Course: 3D Design
Title: Castle Texturing
Blender: Version 2.6X
Level: Beginning
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This tutorial assumes that you already know how to:
- Display orthographic and perspective views
- Go to Edit and Object modes
- Go to solid and wireframe display modes

Castle Modeling

In this PDF tutorial we will be adding image textures to the modeled castle as pictured above.

Set-Up

Open, in Blender, the file you created in the Castle Modeling tutorial. If you do not have this file you can use the Castle_Modeling_Complete.blend file located HERE.

I suggest that you open the file and resave it, using a different name to its own folder.

Go to wireframe display mode. Go to top view. Hold your SHIFT KEY down and select layer 20 in the Blender layers indicator panel located in the 3D Editor viewport header.
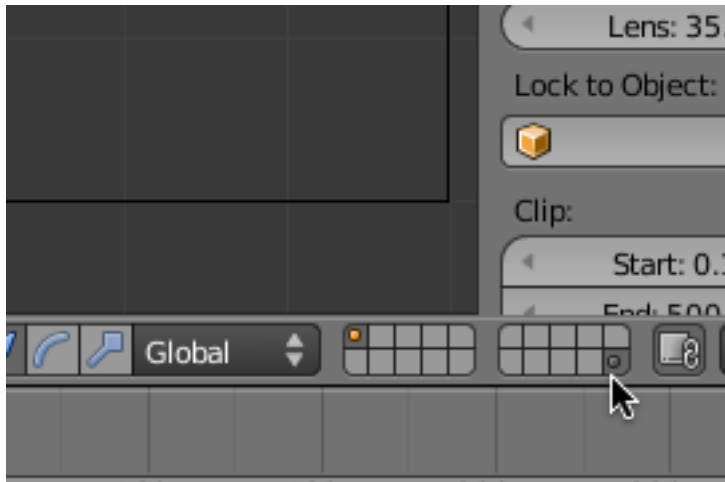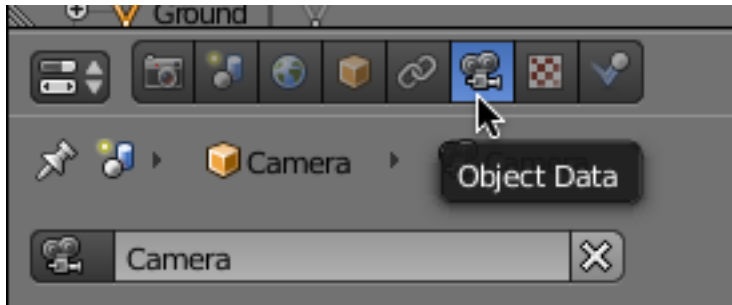
This will add layer 20 to layer 1, making them both active. We placed the light object and the camera object on this layer in the earlier tutorial.

In the Outliner Editor, select the camera object by clicking on the name.
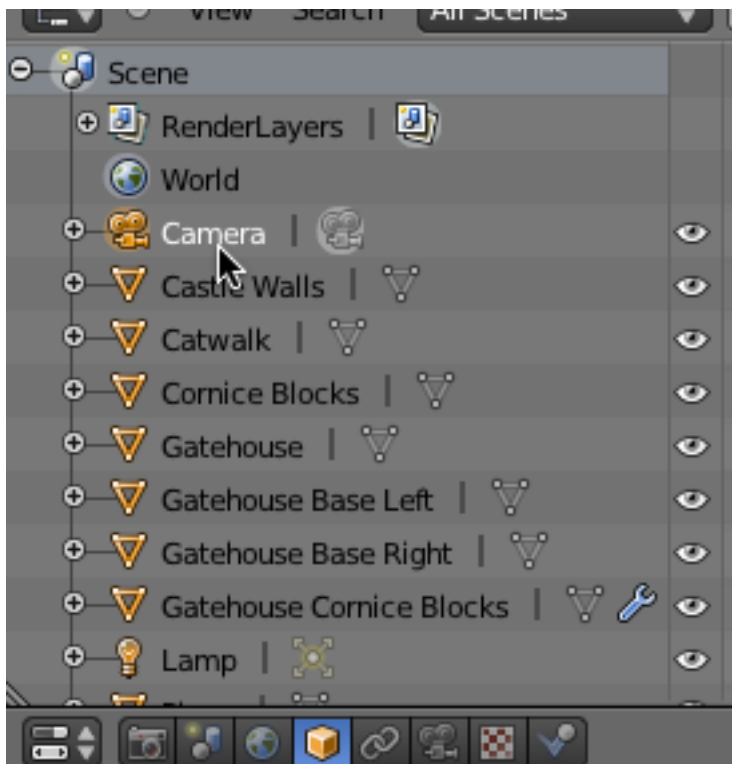

In the Properties Editor, click on the object data context button. Because we have selected the camera object, the context button has a camera icon.

By default, Blender sets the camera clipping to 100 blender units. That is, the camera will only display objects that are within 100 Blender units of its position. Since our model is very large, we need to increase this camera clipping distance. In the object data panel, set the camera clipping to 500.
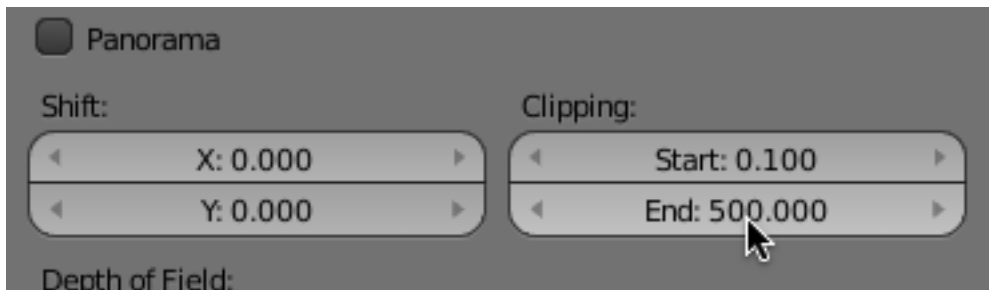
In the 3D editor, Rotate your view to a more dimensional user perspective view as shown below.
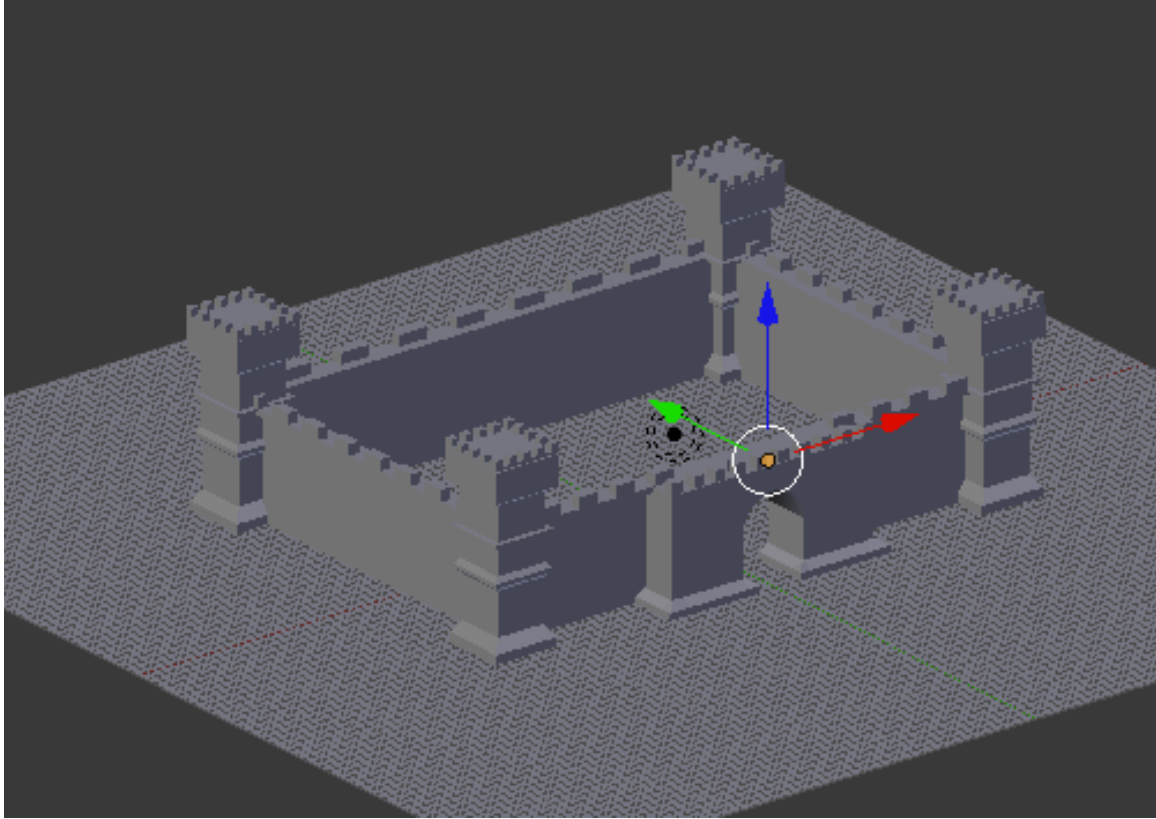
Press CTRL-ALT-0   This will align Blender's camera to your view.
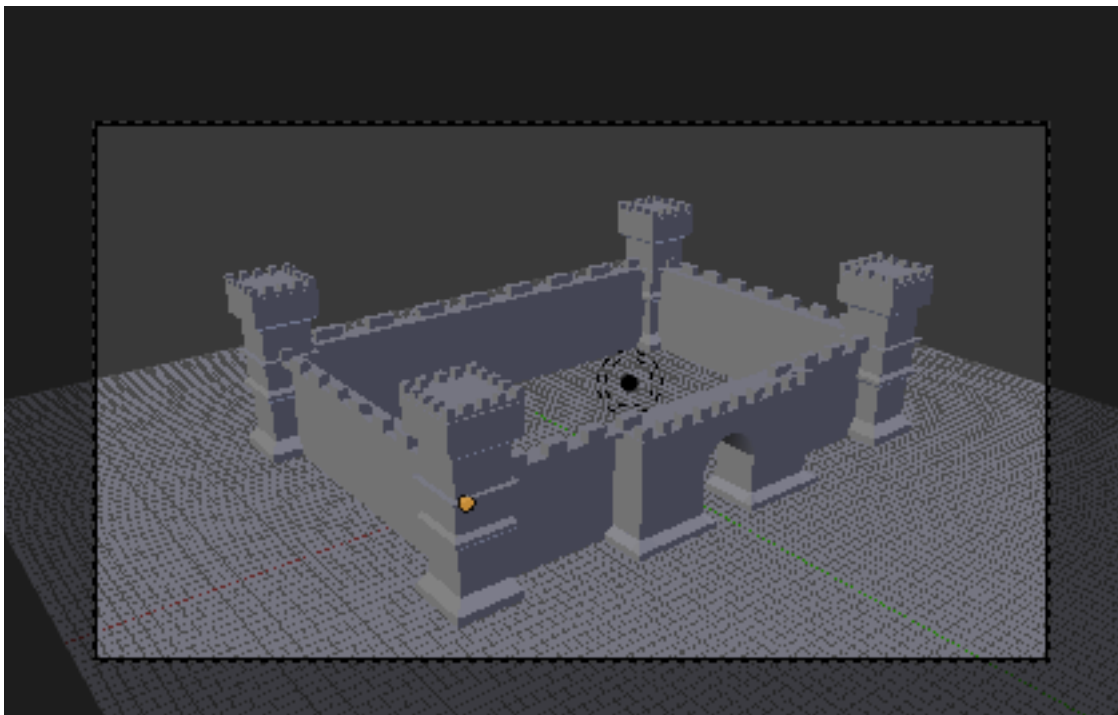
If you do not like the view, **click your center scroll wheel button** and rotate your view a slight bit or scroll in or out a bit, which puts you back into a user perspective view. Make your adjustments and press CTRL-ALT-0 again to align the camera with the view. (Note usually you have to zoom out a bit to get the camera to cover the whole castle.)

Get used to this shortcut – CTRL-ALT-0 – When texturing you will use it repeatedly to get a close camera view of the objects you are texturing so you can see what they look like when rendered.

Now press CTRL-ALT-Q and go to quad view. This sets the 3D editor viewport into 4 viewports (top, camera, front and side).
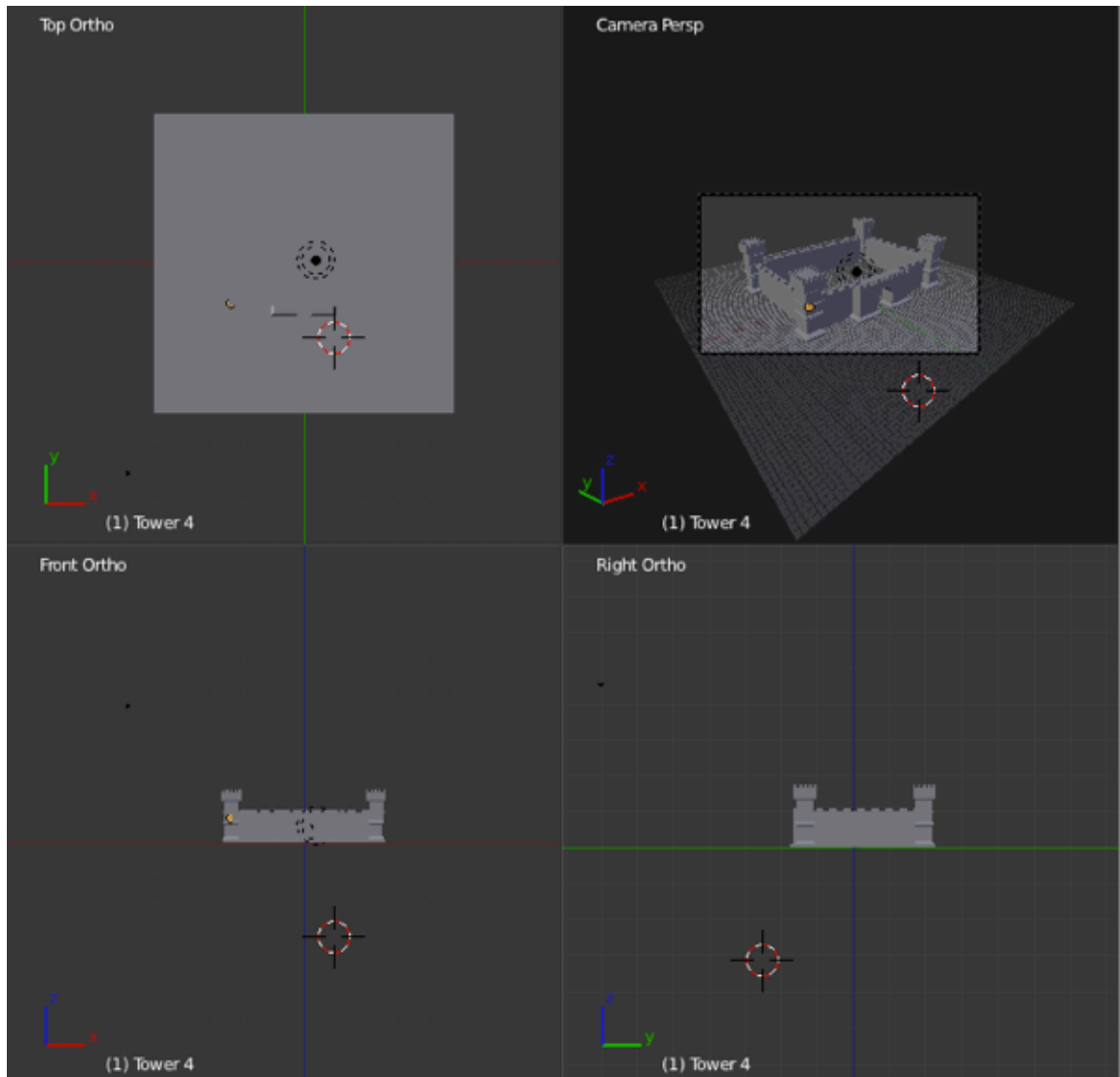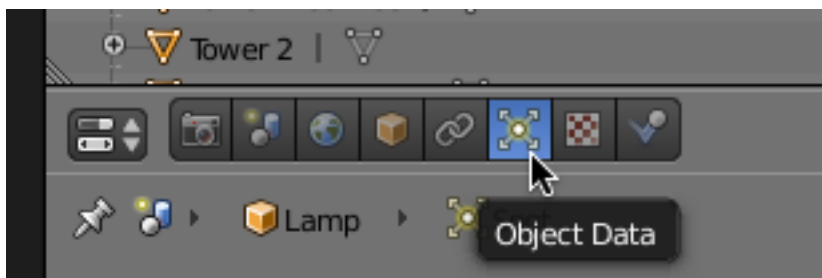

In the Outliner Editor, select the Lamp object.

In the front viewport use the translate widget to move the Lamp object up and to the left as shown below.
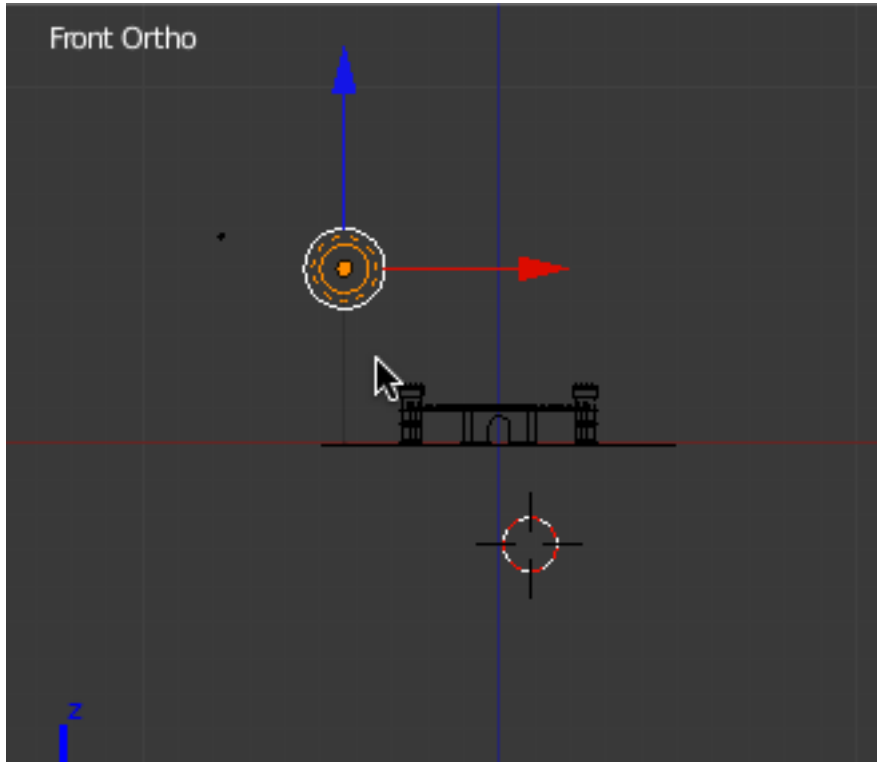

If it is not already open, click on the object data context button in the properties editor. Since we have the lamp selected the icon looks like a point of light with 4 arrows.

Currently this default lamp is a "point lamp". In the lamp panel of the object data panel select "Sun". This will change the lamp from a point lamp to a sun lamp.
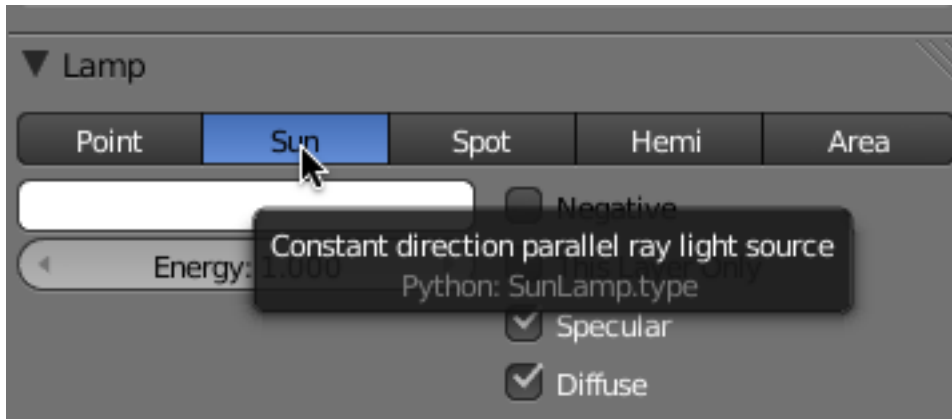
In the front viewport, press the RKEY and rotate the sun so that the direction line is about 45 degrees pointing at the castle as shown below.
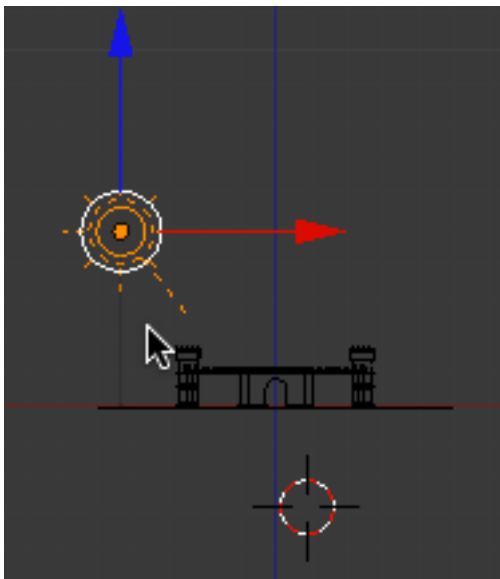
This will give us a strong shadow casting light from one side.

