



3D & MOTION GRAPHICS > BLENDER

Creating a Low Poly Medieval House in Blender: Part 2

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Difficulty: Intermediate Length: Long Languages: English ▾

Blender

Low-Poly





What You'll Be Creating

Marking the Seams and Unwrapping the Model

Step 1

The seams are the lines from where the mesh gets *unstitched* to unwrap it onto the **UV Editor**, for further texturing and painting.

If you are in **Object** mode, select the house with **right-click** and press **Tab** to enter edit mode. Select **Vertex** or **Edge** mode from the toolbar or press **Ctrl-Tab** to select.



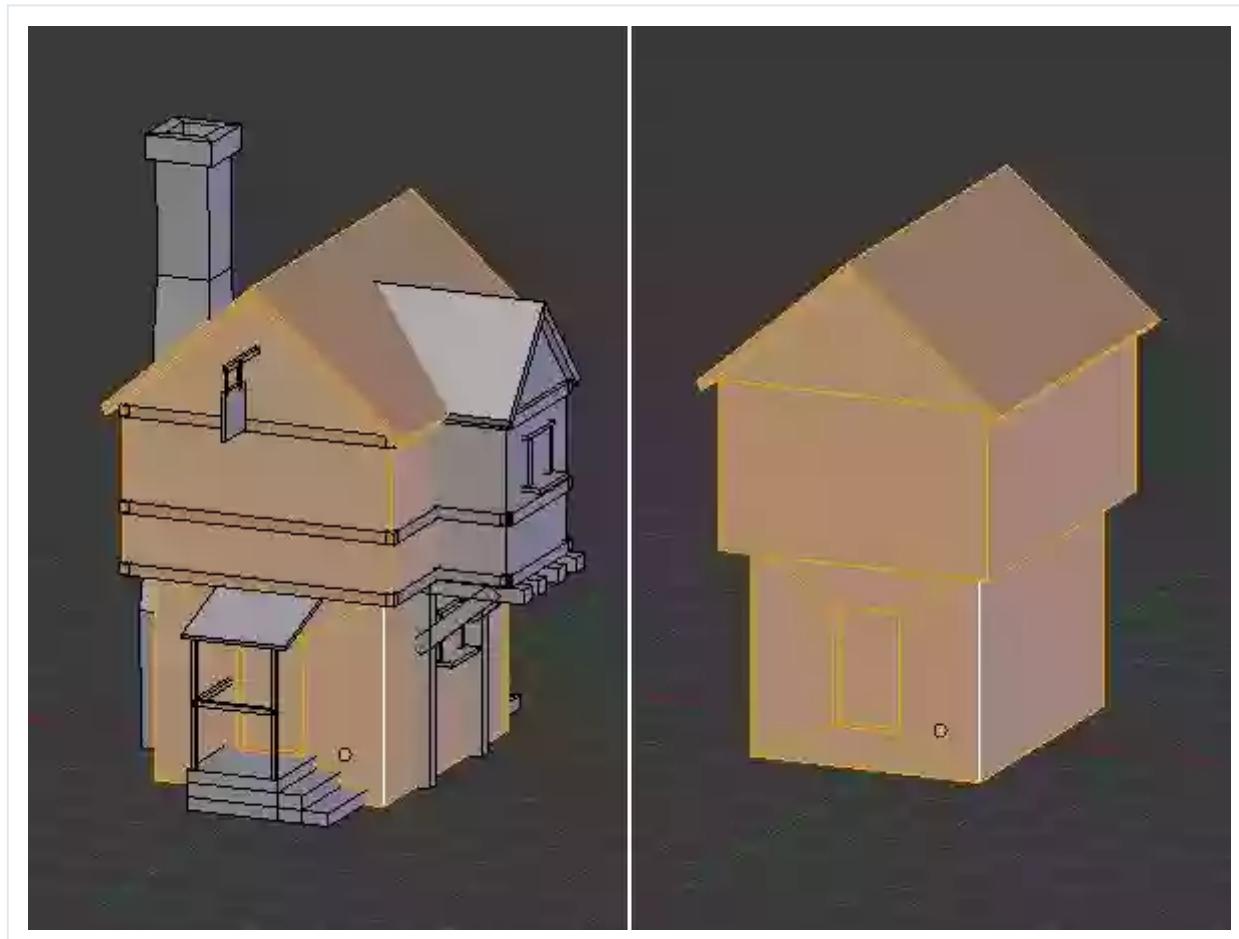


Enter edit mode

Advertisement

Step 2

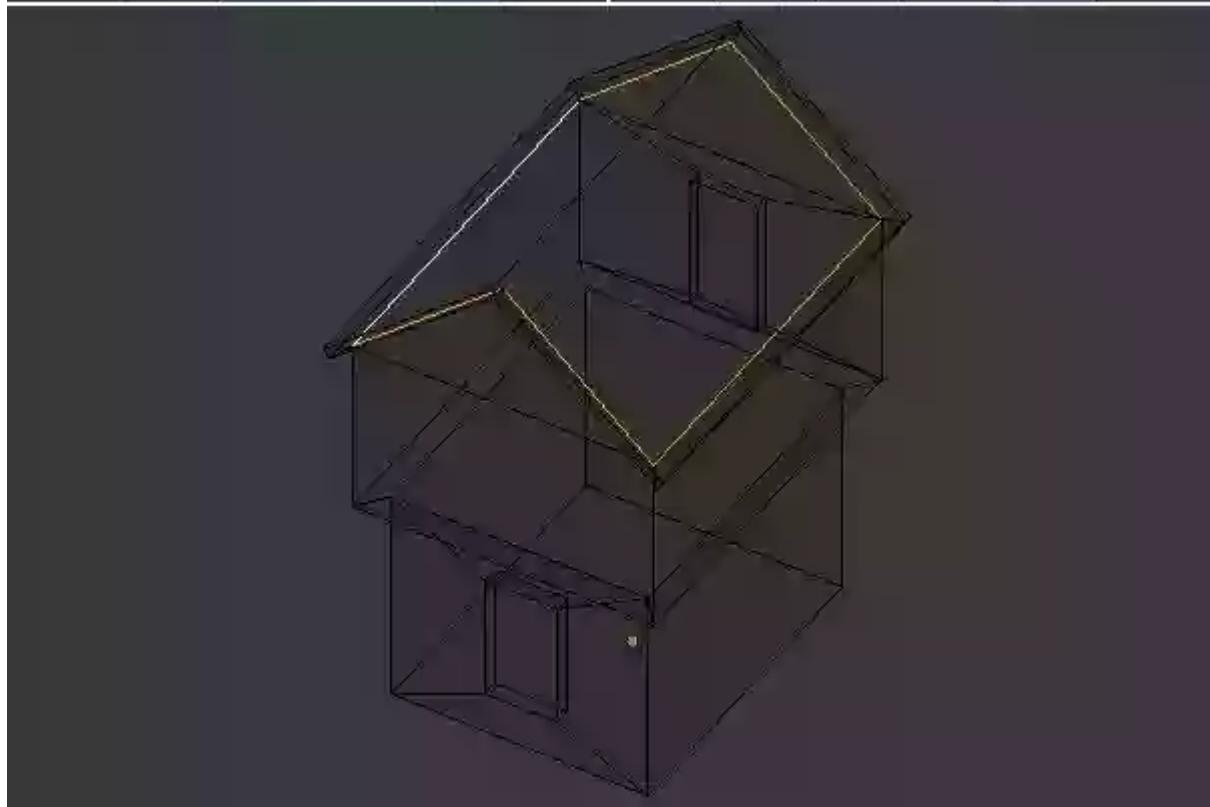
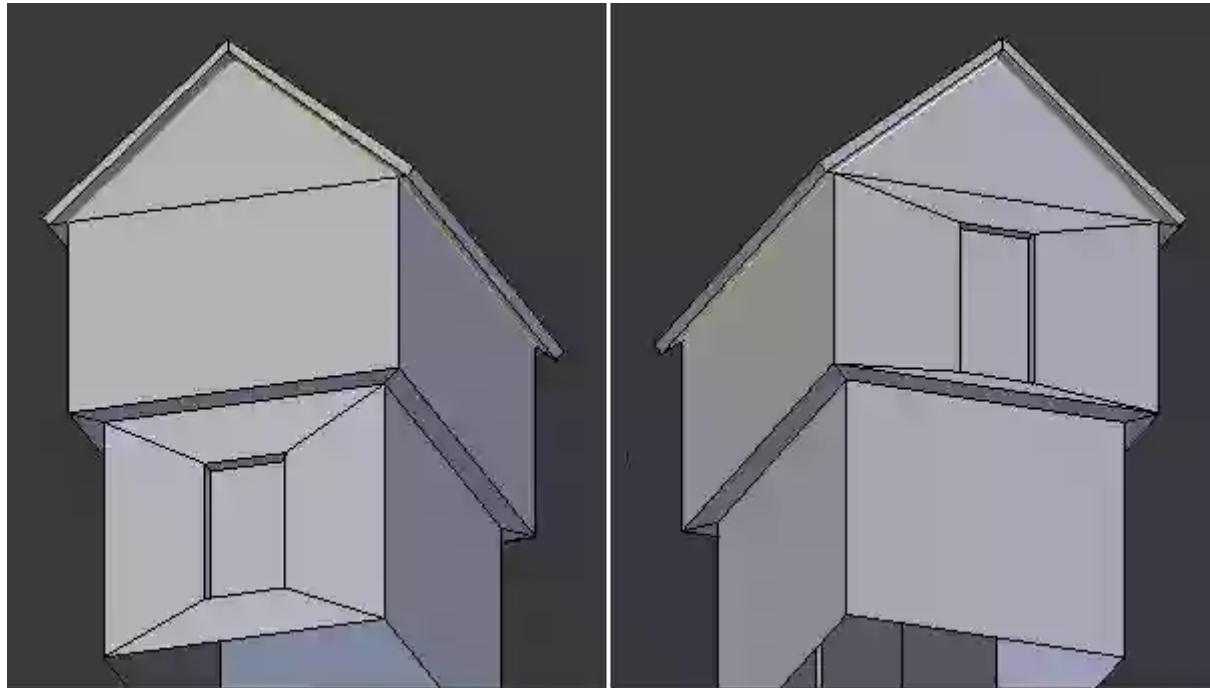
Select any edge or point of the main building, by **right-clicking** on it and pressing **Ctrl-L** to select all connected edges—only that mesh. Press **Shift-H** to hide rest of the mesh.



Select the house and hide the rest

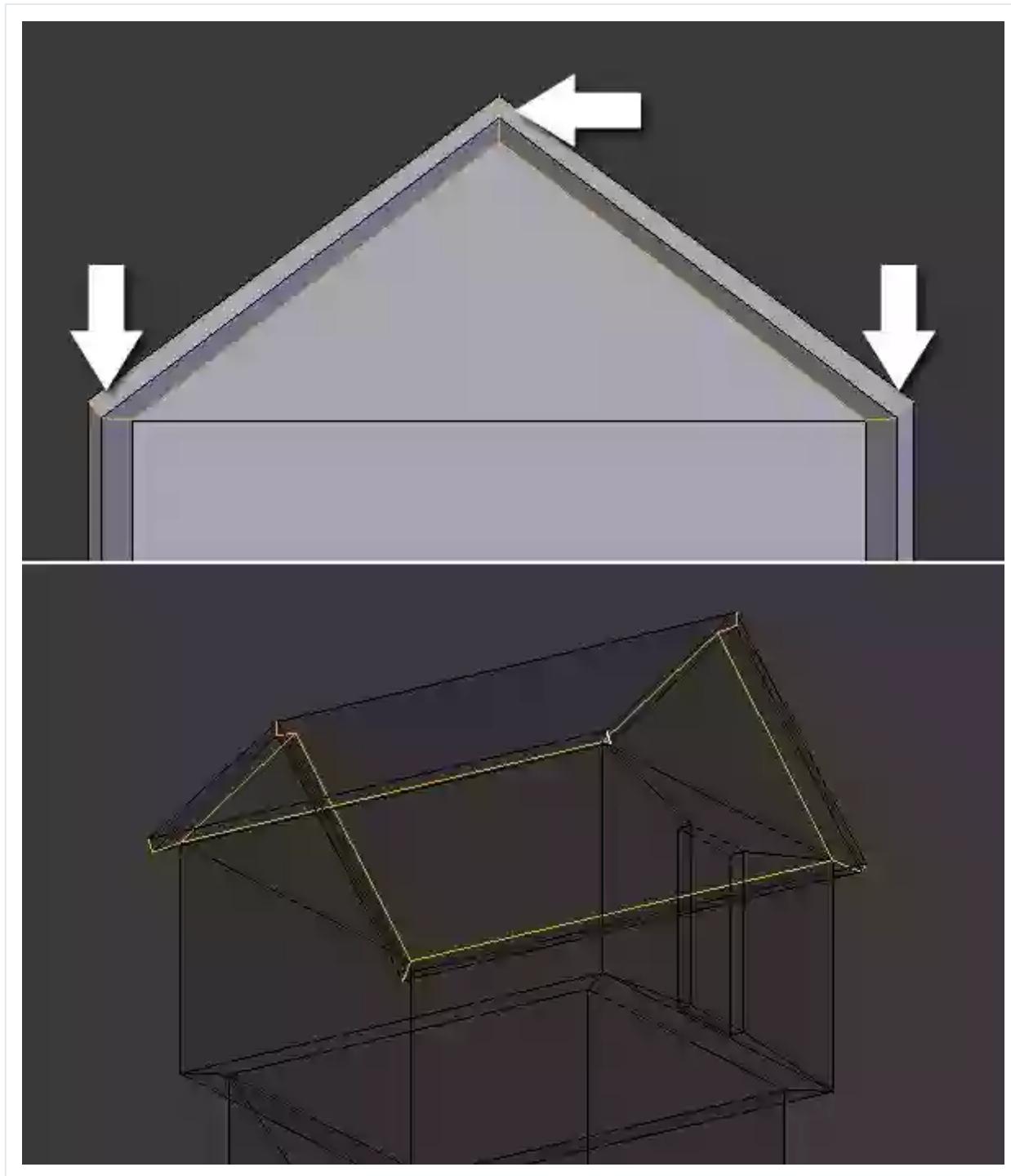
Step 3

Press **A** on the keyboard to deselect all. Hold **Shift** and then **right-click** on the edges where the roof starts, one by one, to select them all.



Select edges under the roof

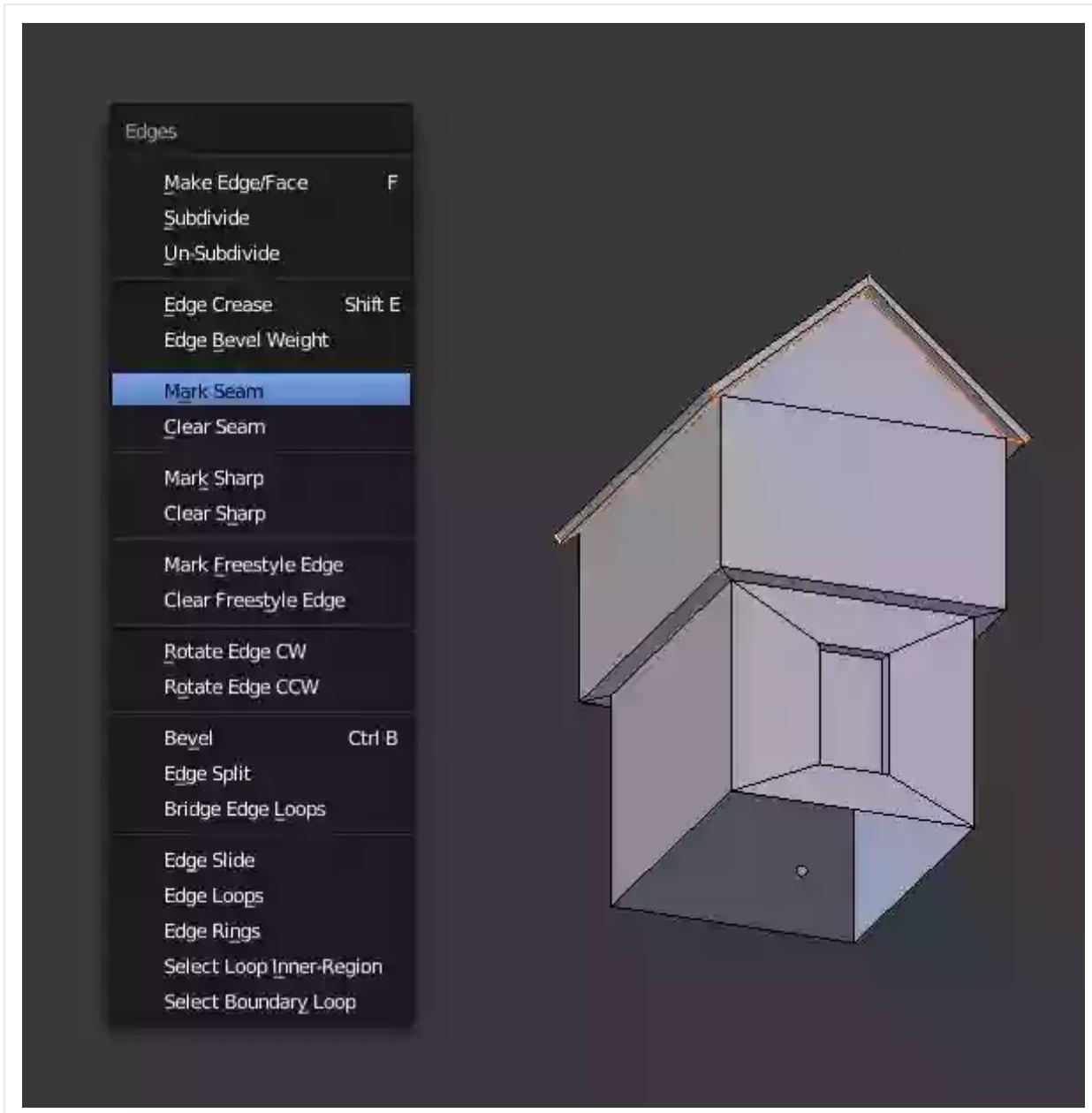
Hold **Shift** and **right-click** on the center edges as shown in the image from both front and back.



Select edges

Step 4

Press **Ctrl-E** to bring out the **Edges** menu and click on **Mark Seams**. The selected edges turns red.

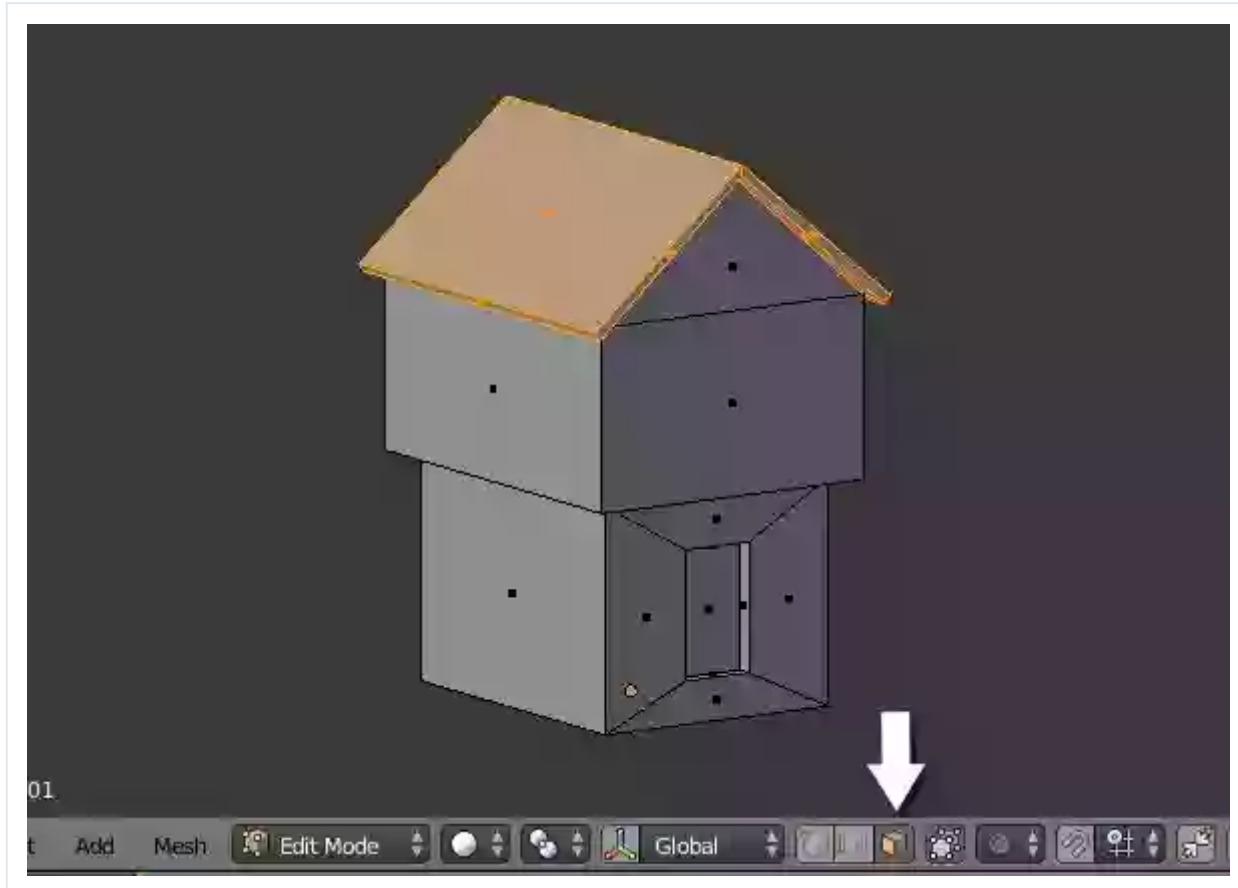


Mark selected edges as seams

I have marked the seams such way that the roof gets completely separated. To test this, switch to **Face** select mode. Move the mouse over the roof and press **I**.

Mouse over the tool and press E.

All the faces separated by the seam are now selected. If the whole mesh got selected, then you might have missed some edge to mark seam.

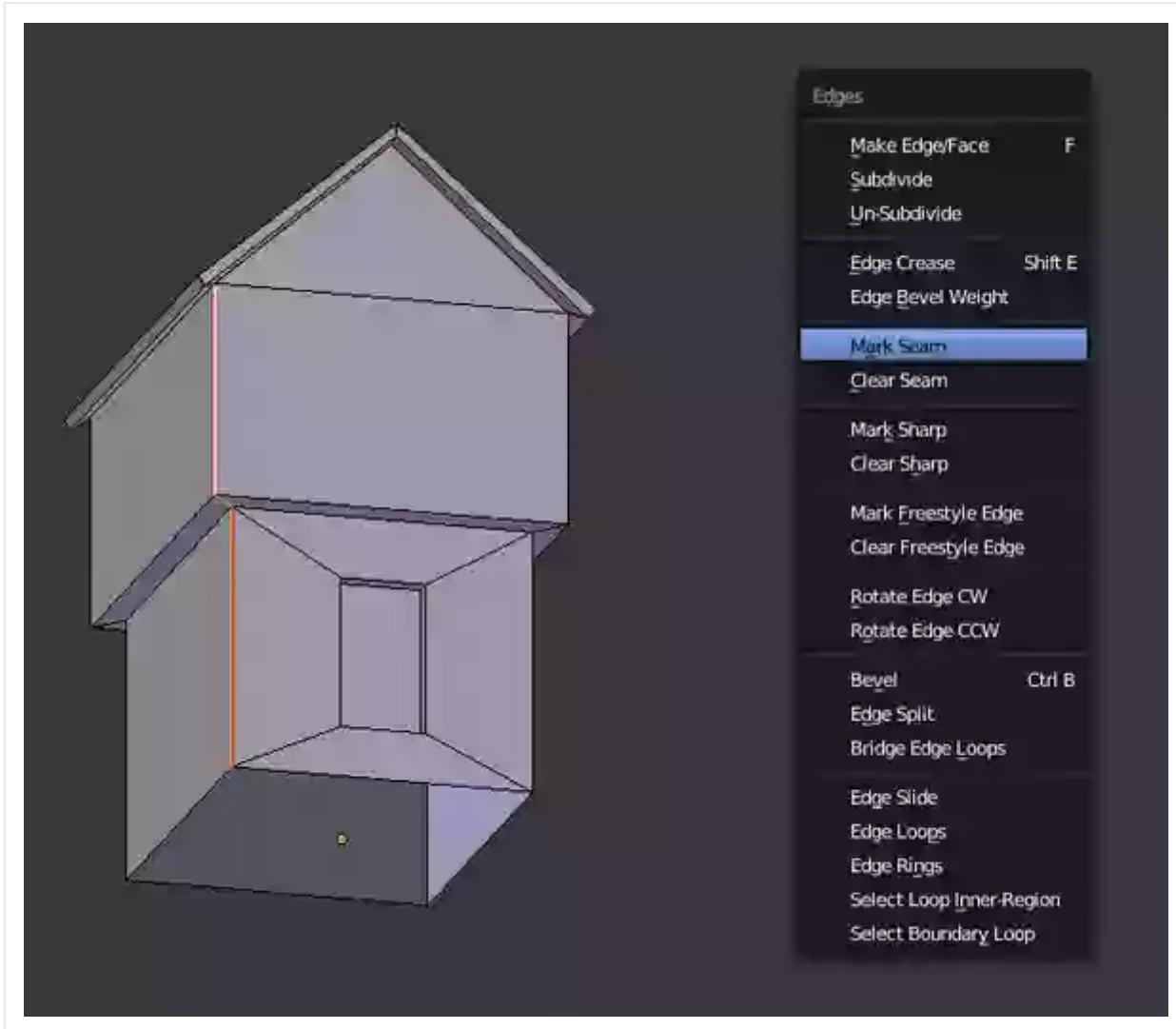


Test the seams

Advertisement

Step 5

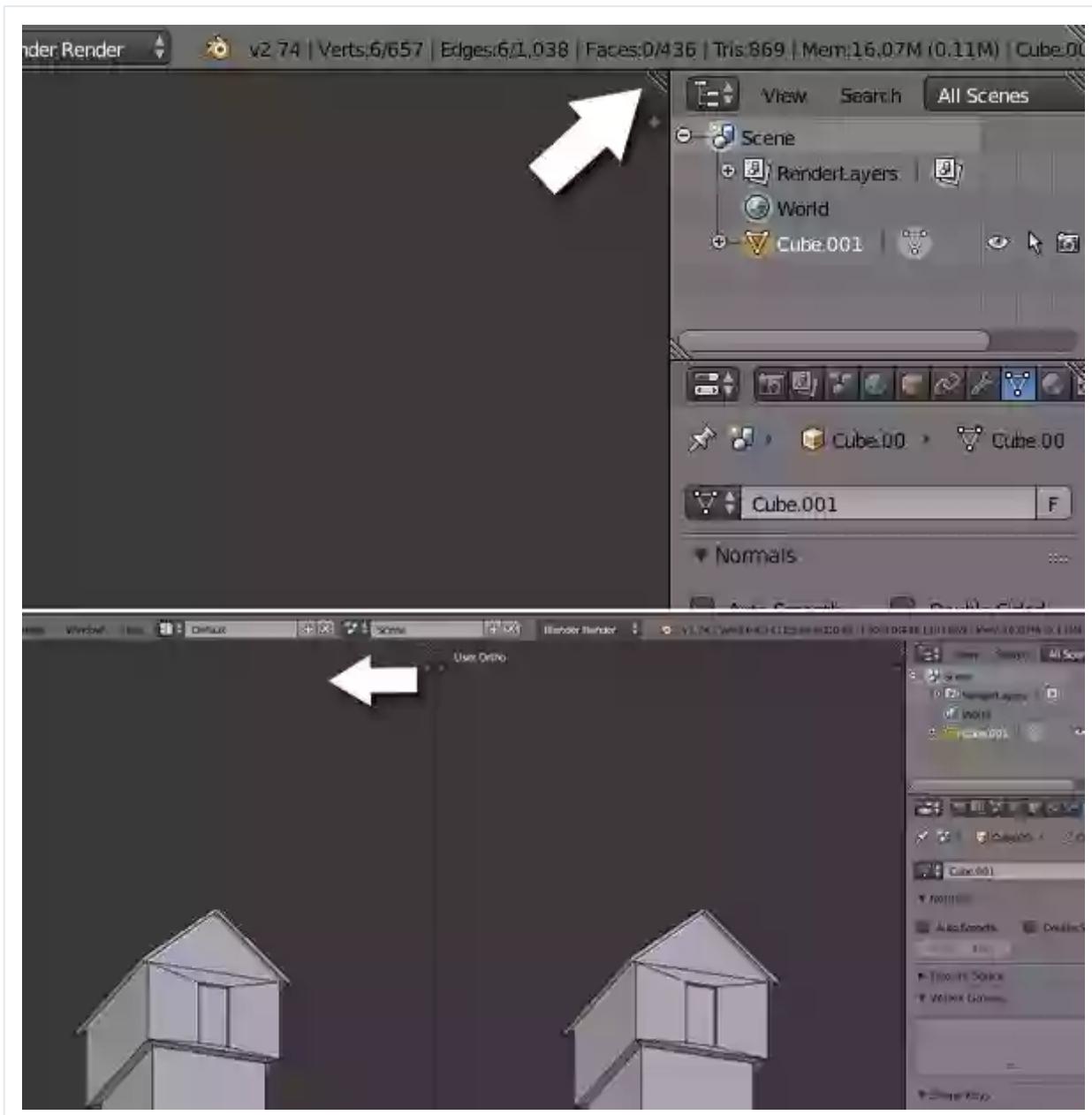
Switch back to **Edge-select** mode. Hold **Shift** and then **right-click** on the side edges of the house as shown in the image. Press **Ctrl-E** and click on mark seams.



Mark Seams on sides

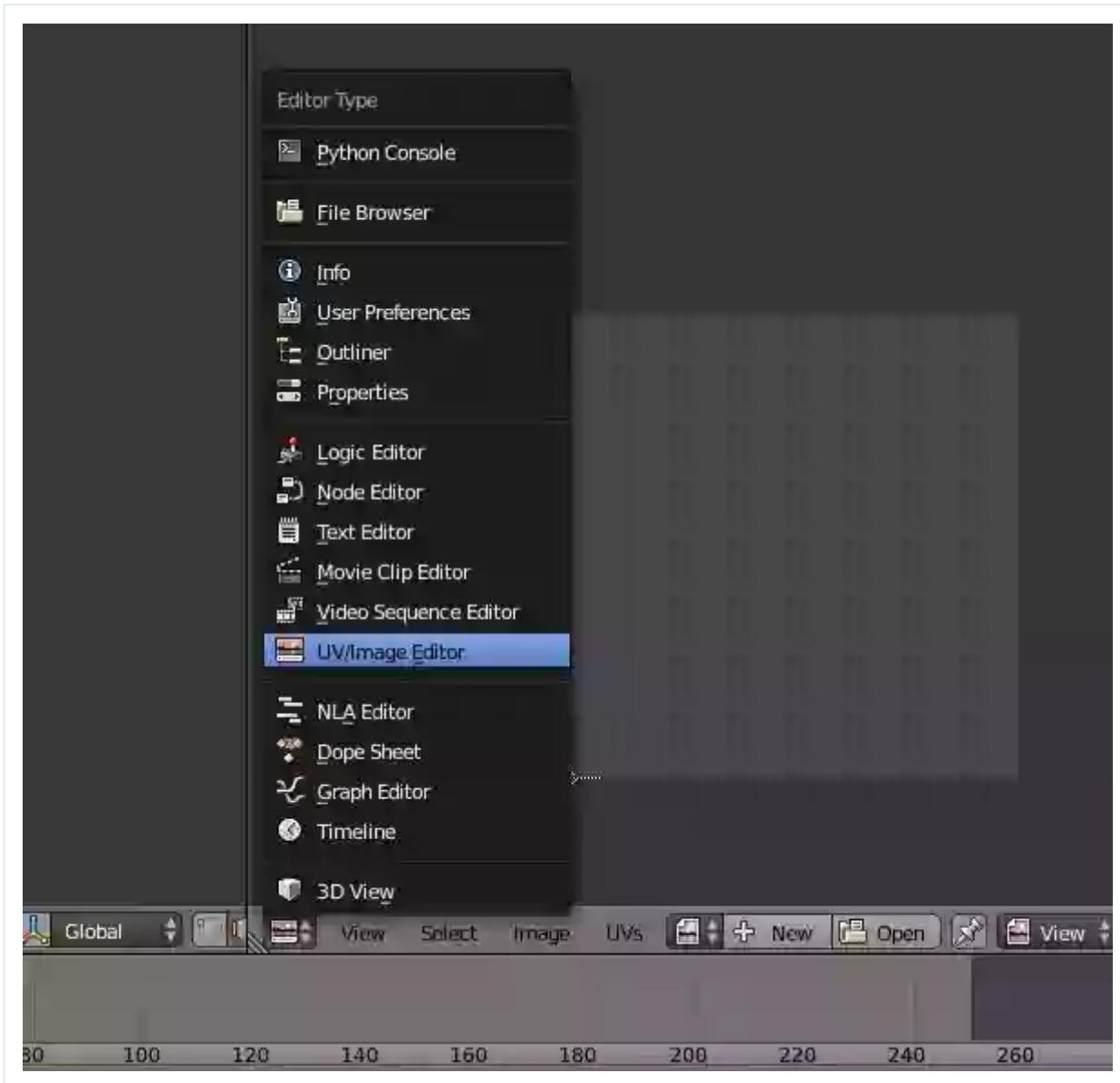
Step 6

Drag the 3D view from the corner to split it into two.



