

Course: 3D Design Title: Mesh Modeling – Vase
Dropbox File: Vase.zip
Blender: Version 2.41 Level: Beginning
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Mesh Modeling – Vase



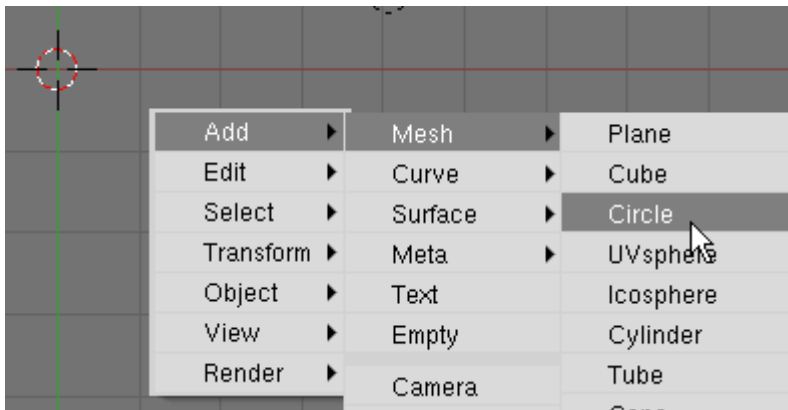
Open a new Blender file.

Modeling:

If your default Blender 3d Viewport contains a cube object, select it and delete it as it will not be needed for this tutorial.

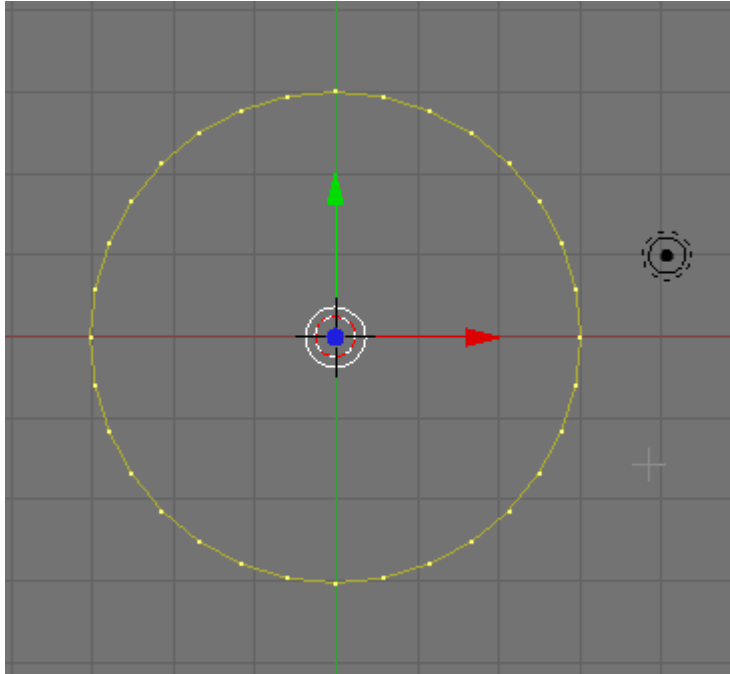
Make sure you are in Top View (NUM7).

Place your 3D Cursor in the center of the screen. Press Space / Add / Mesh / Circle.
(Accept 32 Vertices)



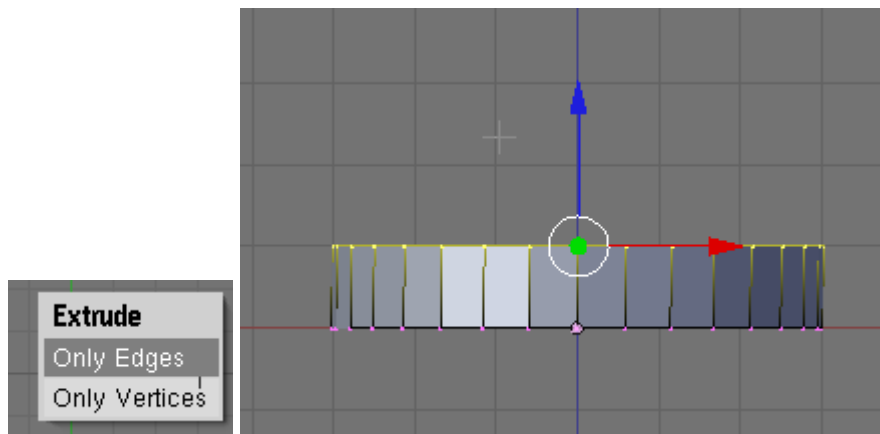
You will notice upon adding the circle the circle is in **EDIT MODE** by default. First we

will scale up the circle **6 grid units** in diameter. To do that first press the **SKEY** then keep pressed the **CTRL-KEY** (Constrained movement) and bring the mouse away the circle pivot, the circle will get scaled up in 'jumps'. While scaling you can see units or coordinates change in the menu bar.

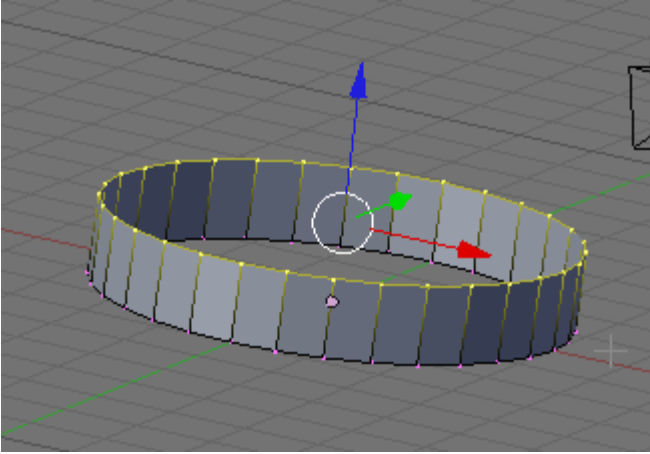


We will use extrusion function for creating the shape of the vase.

Press **NUM1** to go to front view. Keep all the vertices selected (if they are not selected press the **AKEY**), now press the **EKEY** (extrusion) select 'Only Edges' from pop-up. Extrude the edges upwards 1 grid unit as shown below. **LMB-Click** to set in place.