We will need to fill in the shadows a bit created by this sun lamp. Place your cursor to the right side of the castle in the front viewport. Press SHIFT-A and add a Hemi lamp.
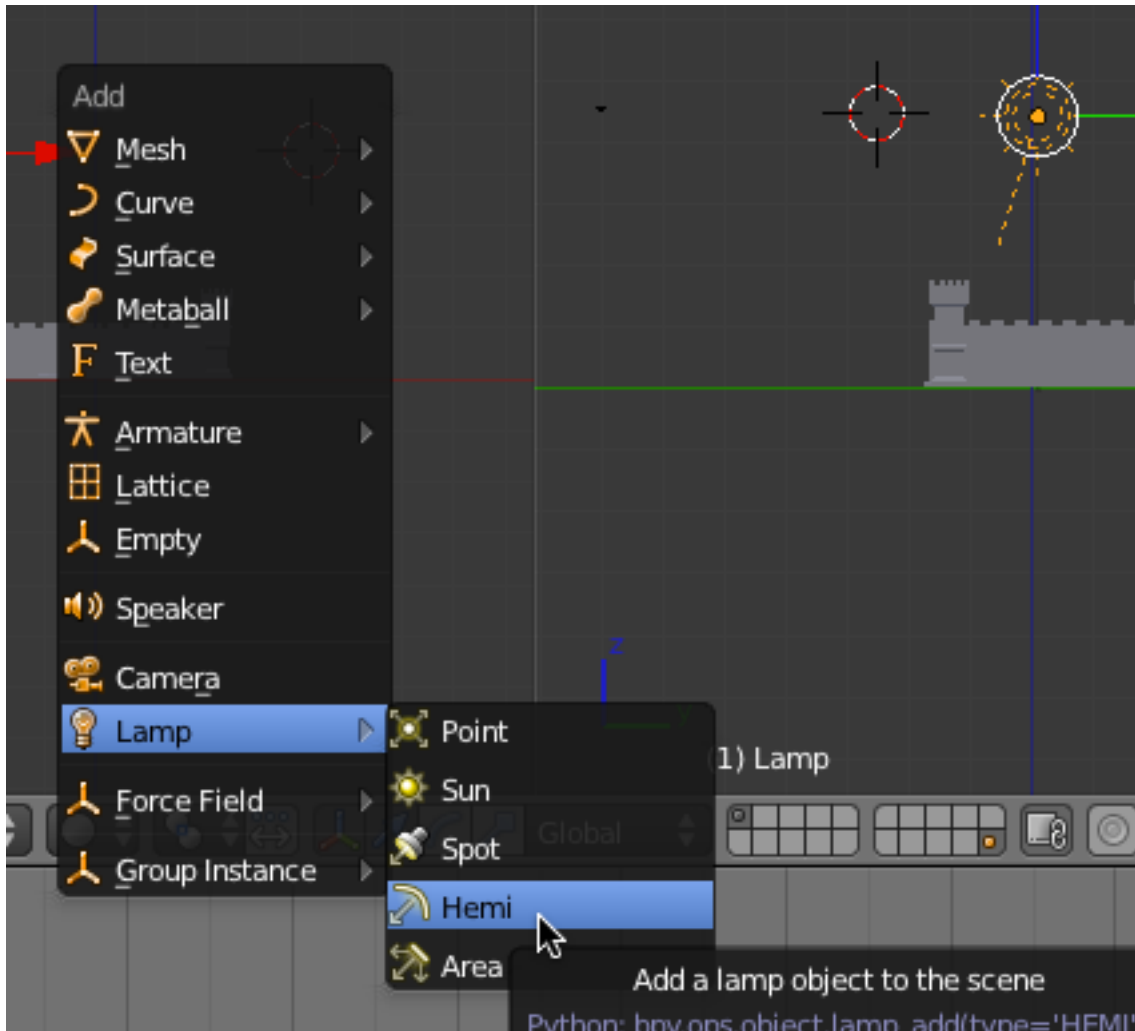
In the front viewport, position and rotate the hemi lamp as indicated below.
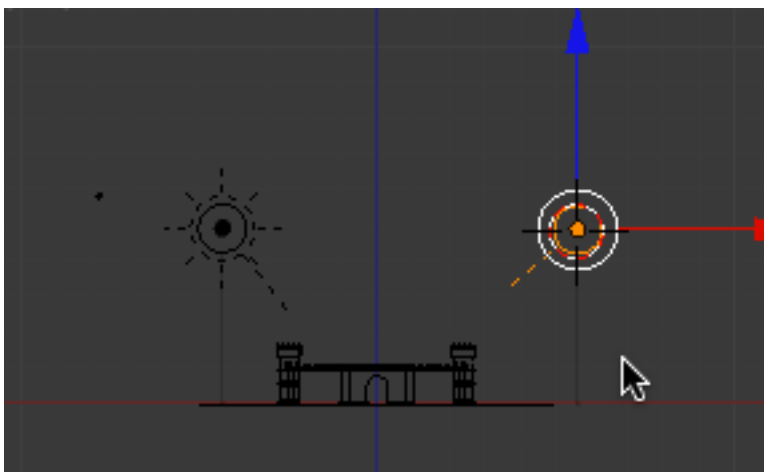
The hemi lamp is a bit too bright to simply fill in shadows so we will turn down the lamps energy a bit. In the object data panel under "Lamp" set the Energy to .250.
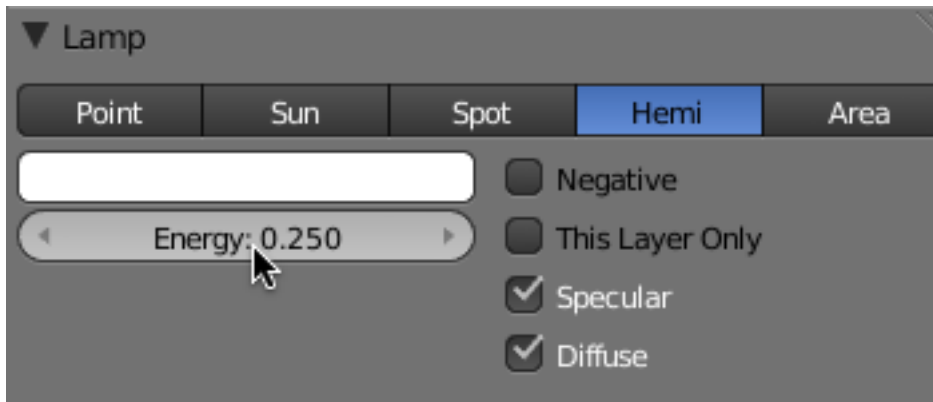
On the Render Menu select Render Image.

It should look something like this.
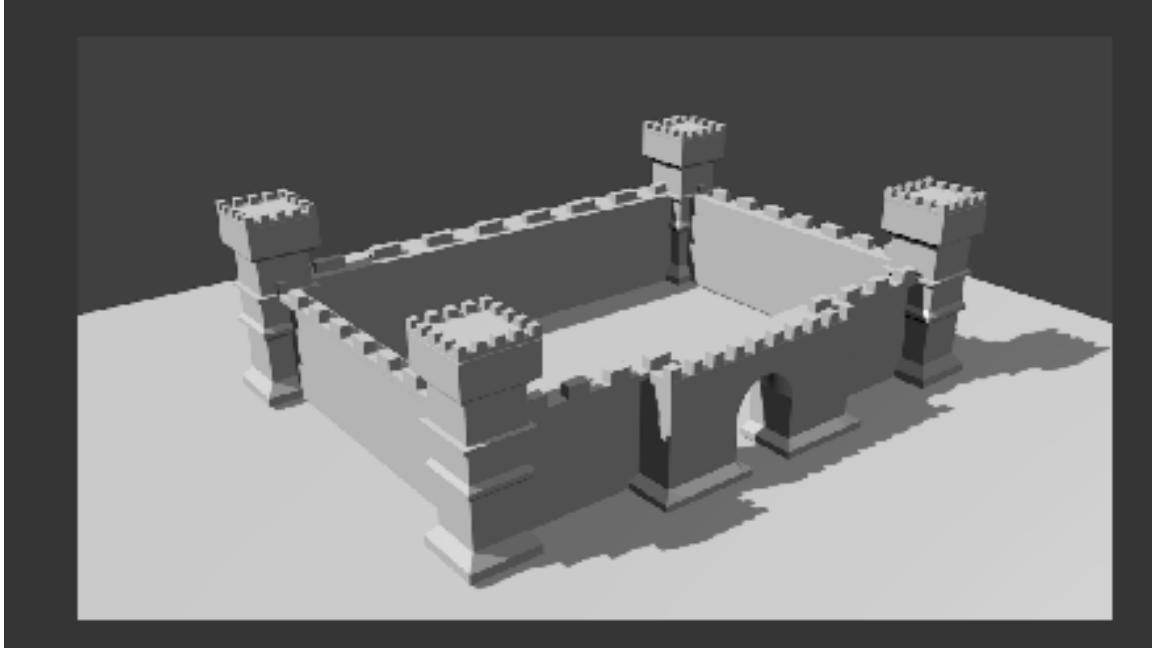
Normally you can render an image by clicking on F12. However, some MAC computers use F-12 as part of the MAC toolset. You can turn this off in your system preferences or you can render by clicking on the render button on the Information editor header and selecting "Render Image".

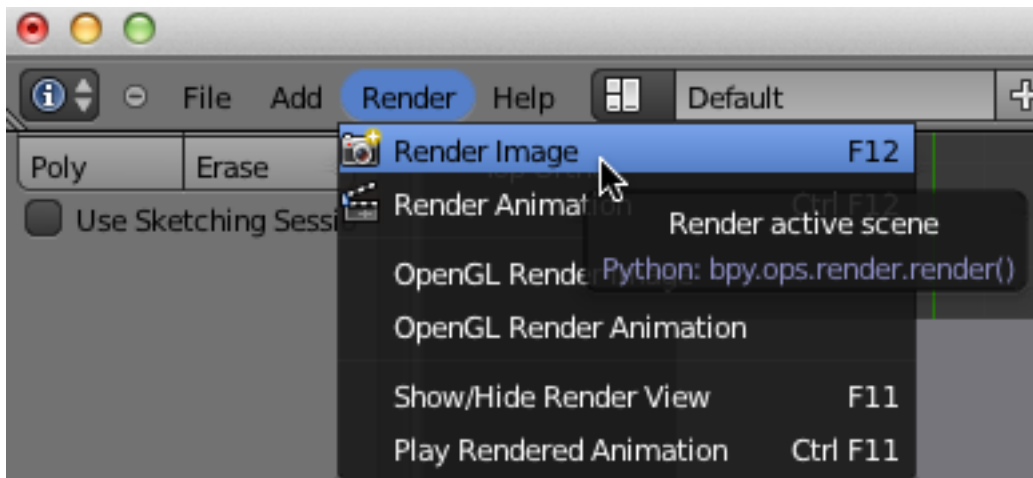When you render, the screen will display the rendered image. This is actually a different Blender window called the "Image Editor Window". To get back to your regular view of Blender you can click on the **ESCAPE KEY**.

Click ESCAPE or go back to your 3D scene. (CTRL-ALT-Q) Expand your Outline Editor window so you can see all of the objects.
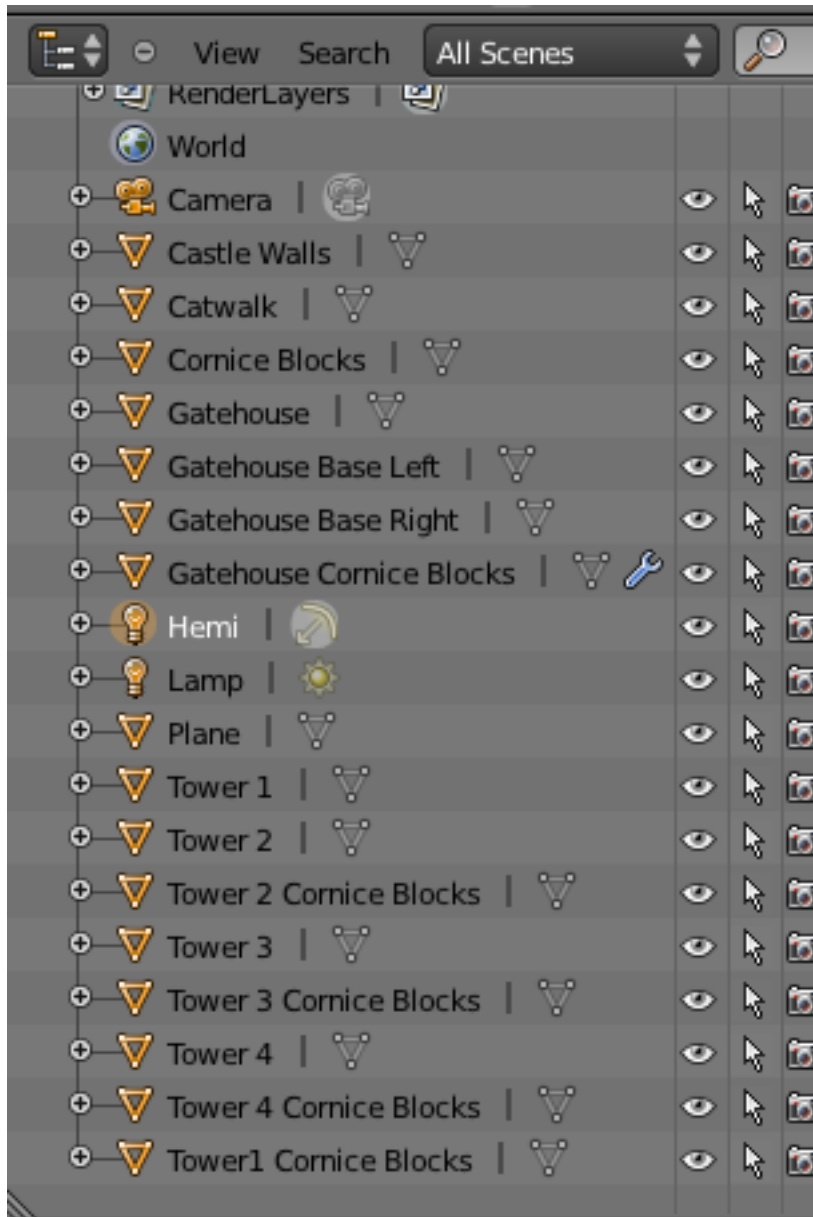
We will texture objects individually so we want to hide some objects from view so we can concentrate on the object we are working on. We also want to restrict the render-ability of some objects so we can see our texturing more clearly.

Since we will start with the ground plane, hide all the rest of the objects (except the camera and lamps) by clicking on the eye icon next to the name. Also restrict their render-ability by clicking on the camera icon next to their name. Your Outliner Editor should look like this.
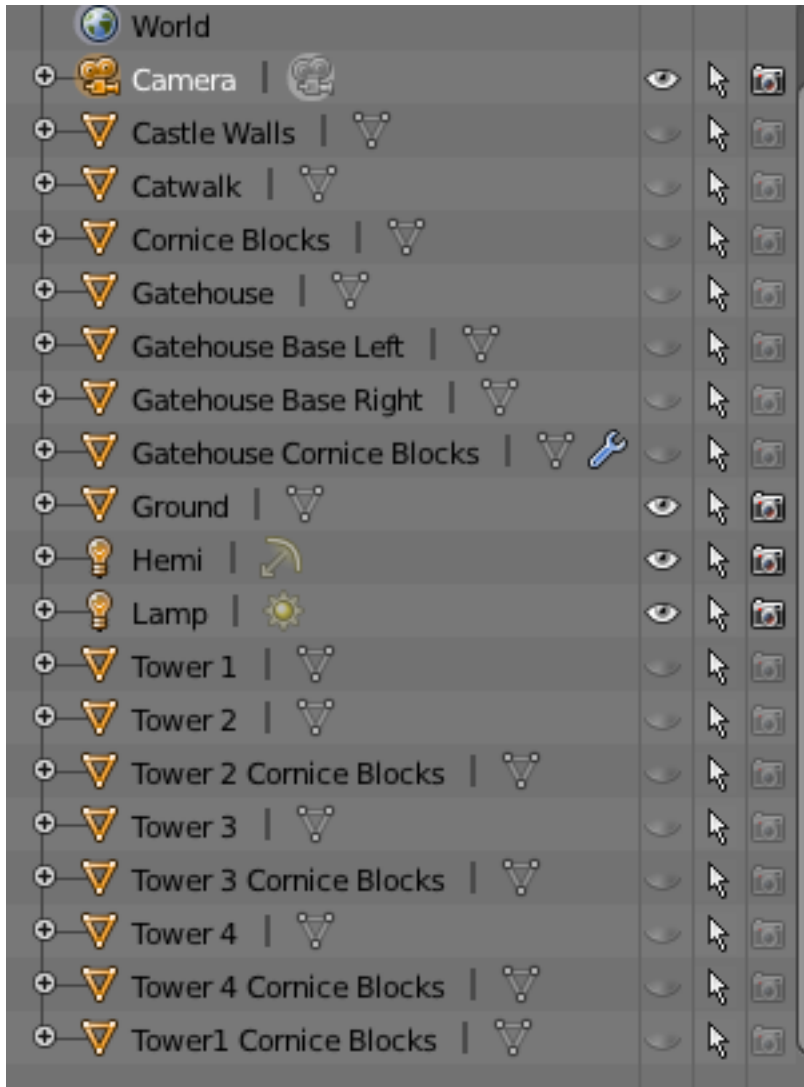
Note: If you are using the "Castle_Modeling_Complete.blend" file you may have to rename the "plane" object as "ground".

If you press F-12 (Render) or Render / Render Image, the rendering should now look like this because everything but the ground object is unable to render.
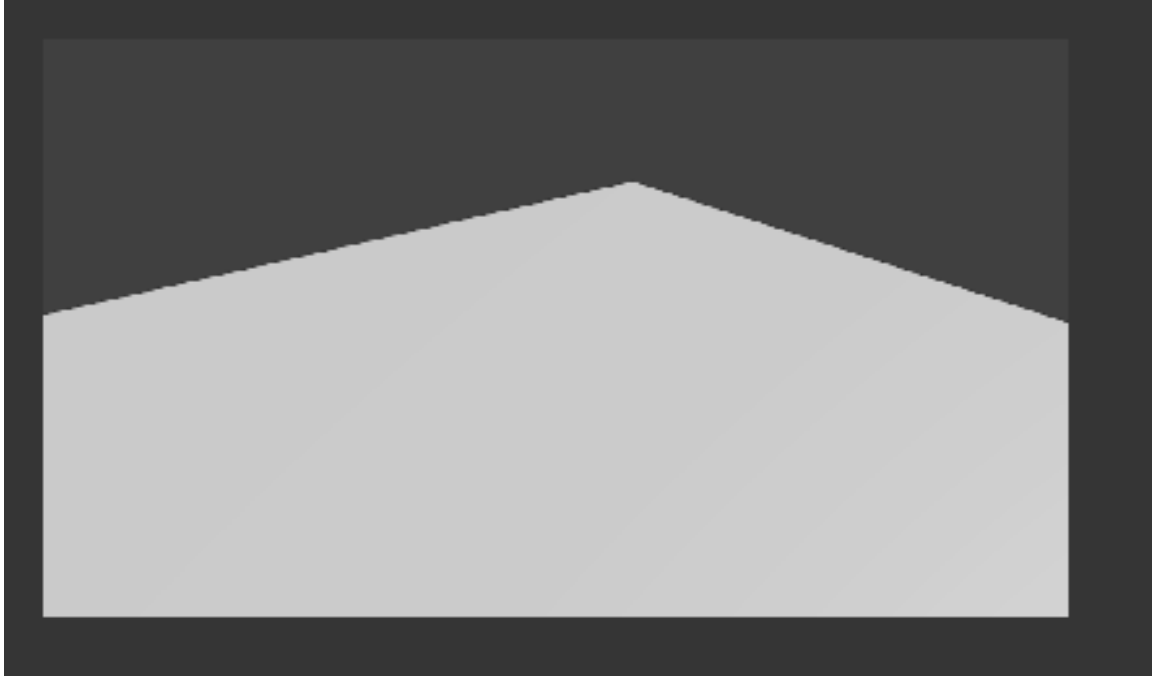
Go back to your 3D scene (ESC).

Save your Blender File.

Materials – Texturing:

We will add some materials to the castle model. Most of these materials will contain image textures. There are a number of different methods to add both materials and image textures in Blender. The methods described in this tutorial are by no means exhaustive. The idea here is to give you some experience in:

- Attaching a material to object
- Using Blender's built-in generated mapping controls
-

A material, in Blender, is much like a container. It has its own unique name. A material container holds diffuse, specular and shading controls. It also contains transparency, mirror and subsurface scattering controls. The material container can also hold textures. These textures can be either procedural (created internally by Blender) or images (imported from outside of Blender).

In this tutorial we will be using a single image file named Wallstone.jpg that will be associated with a unique texture, which in turn, will be associated with a unique material. The wallstone.jpg file is located HERE. I suggest that you place this file in the same folder as the .blend file you are working on.

