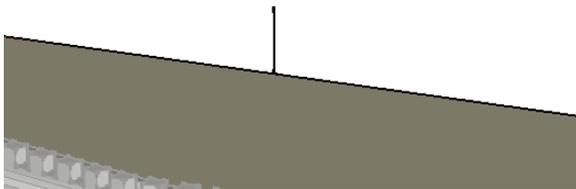
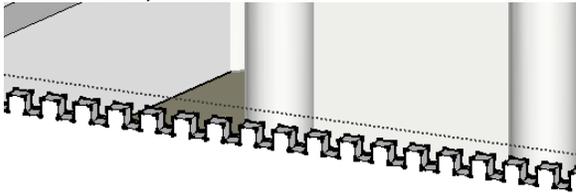


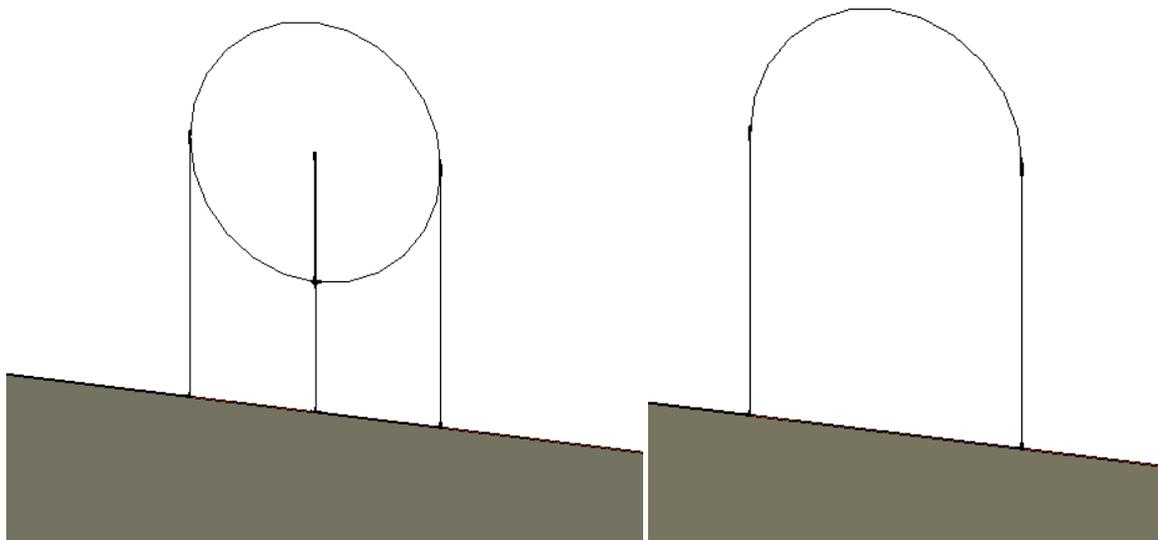
Building a Castle – Details Design and Production

These instructions will give techniques to detail some parts of the castle: Windows, Gate, Tower and Battlement/Wall Details