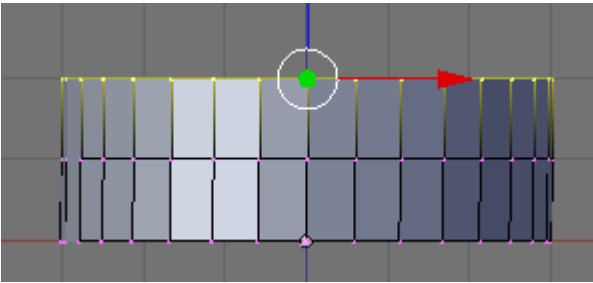


If your vase object is displayed in wireframe press the **ZKEY** to see it in shaded mode. Rotate your view a bit to see the vase in dimension (**MMB-Drag**)

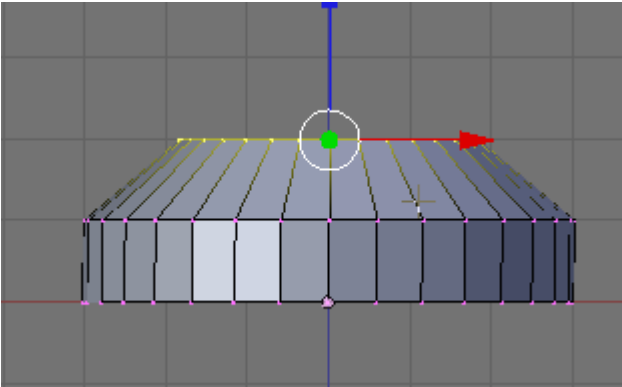


Press **NUM1** to return to top view. Note that the top set of vertices are still selected.

Press the **EKEY** again and extrude the edges up as shown below.

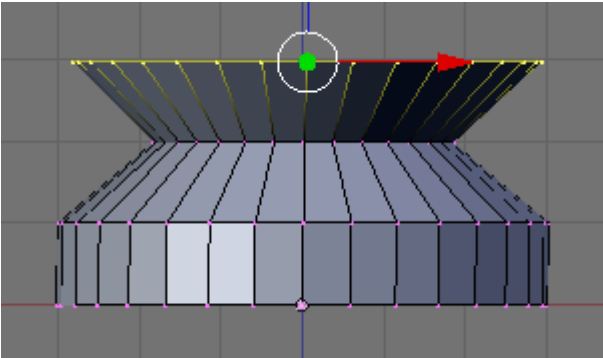


Press the **SKEY** (Scale) and scale down the vertices as shown below.

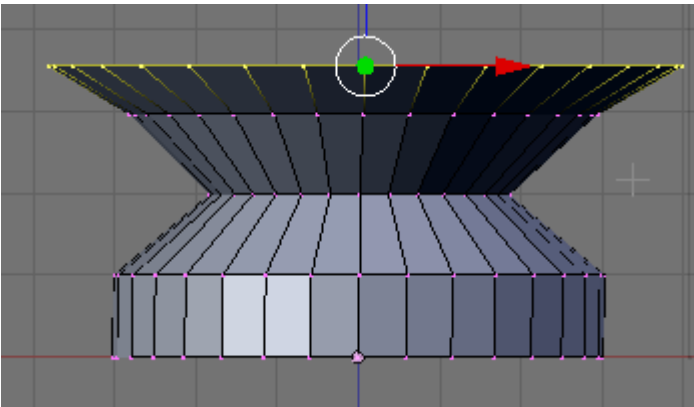


To complete the vase perform the following 11 extrusion / scale steps. (Pres the **EKEY** to extrude and the **SKEY** to scale)

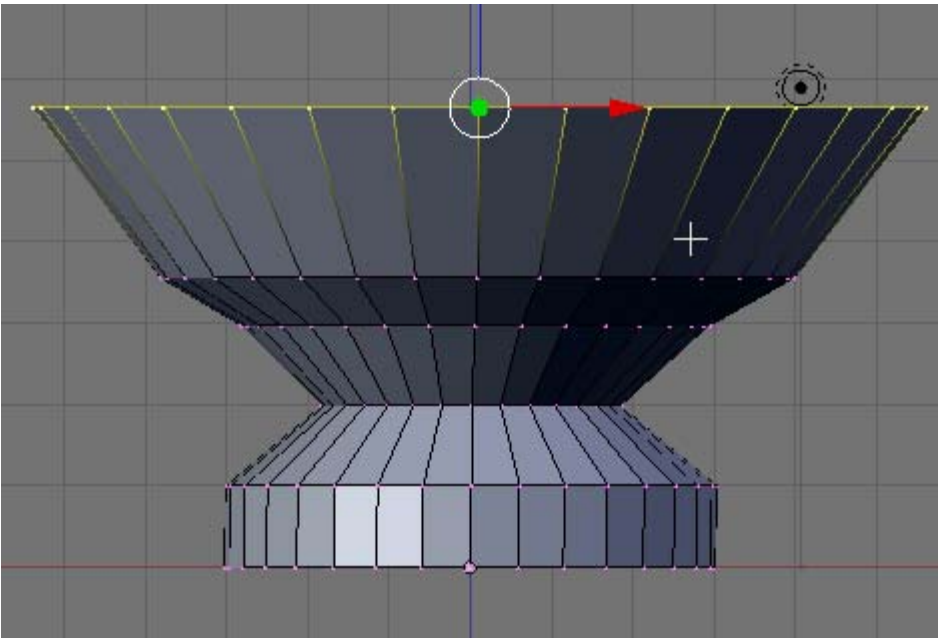
1) Extrude up, scale out as shown:



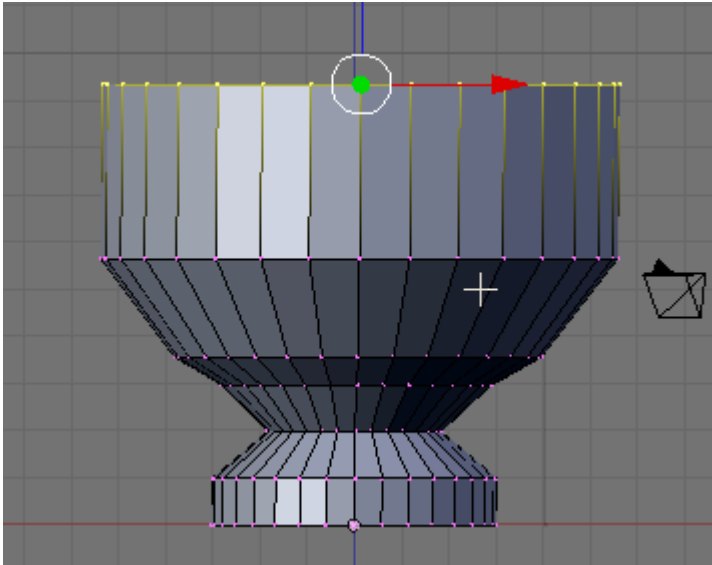
2) Extrude up, scale out as shown:



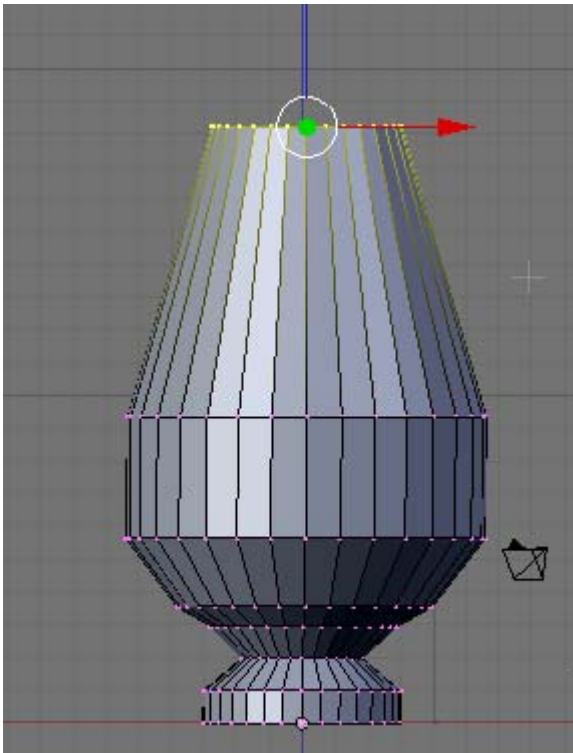
3) Extrude out, Scale out as shown:



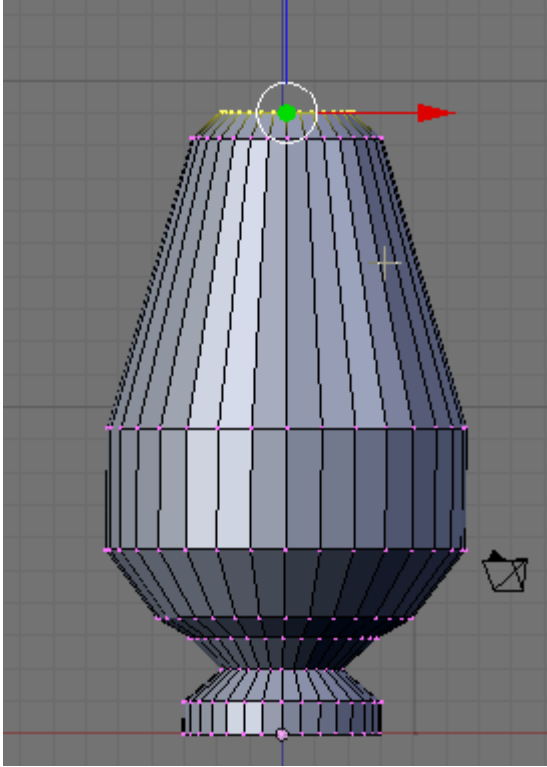
4) Extrude up as shown:



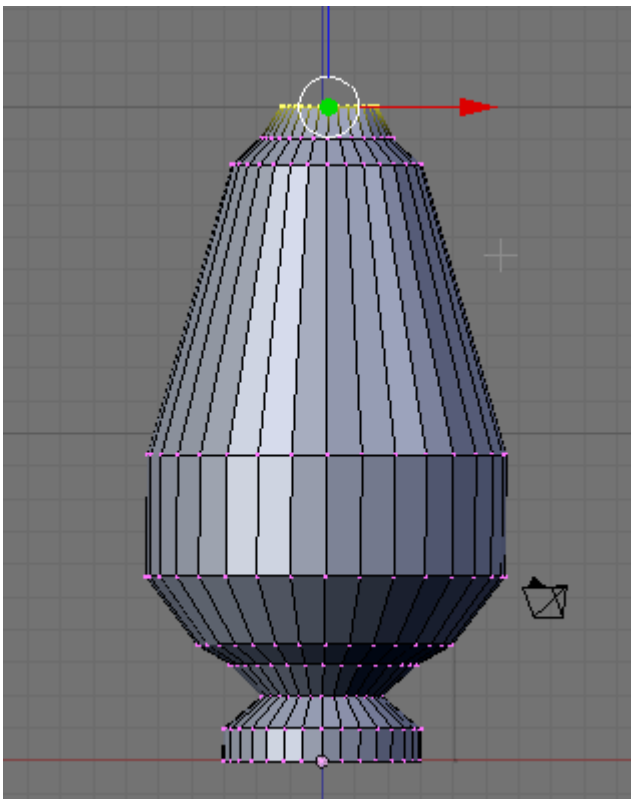
5) Extrude up and scale in as shown:



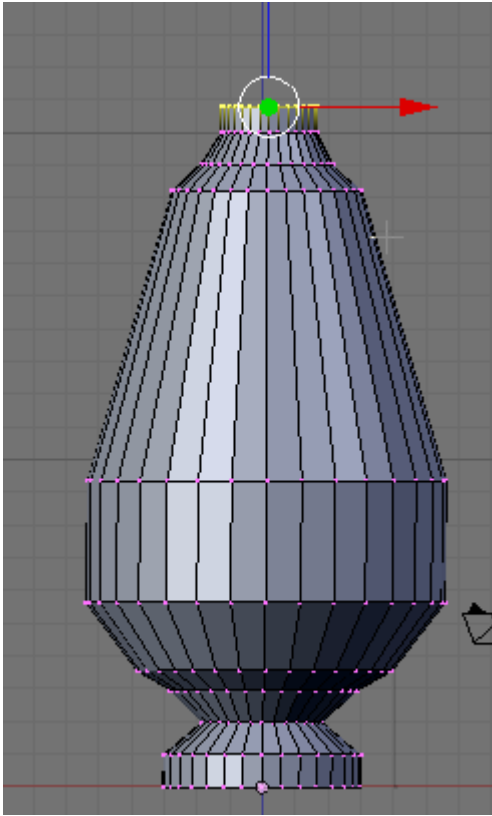
6) Extrude up and scale in as shown:



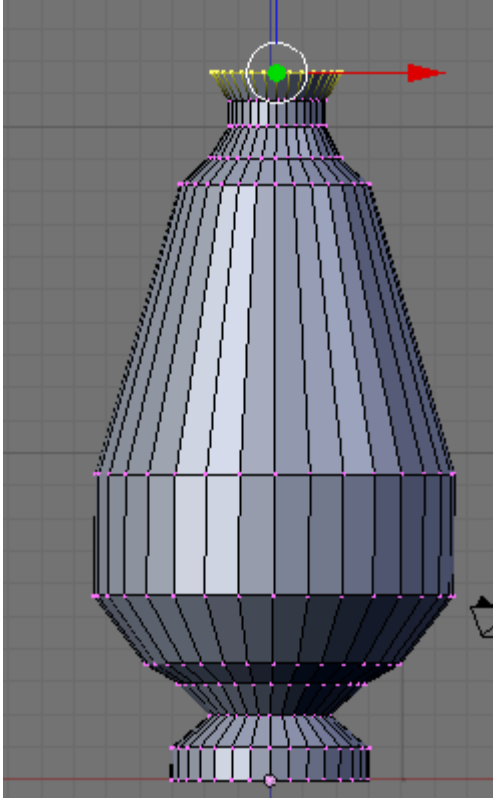
7) Extrude up and scale in as shown:



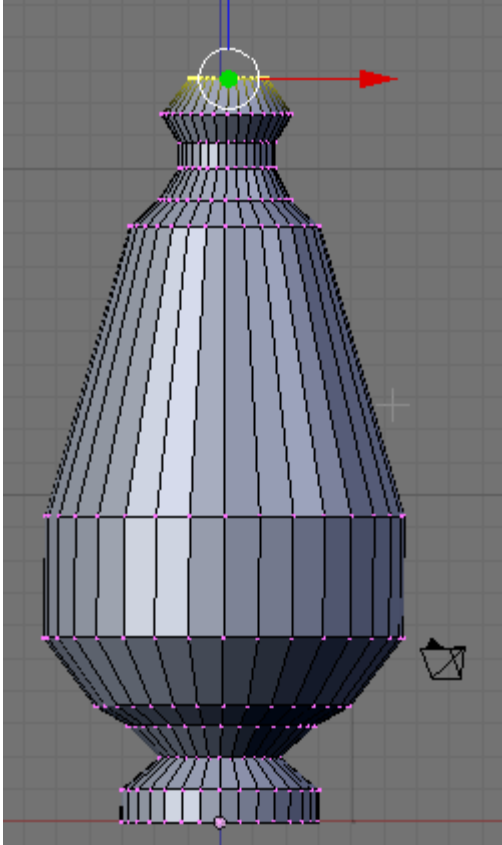
8) Extrude upwards as shown:



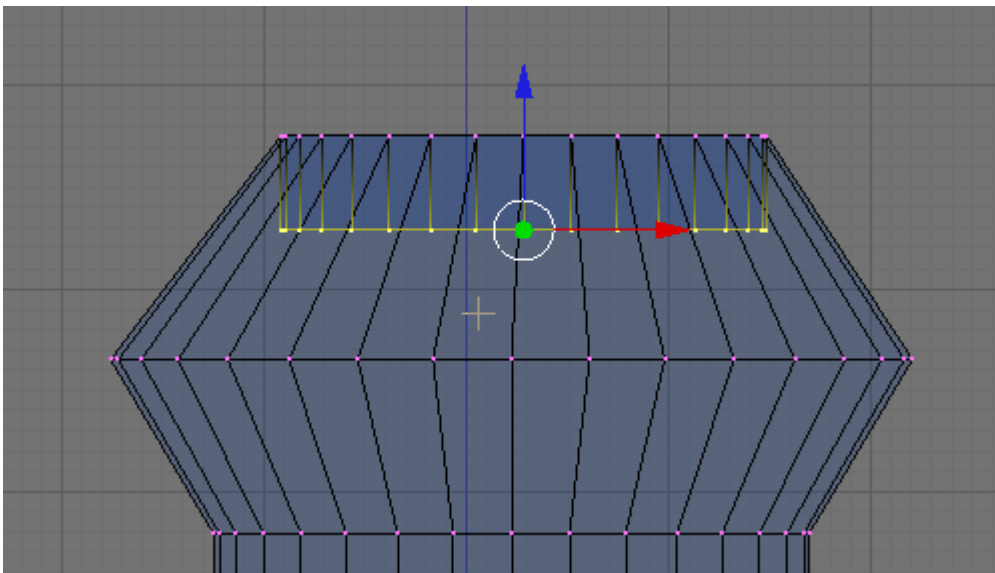
9) Extrude up and scale out as shown.



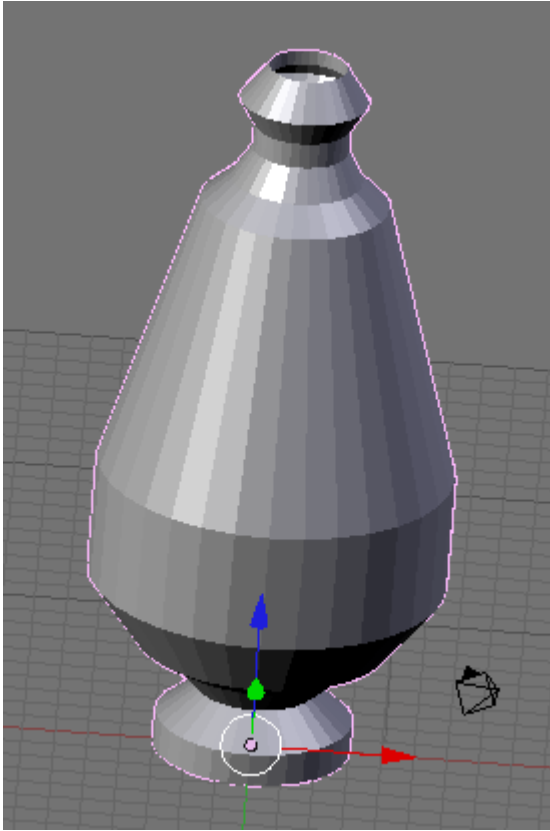
10) Extrude up and scale in as shown:



11) .Press the ZKEY to enter wireframe mode. Extrude DOWNWARDS as shown: (The image below is zoomed in to show more detail)

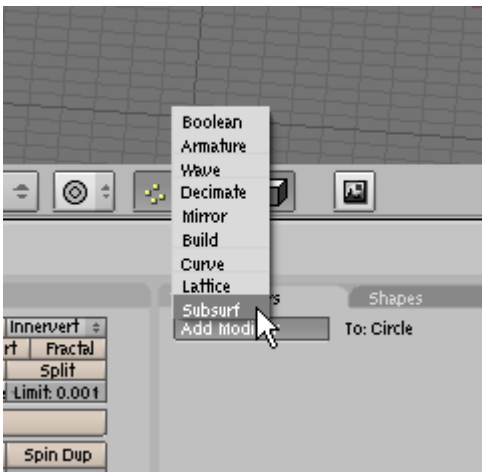


The basic modeling is now complete. Press the **A**KEY to deselect the vertices. Press the **Z**KEY to return to shaded mode. Press the **TAB** KEY to exit **EDIT MODE** and enter **OBJECT MODE**. Rotate your view a bit to see the vase dimensionally.

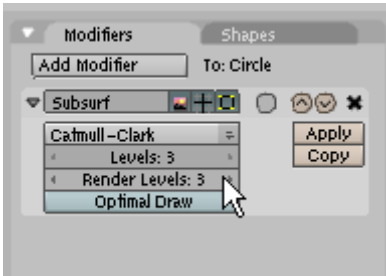


Our vase is not very smooth. To smooth it we will use Blender's Sub Surf modifier. To do this first make sure that the vase is selected the press the **TAB-KEY** to return to **EDIT MODE**.

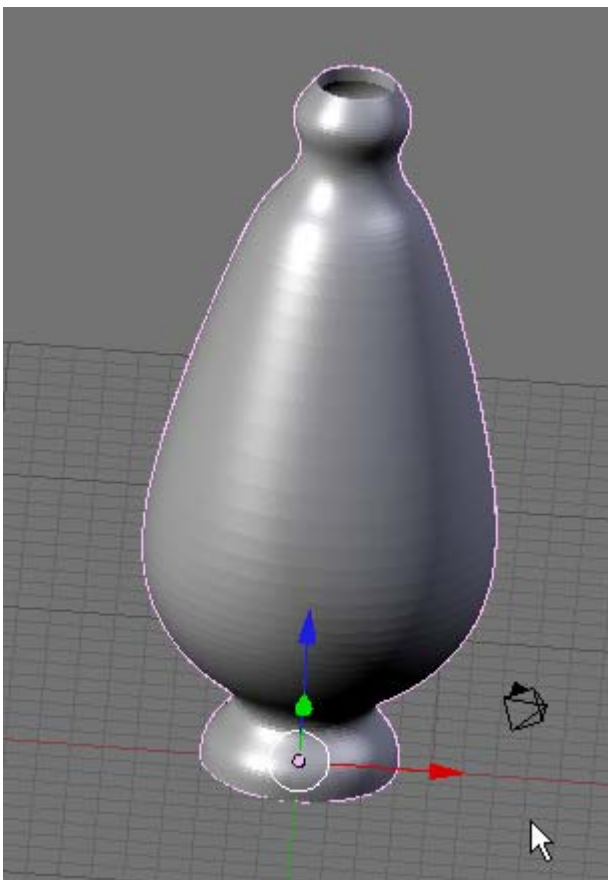
In the Modifiers Panel (in the Button Window) use the dropdown box to select Sub Surf.



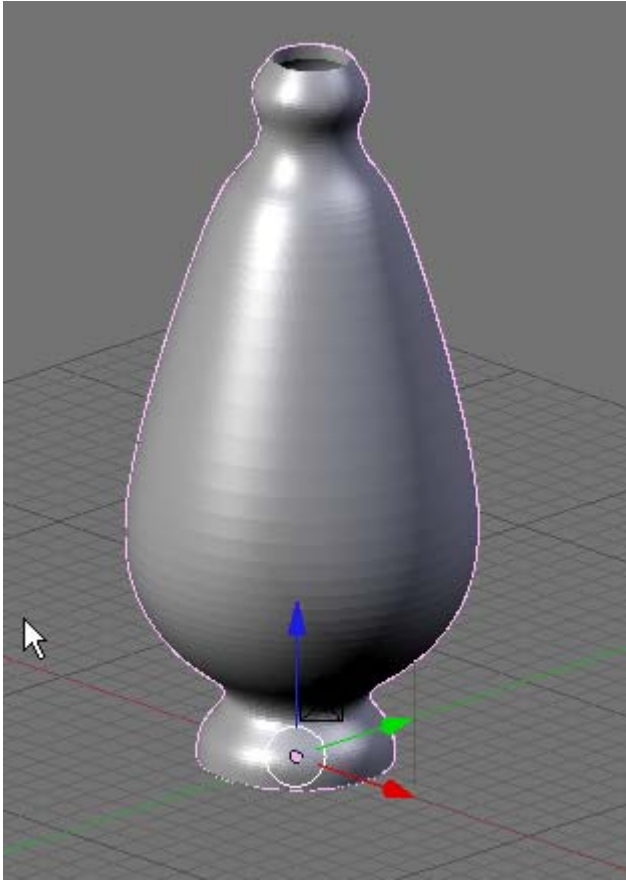
The modifiers panel will now display the Sub Surf settings. Set the Levels to 3 and the Render Levels to 3