Go to top view (If you are still in "quad" view press CTRL-ALT-Q to return to your 3D scene). Make sure you are in wireframe display mode. Select the Ground object. Click on the Materials context button in the properties editor.
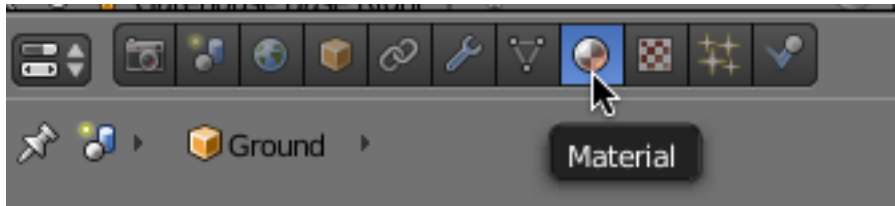
You may want to expand your properties panel a bit so you can see most of the controls. It should initially look like this.
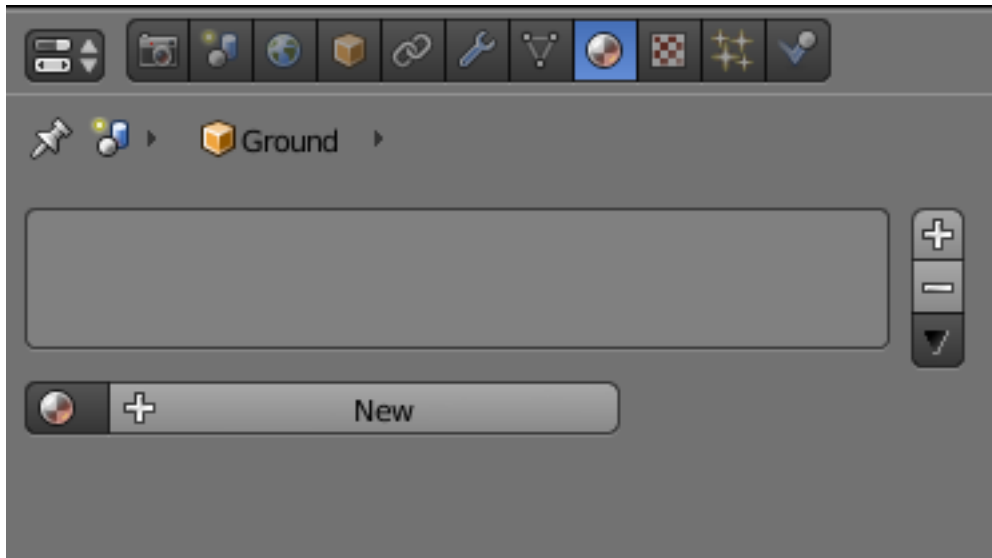
Note that the object name is listed (Ground). This means that the material you create here will be attached to the Ground object.

Press the "New" button. This creates a new default material and attaches it to the object.

We will not be using an image texture on the Ground object (It is the only object in the model that does not use a texture).

Change the material name to "Ground".
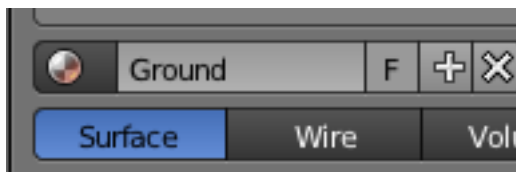
It is a very good practice to always name your materials rather than using Blender's default Material.001…

We will however change the color. Click on the diffuse color swatch and set the diffuse color to R, G, B = .3 (a medium gray). When you move your cursor the color selector will disappear.

Render an image of the scene (F-12).

It looks much the same only a slight bit lighter. Return to your 3D scene (ESC).

In the Outliner Editor, hide the Ground object (but don't restrict its render-ability).
Unhide the Gatehouse Base Left and make it renderable.
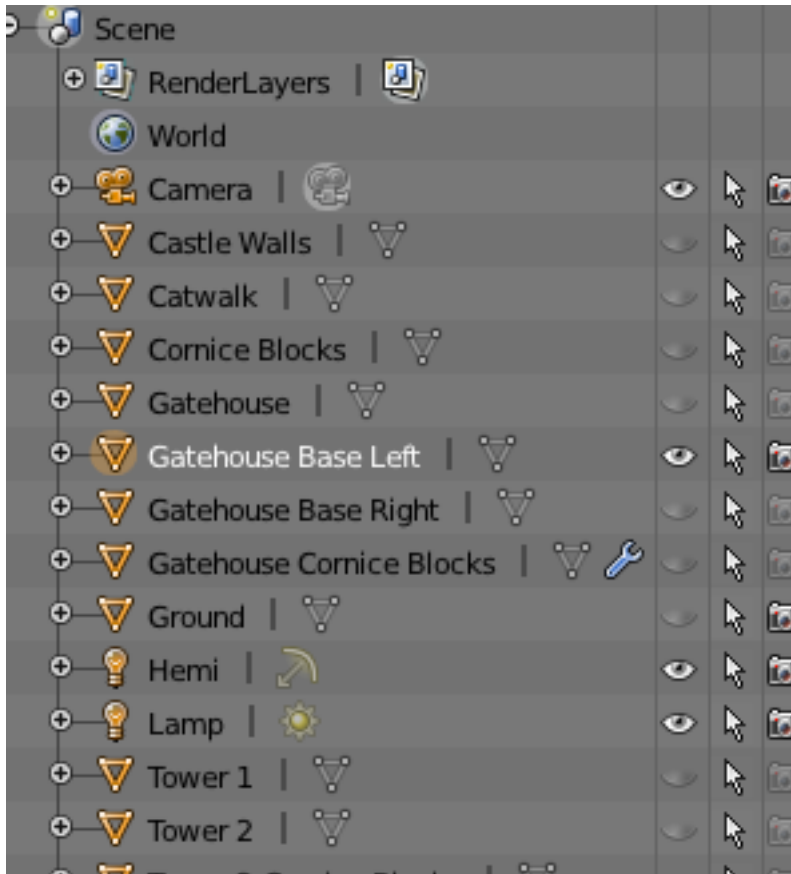
Select the Gatehouse Base Left object. Press the Materials context button. Press the New
button. Name the new material GatehouseBase

Now press the Texture context button in the properties editor.
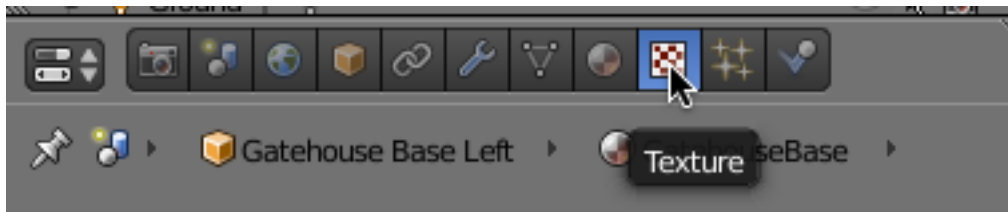
There are already 5 blank texture channels. Click the "New" button. This creates a texture and associates it with the Gatehouse Base Material. Name this texture GatehouseBaseStone.

By default the texture is set to "Clouds". Click on the Type dropdown box (Clouds) and select "Image or Movie" (yes, textures can be movie files).
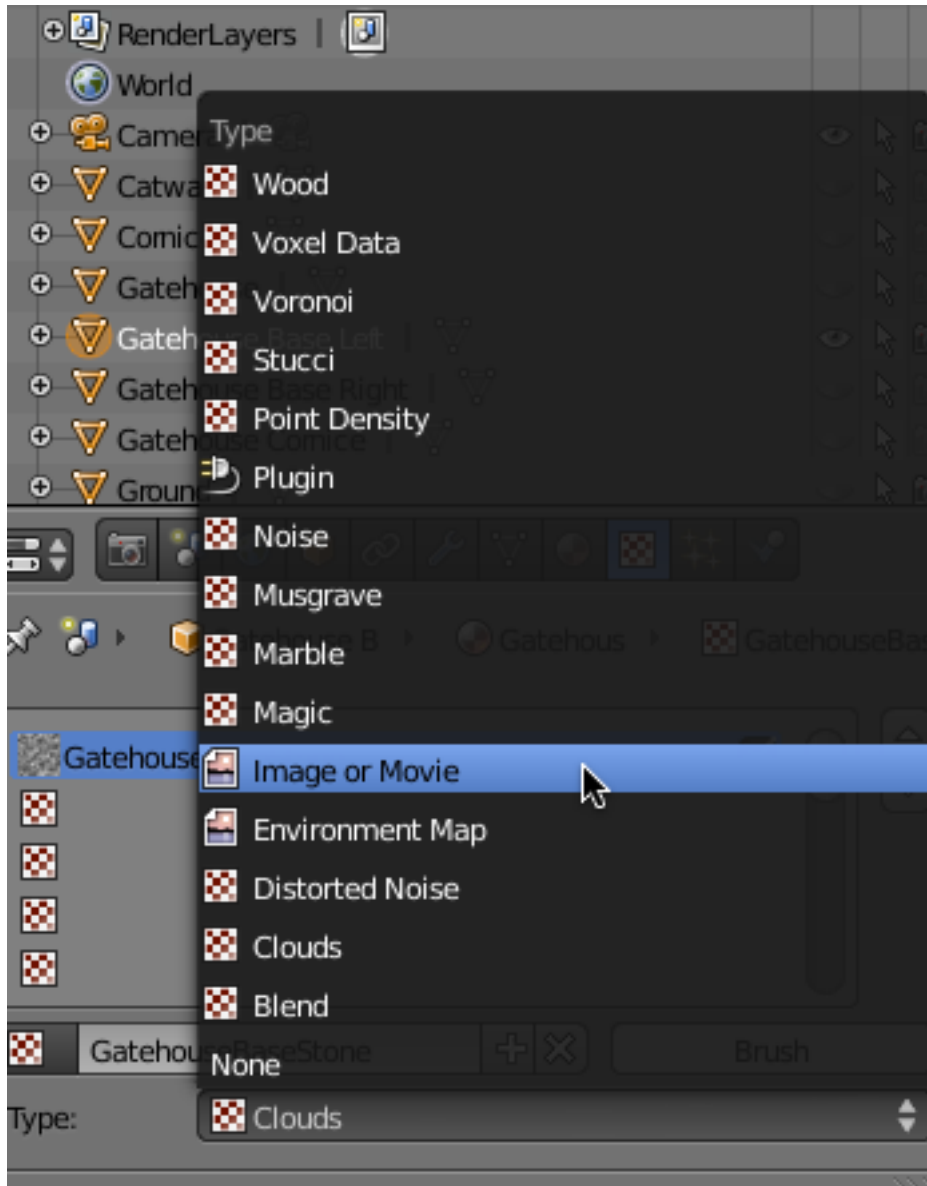
Scroll down to the Image panel and click on the "Open" button.
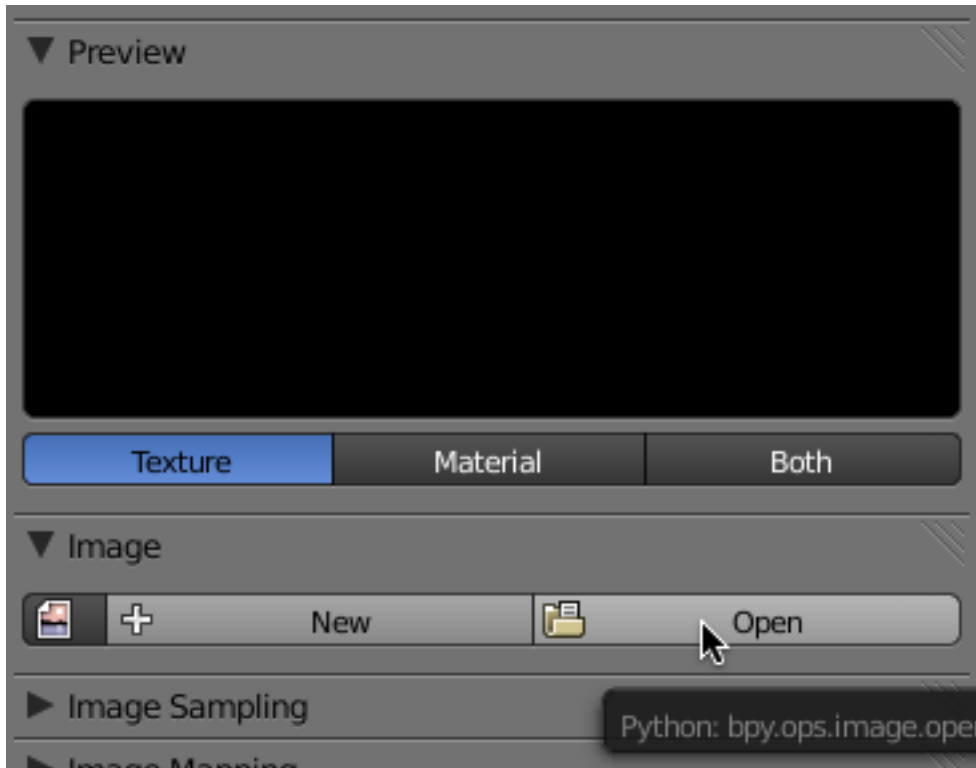
This displays Blender's file browser. Locate the wallstone.jpg file, select it and click on the open button. This displays the image file in the Preview panel and the path to the file is listed in the file box.
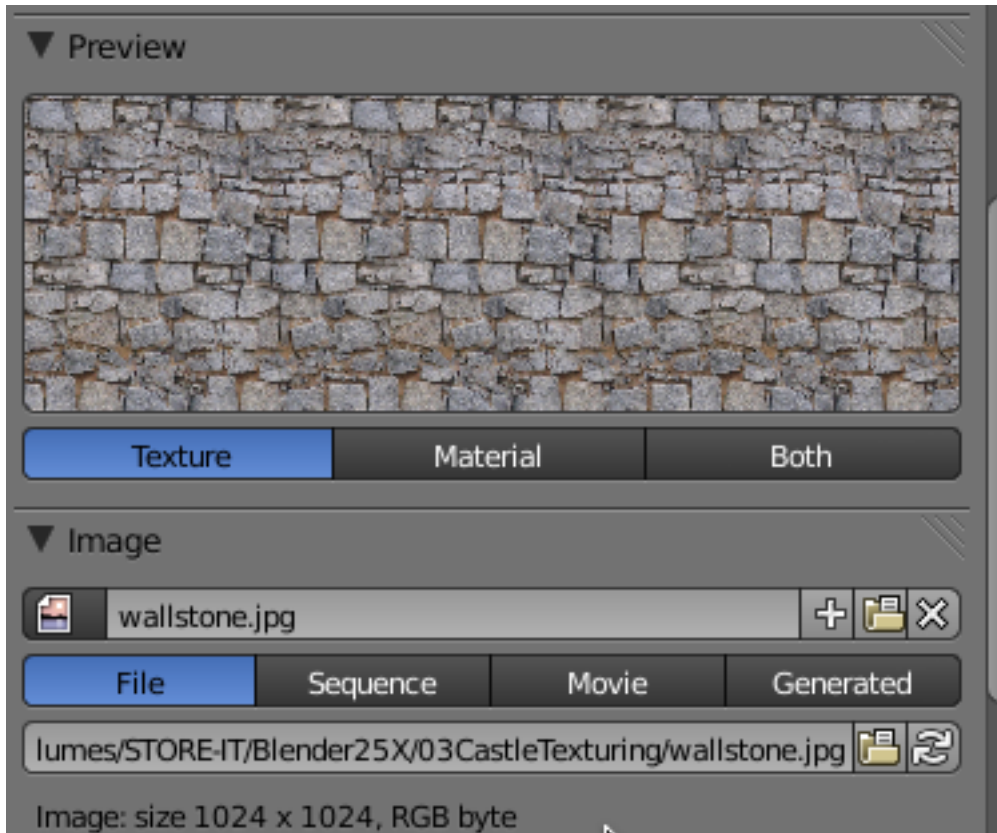
Since we added a new MATERIAL channel (when we added a new MATERIAL), the image texture is by default mapped to the entire object using the default Blender mapping settings.

In your 3D viewport go to a perspective view (NUMPAD-5) and rotate and zoom your view of the Gatehouse Base Left object so it is centered in the view. Press CTRL-ALT-0 to align the view with the Blender camera.

Render the camera image (F-12) (or render / render image). Depending on how you set up your view, it should look something like this.
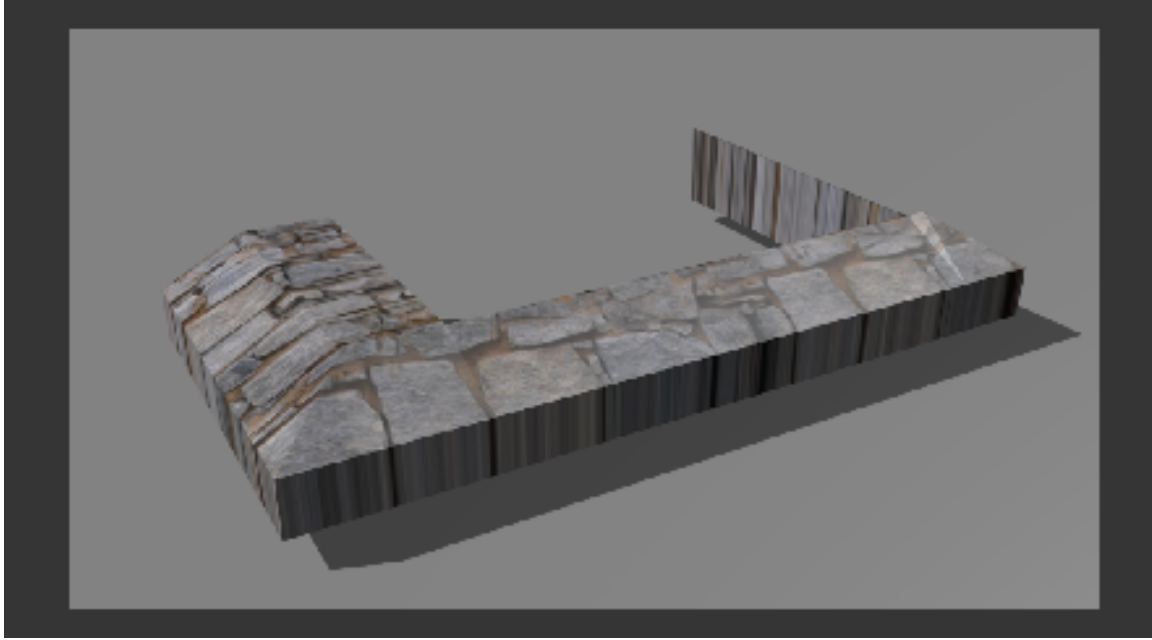
Return to your 3D Scene (ESC). Go to top view (NUMPAD-7).

Before we go on, I would like to discuss some of the Blender texture controls we will be using.

All textures in Blender, whether they are image textures or procedural textures created by Blender, need to be mapped to the object. Mapping is the process of attaching an essentially 2-dimensional texture to a 3-dimensional object.

There are a number of methods in Blender to map a texture to an object. The 2 most frequently used methods are UV mapping and Blender generated mapping. In this tutorial we will be using Blender generated mapping.

Blender generated mapping is accomplished in the Texture properties editor in the mapping panel. By default the mapping Coordinates are set to "Generated" and the Projection is set to "Flat".

You can adjust the Projection by clicking on the dropdown box arrows and choose either flat, cube, tube or sphere projection.
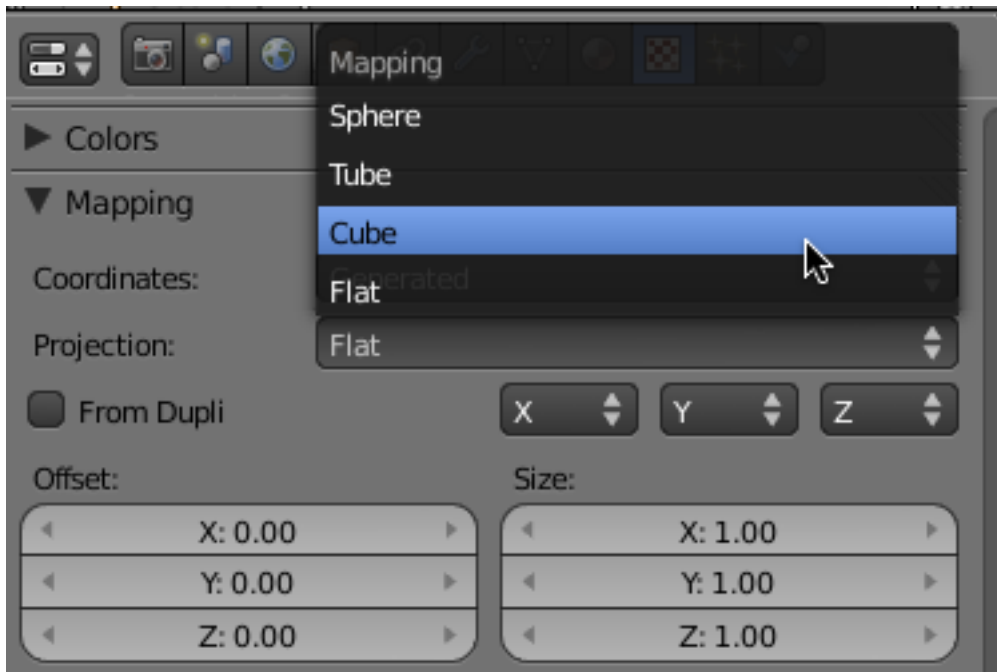
Flat projection means that the image is mapped to the object as if the image were projected straight down from above. This means that if the object is dimensional the image will streak down the sides not facing directly upward. When I say "projected straight down from above", I am referring to the original top position of the object when it was created. If the object has been rotated, the original "top" may be at some other angle to the viewport. Flat projection is a good choice for mapping an image to a 2 dimensional object (like a flat plane) or mapping individual faces.

Cube projection means that the image is mapped to the object as if the image were projected straight down from all six sides (top, bottom, left, right, front and back). Again, this refers to the original 6 sides when the object was created. If the object has been rotated, the original "6 sides" may be at some other angle to the viewport. Cube projection is a good choice for mapping an image to a box-like square or rectangular shaped object.

Tube projection means that the image is mapped to the object as if the image were projected from the center of a tube and projected outward in a circular fashion around the original X/Y axis and straight down and straight up along the original Z-axis. Tube projection is a good choice for mapping an image to a cylindrical shaped object.

Sphere projection means that the image is mapped to the object as if the image were projected from the center of a sphere and projected outward in a circular fashion around the original X, Y, and Z-axis. Sphere projection is a good choice for mapping an image to a ball shaped spherical object.

Whatever Blender generated mapping is used, the image is mapped across the entire face or faces based on the mapping type. The appearance of the texture depends on the ratio of the length and width of the object face or faces receiving the projection to the length and width of the original image texture. Thus, a long narrow image texture will be stretched out over a broad wide surface.

