Color Masking - Corel PhotoPaint
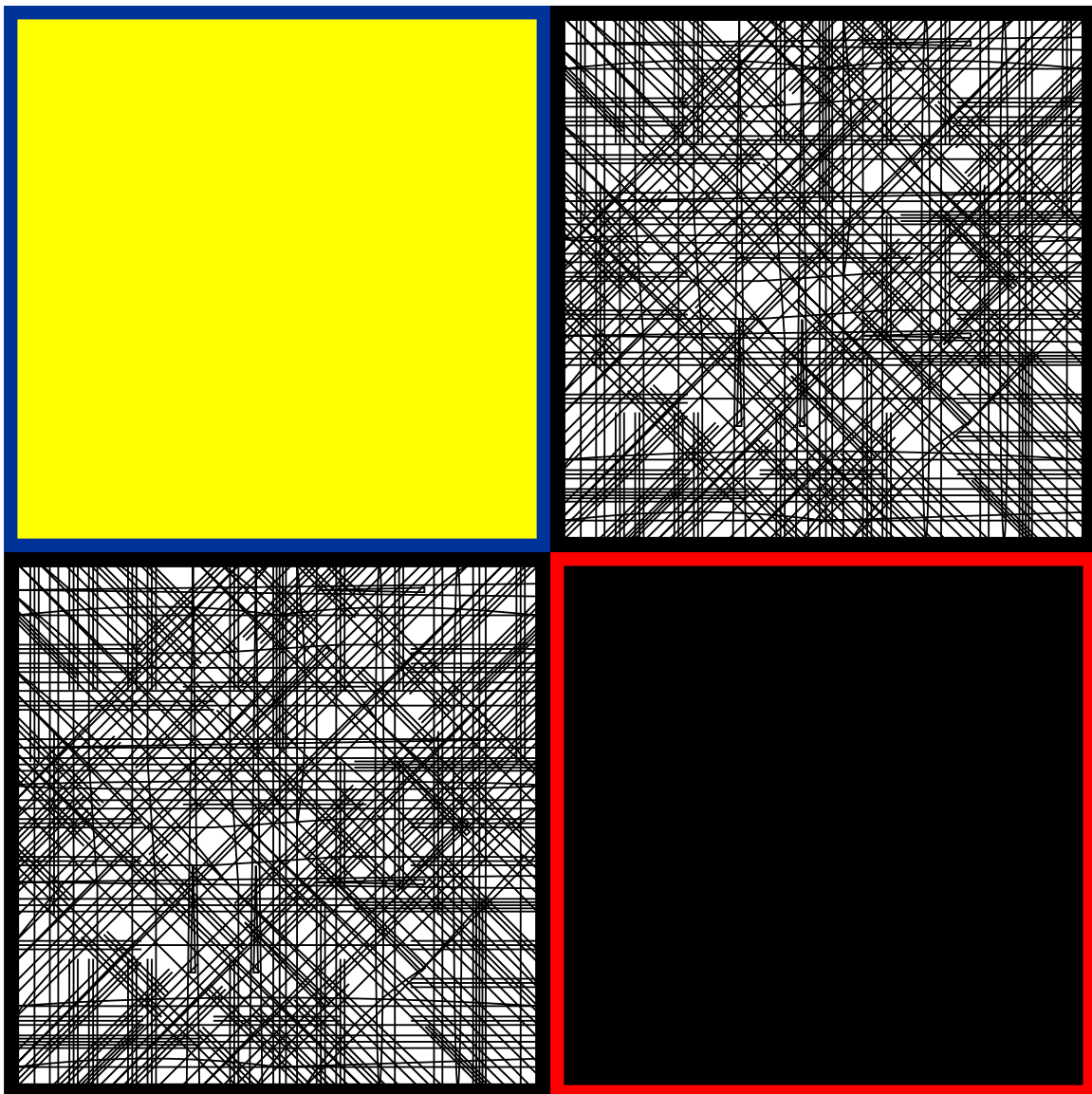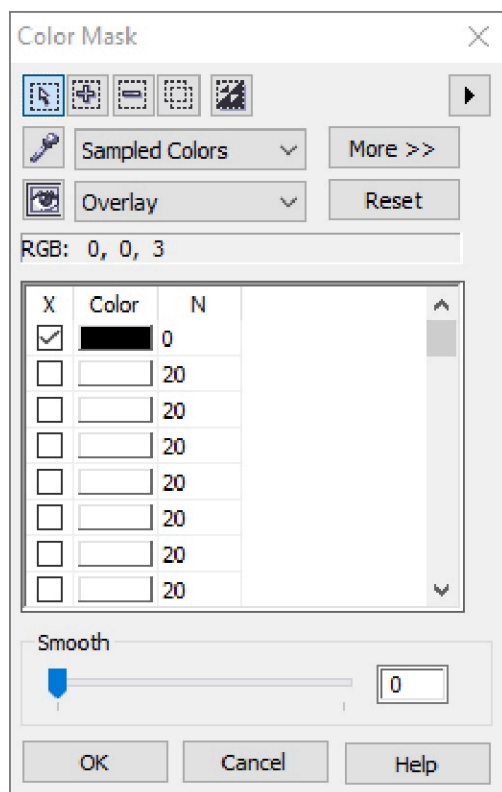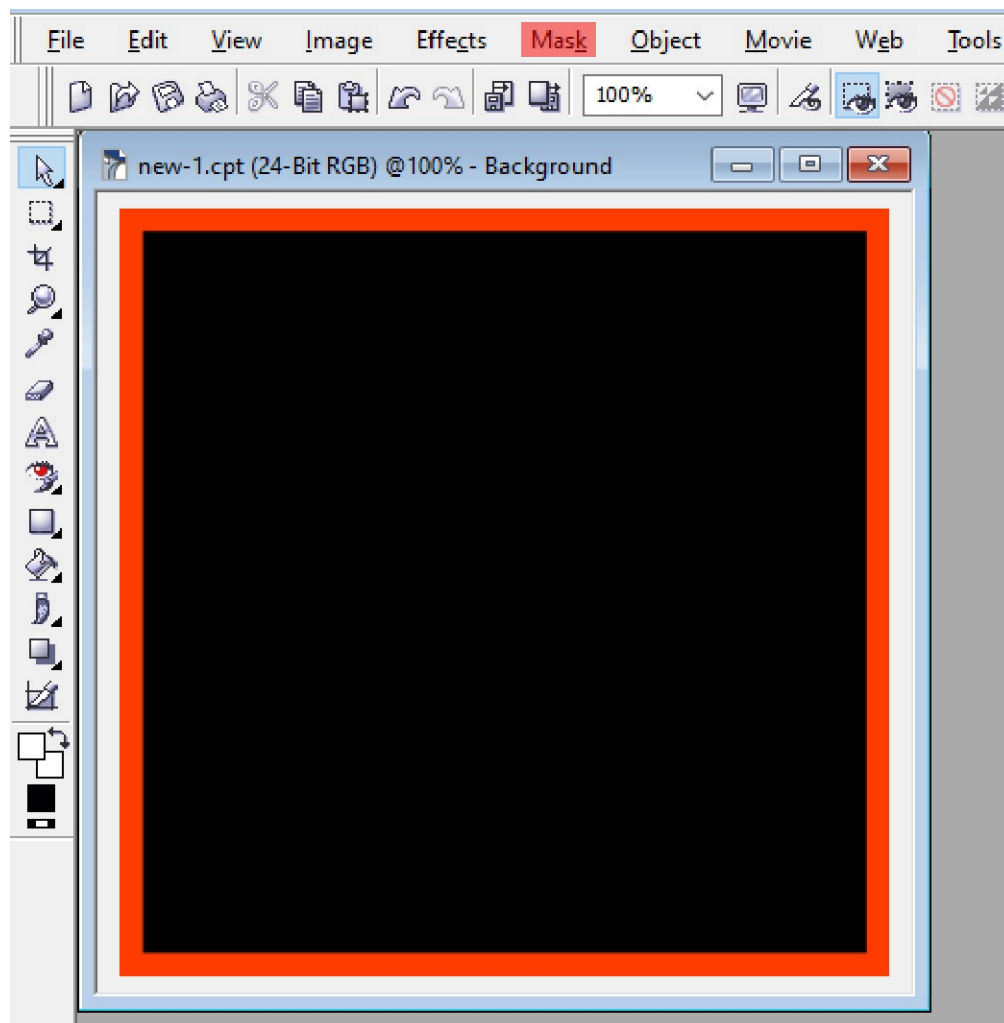

Corel **PHOTO-PAINT** 12

If you have a photo editing program with which you are familiar, these instructions should help you understand the procedures you need to follow to reveal the hidden image within a solid color container (if your NFT contains one or more) or the keyword within the spider (if it has black question marks). My go to image editing program is PhotoPaint, but I can use GIMP as well to reveal the hidden halftone.

1) Open Corel PhotoPaint. I use a very old version, but it does everything I need. Newer versions of Corel probably have the same features. This program has a very easy way to set a color mask using RGB values.

2) Open your NFT. Below is an example of a four container NFT that has two solid color squares. I will use the Rectangle Mask Tool to mask one of the squares. In this example **I** will mask the solid black square with its red border. If your NFT has solid color squares or other solid color shapes, mask one of the shapes, then copy and paste as a **New Image**. Close your NFT.

3) I now have a single image on screen.

Color Mask

Sampled Colors

Overlay

RGB: 0, 0, 3

| X	Color	N
☑	⬛	0
☐		20
☐		20
☐		20
☐		20
☐		20
☐		20
☐		20

Smooth

0

OK   Cancel   Help

4) Click Mask on the tool bar and then select Color Mask. A window like the one on the left will pop up.

The X - Color - N will more than likely be different in your pop up. Since the square has a black background, you want to set the Color Mask as you see it here.

Remove any check marks from the X line except for the first one.