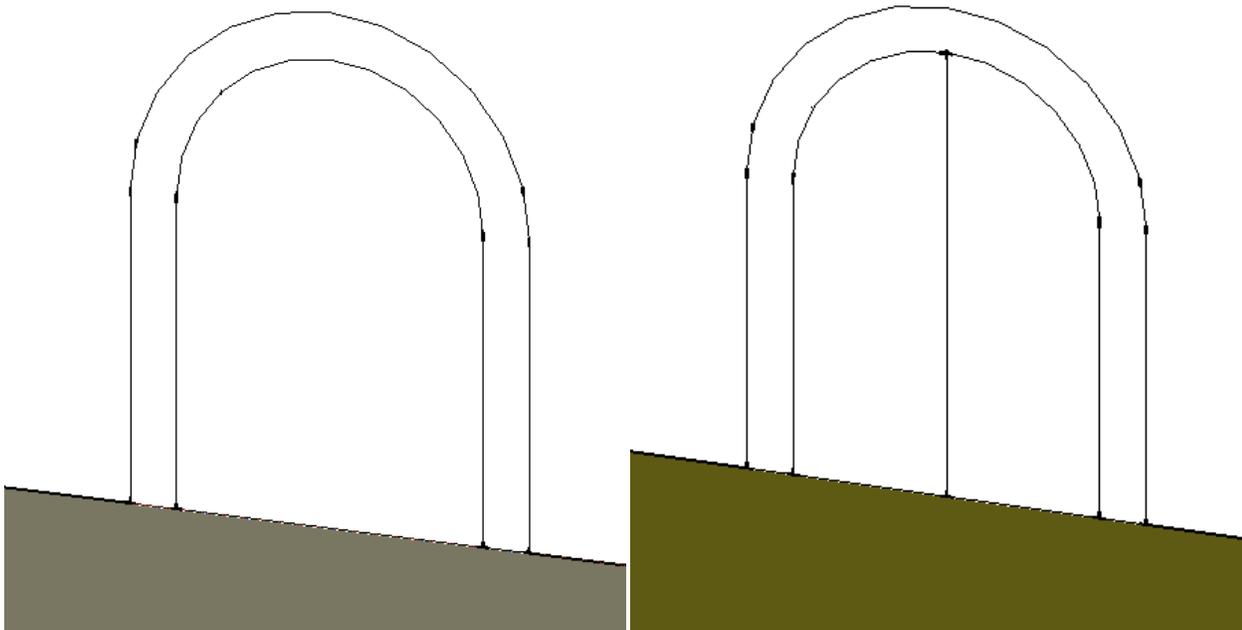
1. This section will show you how to build a Gate for your castle. You can build this on your castle walls, on the outer wall, or on the Keep as a door. The process will be the same, and you can draw it to whatever size you need. The technique will be the same as we have used to draw arches in the past.
2. Open your castle file. We want to draw this gate on walls, so you may need to double click into the group or component that contains your walls. Start by drawing a vertical line where you want to place the gate. The midpoint of a given section of wall would make sense. I made this line 20' tall, which would make sense for 40'-60' walls.



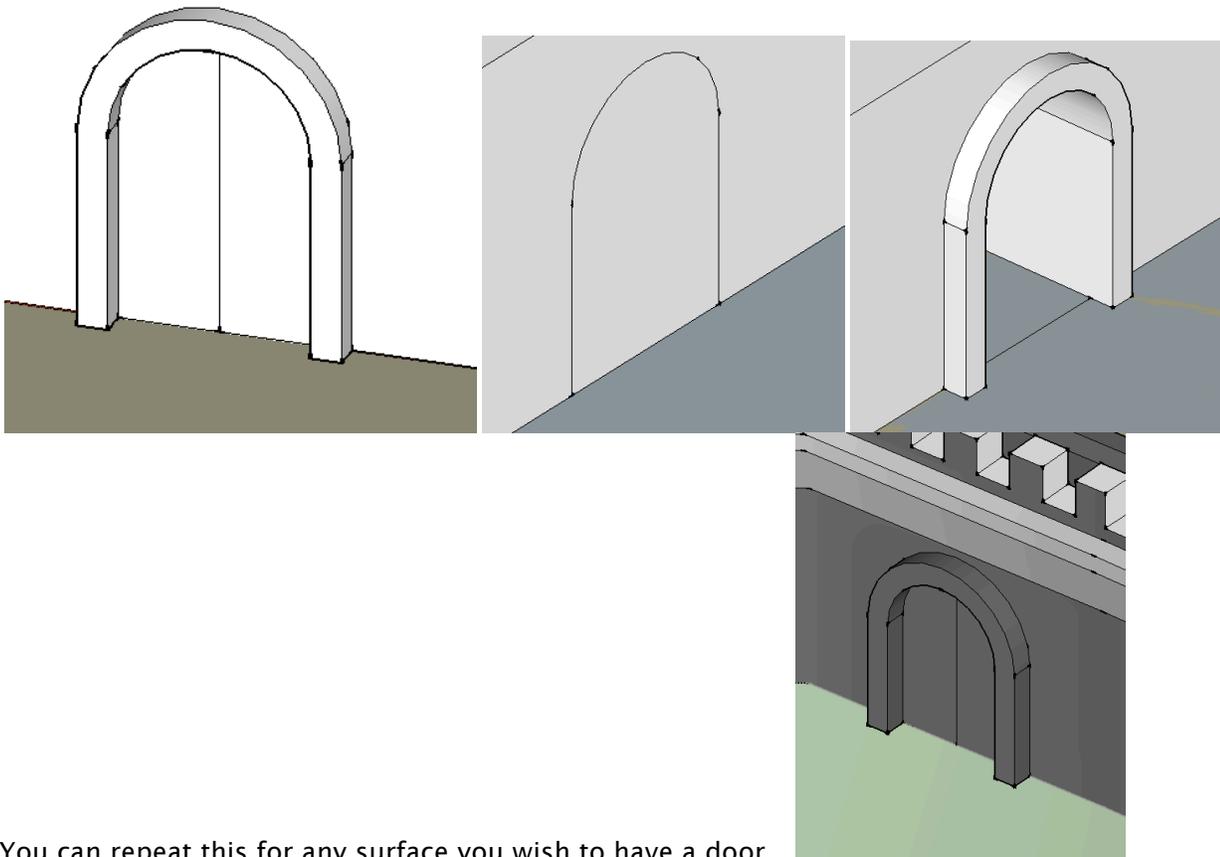
3. Then draw a circle from the top endpoint to the midpoint of the line. Next, draw vertical lines downward from the left and rightmost points on the circle as we have done in the past. Erase the inner lines.



