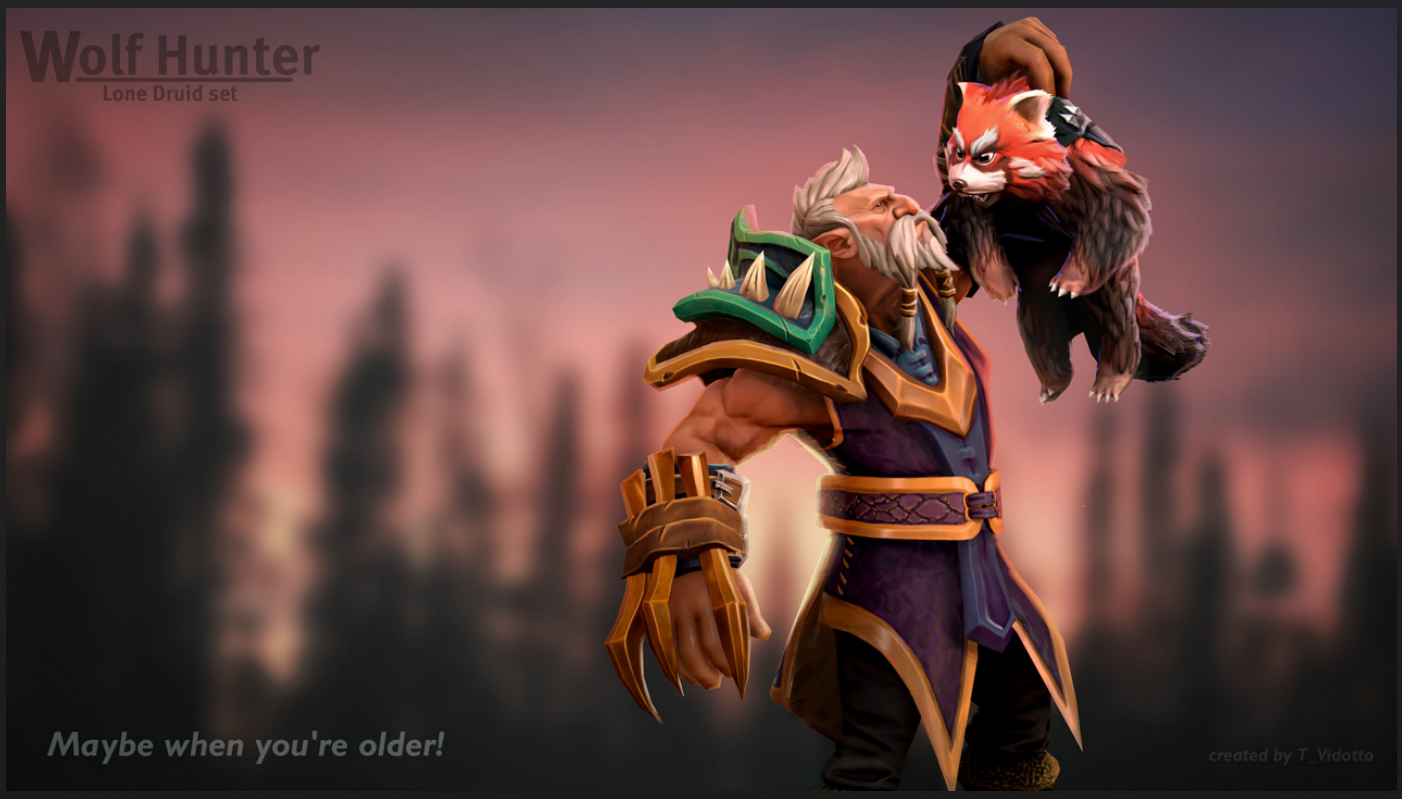
Composition Guide for 3d artists

INTRODUCTION

We are going to use this artwork as the main study on this guide



This tutorial is going to show all the process involved into making this one from start to finish.

COMPOSITION

This tutorial is not intended to go deep on the composition rules, it will just discuss some of the basic rules and show some examples of its usage.