Double click the rectangle under Color. A second pop up will appear.
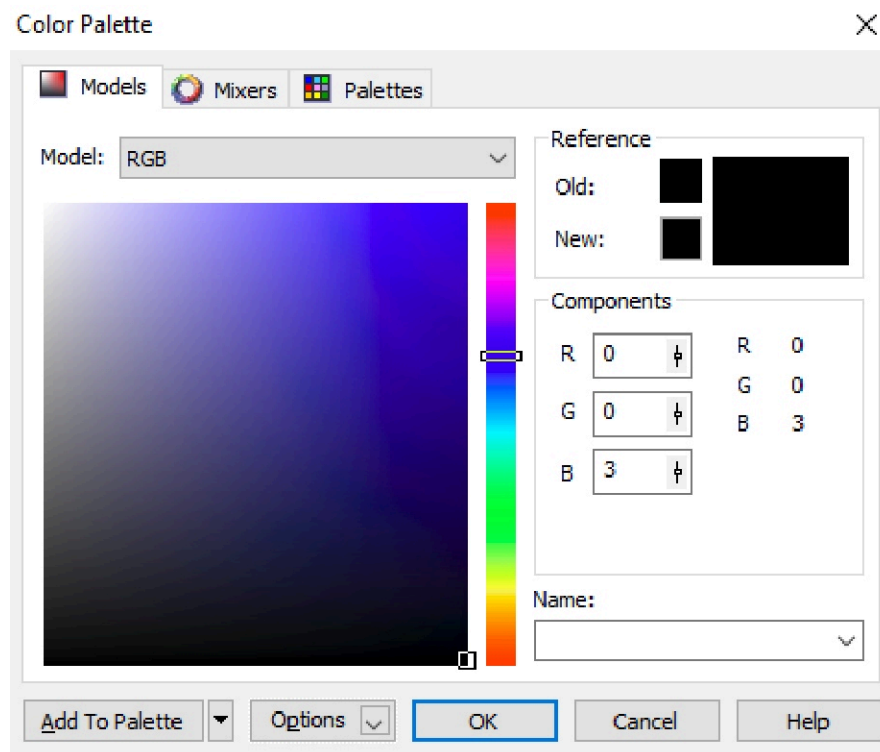
This is where you set the color for the Color Mask. Set the RGB to 0 0 3. I will include the RGB settings for each solid color container in the owner's reveal-[nft designation].pdf file. After you have set the RGB numbers click OK.
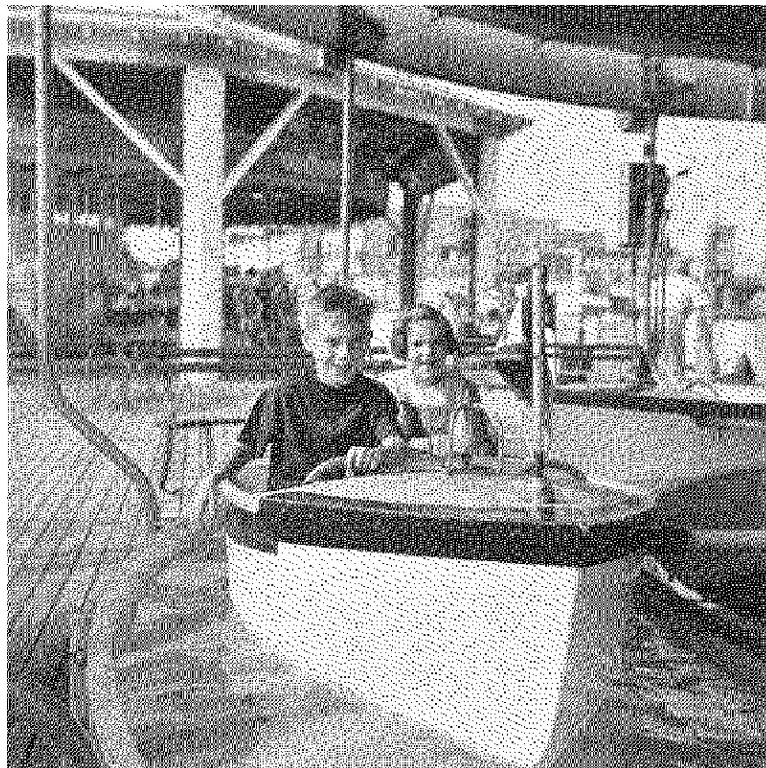
5) On your Color Mask pop up now click **More**. On the fly out set the Tolerance and Threshold settings as shown below. Now click OK.
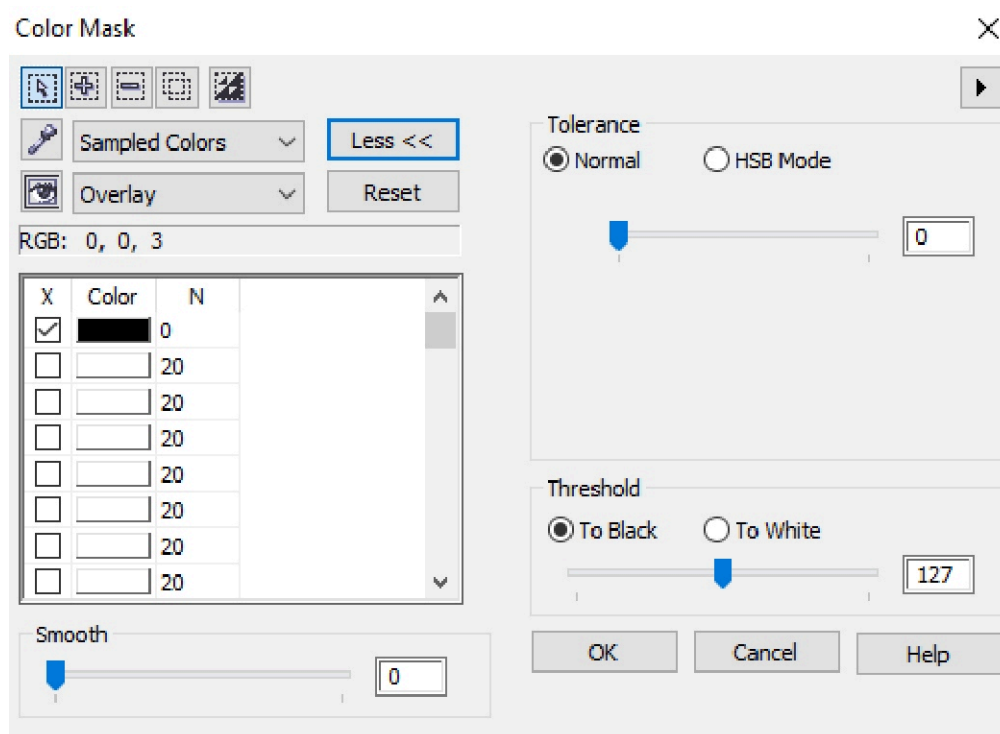
6) A mask will now appear on your square.

7) From the tool bar select Edit/Copy. Again from the tool bar select Edit/Paste/New From Clipboard.

8) Set your fill color to black - 0 0 0. Double click on the Fill Tool. On the pop up click Lock and then click OK. This will color all the pixels black. This is a very important step if a square is a color other than black.

8) From the menu on the left side of the screen, double click on the Background Color and set it to White - RGB 255 - 255 - 255 and then click OK.


9) Now from the top menu click on Object. Select Combine/Combine Objects With Background. You now have your hidden halftone. Print the image for optimal viewing.

Color Masking - GIMP

If you do not have a photo editing program, I would like to recommend GIMP. This is a very robust application and its Free. Its color masking methodology differs from PhotoPaint. I did not see where I could enter an RGB value for a mask, but there is a work around.

1) If you are going to use GIMP, open the program.
2) Click File then click Open. Select your NFT and then click Open
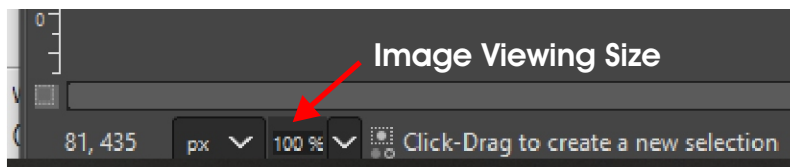
Your NFT will appear sized to fit your screen. There is a sizing menu in the bottom left corner of GIMP. If you enlarge the image so it becomes larger than the screen, you can go to the top left menu and click Tools. Then select Transform Tools/Move. Between sizing and move you will be able to zero in on a solid color container or the red spider.
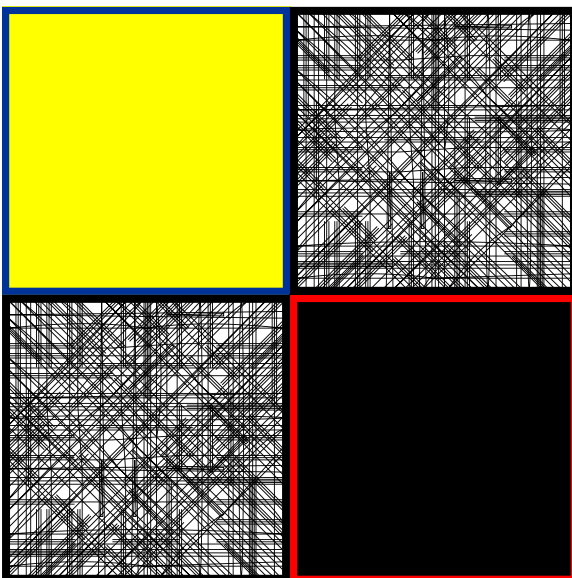

I opened this example NFT. I enlarged the viewing size a little so I could easily define the solid black container with the red border.

3) Click on Tools. Select Selection Tools/Rectangle Select. Now select your container. I selected the solid black container with the red border in this example.
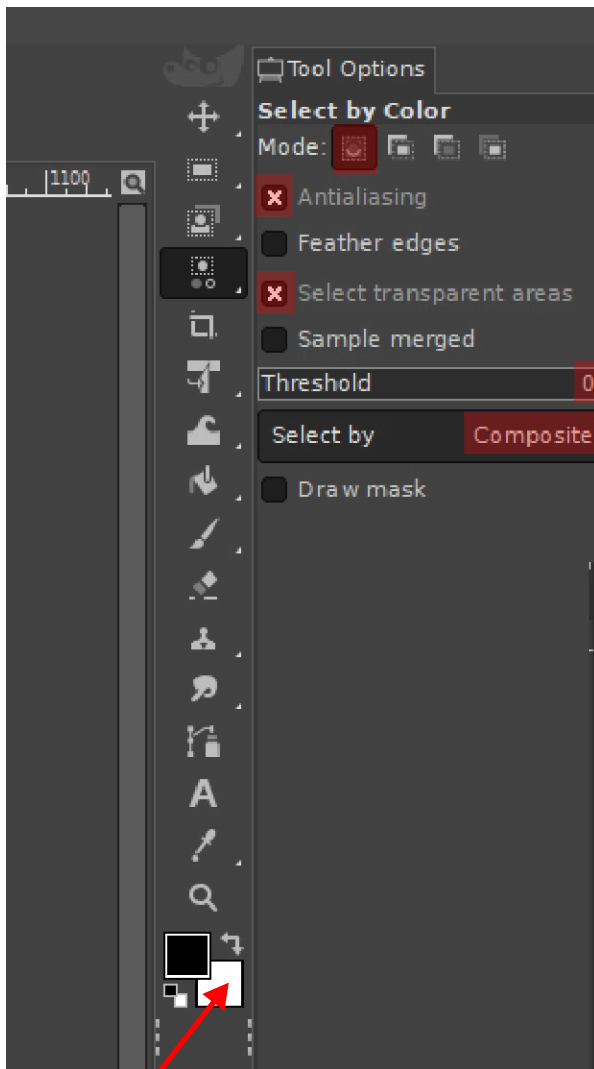
4) After making my selection, I hit Ctrl C to copy and then Ctrl Shift V to paste as a new image. I can now close my NFT.