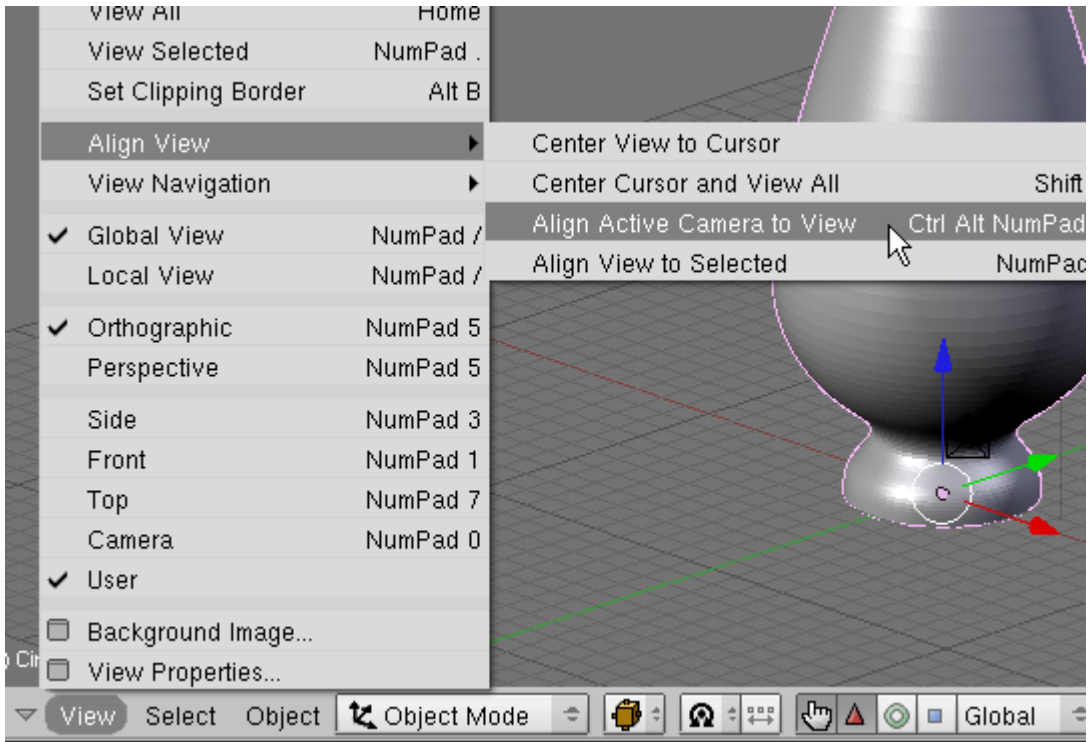
Press the **TAB KEY** to exit EDIT MODE and return to OBJECT MODE. The vase is now smoothed.



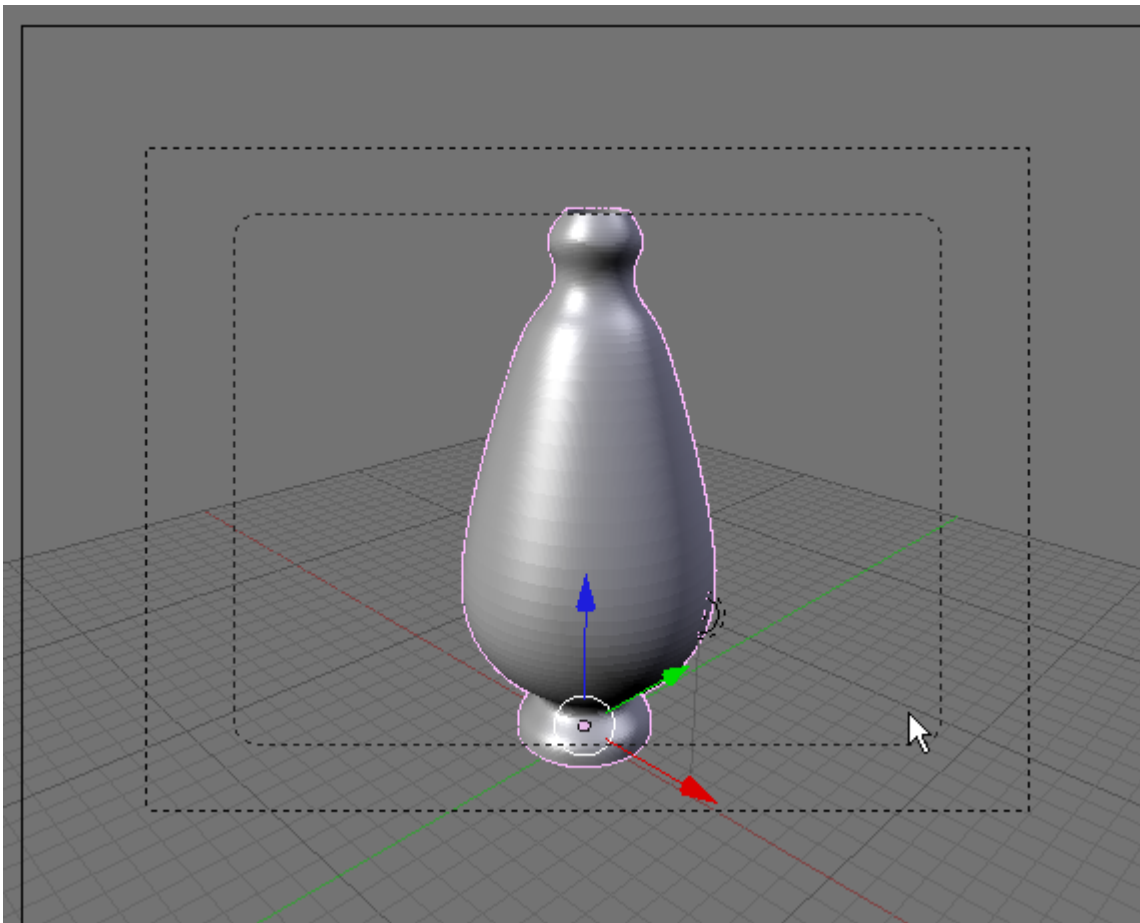
Rotate your view of the vase until you have it set as you would like to see it rendered. (**MMB- DRAG**).



