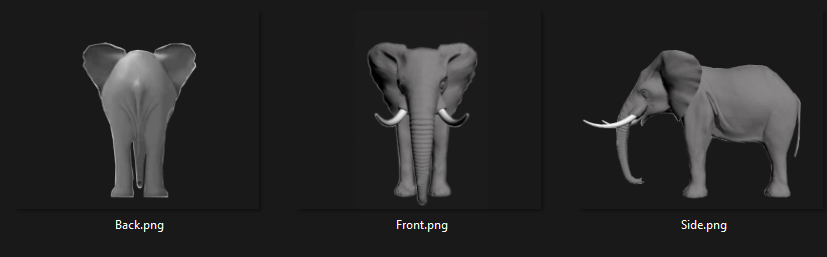
Bringing in a Reference Image



# Getting Started

One of the first steps that you will want to be able to do is to bring in a reference image. So, either create, or bring in some stock images that are ready to take into the 3D world of Blender. You will want a front, back and side view image.

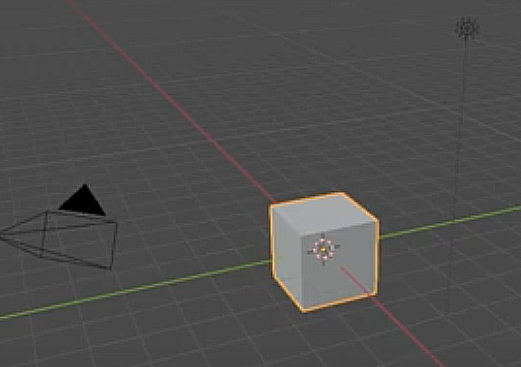
When you are a beginner, it might be easier to start off with some images that have already been made for this purpose, and that is because once you start modeling and find that things are not lined up correctly with the model, it can throw your entire project off. And then you are stuck fine tuning what you have.



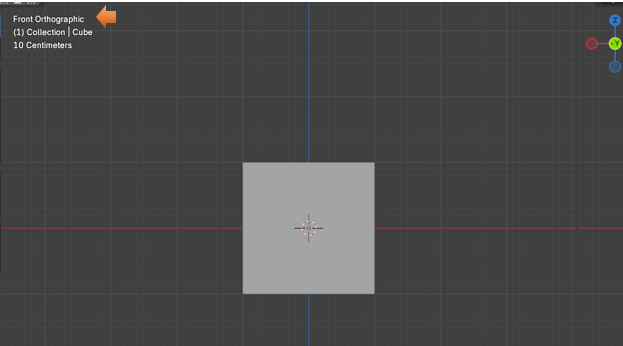
As we move along in this tutorial, you may find us using a few things that we have learned in previous tutorials.

# Setting up

Open Blender, we can begin with our cube on the page.

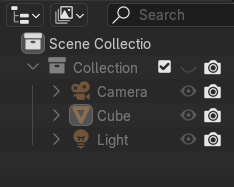


Hitting the 5 key on the numpad in Blender, will toggle us from Orthographic mode to Perspective mode. We want to be in Orthographic mode. Now hit 1 key on the numpad and that will put the cube front and center in the screen. You will want to be in this mode to bring in the Reference image.

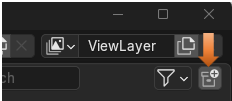


# Add a New Collection

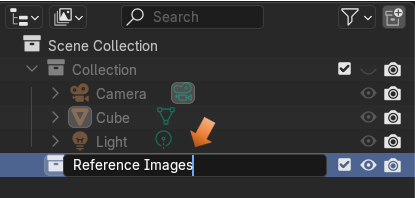
You can close the collection with the cube in it and hide it. Now your cube will no longer be visible on the screen. It will still be there; we just hid it so it will be out of the way.



Now add a New Collection to the Outliner. You might have to make your panel wider to see and have access to the New Collection button at the top of the outliner.

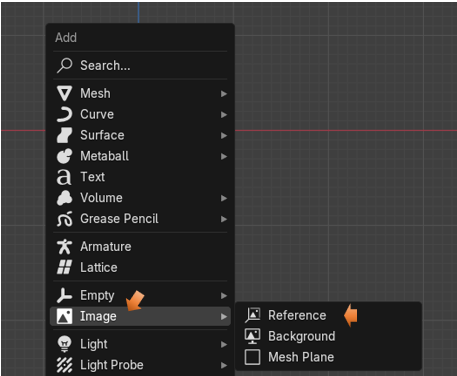


Rename this new collection to Reference Images.