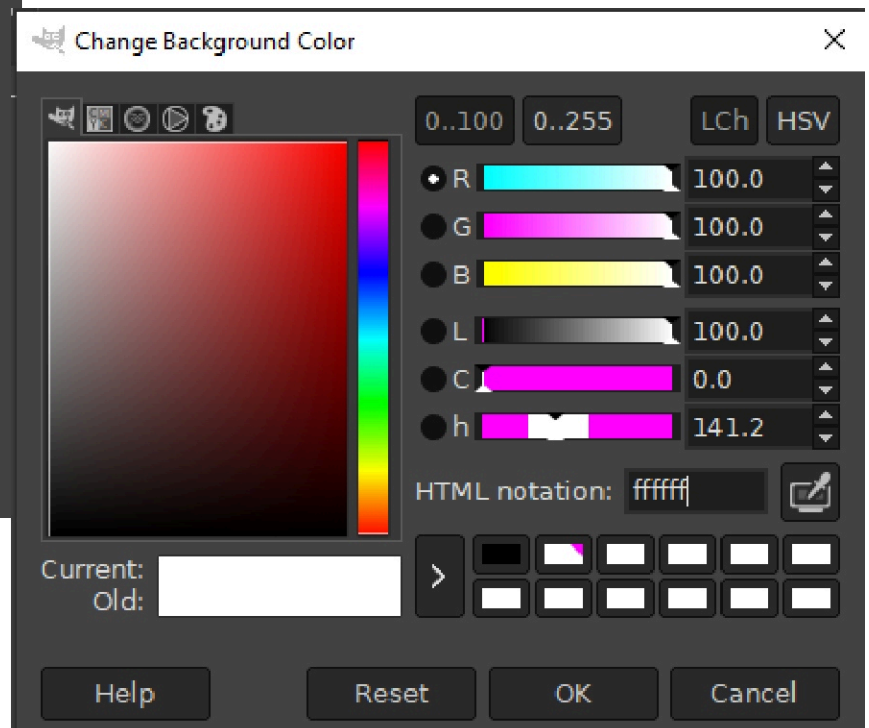I closed the example NFT. Now I have the solid container as my only image.
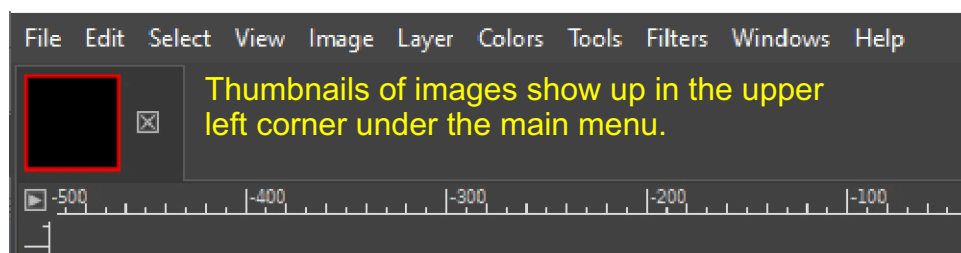
This is the image as it appears on my screen.

I will now go over some tool settings.

5) Click on Tools. Select Selection Tools/By Color Select. A menu with pop up on the top right side of your screen. Make sure your settings match those in the screen shot below.

Tool Options

Select by Color

Mode:

☒ Antialiasing

☐ Feather edges

☒ Select transparent areas

☐ Sample merged

Threshold   0.

Select by   Composite

☐ Draw mask

Change Background Color   ✕

	0..100	0..255	LCh	HSV
R			100.0	
G			100.0	
B			100.0	
L			100.0	
C			0.0	
h			141.2	

HTML notation: ffffff

Current:
Old:

Help   Reset   OK   Cancel

Double click on this box to set the background color. If its not already white, you can easily set it by typing ffffff in the HTML notation and clicking OK. You can also set the foreground color. Set it to black - 000000.
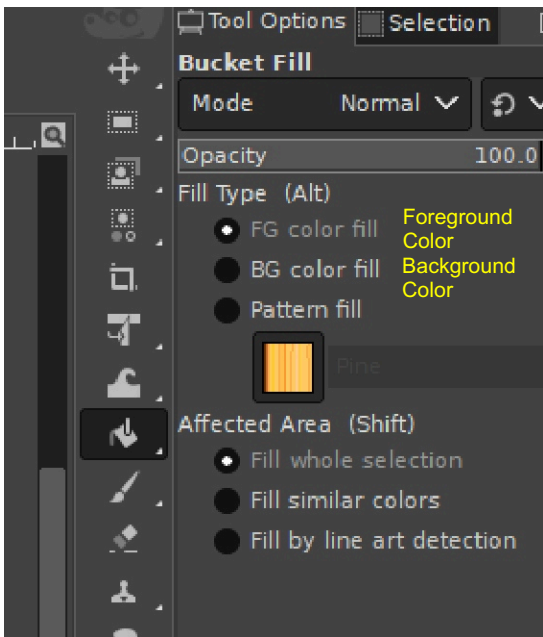
From the main menu click Tools. Then select Paint Tools/Bucket Fill. Make sure your settings match the ones on the left.
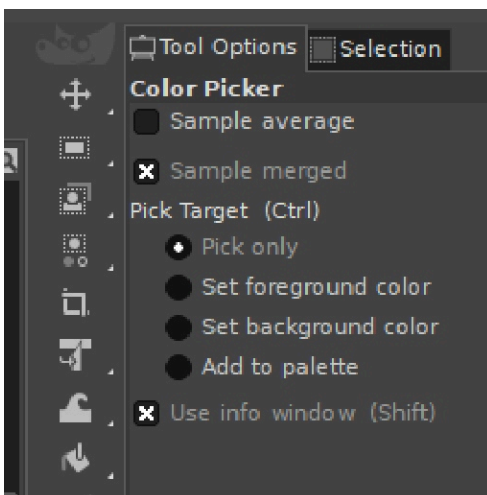
From the main menu click Tools. Then select Color Picker. Make sure your settings match the ones on the left.

The first time you click in your image using the Color Picker tool an information box will pop up. This box will have important information, the RGB value of the pixel you selected and the coordinates of that pixel.

When you have an image (in our case a solid color box) that contains two very similar colors, you cannot distinguish one pixel from another. Just click anywhere in the solid box. The information box will pop up giving you that pixel's information. You can click on other areas until you hit the pixel having the RGB value your looking for.
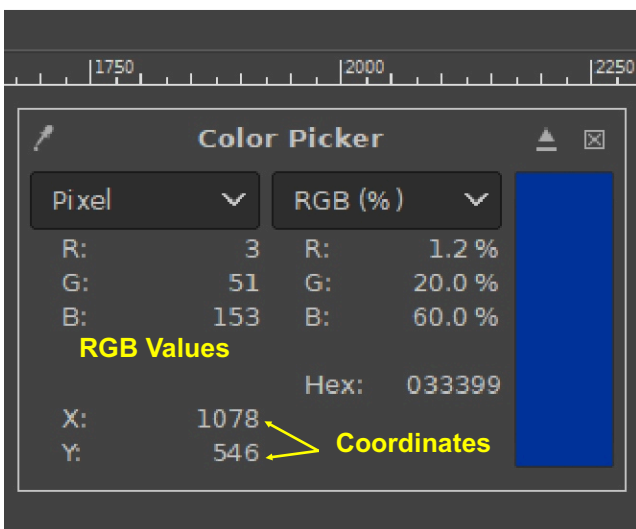
Guideline Hint: Once you find the correct color pixel using the Color Picker tool, you can use two guidelines to mark that pixels precise location. See the pixel coordinates at left. You would use the X value for a vertical guideline and the Y value for a horizontal guideline. Where the two lines intersect is your pixel coordinate.

To place guidelines using your coordinates, go to the Main Menu and click Image. Then select Guides/New Guide. Set a vertical and horizontal line. Place the Color Select curser in the center of the guideline intersection and click. That will create a mask.

Clear the two guidelines, go to the Main Menu and click Image. Then select Guides/Remove all Guides.

I give you the values you're looking for in the reveal-[nft designation].pdf file. In this example the pixel color I'm looking for in that black square is 0-0-3. I click different places within the box using the Color Picker tool until I see the 0-0-3 value in the Color Picker information box.

I write down that pixel's coordinates.
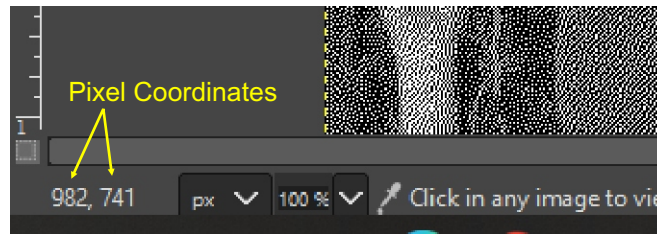
6) I now would click Tools on the main menu. Select Selection Tools/By Color Select. I have already made the changes to that tool. When I move the Color Selector curser within the black image, I will see the coordinates change (lower left corner of the screen).

I will move the curser until I match the coordinates I wrote down. (**See Guideline Hint on previous page**). I will then click that pixel. This will create a mask. On your keyboard hit Ctrl C to copy and then hit Ctrl Shift V to paste as a new image. I now have a halftone on my screen.

7) I now will increase the viewing size of my halftone to 800%. That makes it much easier to see individual pixels.