- Now we want to create the trim around the door. Use offset on the inside face and drag outwards, typing in 3' for the offset. Draw a vertical line down the middle of the inner face.

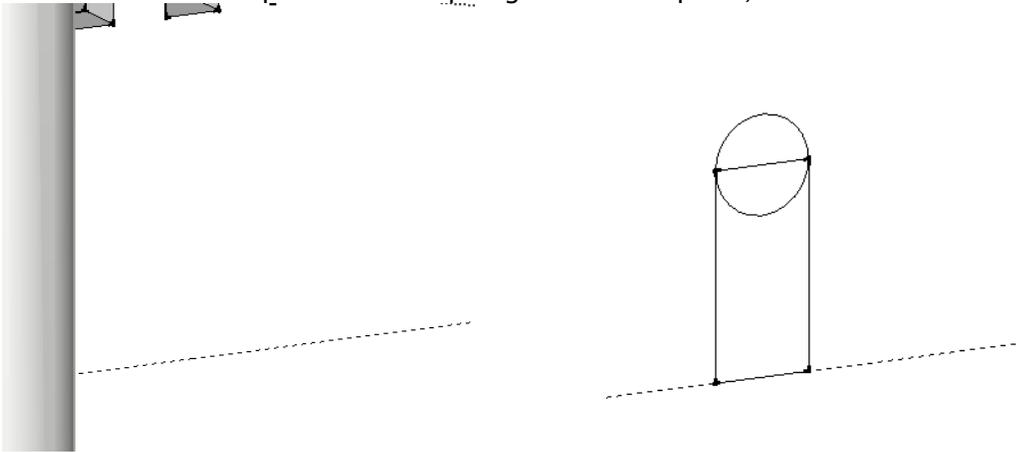


- Pull the outer face of this shape outwards from the door about 3'. Now you can repeat this process on the other side of the wall, which would be very easy if you chose the midpoint of the section of wall, because you can use the midpoint on the other side. If you did not choose the midpoint to start, you can line it up by selecting your ground, right clicking, and selecting HIDE. Then you will be able to see the underside of your model and line up the inner gate.

