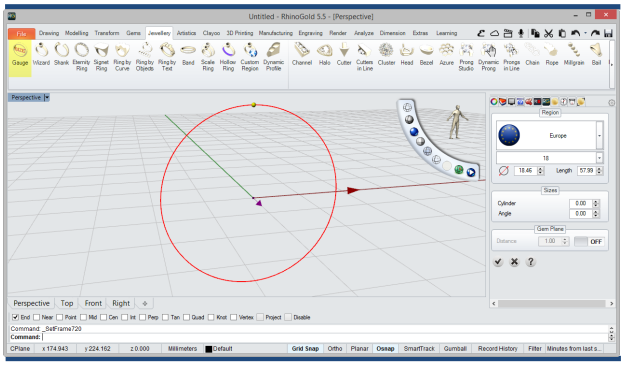
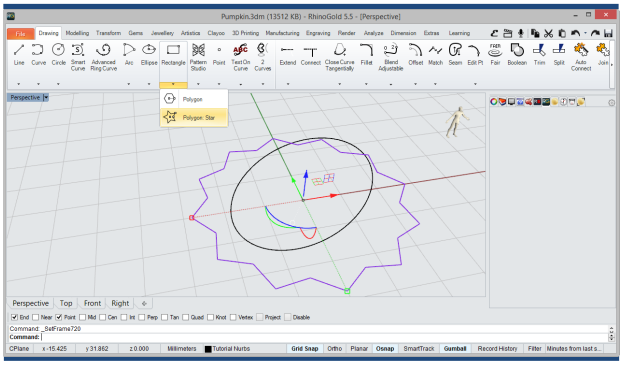
Pumpkin Ring

In this tutorial we'll try some of the more useful commands in RhinoGold. Powerful tools such as Clayoo, Revolve by Rail, Gem Studio, Dynamic Polar Array, Hollow Ring and Dynamic Prongs.



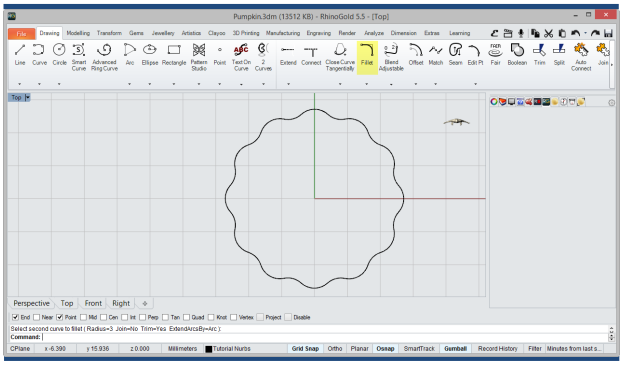
1 Gauge

First, we'll go to the Jewellery tab, select the Gauge tool and define a European ring type of 18 in size.



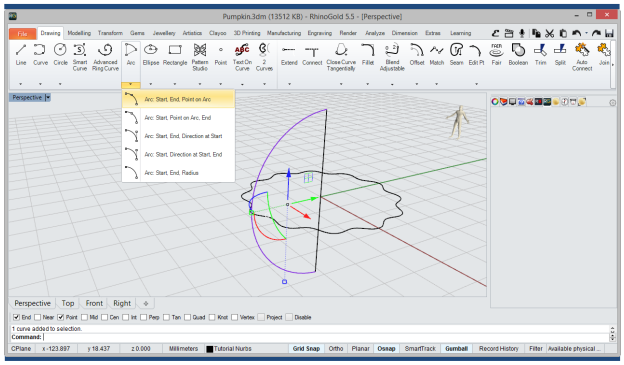
2 Polygon Star

Then, we'll trace a star shape curve with12 vertexes and 28 mm in diameter, using the Polygon Star tool, located in the Drawing tab.



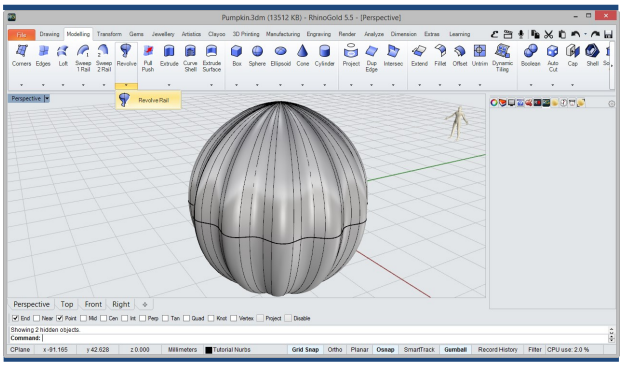
3 Fillet

Now, following the Drawing tab, we'll smooth the vertexes with Fillet tool, obtaining a similar form to that shown in the image.