Split the viewport

Click on the **Editor Type** button and select **UV/Image editor**.



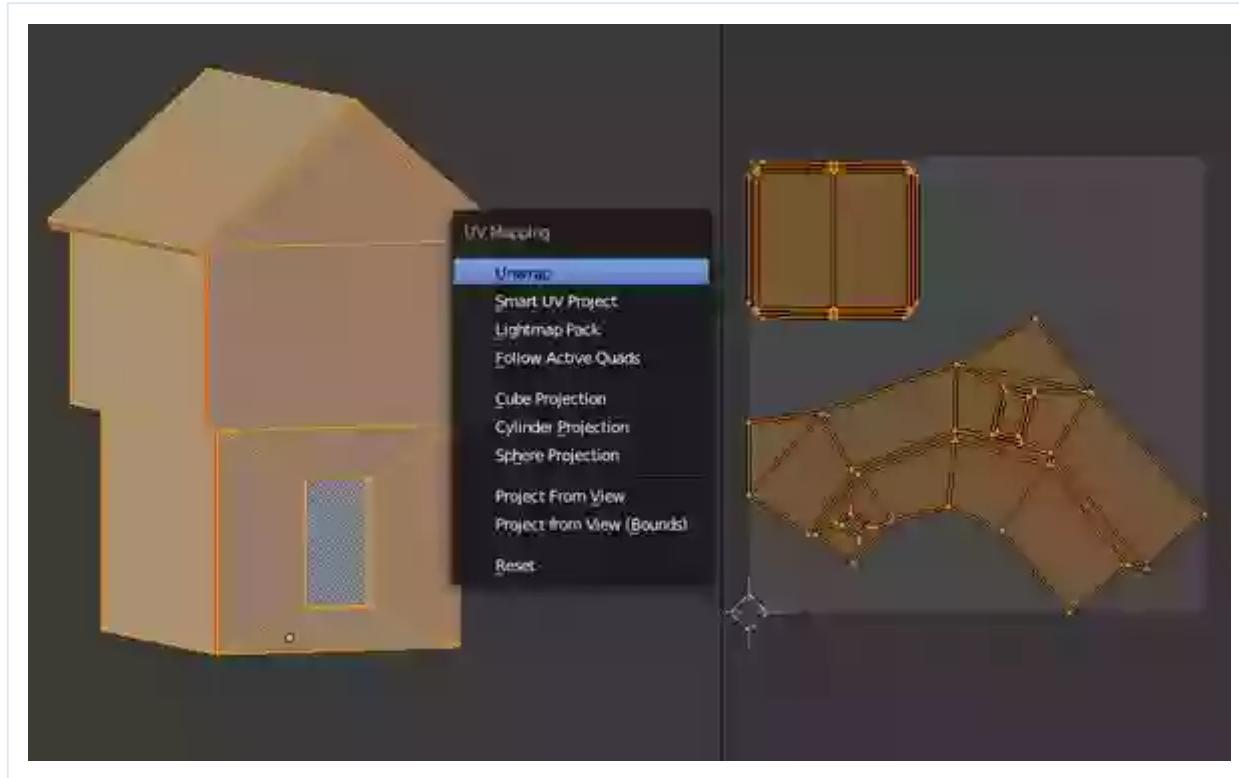
Open UV Editor

Step 7

Now select all faces by pressing **A** key, as you need to unwrap the whole, visible, mesh.

Press **U** to bring out the **UV Mapping** menu and click on **Unwrap**.

The selected faces are unwrapped in the **UV Editor**.



Unwrap the mesh

Step 8

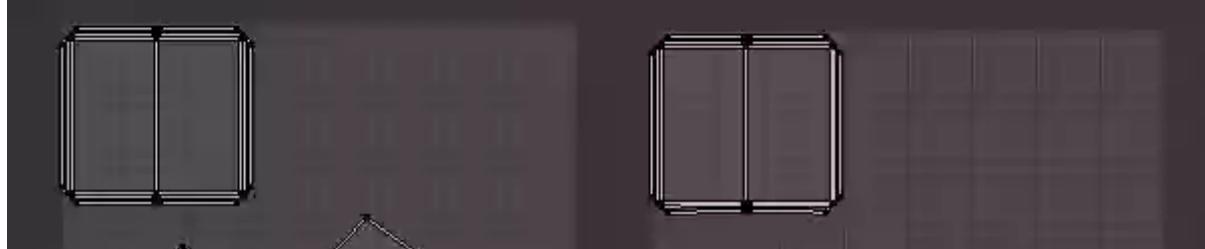
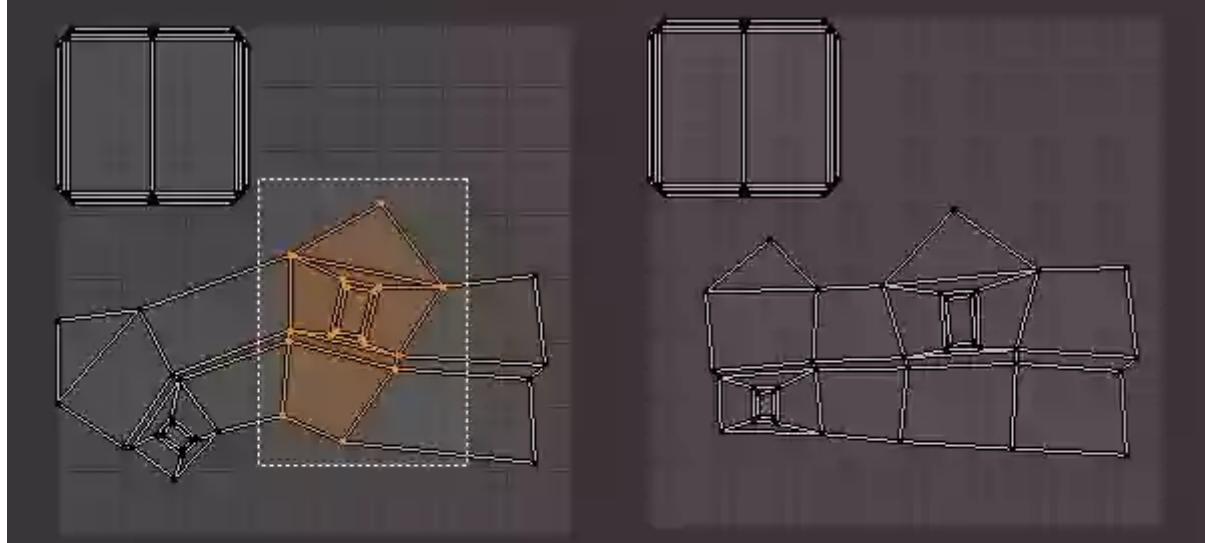
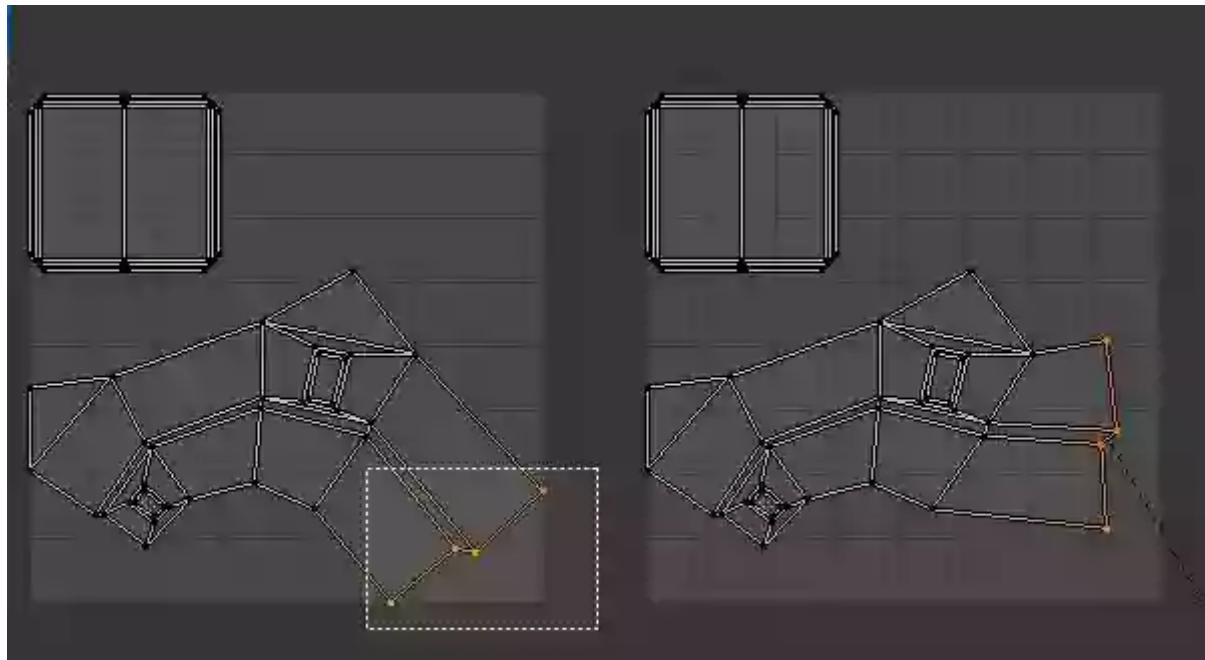
In the **UV Editor**, adjust the points to give the packs or UV *islands* a neat and tidy shape. The commands in the **UV Editor** are same -

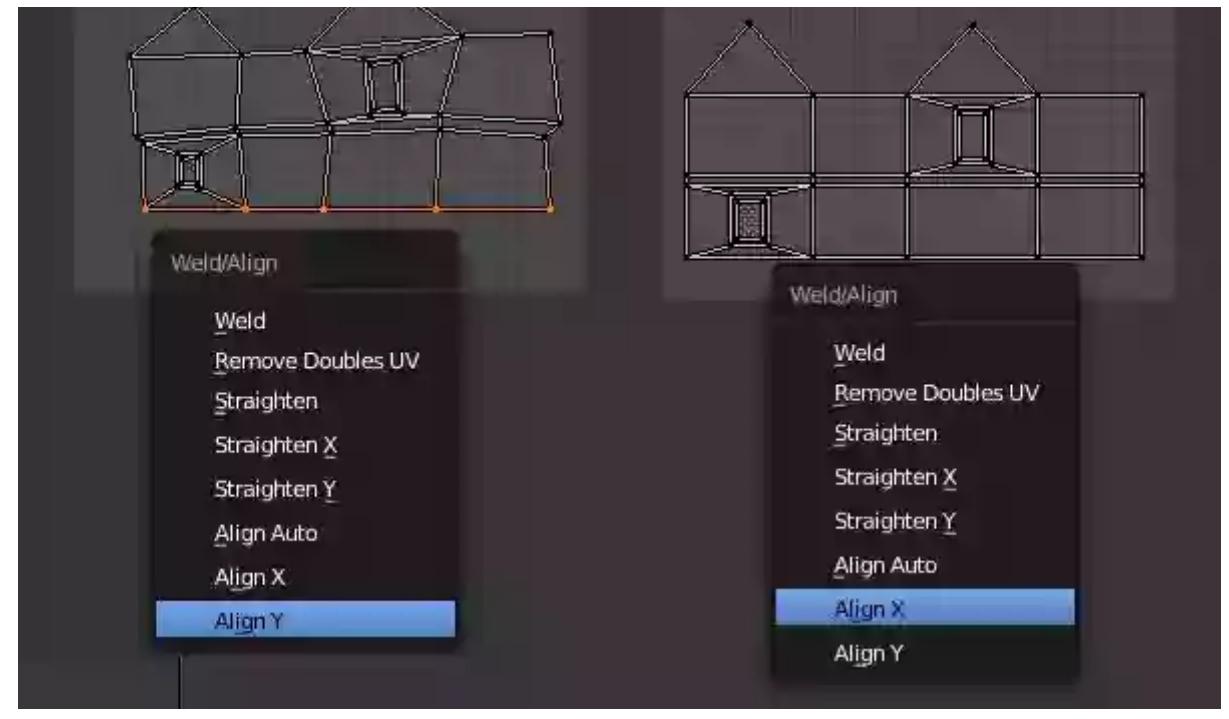
- Hover over any group and press **L** to select the group
- Select any vertex or vertices of the group and press **Ctrl-L** to select the whole group with connecting vertices
- Hold **Shift** for multiple select
- **A** to deselect / Select all
- **W** to bring out the weld/Align menu

Here are other commands for the UV editor, though they are same as the editing commands in 3D view.

- **G** to move
- **R** to Rotate
- **S** to scale
- Mouse wheel to Zoom in/out
- **Shift-Middle mouse button and drag** to Pan

To maximize the **UV Editor**, move the mouse over the **UV Editor** and press **Ctrl-Up Arrow**. Press **Ctrl-Up arrow** to toggle back.



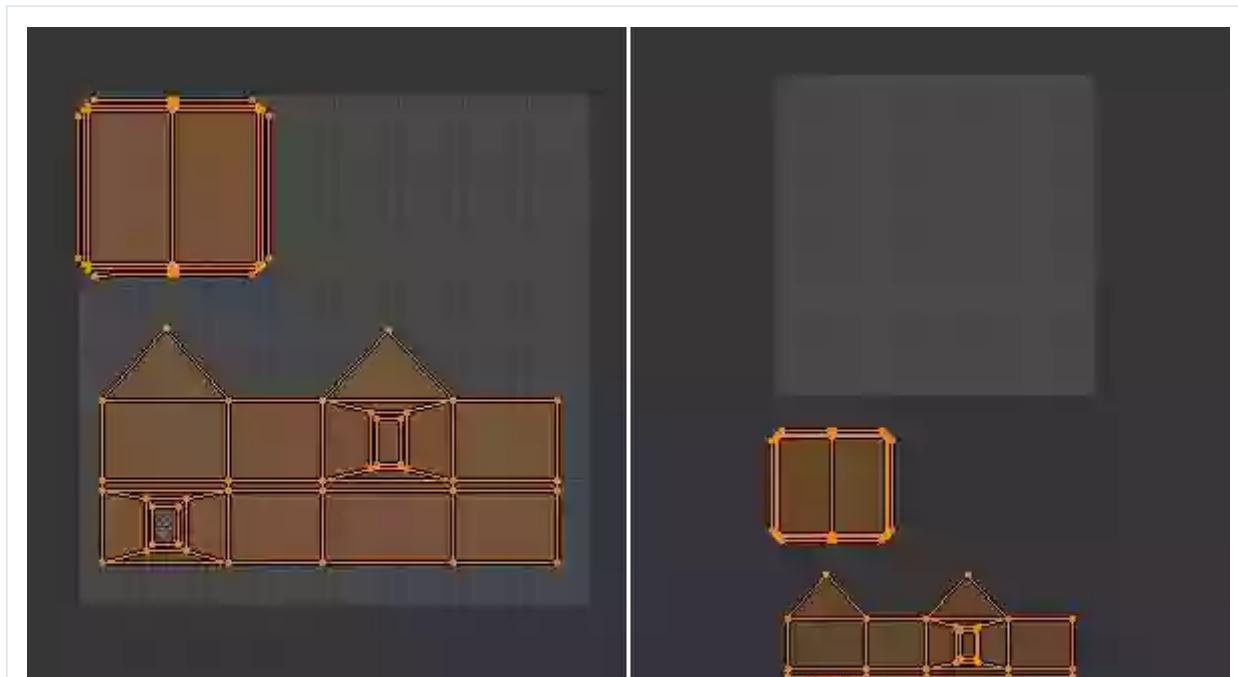


Edit the vertices in UV Editor

Step 9

In the **UV editor**, press **A** to select all vertices. Press **G** and move them away from the grid plane.

I did this because the UV mesh of all mesh will land here and would overlap each other. So to avoid this move them from the default position.

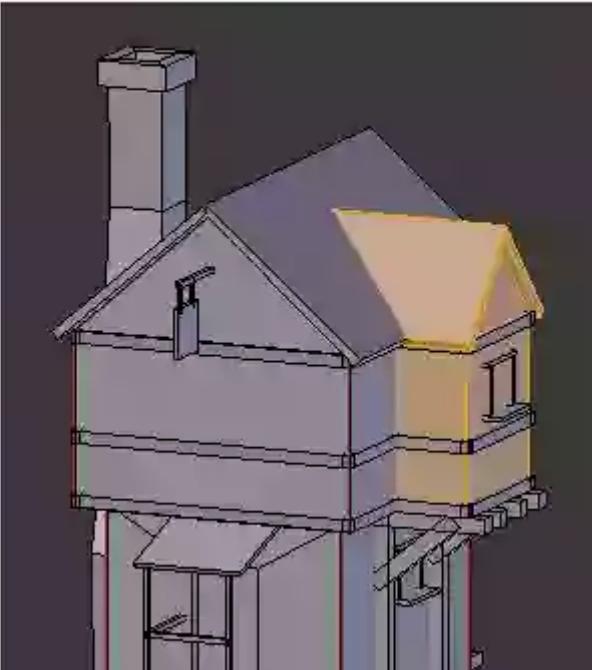
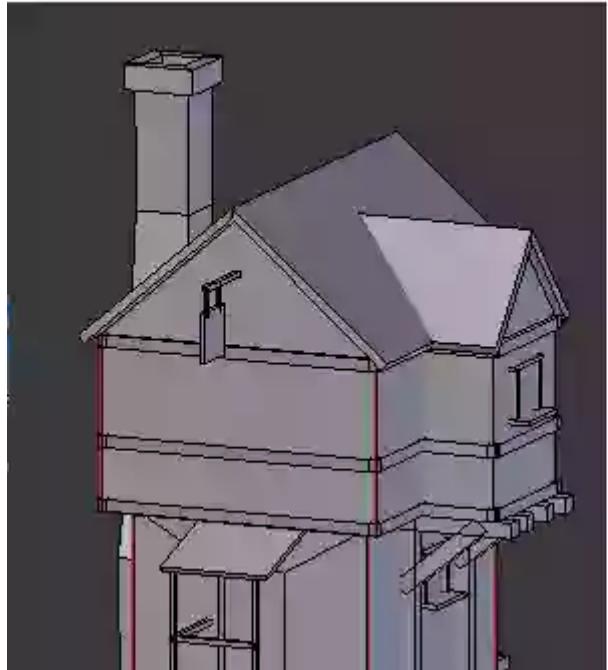
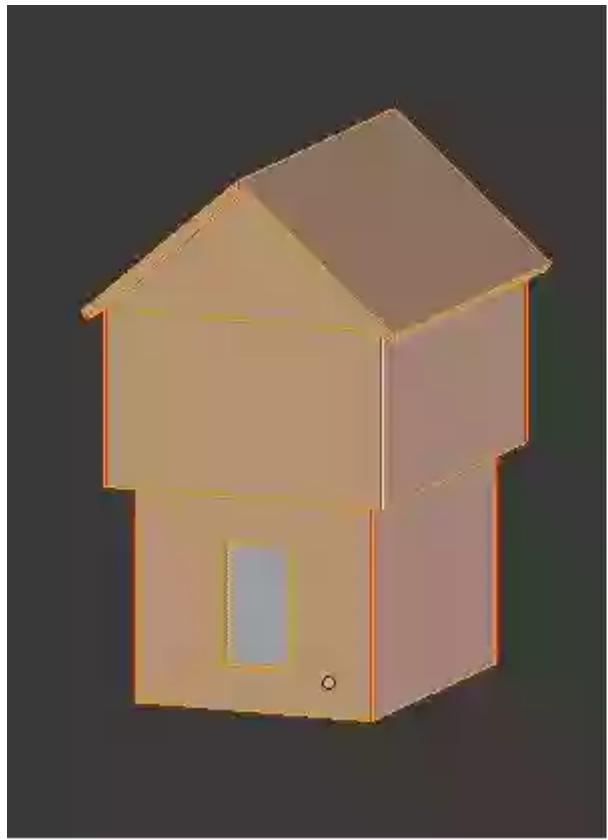


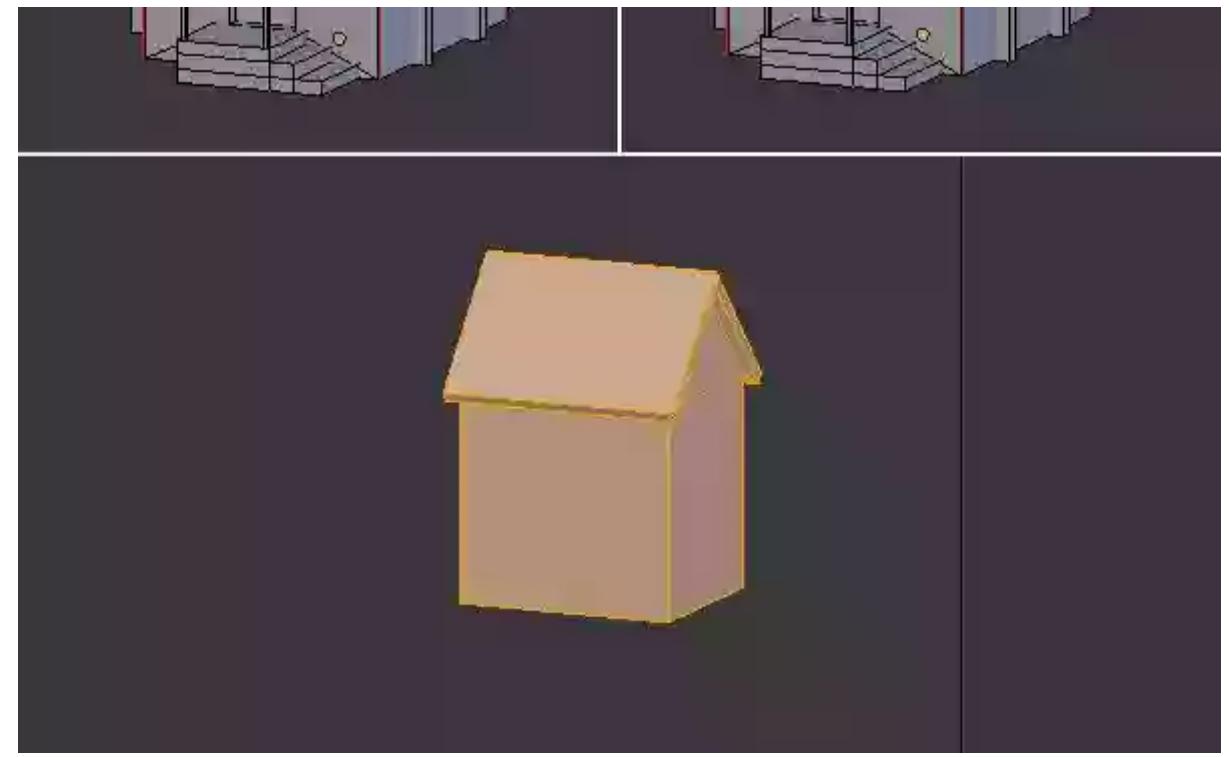


Move the mesh away from the grid

Step 10

- In the 3D view, press **Alt-H** to reveal all hidden vertices and mesh
- Press **A** to deselect everything. Select the side part of the building as it is a separate mesh
- Ensure you're in the **Edge-select mode**. Move the mouse over to any edge and press **L** to select all connected edges
- Press **Shift-H** to hide all the unselected mesh





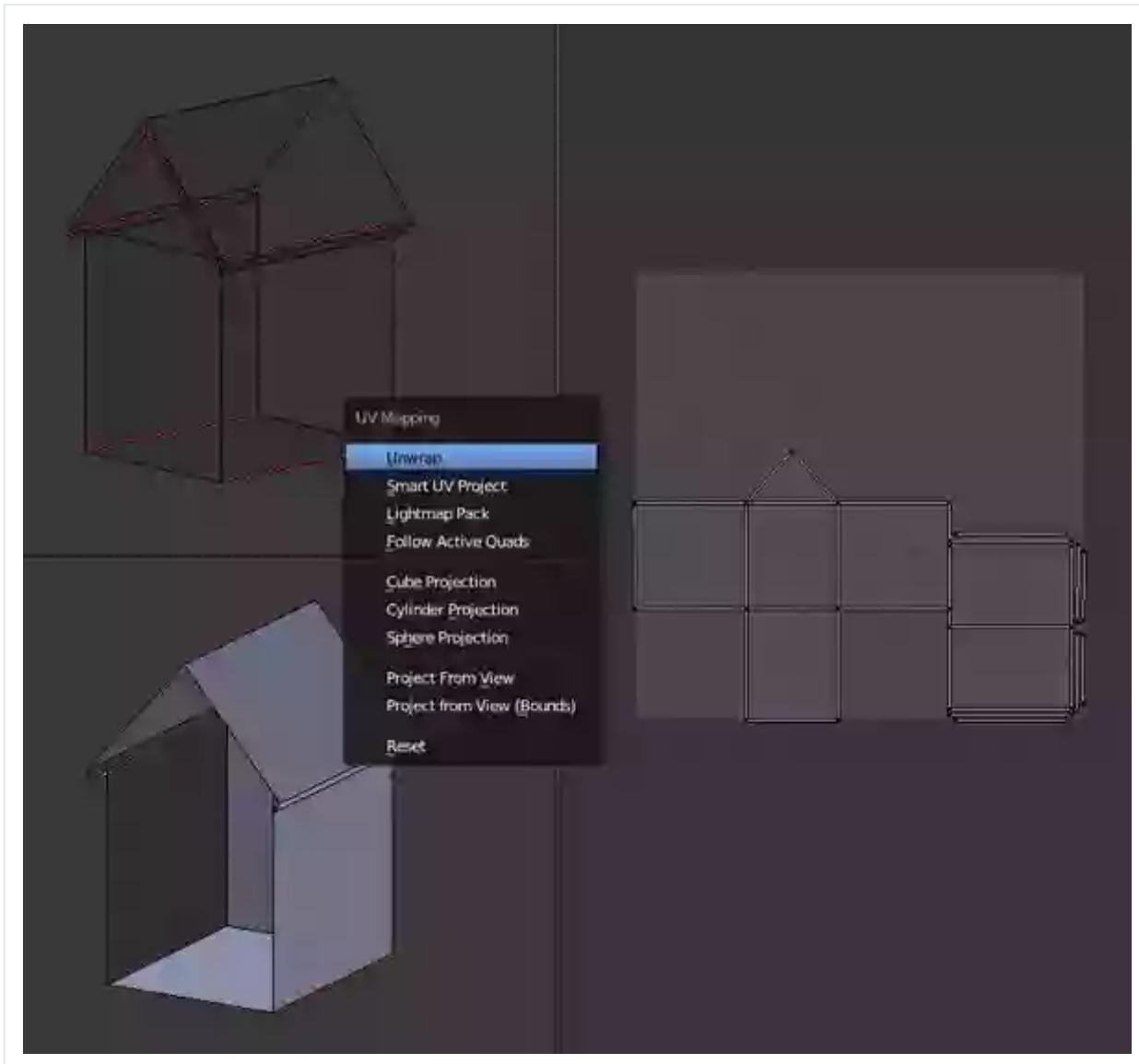
Select the side part and hide the rest

Step 11

Similar to the main building, mark seams at the edge of the roof and this time, two at the bottom. **Right click** to select edge and **Ctrl-E** to mark seams.

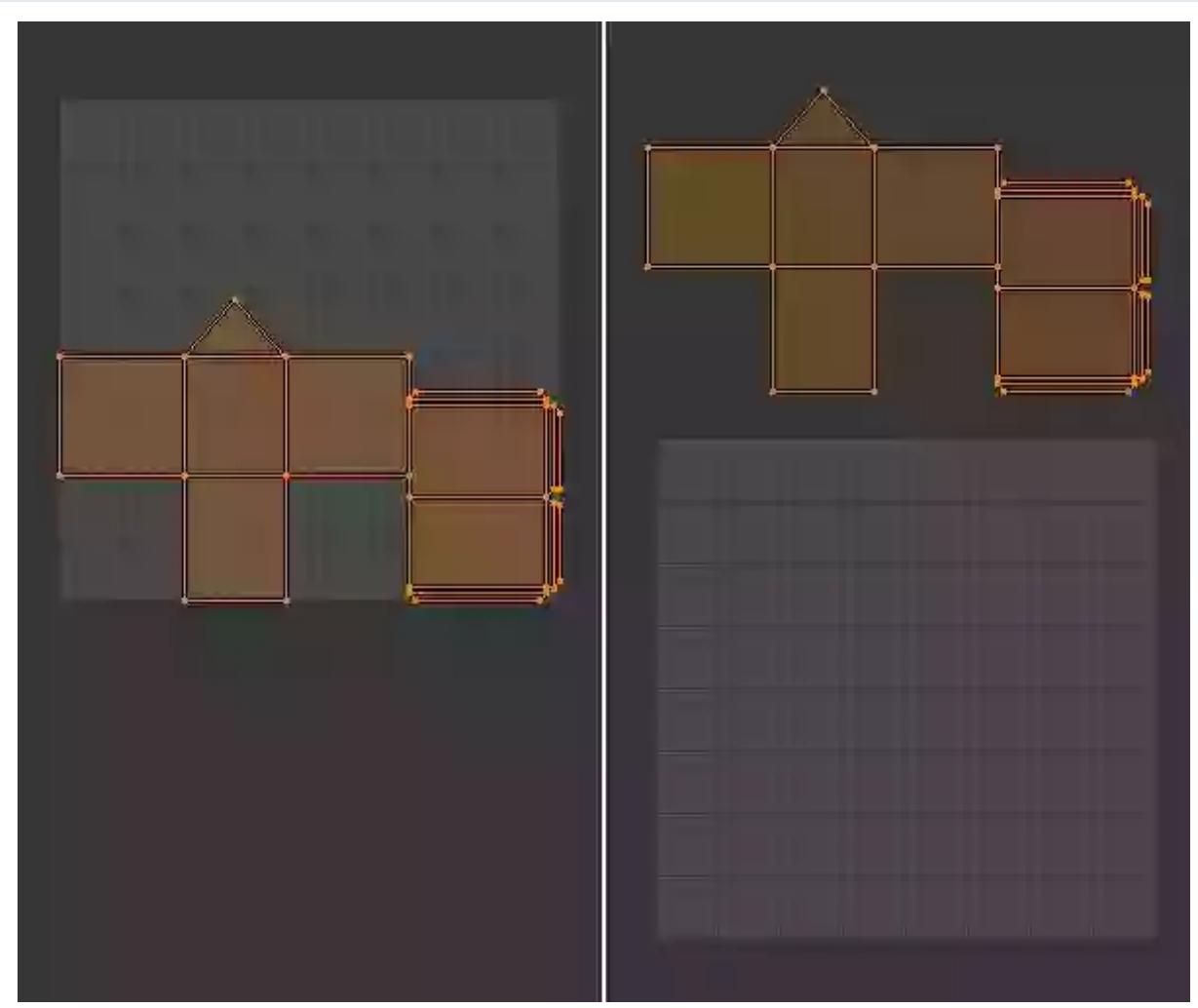
Select all of the mesh with **A** key and then press **U** and select unwrap. Check the seams and try different edges for seams to unwrap well.