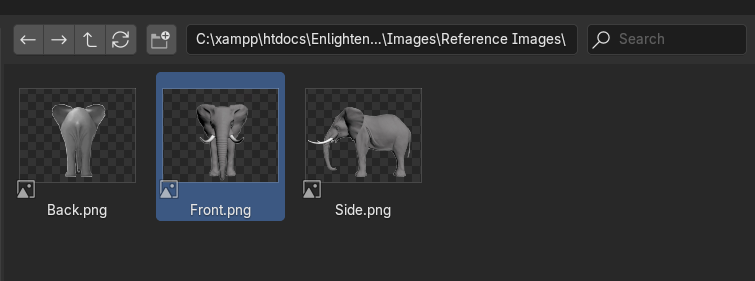


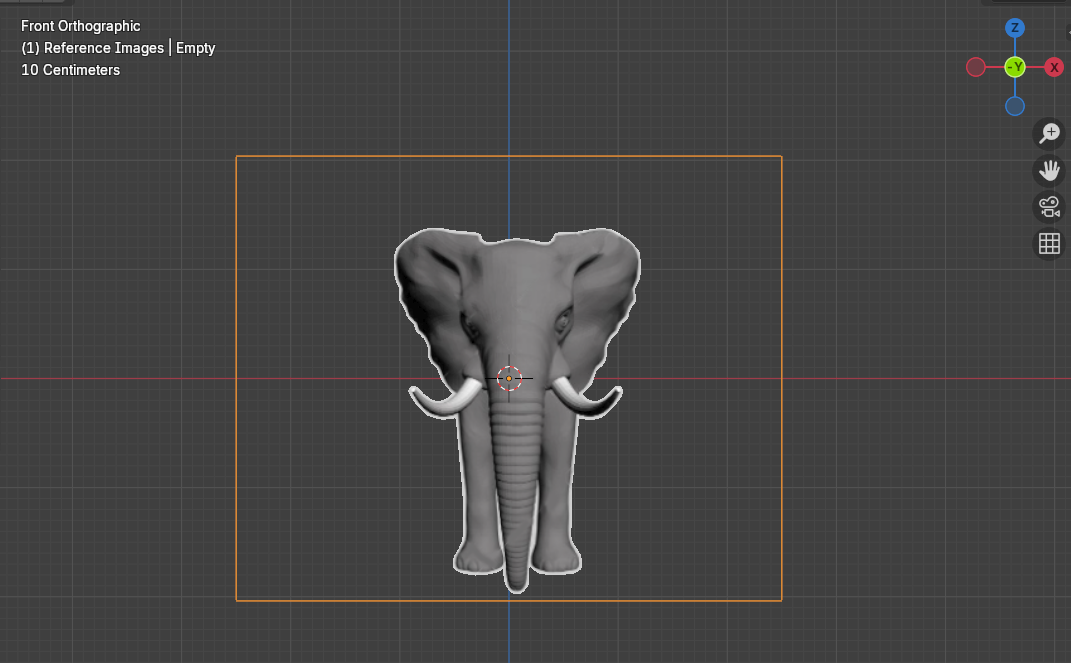
# Adding the Front Reference Image

Back in the Viewport of the program. Hit Shift A- Image -Reference.



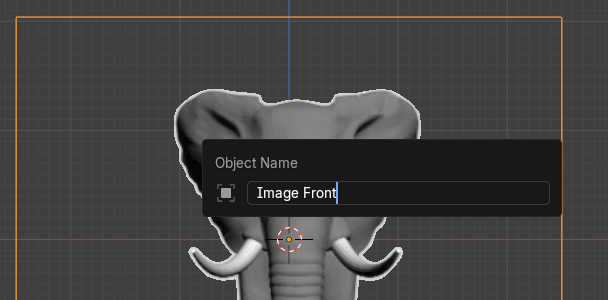
Browse to your images for your 3D model, and choose the one that represents the front orientation. Since we have the view in our viewport set to Orthographic mode front, this image should come in perfectly, at the angle that we want it.





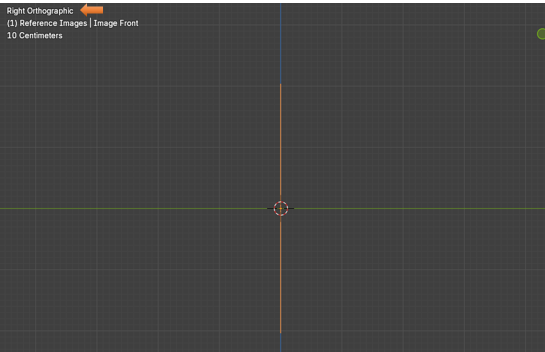
# Naming the Reference Image

With that Image Reference Selected, we can hit the F2 key at the top of our key board, and that will bring up a textbox where we can name the image that we just brought in.