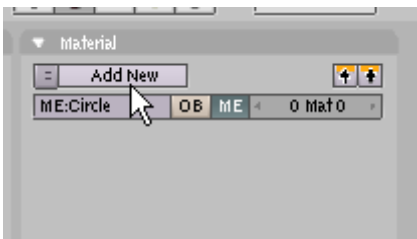
Select View / Align View / Align Active Camera to View.



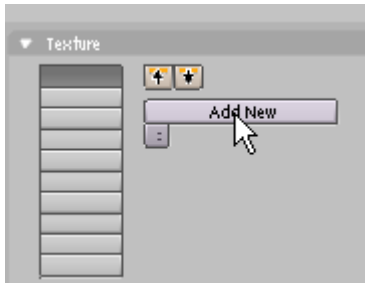
This will set the camera so it is centered on the vase object and automatically enter camera view. Use the Transform Widget arrows to move your vase and **SKEY** (Scale) to scale it so that the vase is centered and scaled in the camera view as shown.



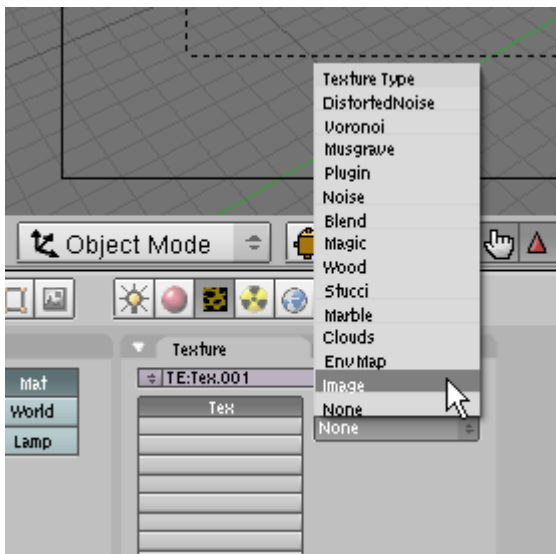
Press **F5** (Shading). In the Material Panel press the Add New Button.



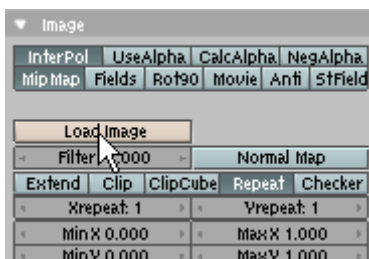
This will display the material buttons. In the texture panel on the right press the Add New button.



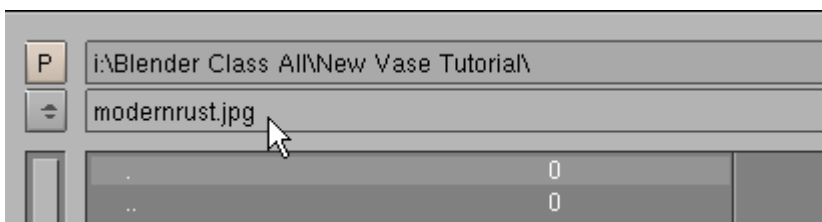
Press **F6** (Texture Buttons). In the Texture Panel press the “Texture Type” dropdown box and choose “Image”.



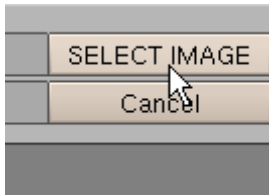
In the Image Panel press the “Load Image” button.



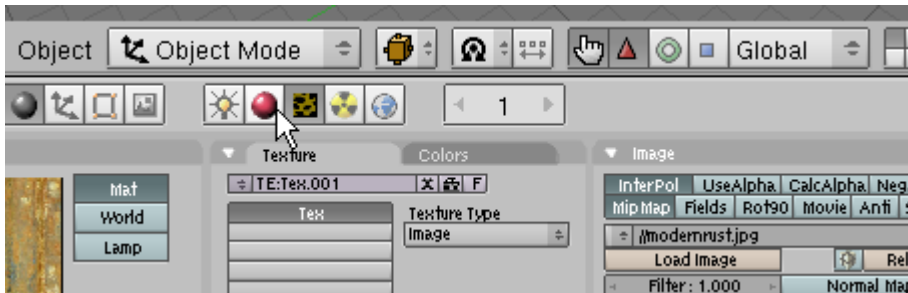
Locate the modernrust.jpg image file. This file is located in the Vase.zip file.



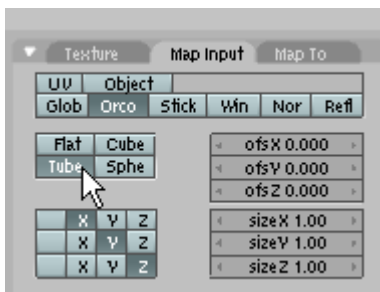
Select the image.



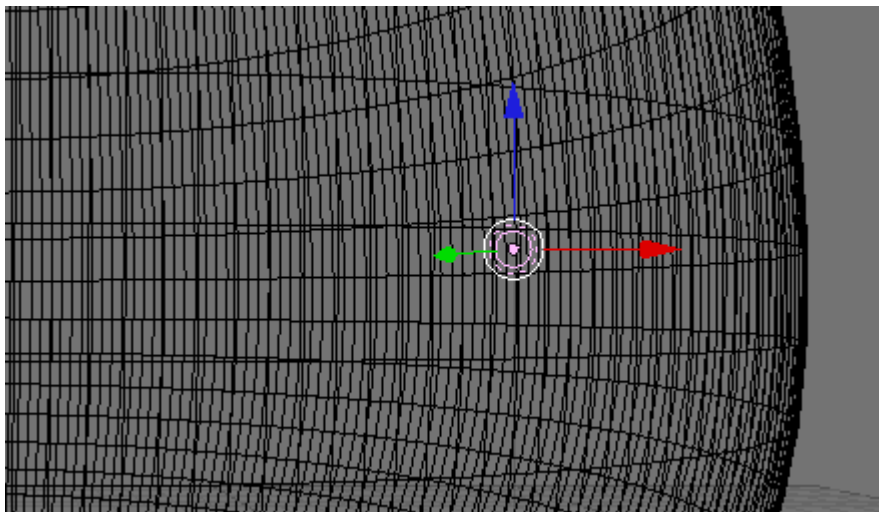
Press the Material Buttons icon. (Or Press **F5**)