If you didn't delete the back face, ensure you do it before unwrapping



Step 12

In the **UV editor**, press **A** to select all. Press **G** and move to another area so that they don't overlap with previous or next unwrapped data.

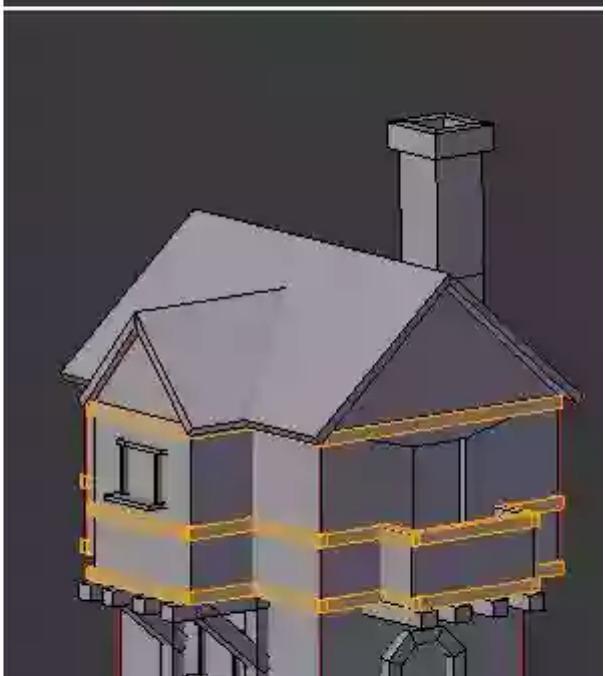
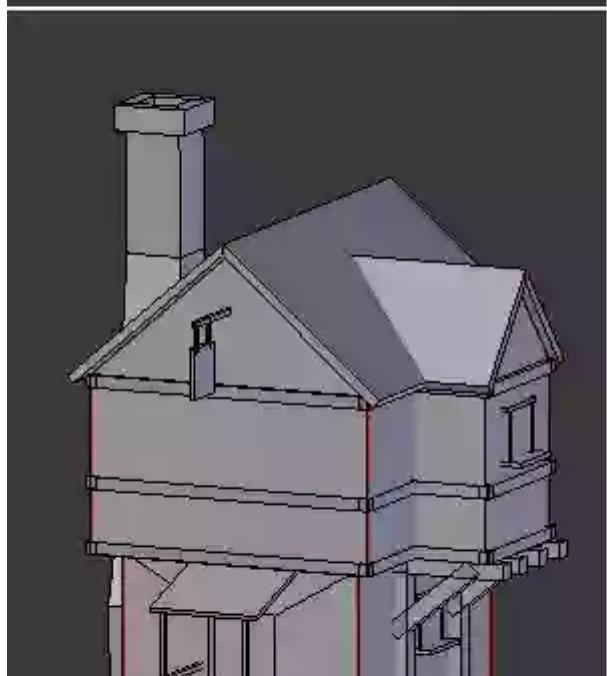
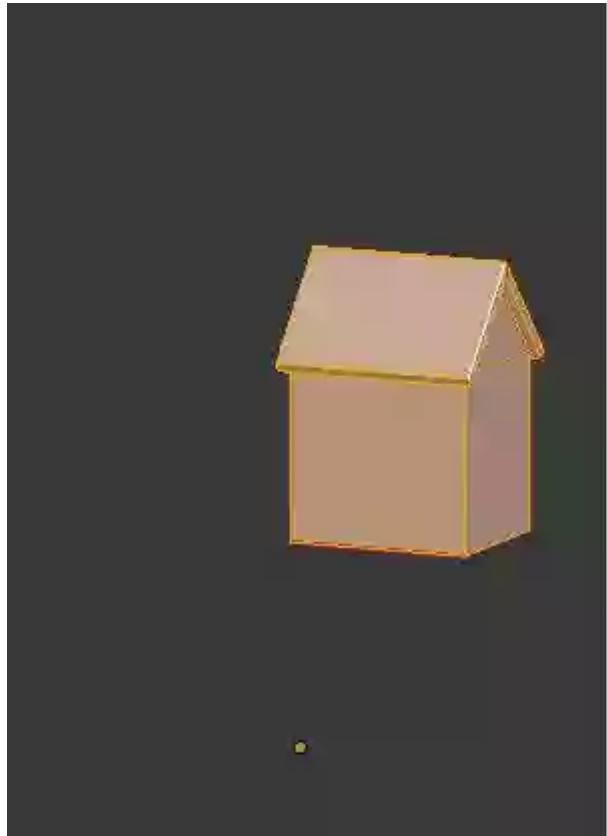


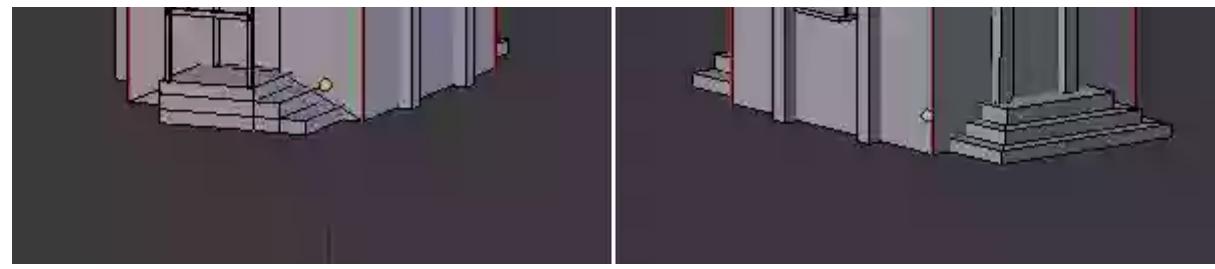
Move the selected mesh away from the center

Step 13

Press **Alt-H** to reveal the hidden mesh. Press **A** to deselect all.

Select only the planks created all around the main building. If you are in **Edge-select** mode, hover the mouse over the edge of any of the plank and press **L** to select it. Repeat this to select all.



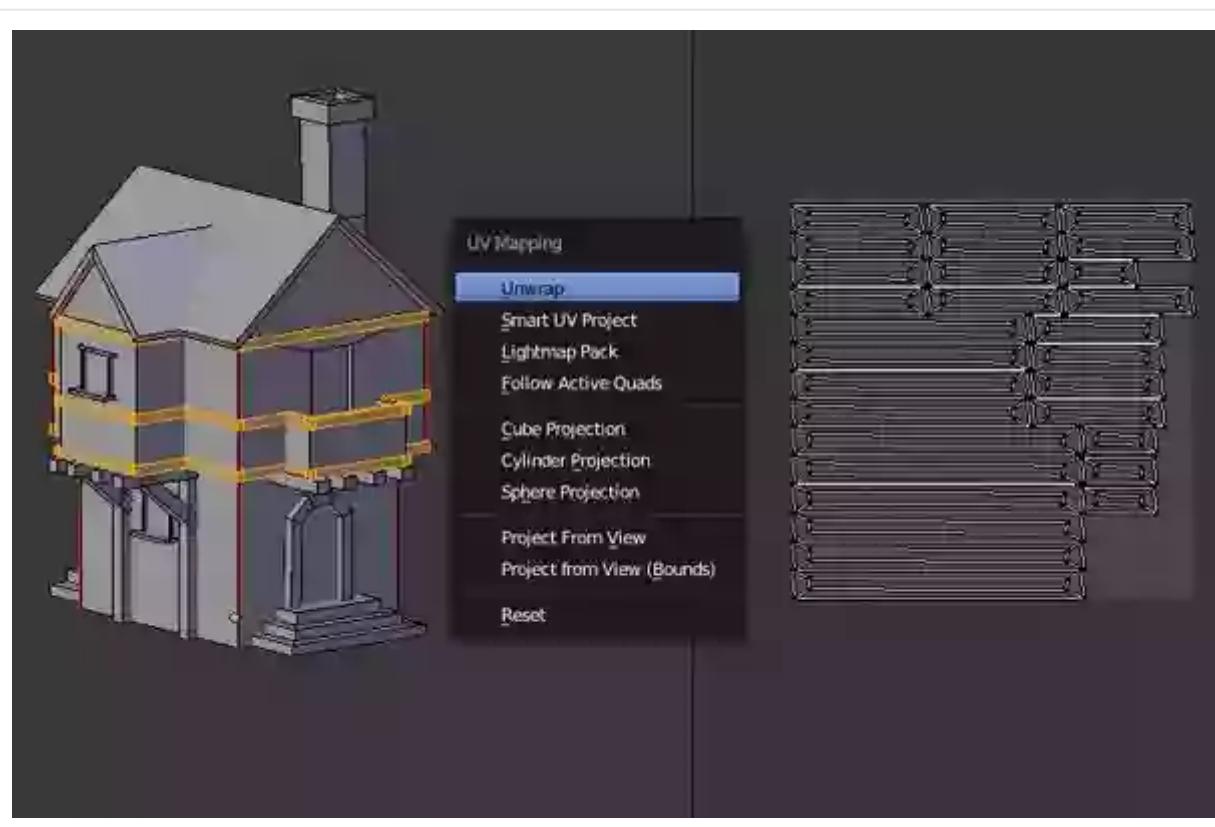


Select all planks

Step 14

With all the planks selected, press **U** and click on unwrap. Since I've deleted the faces at the back of the planks, I don't need to mark the seam.

If you didn't delete the face then you have to create seams so that they get unwrapped nicely.

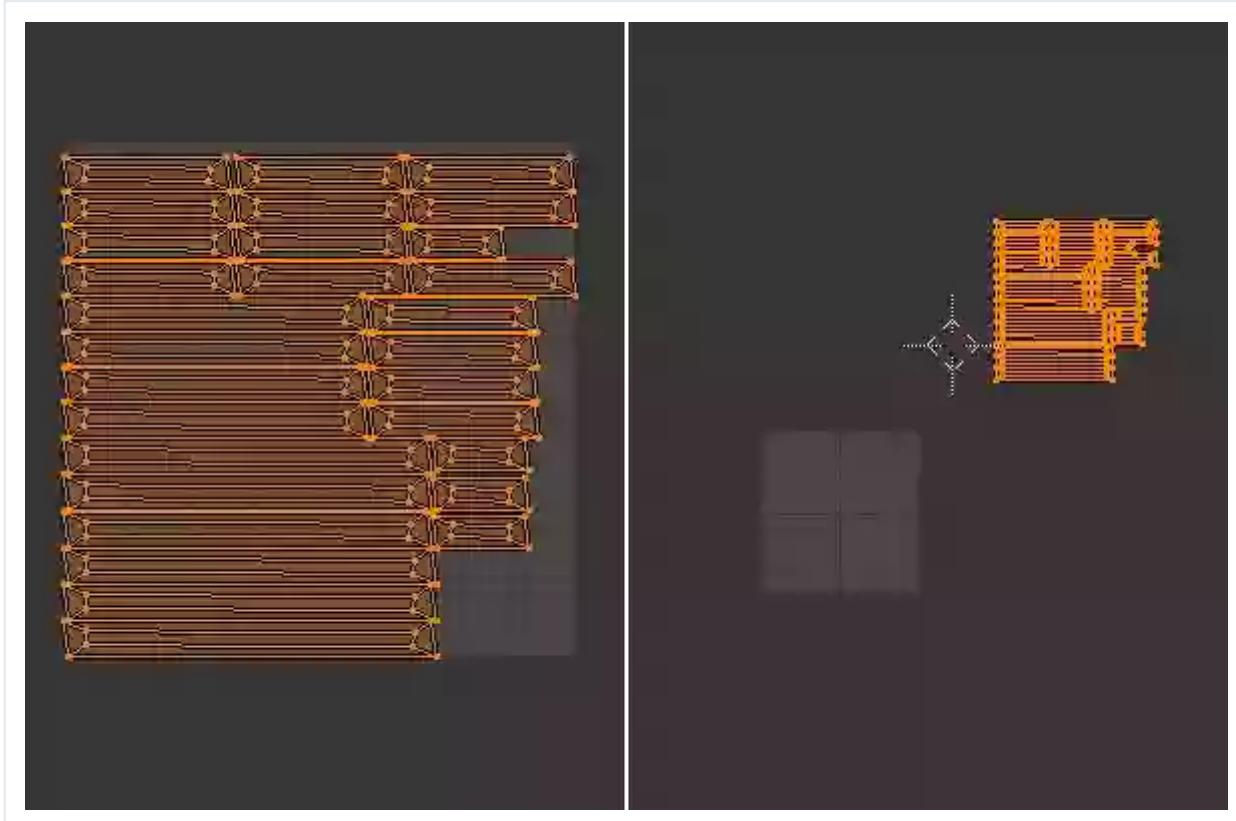


Unwrap the selected mesh

Step 15

In the **UV Editor** press **A** key to select all vertices. Press **G** and

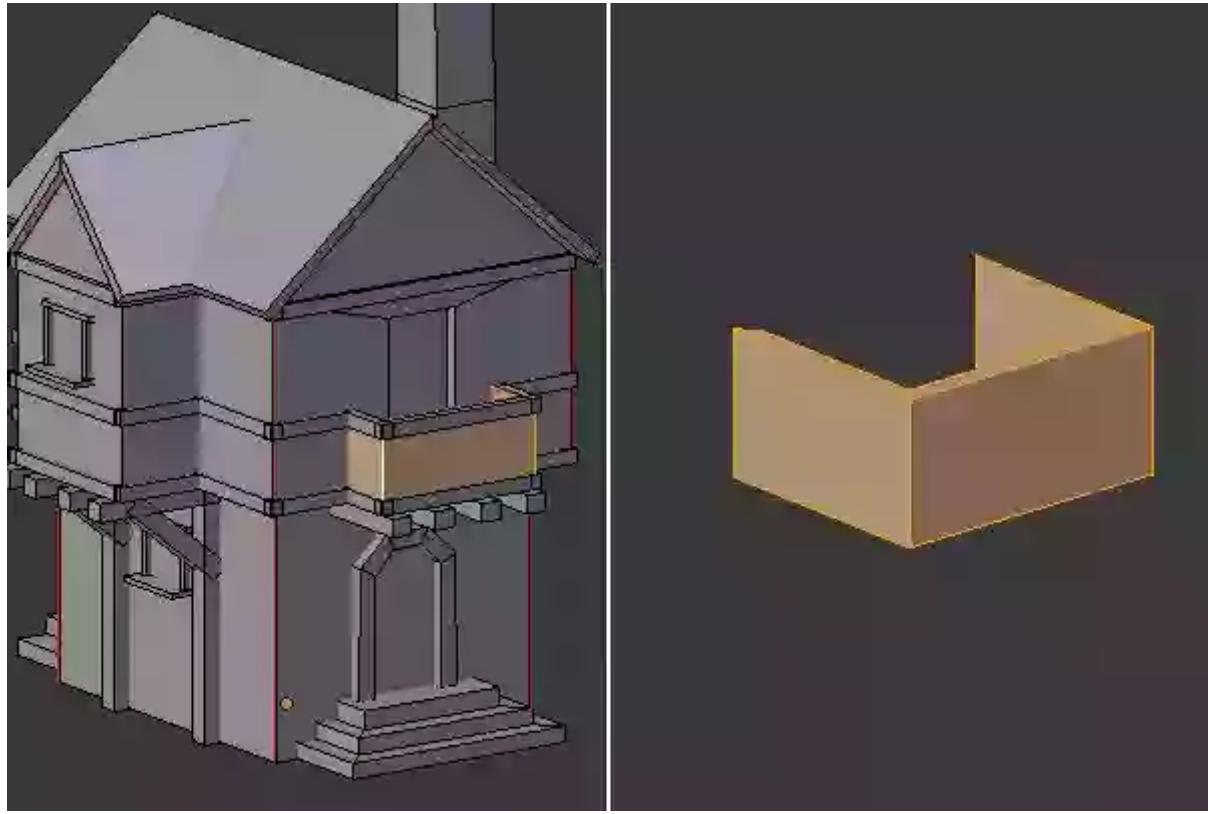
move them away from the main grid.



Move the selection away

Step 16

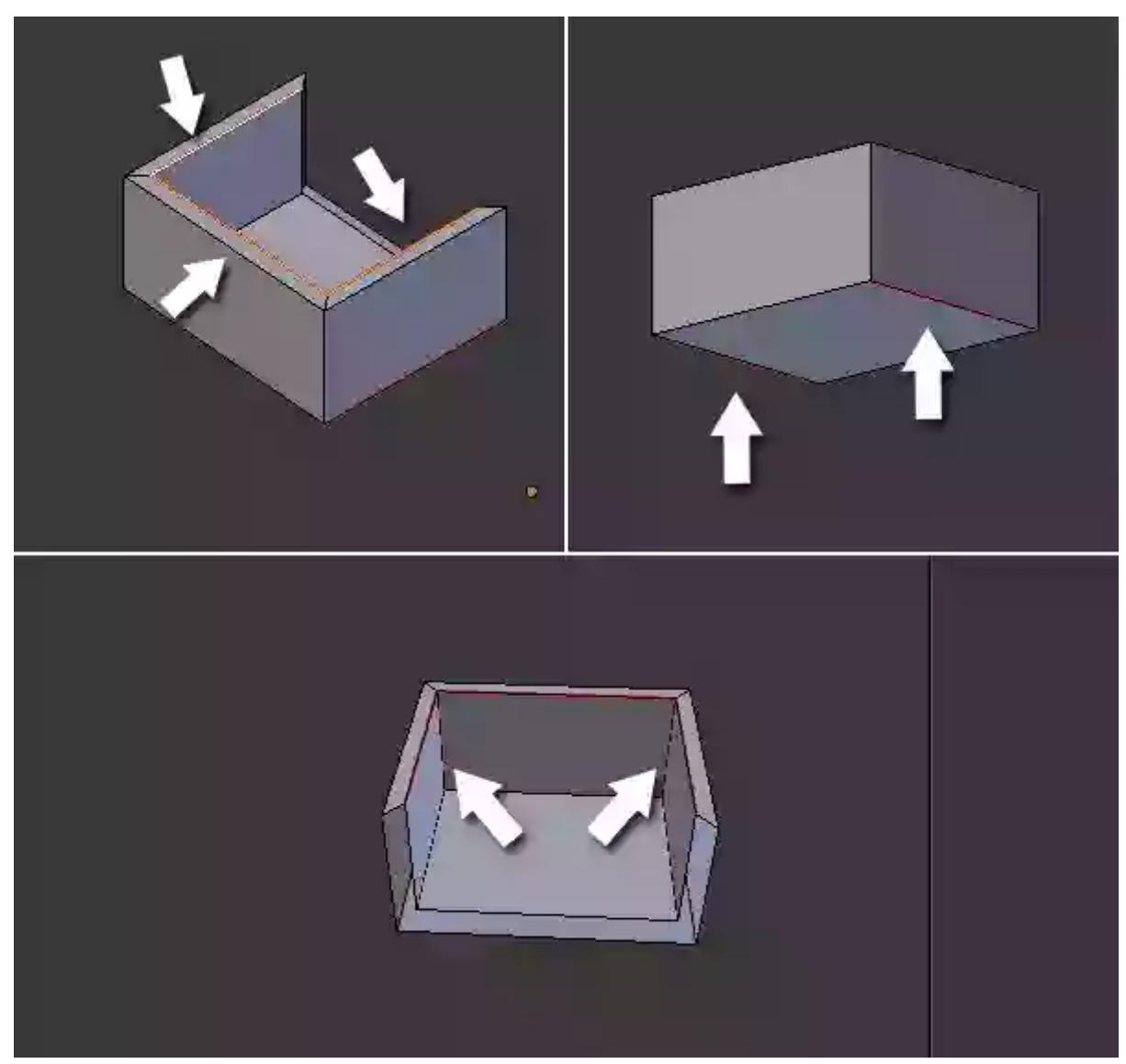
Press **A** to deselect everything. **Right-click** on the edge of the balcony and press **Ctrl-L** to select all vertices connected. Press **Shift-H** to hide unselected mesh.



Select the balcony and hide the rest

Step 17

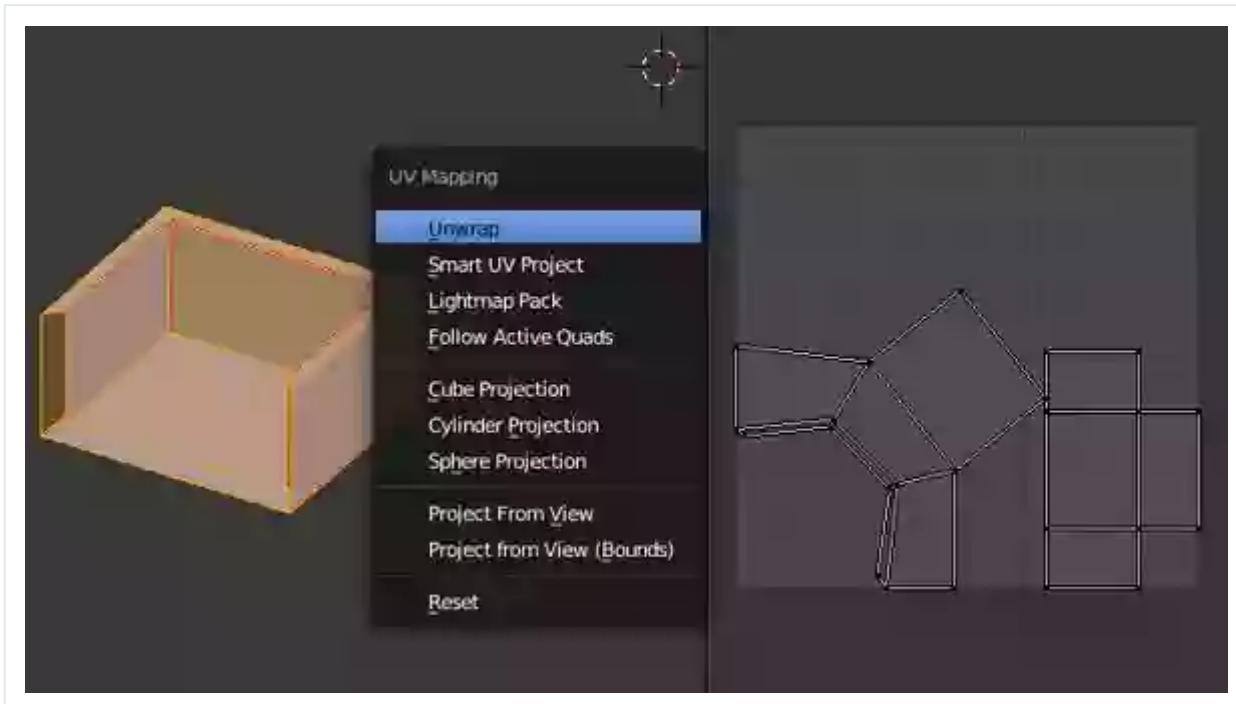
Hold **Shift** and then **right-click** on the edges as shown in the image to select them. Press **Ctrl-E** and mark them as **seams**.



Mark Seams

Step 18

Press **A** to select all vertices/edges. Press **U** to bring out the **UV Mapping** menu and click on **Unwrap**.

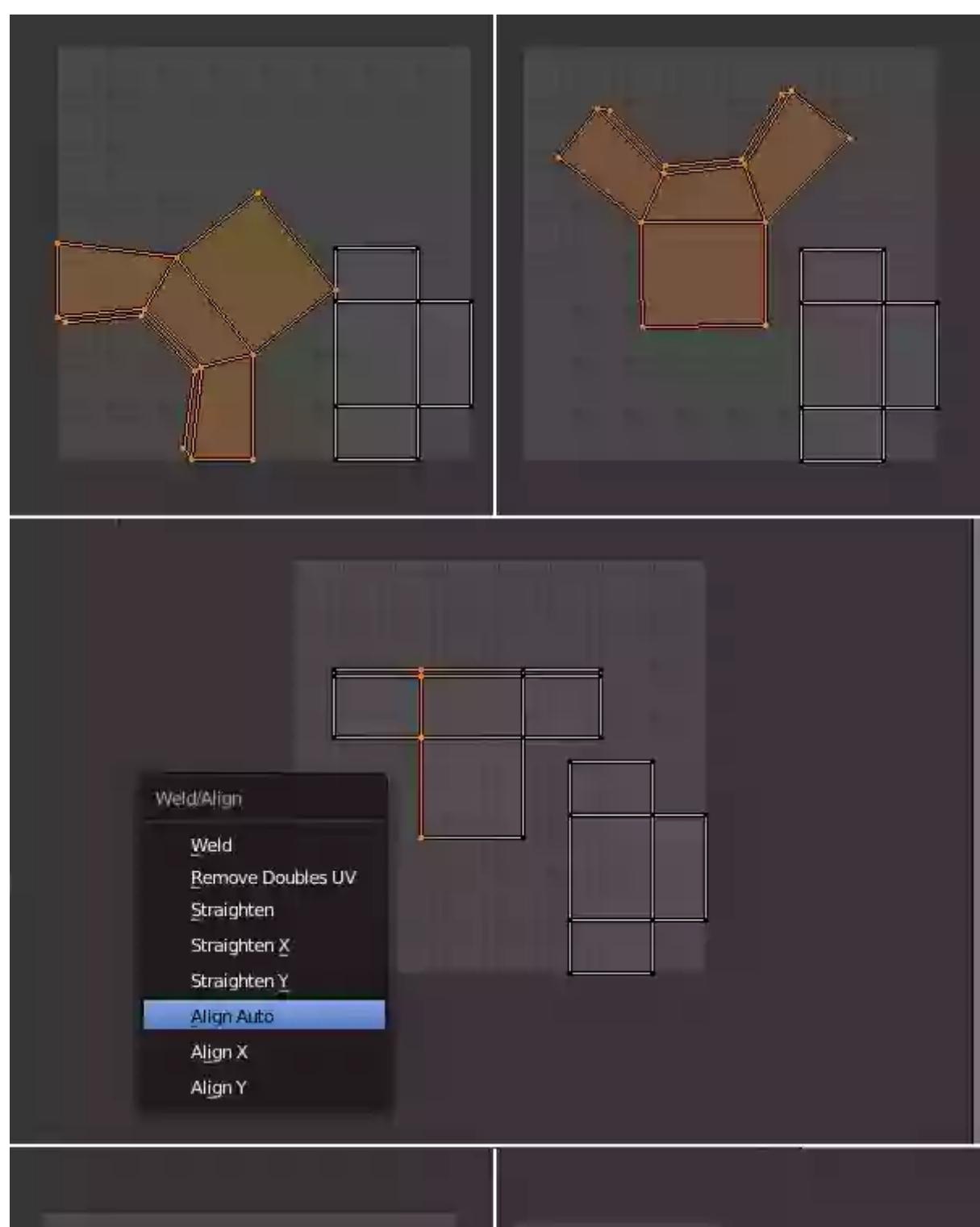


Unwrap the balcony

Step 19

Select and adjust the vertices in the **UV Editor**. The commands are written in step 8. Press **W** in the **UV Editor** to bring out the align menu. Choose according to your needs.

Select all vertices with **A** key and move it away from the main grid with **G** key.

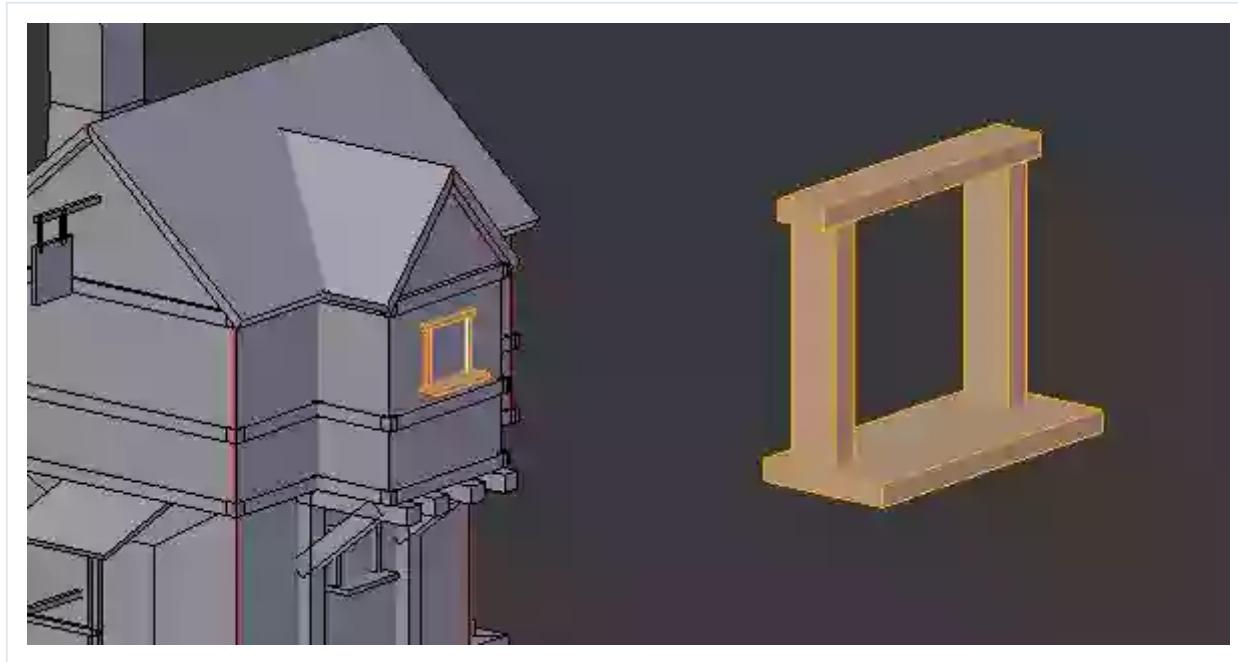




Tweak the vertices in UV Editor

Step 20

Press **Alt-H** to reveal the hidden mesh. Select only the window and press **Shift-H** to hide rest.

