

Mosaizer Pro Tutorial

Repainting the Gryphon on a textured canvas



Here you learn how to paint on a canvas in several layers of paint. We will show how to use different brush sizes to make a ground-layer, on which the following painting strokes add more detail and contribute to the photo-realism.

Finally, we will demonstrate how a surface texture is applied.

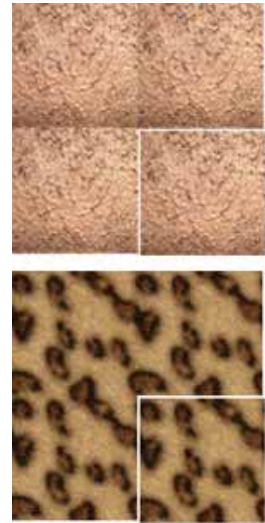
Repainting the Gryphon on a textured canvas

About textures

In Mosaizer Pro, textures are bitmap pictures of a textured surface. Each picture is a photo-copy of e.g. burlap, jeans or wood. Texture bitmaps can easily be found on the internet. Just google and make a choice. The textures that we use are carefully selected from the heap of available texture bitmaps. First of all a texture needs to be photo-realistic. Second, we want bitmaps of large pixel-sizes to cover as much surface as possible in one go. Third, the texture bitmap should seamlessly be connected to each other to create larger surfaces without visible borders. The picture on the right shows a good texture (bottom) and a bad texture (top).

And finally, we want good quality bitmaps where the compression artifacts (with jpg formats) or enlargement (when zoomed in) is hardly visible.

A texture bitmap is applied as an additional layer over the picture and has a certain transparency. A typical surface texture has a transparency of appr. 15-25%, and is usually slightly colored (but black and white is fine as well) to add to the realism effect.



Requirements

We need a source picture, several brush masks and a good quality texture bitmap. Since Mosaizer Pro has pre-installed brush-masks and textures, we will use these. A library of pictures is not required because we now use colored brush strokes, but it's available anyway because without a picture library Mosaizer Pro does not work.

The steps to create a Gryphon on a textured canvas

Step 1: load the source picture and the brush mask

The source picture is loaded via *File / Open source picture* (for already previously loaded sources) or by adding a new picture via *File / New source picture*. We use the picture of the 1973 album 'Gryphon' of the group Gryphon (e.g. via <http://www.gaudela.net/gryphon/>). The brush mask we choose is the *b_WaxyCrayon*. Load this mask as an alpha mask in the tab *Masks*.

Step 2: set the basic painting parameters

When painting with brushes it is highly recommended to play with the settings before finally rendering a first picture. We changed the following settings before we created any mosaic picture (with these settings the total number of cells will be 529):

- *Color background* is activated and the color is white (via tab *Special*)
- *Cell size* is set to 60px (is explained later)

- brush masks are usually rotated, so activate the *Mask rotate* (via the tab *Quick settings | Other settings*); keep the standard settings of the rotation angles (-30 to +30 degrees)
- do not activate the *Mask resize*
- random cells placement activated (*Random build* and *Random pattern* boxes are checked), select a random *Amount* of 8¹.
- In the box *Overlay mask*, select the *Colorize* option and its value to 8 (slightly transparent)



Then press the *Create* or *Preview* button to look at the first rendering effect.

Why do we use a large brush when all details are not reproduced very well?

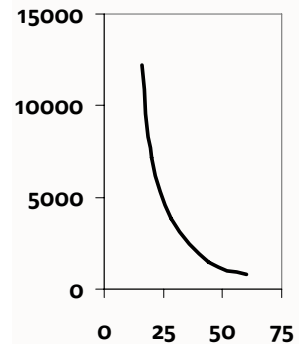
Our approach is not very straightforward compared with other photo mosaic creations: we will build the picture from layers of painted source files. Each time we have a new result, such as the picture on the right, we will use this as a new background on which we paint the next layer. With each layer we will take a smaller brush size, with growing visibility of details, while the background needs to be visible as a foundation of colored 'specks'. This way a very dynamic brush size range is created.

Intermezzo: a short lesson on random patterns

Random patterns have a great advantage: the cells that are placed on the canvas seem to be 'painted' with certain realism. Random brush/stroke patterns look 'hand-made' by definition.

When the cell size is decreased, more cells are generated to fill the canvas surface. The picture on the right shows the relation² between cell size (Hor. axis) and amount of cells (Vert. axis): large cells (60px) generate about 800 cells on the canvas area, while small cells (16px) generate more than 12,000 cells on the canvas. When only the cell size is changed, the canvas surface coverage remains about constant.

Therefore, to create a lower coverage to still see (parts of) the background, the *Amount* of random points need to decrease. So, with each next layer we not only need to *decrease* the cell size, but also *decrease* the *Amount* of random points.



Step 3: building the next layer

First, you need to load the result of the previous full rendering as the background picture. A new background picture is loaded via *File | New background picture* and navigate to the results

¹ The value of the *Amount* slider is not visible in versions before Mosaizer Pro 7.0.33

² This graph values are indicative and depend also on the *Amount* value and size of the source file

folder of the Mosaizer Pro application (or wherever you have defaulted the result picture). By default Mosaizer Pro saves the result file in the subfolder *Results* as *<source picture name> (Result).jpg*. In case of doubt, use the Windows explorer to localize this result picture. After loading, also check this background picture via the tab *Background* in the right top corner. Next, choose a smaller brush size (e.g. 44px) and decrease the cell coverage via the random *Amount* slider in the tab *Special | Random settings*. We decreased this value to 6 (total number of pictures 841). Then render the picture again.