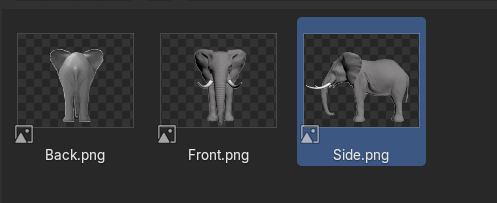


# Adding the Side View

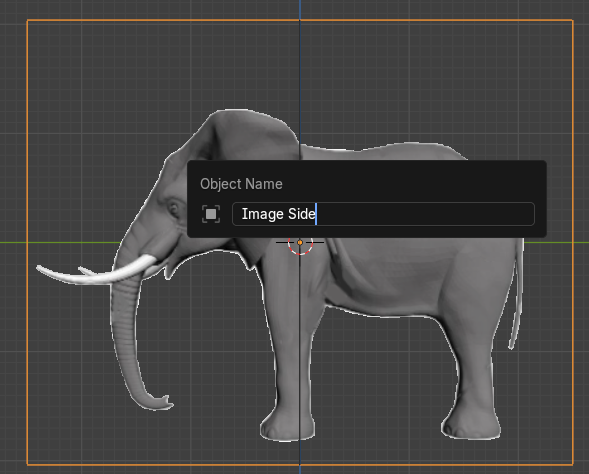
Now we are going to do the same thing and bring in the side view. This time in order to bring it in correctly we need to have the view port set to Right Orthographic view Hit the 3 key on the numpad to turn it to the side view. Our first image from this side view will be reduced to only seeing a very thin vertical line.



Now Shift – A – Image- Reference and bring in the Image Side.



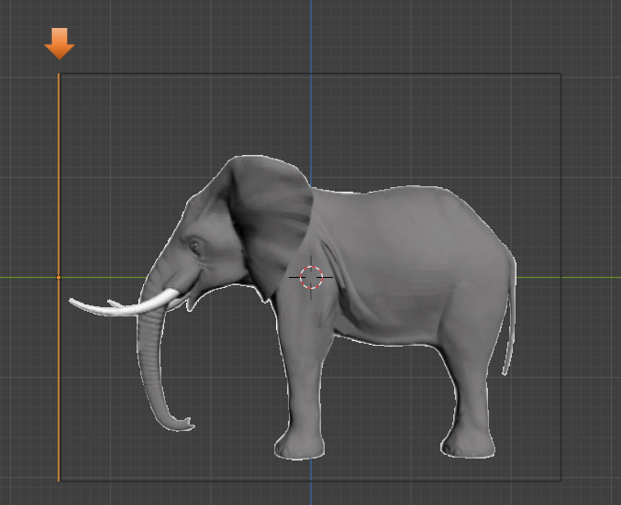
Press F2 and name this one Side Image.



# Move the Front Image Reference into Position

We don’t exactly want our Images on top of each other. So, while we are in side view, we want to move the Image Front to the left, so it lies directly at the left side of Image Side, instead of in the center of it.

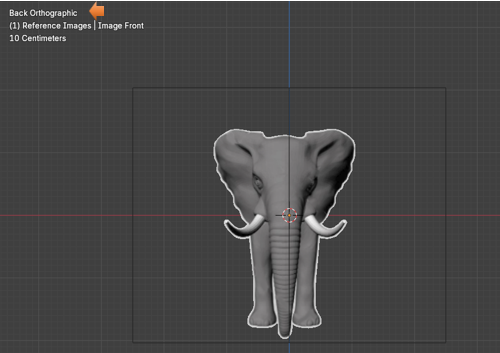
G for Move, and Y to constrain the move to the Y axis. Our image is sitting here now, to the left of the Image Side.



