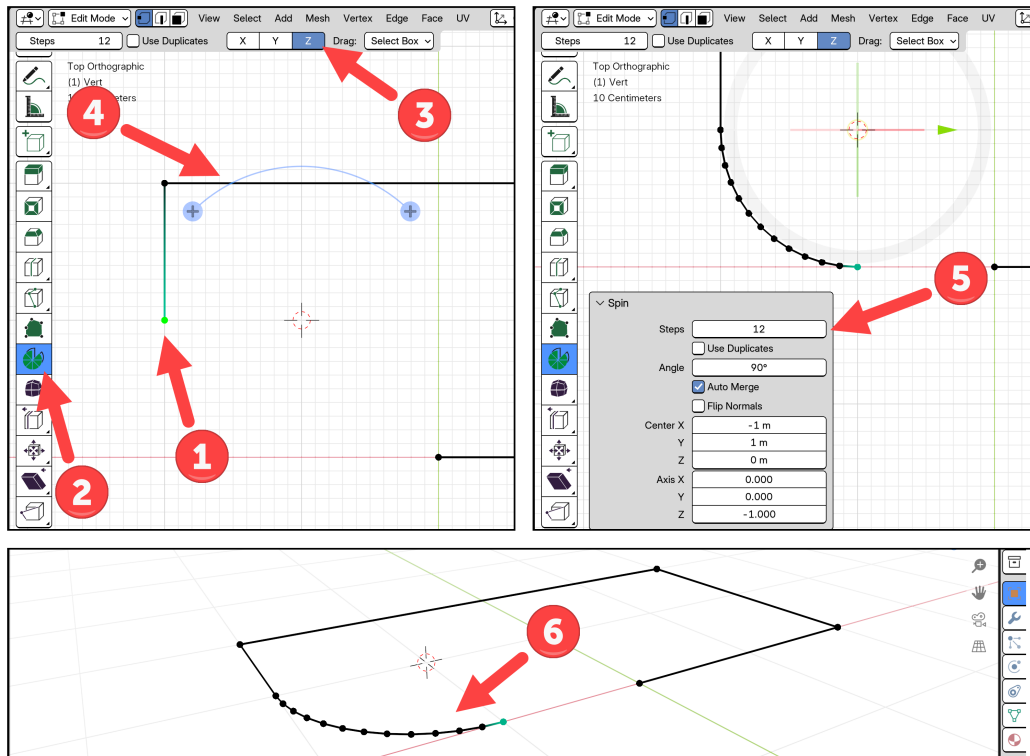


- 4 → You will see an arc as a Spin manipulator. Click and drag in the plus icon to start making the round shape.
- 5 → Use the small menu on the lower left to make changes to the Spin like entering an *Angle* and *Steps*.

Since we are using the mouse to create the arc, you have little to no control over precision. Therefore, you must use the small menu in the lower left of the 3D Viewport to set your arc angle.



**Figure 2.23** - Updating the Spin Properties

Remember that you can only update this option after you use the tool, and if you start any other operation in Blender, you miss the opportunity to edit your Spin. With the Spin shape created, you can select the entire set of edges (1) (Figure 2.24) and apply an extrude along the Z-axis. (2).

After going through the entire process of extruding and managing transformations, we get a first room using extrusions alone. Orthographic shapes with vertical and horizontal walls are easy to create with Blender's standard tools. When working with angled walls, arcs, and other shapes, we should move to Add-ons like PDT.

### 4.3 Using PDT to Create Walls

The next part of our floor plan design involves creating complex or challenging shapes with standard extrusions. Using an Add-on like PDT can offer significant benefits. For this reason, we will use it to construct the rest of the walls, starting with the angled wall at the bottom right with a 45-degree rotation.

What is the best way to start a wall like that? There are many different methods, but since we already have parts of the floor plan with walls, reusing some of those elements saves valuable time.

