a bit more interest and detail.	**Edge Fade Inner** – to blend the detail into the background grass. **Adjust Hue/Saturation** – same as the one on the **FIELDS 1 (or garden grass)** sheet to match the details with the background grass.	

Sheet name & description	Effects	Before and after
Lavender Another field detail sheet. As a contrast with the acres of green and brown, draw 3' wide lines in pink or mauve on this sheet with the freehand drawing tool to make rows of flowering lavender.	**Displace** – to fray the lines. This effect uses a texture with irregular blotches to distort the thickness of the lines – to make them blobby. **Blur** – to soften the edges. **Blend Mode** – to mix the colour of the lines with the underlying texture and create colour variation. **Adjust Hue/Saturation** – to greatly reduce the nearly radioactive glow of the result of the previous three sheet effects.	
Furrows A sheet for adding detail to the ploughed fields. Draw freehand lines with a line width of 6" in any of the soil textures on this sheet. Don't worry about getting them straight. They look better if they aren't.	**Glow** – a small light brown glow set to 'Outer' to lift the furrow crests from the background earth textures.	
WATER/RIVERS One of the original sheets in the CD3 Bitmap A template, but with altered sheet effects. Draw rivers and lakes on this just like before.	**Adjust Hue/Saturation** – to turn the water more green so that it blends with the colours of the rest of the map. **Glow** – set to inner like the original sheet effect, but with a modified colour to suit the new green water. **Glow** – set to outer like the original sheet effect, but with a modified colour to suit the altered grass texture.	
ROADS The BACKGROUND sheet provides the colour and texture of the roads in the town, but this extra ROADS sheet is necessary for the roads outside the town. Draw roads on this in the same cobbles texture as used in the background.	All the same effects as the **BACKGROUND** sheet, with the addition of: **Glow** – to darken the edge of the road and create the illusion of a verge. **Edge Fade Inner** – to blend the road with the background.	

Sheet name & description	Effects	Before and after
ROADS TOWN A sheet for adding detail to the roads in the town. Draw polygons on it in the same cobble texture as used in the background and on the ROADS sheet.	**Adjust Hue/Saturation** – to slightly darken the texture **Edge Fade Inner** – to blend the cobbles with the background. --- **RGB Matrix** – INNACTIVE – same as the RGB matrix on the **BACKGROUND** and **ROADS** sheets. If activated it will turn the cobbles a darker shade of the same colour, as shown in the third image to the right.	 OR
Walls A 'cheat sheet' that uses effects to create the illusion of actual walls from lines drawn 1' 6" wide in stone texture, using the freehand drawing tool.	**Colour Key** – set to magenta and intended to cut gaps in the walls for roads and paths. It's faster to cut a hole this way when mapping in a hurry. **Adjust Hue/Saturation** – to match the stone texture with the material of the roads. **Wall Shadow, Directional** – a shadow that gives the wall an illusion of height without having to draw it as a 3D object.	
SYMBOLS Farms distant and **SYMBOLS Wall distant** These sheets provide a convenient separator to keep symbols placed behind the town behind it when using the Sort Symbols in Map function.	No sheet effects.	
TEXT Road names A sheet with a glow tuned to match the road colour.	**Glow** – a small glow set to the colour of the roads sheets and intended to block the texture of the cobbles and keep the letters of the road labels clean and clear.	

Sheet name & description	Effects	Before and after
Grave shadows and **Graves** Draw lines or shapes in any fill under the base of a gravestone on the **Grave shadows** sheet, and they will cast a shadow as from the base of the gravestone drawn on the **Graves** sheet.	**Wall Shadow, Directional** – on **Grave shadows**, to cast shadows from the base of the gravestones. **Adjust Hue/Saturation** – on **Graves**, to match the stone texture with the stone of the walls and the road surface.	→
SYMBOLS Town Keeps all the buildings of the town together and separate from the wall and towers when using the Sort Symbols in Map function.	Originally with no sheet effects, but now with: **Glow** – to soften the edges of the symbols **Wall Shadow, Directional** – to create a more solid appearance for the buildings.	→
SYMBOLS Wall foreground and **SYMBOLS Farms foreground** These sheets serve to keep the symbols that are meant to be in front of the town at the front when using the Sort Symbols in Map function.	No sheet effects.	
Legend and **Scroll ends** Two sheets to separate the back of the scroll from its ends. These two sheets have identical effects.	**Adjust Hue/Saturation** – to lighten the colour of the parchment texture **Glow** – set to Inner, and a dark brown colour to age the edges of the scroll and separate the back of the scroll from the ends.	↓

Sheet name & description	Effects	Before and after
Legend shading 0, **Legend shading 1**, **Legend shading 2**, and **Legend shading 3** A group of sheets that allow cumulative subtle shading of the scroll and its ends by adding 2 levels of shadow shading and 2 levels of highlight shading. These sheets all have the same two sheet effects with slight differences between the settings on each sheet.	**Blur** – to soften the edge of the shading or highlight drawn on the sheet. **Blend Mode** – to blend the shading or highlight on each sheet with the underlying sheets and allow the texture of the parchment to show through the additional levels of shading.	

Drawing shadows by hand

In some cases the lack of built-in shadows in this set of symbols (which allows the user to mirror the buildings more effectively) can cause the buildings to look a little flattened. This is one of the reasons that effects were added to the **SYMBOLS Town** sheet quite late in the process of development. The shadows cast this way are not completely accurate because the sheet effects are designed for top view maps. They can appear quite wrong to some people, but there is an alternative way of creating shadows. They can be drawn as polygons of transparent fill on the same sheet as the symbols, and right on top of the symbols. This is how the shadow on the towers and town walls have been done. However, if you decide to draw your shadows on by hand you will not be able to use any sheet effects on those sheets because they cause the symbols to be redrawn on top of your carefully hand drawn shadows. You can see an example of this if you examine the church in the Corvallen map. The church is on the SYMBOLS Town sheet. Originally there were no effects on that sheet and I drew shadows on some of the walls of the church in Solid bitmap 20 or 30, but these shadows have vanished under the church symbol now that effects have been added to that sheet. You can see them again if you turn off the effects.

I hope you will enjoy using the isometric symbols. Please let me know if you think they might be improved in any way. Thank you.

Happy Mapping ☺