To deal with this problem, Blender provides "Extension" controls located in the Image Mapping panel in the texture properties editor. The default is "Repeat". The Repeat control is by default set to 1 for both the X and Y directions.


The Repeat extension tiles the texture either vertically or horizontally. X and Y have little real meaning here as it is a reference to the initial X and Y (top view) that the object had upon creation.

Repeat increments can only be by full numbers (1,2,3,4,5…). It is not possible to repeat by a decimal amount. Increasing the X repeat from 1 to 2 will double the image texture projected in width (more precisely, width as referenced to the original creation of the object). Increasing the Y repeat from 1 to 2 will double the image texture projected in height. Repeating the image over the same face surface has the effect of halving the size of each image.

Mirroring will mirror each successive repeated image in the selected direction.

Another important control used in Blender Generated texture mapping is the Size control, which is located in the Mapping panel of the texture editor. Here you can increase or decrease the size of the projected image.
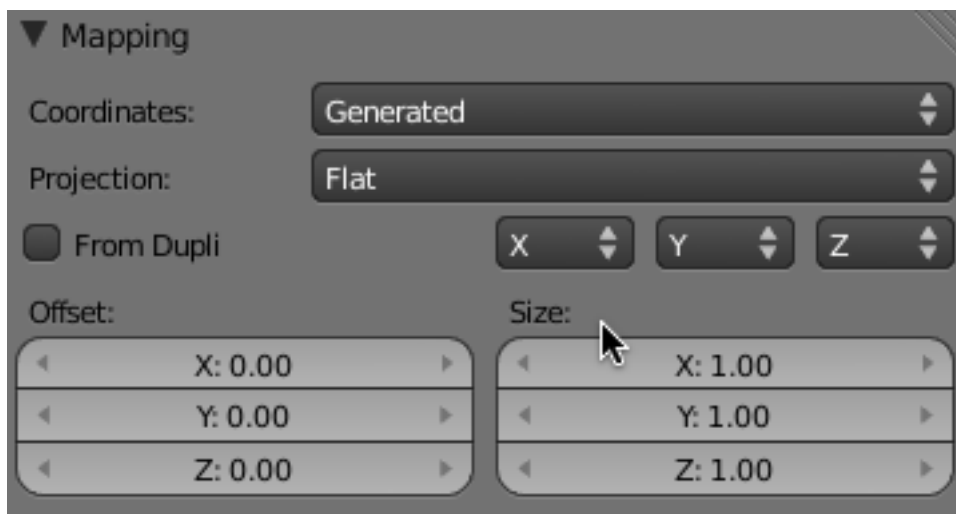
Increasing the X size from 1 to 2 will double the size of the image in the original width direction. This is essentially the same as setting the X repeat to 2. The difference is that you can increase the size in decimal increments. Another difference is that you can lower the size to below 1. Lowering the X size from 1 to .5 projects only one-half of the original image to the surface along the original width direction (which makes whatever is projected larger).

The Z size control has no effect upon the mapping of 2-dimensional image textures.

Finally, another important mapping control is "Flip X/Y Axis" which is located in the Image Sampling panel in the texture editor.
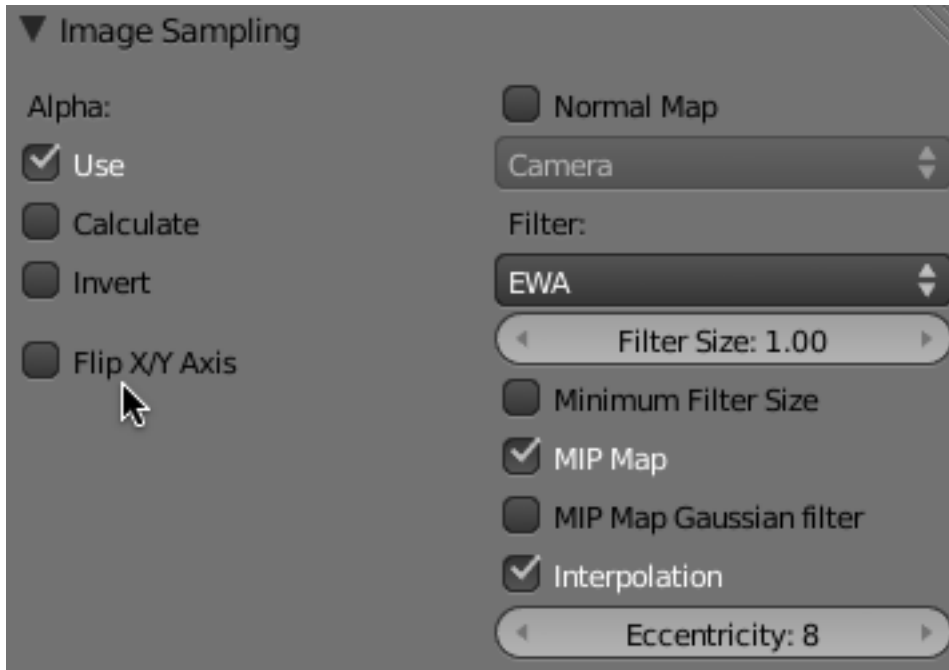
Flipping the X/Y axis, in essence, rotates the texture image 90 degrees. This is especially useful if the image has an obvious top and bottom that needs to be positioned.

If you look closely at our rendered image of the Gatehouse Base Left object you will notice that the top of the object has the stone nicely mapped but the sides are streaked. This is because the generated mapping is set to "Flat". Click on the dropdown box in the Mapping panel and change the generated mapping from flat to cube.
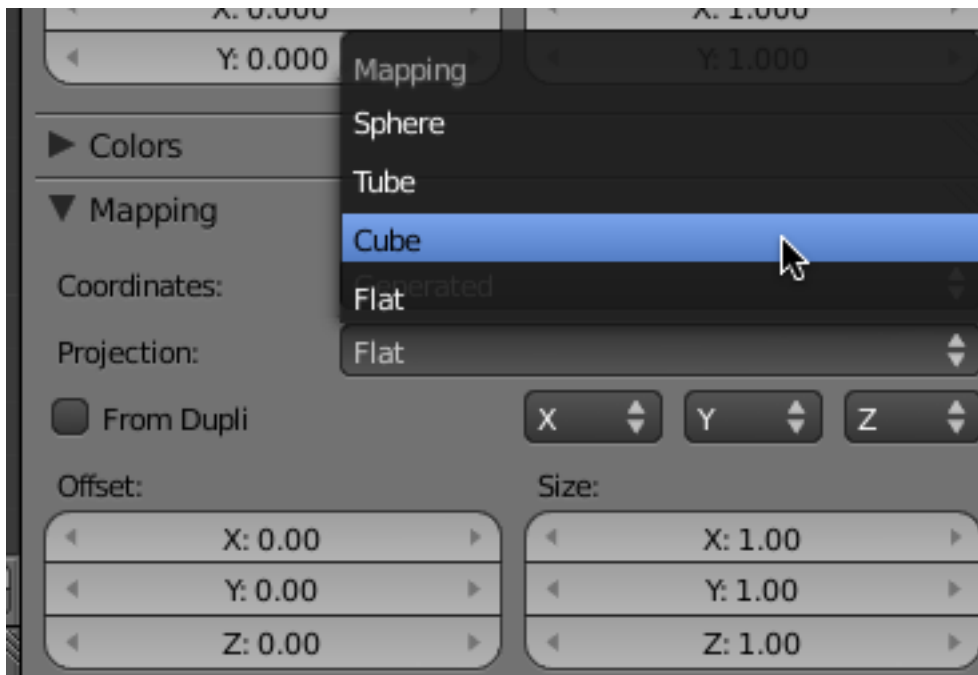
Render the camera image (F-12).
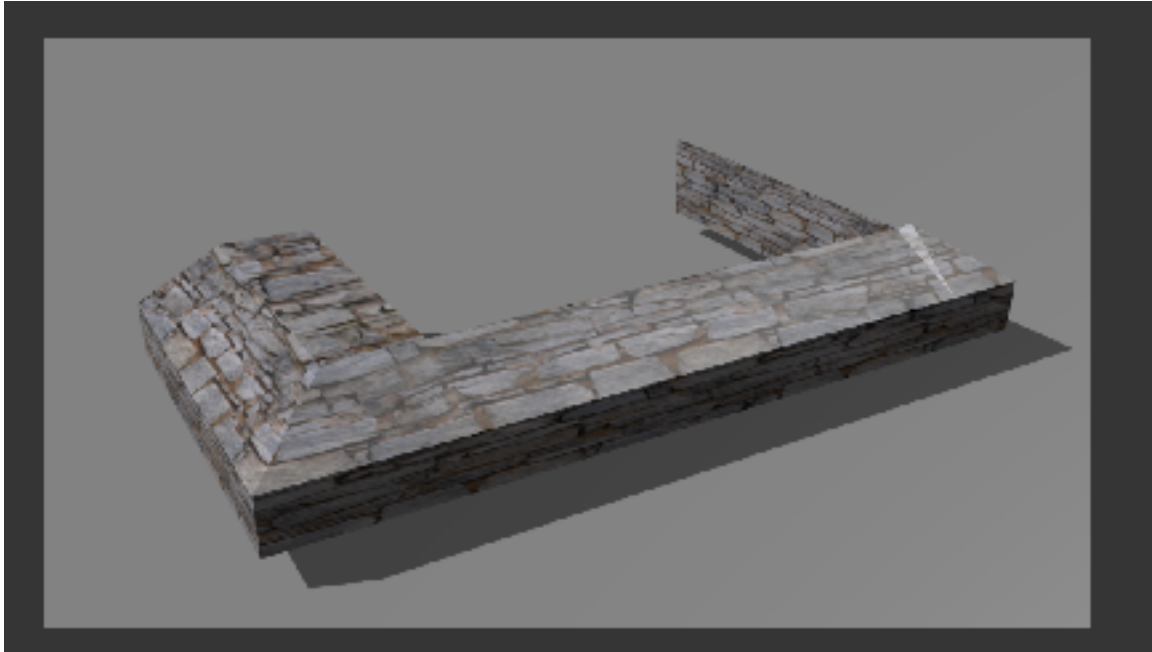
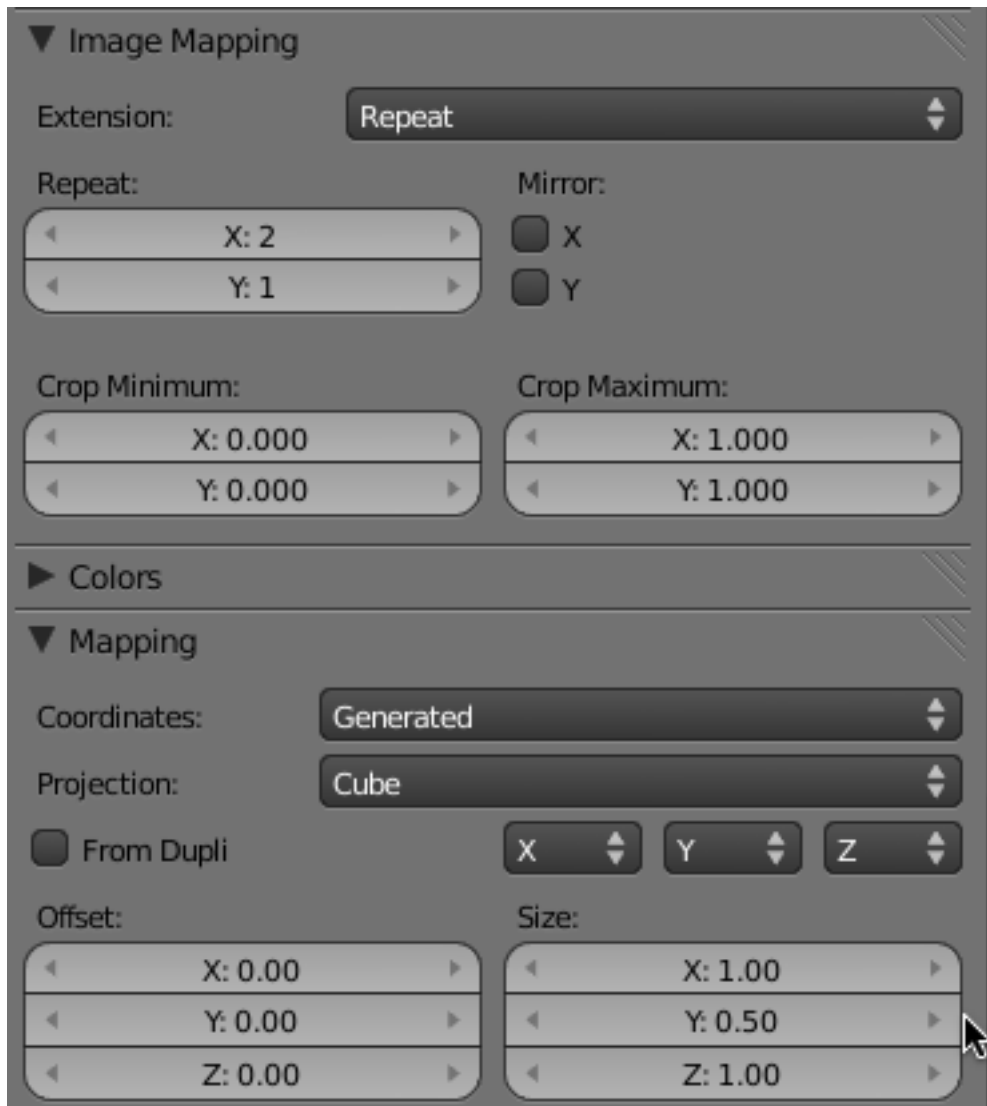As you can see the cube mapping projects the image on all sides. Go back to your 3D scene (ESC).

Set the X repeat to 2 and set the Y Size to .5.

▼ Image Mapping

Extension: Repeat

Repeat: Mirror:

◄   X: 2   ▶   ☐ X

◄   Y: 1   ▶   ☐ Y

Crop Minimum: Crop Maximum:

◄   X: 0.000   ▶   ◄   X: 1.000   ▶

◄   Y: 0.000   ▶   ◄   Y: 1.000   ▶

▶ Colors

▼ Mapping

Coordinates: Generated

Projection: Cube

☐ From Dupli   X ⬍   Y ⬍   Z ⬍

Offset: Size:

◄   X: 0.00   ▶   ◄   X: 1.00   ▶

◄   Y: 0.00   ▶   ◄   Y: 0.50   ▶

◄   Z: 0.00   ▶   ◄   Z: 1.00   ▶

Render the camera image (F-12) (Note: your camera view is already set up as before).
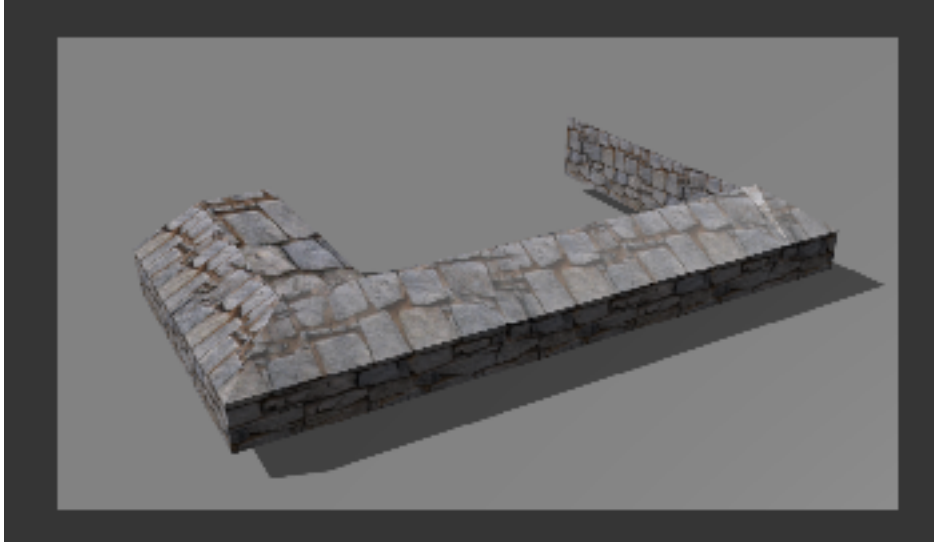
This is about the look we want for the Gatehouse Base Left object.

IN PRACTICE, you will seldom know in advance the texture control settings. Much of the work involved with using Blender's generated mapping is trial and error. You will go back and forth between adjusting mapping controls and test rendering until you find the settings that result in a rendering that is to your satisfaction.

Unlike UV mapping, when using Blender's generated mapping for textures it is not possible to see the result in the 3D viewport. The only way to see the effect of the generated settings is to render the camera.

Go back to your 3D scene. In the outliner panel unhide the Gatehouse Base Right object and make it renderable (leave the Base Left object as it is).
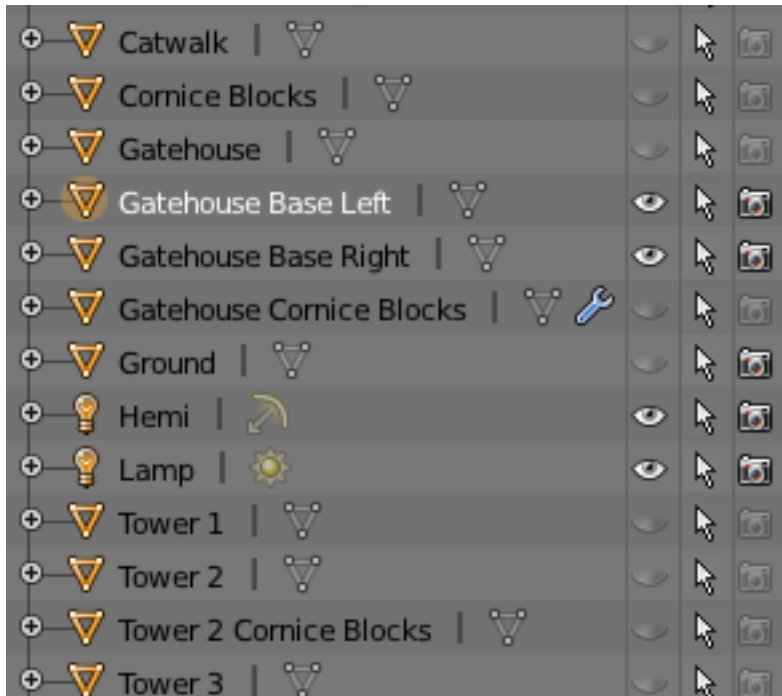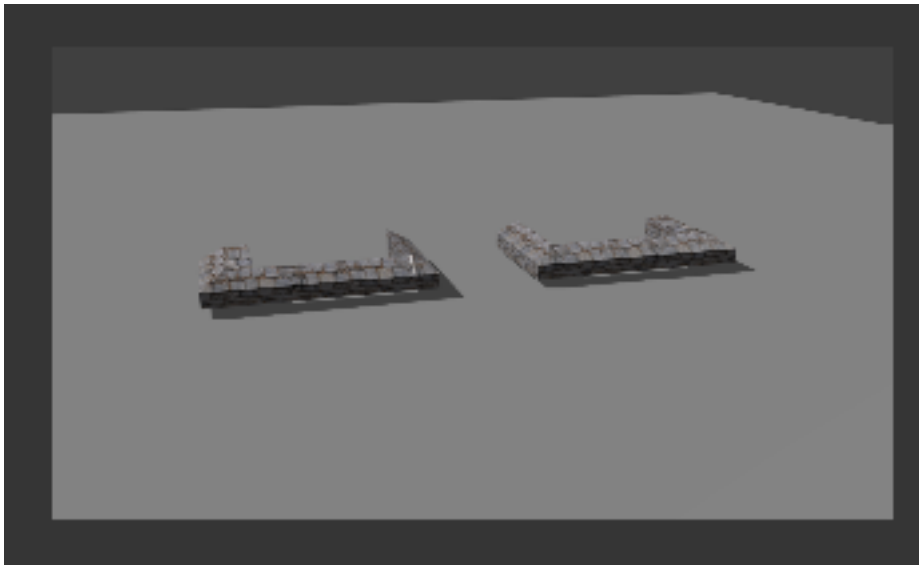
Make sure you are in a perspective view and arrange your view so that the camera will pick up both objects. Press CTRL-ALT-0 to align the camera with the view.
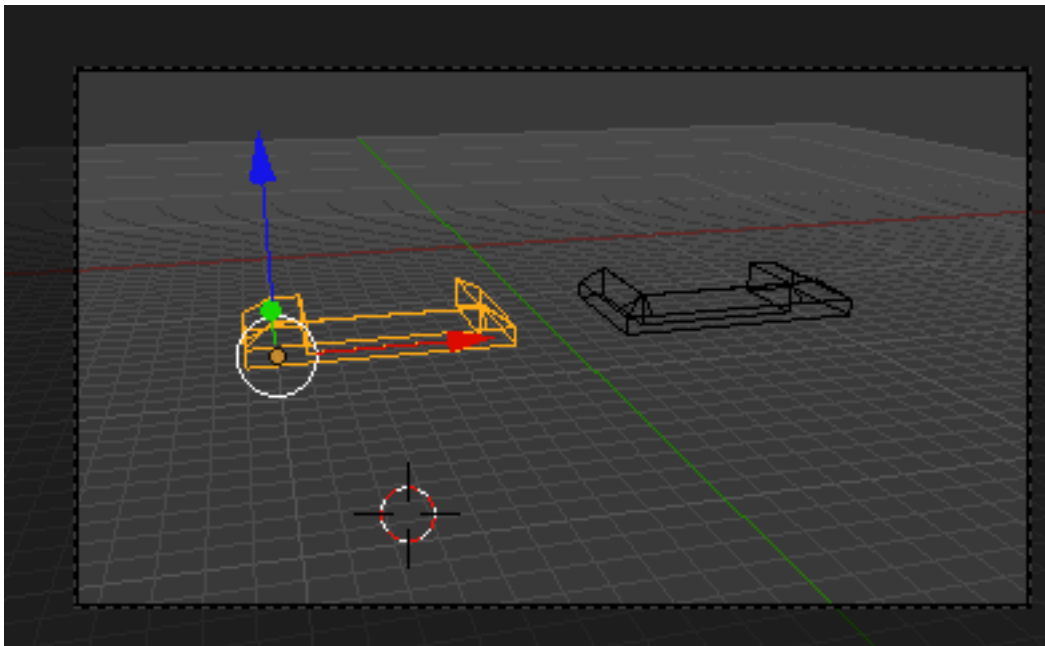
Render the camera image (F-12).