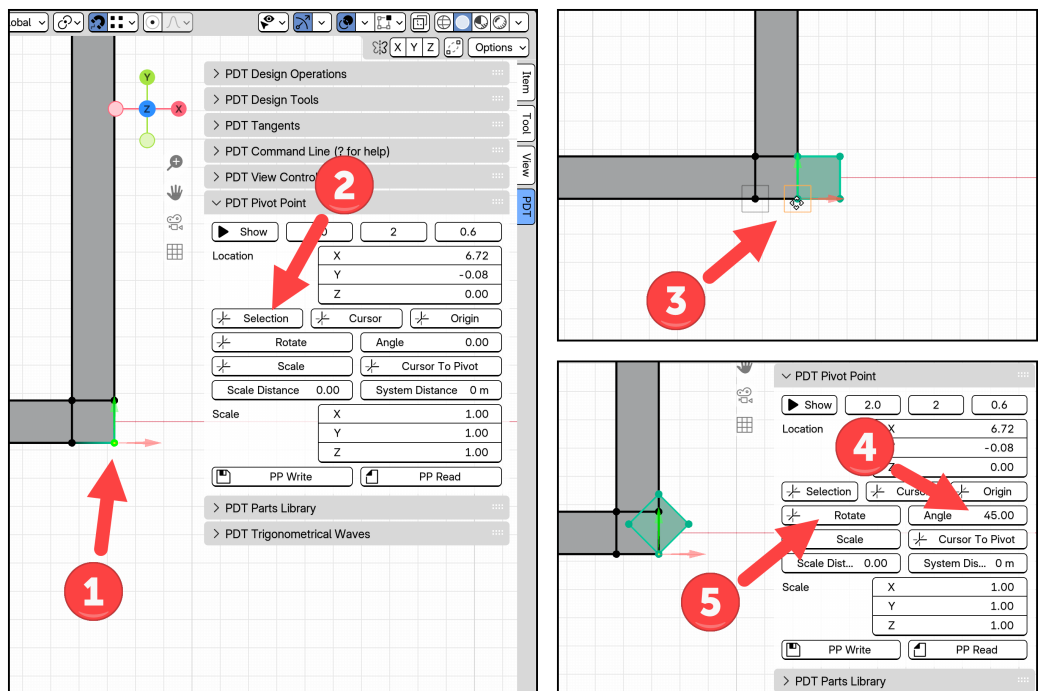


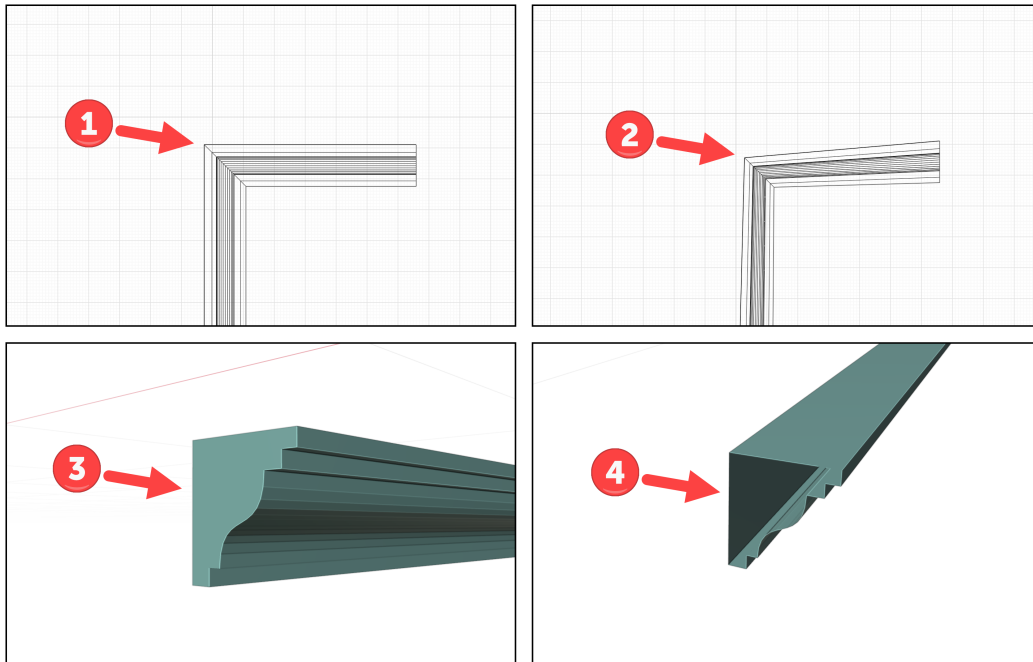
Figure 4.11 - Moving the pivot point and applying rotation