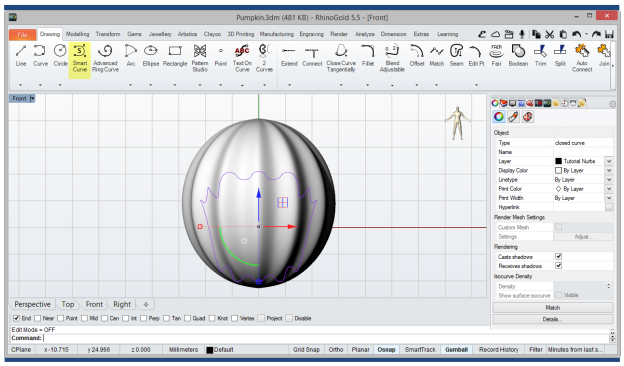
4 Arc: Start, End, Point on Arc

Now, we'll select the Arc tool: Start, End, Point on Arc, in the Drawing tab and trace an arc respecting the radius of the previous curve.



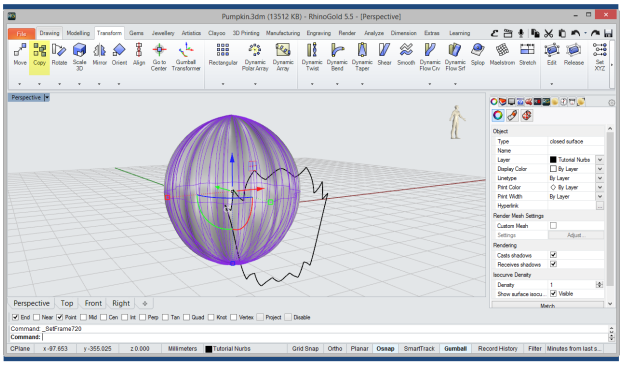
5 Revolve Rail

Then, we'll select the Revolve Rail of the Modelling tab and apply it between the curves defined in the previous steps, using them as Profile and Rail as indicated in the command line.



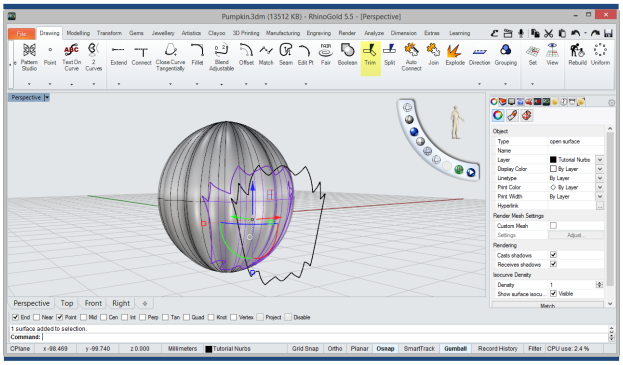
6 Smart Curve

Now, we'll trace a similar curve to that shown in the picture with the use of Smart Curve tool.



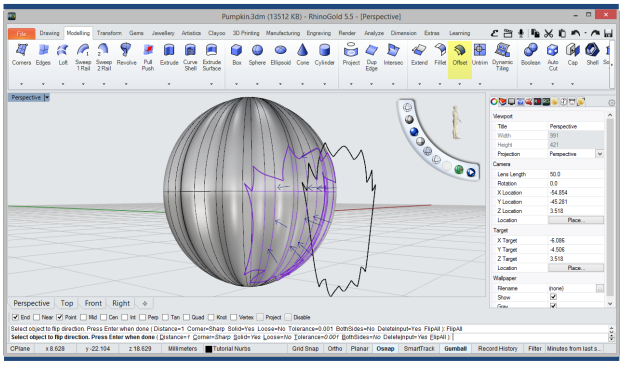
7 Copy

In this step, we'll copy the sphere with the Copy tool, in Transform tab and activate the Inplace option from the command line tool.



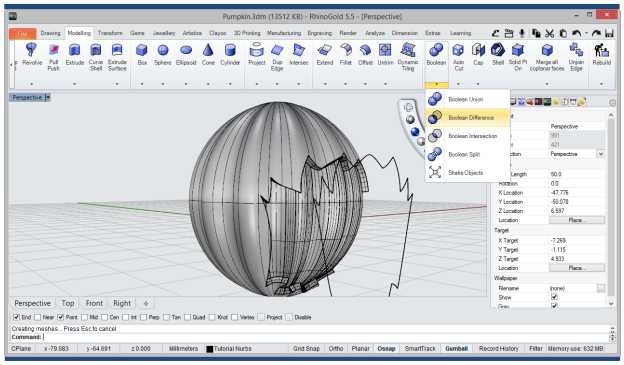
8 Trim

Now, we'll select the Trim tool, in the Drawing tab and apply it between the curve traced from the previous step and copy of the sphere, getting the open inside surface of the curve.



