

SketchUp Workshop Steps

Building a model in imitation of the model of the Temple of Venus and Roma available in the SketchUp 3D Warehouse (by L.VII.C)

<http://sketchup.google.com/3dwarehouse/>

0. Open up a new, empty document, selecting the metric template.

(If you're having trouble: check out the training videos for basics at:

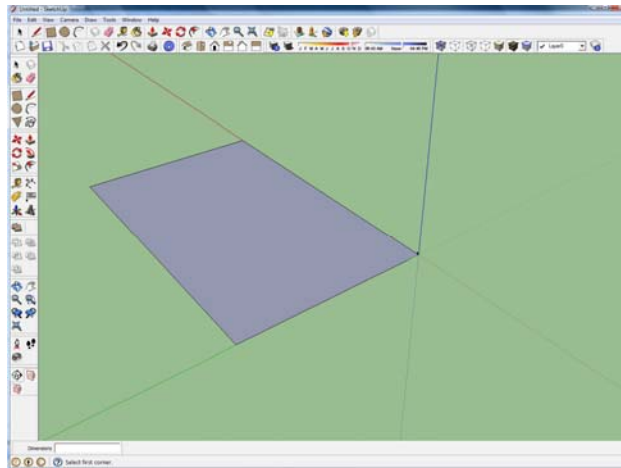
http://sketchup.google.com/training/videos/new_to_gsu.html)

1. The Podium of the Complex

- Starting at the origin, draw a rectangle with the "Rectangle Tool" measuring 162m x 100m (hint: type 162m, 100m after first clicking the tool on the origin).

(If you're having trouble: check out the training video for the Rectangle Tool at:

http://sketchup.google.com/training/videos/new_to_gsu.html)

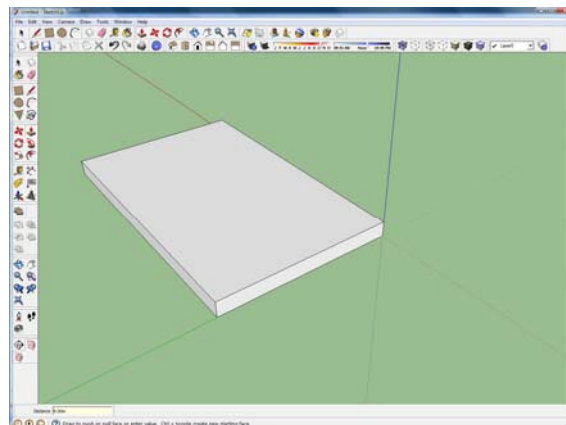


- Using the "Push Pull Tool," pull the rectangle up 9m. (Remember that you can enter dimensions from the keyboard as soon as you start using the tool - there's no need to click in the little window at the bottom where the dimensions are shown.)

(If you're having trouble: check out the training video for the "Push Pull Tool" at:

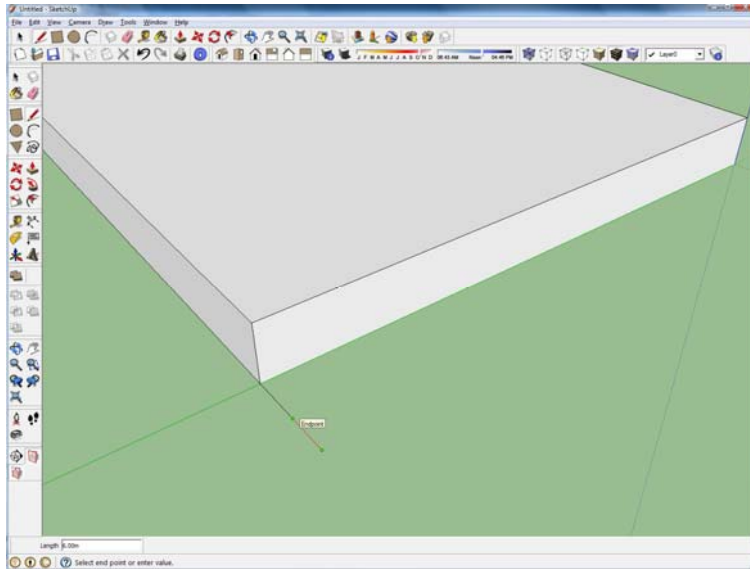
http://sketchup.google.com/training/videos/new_to_gsu.html)

- Triple click the box you just created to select it all. Then either 'right click' if you have a three button mouse, or click on the edit menu at the top of the screen. Select 'make group' to complete this shape and make it ready for adding things on top of and against it.