8) Again using the Color Select tool I now click on one of those pixels to create a mask.

9) From the Main Menu I click Tools then select Paint Tools/Bucket Fill. On the right side menu make sure the Foreground color is set to black - 000000.

10) Click on any pixel. That will color all the pixels black.

11) From the Main Menu I click Select. I then click None.

12) From the Main Menu I click Image. I now click Flatten Image.

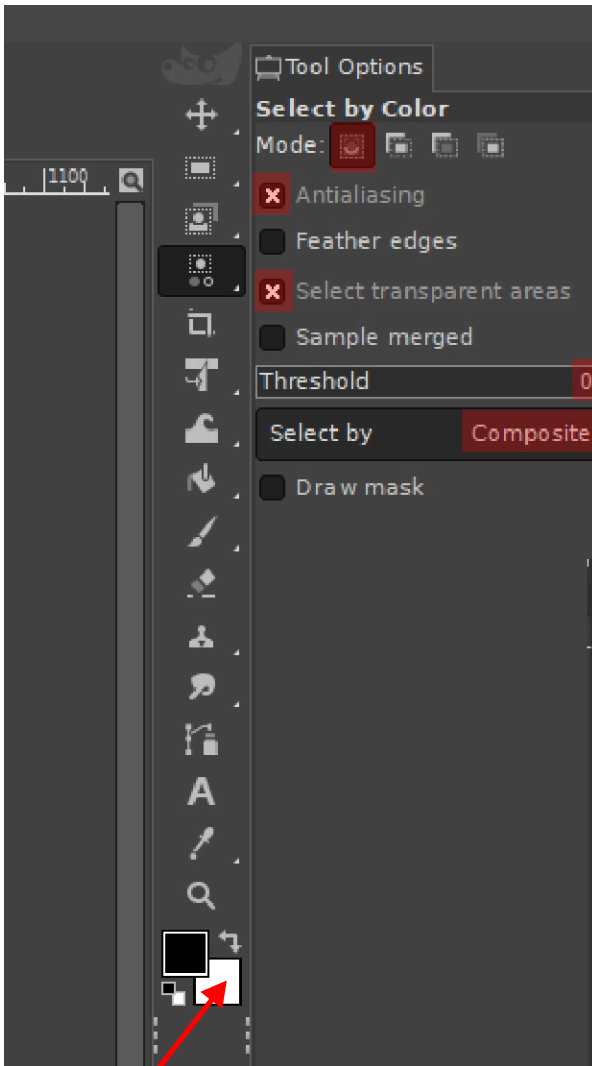I have now revealed the hidden image. I print the image for optimal viewing.

Important!

Do not change the physical size of a container. The masking **will not** work. You can change the viewing size but not the actual size of a container.
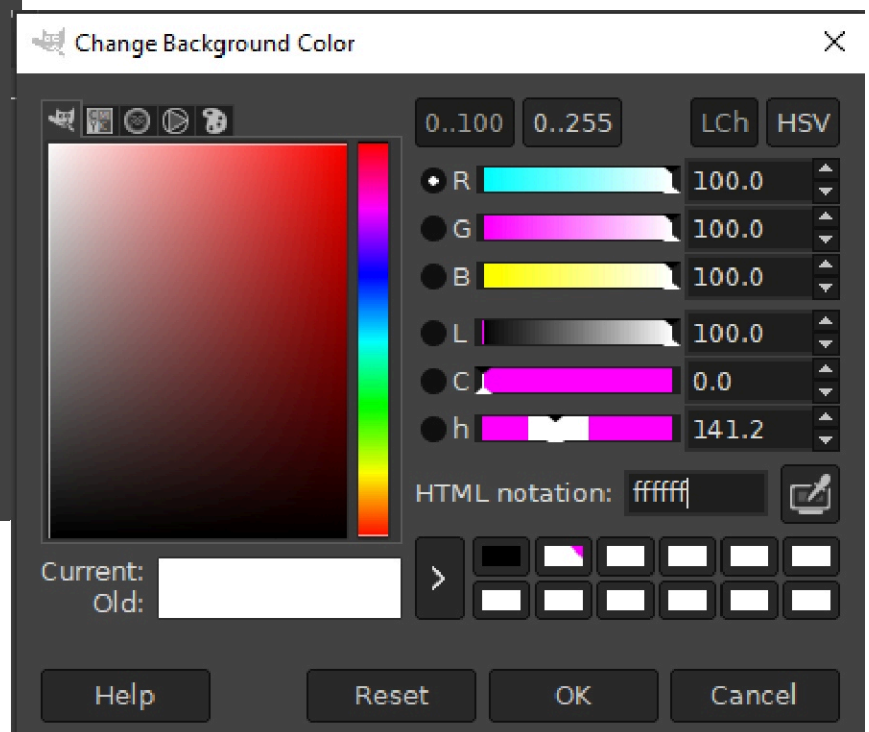
If a spider on your NFT has black question marks, that means the keyword is hidden on the spider's body. A spider has its own container. Do not put your effort into masking the spider. Just mask the entire container. The spider's RGB settings will be in your reveal-[nft designation].pdf file.

If a piece has solid color containers, they will have a hidden image or images. If a container has an unusual shape, you can use a rectangle mask to include the area around the shape. Or you can use a Freehand Mask to select the precise shape of the container.
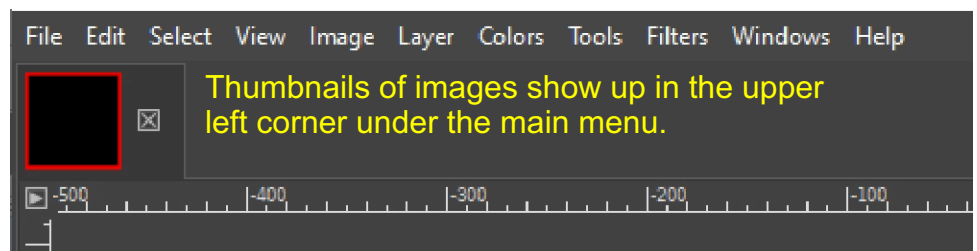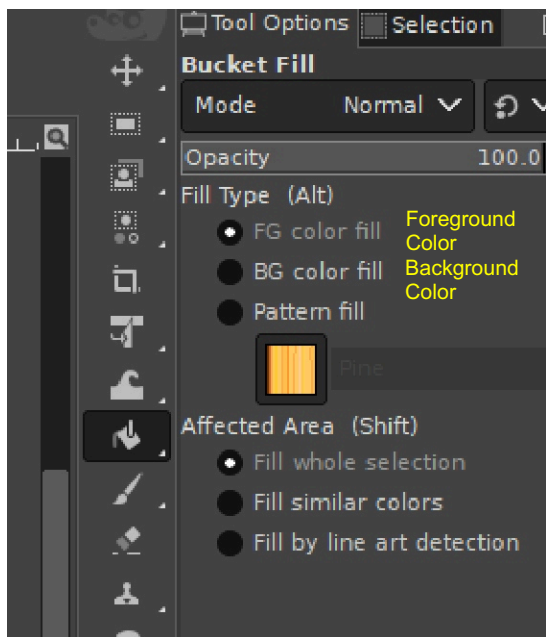
Tool Settings Only - GIMP

Tool Options

Select by Color

Mode: [icons]

[x] Antialiasing

[ ] Feather edges

[x] Select transparent areas

[ ] Sample merged

Threshold   0.

Select by   Composite

[ ] Draw mask

Select by Color tool settings.

Change Background Color   ✕

| 0..100 | 0..255 | | LCh | HSV |

● R   100.0
● G   100.0
● B   100.0

● L   100.0
● C   0.0
● h   141.2

HTML notation: ffffff
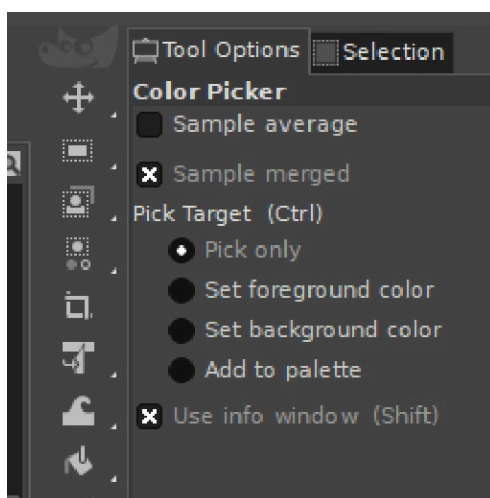
Current:
Old:

Help   Reset   OK   Cancel

Double click on this box to set the background color. If its not already white, you can easily set it by typing ffffff in the HTML notation and clicking OK. Now set the foreground color. Set it to black - 000000.
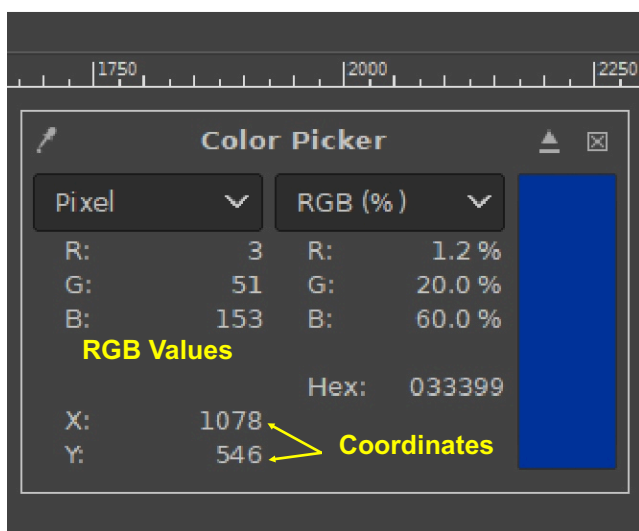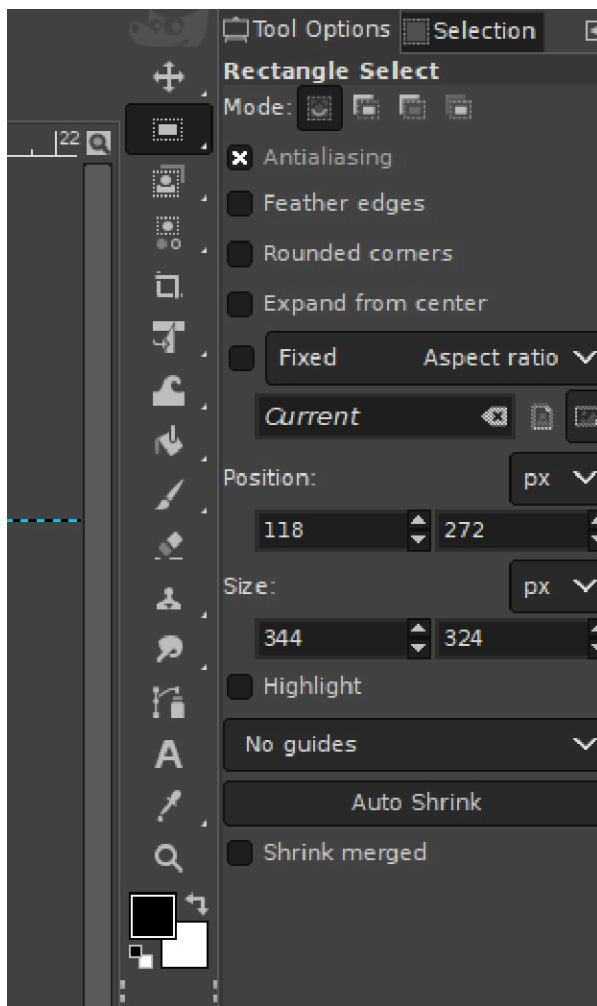
File Edit Select View Image Layer Colors Tools Filters Windows Help

Thumbnails of images show up in the upper left corner under the main menu.

|-500 |-400 |-300 |-200 |-100

Bucket Fill tool settings.