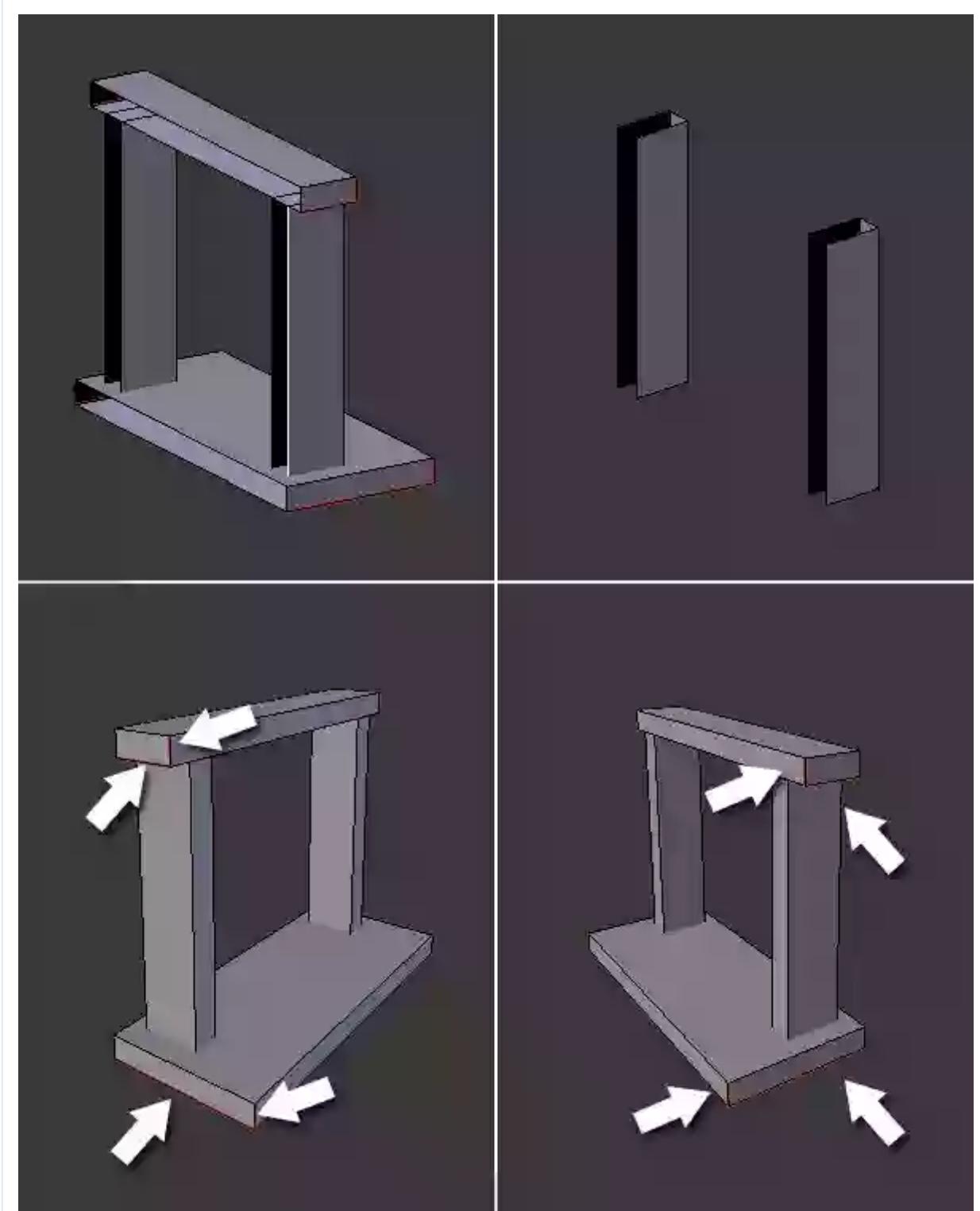


Select the window and hide the rest

Step 21

Mark seams as shown in the image. You have to practice a lot on where to mark seams. Experiment with different edges and

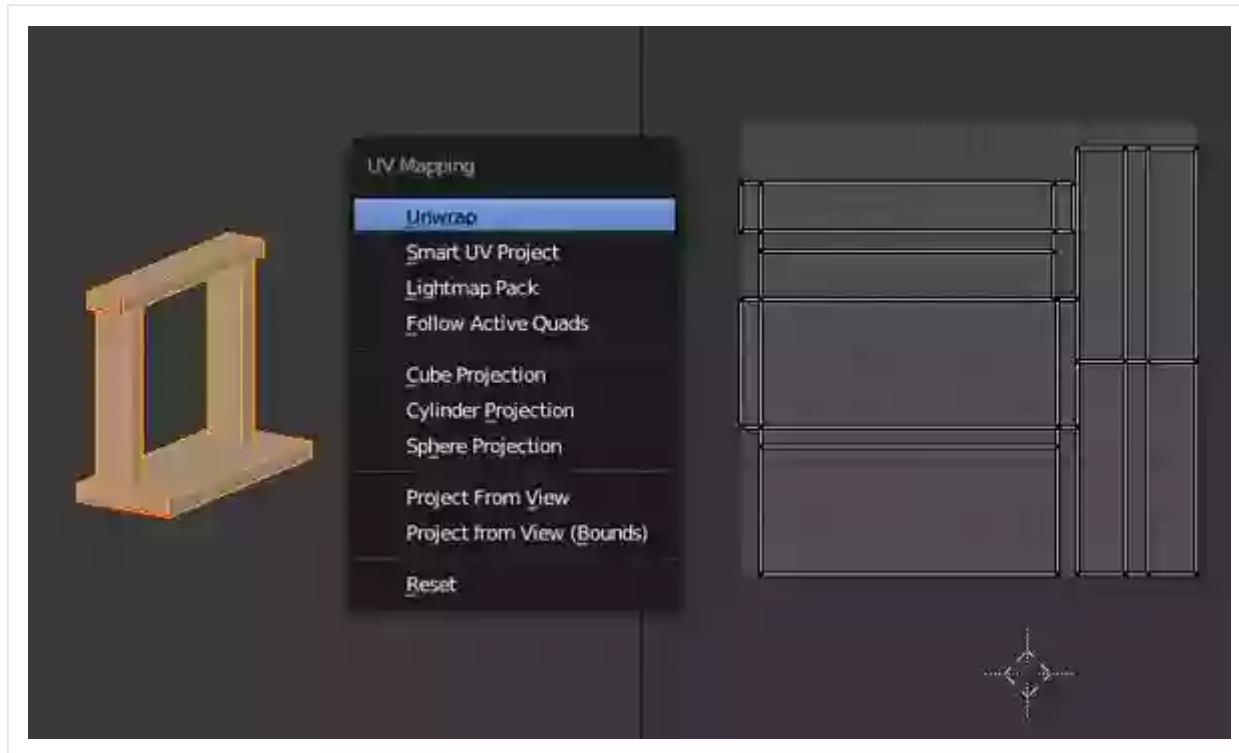
unwrap them to see different results. Ensure all the faces which are not needed are deleted.



Select edges and mark seams

Step 22

Select all edges of the window with **A** key. Press **U** to bring the **UV Mapping** menu and click on **Unwrap**.

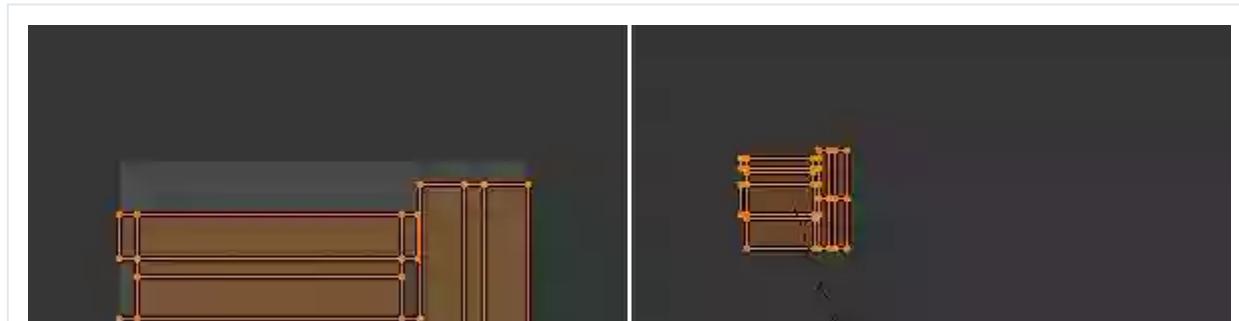


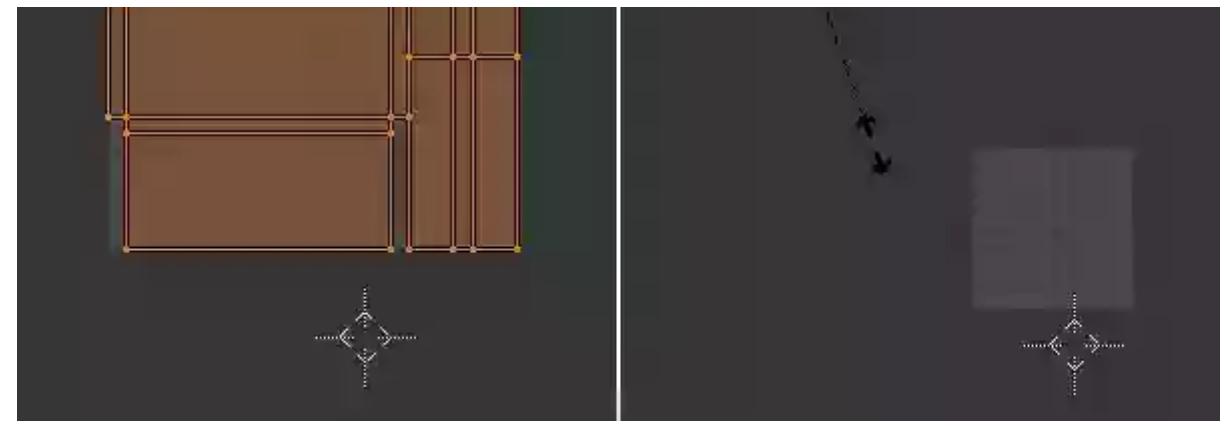
Unwrap the selected mesh

Step 23

Select all vertices in the **UV Editor** with **A** key and move it away from the main grid. Use **S** key to scale them down.

Do the same for the second window of the ground floor.

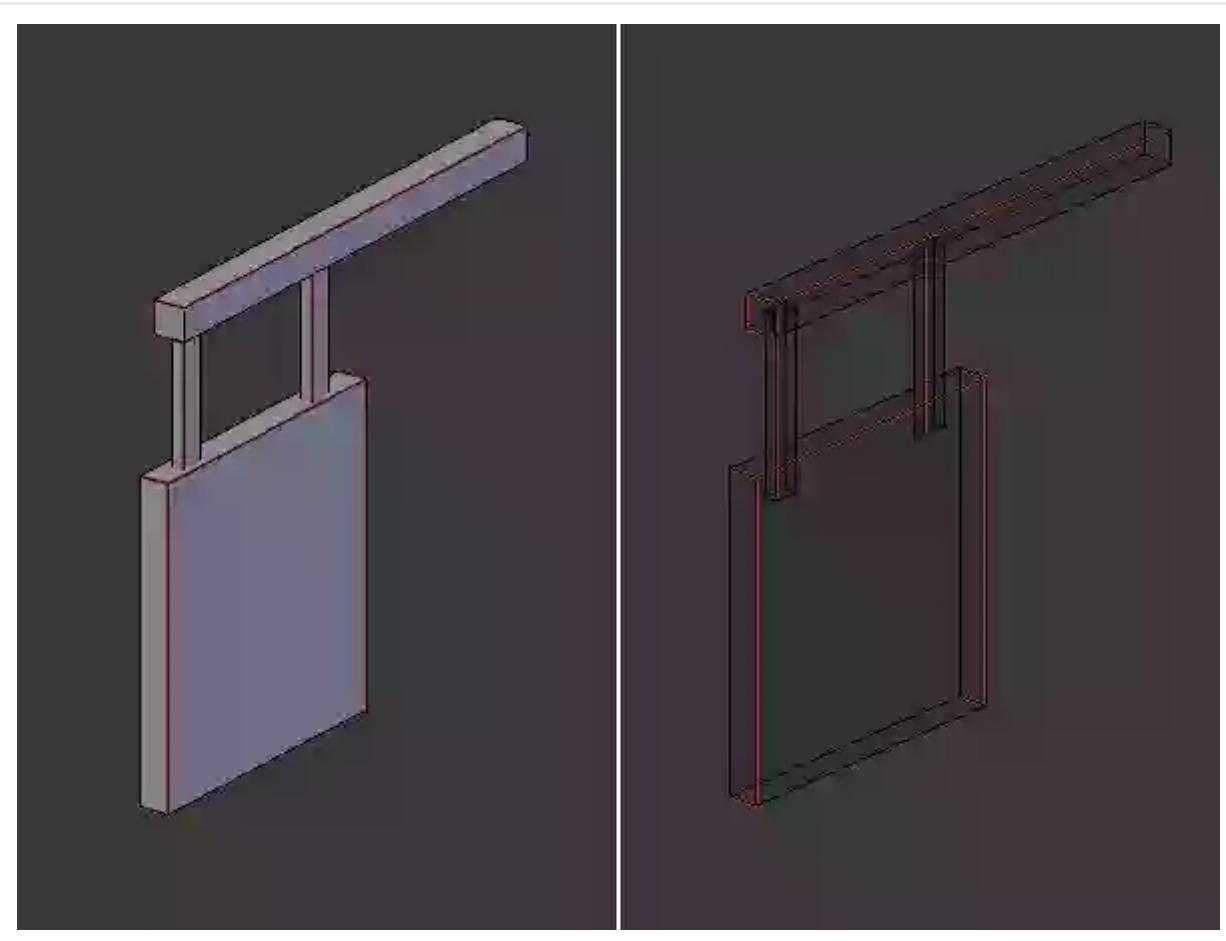




Move the selected vertices away

Step 24

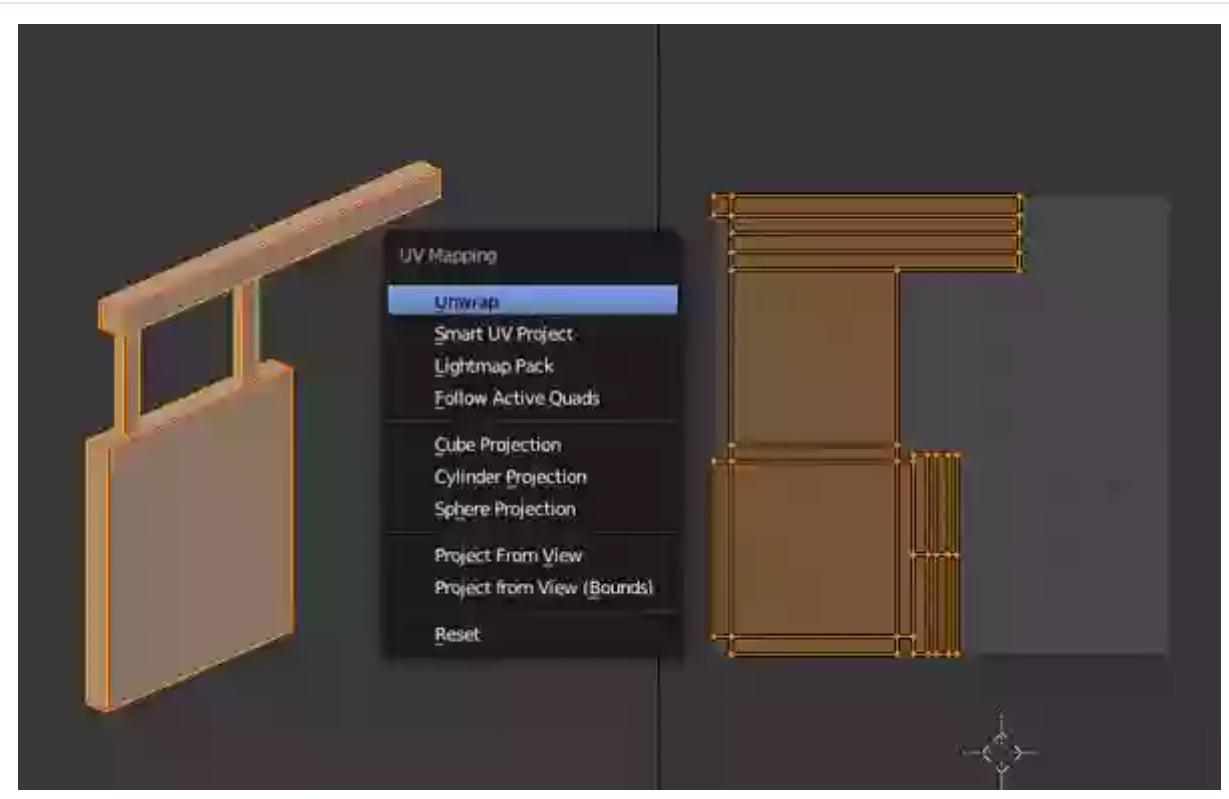
Similarly mark seams in the front sign board.



Mark seams on the sign board

Step 25

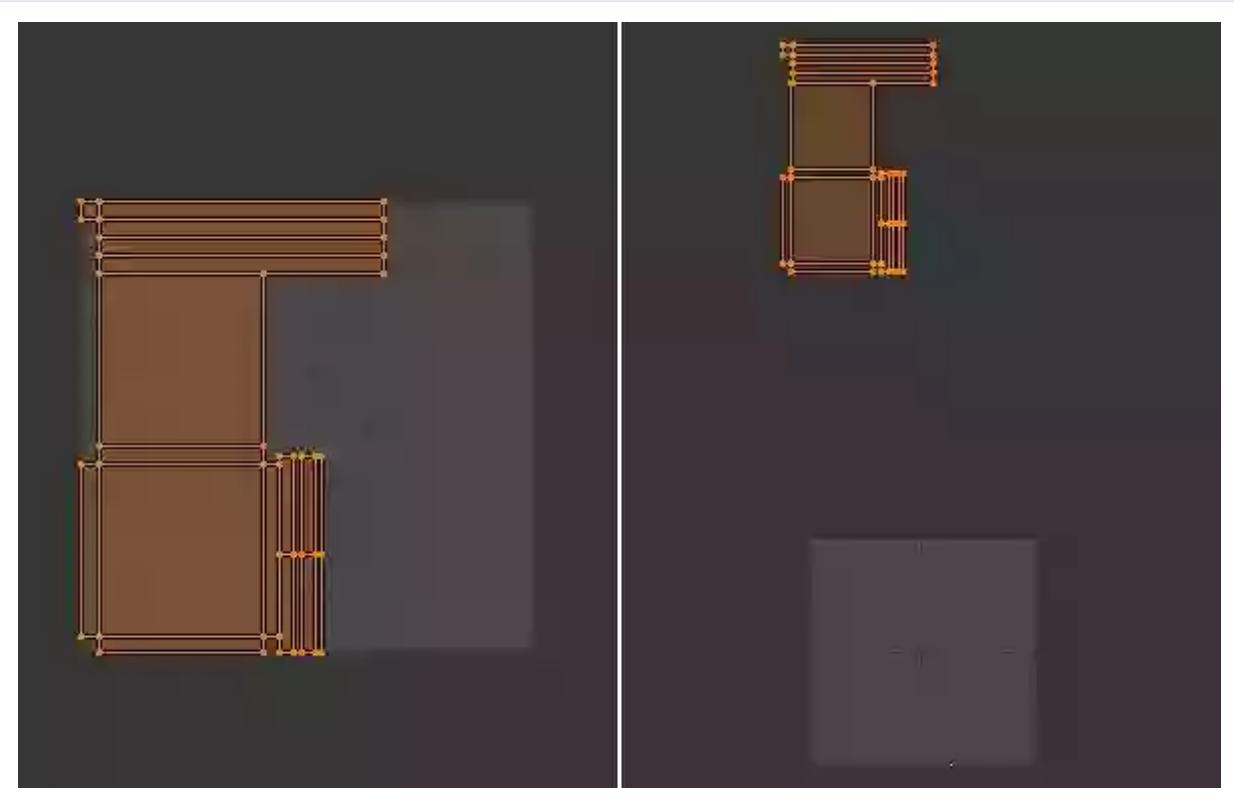
Select all of the vertices with **A** key and press **U** and select
Unwrap.



Unwrap the selection

Select all vertices in the **UV Editor** and move it away from the main grid. Scale them down with **S** key.

In the 3D view press **Alt-H** to reveal all parts.

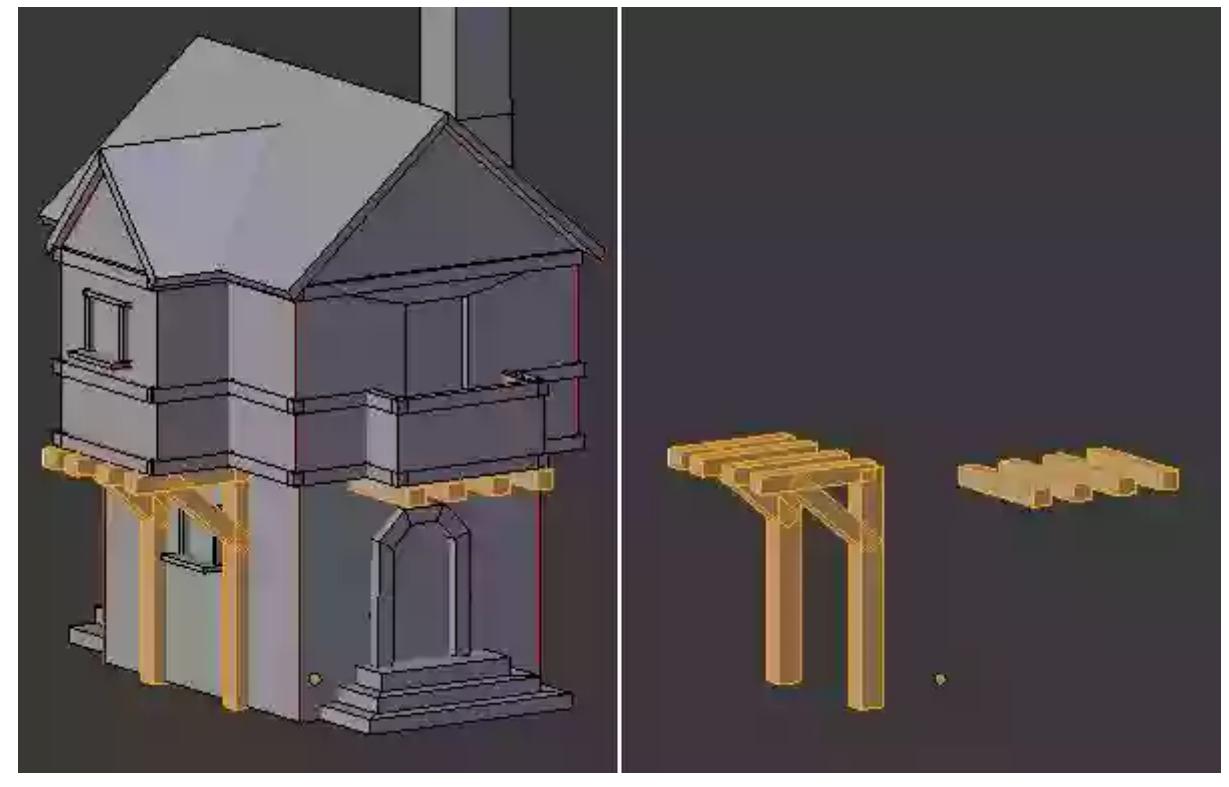


Move the unwrapped vertices away from the center grid

Step 26

Press **A** to deselect everything. Select all the beams and columns by moving the mouse over the edge and pressing **L** key.

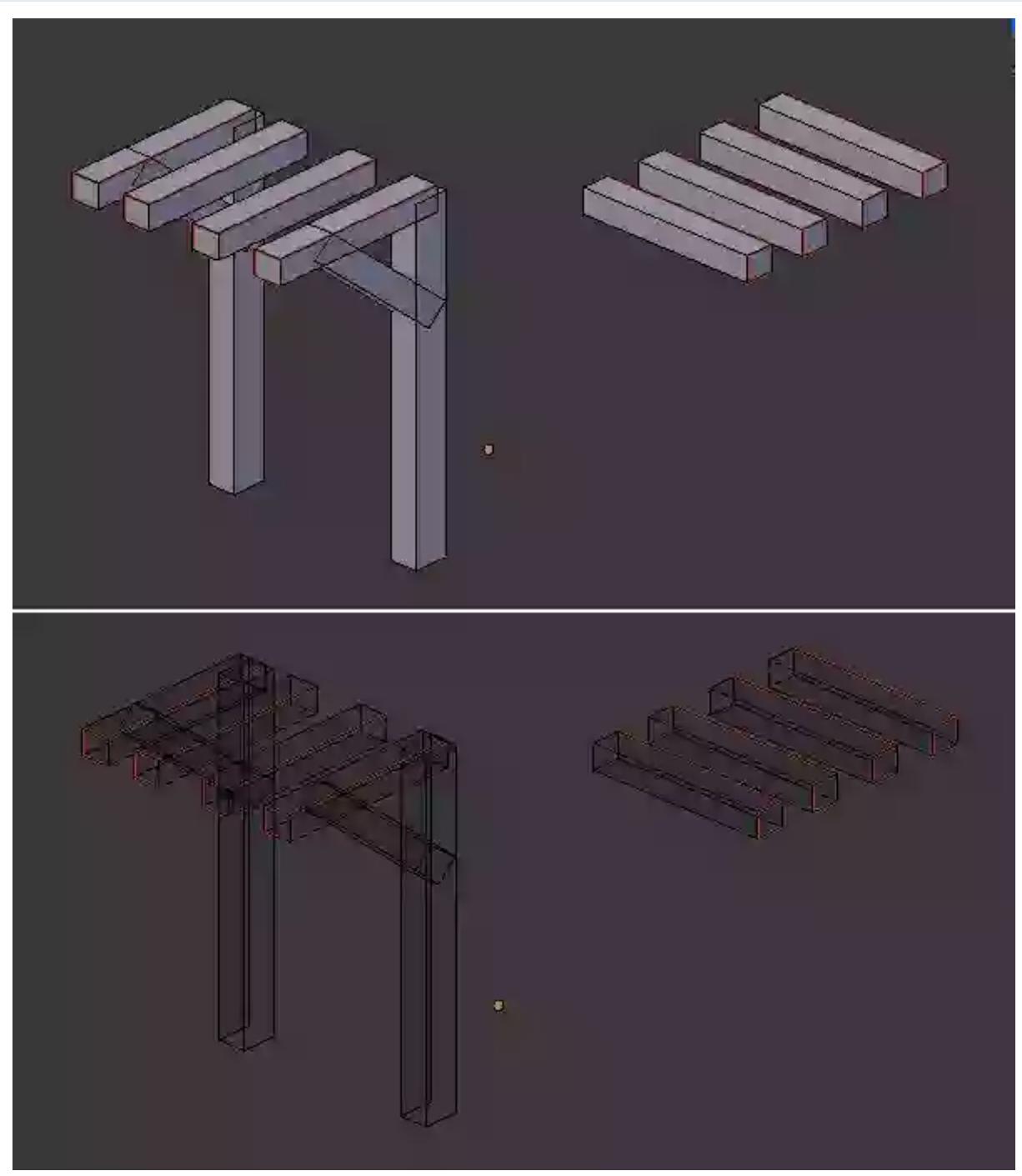
Press **Shift-H** to hide all the unselected part.



Select the beams and supports

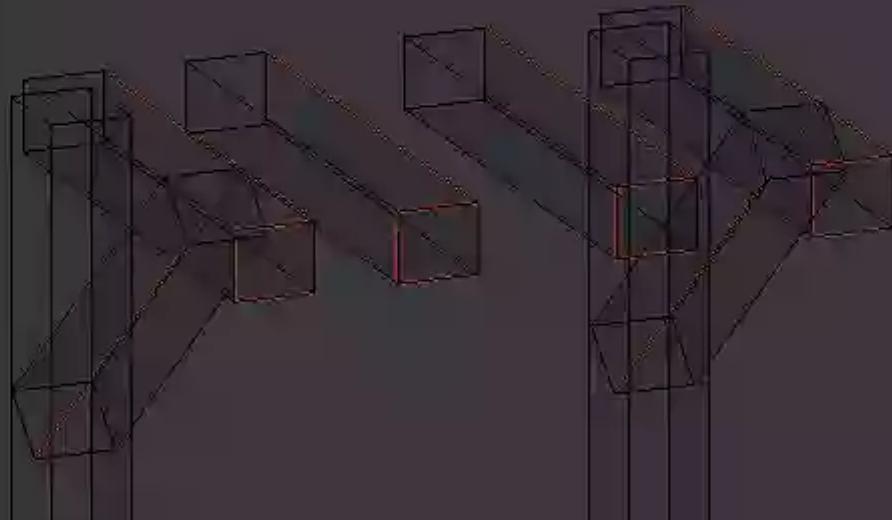
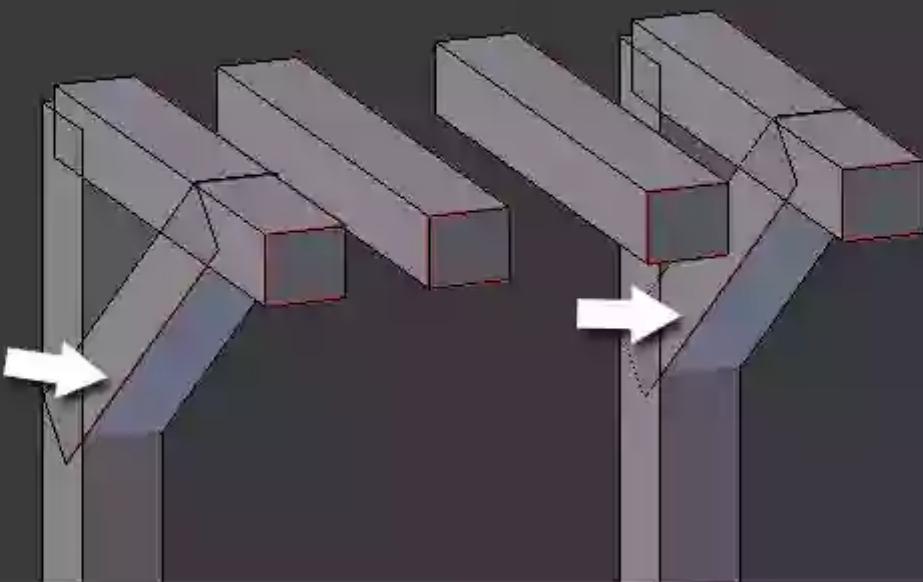
Step 27

Mark seams as shown in the image. **Right-click** to select any edge and then **Ctrl-E** to bring out the edge menu to **Mark Seam**.



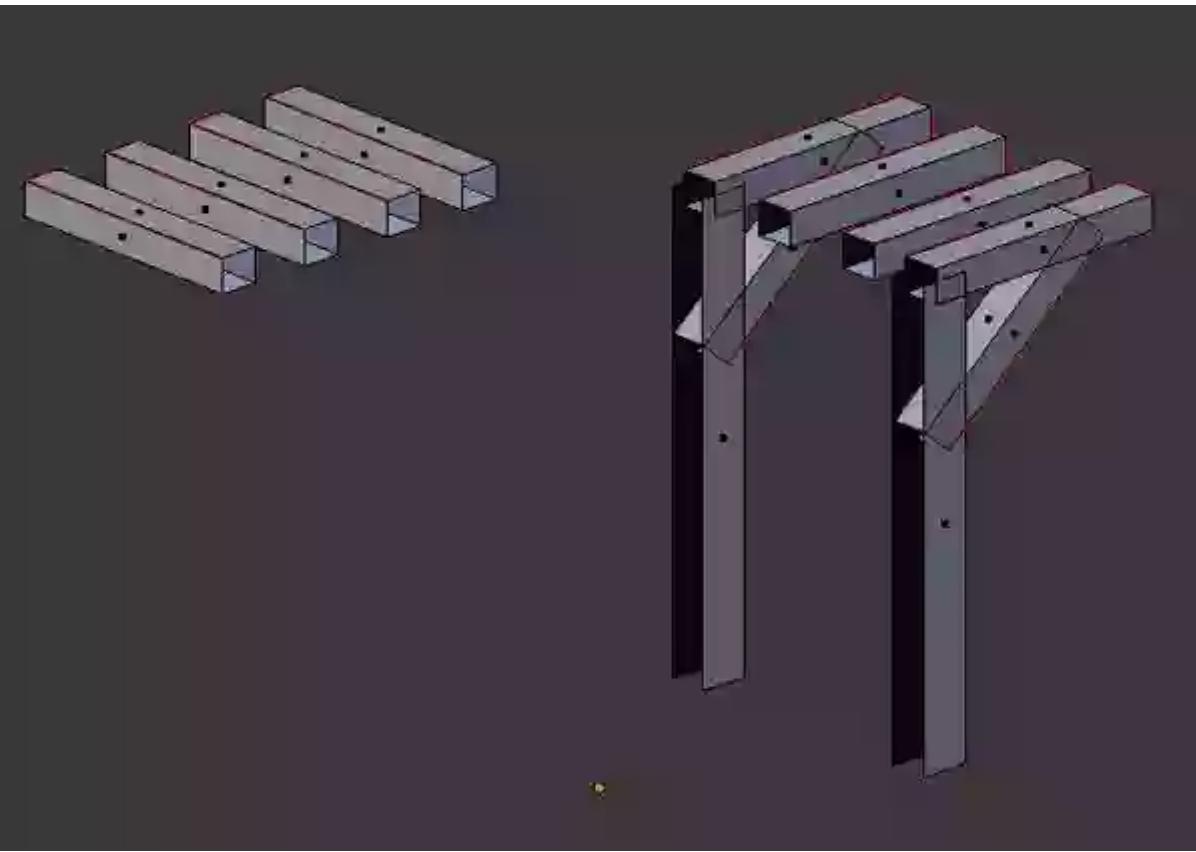
Mark seams

Select the side edge of the support as shown below and mark it as seam.