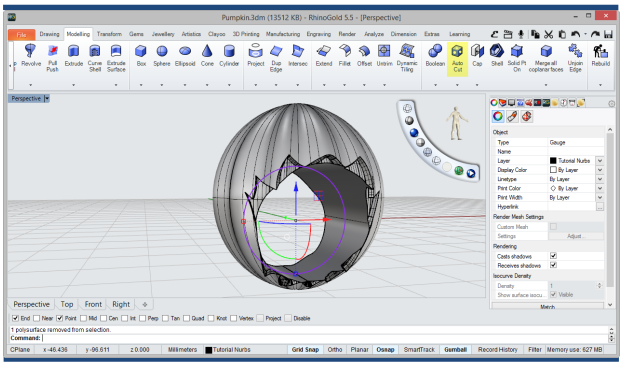
9 Offset

Then, we'll apply a Ofsset of 1mm to the open surface using the Offset tool of the Modelling tab.



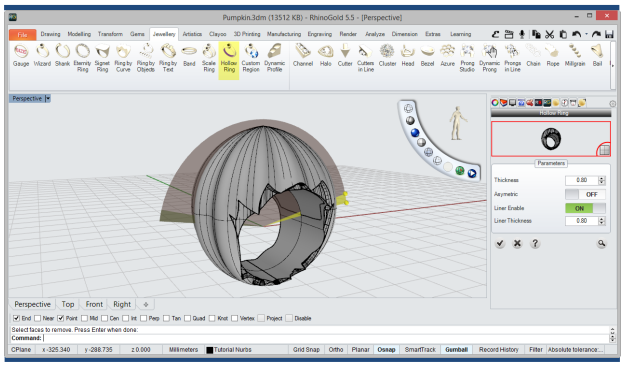
10 Boolean Difference

Now, we'll apply a Boolean Difference between the offset surface and the sphere, obtaining a similar result shown in the image.



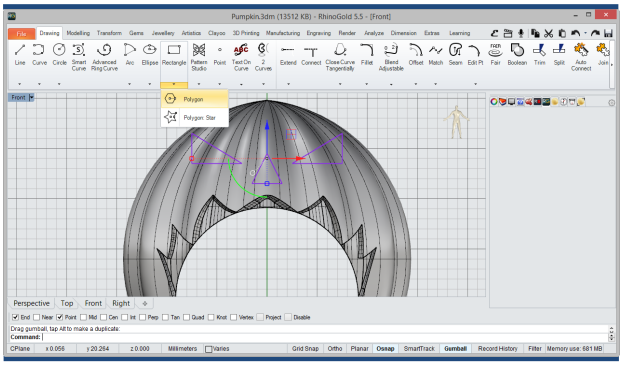
11 Auto Cut

Then, we'll apply the Auto Cut tool, located in the Modelling tab, between the sphere and the initial Gauge curve.



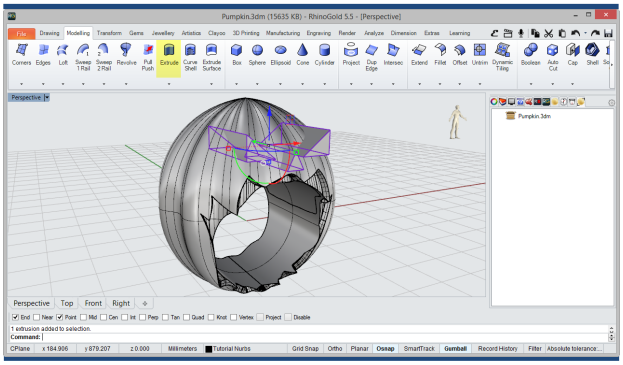
12 Hollow Ring

Now, we'll select the Hollow Ring tool at the Jewellery tab and apply it to the inner surface of the sphere. We'll activate the Liner option.