Those rules are not there to force you to follow then, they are more a guide to help. But they don't need to be followed. If your image is looking cool and you are pleased with the result even not following any guidance, it is fine.

Position

The first is about the placement or your model on the canvas.

Should you center it or you should try something different? It is always up to you. in

my case I was a little bored of the conventional and went for the rule of thirds, which I am going to explain soon. Lets compare both:

Center

This is a personal project I did in 2009

Burning Antimage set made with the player BurNing. Artwork mostly by my friend Cesar Sampedro[www.cesarsampedro.com]

Elgato courier I made with The Beyond the Summit Studio.

Rule of thirds

Snowl courier I did in early 2013 for the Polycount monthly contest

Captain Bamboo courier made in conjunction with Cesar Sampedro

Lone Druid set I did in 2014

More unconventional compositions

Do you need to keep to the traditional? Of course not, The composition can be a powerful tool and show more then just the image itself.

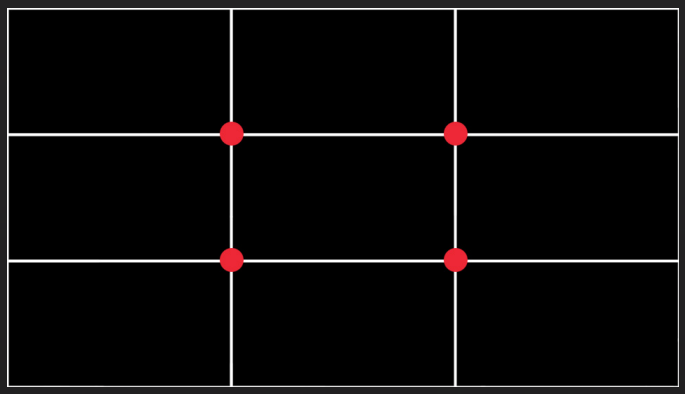
a good example of that is this one is from the movie The King's Speech

When I saw this at the theater I went crazy, I was almost screaming to my wife " this guy is a genius!!!"

On the contest of the movie, at this moment the character was feeling uncomfortable, and the unconventional compositing was intended to also make the viewer uncomfortable, making the scene even stronger.

But even "breaking" the rules, it was not a random composition and I will explain on the next chapter.

THE RULE OF THIRDS



This is a basic compositing rule that even if you are not familiar with it will work really well.

It consists in dividing your canvas in 3 parts on the horizontal and vertical.

The lines can be used as guides and those red dots are the confortable points to focus the attention, and if you compose using this chances are that your final artwork be more pleasing to watch.

When looking to a person or a character, the first thing we do, even not on purpose is to find the eyes, the eyes tend to be the first thing will be noticed, it is by looking at the eyes that we start our first judgement of that character.

If you want to make something less cute try making the eyes smaller or taking them out. the Opposite is also true.

For a comfortable and stable environment try to position the eyes or the head into one of the points. If you want an even more stable situation use the vertical or horizontal lines to guide some of the important lines of your character

For something more dynamic, you can still use the points, but avoid the vertical and horizontal lines and go for diagonals like the main body on the panda.

Notice that everything else on the scene is vertical or horizontal, which gives and stable feeling and contrasts with the panda.

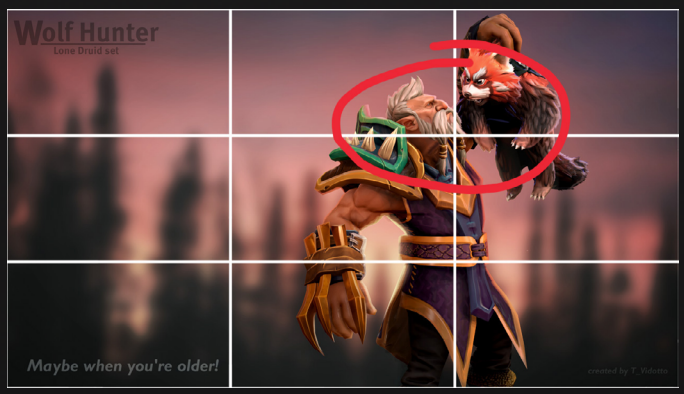
Another good example is this poster of a Pixar exposition. Look how the diagonals on the characters contrasts with the straight and vertical / horizontal lines of the background, making them really dynamic on the scene.