Note that both Bases are textured. This is because we made a "Linked Duplicate" of the left base object. **With linked duplicates any material settings made on one object will be applied to both objects**
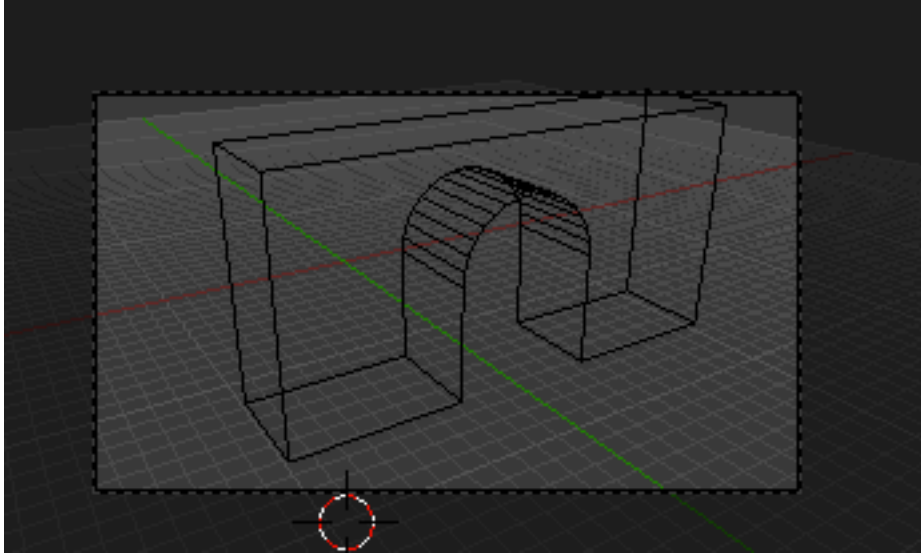
Save your Blend file.

Go back to your 3D scene. In the outliner panel hide the 2 gatehouse base objects (but leave them renderable). Unhide the Gatehouse object and make it renderable.


Make sure you are in a perspective view. Rotate and zoom your viewport setting up a camera view. Press CTRL-ALT-0 to align the Blender camera with your view.

Select the gatehouse object. Press the Material context button in the Materials editor.

Before you click on the "new" button click on the PLUS SIGN **(+) 5 times.** This will create 5 material channels for this one material.

Now, press the "new" button. Displayed are 5 material channels with the last one selected by default. Name this last material channel Gatehouse 1
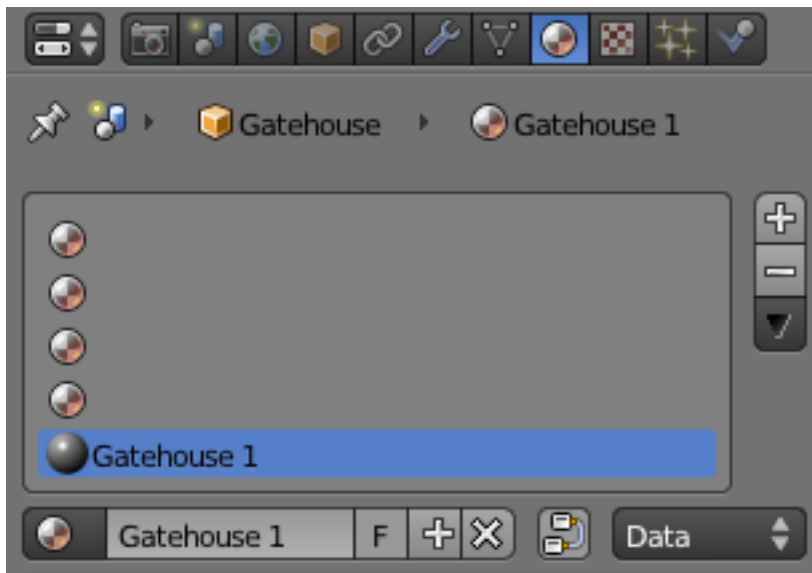

One of the (many) problems with using Blender's generated mapping is that sometimes, as in the case of the gatehouse object, we may have different shapes that require different texture mappings. Or, as is often the case, you may want to apply different materials/textures to the same object.

To accomplish this we need to use multiple material channels and assign certain material channels to certain faces of the object. This is why we selected the last material channel to start. Any material channel (except the first) has no default assignment allowing us to select the faces we want assigned to a particular material. **The first material channel is always, by default, assigned to the whole object.**

We will first add a texture to our Gatehouse 1 material. Click on the Texture context button in the Properties editor and then press the "New" button. (Note: you may have to click on the texture context button twice to display the controls). Name this texture Gatehouse 1 Texture.
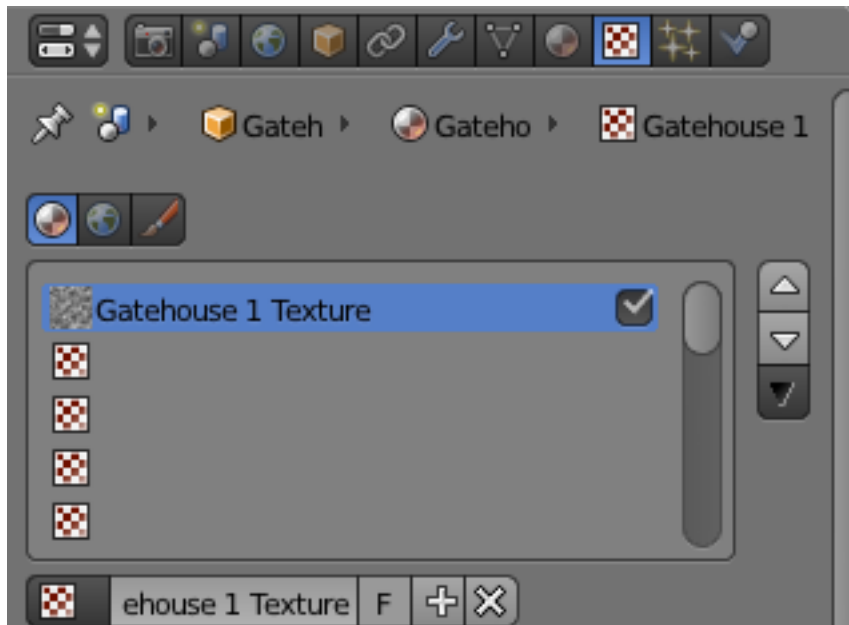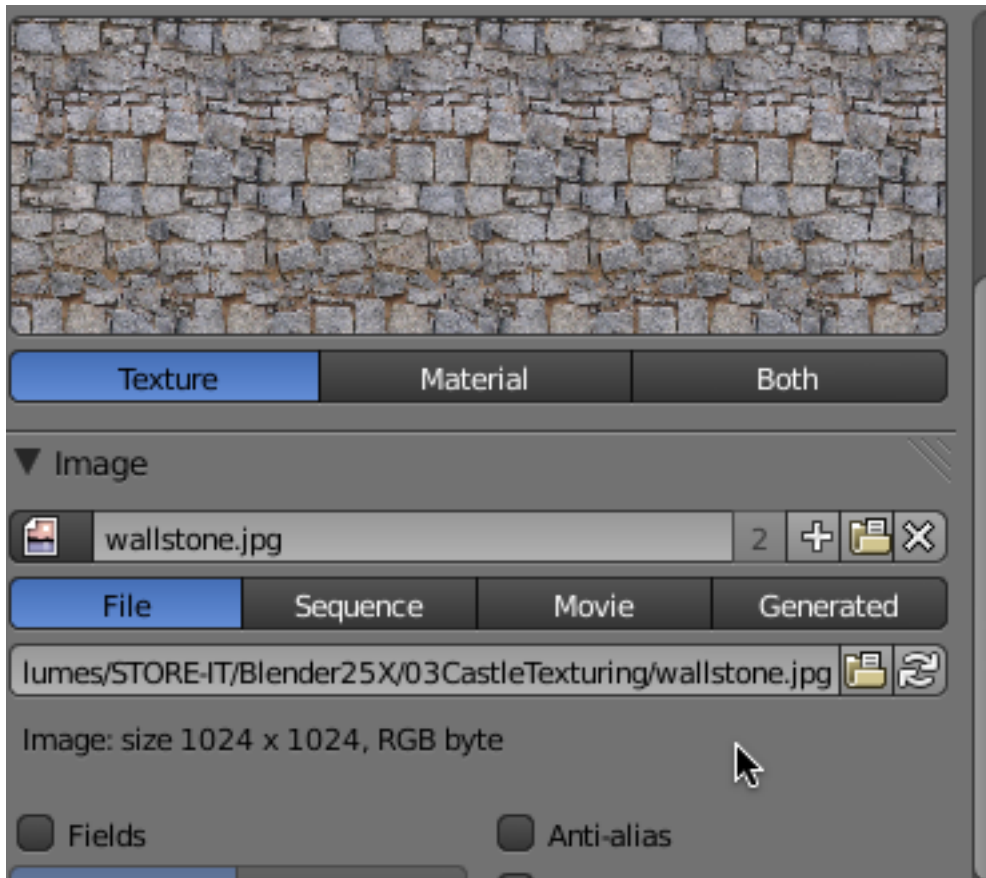

Click on the type dropdown box (clouds) and select "image or movie".
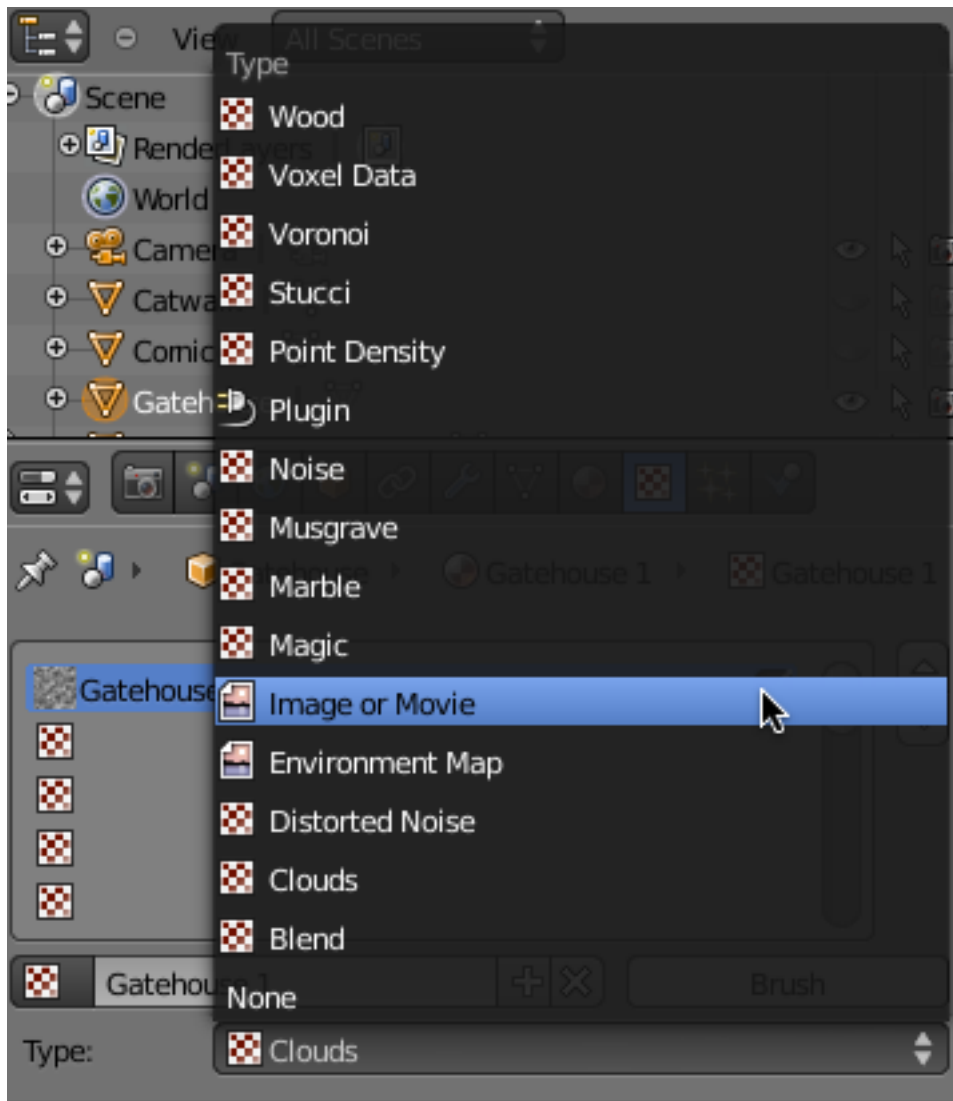
Since we are re-using the wallstone.jpg image we imported for the last object we do not need to press on the "open" button. Instead click on the file icon on the far left and select the wallstone.jpg image file.
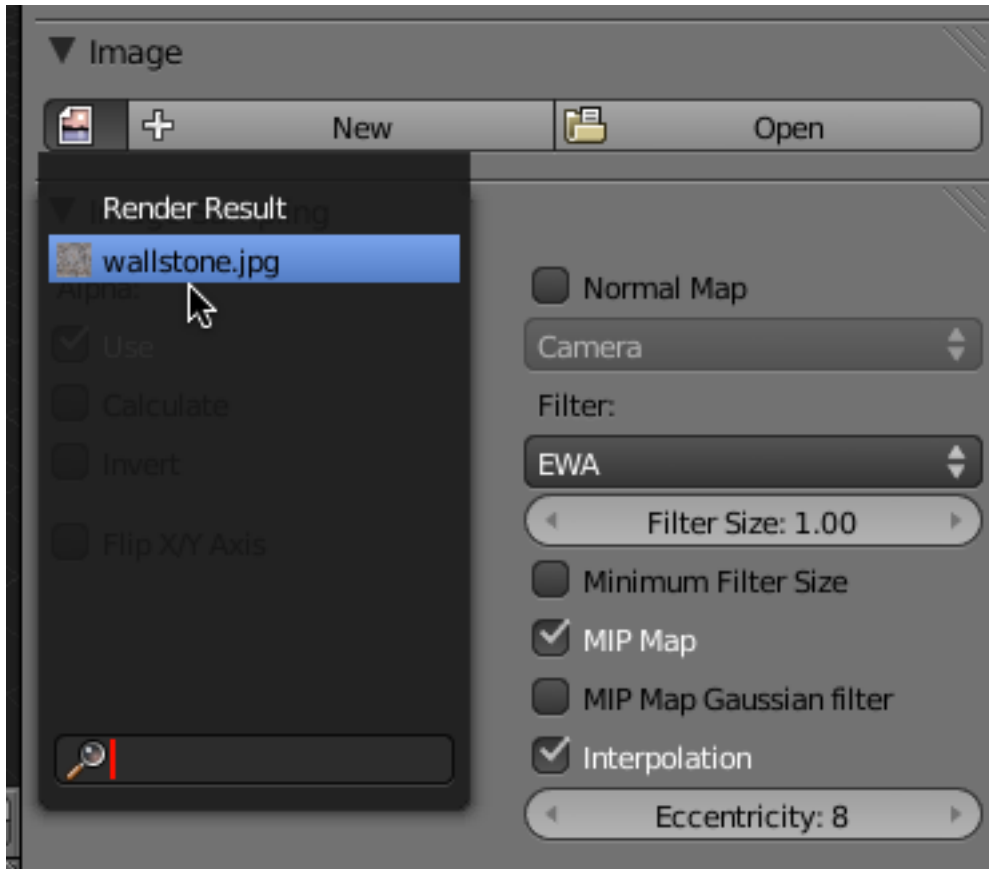
This displays the image in the preview panel.

Click on the Material context button displaying the material controls. In the preview panel of the materials editor, click on the cube icon to preview the material as if it were attached to a cube. Note that the default mapping in the texture panel is still "Flat" so the image streaks down the sides.
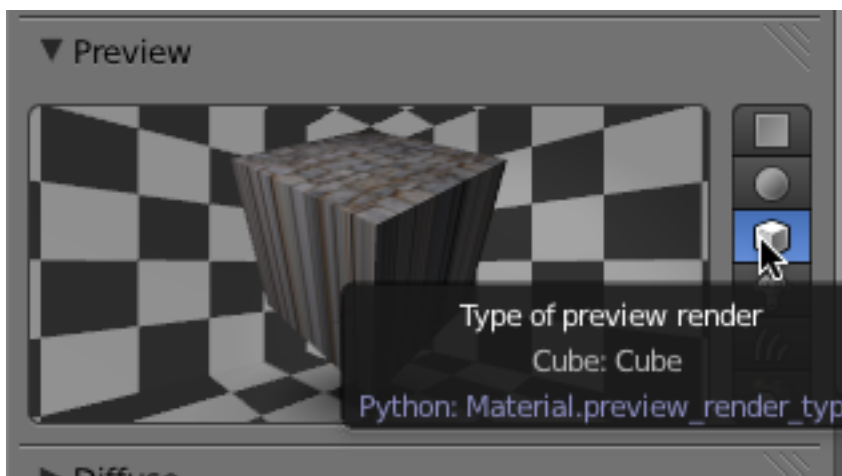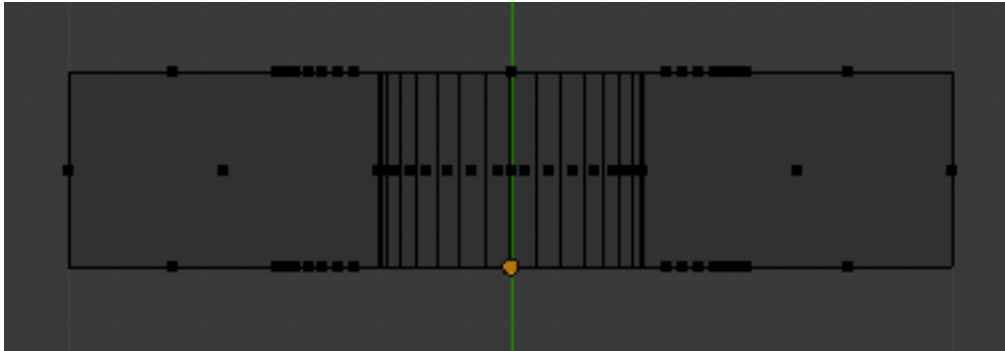

Since we used material channel 5, we will need to assign the material to selected object faces. In your 3D viewport, go to top view (NUMPAD-7). Select the Gatehouse object (if

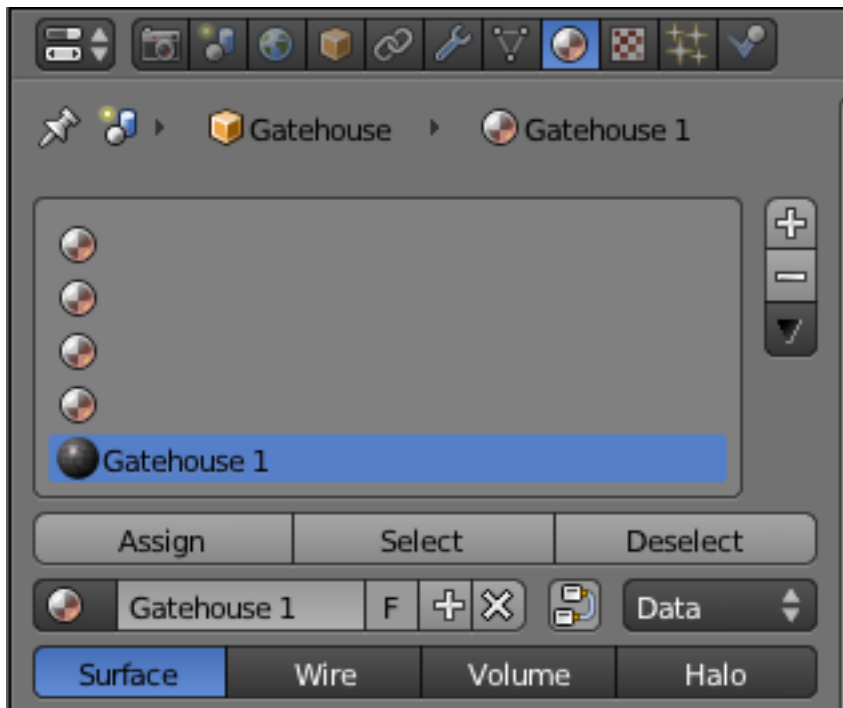it is not already selected) and **TAB into edit mode**. Make sure you are in wireframe

display mode. Also go to face select mode.