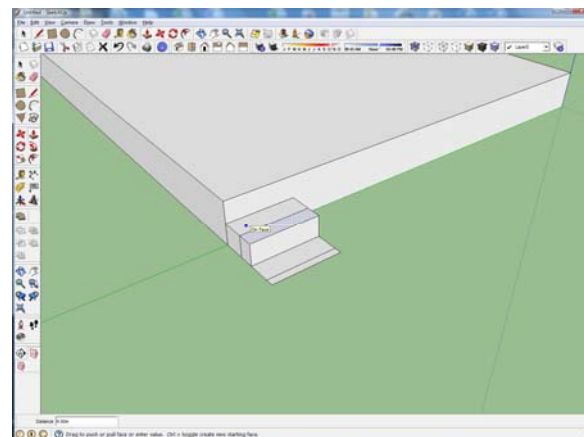
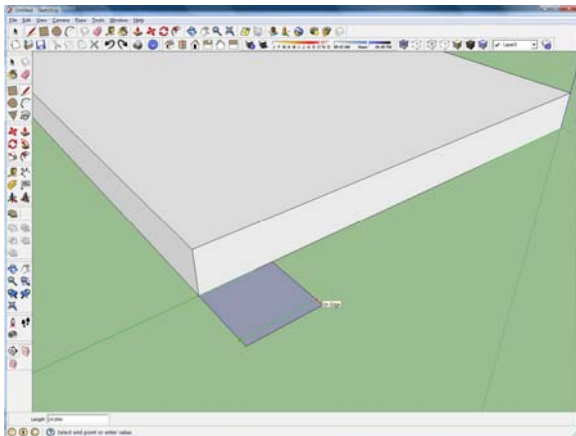


2. Steps on the Podium

- Select the “Line tool” and begin to draw a line at one corner of the box (the temple podium). Be sure to pull out a line parallel with one of the axes, and then type 4.5m and then push the “Enter” key. This will draw a line precisely 4.5m long. You can type immediately the next measurement and it will continue to add line segments until you finish. Type 1.5m, then 4.5m again, then finally 1.5m one more time.
- Now draw at right angles (following another axis) and type 14m to trace out the bottom of the steps.
- Now complete the rectangle by drawing back to the Temple Podium. Practice “inferencing” by highlighting the endpoints on the other side, and then drawing a mirror of the same measurements as you go.
(If you’re having trouble: check out the training video for the “2. Drawing Shapes, and 1. Concepts” at: http://sketchup.google.com/training/videos/new_to_gsu.html)
- Finally, connect the endpoints, in order to divide up the rectangle you’ve just drawn (be sure not to select the cyan midpoints instead of your endpoints!)

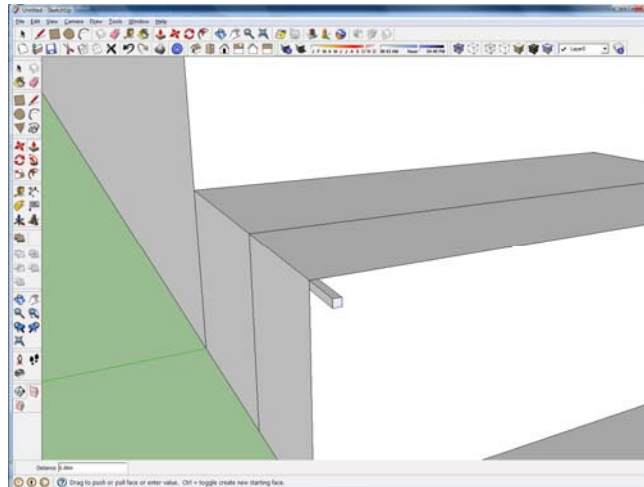


- Now raise up the rectangle by using the Push/Pull Tool to raise each piece to 4.5m in height. You can practice inferencing the height by clicking the tool on one area, then running your cursor over an area already at the right height (like the podium for instance).