Mark seams

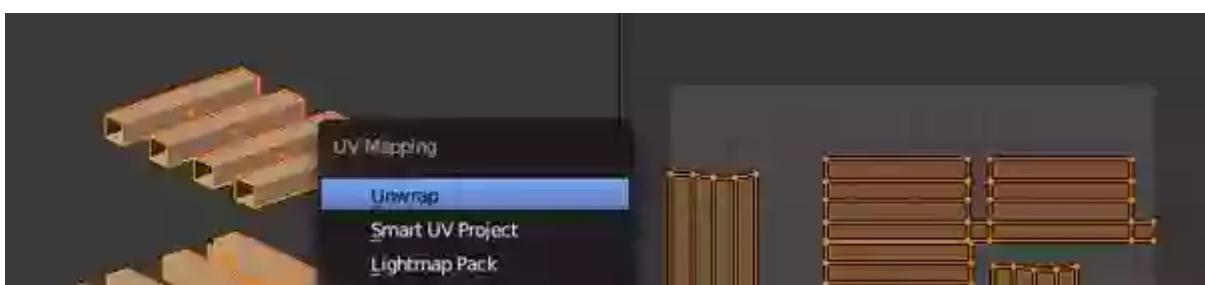
Make sure the faces which are not needed are deleted.

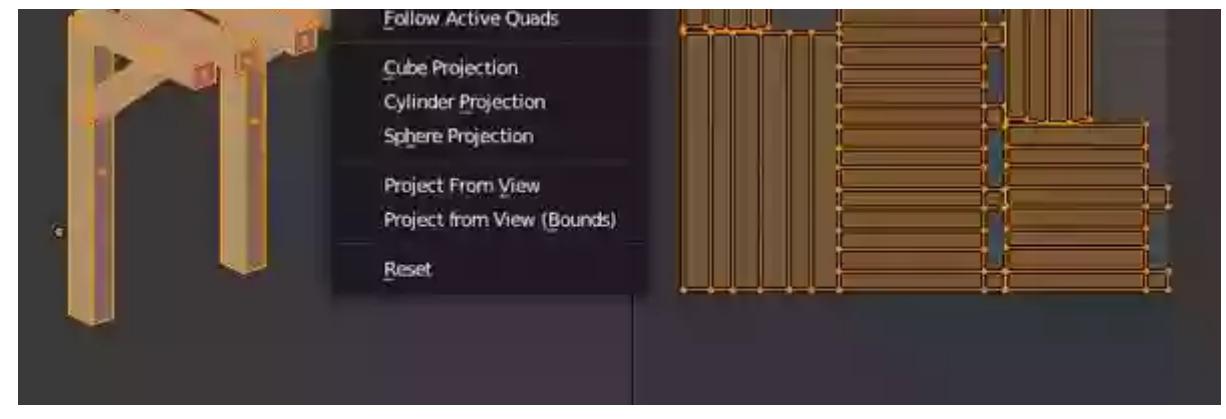


Delete the back faces

Step 28

In the 3D view press **A** to select all. Press **U** to bring the **UV Mapping** menu and click on **Unwrap** to unwrap them.

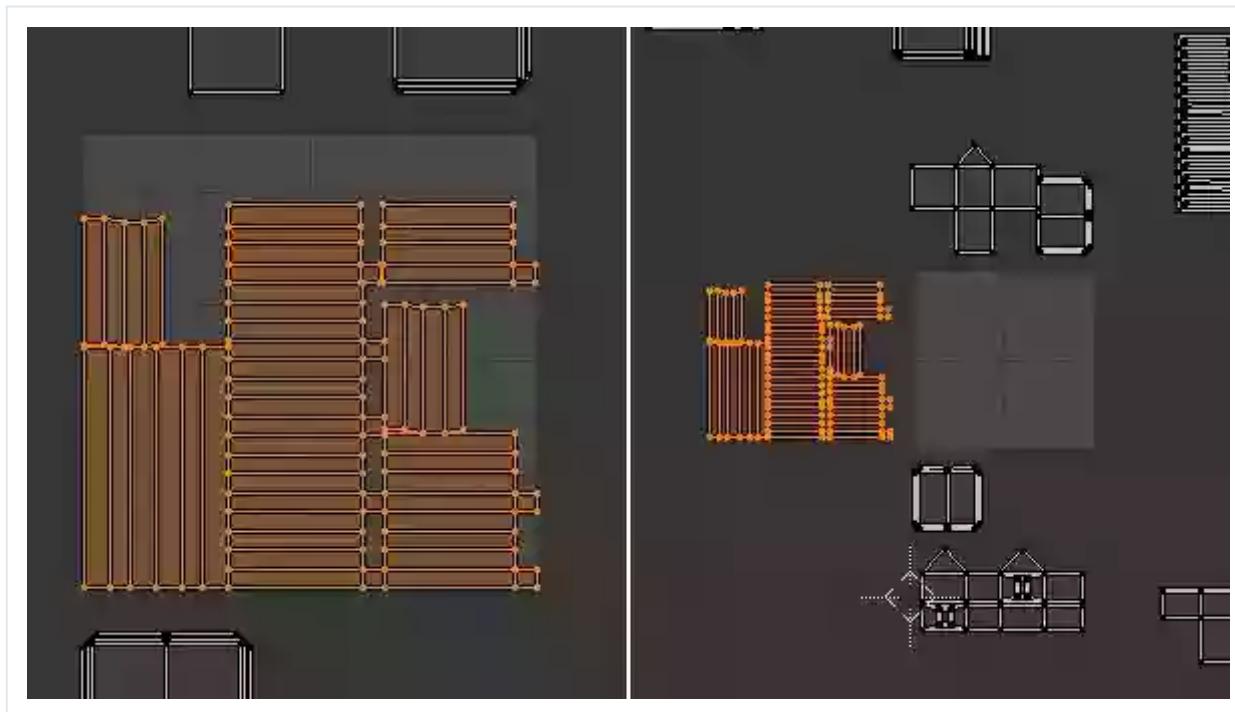




Unwrap the selected mesh

Step 29

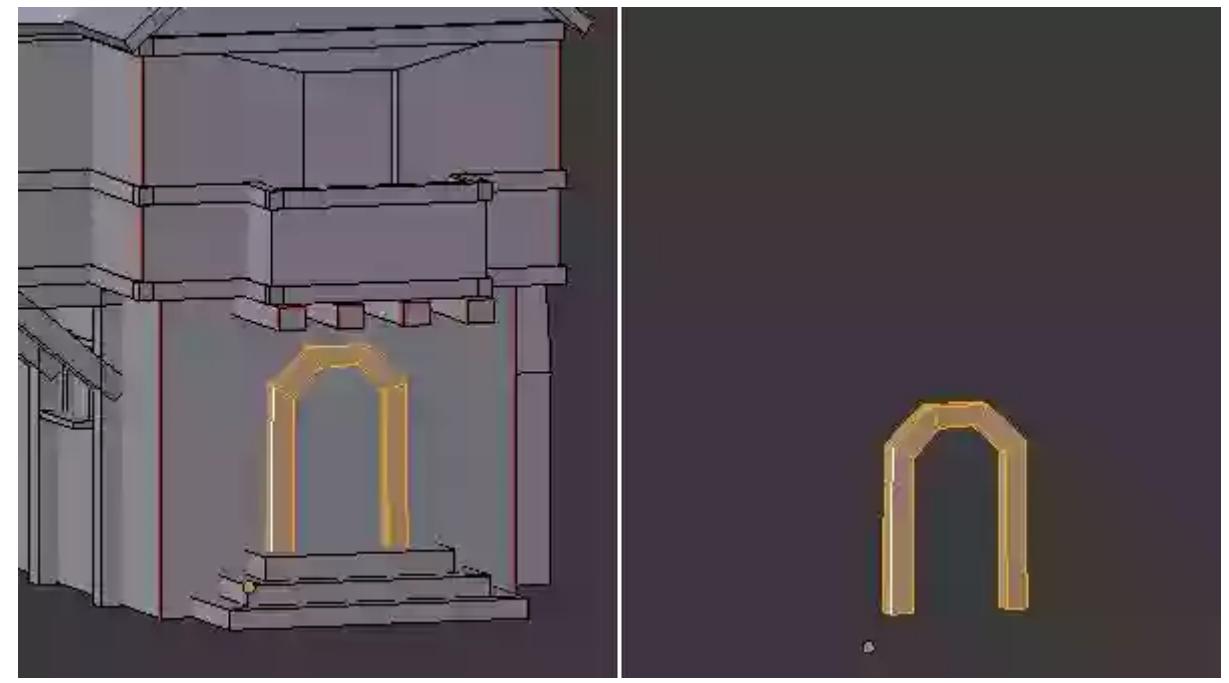
With those vertices selected, move them away from the main grid with **G** key.



Move selected vertices

Step 30

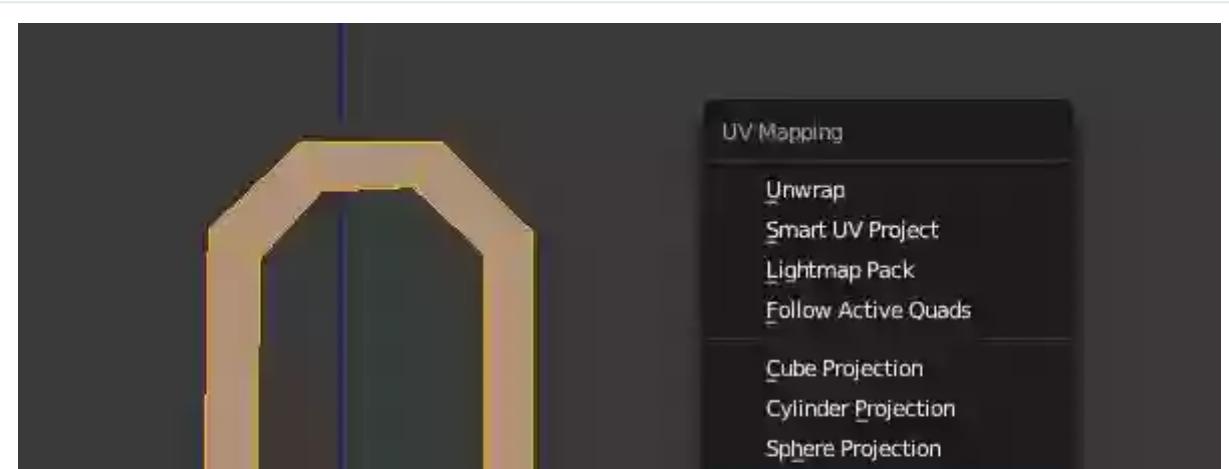
In the 3D view press **Alt-H** to reveal the hidden parts. Select the door frame and hide the rest of the mesh.

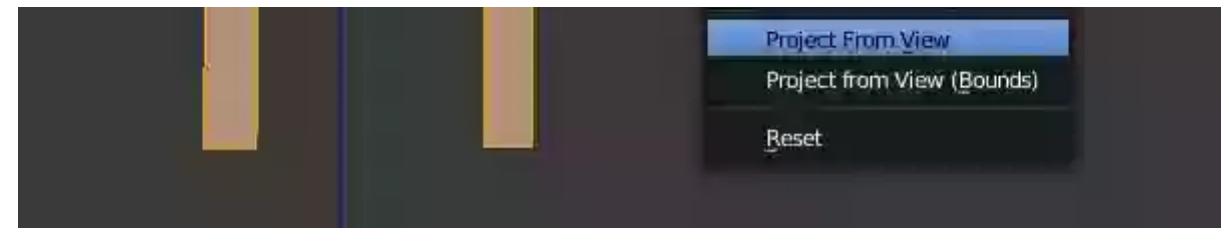


Select the door frame and hide the rest

Step 31

I will unwrap it differently. Pres **Ctrl-1** to get into back view. With the door frame selected, press **U** and select **Project** from view.



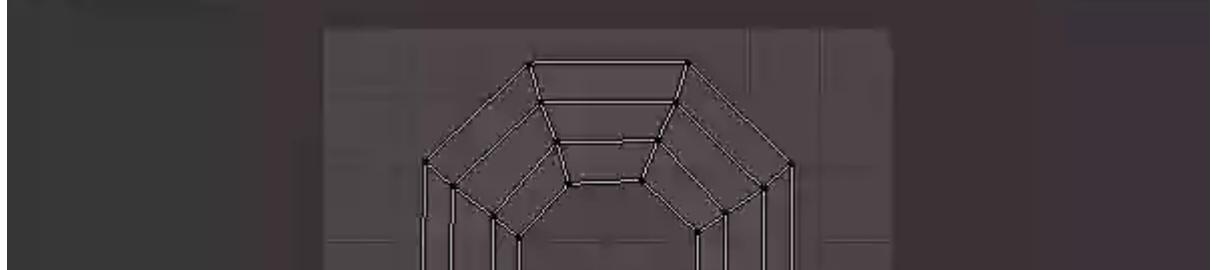
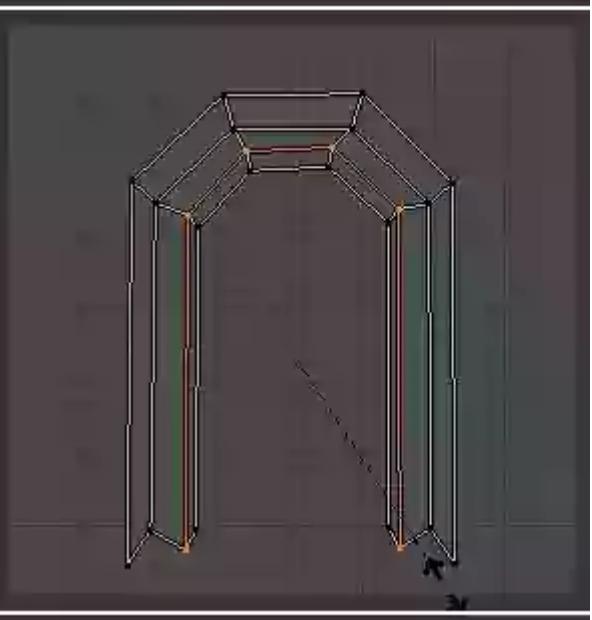
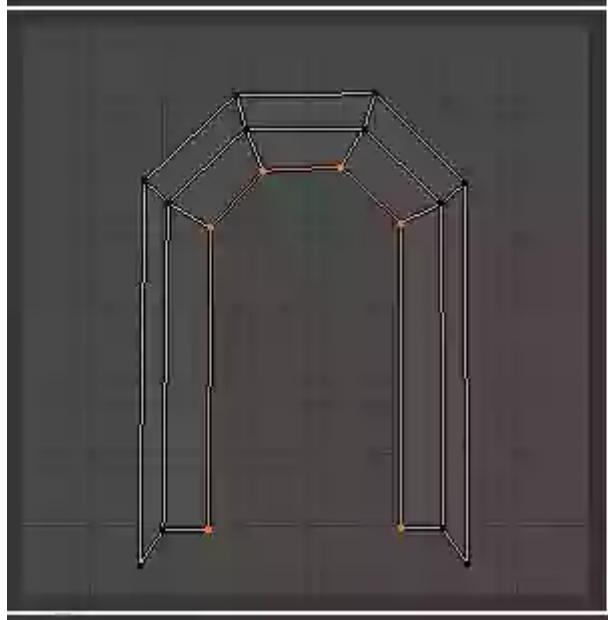
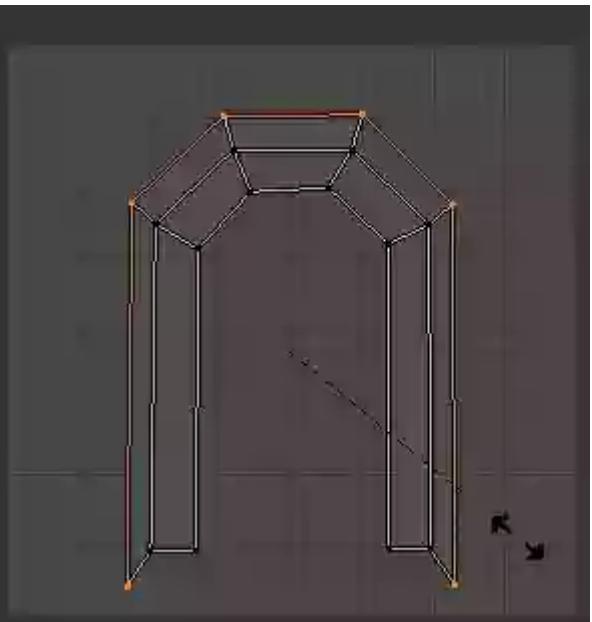
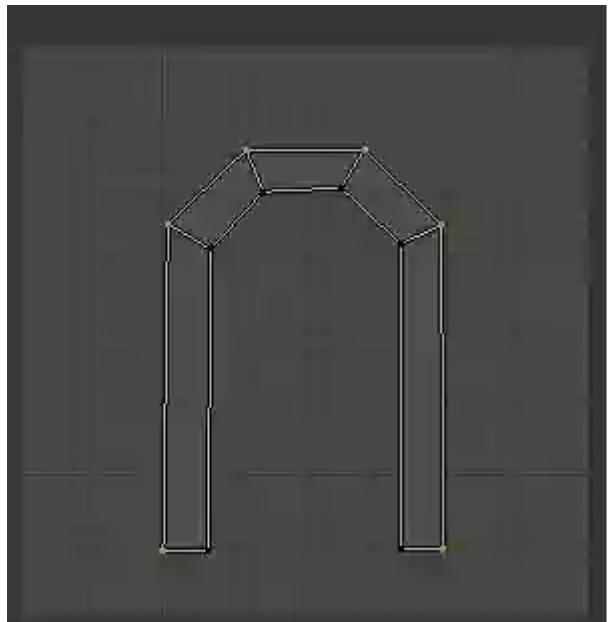


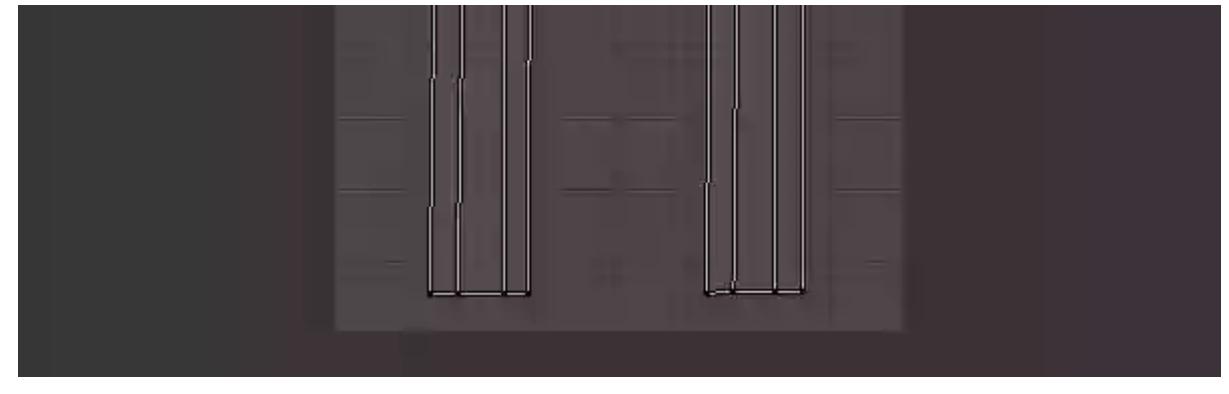
Unwrap the mesh

Step 32

Select the outer vertices by moving the mouse over the edge and press **Alt-right-click**. Press **S** and scale it out a bit.

Similarly select the bottom most edge loop and scale it out so that it doesn't overlap on any other edge loop. Adjust the vertices to give a neat look.



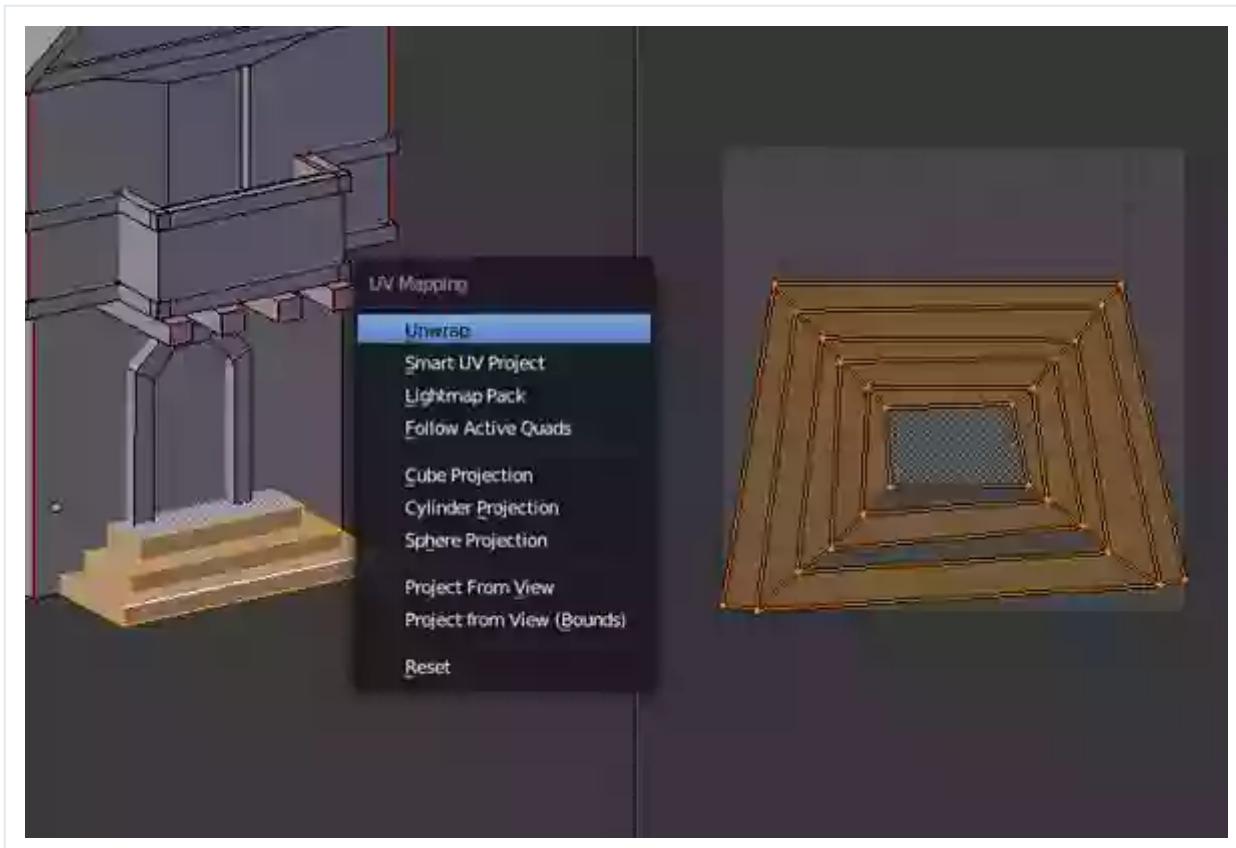


Tweak the vertices

Step 33

Press **Alt-H** to reveal the hidden mesh. Press **A** to deselect everything. Move the mouse over the edge of the stairway and press **L** key to select connected edges.

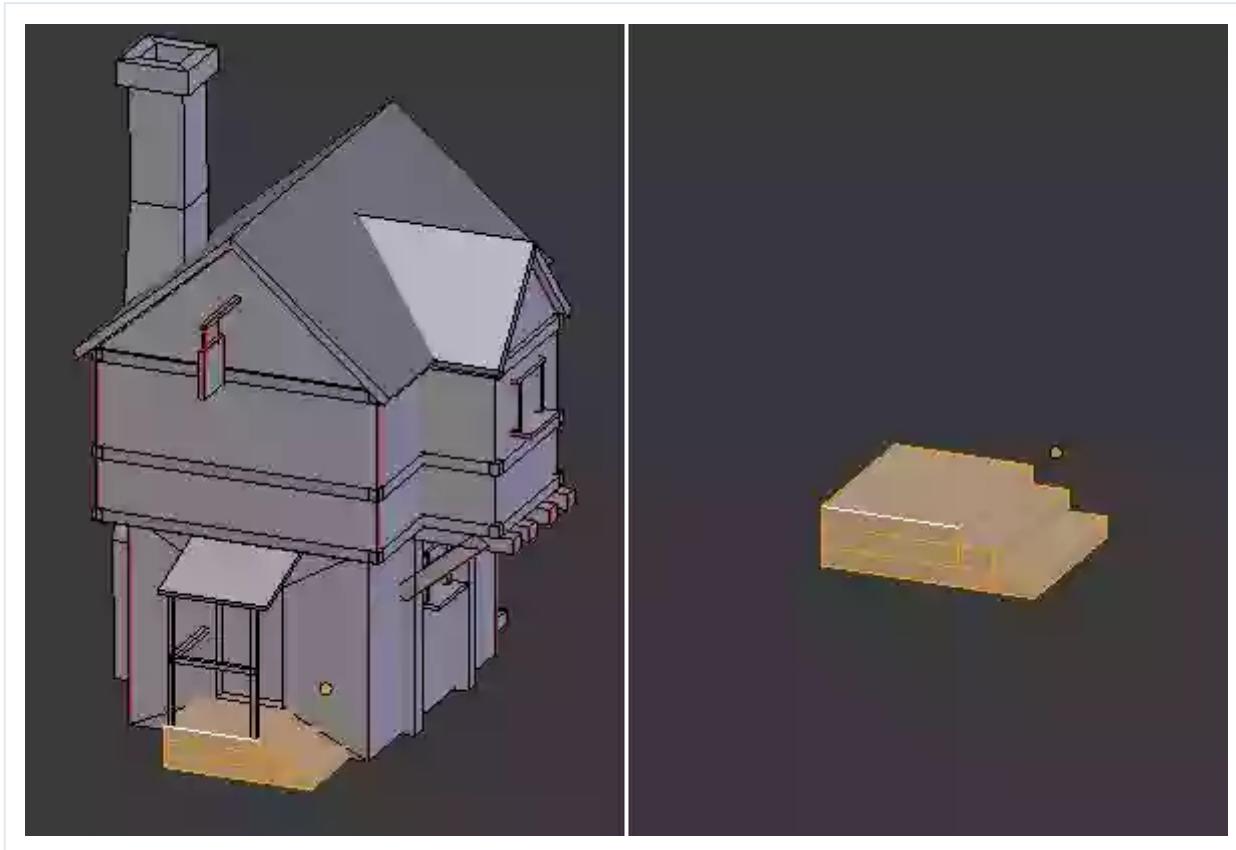
Press **U** and select **Unwrap**.



Unwrap the stairs

Step 34

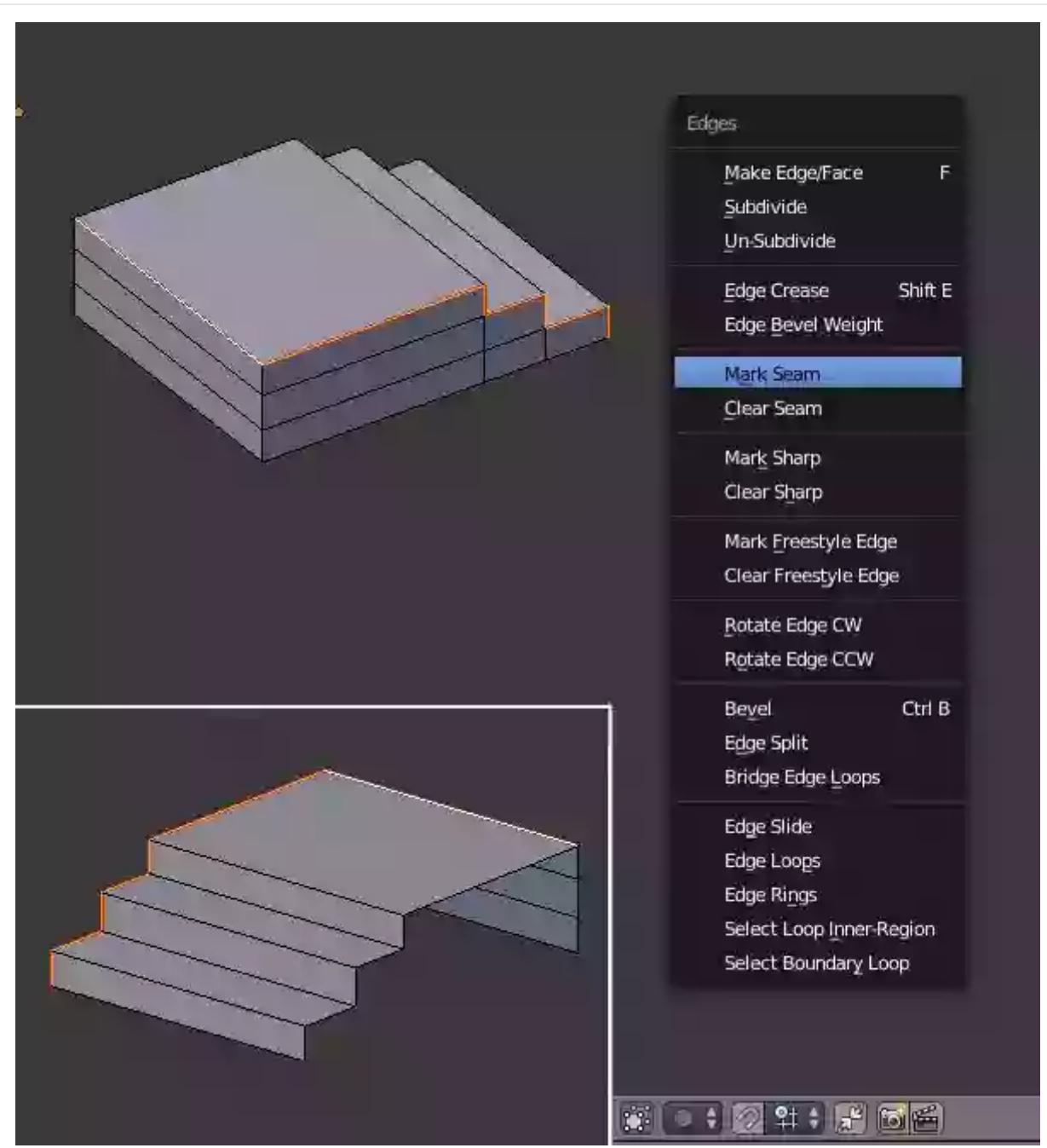
Press **A** to deselect all. Select the front stairway and press **Shift-H** to hide rest.



Select the front stairs and hide the rest

Step 35

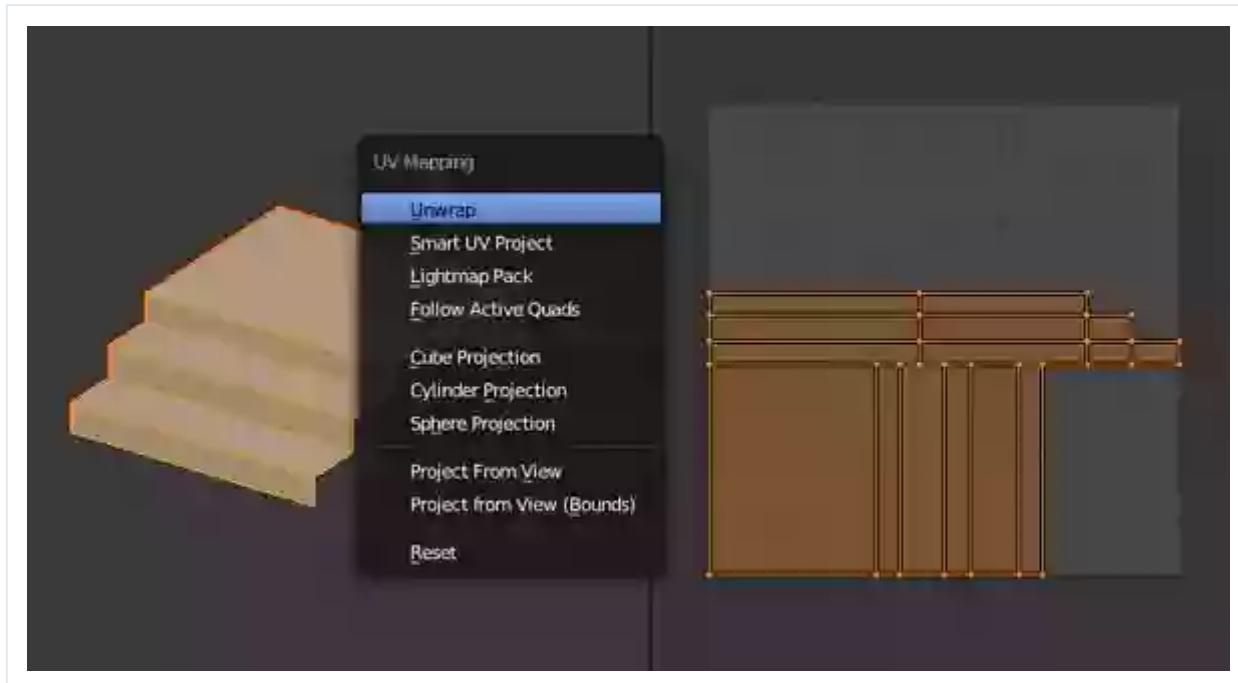
Select the edges as shown—hold **Shift** and then **right click** on the edges for multiple selection—and then press **Ctrl-E** and select **Mark Seam**.