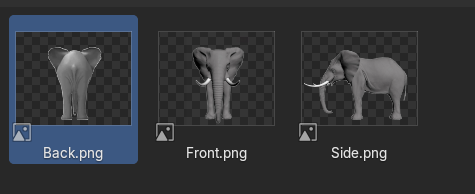
# Adding the Back View

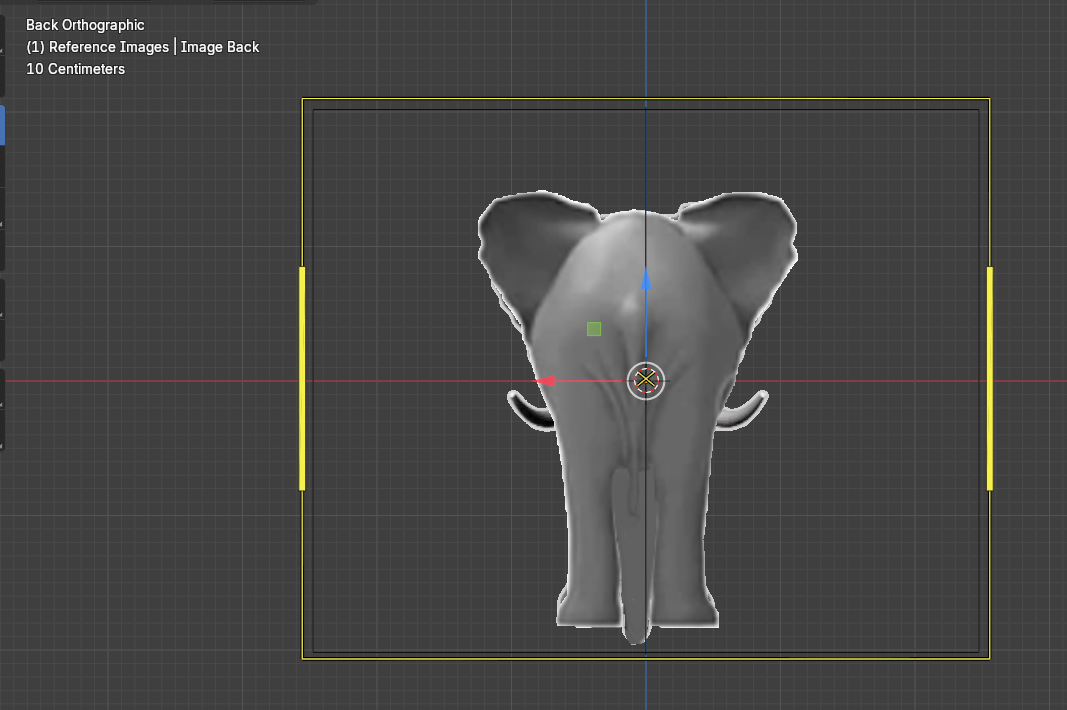
To view the scene from the back, we need to hit ctrl-1 on the numpad. The number 1 is for the front view, and since the back view is the opposite to the front view, it will be set by hitting the ctrl-1 button on the numpad of your keyboard.

Notice that when we go to the back view, we are still seeing the front view of the elephant. That is because we will need to change a few settings in the property panel to fix this.

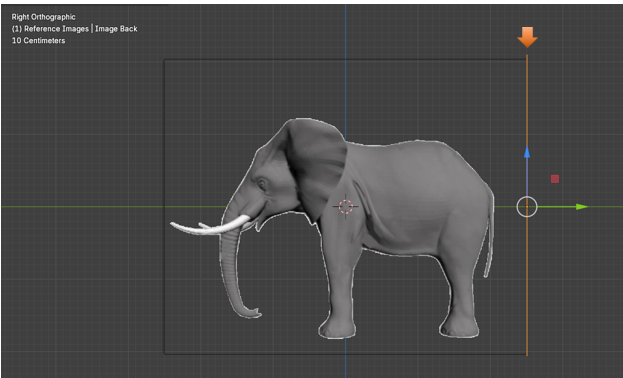


But for now, just hit the shift-A-Image-reference and bring in the reference image for the back.



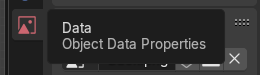


Now Hit the 3 key on the key board numpad. This time we want to move this back image to the right side of Image Side. Like This. Use the G key and the Y key to move and constrain the move respectively.



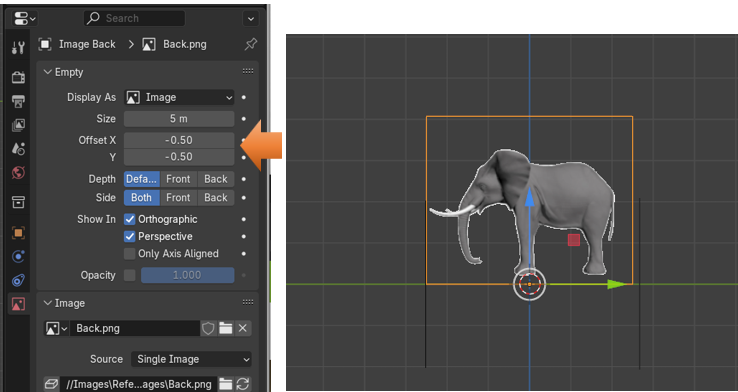
# Setting up the Properties in Property Panel

You want to click on the Image section of the Property panel. Since we have an image selected this icon would have changed from a green triangle (which is what it is for an object) to an icon that looks like an image. This section is called the Object Data Properties panel.