And as the last example, the uncomfortable compositing, which appears to " break" but use them as a base.

Notice how the straight lines were used on the composition, giving you an stable feeling and the idea that he was waiting but also making it uncomfortable by avoiding that important point previouslly mentioned

First you need to learn the basics to be able to break then after.

If you have more then one character or more then one interest, you can consider then one single thing and use it's center as the center of interest like this image.



There is more ways of compose your image, I just discussed some of them.

in resume:

- straight lines will make your scene more stable
- diagonals will make it more dynamic
- positioning the eyes or the head on the thirds will make it quicker to audience to recognize your character, will also make the scene more pleasing to watch
- the composition is really important!

CONTRASTING

Values contrast

Values are basically used for the amount of black and white on your image, in other words to study the values we are going to ignore the saturation of the colors.

If your values are contrasting enough, your final image will also be contrasting and will have some more appeal.

If you pay attention to the panda, it concentrates the brightest parts (face, helmet and wings) and the darkests ones (eyes and pawns)

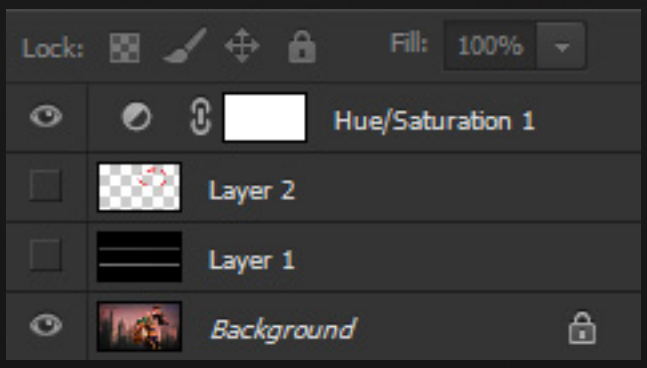
That will easily attract the audience attention.

Same thing on this one, brighests and darkest areas on the main characters, the background has some contrast but it is more towards a neutral gray.

The biggest part on the background is around the character to help making it stand by contrasting with the dark parts on the body.

Testing your Values.

To quickly test your values you can create an adjustment layer to change your saturation to zero, and keep it on top of all your layers



The values contrast is really important for your artwork and you should try to let the most intense contrasts to your point of interest, because they will draw the viewer attention. That is one reason you should avoid that kind of contrast on parts that are not the ones you want to be noticed first.

Colors contrast

Temperature

A great technique used for years in paintings is to contrast using warm and cold colors.

Of course if you don't contrast with the values, the temperature contrast will save your work. But if you did it can enhance the effect.

Usually you can classify the color like the image at the right but the definition of cold and warm can be used based on the context too, and depending on the mixture and the other colors on your artwork the feeling of the same color can be different. For example if you have an yellowish green and all the other colors are warmer then that, lets say red, your green will look colder then the same green in the middle of a blue artwork.

A good way to use it is by switching the temperature base on the interest on your model / character. You can use a cold color on the background and highlight your model with a warm light.

Like on this scene from Game of Thrones: The background has a cold color that contrasts with the warm colors on the character's hair and cloth.

You can also try to work the shadows on one temperature and the lights on another. The most used are the lights being warm and the shadows being cold, but you can also experiment with the opposite and get some interesting results.

The Values contrast was also really well made on this image, the right side of the character have a rim light that helps stand out from the background but at the left side they made the opposite. They also used another light to separate the front hair on the left side from the one that is on the back, and a rimlight on the shoulder on the left to separate from the background.

you can also use both temperatures on the lights in conjunction with the background color like on this artwork.