Notice that once we tabbed into edit mode there is a new set of controls in the materials editor (Assign – Select – Deselect)


We will assign the front and back faces of the gatehouse to the Gatehouse 1 material. Box select the front and back faces as shown below.
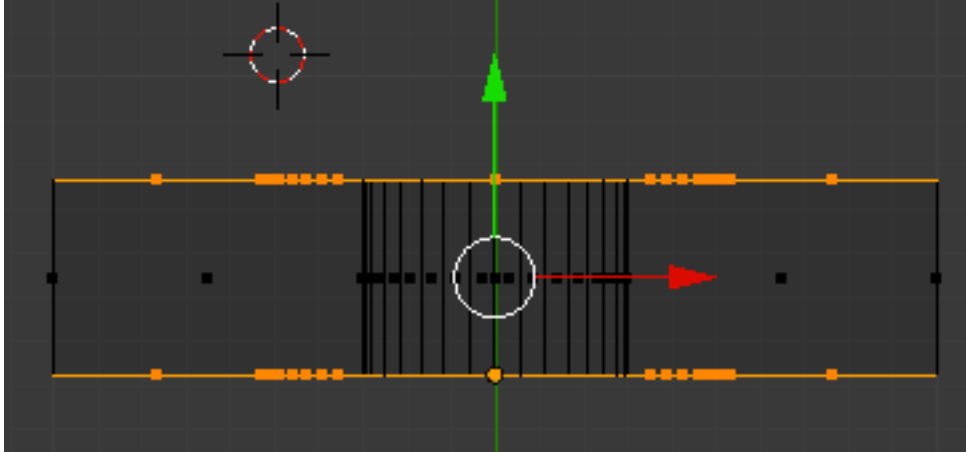
Make sure the Gatehouse 1 material is selected in the material channels list, then press "Assign". This will assign the Gatehouse 1 material to the front and back faces of the object. Press the "deselect" button. This will unselect the faces but they are still assigned to the material. The select and deselect buttons are only an indication of which faces are assigned to a material. You can press select again and see which faces are assigned to the Gatehouse 1 material. Deselecting the vertices can be done with the deselect button or the AKEY.

Press the texture context button in the properties editor.
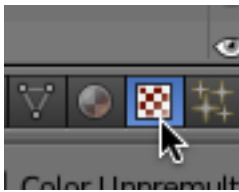
Set the X repeat to 4, set the Y repeat to 2.

Render the camera image. Depending on your camera view set up it should look something like this.
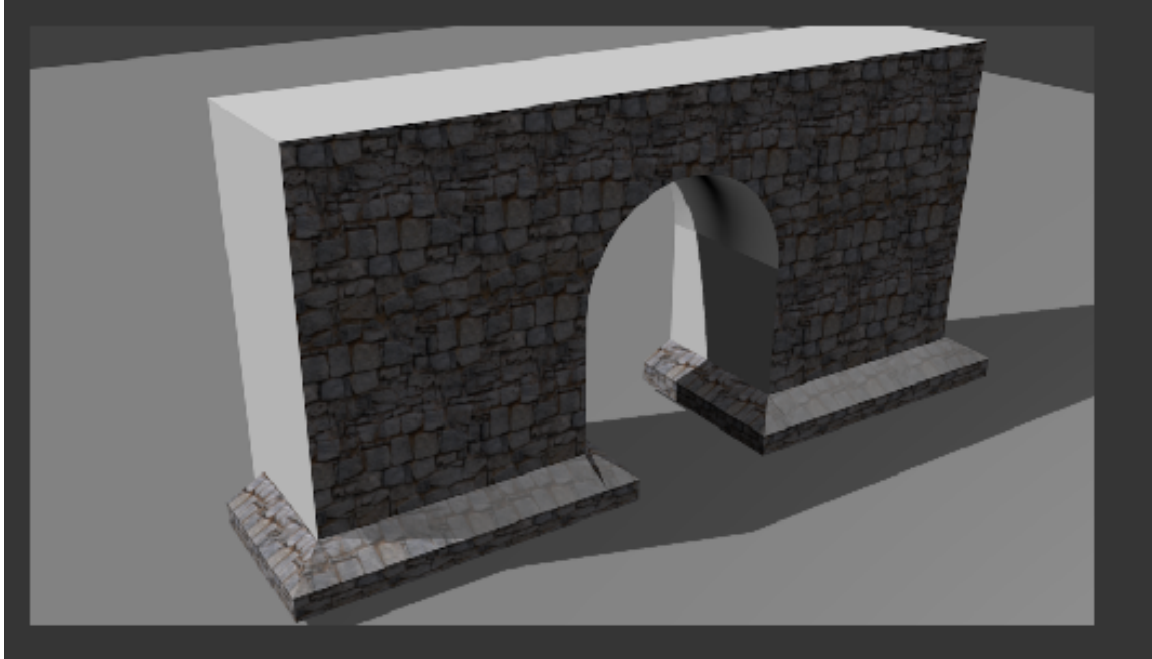
Note that only the front and back of the gatehouse are textured because only those faces have a material assigned to them. Note also the "Flat" mapping works here because the front face of this object was actually facing up when it was created and rotated later in the modeling process.

Go back to the **materials editor**. Select the 4th material slot. Press the "new" button and name this material "Gatehouse 2".
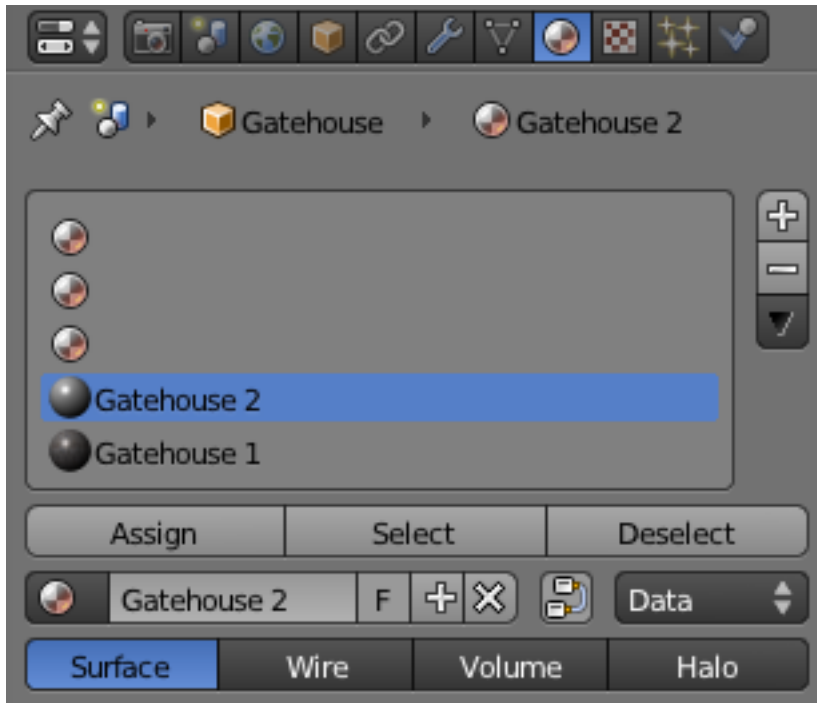
Go to the **Texture editor** and click the new button. Name the texture "Gatehouse 2 Texture". Click on the type dropdown box and select "image or movie" for the texture type. Click on the file icon and select the wallstone.jpg image.

Checkmark Flip X/Y axis (in the image sampling panel)
Set the X repeat to 2, set the Y repeat to 1 (in the image mapping panel)
Select "Cube" as the mapping projection. (in the mapping panel)

Go back to the **materials editor.**

Go back to a 3D View (ESC if necessary). Rotate your 3D view so you can see the gatehouse dimensionally. Select the 2 outside faces and the 2 inside faces as shown below.
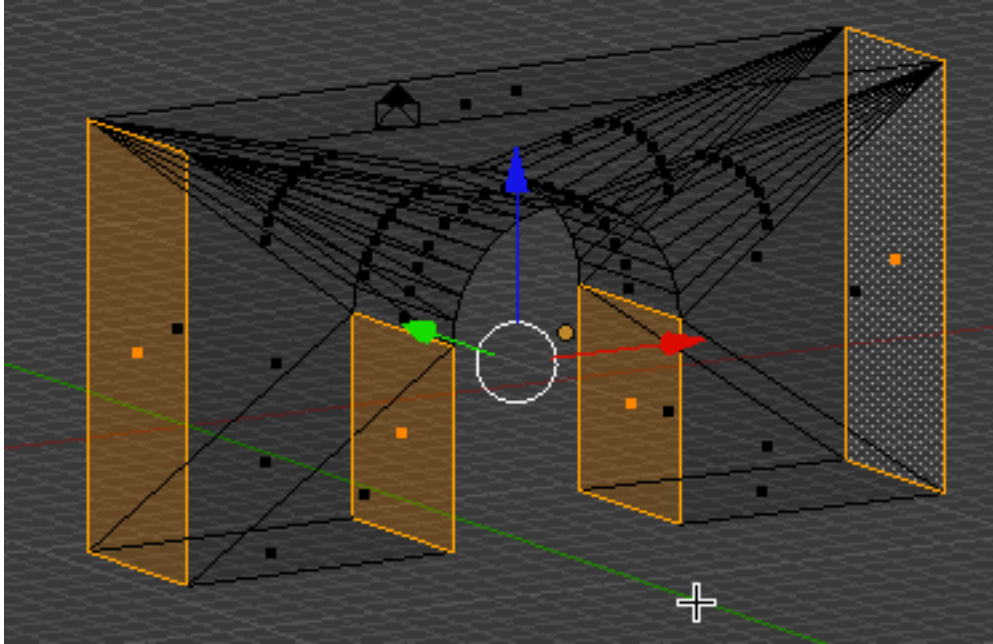
Make sure the Gatehouse 2 material is selected in the material channels list, then press "Assign". This will assign the Gatehouse 2 material to the selected faces. Press the "deselect" button.

Render the camera image (F-12). It should look something like this.
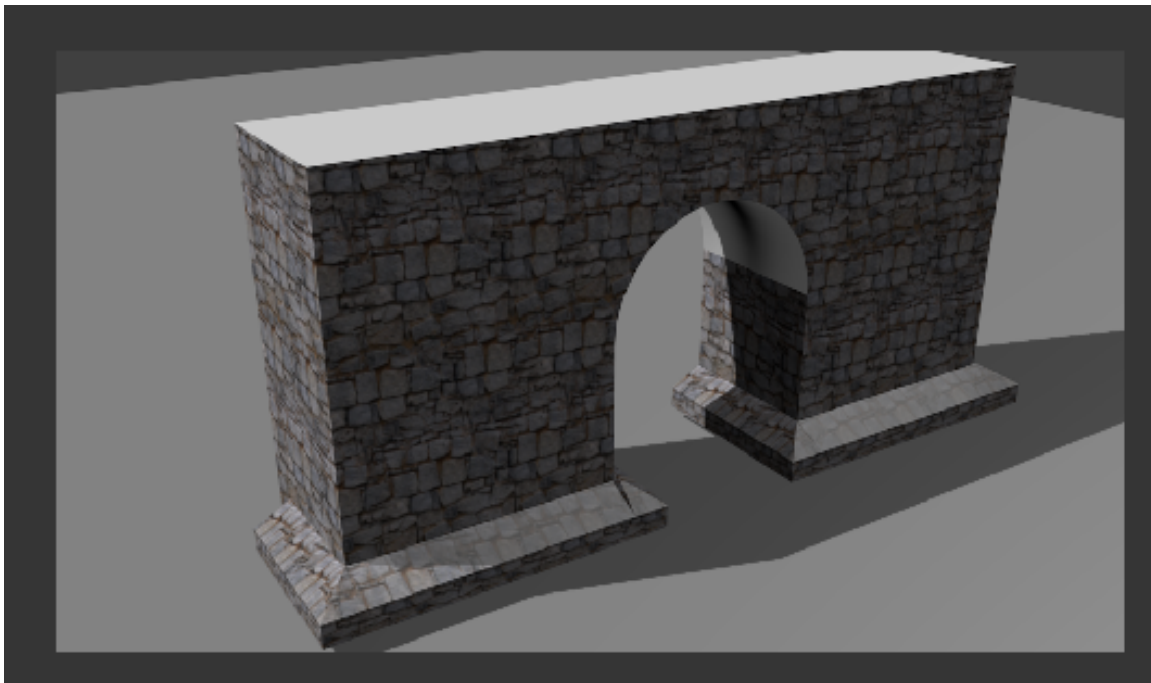
Go back to the **materials editor**. Select the third material slot. Press the "new" button and name this material "Gatehouse 3".

Go to the **Texture editor** and click the new button. Name the texture "Gatehouse 3 Texture". Click on the type dropdown box and select "image or movie" for the texture type. Click on the file icon and select the wallstone.jpg image.

Set the X repeat to 5, set the Y repeat to 1
Select "Cube" as the mapping projection.

Go back to the **materials editor**. Rotate your 3D view so you can see the gatehouse dimensionally. Select the top face as shown below.

Make sure the Gatehouse 3 material is selected in the material channels list, then press "Assign". This will assign the Gatehouse 3 material to the selected faces. Press the "deselect" button.

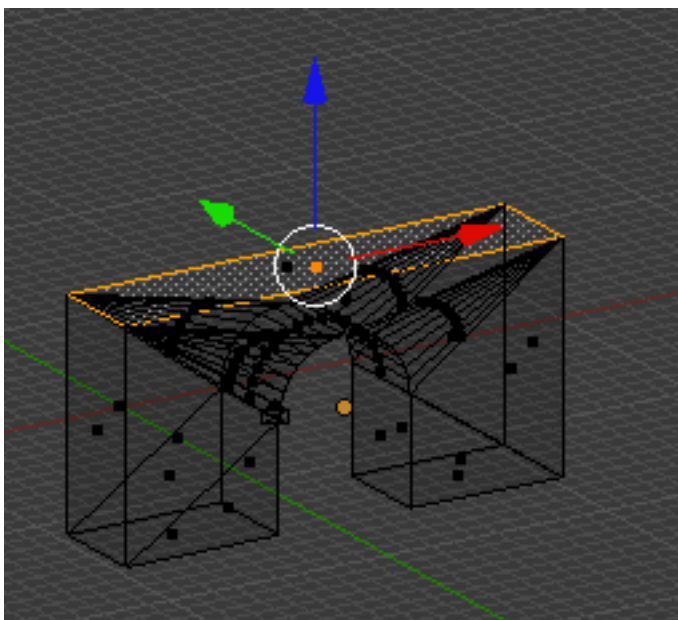Render the camera image (F-12). It should look something like this.

We now need to add a material to the curved inside arch.

Go back to the **materials editor.** Select the second material slot. Press the "new" button and name this material "Gatehouse 4".

Go to the **Texture editor** and click the new button. Name the texture "Gatehouse 4 Texture". Click on the type dropdown box and select "image or movie" for the texture type. Click on the file icon and select the wallstone.jpg image.

Set the X repeat to 5, set the Y repeat to 1
Select "Tube" as the mapping projection.

Go back to the **materials editor.** It will be easier to select the inside arch faces if you go to front view and switch to vertex select. Box select the inside arch vertices (that make the inside arch faces) as shown below.

Make sure the Gatehouse 4 material is selected in the material channels list, then press "Assign". This will assign the Gatehouse 4 material to the selected faces. Press the "deselect" button.

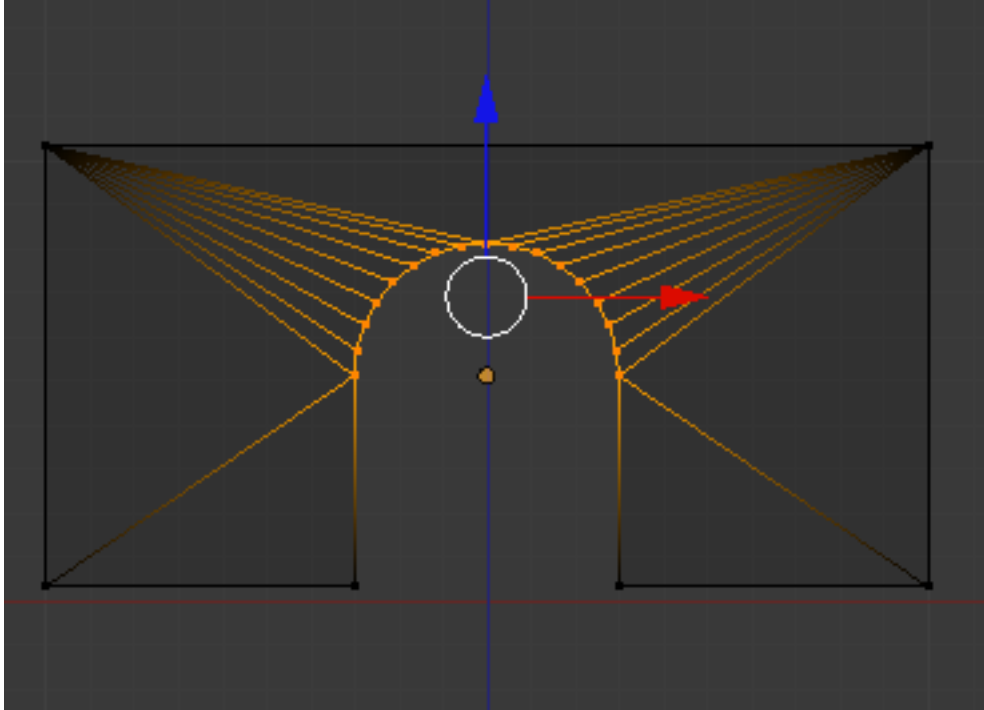Render the camera image (F-12). It should look something like this

We have now placed multiple materials (4) on a single Blender object.

Save your Blend file.

Most of the rest of the texturing of the castle model are variations of the methods we used to texture the gatehouse object (multiple materials) or the gatehouse base object (single material).

TAB back to object mode and hide the gatehouse object in the outliner editor (leave it renderable. Unhide the castle walls object and make it renderable.

The walls pose a problem in that the front and back walls are much longer than the side walls so the same repeat pattern cannot be used on both. This means we will need two materials each with a different texture setting. We will make both materials then assign them to the faces.

Select the wall object. Press the Material context button in the Materials editor. Add 5 blank material channels (USE THE PLUS SIGN +).

Press the New Button. The fifth material channel is selected. Name this material "Wall 1".

Go to the Texture editor and click the new button. Name the texture "Wall 1 texture ". Click on the type dropdown box and select "image or movie" for the texture type. Click on the file icon and select the wallstone.jpg image.

Checkmark the Flip X/Y Axis
Set the X repeat to 2, set the Y repeat to 6
Select "Cube" as the mapping projection

Go back to the **material editor**. Select the fourth material channel. Press the "new" button. Name this material "Wall 2".

Go to the Texture editor and click the new button. Name the texture "Wall 2 Texture". Click on the type dropdown box and select "image or movie" for the texture type. Click on the file icon and select the wallstone.jpg image.

Set the X repeat to 6, set the Y repeat to 2
Select "Cube" as the mapping projection
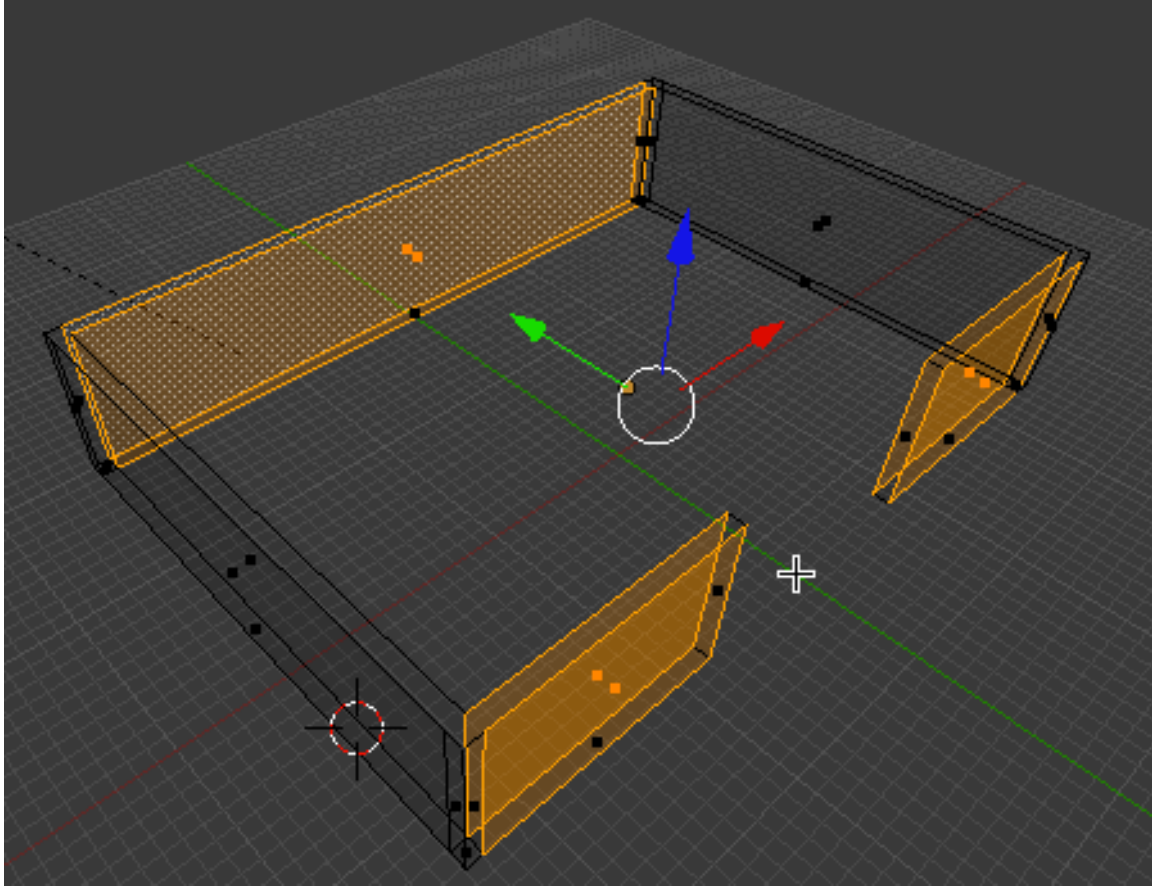
Go to the **materials editor**.