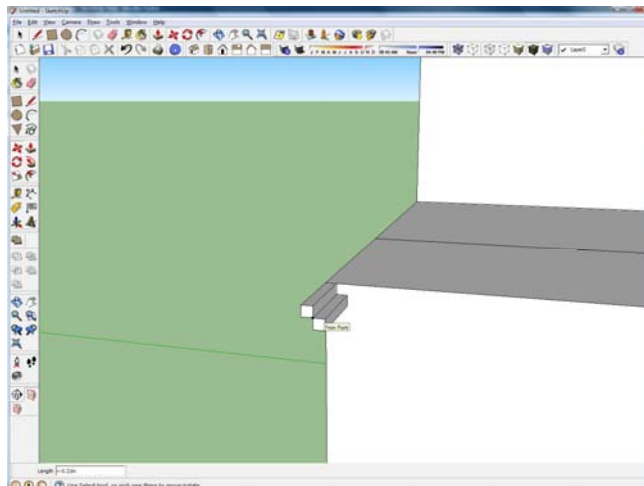
3. Stairs for the steps

- Triple click on the blocks we've added so far and make them a group.
- Now, selecting the rectangle tool, draw out a rectangle 15cm by 15cm starting with the edge of one of the stair walls.
- Use the push/pull tool to pull out this square 1m



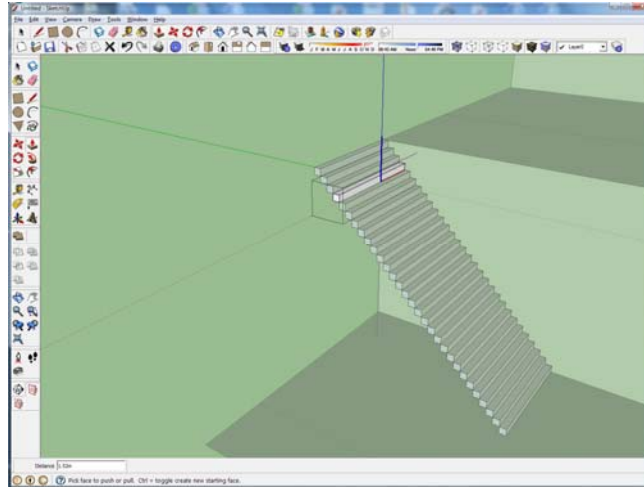
- Triple click the resulting block to select it, and, using a right click or the edit menu, make it a 'component'
- Now, we're going to add all of the steps with a single command. Using the "Move" tool, and holding down CTRL or Apple key, Selecting the upper corner of the block. Before you let go, drag the mouse and a copy of the object will appear, which you may line up with the bottom corner of the original block. Now, before clicking anywhere else, type 29x. This will make 29 copies appear in a row along the same alignment as the first one. Our steps are created.

(If you're having trouble: check out the training video for the "Copy and Arrays" at:
http://sketchup.google.com/training/videos/familiar_with_gsu.html



- However, they are a bit small - so let's make them longer. Double-click on one of the steps to edit the component. Using the Push/Pull Tool, click on the side face and drag it out to 4.5m. When you're done, click outside of the editing box (in the green area) and the component will close. All of the other steps should change at the same time.

(If you're having trouble: check out the training video for the "Components" at:
http://sketchup.google.com/training/videos/new_to_gsu.html)



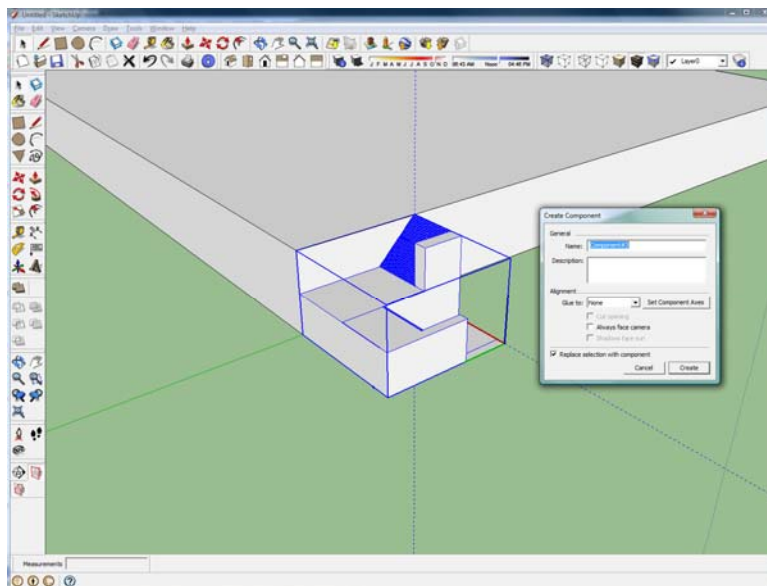
- Use a similar method to copy these same components to the upper flight of stairs. Continue to play with the stairs, dividing areas with Line Tool, pushing and pulling areas until you are happy with them.