# The Offset section of the Property Panel

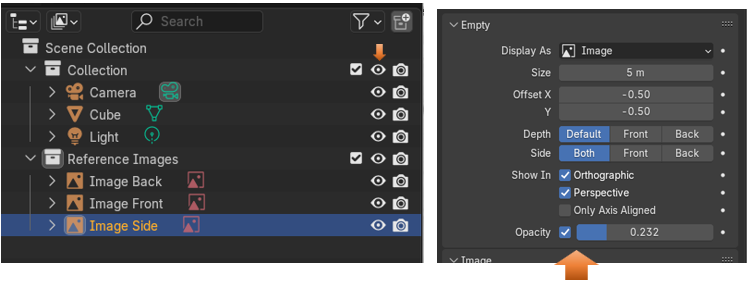
You would use the offset section of the Property panel to move the image around in the viewport. Notice right now that the offset is set to -0.50. The Y setting would move the image up and down. So, if we set this option to be 0, it will set the image flat on the grid line, and will no longer straddle it.



# Setting the Opacity

This section of the Property panel will deal with the opacity. To work with these reference images, we actually need to see a bit through them to the 3D model, so we can work with them with more accuracy. The setting here for your images will vary. So, you want to be looking at them so you can decide just how much opacity that you will need.

We turn this box on by checking on the check box. And then setting the opacity

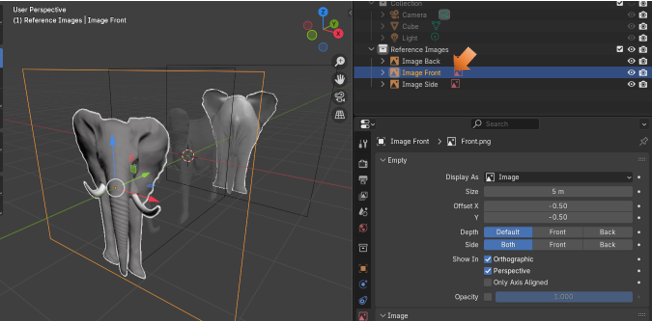


# Only Viewing Certain sides of the Image

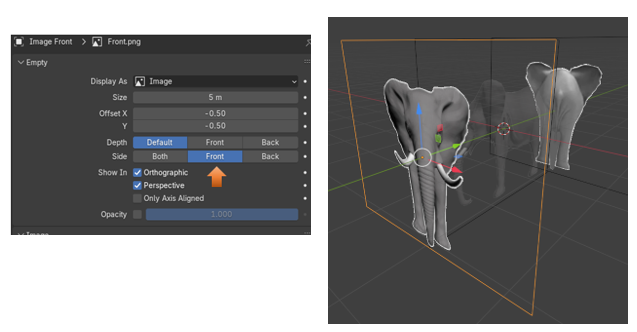
To keep these images from confusing the mess out of you while you have your objects facing in opposing angles, you will want to change the setting where you can only see the image while you are working in the view that is specified for it.

For Instance, when we are in front view. We only want to view the image while we are in Front view in the viewport. Other wise we want the image to be invisible and stay out of our way.

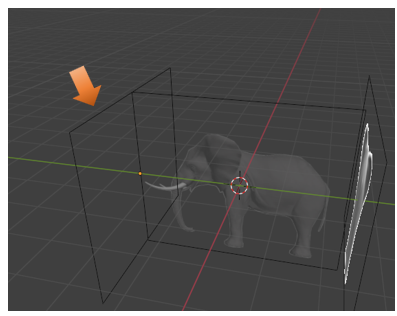
Click on Image Front to select it.



Now in the Property panel, we want to set the Side option from both to just Front. You will see it from the front.



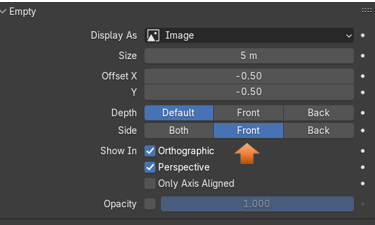
But turn the viewport around and you will not see the image from the back.