In your 3D viewport make sure you are in a perspective view. Rotate and zoom the viewport to set up your camera view to see a portion of the castle wall. Press CTRL-ALT-0 to align the Blender camera with the view.
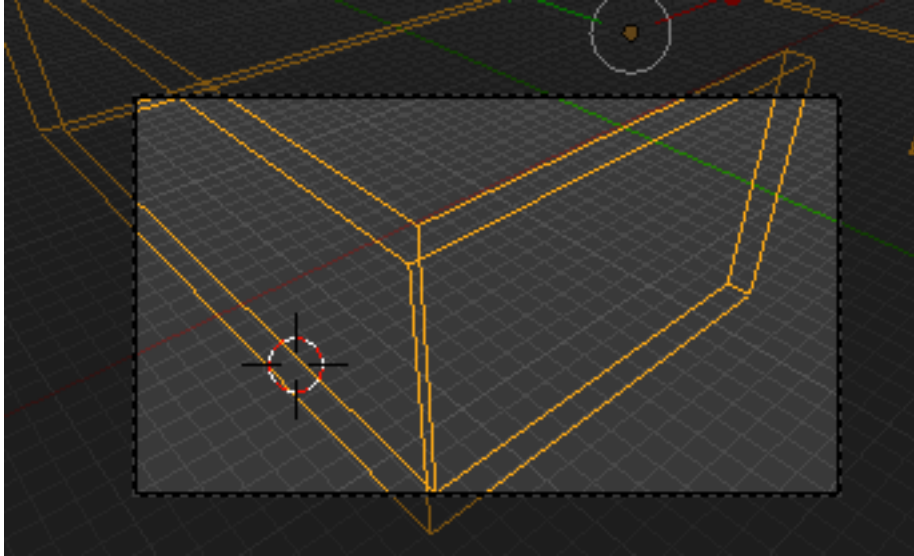
Go to top view then rotate the wall object a bit to get a more dimensional view. TAB into edit mode and go to face select.
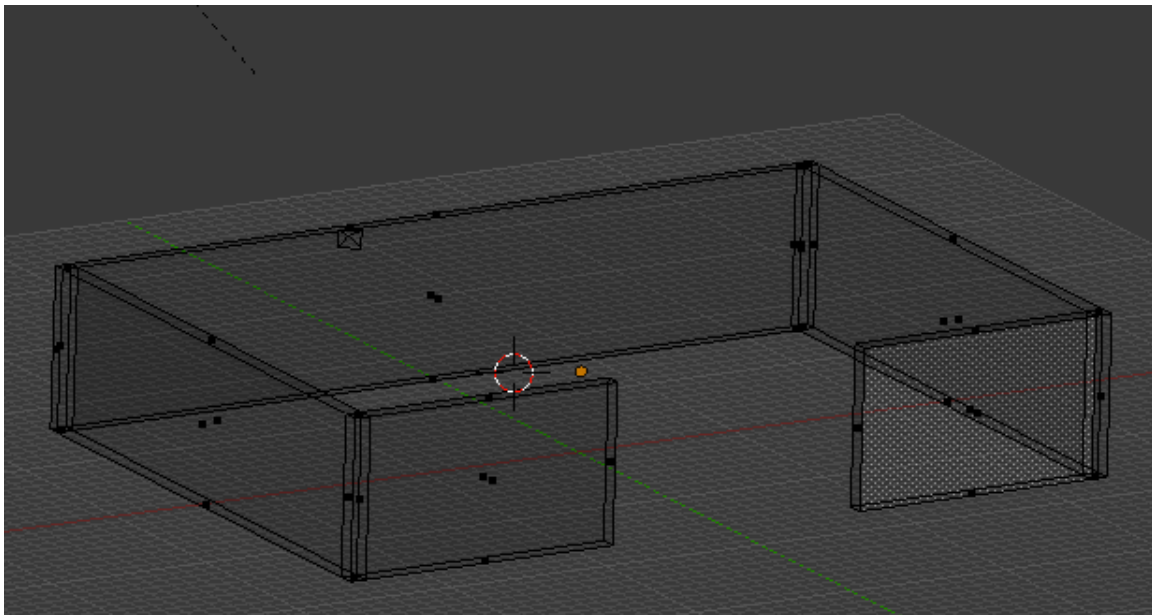

Select the front and rear (inside and outside) wall faces as shown below **(total – 6 faces).** *Note: We do not have to texture the corner cap faces because they are hidden by the Towers objects.)*

Go to the material editor. **Make sure the Wall 1 material is selected in the material channels list**, then press "Assign". This will assign the Wall 1 material to the selected faces. Press the "deselect" button.

Now select the side (inside and outside) wall faces as shown below **(total – 4 faces).** *Note: We do not have to texture the corner cap faces because they are hidden by the Towers objects.)*

a
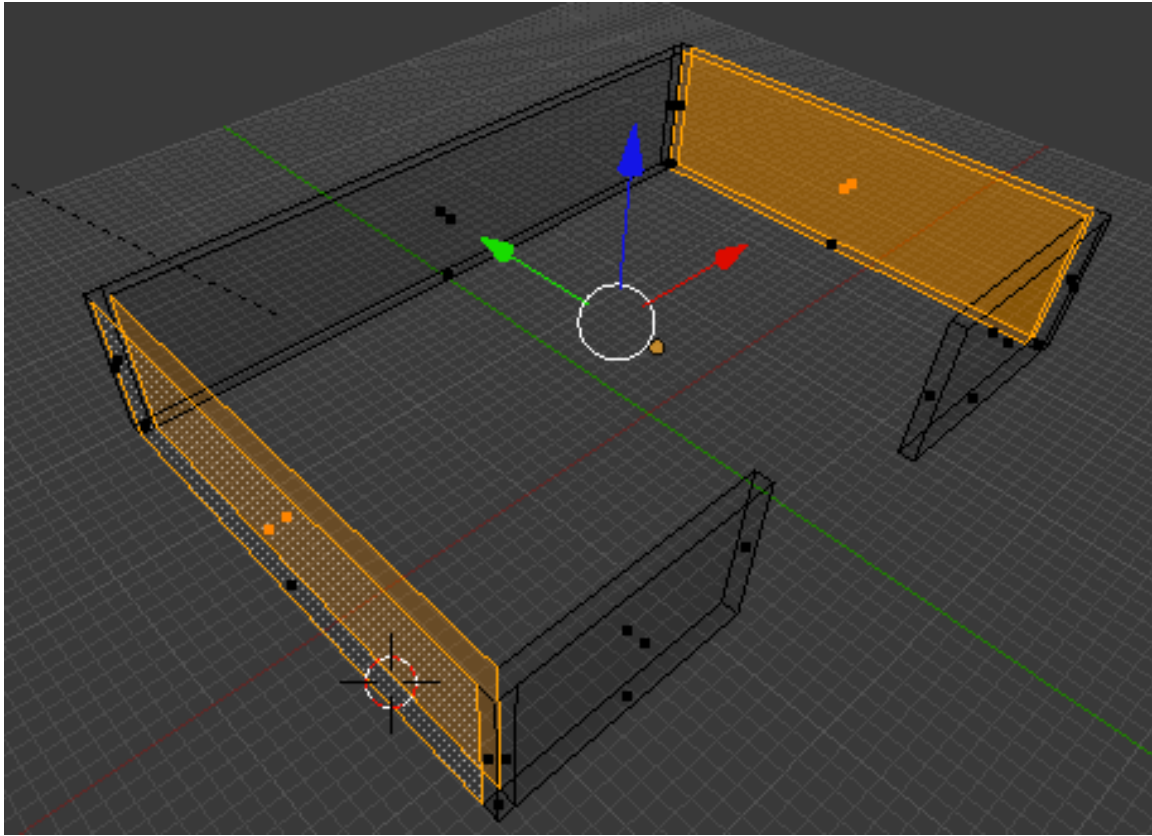
Go to the material editor. **Make sure the Wall 2 material is selected in the material channels list**, then press "Assign". This will assign the Wall 2 material to the selected faces. Press the "deselect" button.

Render the camera image (F-12). It should look something like this
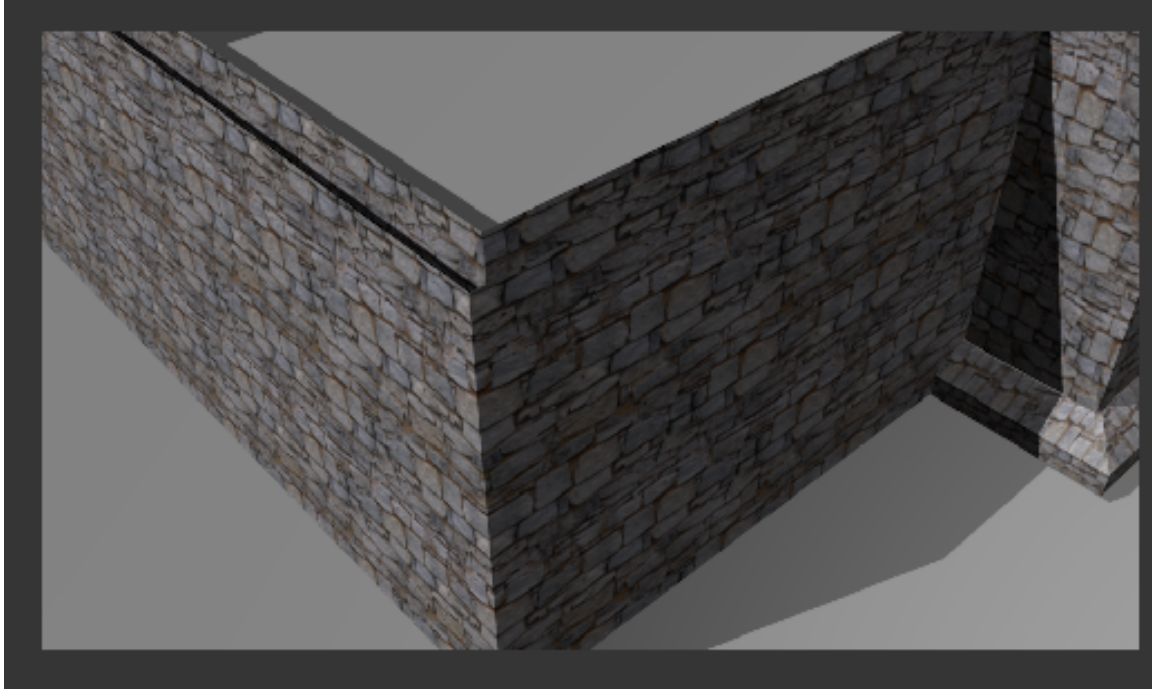
Note: The tops and bottoms of the wall do not need any materials.

Save your Blend file.

The Catwalk object is textured in a very similar fashion. We need two materials; one for the top faces of the catwalk and another for the thin side faces.

In the outliner editor, hide the castle walls object (leave it renderable) and unhide and make renderable the Catwalk object.

Align your camera to **a** view of the catwalk for rendering.
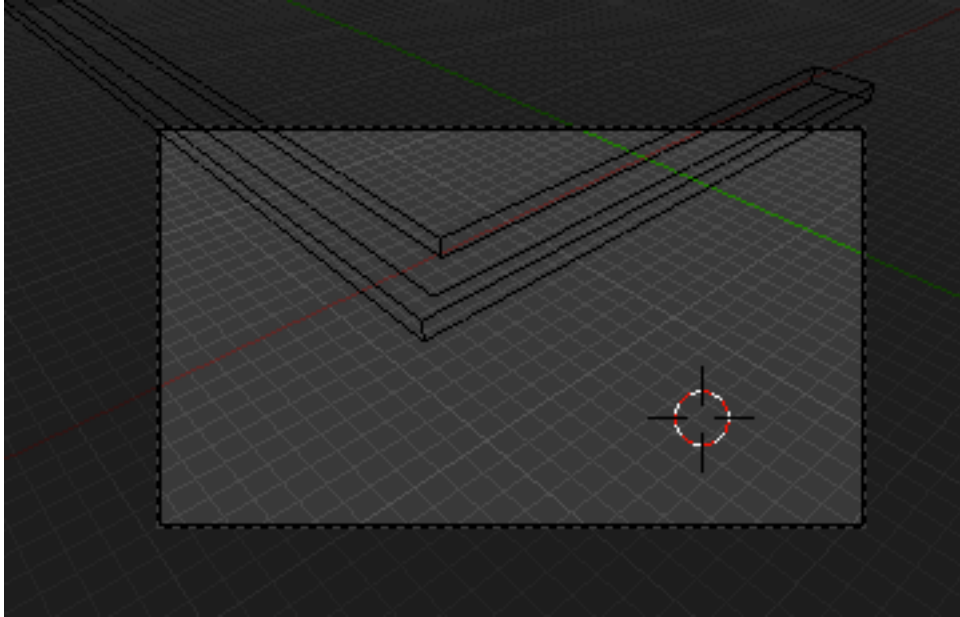
Go to the **material editor**.

The Catwalk object will only need one material. This will be applied to the whole object but we are concerned here with only the thin sides of the catwalk. The top of the catwalk object is actually mostly open as the top is now part of the Cornice Blocks object that we separated from the catwalk object in the previous tutorial. What isn't part of the Cornice Blocks is covered by the Cornice Blocks.

With the catwalk object selected, and in the materials editor press "new". Name the material "Catwalk". Go to the **Texture editor.**

Use the wallstone.jpg to create an image texture for the Catwalk material. Name this texture Catwalk Texture. Set the following controls for the Catwalk texture:

Set repeat X to 4
Set Repeat Y to 1
Set the mapping projection to Cube
Set the Y Size to .3

SINCE THIS IS THE FIRST MATERIAL CHANNEL THE MATERIAL IS, BY DEFAULT, ASSIGNED TO ALL OF THE OBJECT'S FACES. (we do not have to assign faces).

Rendering the camera image should result in something like this.
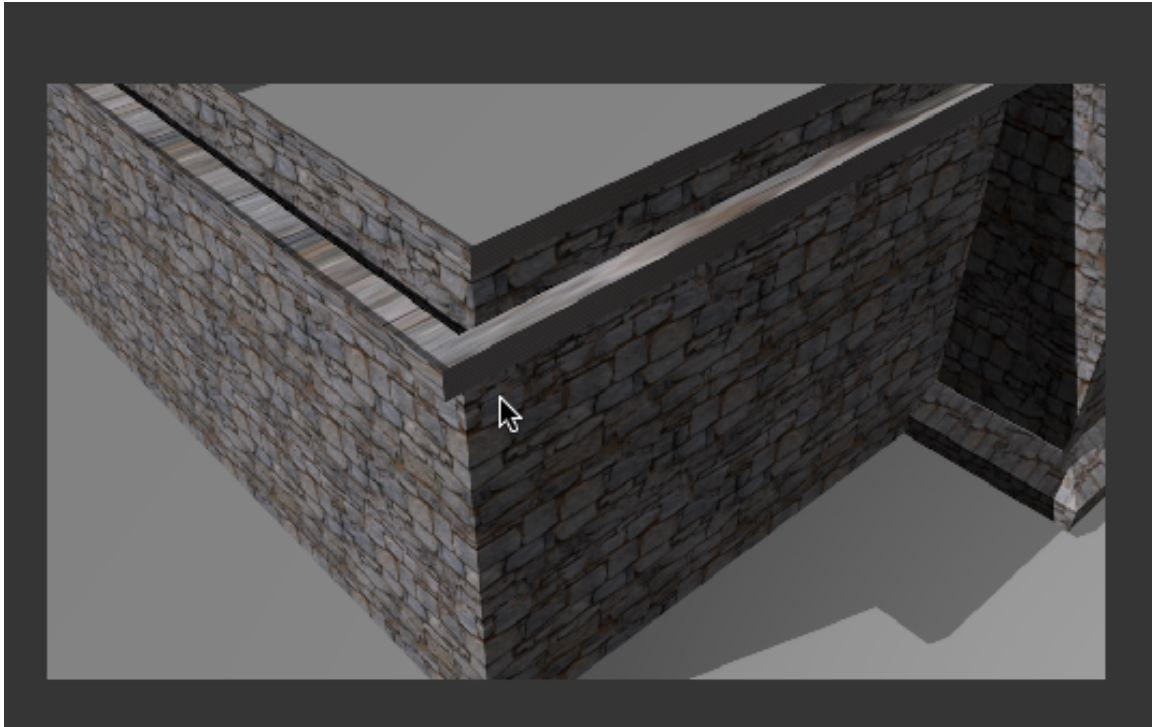
Save your Blend file.

Hide the catwalk object and unhide and make renderable the Tower 1 object.   The tower has a single material that contains a single texture.
Select the Tower 1 object, go to the **materials editor** and click on New. Name this material "Tower".

Use the wallstone.jpg to create an image texture for the Tower material. Name this texture "Tower Texture". Set the following controls for the Tower texture:
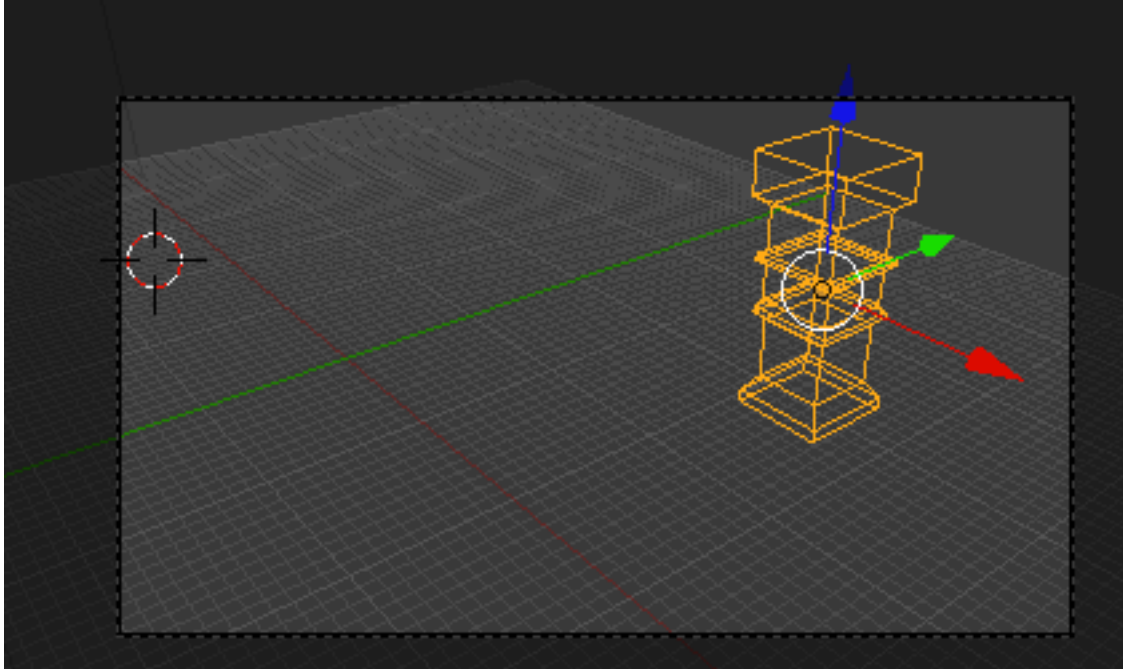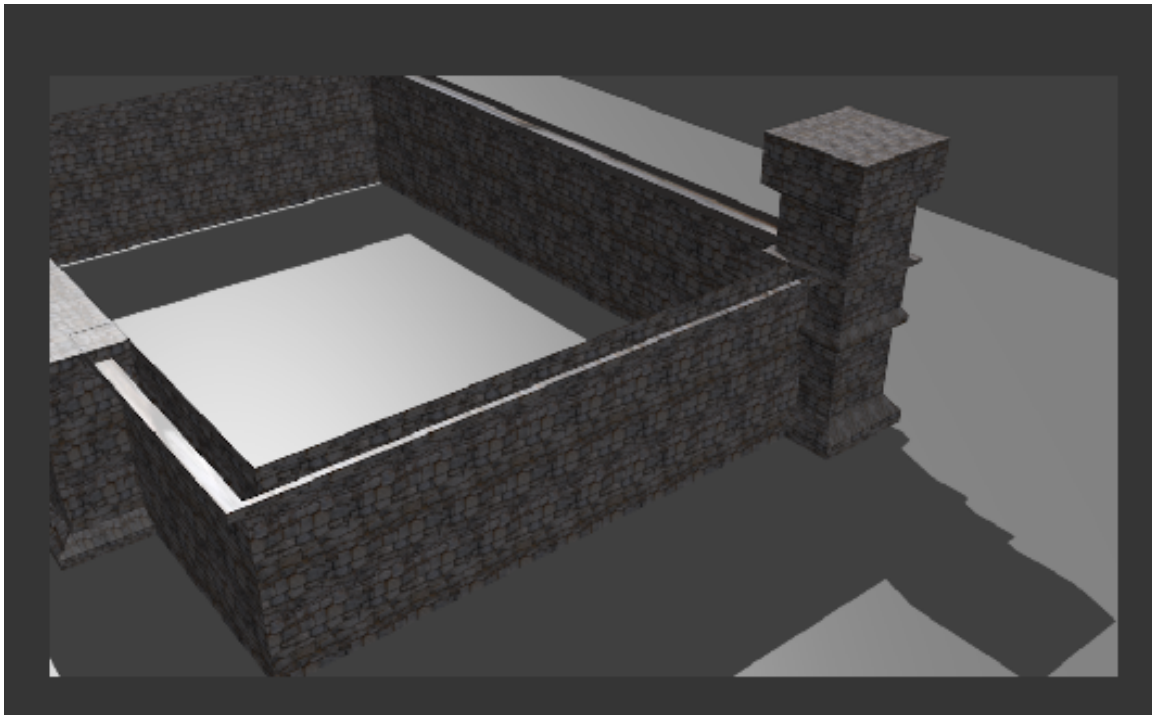
Set repeat X to 1
Set Repeat Y to 2
Set the mapping projection to Cube.
Set Size Y to 2.5

Adjust your 3D View to include Tower #1 and set your camera.

Render the camera image (F-12). It should look something like this.

Since we make Linked Duplicate copies of the Tower object all 4 of the Towers are now textured. Unhide and make renderable the other 3 towers. Adjust your 3d view to set up the camera and align the camera to the view.