4. Adding a Second Set of Stairs

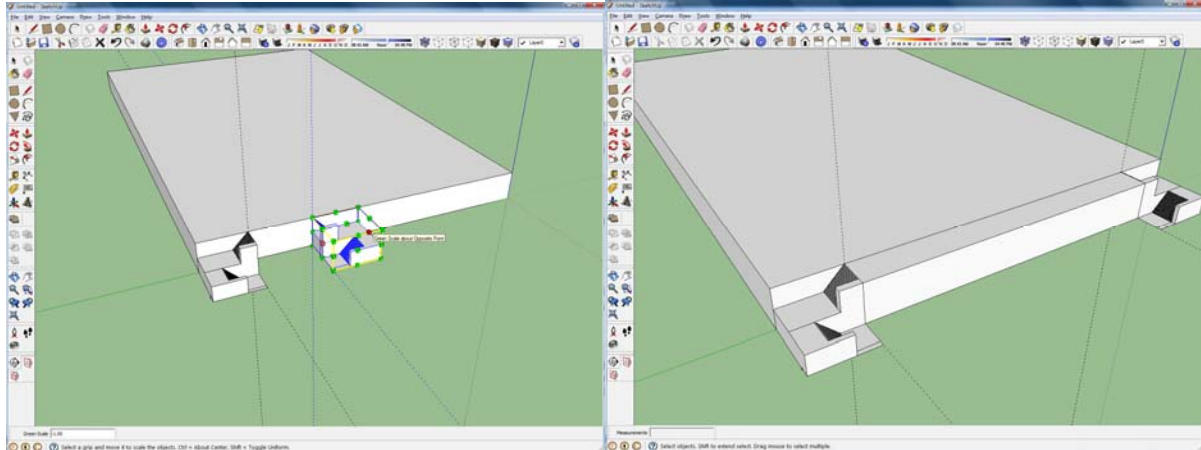
- Select the stairs and the individual stair components. You may need to use a right or left box select to do so. If you also select the original podium, be sure to deselect it by holding down shift and clicking on it.

- Now make the whole stairs into a new component

- Make a copy of the stairs using the Move Tool plus CTRL, or via the Edit menu.

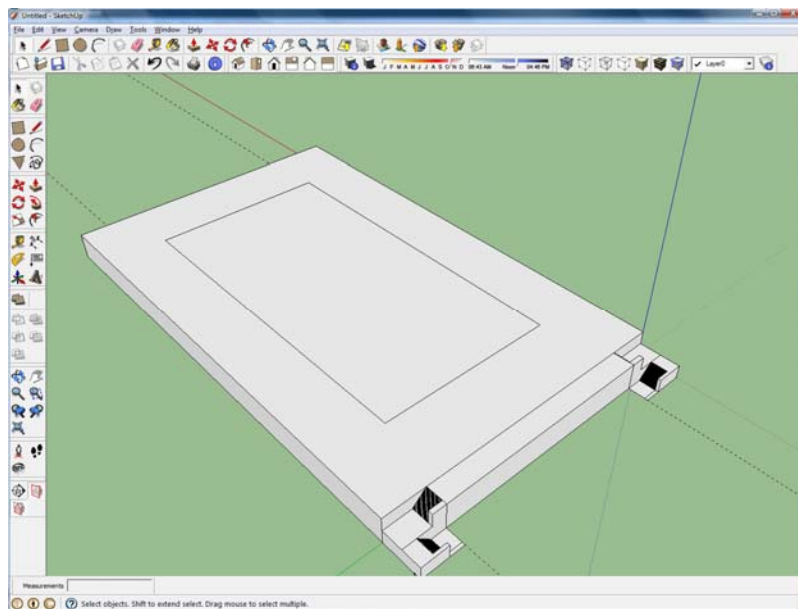


- Select the “Scale Tool.” The copy should be surrounded with a yellow box and green squares. Using the green squares, you can grasp hold of the item and scale it. Here, select one of the green squares in the centre of one of the lateral sides, and turn it ‘inside out’ by scaling beyond the item and on to the other side.
- Now you may Move the copy to the other end of the Podium to complete it.
- Use the Line Tool to complete the space in between in order to complete the podium.