Color Picker tool settings.

Color Picker information box.

Rectangle Select tool settings.

Revealing Container Images Using GIMP – Section 2

This is done with programs like Corel PhotoPaint, Photoshop, GIMP and others. If you are proficient at color masking, then unveiling the hidden images should be quite simple. If you are not proficient at this technique, I have provided instructions for masking using GIMP. If you do not have GIMP, you can download it at https://www.gimp.org/. The program is free. This is a robust program.

If you have a photo editing program, these instructions may help you to mask the images in the program you are familiar with. The methodology is similar in all photo programs, but there are differences. Personally, I use Corel PhotoPaint. I've used it for many years, so I'm use to it. I use GIMP as an example because it's free. So if you do not have a photo editing program, I highly recommend it.

Some photo programs enable you to set the RGB values for your masks. Corel PhotoPaint has that option. Photoshop probably does, but I don't have that program. GIMP uses a little different methodology. You will find sample files here - https://www.trithemian.com/sample-2/

Masking Values

Number of Containers: 4
Number of Linear Graphics Containers: 2
Black Container: RGB – 3 0 0
Yellow Container: RGB – 255 255 3
Red Container: RGB – 238 0 0

Using GIMP

Load and open GIMP. After opening the program go to the Main Menu (upper left) and click on Windows. Make sure there is an X in Show Tabs. Under Show Tabs select Tabs Position/Top. Make sure there is an X in Single-Window Mode.

Important Note: When you open up a particular tool, check the tool's settings. You will find the preferred settings in the color-masking.pdf file.

Revealing the Keyword

The sample file used in this demonstration does not contain a red spider. This section describes how to reveal the keyword if your NFT has a red spider with black question marks.

Open your Trithemian Web™ NFT

On the lower left corner of GIMP you can click the down arrow next to % to change the image's viewing size if necessary. Use the vertical and horizontal scroll bars to move the image until the entire red spider is visible.

On the Main Menu (upper left corner) click Tools. Open Selection Tools/Rectangle Select.

Select the entire red spider. Place you mouse curser at the top left of the red spider and hold down your left mouse button. Drag the curser to the bottom right corner of the red spider and release the button. On your keyboard hit Ctrl C to copy and then hit Ctrl Shift V to paste as a new image.

On the Main Menu click Tools and then click Select By Color.

Click on one of the red spider's legs. A mask will appear.

On your keyboard hit Ctrl C to copy and then hit Ctrl Shift V to paste as a new image.

On the Main Menu click Image, and then click Flatten Image.

You now have your Keyword.

For those using an editing program that enables you to set the RGB mask values the spider values are: RGB – 153 0 0

Masking Containers to Reveal Contents

There are four containers in this sample graphic. For those using an editing program that enables you to set the RGB mask values, those RGB values are listed on the previous page. You can download and practice using this graphic. Visit https://www.trithemian.com/sample-2/. A link to this sample graphic is at the bottom of the page.
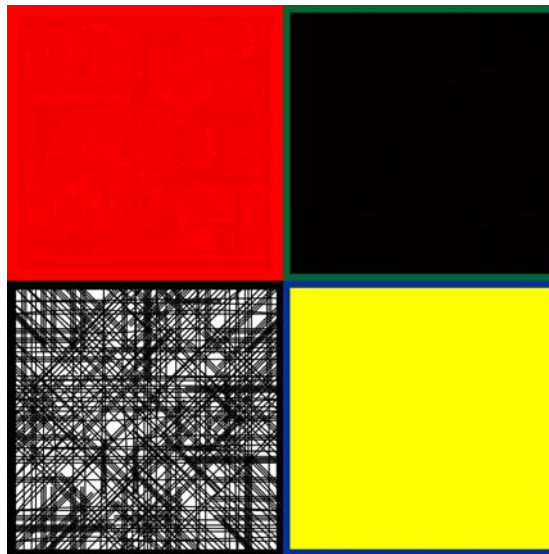
I'm going to open this sample graphic in GIMP and take you through the steps performed to reveal one of the blended graphics. If a file contains highly visible linear graphics like the bottom left square, that square can simply be selected, resized if necessary and printed. No other steps are necessary.

Color Masking a Container Using GIMP

Open the PNG sample graphic you downloaded from the website. We are going to color mask the yellow container.
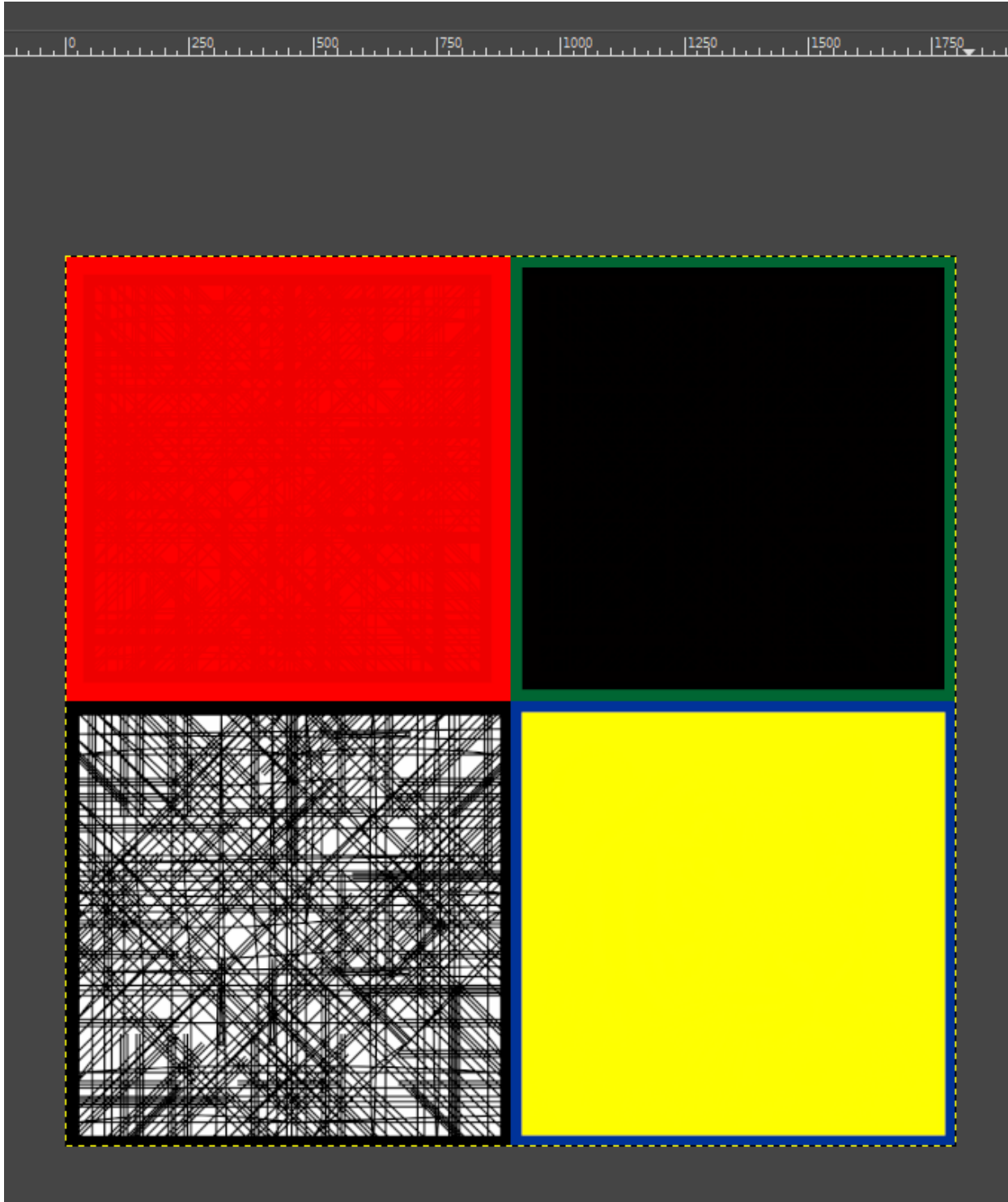
On the Main Menu (upper left corner) click Tools. Open Selection Tools/Rectangle Select.