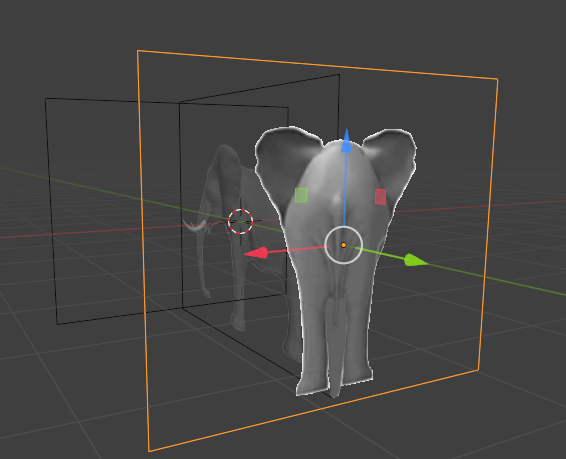
# Change The Back Image to Be Only Viewed from the Front of It

Now when we go to the back, we still need to set the setting of the View to front, because when we are looking at it from the back, then it still is the front for this view.

So, select the Image Back, and change the Side setting to Front.



We are now only seeing this image from the back

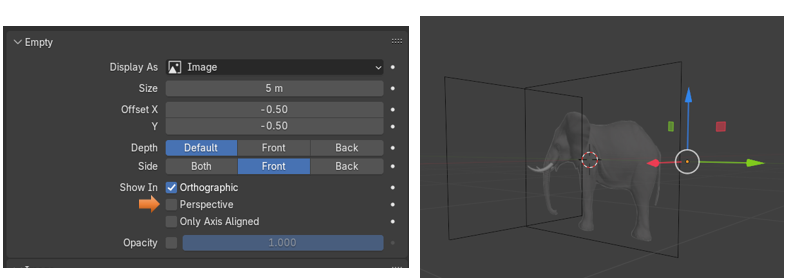


# Controlling Viewing from the Perspective View

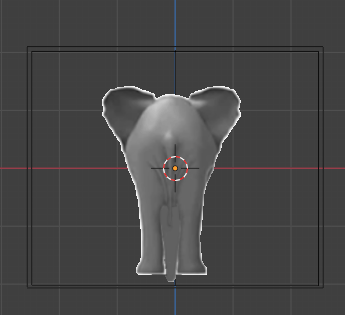
We also have another setting where we can set the view to only being able to see the image from looking at it from straight on. That means you must be in Orthographic view in order to be able to view the image and to model from it. This can be helpful, because it can keep you to modeling your 3D object from only one angle, and not have it start to get lopsided because you are trying to model from all over the place.

Also with perspective set, you do not even see the orange lines from the boarder of the image. The entire thing is invisible unless you select the Orthographic setting of 1 front view, ctrl-1 back view, 3 for or ctrl 3 for the right and left sides.

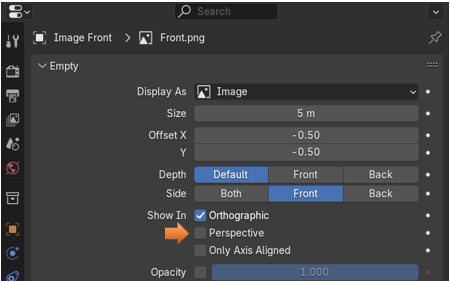
Uncheck the perspective view from the Image Back. You will see that unless you press ctrl-1, you will not see the image at all. See the back view has disappeared



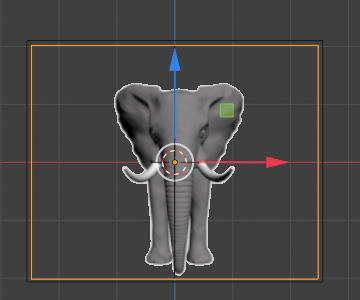
Hit ctrl-1, and you will see the back view.



Now turn off the Perspective for the front view, and it will start behaving in the same way. The only way you can see the image is if you hit the number 1 on the numpad of your key board.