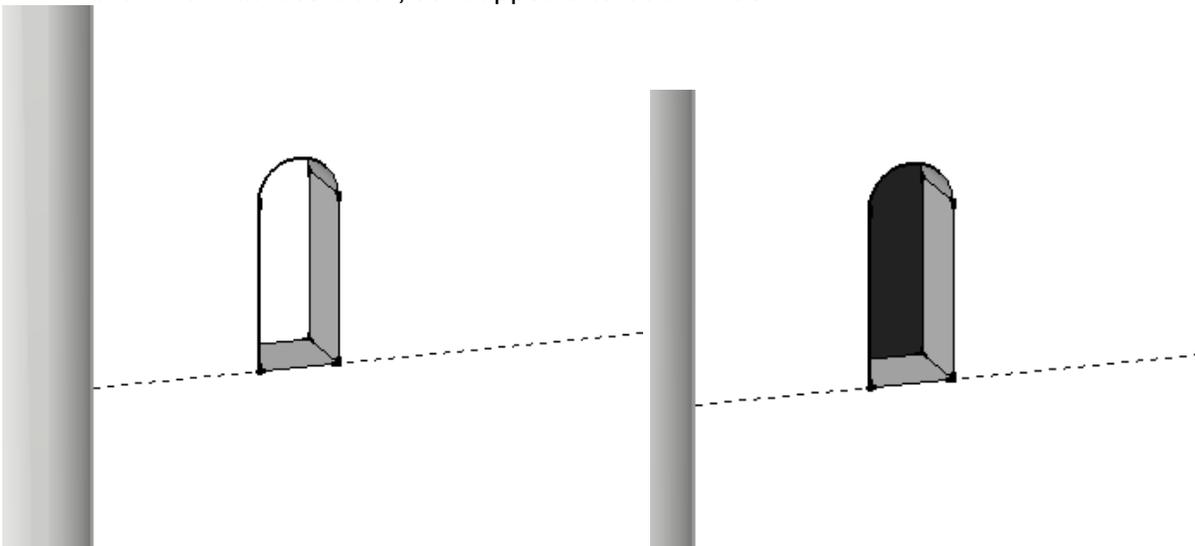


You can repeat this for any surface you wish to have a door.

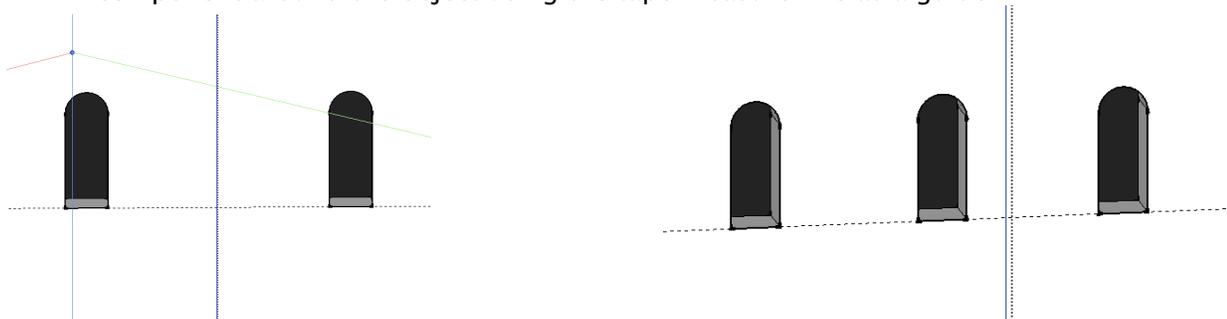
6. This section shows how to make windows. First I will show how to put windows on flat faces, then I will show you how to put windows on the round towers. You will want to start by using the tape measure to define a bottom edge of the line of windows. Make sure to note how far down you bring the tape measure line so you can repeat it for any face.
7. Start by drawing a rectangle that is not too large along the tape measure line. Draw a circle from the midpoint of the top edge to the endpoint, so it looks like below.



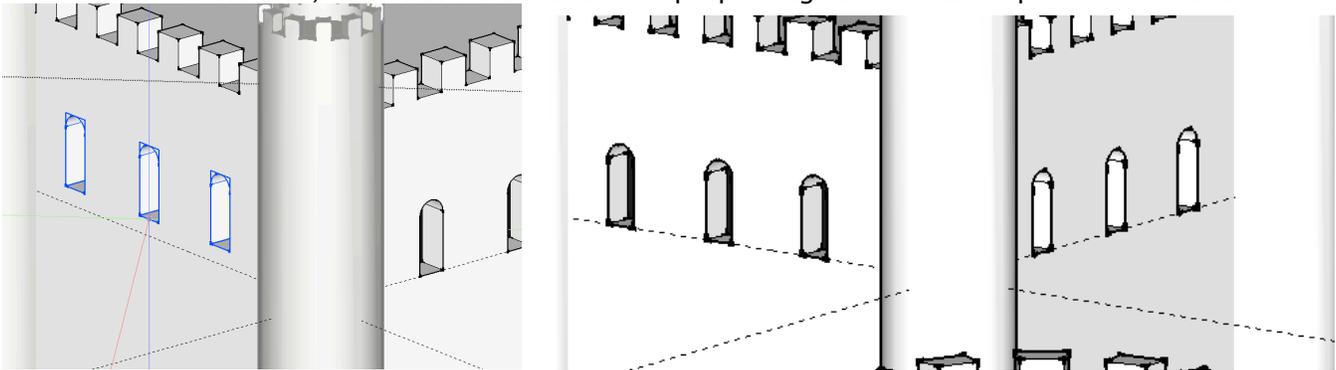
8. Erase the lines inside, and push the face inwards about 5'. Then use the paint bucket to paint the inner flat face black, so it appears to be a window.