Select the yellow container. Place you mouse curser at the top left of the container and hold down your left mouse button. Drag the curser to the bottom right corner of the container and release the button. If your selection falls outside the container's color a little, that doesn't matter.
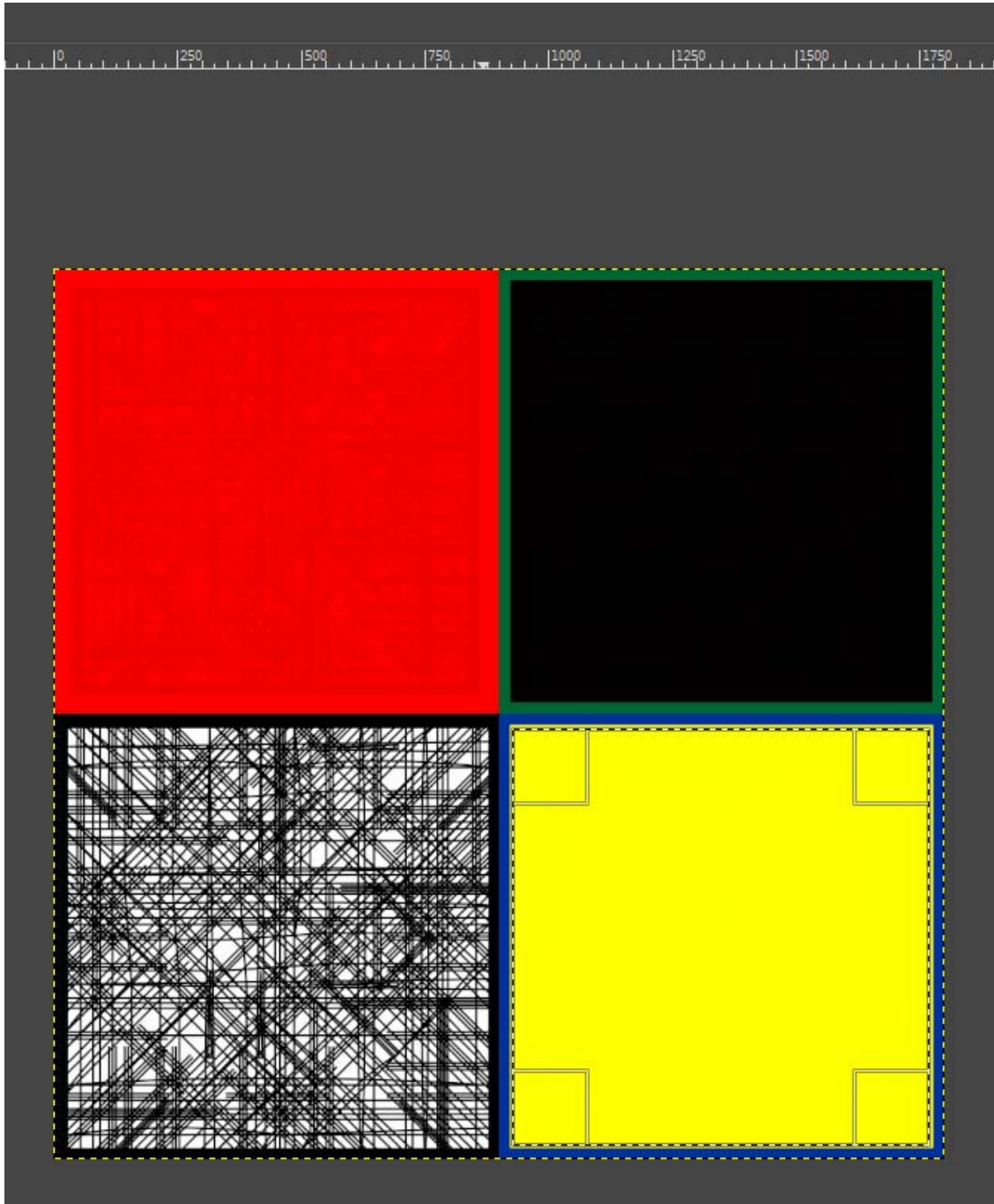

Notice the container selection on the lower right.
On your keyboard hit Ctrl C to copy and then hit Ctrl Shift V to paste as a new image.
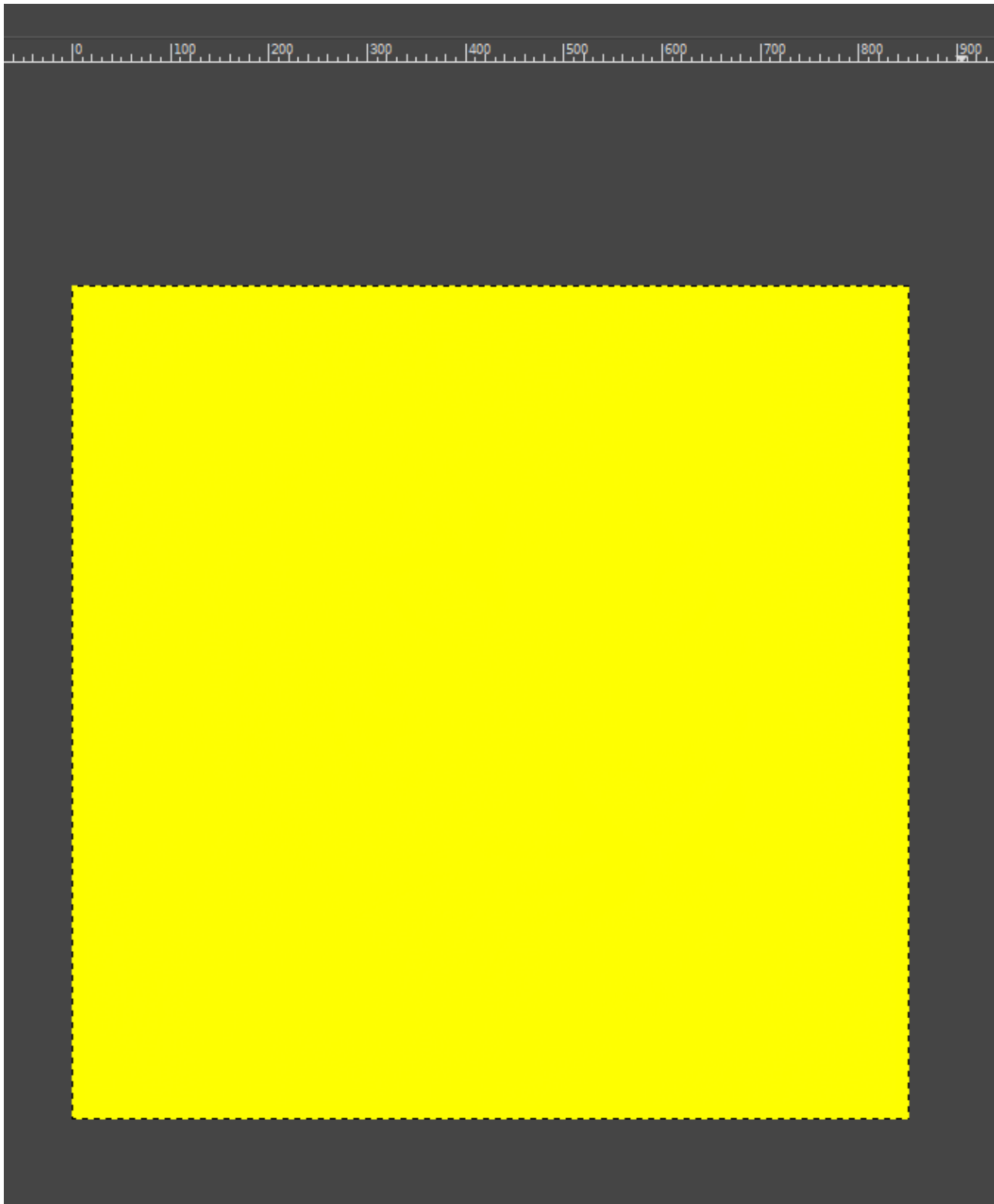
After hitting Ctrl C to copy and hitting Ctrl Shift V to paste as a new image, you will have the yellow container on your screen. Now you want to set some guides.

On the Main Menu click Tools and then click Color Picker.

Click anywhere in the yellow container. A Color Picker box will pop up. Look at the RGB values. If the RGB values read 255 255 3 you're good to go. If the RGB values read 255 255 0 simply click in another location until the Color Picker box reads 255 255 3 (the color of that particular pixel). You want to mark that pixel's location.
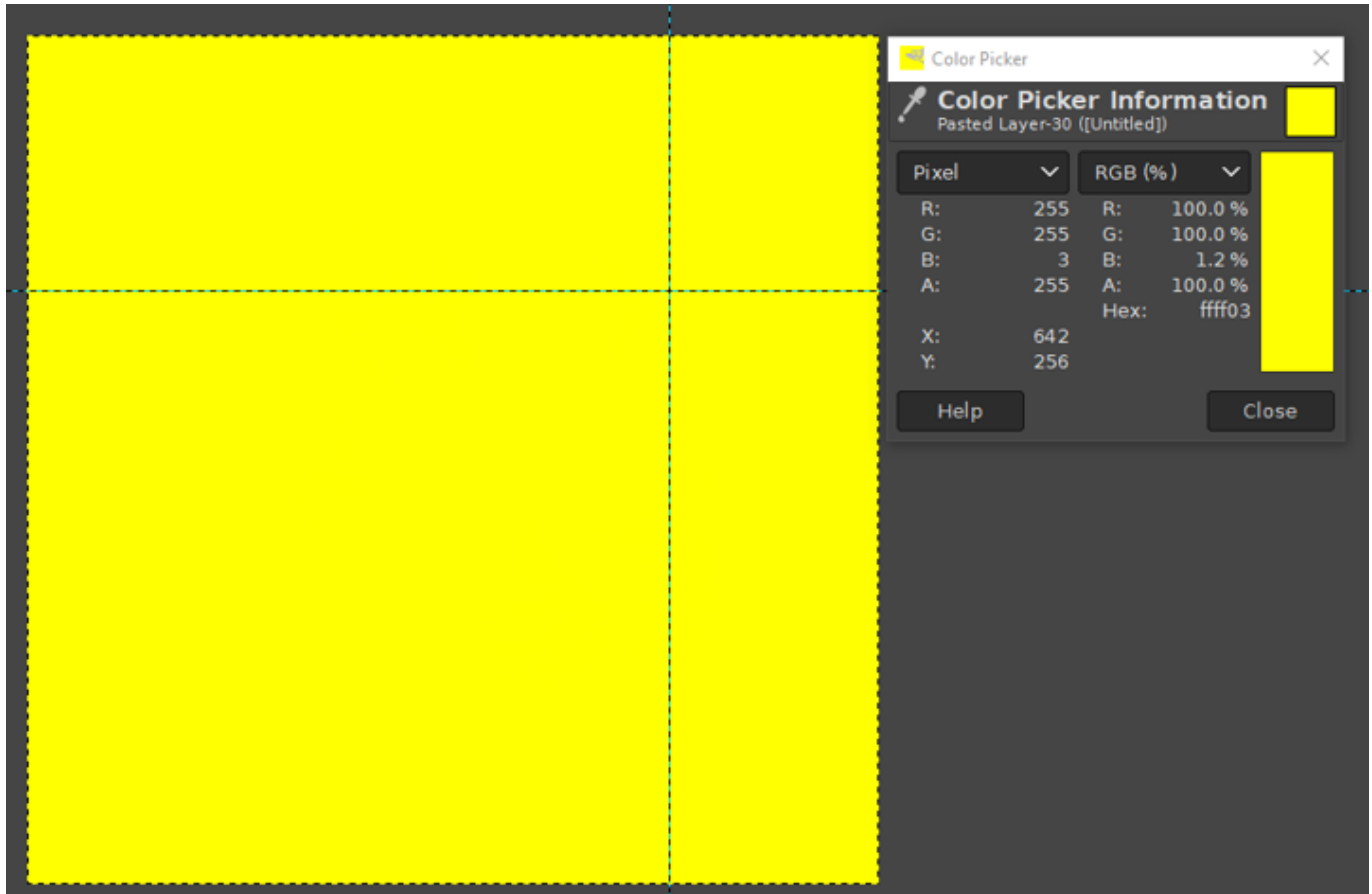
From the Main Menu click Image. Then select Guides/New Guide.