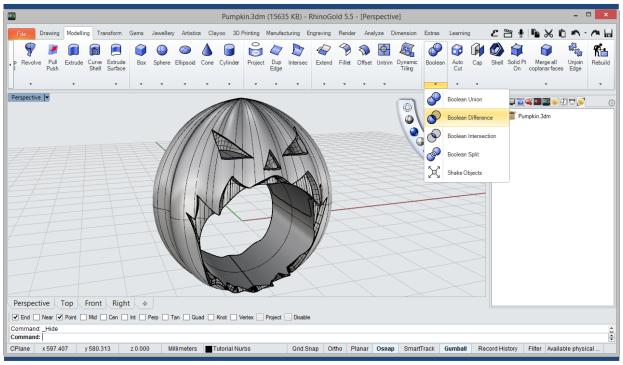
13 Polygon

In this step, we'll trace three triangular closed curves with the Polygon tool, in the Drawing tab, defining three vertices for everyone in the command line.



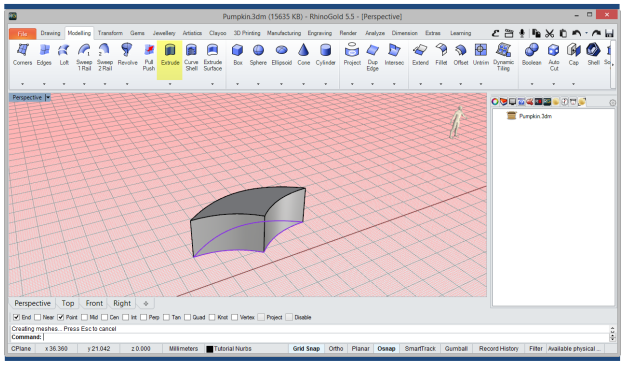
14 Extrude

Now, we'll apply a extrusion to the triangular curves with the Extrude tool, in the Modelling tab.



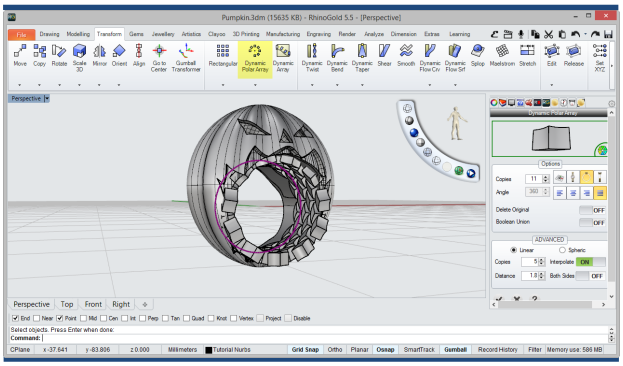
15 Boolean Difference

Then, we'll apply a Boolean Difference between the sphere and extrusions, as shown in the image.



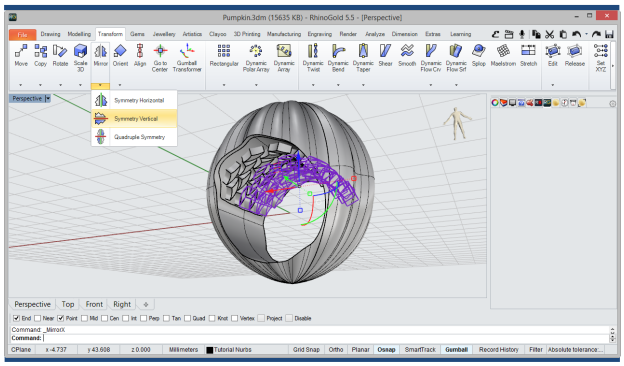
16 Smart Curve / Extrude

Now, we'll trace a similar curve to that shown in the image with the Smart Curve tool and apply a Extrusion of 2mm with the Extrude tool, in the Modelling tab.



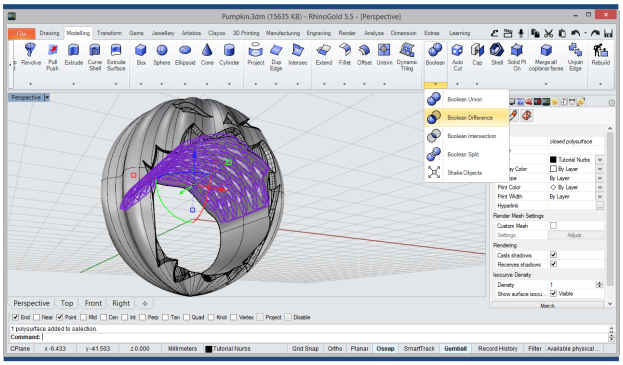
17 Dynamic Polar Array

Then, we'll make a matrix of 11 copies applied to extrusion using Dynamic Polar Array tool in the Transform tab. We'll activate the Interpolate option.