Mark seams

Step 36

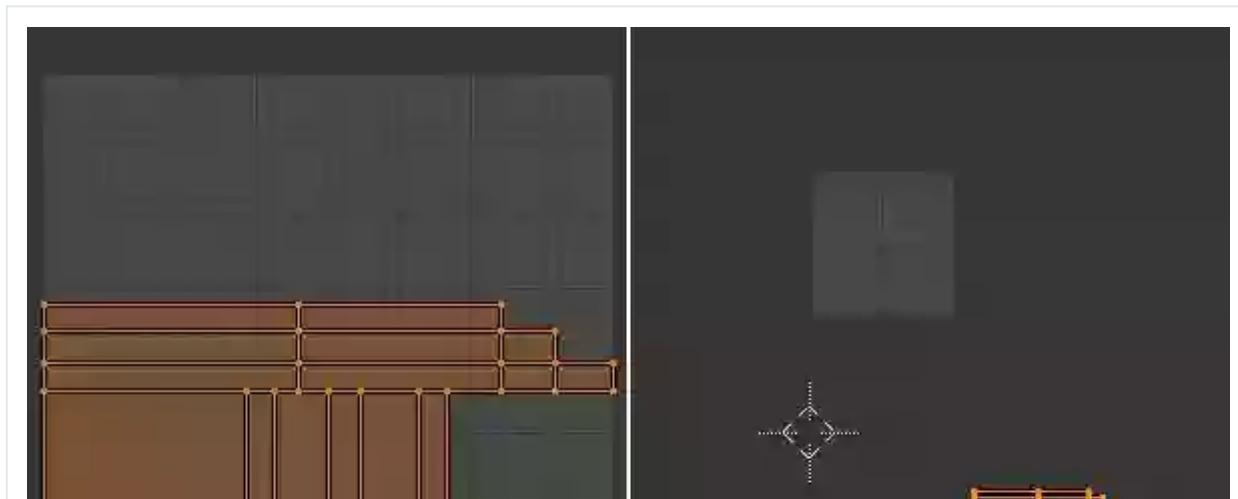
Press **A** to select all edges and then press **U** and click on **Unwrap**.



Unwrap the selected mesh

Step 37

With the UVs selected, press **G** and move it away from the main grid area.

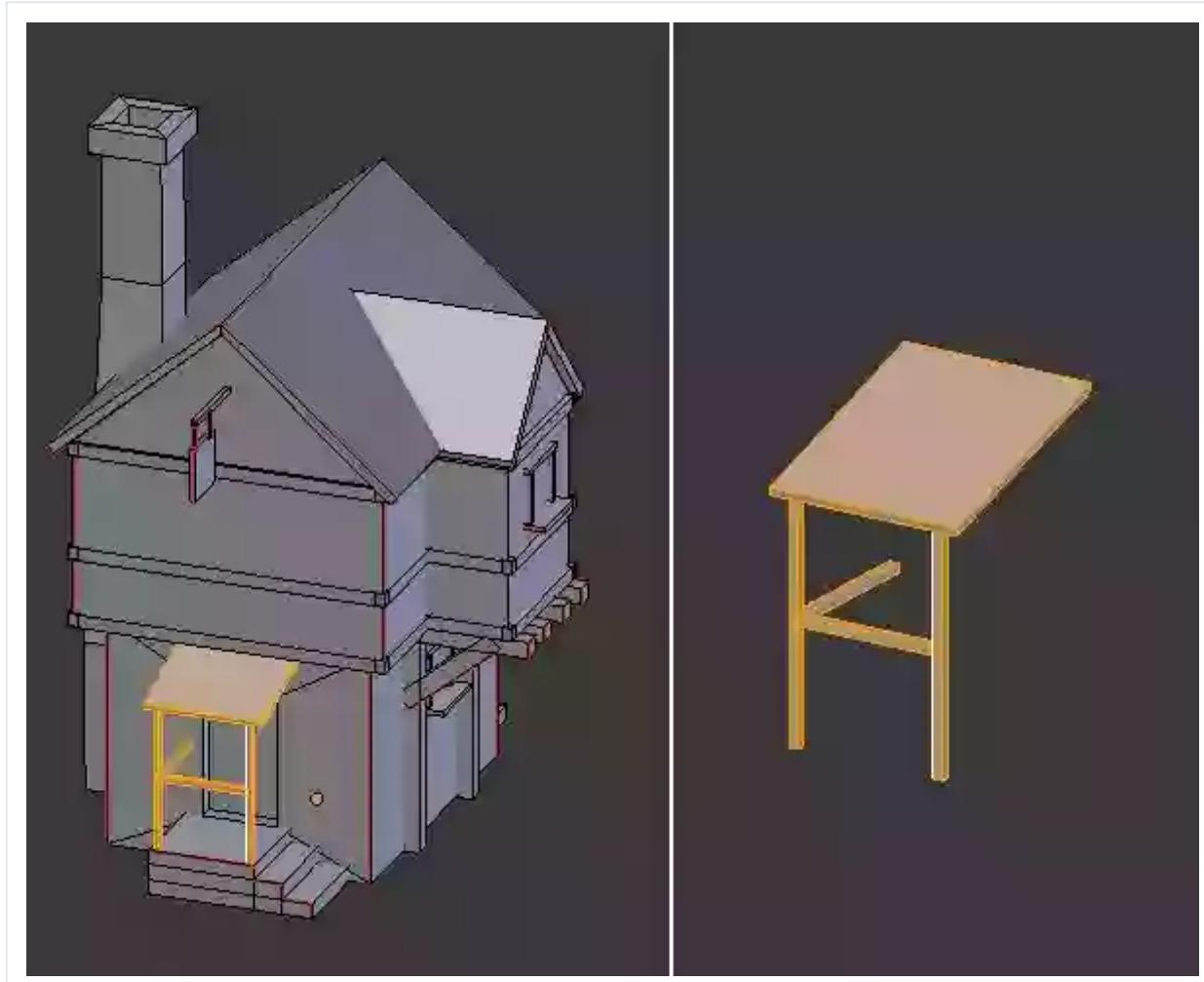




Move the selected vertices away from the grid

Step 38

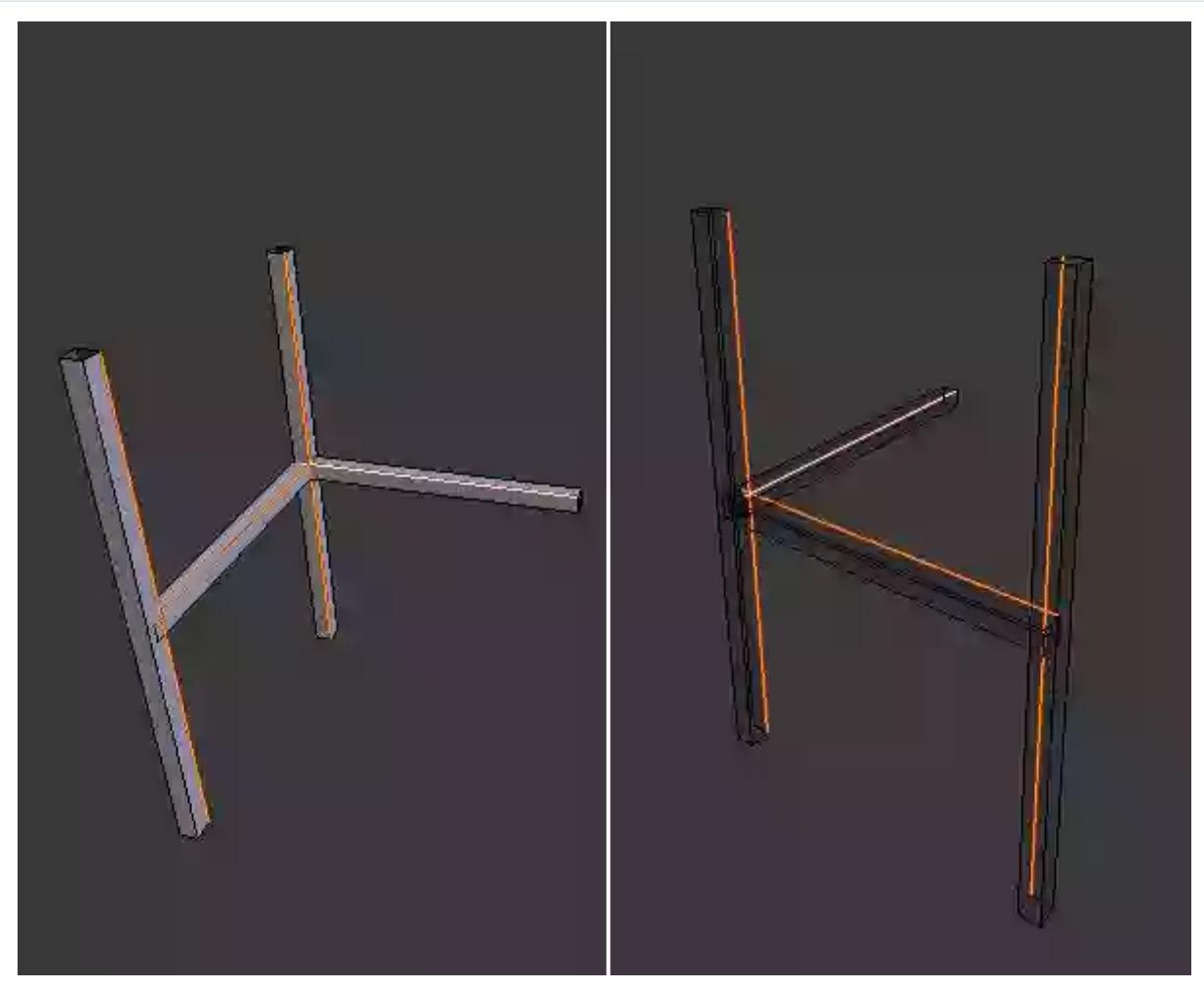
Press **Alt-H** to reveal the hidden area. Press **A** to deselect all. Now select only the front part and press **Shift-H**.



Select the front part

Step 39

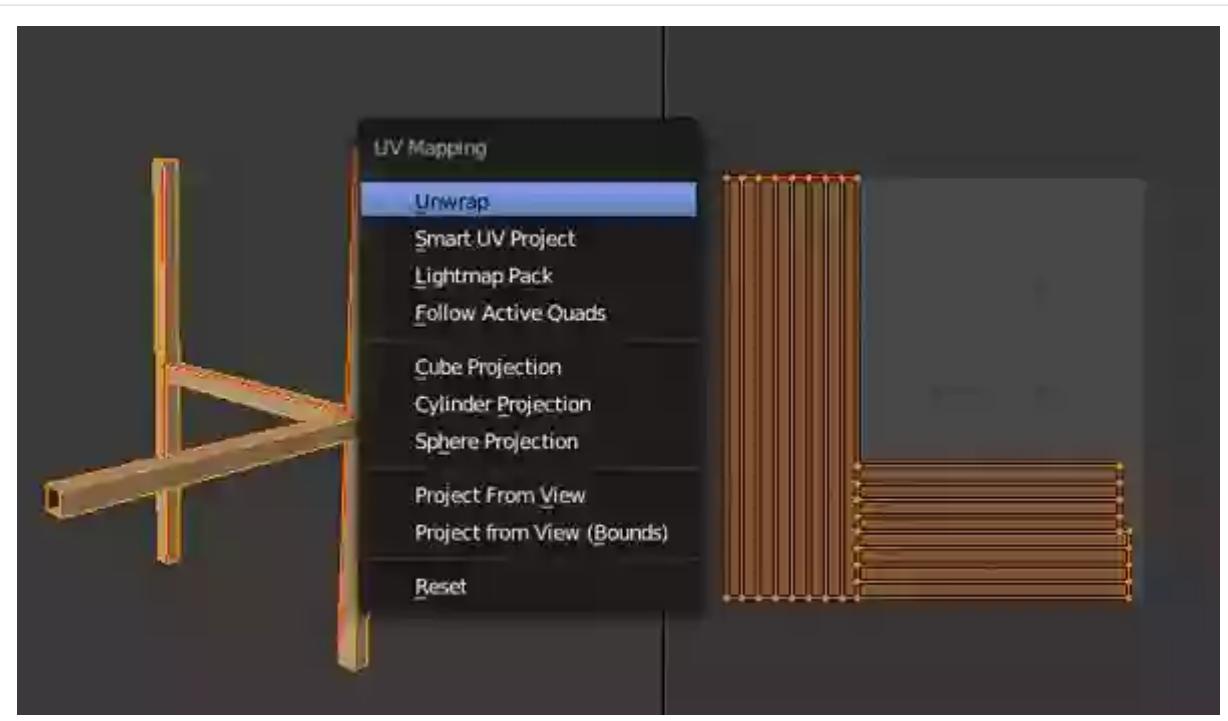
Select the edges and mark them as seams.



Mark seams

Step 40

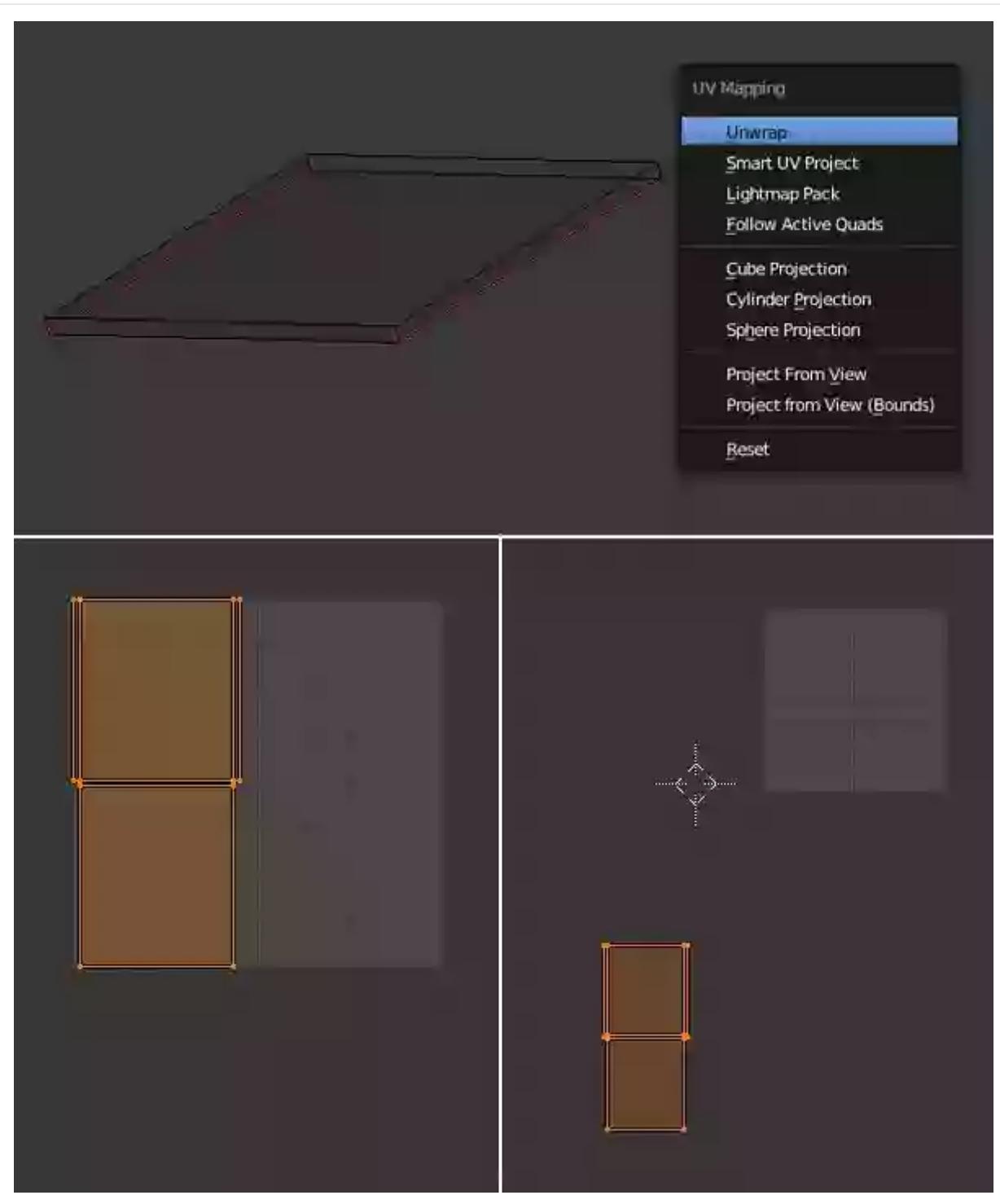
Press **A** to select all and press **U** and click on **Unwrap**.



Unwrap the selected mesh

Step 41

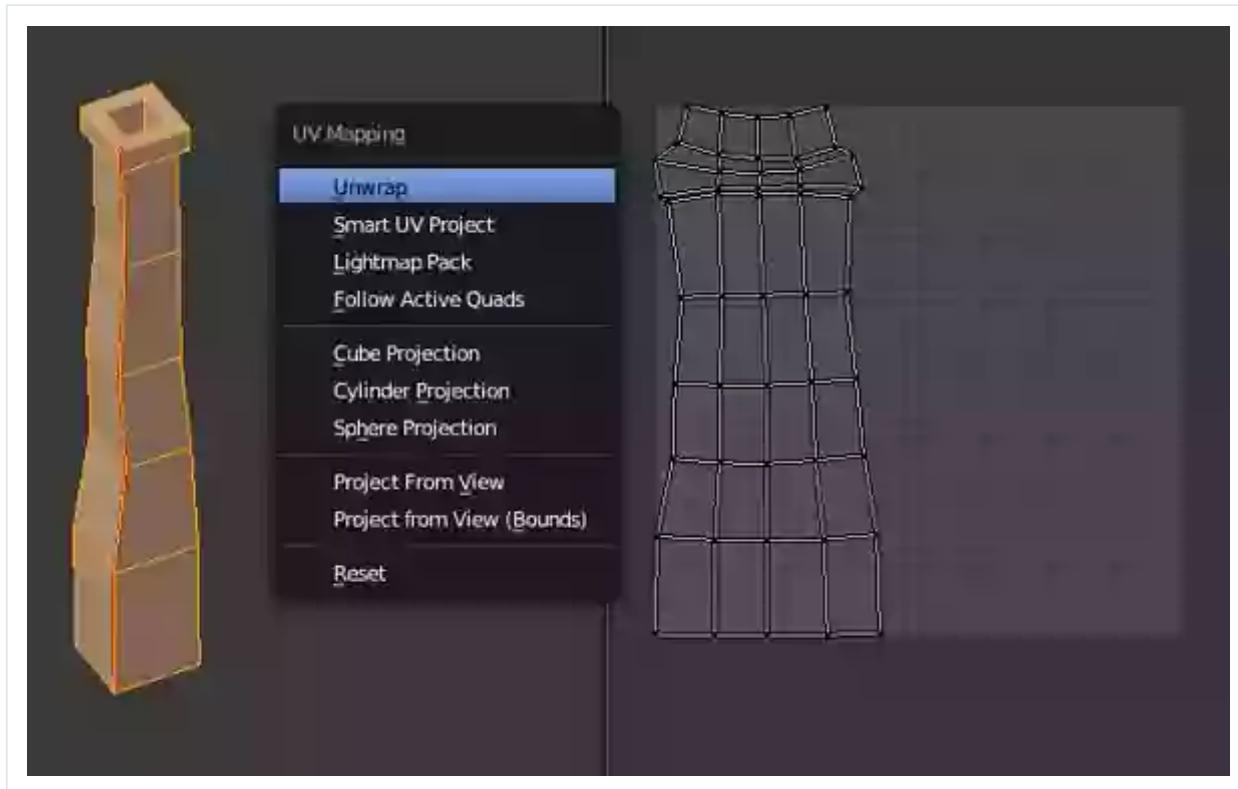
Similarly mark seams on the upper part and unwrap it.



Mark seams and unwrap the small roof

Step 42

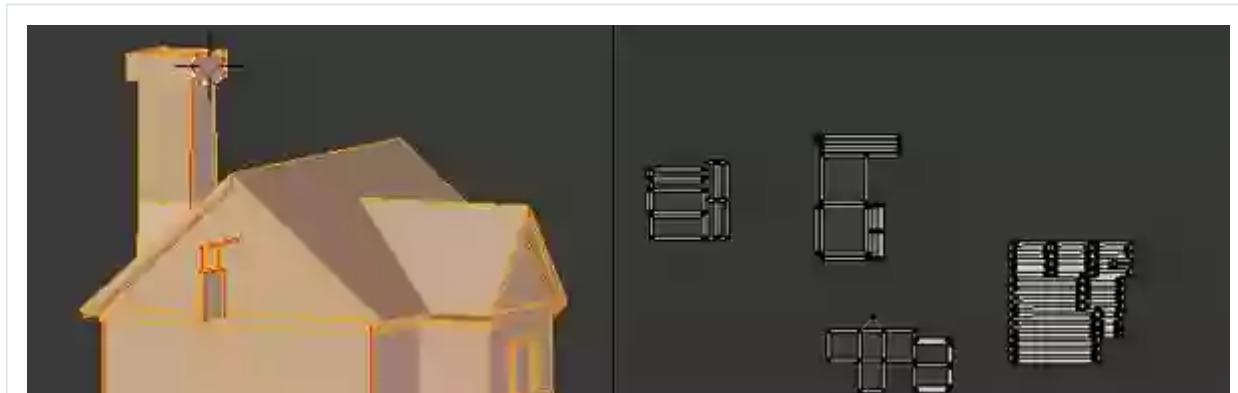
For the chimney too, mark the side edge loop as seam and then Unwrap it. Straighten up and align the vertices properly in the **UV Editor**.

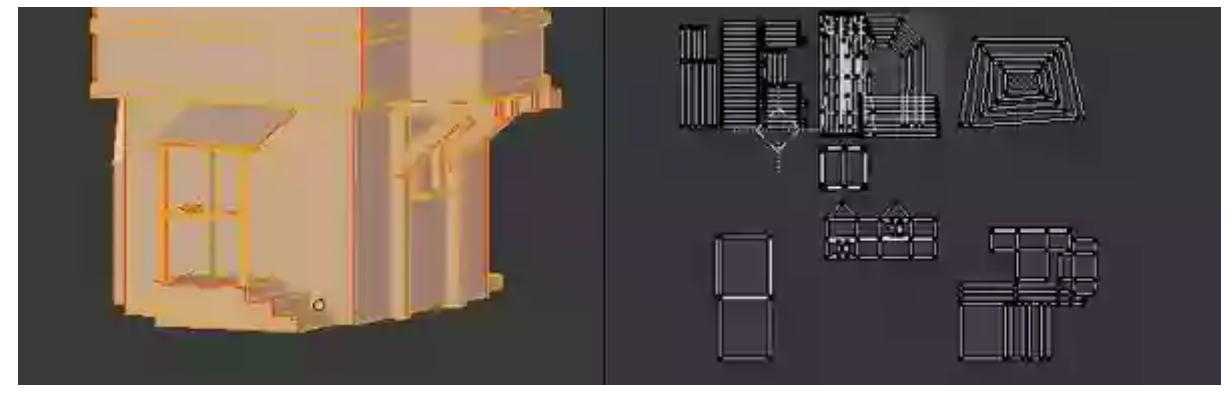


Unwrap the chimney

Step 43

Press **Alt-H** to reveal all parts of the mesh. Press **A** to select all to see all the unwrapped data in the **UV Editor**.





Unwrapped model

Step 44

Arrange all the *island* groups such that it fits neatly inside the grid.

Here are the commands.

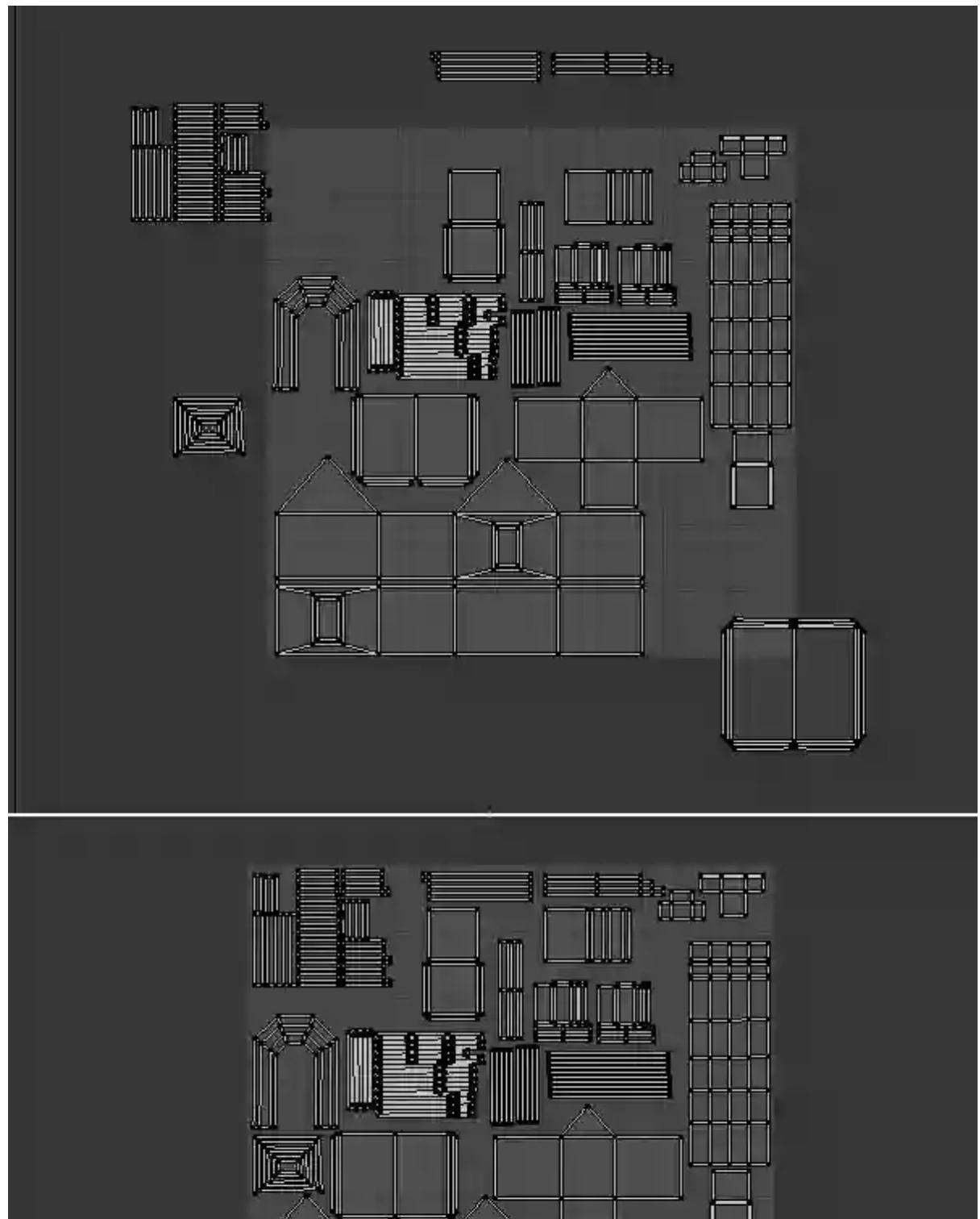
The commands in the UV Editor are same:

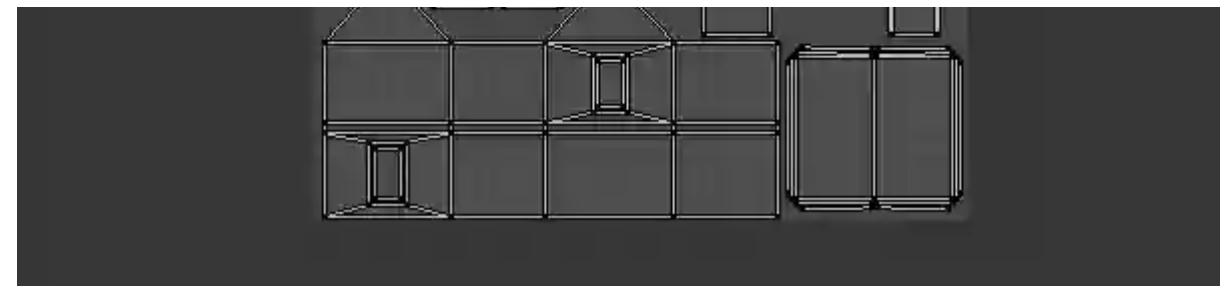
- Hover over any group and press **L** to select the group
- Select any vertex or vertices of the group and press **Ctrl-L** to select the whole group with connecting vertices
- Hold **Shift** for multiple select
- **A** to deselect>Select-all
- **W** to bring out the weld/Align menu

Here are other commands for the UV editor, though they are same as the editing commands in 3D view.

- **G** to move
- **R** to Rotate
- **S** to scale
- Mouse wheel to Zoom in/out
- **Shift-Middle mouse button** and **drag** to Pan

To maximize the **UV Editor**, move the mouse over the **UV Editor** and press **Ctrl-up Arrow**. Press **Ctrl-up arrow** to toggle back.