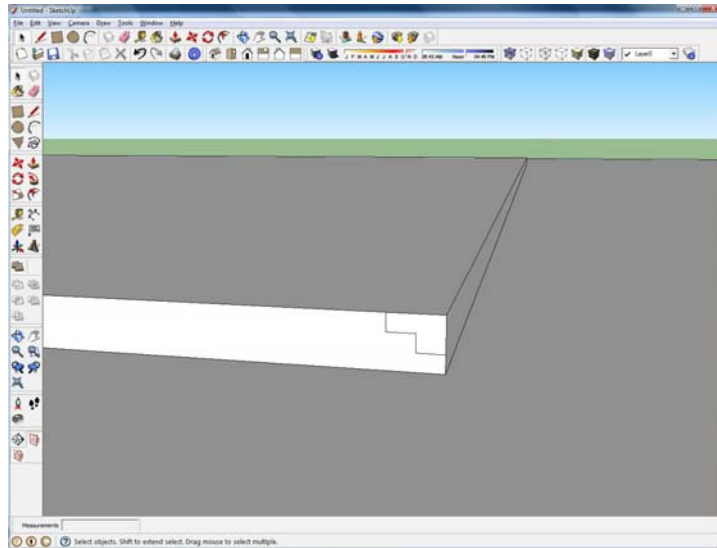


5. Stylobate for the Temple

- Using the Tape Measure Tool draw guides from opposing corners of the podium.
- Now use the Rectangle tool to create a rectangle in the centre of the podium
- Use the Push/Pull tool to raise this to .60m



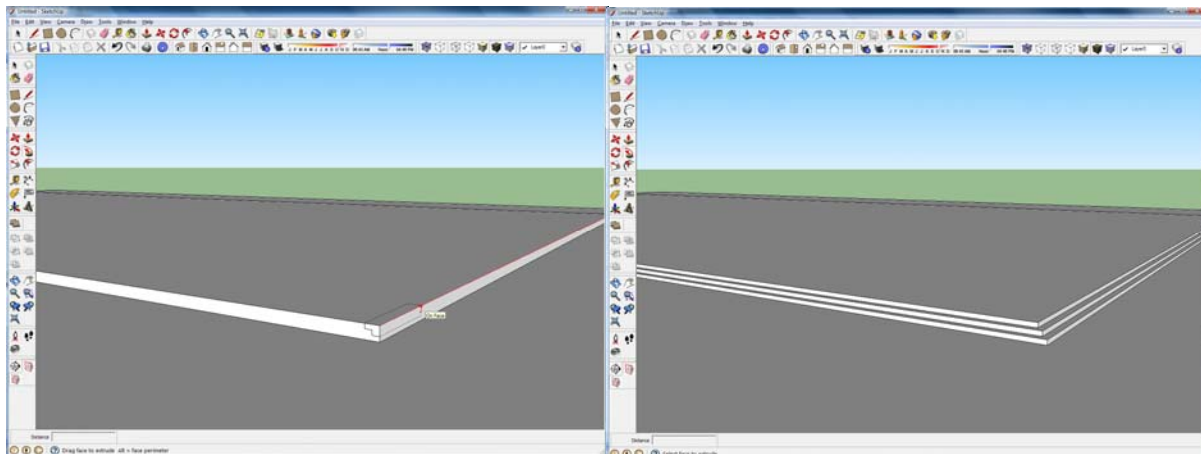
- Zoom in to the corner of this new block and using the Line Tool, trace a shape for steps, .20m high by .30m wide - 3 steps in total.



- Using the “Follow Me” Tool, select the space you’d like to carve away to create the steps, and then run the tool around the top edge of the block until it arrives back at the beginning. This step can take some practice to execute perfectly so be patient.

(If you’re having trouble: check out the training video for the “Follow Me Tool” at:

http://sketchup.google.com/training/videos/new_to_gsu.html)



6. Borrow Cool Stuff from the Warehouse.

- You now have almost all of the tools you need to create SketchUp buildings. But one of the best aspects of SketchUp is the ability to use components and structures built by others in your work, be they columns, capitals, or even whole temple buildings. Using the temple model we're trying to recreate, I will now complete the model by copying, pasting, and scaling the rest of the temple complex onto my model.