Warm light coming from the right and cold light coming from the left

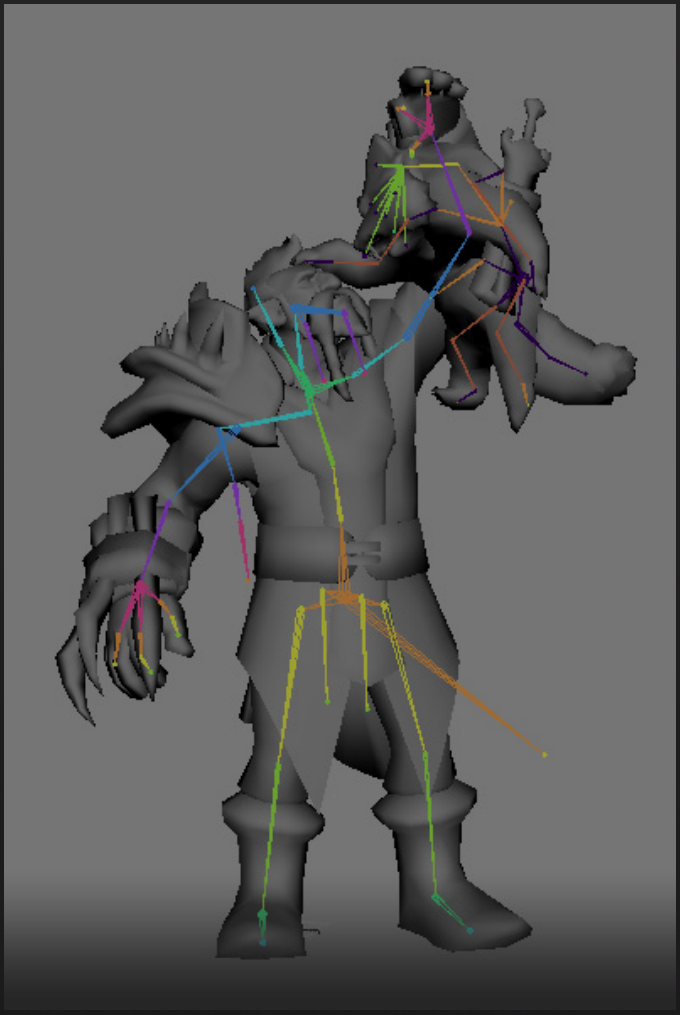
Background

The background of your image is really important too, It need to be interesting but never more than your character, it needs to be a base for your character and help enhance the result, try to not go random on this one. It must help your model or character stand out and not steal the attention.

CREATING THE BASE

After deciding your composition and how you plan to show you character you will need to pose your model.

For this tutorial we are not going to make a painting from scratch, we are going to focus on a quicker solution by using the model as a base.



Silhouette and Negative space

This is one of the first poses I made, I planned to make the bear pawn be rested on the Lone Druid's face, the same as my cat does to me, but it was making my overall silhouette too confusing.

The silhouette of your character is something really important for the first instant recognition. If the silhouette is not working you character may look confusing and not appealing.

Since the head of both were really important to me and I wanted to emphasize the connection between both eyes I decided to take the pawn of the image to create more negative space between then.

The negative space is as important as the positive one. the negative space between the Lone Druid and the red panda helps distinguish one from the other. the space between the Lone Druid's right arm (left of the screen) and the body was used to increase the contrast of the body and the background.

A good rule to check if the silhouette is working is by painting your character with one flat color. If it is still recognizable it means that you made a good work.

As you may noticed, the head silhouette of of the red panda is unrecognizable on the flat color study, so I used the values to make it stand: I added a bright rim light on the red panda's face and darkened even more the holding arm.

RENDERING THE MODEL

You can use a lot of techniques for that, you can render on a 3d program or inside the Dota 2 engine.

This one here was using *Source Film Maker* [www.sourcefilmmaker.com] and a modified version of the default map created by *Swordz*

But the techique I am going to use here is my actual workflow using *Marmoset Tollbag 2* [www.marmoset.co]. The program is not for free but you can use the trial for 30 days. Enough time to convince you.

I am using Marmoset now because the setup time of the render is really short and I can render my image with transparency, which saves me a lot of time, specially if in the middle of the artwork I find some detail that I would like to change on the pose. (situation that happened a lot with me in the past)

here is the work in progress of setting up the materials

Load the pose on marmoset, define the materials as we did on the previous tutorial, define camera, HDRI and when happy with the result it is time to export. Don't worry about making it perfect, if you need to tweak something like intensity of the light you can reexport the image.