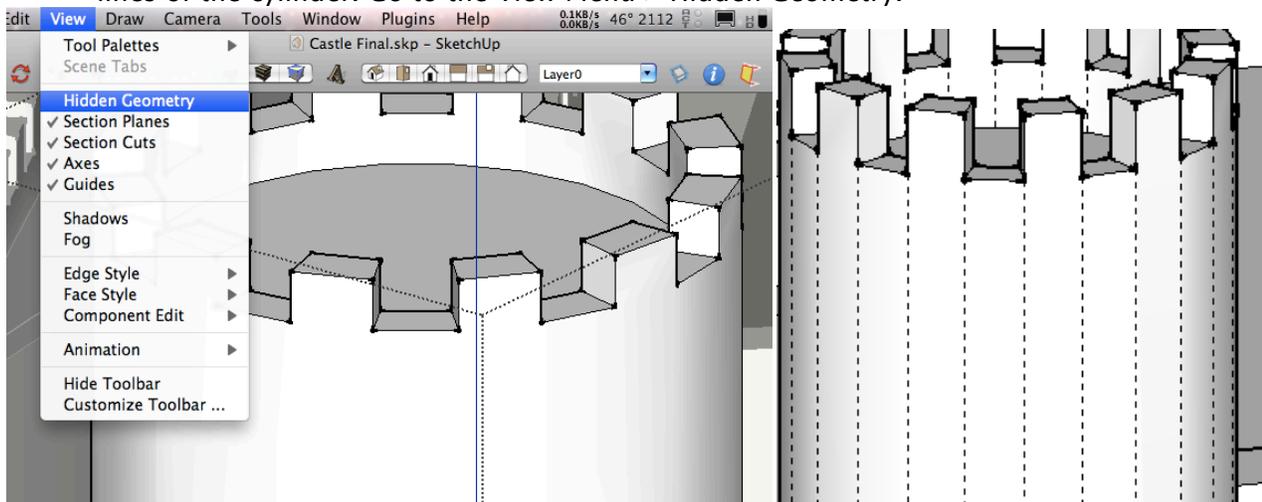
9. Select these objects with selection window by clicking on the upper left and dragging to the lower right around the window. Turn these objects into a component called **Window 1**. Be sure the box for "Replace Selection with Component" is checked off. Now you can copy this component around the object using the tape measure line as a guide.



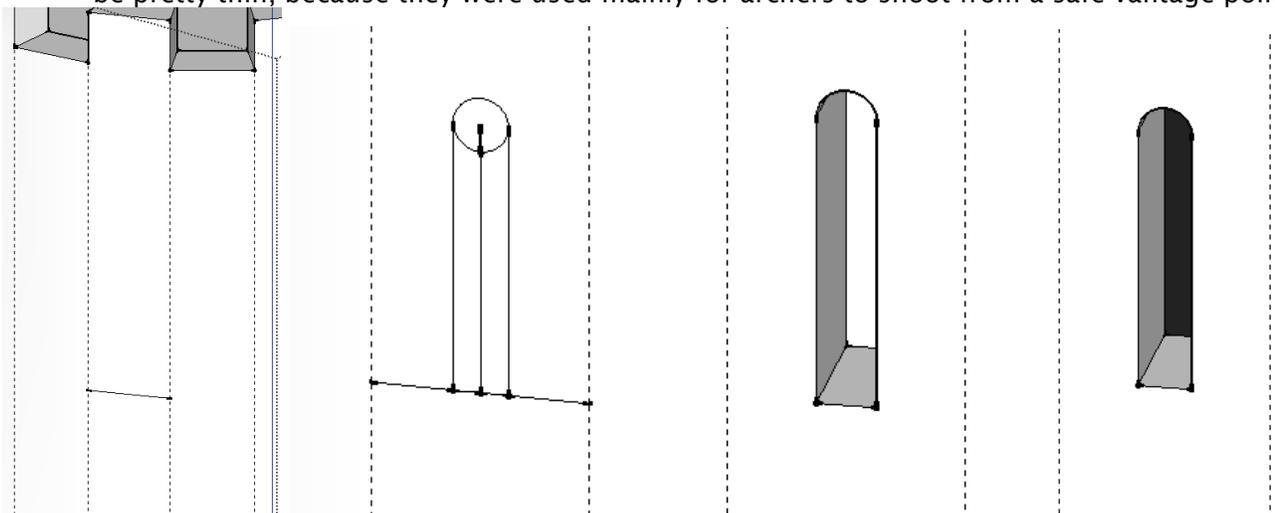
10. When you have one face of windows, you can select those components and move/copy them to another face. Just select them all, move/copy using some point on the bottom of the windows as a basepoint, then drag them to another face. They should line up on the face. You can place them on the face, then move them into their proper alignment with a tape measure line.