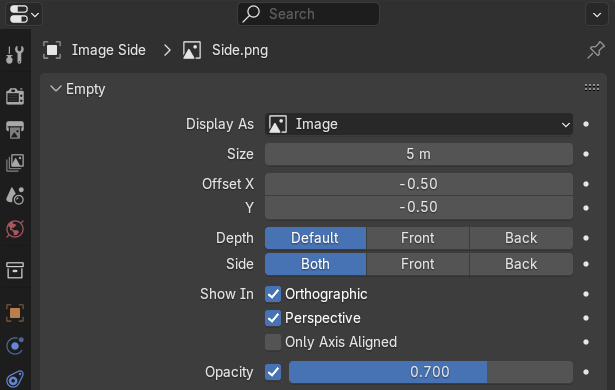
Hit 1 on the numpad to see the front image.

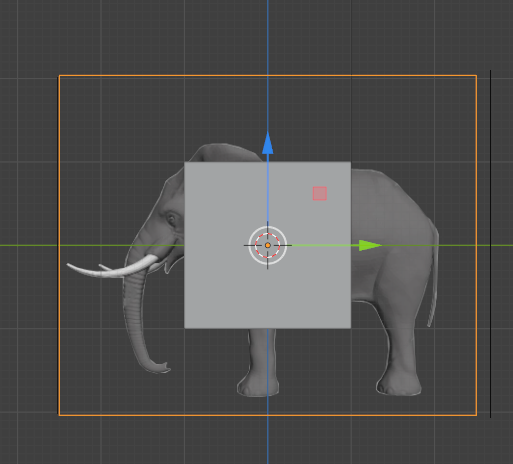


# Finish the Opacity changes for all the images

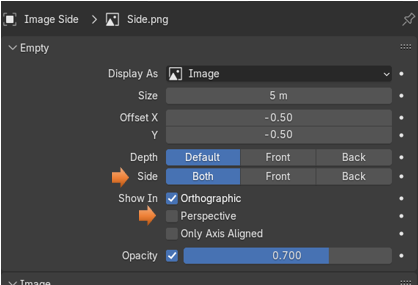
We want to use the cube, while we are doing this. So, turn back on the cube in the outliner again.

For the side view, we do not really need it turned down too much. If it is bright you might want to adjust it to be more comfortable on your eyes.

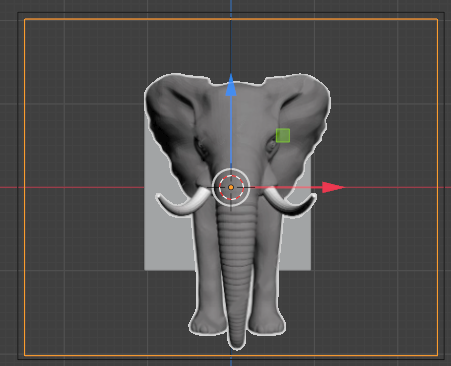


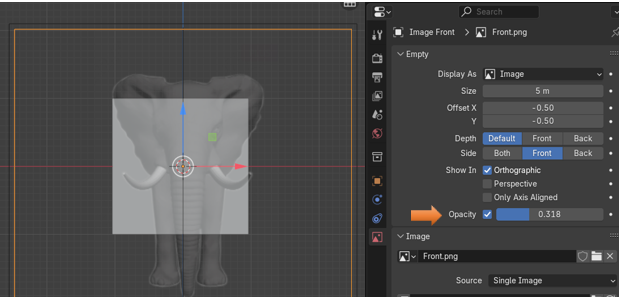


You might also want to set the perspective for this one too, so we do not get any warp from our model building. Since we have the sides set to both. It will work and we will be able to see it from either the right or the left side, we are just constricted from doing any rogue modeling.

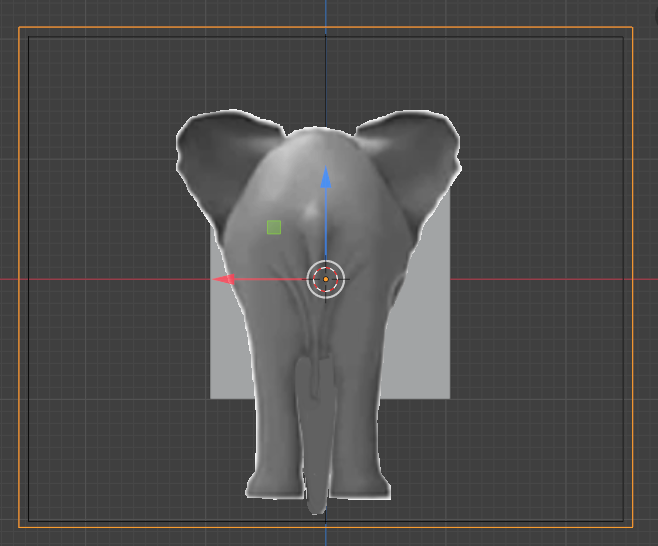


Now for the Front, we are going to want to bring this down since the front image certainly is in front of the object and it will completely cover it, if we do not bring down the opacity for this image.