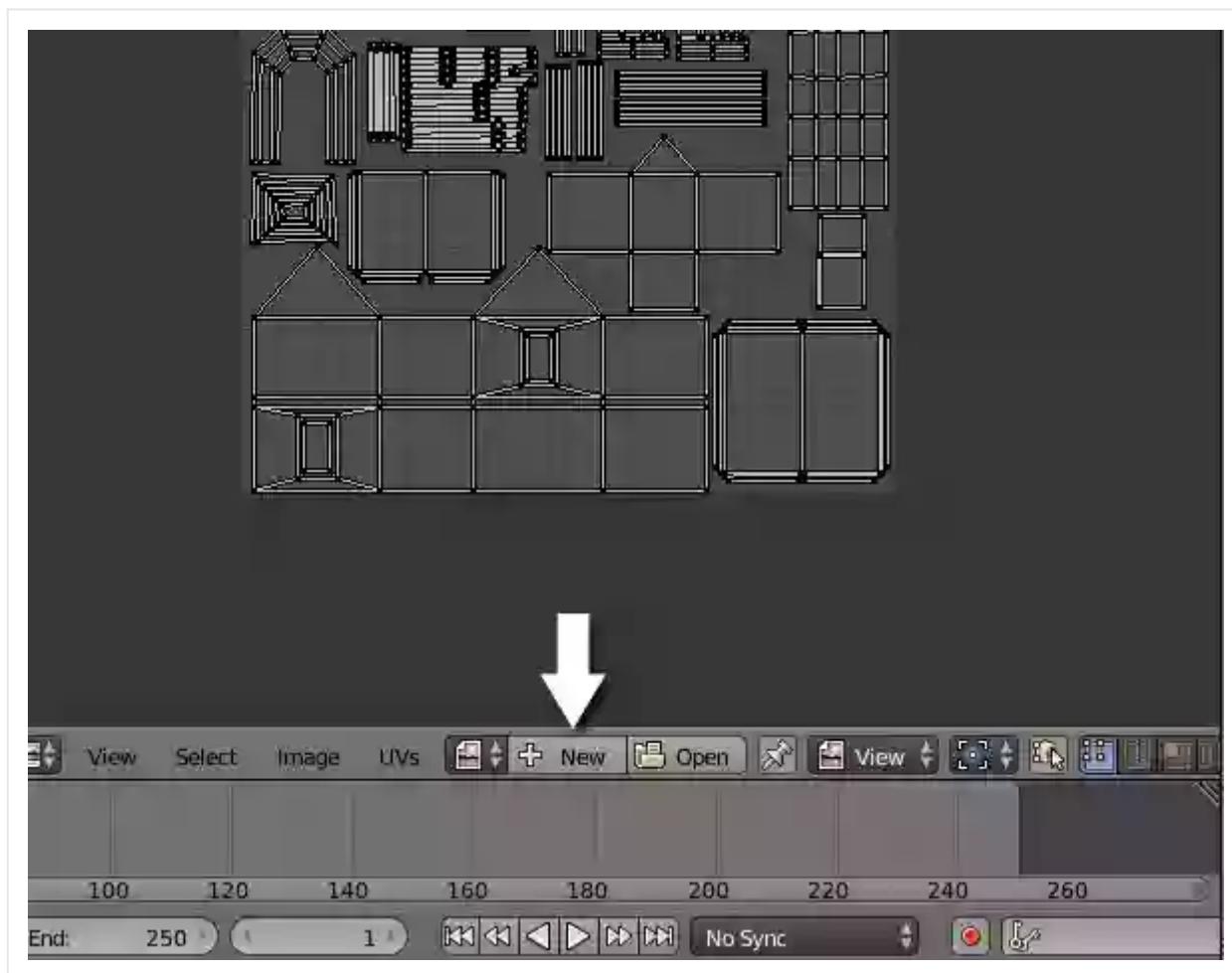


Arrange the UV groups

Texturing and Painting

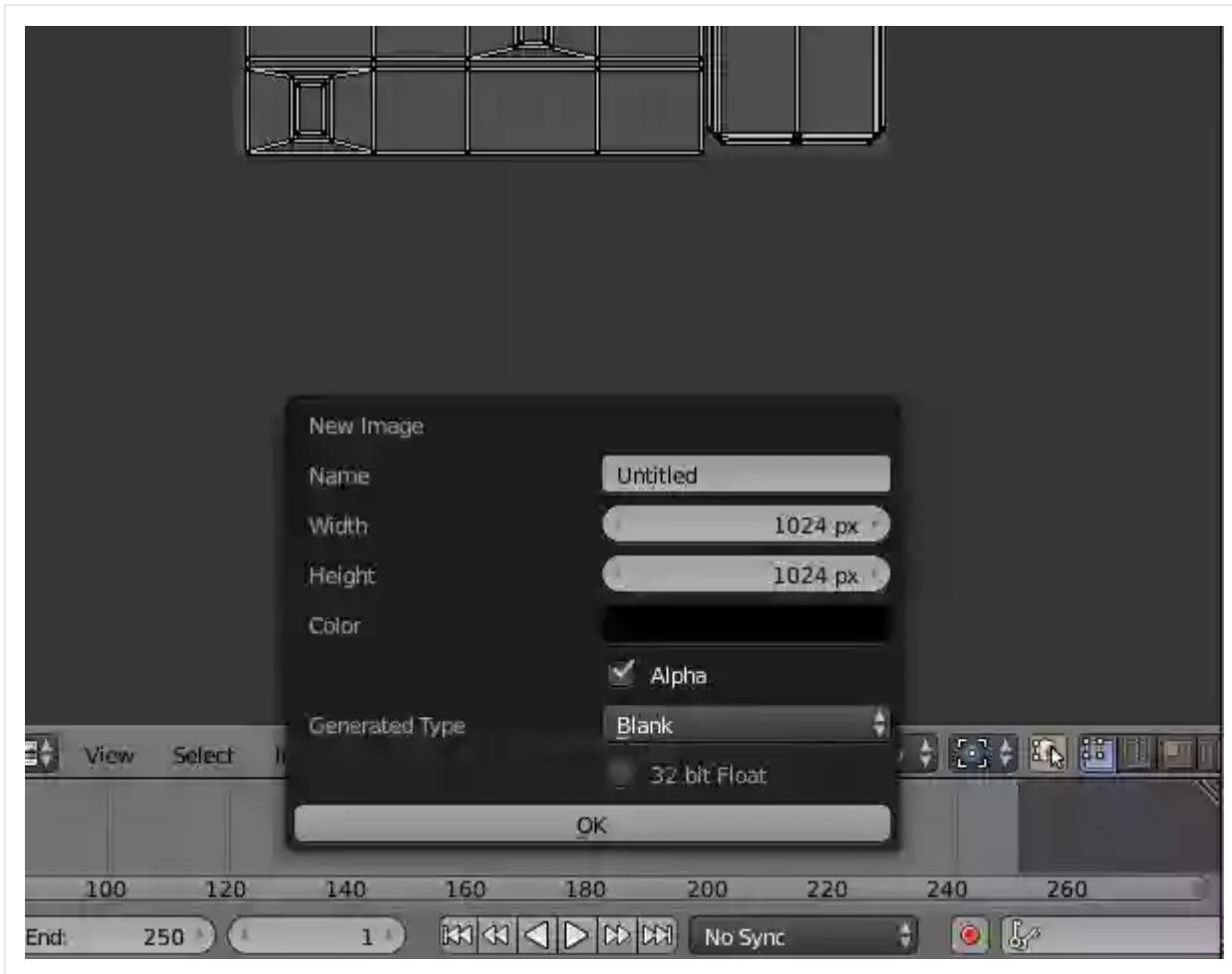
Step 1

In the **UV Editor** click on **New Image**.

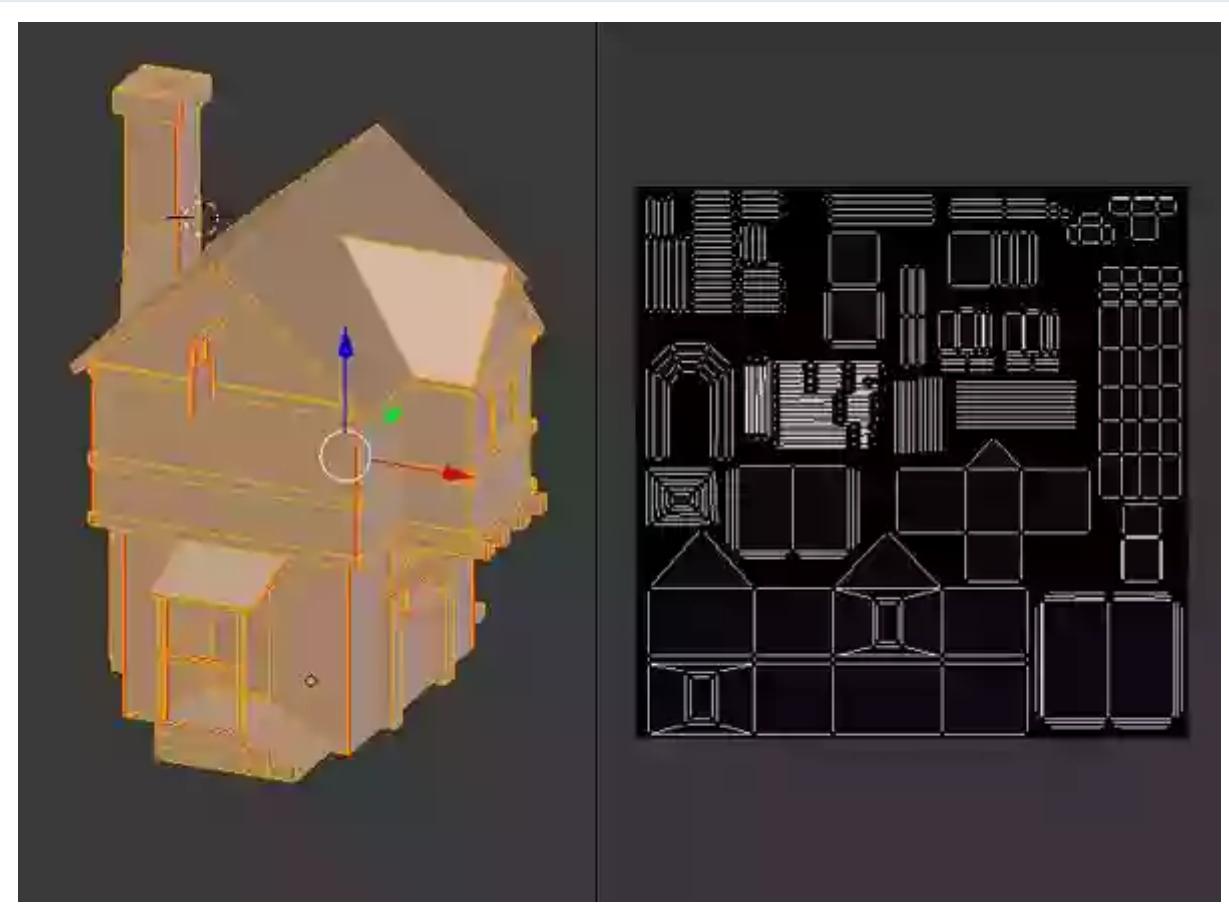


Add a new image

I'll use the default dimensions of 1024x1024.



New image settings

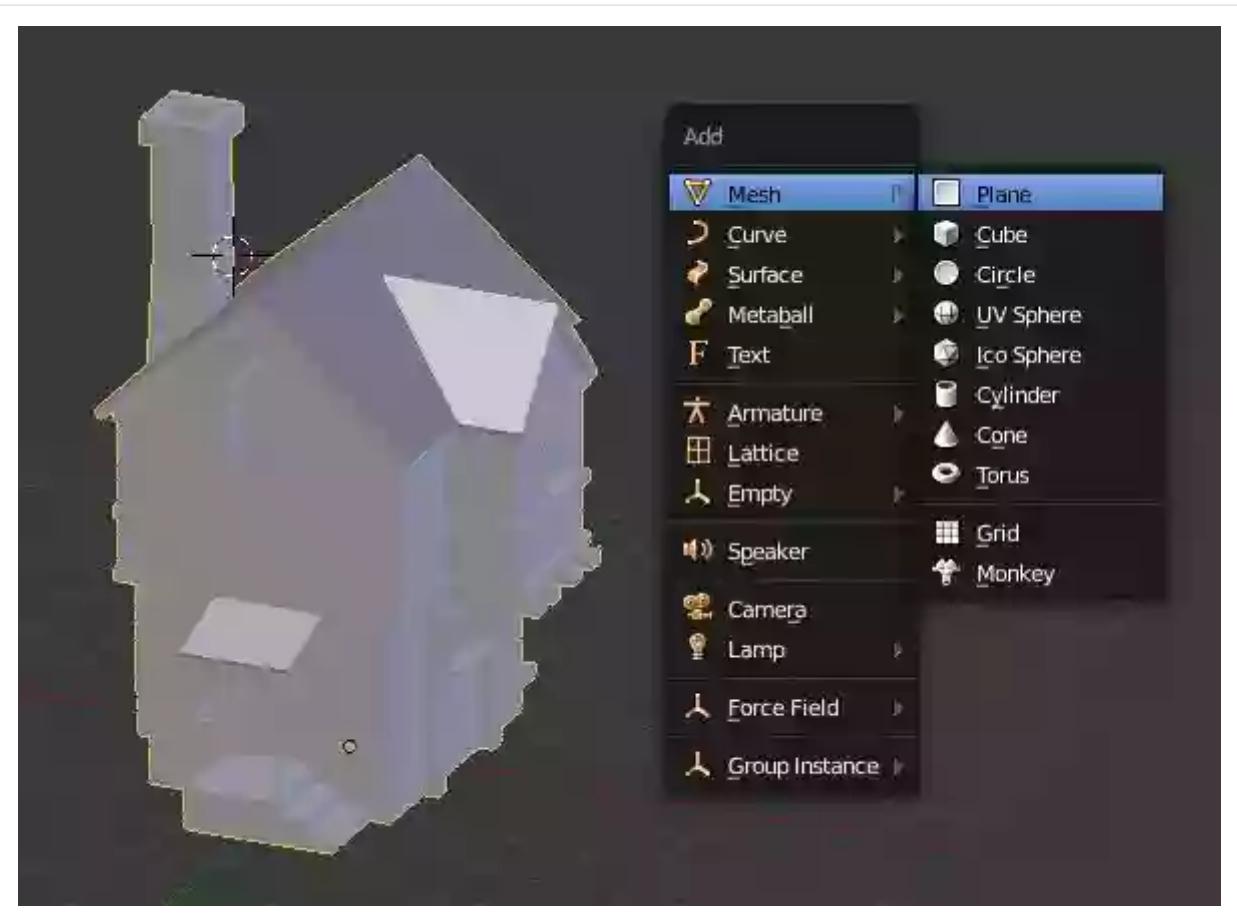


New image preview

Step 2

In the 3D view, press **Tab** again to exit edit mode, and add a plane below the model. This plane will prevent light to come from down, and help achieve nicer shades while baking the AO data (in the next step).

You can skip baking the *Ambient Occlusion* if you want to use the dynamic lighting of the game engine, for which you are creating the model.

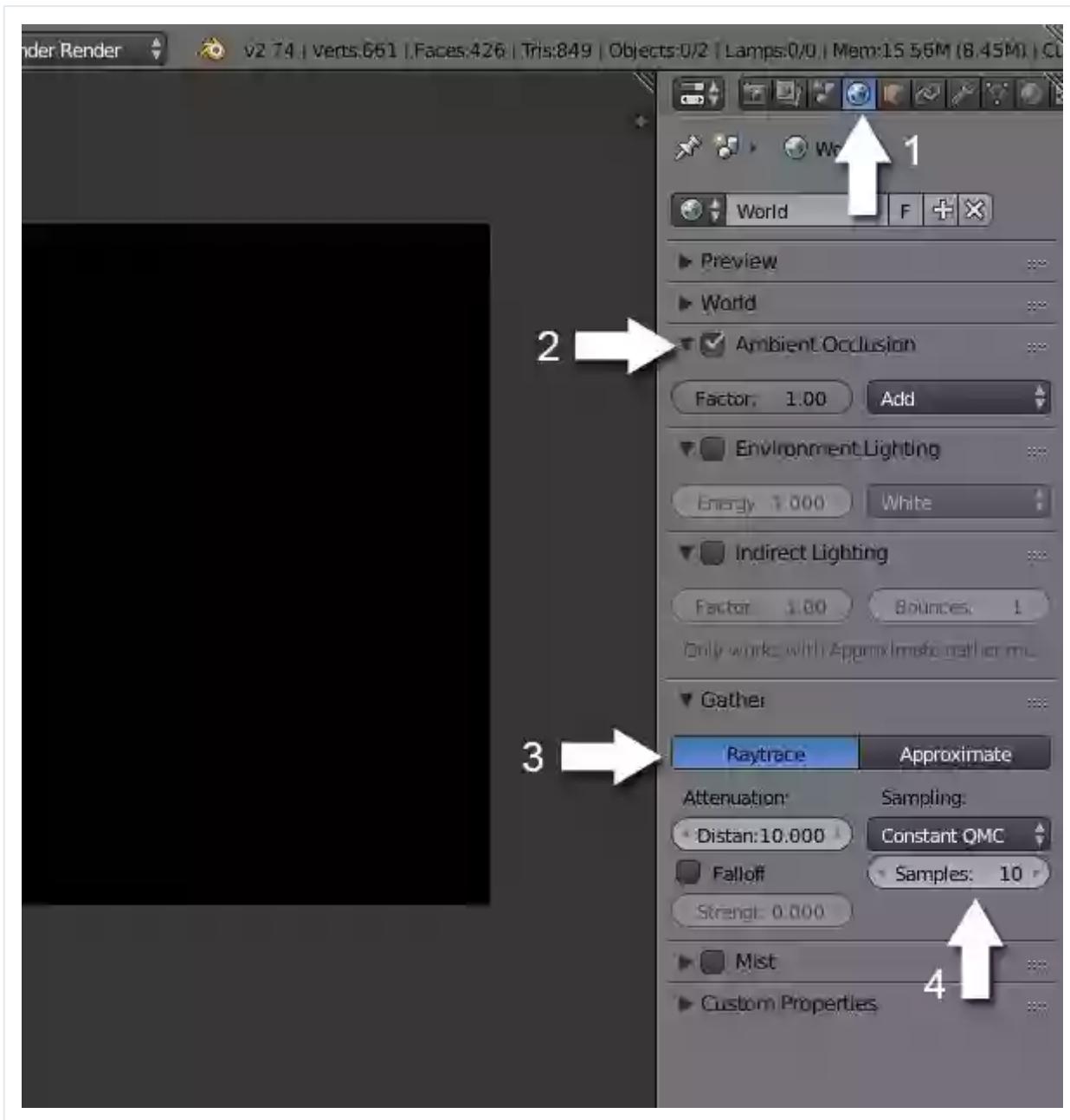


Add a plane

Step 3

I will bake the *Ambient Occlusion* data onto the image. This will add shadow information to the image, giving a nice effect. Click on the **World button** on the **Properties** panel.

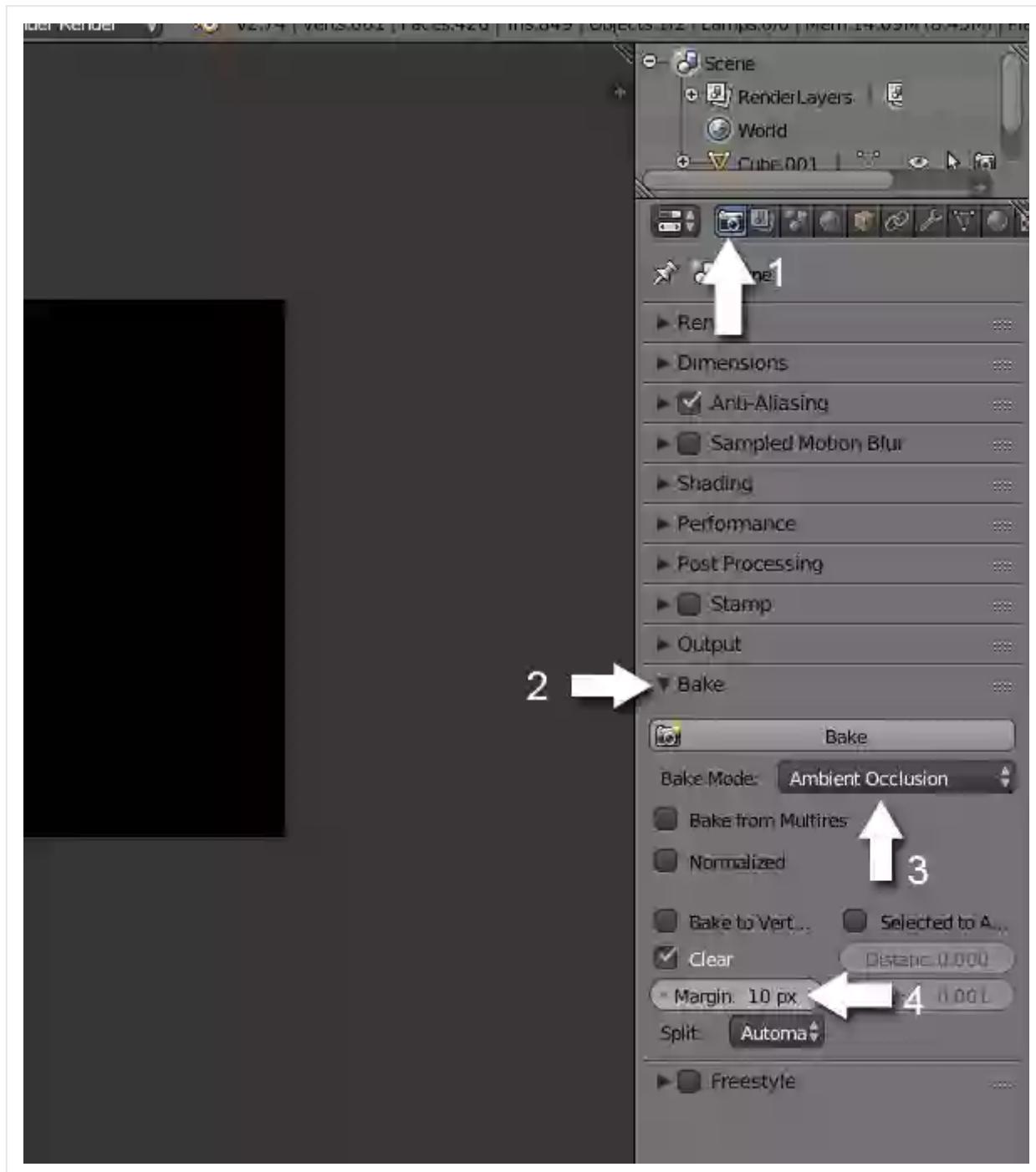
Tick the **Ambient Occlusion** check box in the panel, and input the value of **Samples** to **10** or more.



Ambient occlusion settings

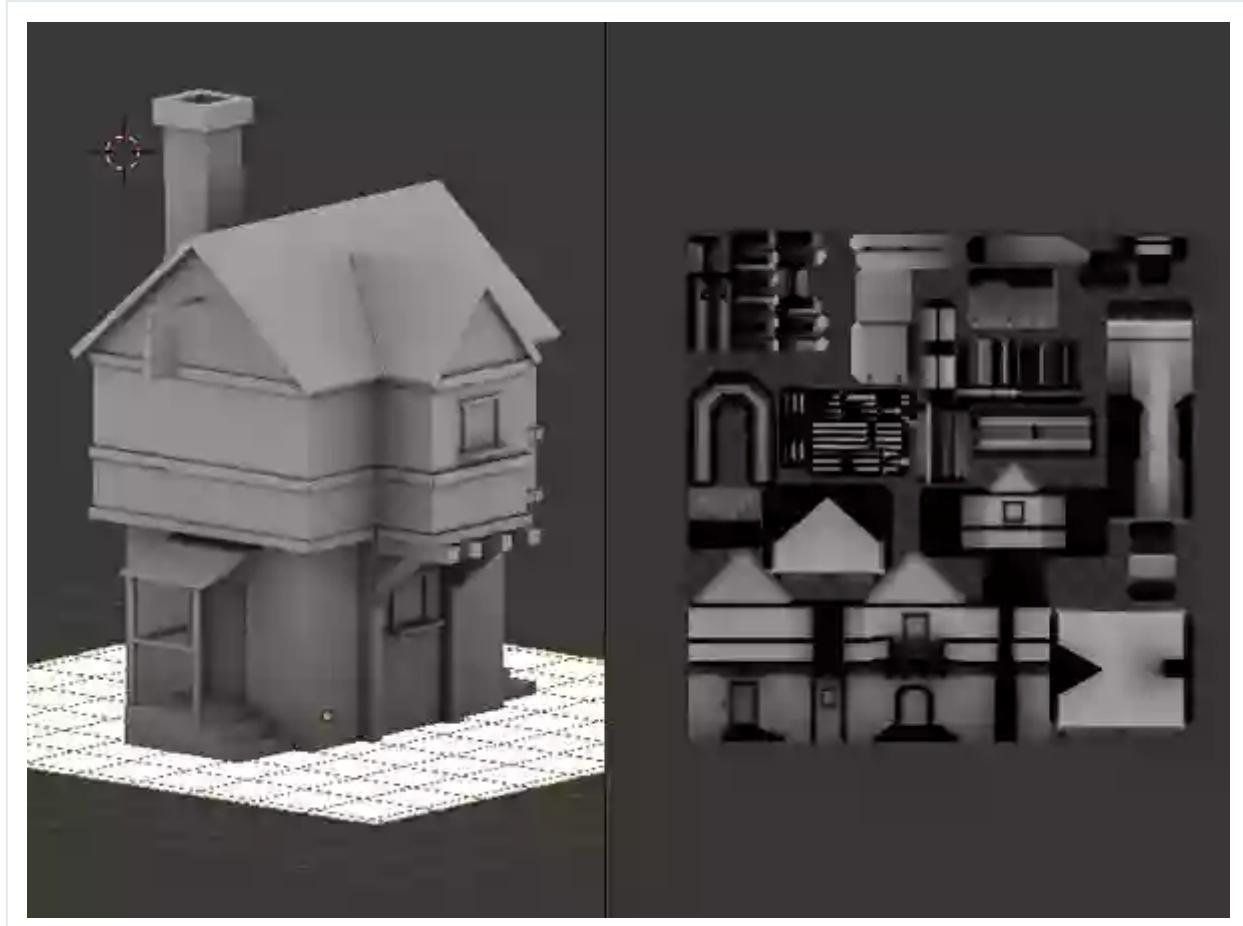
Open up the **Render** panel in the property window. Scroll Down to **Bake Panel**. Select **Bake mode** to **Ambient Occlusion**.

Increase the **Margin** to **10px**, and finally hit the **Bake** button. In few seconds, and the image will be updated.



Bake settings

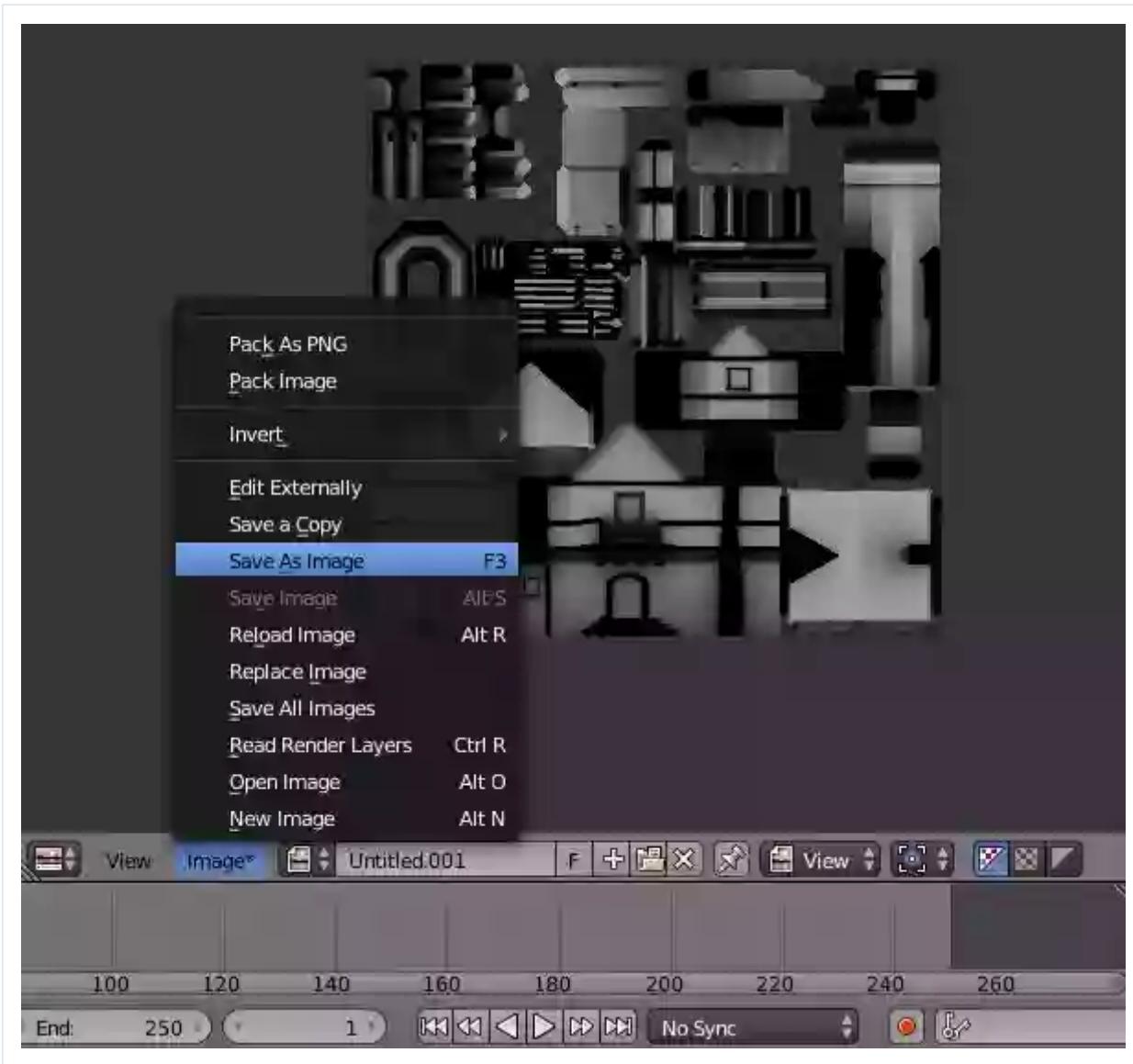
In the **3D View**, Press **Alt-Z** to view the model with textured applied. Use **Alt-Z** again to toggle back to shaded view.



Texture image preview

Step 4

Save the image, preferably in **.png** format.



Save image

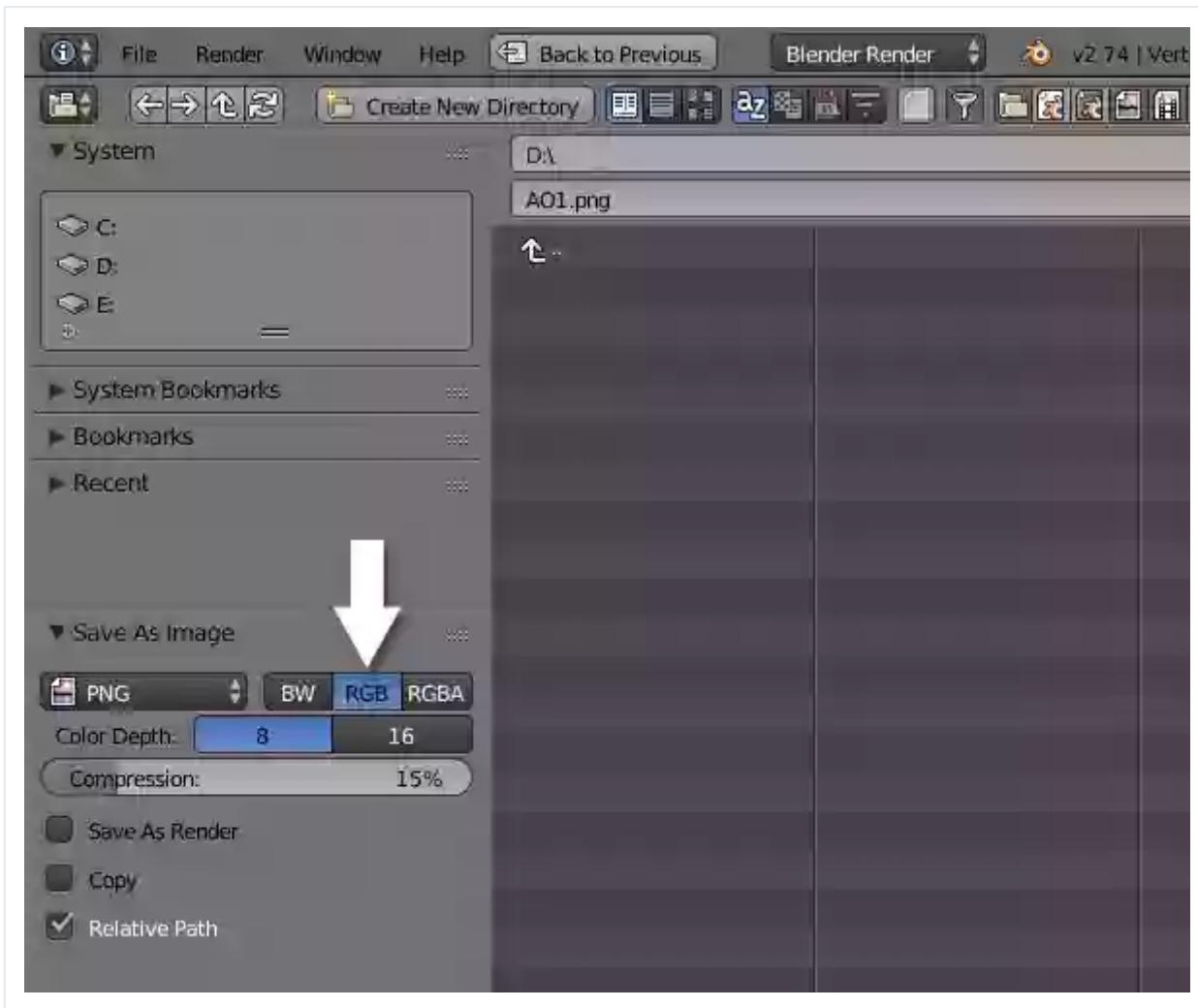


Image settings

Step 5

With the model selected, Press **TAB** to enter into edit mode.

Select all vertices with **A** key. In the **UV Editor**, click on the **UVs** menu and select **Export UV Layout**.