On settings, make sure you tick the transparency on and define the size you want, my last size was twice the full hd resolution (3840 x 2160 pixels)

To export you just need to press f10 and it will be loaded on Photoshop automatically.

LIGHTS

Position of the Light

Positioning your lights is really important for the mood of the image. A light coming from below can give you a more dynamic and / or evil environment, and one from the top a more stable feeling.

You should experiment a lot with your lights, just try to consider all the light sources of your scene when painting the light.

Self illuminated materials will usually cast some light over your model.

Walls will usually reflect light, so if you have a light coming from the left and you have a wall on the right, you can paint some bounced light on your characters right side

A good and basic way to think your lights is using the *3 points light method* [en.wikipedia.org]

Basically you use one key light that will be the most intense light and will illuminate your character from the side and front. Then you have another light less intense on the other side to help filling the character with light, but on a way that you keep a little darker between the two. The third light will be a rim light that will help outline your chracter

Hard Light and Soft Light

In the real world, a hard light is usually generated from a really strong spot light, maybe a car light or a vigilance spotlight. The sun light is also really hard. but a sun light may not look as hard because the other objects on your scene may be reflecting light and that will result on a more soft shadows.

A hard light may pass a more dramatic feeling, specially if you don't have objects reflecting it on the other side

A soft light is usually generated by a big source that is not extremely far (like the sun). On a cloudy day for example, the water on the atmosphere helps diffusing the light and it becomes a huge source of light.

Objects around your character may help in getting a soft light by bouncing some light back on your object, specially if those objects have a light color. It is always good to consider that when painting your lights.

If you want a more in depth discussion about light I strongly suggest to follow *this link* [www.photomatters.org] to the light area of the site *http://www.photomatters.org*

Layering and painting the lights and shadows

First step is to position everything on your photoshop file. If you have a good computer with some free space don't worry about merging the layers. I try to keep all the information separated by layer so I can keep everything editable.

This was my first setup:

I got a background image of a sunset on a forest and blurred to give the effect of the aperture of the lens.

The original photo had it's saturation exaggerated and on the actual file It its attracting too much attention.

This one I desaturated and reduced the contrast on the background

It is better but it is still too strong.

Next pass was adding some other lens effect and burning the borders of the image, it is called vignette.

a quick and dirty way to do is by creating a new group on multiply with 2 layers inside

The first layer you make a round selection coming from on corner to the other of the image, feather it by 100 or 200 pixels and fill it with white. The second layer you fill it with black.

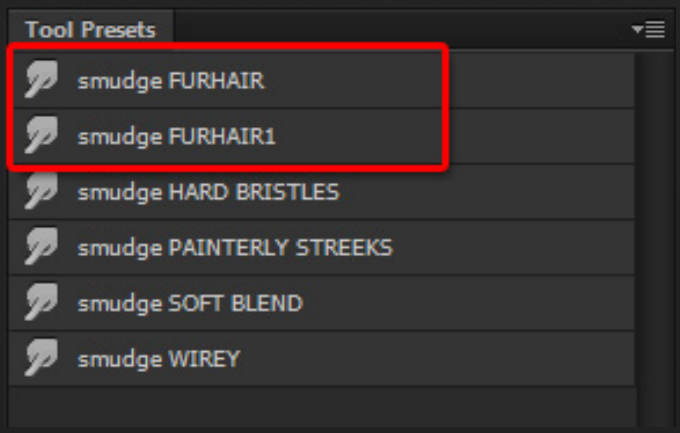
Then you just adjust the opacity of the group to get the result you want.

Using the vignette lens effect on just the background is not the real way it would happen but I did that in purpose to help the character stand a little more from the background.

The next pass was fixing the silhouette and painting some extra details on the image.