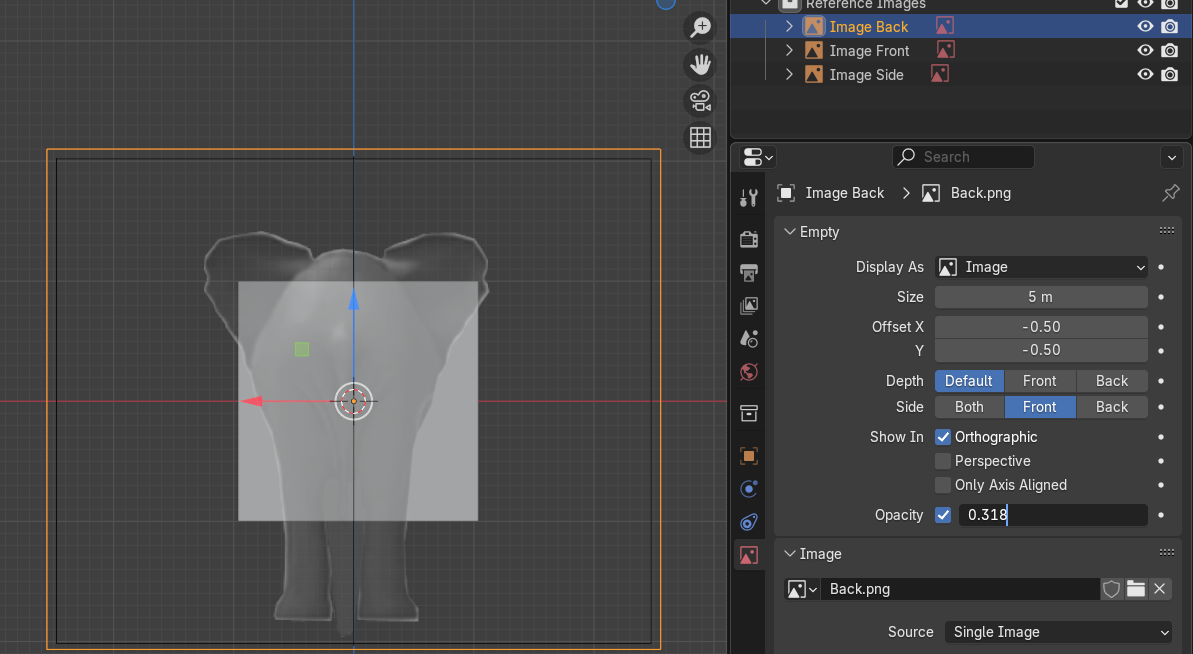




Now we will go to the back and bring down the opacity for this one as well as without it, we will not be seeing our cube.



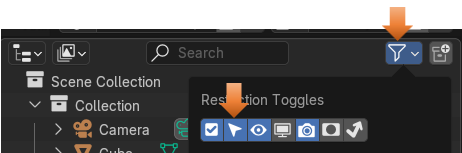
The opacity setting of 0.318 seems to work out well for these reference images. Yours may be different.



# Making the Reference Images to be non-selectable

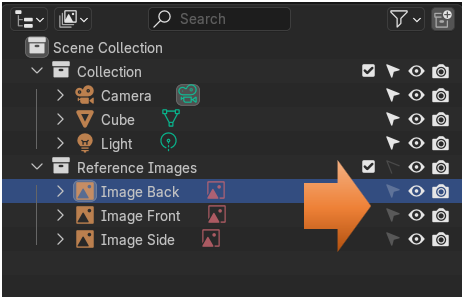
Remember, from last week’s tutorial that we are able to make these images so that we are unable to select them, but we need to open the funnel menu in the outliner and turn on this option first.

Open this funnel button and then turn on this arrow, which is facing left and upward.



Now we can see that we have added the select-ability option button to the outliner, and so now we can use it.

So, now for the entire collection that holds our reference images, we want to turn that off, by hitting the button to the collection and turning it off. All of the images, which are children of the collection will be affected and will turn off too.



So, now if you attempt to select any one of the images, it will have no effect. This is what we want as we do not want these images moving around while we are modeling.

The more reference images that you have, the better. You can have top views and bottom views, and some even have views from different perspective angle while in side view. But this is a good start to begin modeling. But aside from that, this is about it for this tutorial.