Picture: the next layer on top of the first result.

Step 4: built 2 more layers

Repeat step 3 three more times. In case you don't want to keep the intermediate results, simply load the new background by selecting the same background again. The new version will then be loaded. In case you want to keep the intermediate results, you have to manually rename and reload the background pictures again.

We used the following settings for cell size and *Amount* of random cells:

- *Cell size* = 28px with *Amount* = 4 (total amount of cells = 1225)
- *Cell size* = 20px with *Amount* = 2 (total amount of cells = 1800)
- *Cell size* = 16px with *Amount* = 1 (total amount of cells = 2304)



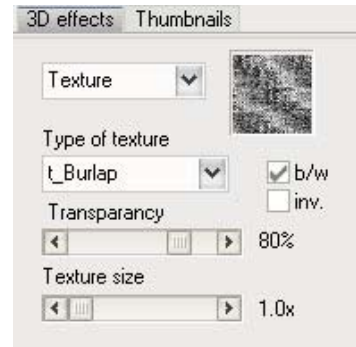
For convenience the above picture shows all the series of all rendering actions so far (5 layers in total). From top to bottom each time a new brush layers is added. Top picture is the first rendering.

Information: we used 5 steps to explain the approach. In practice 3 steps could do the job as well. With more layers, the results from 2 or 3 layers back will probably not be visible again.

Step 5: apply the surface texture

The controls for the surface textures are found in two places: in the *3D effects* tab the choice and settings are found. In the tab *Color match | Transparency* the slider can help to evaluate the best transparency settings as well. We focus on the first control box:

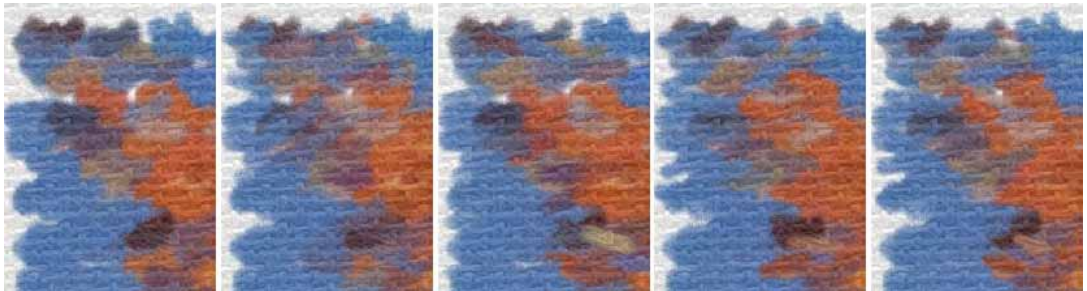
- 3D effect: *Texture*
- Texture: the *t_Burlap*
- *Transparency* = 80%
- Make the texture black and white (*b/w* box is checked)
- *Texture size* = 1.0x



Don't change the other settings, but simply re-render the last layer. Now we have activated the surface texture, the rendering engine will add an additional step to the rendering sequence by adding this texture to the resulting picture. The result is shown at the front page of this tutorial.

Varying the brush masks

When the picture is now completed, it's time to look at the effect of different brushes. We show the results of the final layer rendering (incl. texture) of four different brushes.



From L to R: *b_WaxyCrayon*, *b_Airbrush*, *b_Acrylic*, *b_Chalk* and *b_Chalk* with 50% mask resize

The influence of the *Amount* settings

The parameter to control the coverage of the paint is the *Amount* slider in the *Random settings* tab. This slider determines how many random cell points are generated. See figure below.



From L to R: *Amount* = 0, 3 and 5, with cell size 16px

Some other possible variations

- Brush masks can be rotated and resized. Try to resize the brush (in all steps) and see the effect of coverage and color impression.
- Try to minimize the amount of layers. We have used five layers, but three is also possible. To still see the background of each layer you need to experiment with coverage (like in the picture before) and remember the random *Amount* settings.
- Vary the *Colorize* value (as set in the *Overlay mask* control box). We have used a value of 8 to create a slight transparency and to mix the strokes of each cell with the underlying strokes. A solid stroke (*Colorize* = 10) will also result a great effects.
- Decrease the *Colorize* value from e.g. from 10 via 8 down to 6 for each layer (3 layers), while at the same time manage the coverage with the random *Amount* value. This way with each layer transparency will increase (thus increasingly showing the previous layer).
- Use other textures and see the effect. Try colored textures.

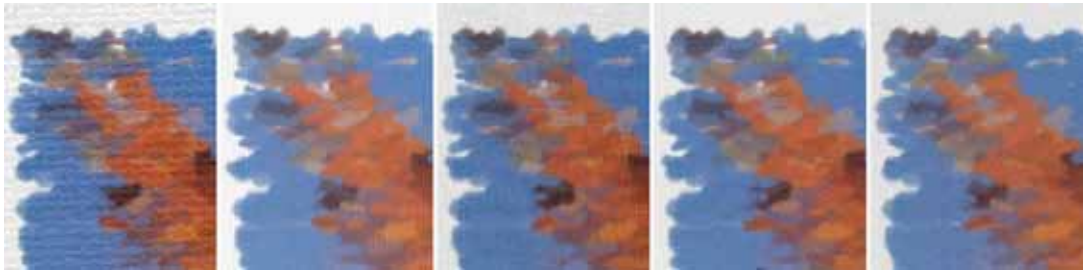


Figure: different textures. From L to R: *t_Burlap*, *t_Canvas*, *t_Gaze*, *t_Jeans* and *t_Sandstone*

Mosaizer Pro

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