You can see in the Color Picker box the RGB values read 255 255 3. The vertical guide X: is 642 and the horizontal guide Y: is 256. Your numbers will be different of course. Set the Direction to Vertical, type in your vertical guide number and click OK.

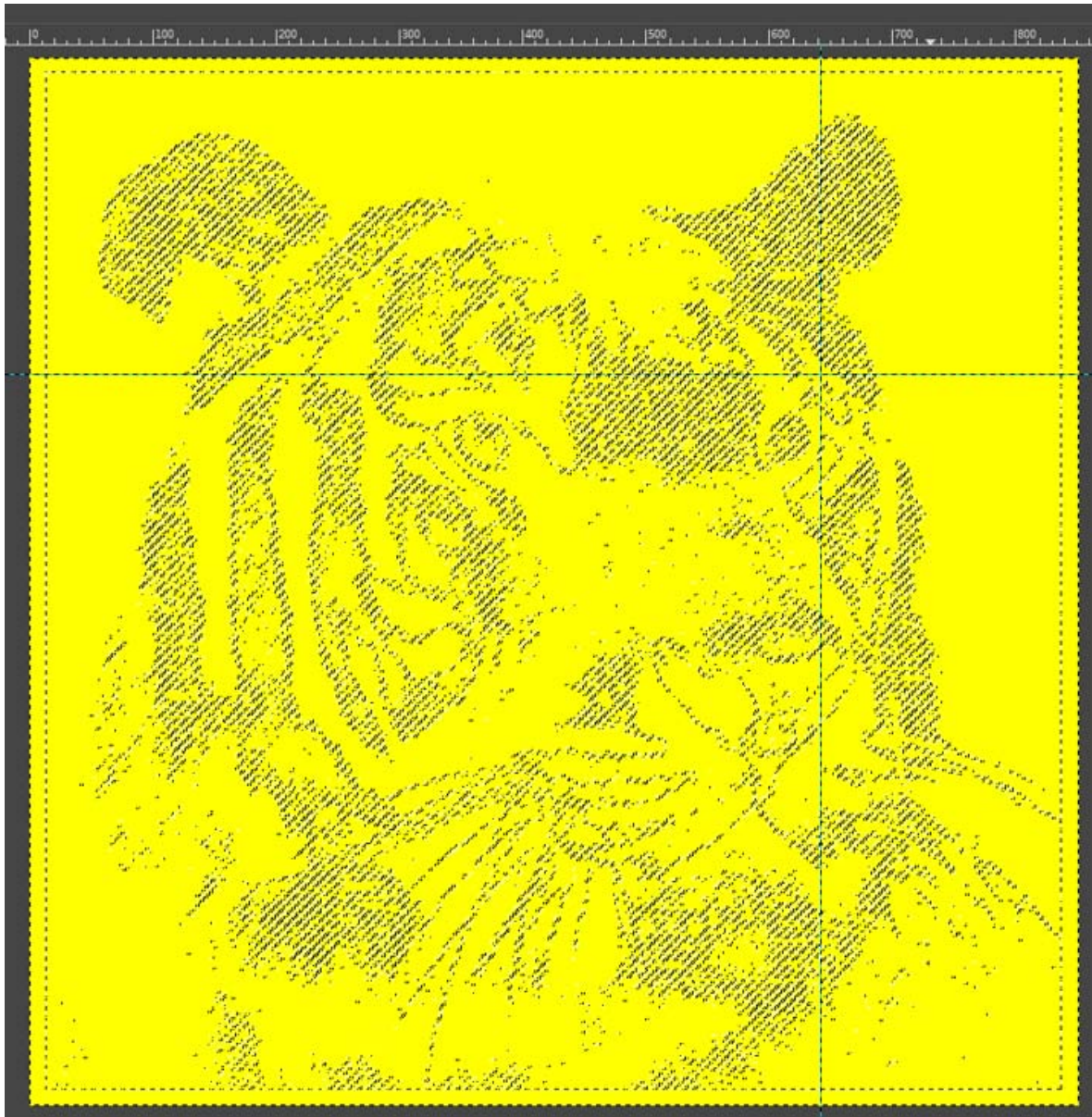From the Main Menu click Image. Then select Guides/New Guide.

Set the Direction to Horizontal, type in your Y: value and click OK.

You can then close the Color Picker box.

Now you want to use the guides to create a color mask.

On the Main Menu click Tools. Then select Selection Tools/By Color Select. Make sure the tool's settings are correct.

Place the curser's cross precisely on the intersection of your two guides and click your left mouse button. You may want to increase the viewing size to 200%. That will make it easier to place the curser's cross. A mask will appear. This may take a few seconds. Be patient.

The color mask appears.

You can now remove the guides and take the viewing size down to 50%.

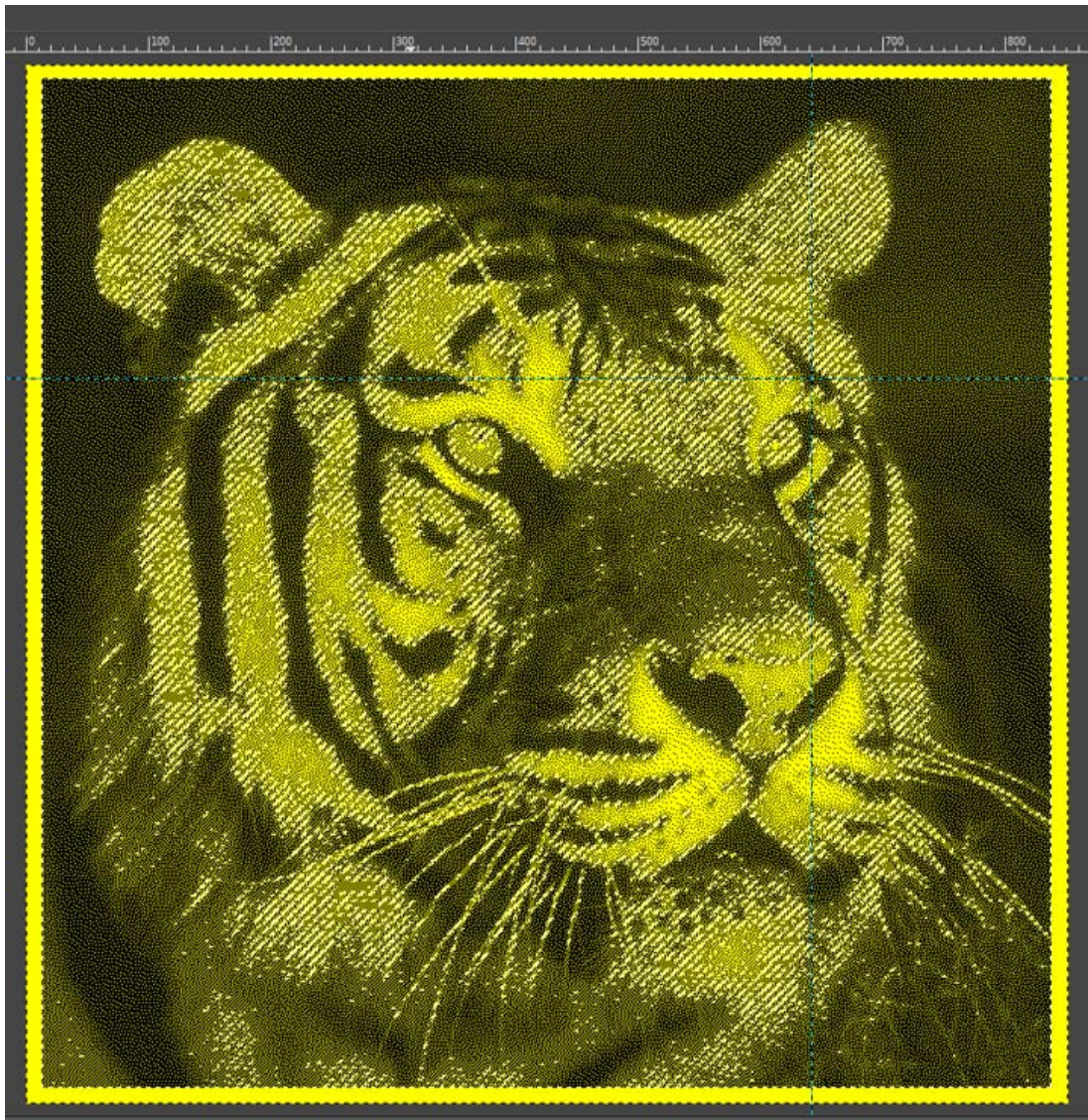On the Main Menu click Image. Then select Guides/Remove all Guides.

The pixel color is light yellow. You want to change the pixel color to black.

On the Main Menu click Tools. Then select Paint Tools/Bucket Fill. Make sure the tool settings are correct.

Click on the mask. This will change the color of the pixels from light yellow to black.

Copy the filled mask.

On your keyboard hit Ctrl C to copy and then hit Ctrl Shift V to paste as a new image.