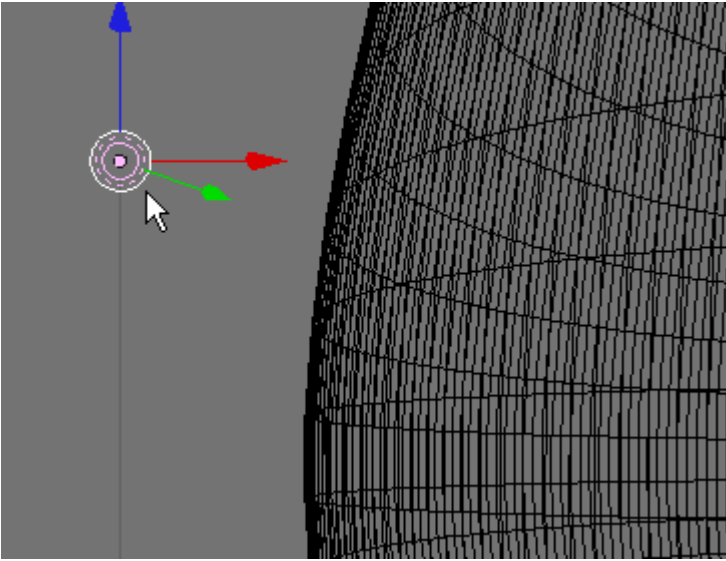
Select the MAP INPUT tab on the far right of the buttons window to reveal the Map Input panel. In the map input panel select “Tube” as the map input type. This will wrap the image around the vase like a tube.



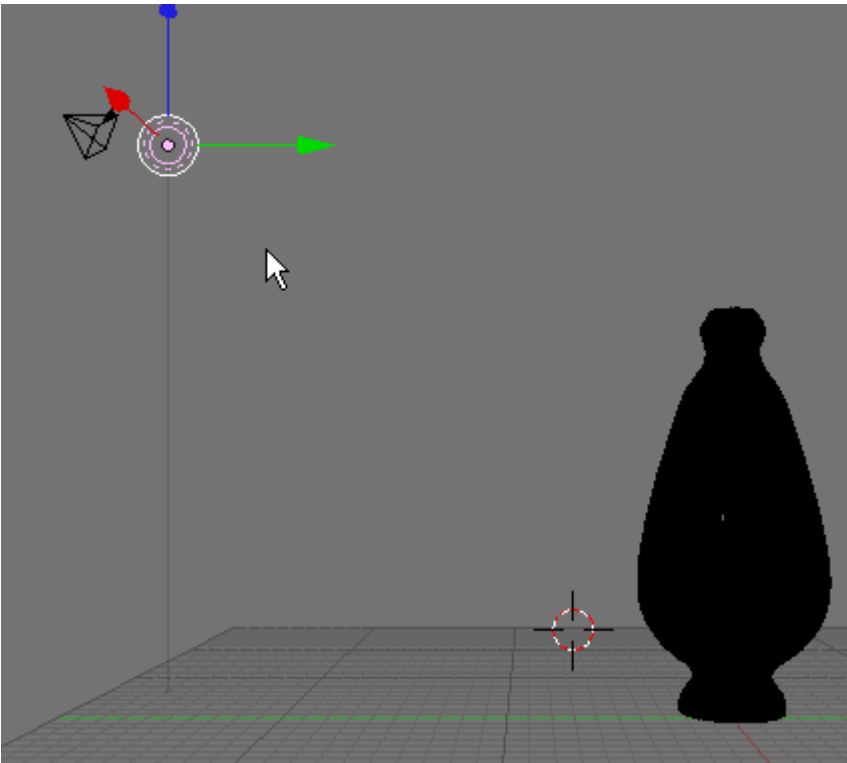
Press the ZKEY to enter Wireframe mode. Press the AKEY to deselect the vase. We need to select the lamp and move it. Currently lamp is hidden (probably) inside the vase. Zoom in and Pan CTRL-NUM4 or 6 or 8 or 2) to locate the lamp. When you find it select it.



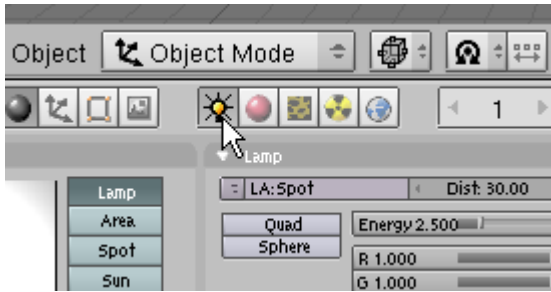
Once it is selected Press the GKEY (Grab) and move it outside of the vase.



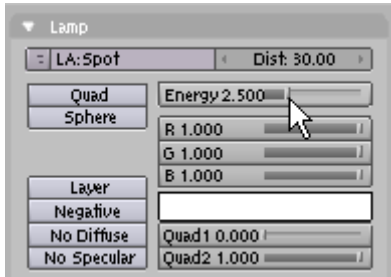
Press the **HOME KEY** to view all. Then Press **NUM3** to display side view. Press the **GKEY** and move the lamp object to near the camera.



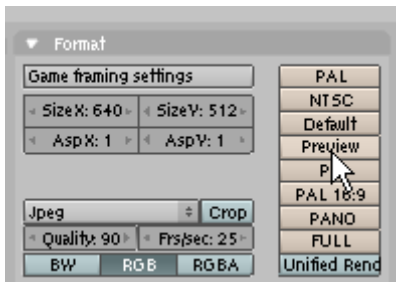
Click on the Lamp Buttons icon. This will display the lamp buttons.



In the Lamp Panel set the Lamp energy to 2.5 (This will make it brighter)



Press F10 (Scene). In the Format Panel select the “Preview” button. This will set the size of the rendered image to 50% or 640 x 512 pixels.



Press F2 and save your file. (It is always a good idea to save your file before rendering. If the program crashes at all it is more likely to crash on rendering when the memory demand is the greatest.)

In the Render Panel press the Render button.



This will render your vase at 320 x 256 pixels.



If you want to save a copy of this image, press F3 (Save Image).

A finish copy of this tutorial named vasecomplete.blend is located in the Vase.zip file.