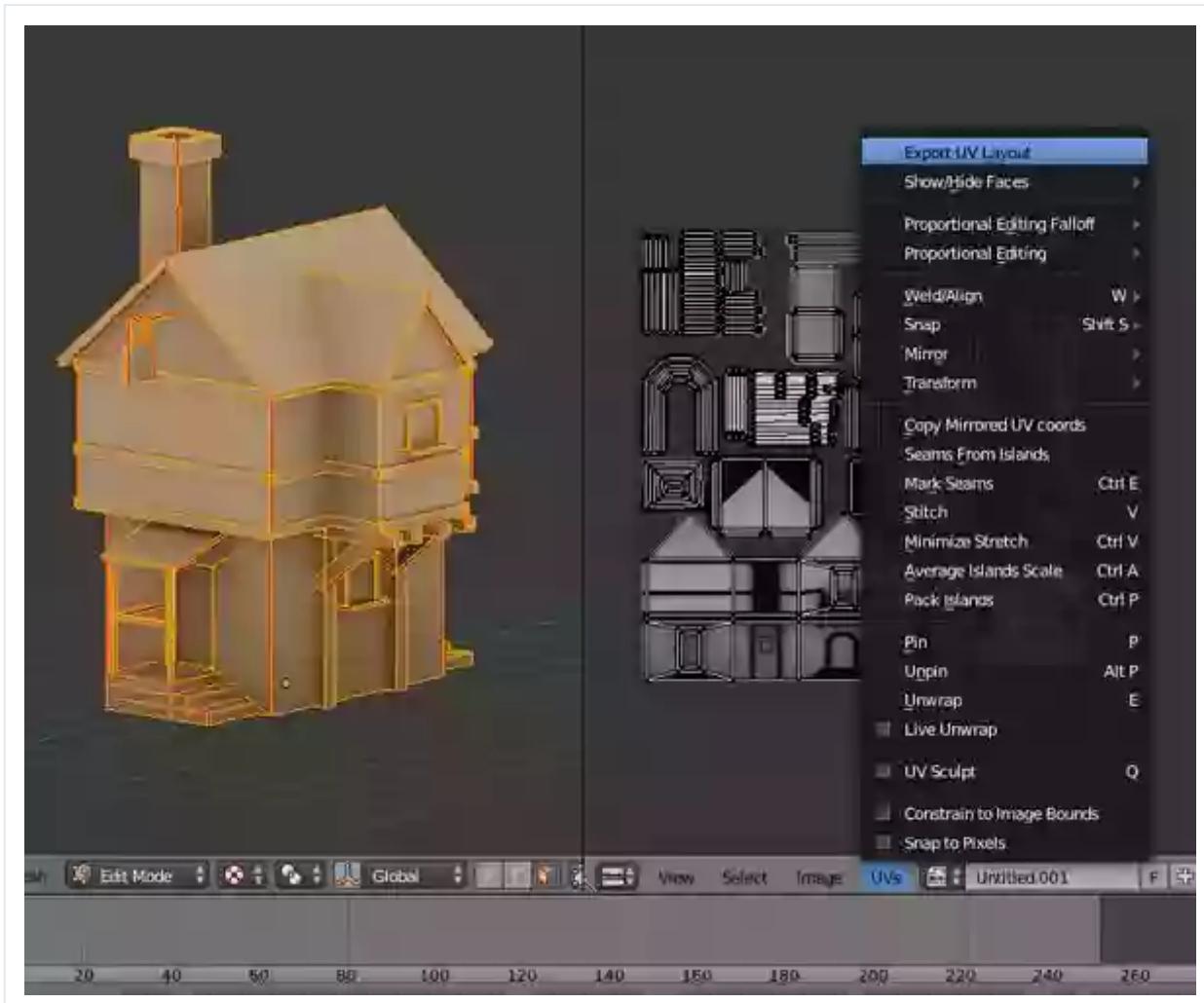
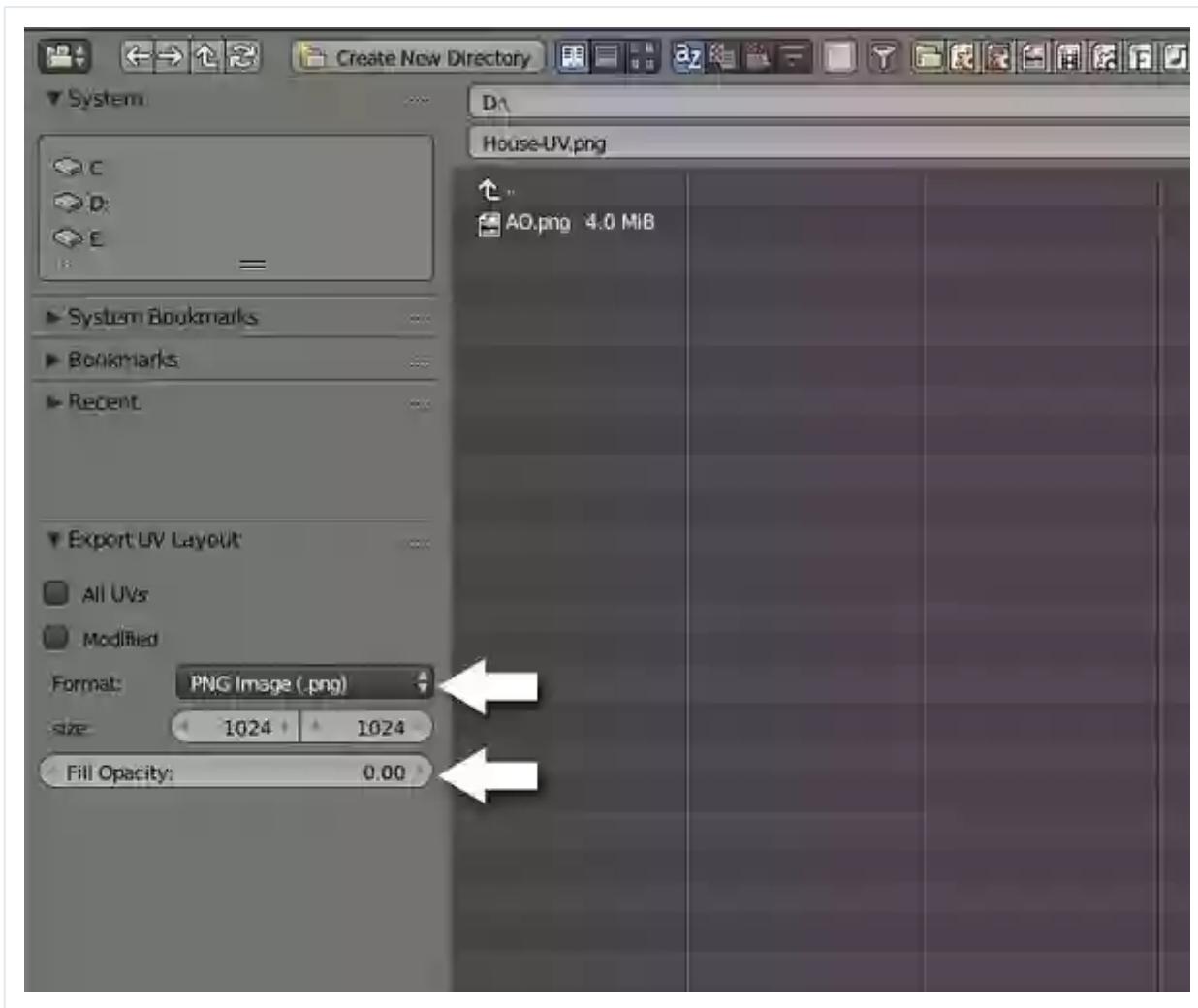


Image settings

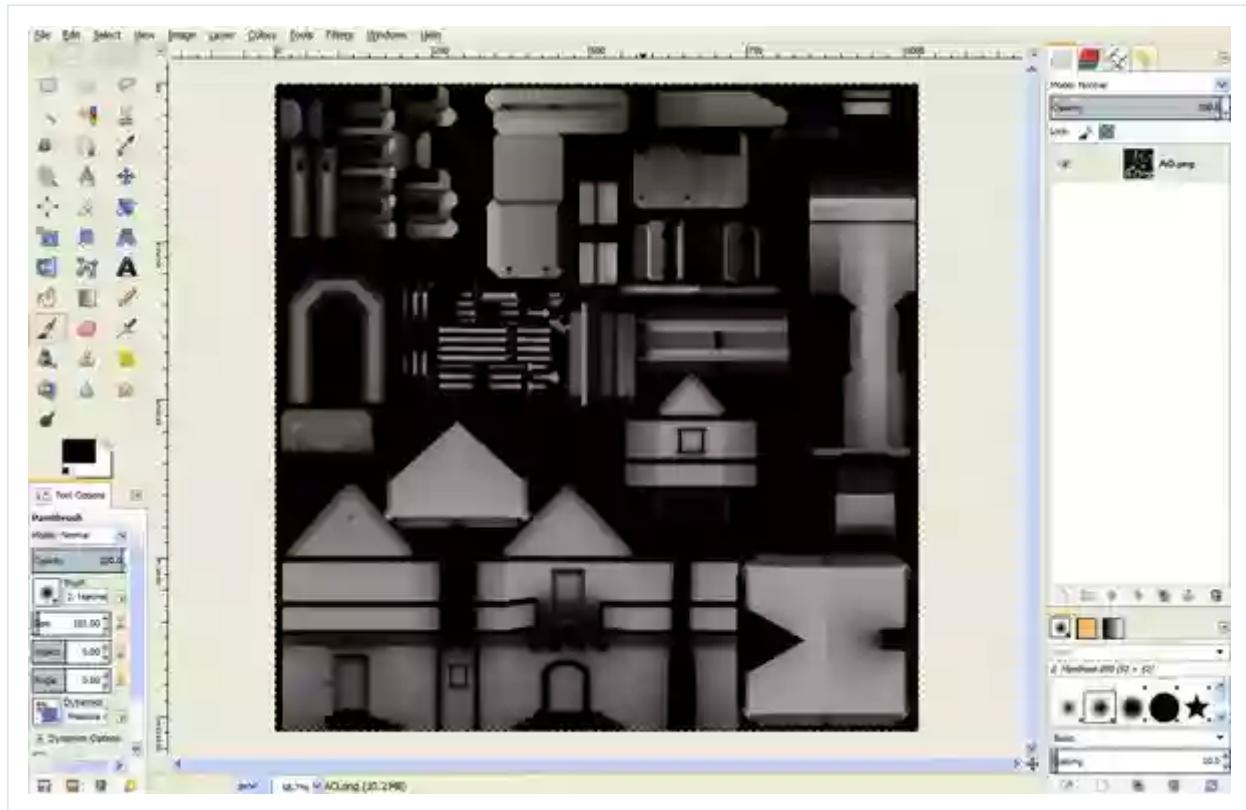
Select the **.png** format and decrease the **Fill Opacity** to **0.00**.



Export settings

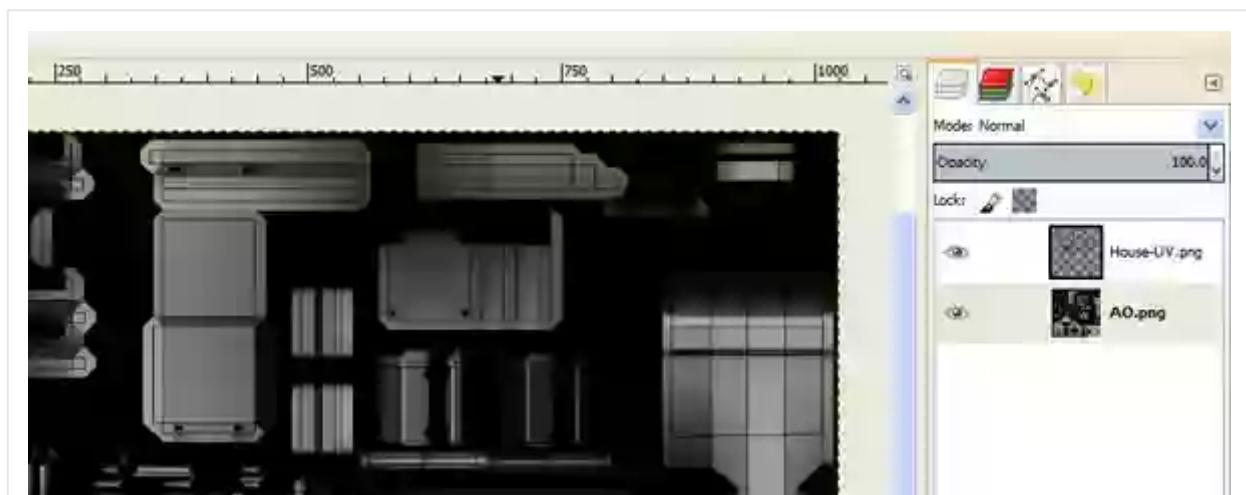
Step 6

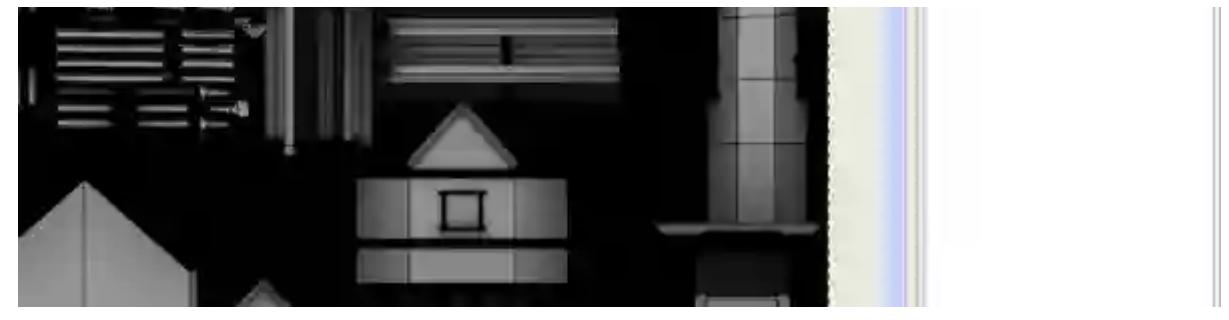
Open the image with Baked AO data, in your favorite image editor.



Open image in image editor

In a new layer on top, put the **UV Layout** you exported.

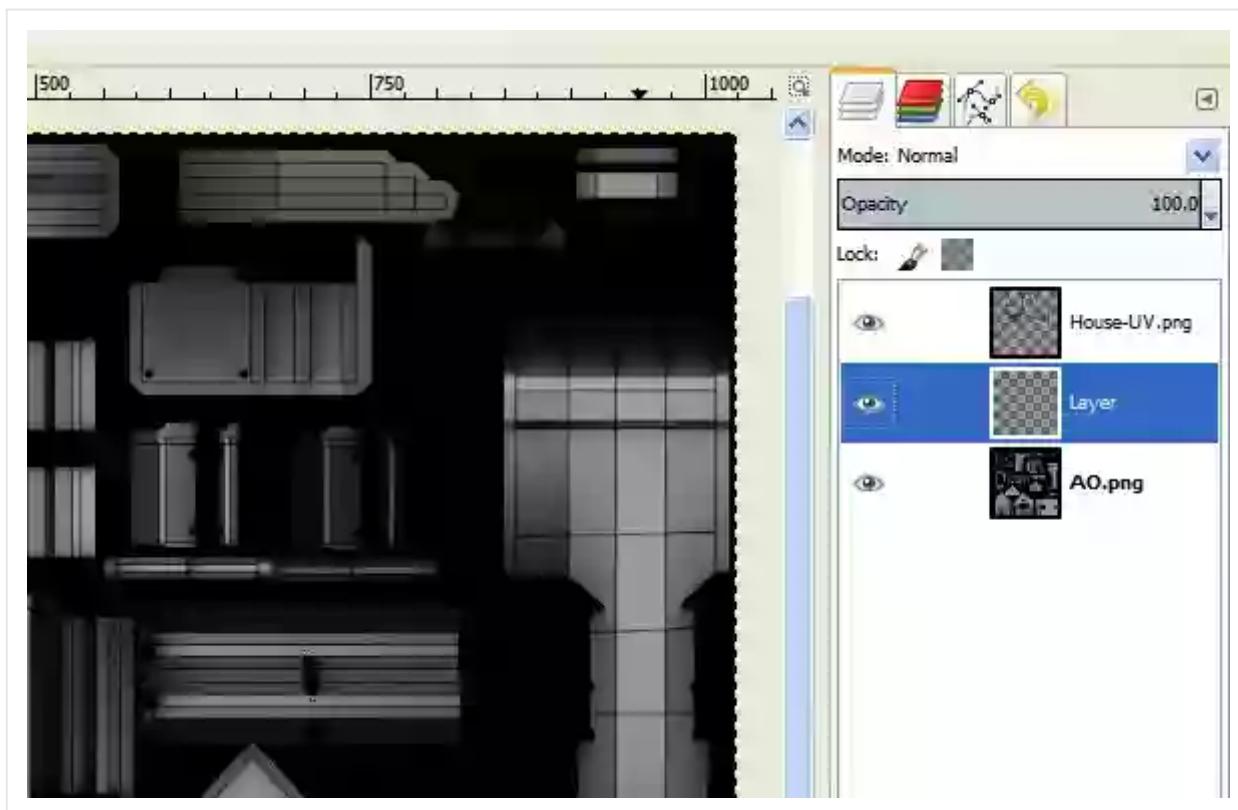




Add UV layer

Step 7

Create a new layer in between the **Wire** and **AO** layer. This will be the layer on which you can paint the texture. You can create more layers for painting but keep them between the **Wire** and **AO** **Layers**.



Add a new layer to paint

Step 8

Paint the texture with the **Wire** frame as guidelines. Set the paint layer to **Multiply** or hard light or overlay. You can experiment with the transparency levels. You will see that the AO layer automatically gives nice shades to the texture overall.

Automatically gives more details to the texture system.

Paste some seamless textures for stone wall and roof top in different layers and set them to multiply or overlay. You can adjust the brightness and contrast of the AO layer. Save the image in .psd format. Turn off the layer visibility for the **Wire** layer and export it to .png format.



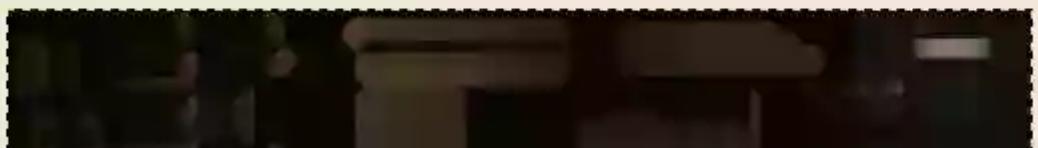
Basic color layer



Roof Texture



Stone wall texture



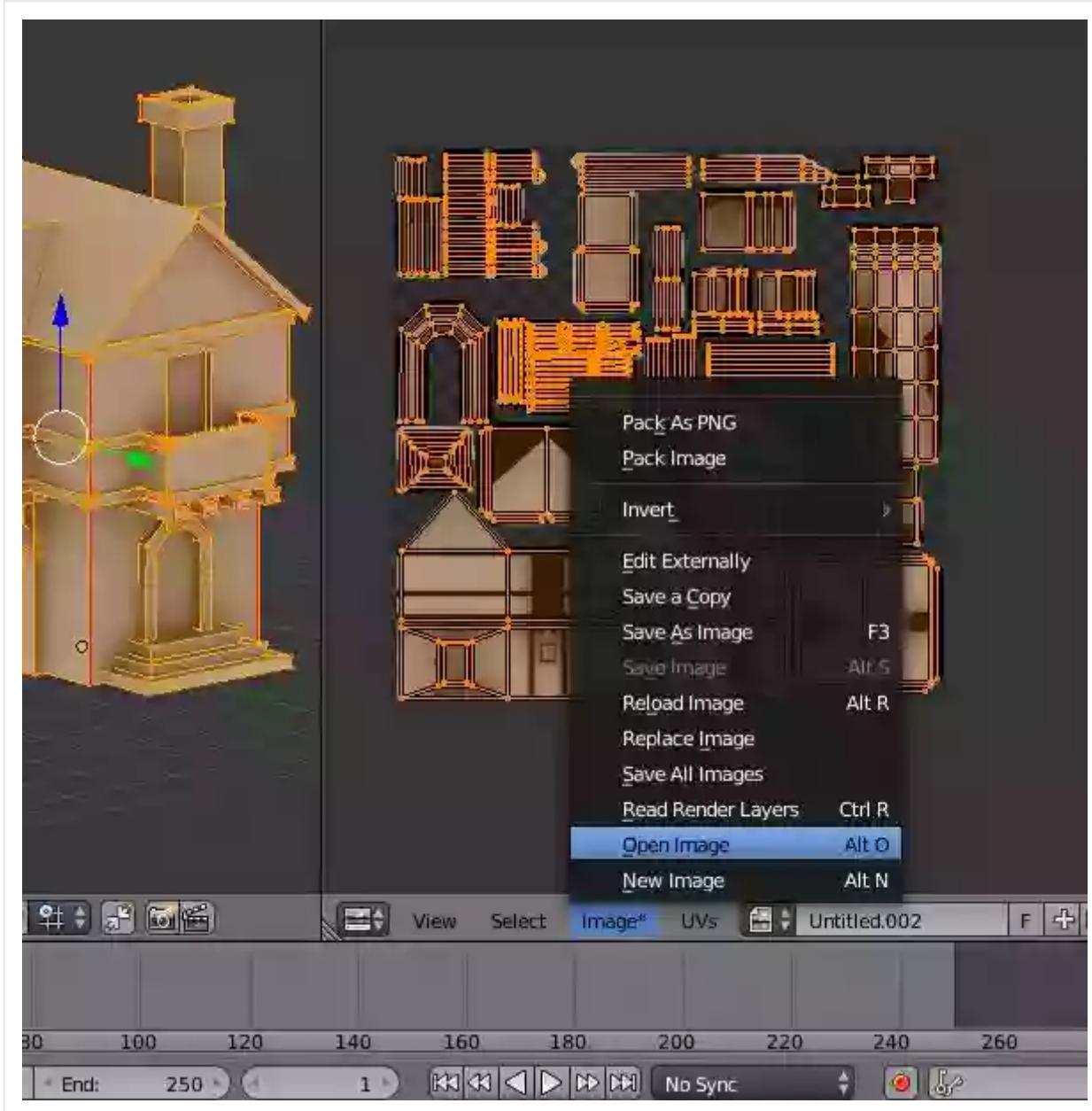


Wall Texture, Doors and windows

Texture painting

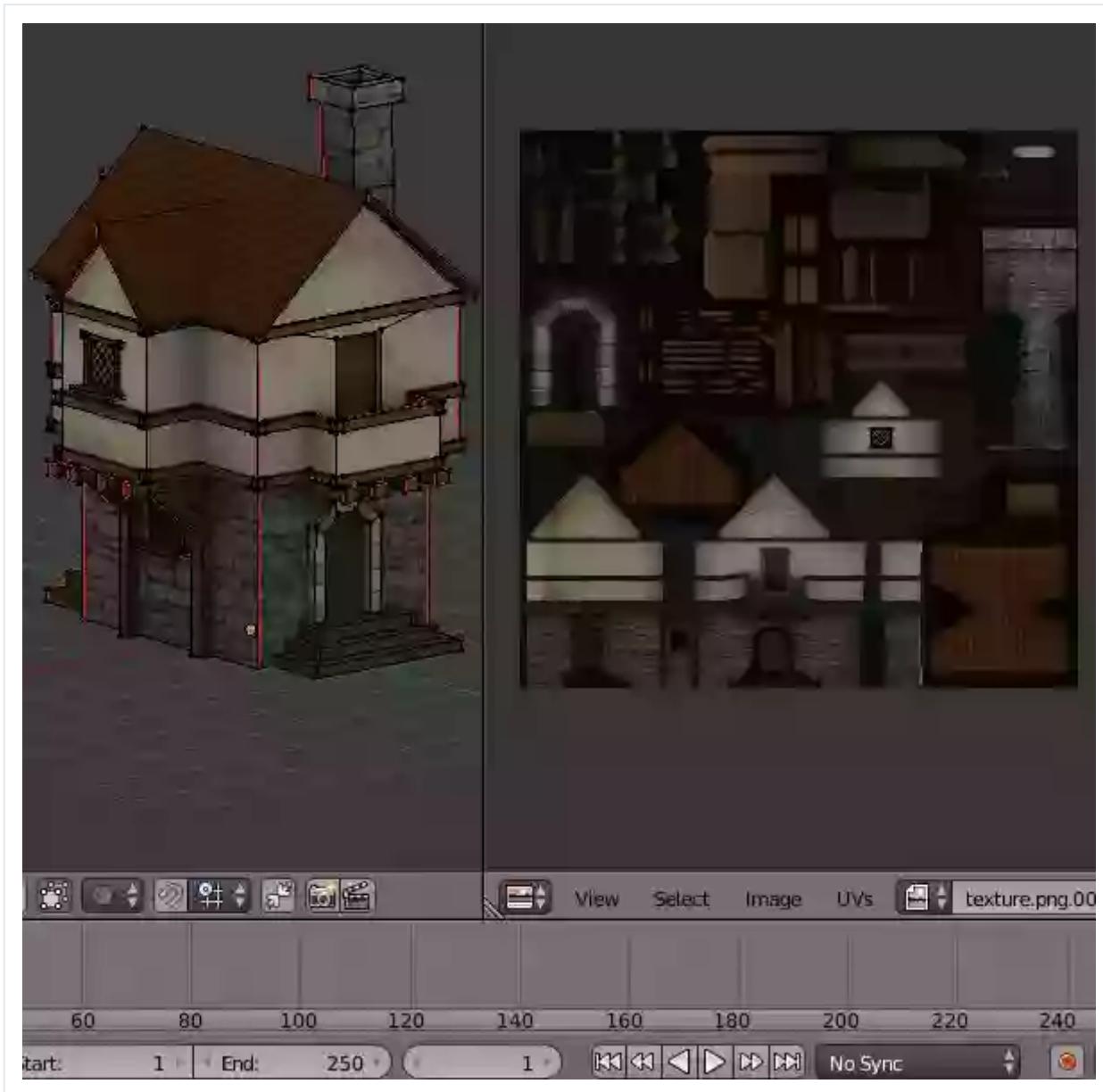
Step 9

Get back to **Blender**. In the edit mode, with all the vertices selected, open your exported .png image, in the **UV Editor**.



Open image

If you don't see the texture on the model in the 3D view, Press **Alt-Z** to enable **Texture View Mode**.

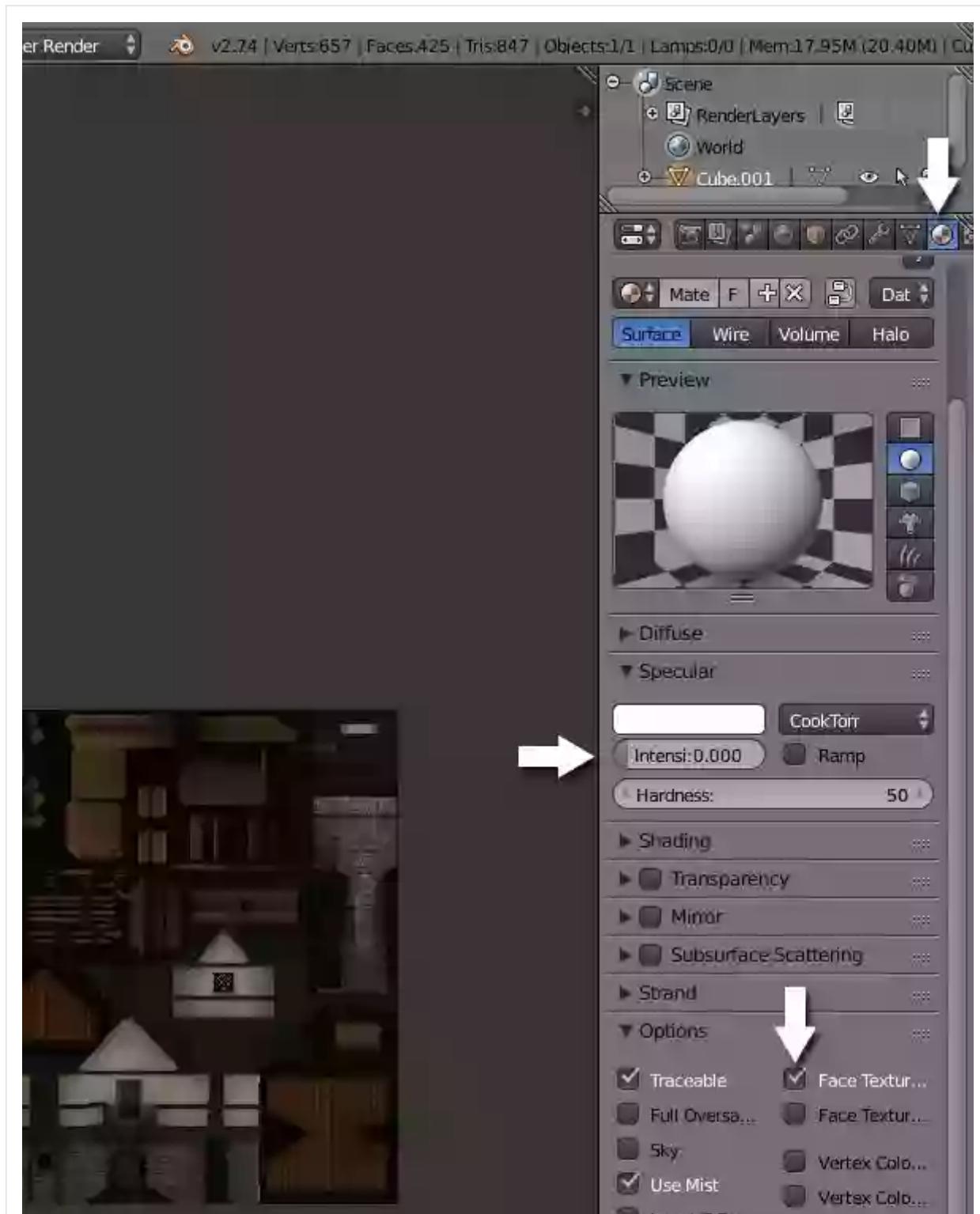


Texture preview

Step 10

In the **Materials** panel, reduce the **specular** intensity to **zero**. Scroll down to **Options**, and check **Face Textures**. You can also make

the material shadeless by checking the **shadeless** tick box under the **Shading** panel. Save the file.





Material settings

Step 11

Press **Tab** if you are still in the edit mode. The model is now ready for export or use within **Blender**.



Model is now ready



Karan Shah

Karan Shah is a 3D Artist and Animator from India. He is a BFA Graduate with specialization in sculpture. An inclination towards the digital medium made him a self taught computer artist. He is currently freelancing..

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Name

 **meedogh**

4 years ago

i used your tutorial to make a hous using my own way

[View](#)

1 ^ | ^ [Reply](#)

 **Dmitry**

5 years ago

Thanks for the tutorial, very useful! Could you please go into more detail about texturing, I'm having hard time getting it to look as nice as you have it.

1 ^ | ^ [Reply](#)

 **Nikhil Verma**

4 years ago

Awesome tutorial. I learned a lot from this two part blender tutorial series. Thanks!

^ | ^ [Reply](#)

 **Jorge**

4 years ago

Thank you a lot for the tutorial! Its very useful and very well explained :)

Buuut, I've been in trouble with the second part, when I do the unwrap, in step 7, your unwrapped faces are a lot different than mine and I don't know how to fix it, I could use some help :)

And thank you again!

^ | ^ [Reply](#)



Jorge → Jorge

4 years ago

forgot to attach the screenshot :)

[View](#)

^ | ^ [Reply](#)



Labonno Mehtab

4 years ago

Thanks for sharing with us the loq poly medieval house...

^ | ^ [Reply](#)



PizzaFan

4 years ago

I'm having a problem with Step 43.

"Press A to select all to see all the unwrapped data in the UV Editor." I press A, all objects in my scene (while in object mode) are outlined orange to show selected, but no data shows up in the UV editor. Each individual

object when selected (in edit mode), has unwrapped data on the uv editor but Im unable to make all of it show up at once in either edit or object mode.

^ | v Reply



karan81s → PizzaFan

4 years ago



you have to be in the edit mode. Select the object with right click and then press Tab to enter into edit mode.

^ | v Reply

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