You will now have the black pixels with no background. To add a white background, go to the Main Menu and click Image. Then click Flatten Image. If you get anything other than a white background, go to the Main Menu and click Tools. Then select Default Colors.
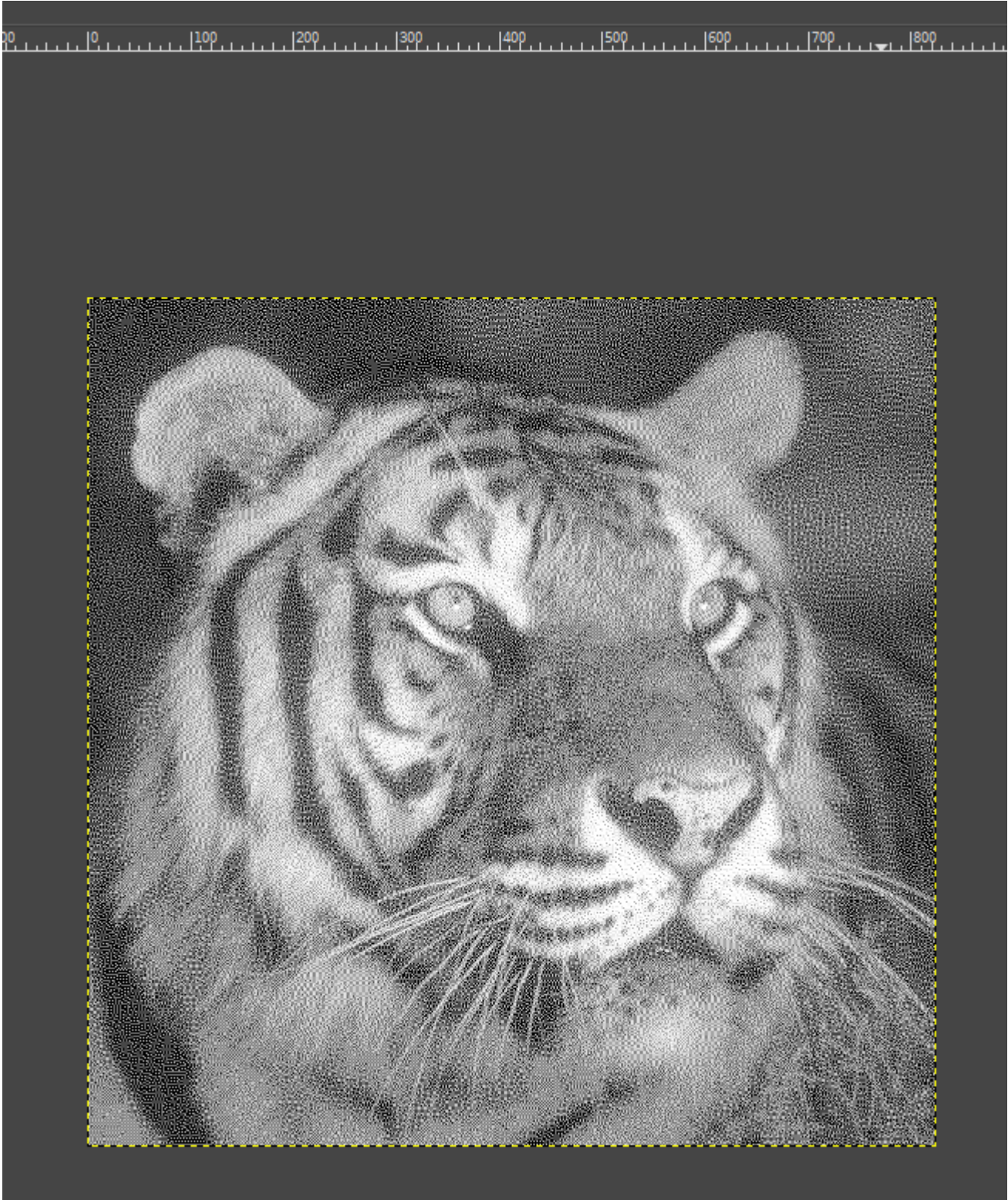
You have revealed the container's contents.

Follow this same procedure for the remaining containers. When you get to the Linear Graphics containers, there is a much simpler methodology if the lines are visible.

Select the red container. Place you mouse curser at the top left of the container and hold down your left mouse button. Drag the curser to the bottom right corner of the container and release the button. If your selection falls outside the container's color a little, that doesn't matter.

On your keyboard hit Ctrl C to copy and then hit Ctrl Shift V to paste as a new image.

Enlarge the viewing size to 200%. You should be able to easily see the slightly darker lines.
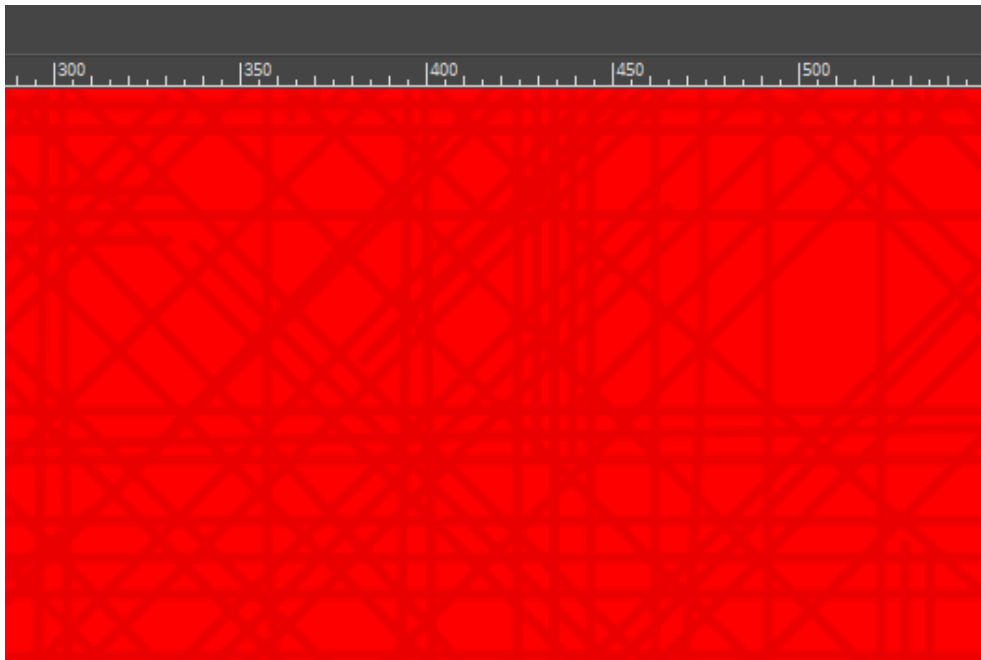
On the Main Menu click Tools. Then select Selection Tools/By Color Select. Make sure the tool's settings are correct.

Click on any one of the lines and a mask will appear.

After the mask appears hit Ctrl C on your keyboard to copy and then hit Ctrl Shift V to paste as a new image.

On the Main Menu click Image. Then select Flatten Image.
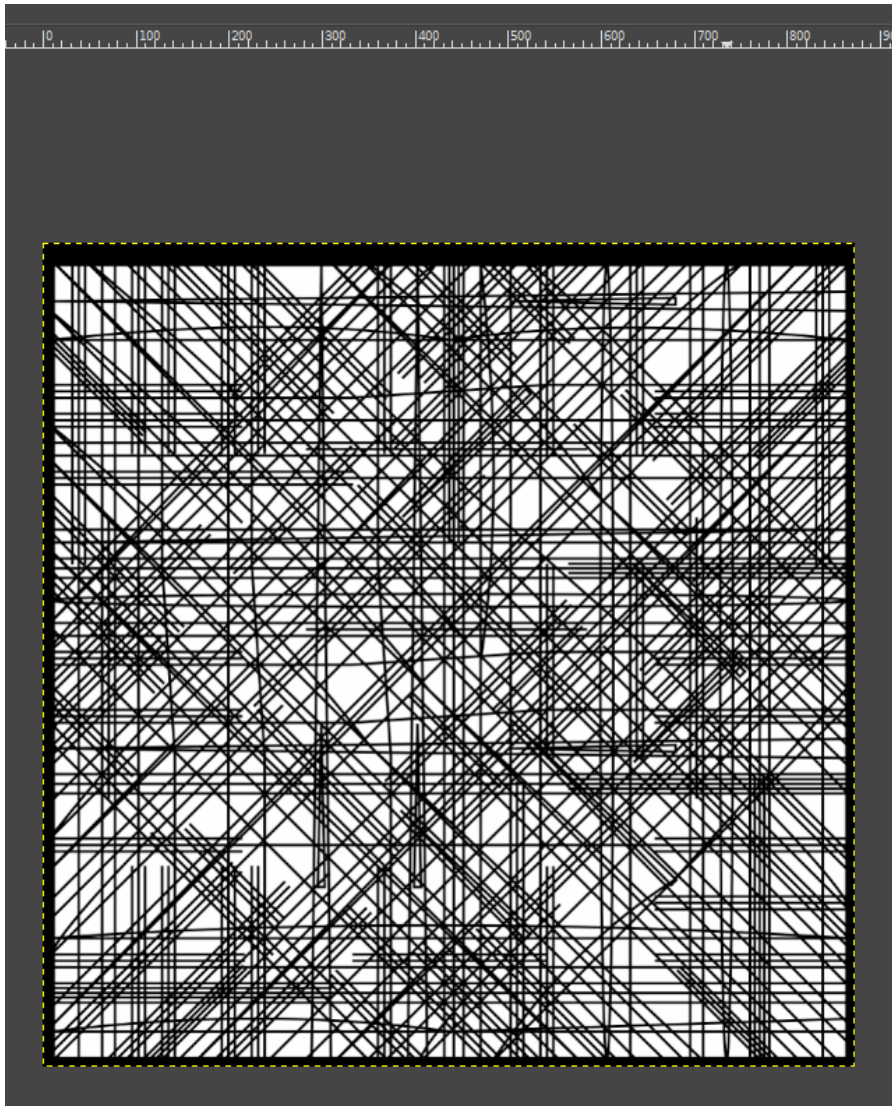
You now have revealed one of the Linear Graphics containers. You can print that container.

I recommend changing the print size to 7 inches for easier reading. Go to the Main Menu and click Image.

Then select Print Size. Change the settings.

Regarding linear graphics containers. The lines are not always black or blended with another color. They could be a different color or multi-colored. These types of containers simply need to be selected and printed. Print at a high resolution. That makes them easier to read.

Enjoy!