Render the camera image (F-12). It should look something like this.
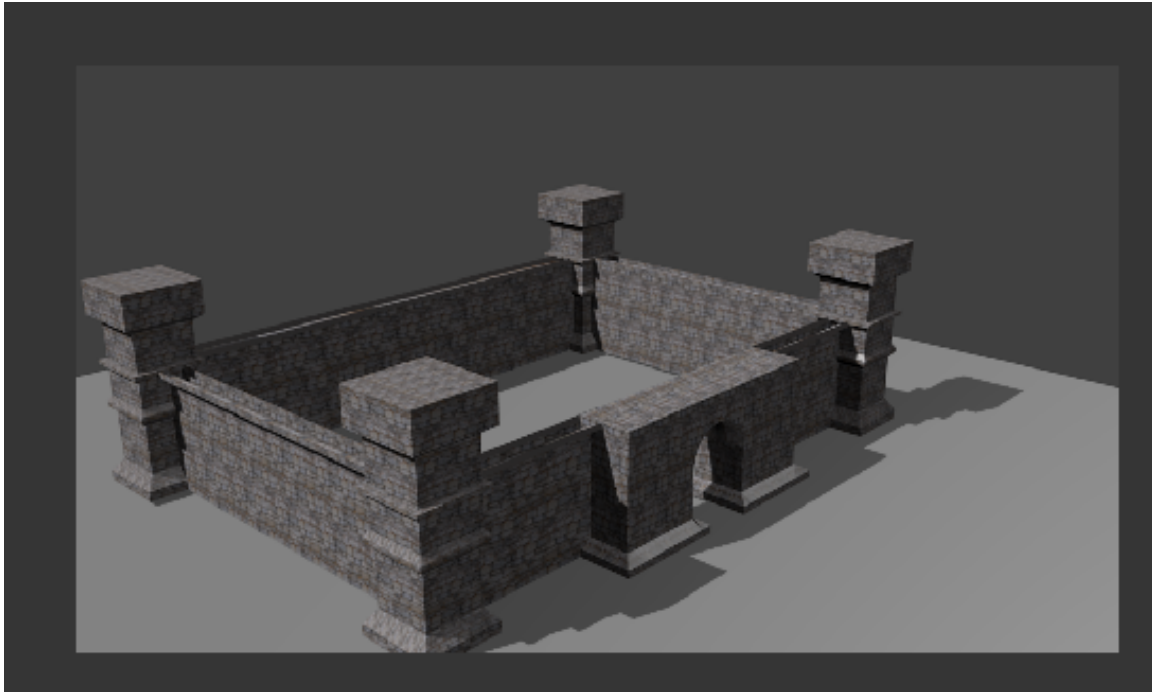
Save your Blend file.

Next are the Cornices. We will start with the Tower 1 cornice. Hide the 4 towers in the outliner panel and unhide and make renderable the Tower 1 cornice.

The Cornice object will need 2 materials; one for the floor and one for the blocks.

Select the Tower 1 Cornice object. Go to the Material Editor. Create 5 Material channels. Select the 5th channel. Then press "New". Name this material channel Cornice 1. Select the 4th channel, press "New" and name it Cornice 2.

TAB into edit mode on the Cornice object. Make sure you are in Face select mode. Go to Front View (NUMPAD-1). Box select (BKEY) the lower floor part of the Cornice Block objects as shown below.
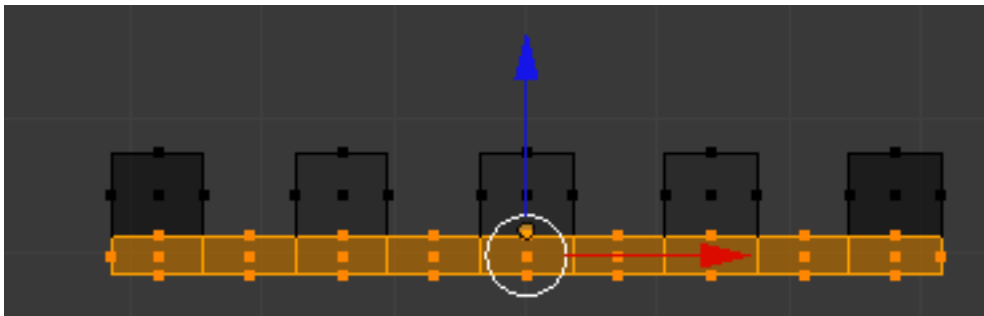
In the Material Editor, with the Cornice 1 Channel selected, click on the Assign button. This will assign the Cornice 1 material channel to the selected faces. Click deselect.

Box select (BKEY) the upper faces of the Cornice object as shown below.
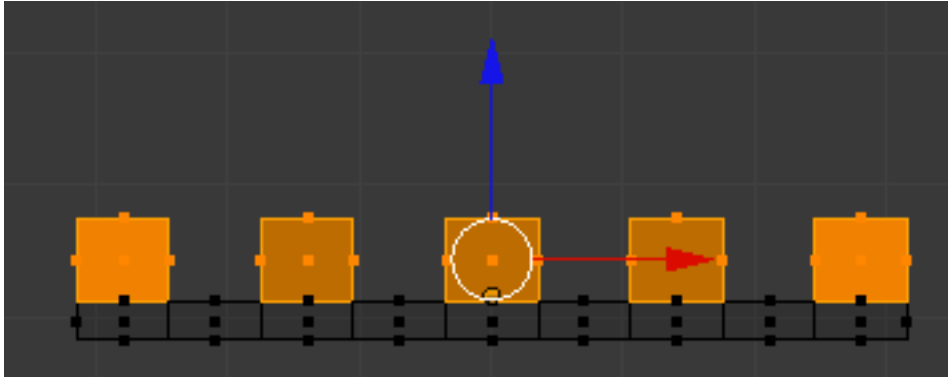
In the Material Editor, with the Cornice 2 Channel selected, click on the Assign button. This will assign the Cornice 2 material channel to the selected faces. Click deselect.

Select the Cornice 1 Material Channel and then go to the Texture Editor.

Use the wallstone.jpg to create an image texture for the Tower Cornice material. Name this texture "Tower Cornice 1 Texture". Set the following controls for the Tower Cornice 1 Texture:

Set repeat X to 1
Set Repeat Y to 2
Set the mapping projection to Cube.
Set Size Y to 2.5

Go back to the Material Editor. Select the Cornice 2 Material Channel. Go to the Texture Editor.

Use the wallstone.jpg to create an image texture for the Tower Cornice material. Name this texture "Tower Cornice 2 Texture". Set the following controls for the Tower Cornice 2 Texture:

Set repeat X to 3
Set Repeat Y to 3
Set the mapping projection to Cube.
Set Size X to .75
Set Size Y to .1

Adjust your perspective view and align the camera to it. Render the camera image (F-12). It should look something like this.
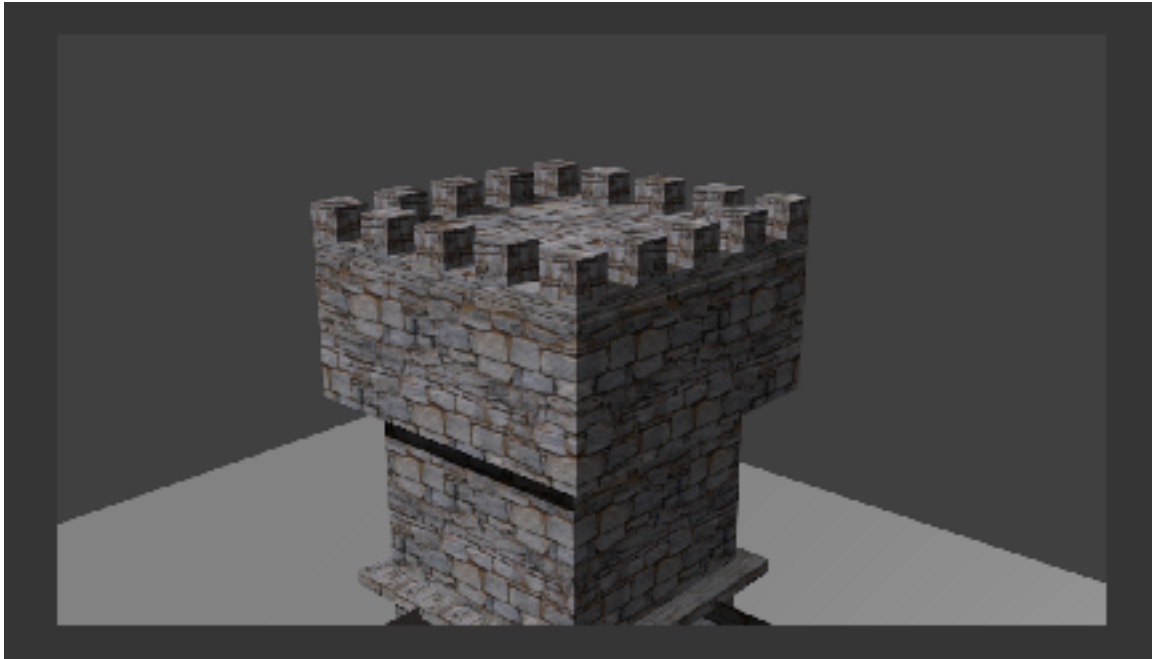
Since we made Linked Duplicates of the Tower Cornice objects the other 3 Tower cornice objects are also textured. Unhide the other Tower Cornice objects and make them renderable.

Adjust your perspective view and align the camera to it. Render the camera image (F-12). It should look something like this.
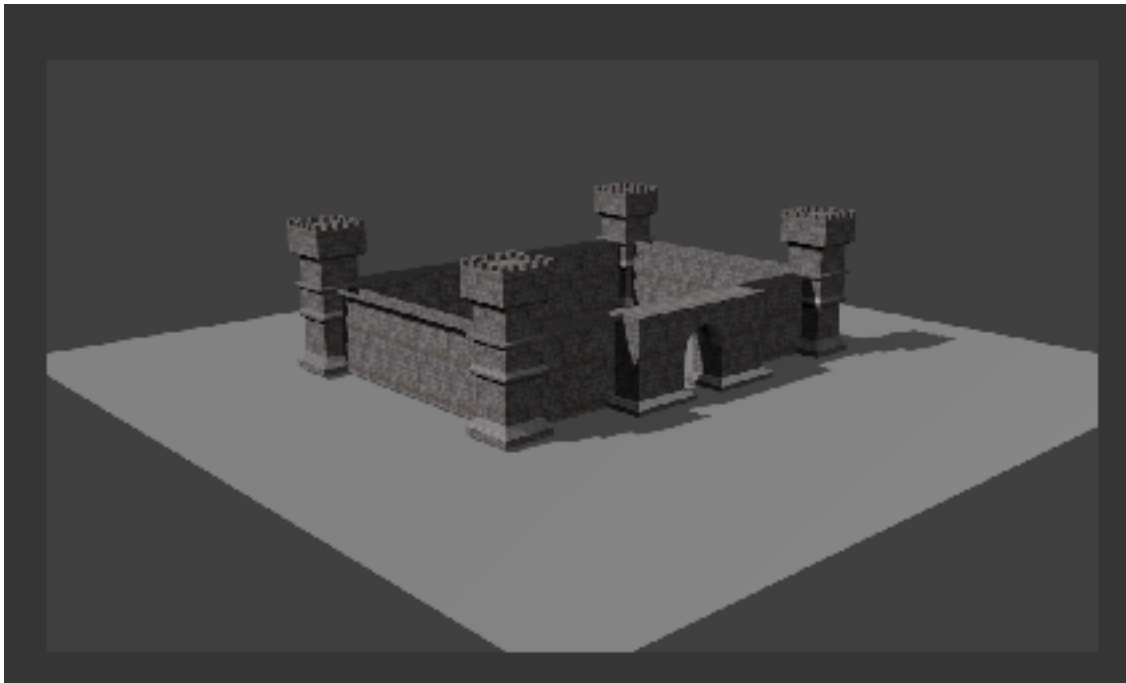
Save your Blend file.

Next, we will texture the Gatehouse Cornice. At this point we can unhide all of the objects and make them all renderable in the outline editor.

The Gatehouse Cornice will only need one material channel. Select the Gatehouse Cornice Blocks object. Go to the Material Editor. Click New. Name the material "Gatehouse Cornice Blocks".

Go to the Texture Editor. Click "New and name the Texture "Gatehouse Cornice Blocks Texture".

Use the wallstone.jpg to create an image texture for the Gatehouse Cornice Block Texture Set the following controls for the Gatehouse Cornice Block Texture:

Set repeat X to 3
Set Repeat Y to 3
Set the mapping projection to Cube.
Set Size X to .75
Set Size Y to .1

Adjust your perspective view and align the camera to it. Render the camera image (F-12). It should look something like this.
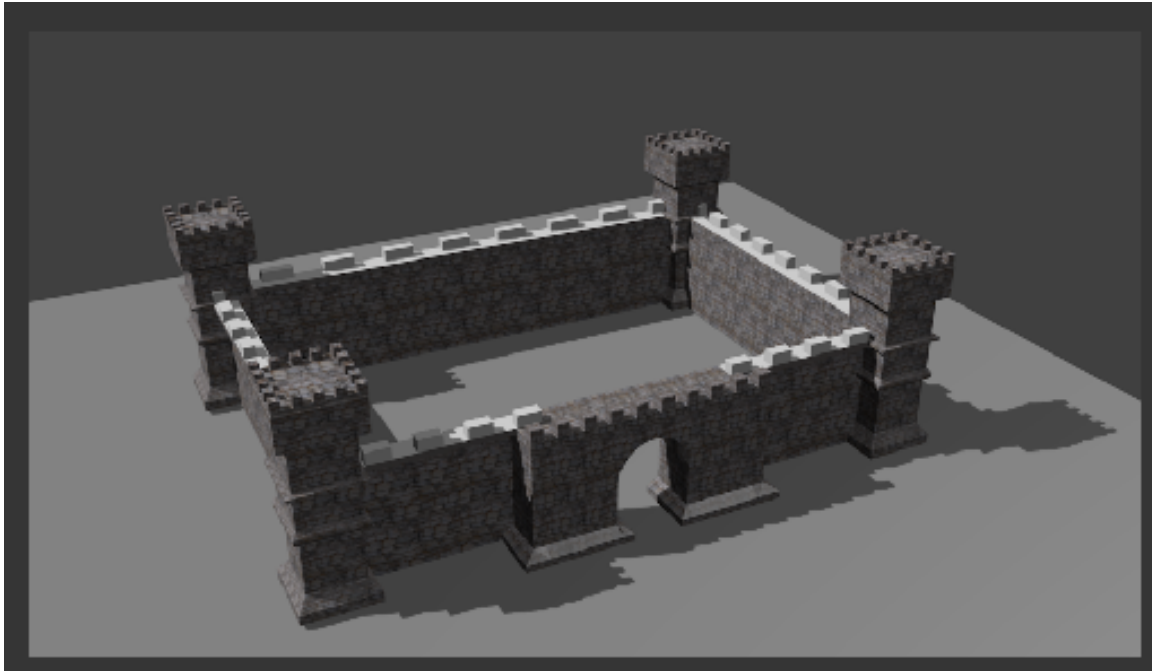
Finally we will texture the Catwalk Cornice Block object. Hide all of the other objects but allow them to be renderable.

The Catwalk Cornice Blocks will need 2 material channels.

Select the Cornice Blocks object. Create 5 Material channels in the Material editor. Select the 5ᵗʰ Channel and name it Blocks 1. Select the 4ᵗʰ Channel and name it Blocks 2.

Select Blocks 1 and go to the Texture Editor. Press New. Name it Blocks 1 Texture.

Use the wallstone.jpg to create an image texture for the Blocks 1 Texture. Set the following controls:

Set repeat X to 3
Set Repeat Y to 3
Set the mapping projection to Cube.
Set the Size X to 2
Set the Size Y to 2

Go back to the Material Editor and select Blocks 2 Channel. Go to the Texture Editor and press "New". Name this texture "Blocks 2 Texture".

Use the wallstone.jpg to create an image texture for the Blocks 2 Texture. Set the following controls:

Set repeat X to 10
Set Repeat Y to 10
Set the mapping projection to Cube
Set the Size X to 1
Set the Size Y to 1

Go back to the Materials editor and select the Blocks 1 material channel. Go to front view in your 3D Viewport. Box select the lower floor faces as shown below:
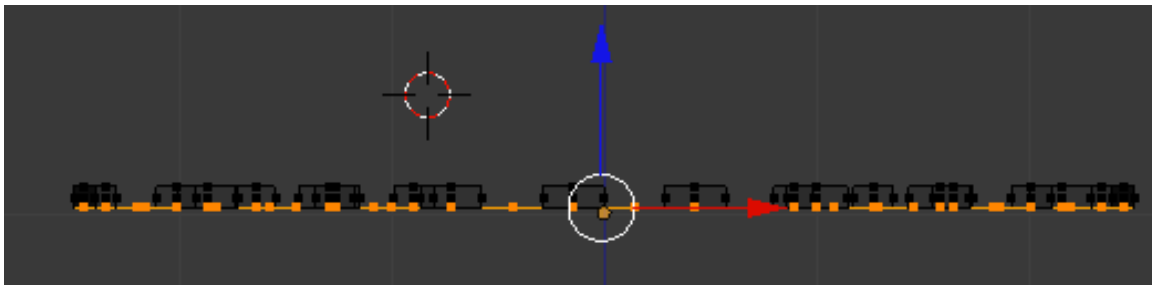

Press Assign then Deselect.

Select the Blocks 2 material channel. Go to front view in your 3D Viewport. Box select the upper block faces as shown below:
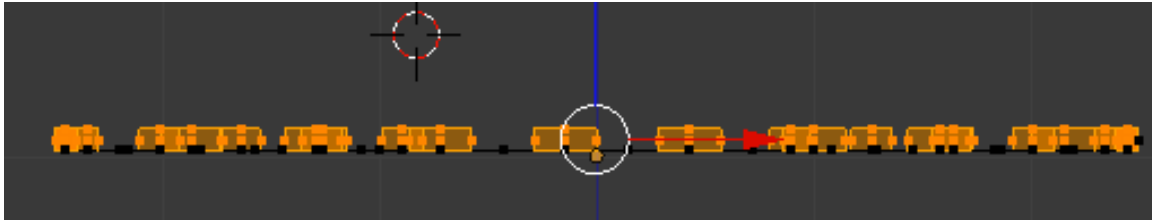
Press Assign then Deselect.

Adjust your perspective view and align the camera to it. Unhide all of the objects in the outliner Window and make sure they are all renderable. Render the camera image (F-12). It should look something like this.
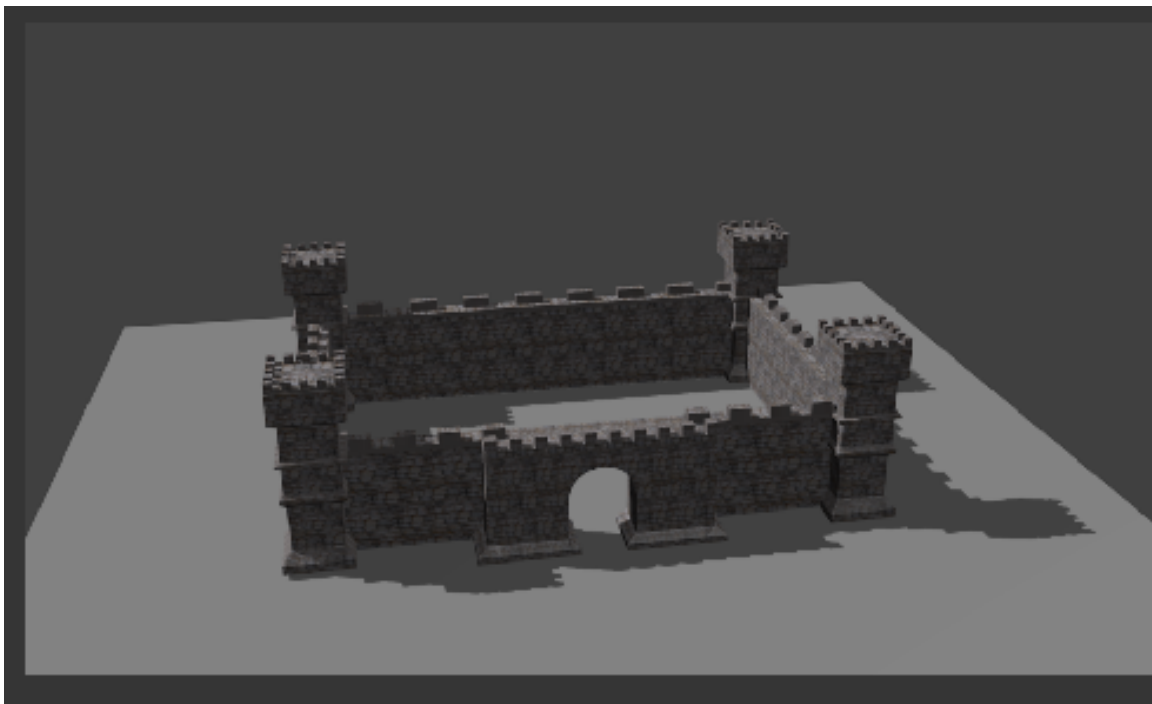
You may want to play around with the various textures setting; perhaps adding other image textures.

Save your Blend file.

Sky - Stars – Mist:

Select the World Editor from the editor buttons list.

In the World Panel, checkmark "Blend Sky".

Click on the Horizon Color Swatch and set the color to a very light gray.
R= .686
G= .686
B= .686

Click on the Zenith color swatch and set the color to a deep blue.
R = 0
G = 0
B = .417

Checkmark the Mist checkbox. Set the Minimum at 0, Depth at 111.96, Start at 5 and Height at 5.783.

Checkmark the Stars checkbox. Set the Size at .880, Min. Distance at 0, Colors at 0 and Separation at 51.066.

Render your scene.

The effect might be a bit different on your model because some of it depends on the distance of the model from the camera. You might want to play around with these settings.

Save your Blend File.

A completed copy of this tutorial named Castle_Texturing_Complete.blend is located HERE.