As a first step, move the pivot point to the lower right corner of your walls. It's the vertex on the lower right of the small plane measuring 0.15 m on each side (1)(Figure 4.11). Enable

- 2 → Convert this Mesh to a Curve using the **Object → Convert → Curve** menu. Since we don't need to make any adaptations or curves, you don't need to set a Spline Type.
- 3 → With this object still selected, open the *Object Properties* tab from the Properties Editor. Set the curve type to 2D.
- 4 → In the *Bevel* field, change the type to *Object*.
- 5 → Select the object that has your profile. You will have to locate it by its name.
- 6 → Enable the *Fill Caps*.

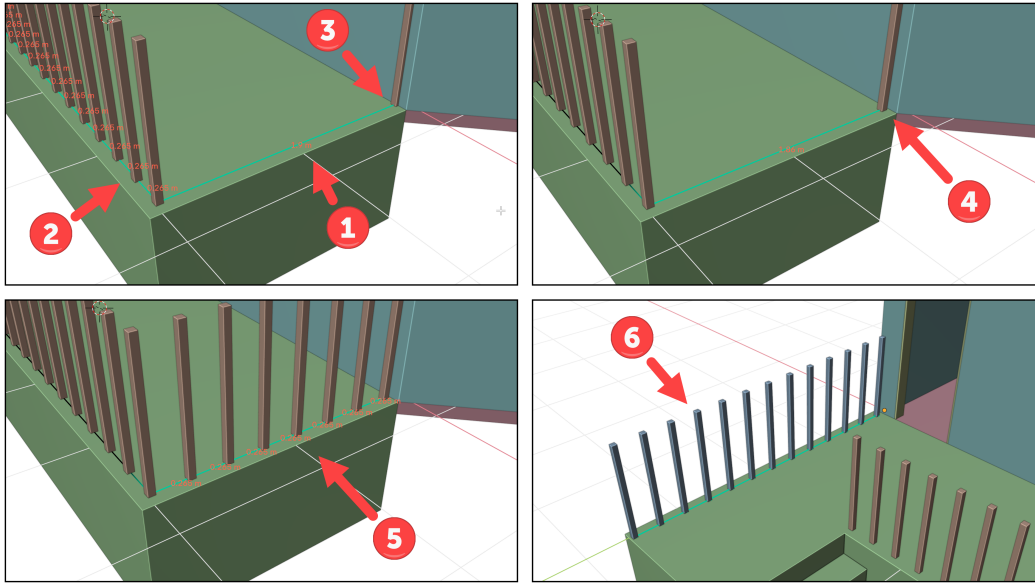
Working with Bevel Objects happens in the shape used as a path and not the profile. You always select the path object and access the *Object Properties* tab.

Looking closely at **Figure 7.26**, in steps 2 and 3, you will also notice that both images use a top-view projection. If you spot the profile object, it uses the same rotation and angles. You don't need to apply any transformations to the profile. Creating the object and using the *Bevel Object* with the Curve aligned with the X and Y plane works.



**Figure 7.27** - Types of Curves for the Bevel Object and Caps

Following a similar workflow, we can repeat the process for the other edge. Before diving into making divisions, make a quick verification. One of the vertices from the other edge is close to the wall. Not only near but also making an intersection with the wall. To fix that, we can move it away from the wall and prepare it to use the same spacing as the first segment.



**Figure 5.23** - Adjusting spacing and subdivision

In **Figure 5.23**, you find the workflow to replicate the same balustrade spacing to the other edge:

- 1 → Select the edge to verify its current length. From the image, you can see that it is 1.90 meters.
- 2 → We need a spacing of 26.5 centimeters.
- 3 → Considering that one of the vertices is making an intersection with the wall, you can move it on the Y-axis to adjust for a possible length correction. Select that Vertex.
- 4 → If you divide 1.90 by 0.265, we get 7.16. If you multiply 0.265 by 7, we get 1.855. To fit seven segments, you can move the Vertex by 0.045 meters ( $1.9 - 1.855$ ). Move the Vertex on the Y axis using this distance.
- 5 → With the edge selected, use a right-click and subdivide it with six cuts. As a result, you get the same 0.265 spacing.