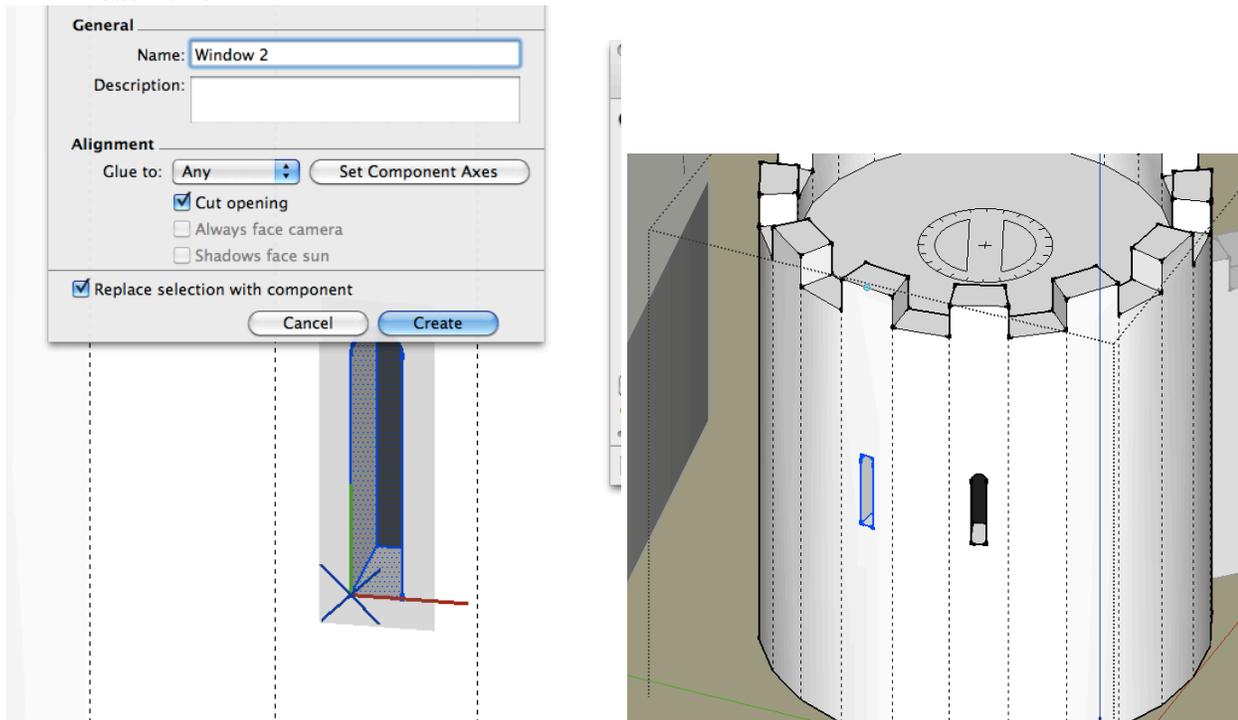
11. Now for the Tower windows, you need to first turn on Hidden Geometry so you can see the lines of the cylinder. Go to the View Menu > Hidden Geometry.



12. We want to draw a window on one section of this cylinder, turn it into another component, and use Rotate/Copy to bring it around the tower. Since they are all components, it should add windows to every tower at once. Start by drawing a line connecting two of the dashed lines. We will use the same process we used before to create a window. The windows on the tower should be pretty thin, because they were used mainly for archers to shoot from a safe vantage point.



13. Turn this into a component as well, called **Window 2**. Be sure the box for “Replace Selection with Component” is checked off. Use Rotate/Copy to copy it around the center point of the top of the tower. Copy them so they are spaced at every other interval around the tower, not at each one.



14. Your castle should be starting to look a lot like a real castle now!