Notice that I painted some fur and tried to make the silhouette less "squarish"

To make the fur, most of the work was done with a brush created by *Anthony Jones* [www.robotpencil.net] and it can be downloaded on the *Schoolism site* [www.schoolism.com]



I kept painting some more fur and started blocking the light afecting the model.
I considered that I have an yellow light coming from top left and a more "redish" one from the right

And here is comparing with the render from Marmoset

Now with a low opacity brush I started layering the shadows on the body. That helps the volumes to be more visible

Next step is to Blend more the character with the scene and paint some more lights for more volume

Normally when a light is too strong, it tends to bleed over the objects in front of it.I used some colors from the background and painted over the edge of the silhouette.

Now to help blend it more with the background I use a technique taught to me by the amazing Concept Artist *Cesar Sampedro* [www.cesarsampedro.com]. Which consists in getting one of the main color of your character or the light and painting it loselly over the focal point of your image.

That layer should be as an Overlay with some transparency (ignore the white on the image, the white is just to help you see the red, my layer is just composed by the red).

In my case I painted some red and used the opacity at 49%.

The effect is subtle

Now some final touches with some layer adjustments, in my case I added a Levels and a Vibrance and we get the result from the first page.

CONCLUSION

On this guide we discussed some quick techniques to a get a quality artwork using your 3d model as a base in a short period of time.

Showcasing your work is really important to show the public what you did. I saw a lot of artists doing amazing jobs but failing in showing it to the public.

A good rule is to consider that your public will see your work for a couple of seconds and will not click too much. So you need to consider the first images to be extremely important.

What is the first thing they will see? That need to be your best image because you need to catch the attention. First you need to make them curious to see more and then you need to convince your public that it is good.

You may pass hours looking at your artwork and all the details, but most of your public will not do that, that is why an strong composition is important, the first impression is crucial.

If you do a good job showcasing your work your public will want to see more. Even if you don't feel good enough with your 2d skills, a good 3d work without a good presentation will be a waste of time.

Save a good amount of time for that stage, one day or more. Do not underestimate the power of the presentation image

Contact

The Original guide can be found at the *Steam Guide Page*

Other projects can be found at my website or at the Facebook fanpage

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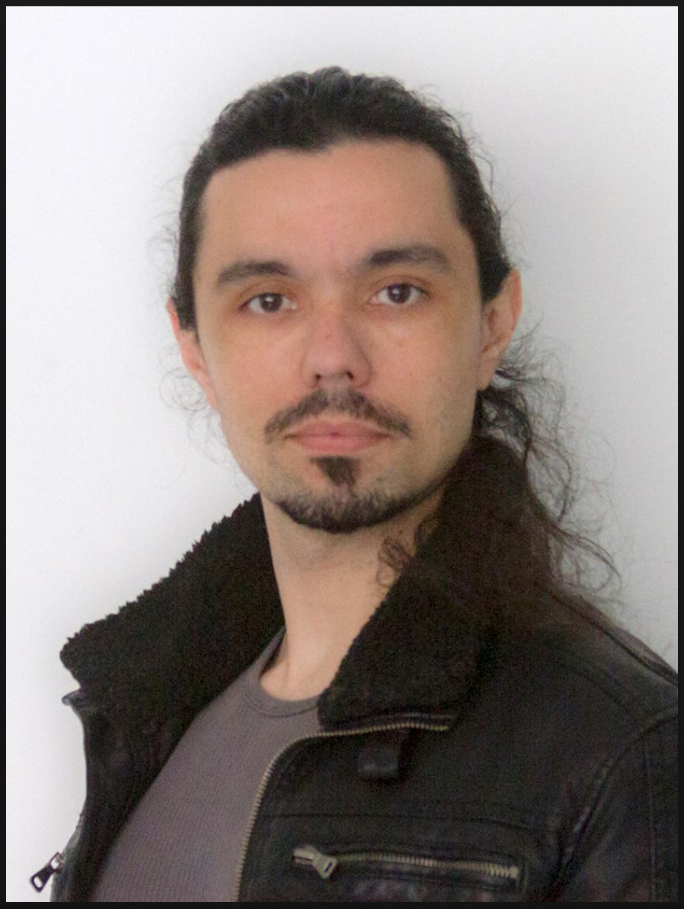
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