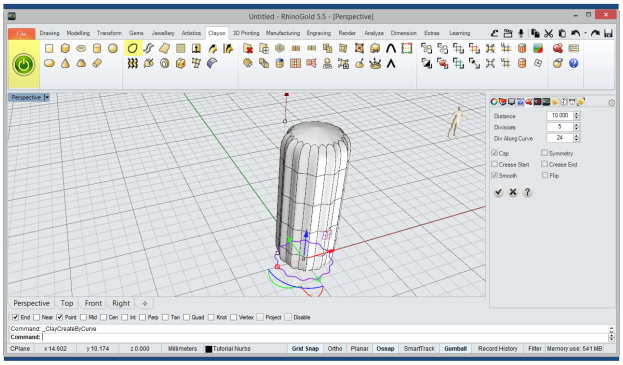
18 Symmetry Vertical

Now, we'll apply a symmetry to the array group with the Symmetry Vertical tool, and delete the leftover extrusions.



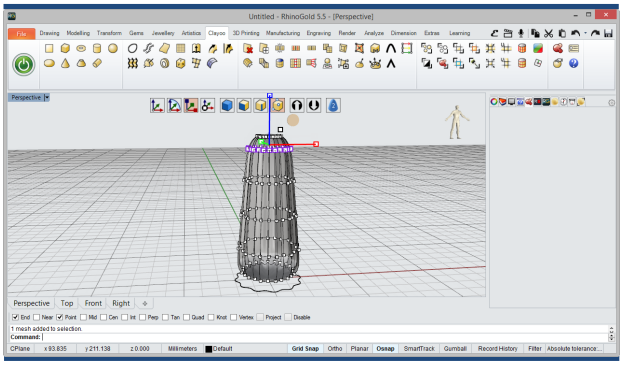
19 Boolean Difference

In this step, we'll apply a Boolean Difference between copies of the array and the lining.



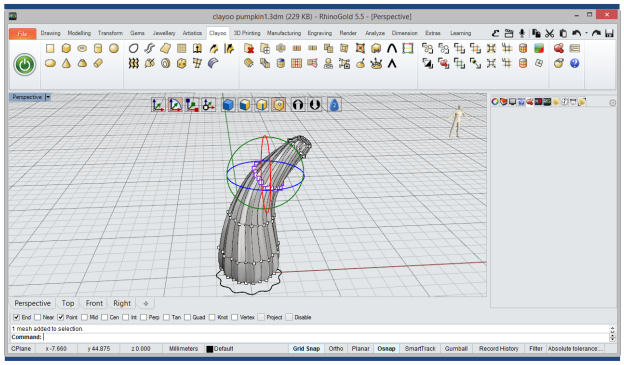
20 Clayoo: Create by Curve

Now, we'll select the profile curve of the sphere traced at the beginning and will open Clayoo. Apply Create by Curve tool to define an Clayoo object similar to that shown in the image. We'll respect the parameters.



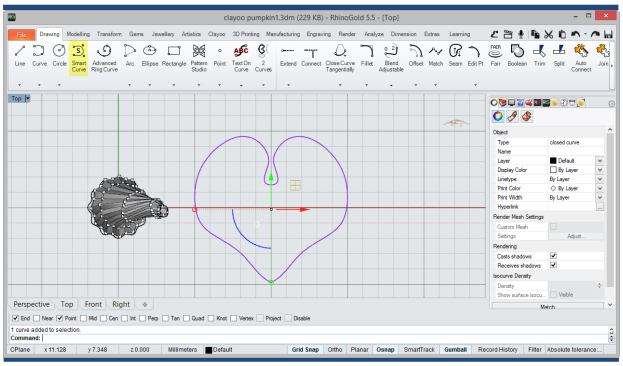
21 Clayoo: Edit by Points

Then, we'll edit points to define an acute form in the end, with the scaling controller .



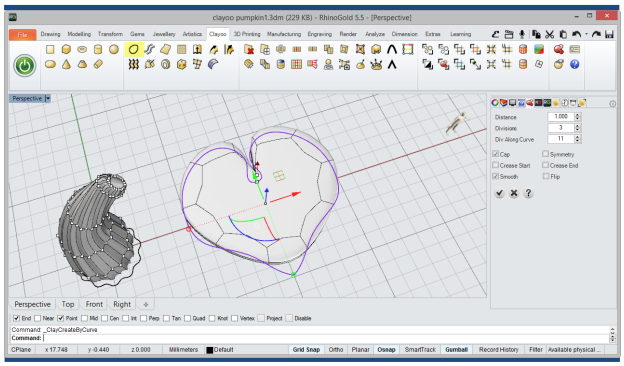
22 Clayoo: Edit by Points

Then, we'll edit the points to define a curvature in the Clayoo object, using the angles controller.



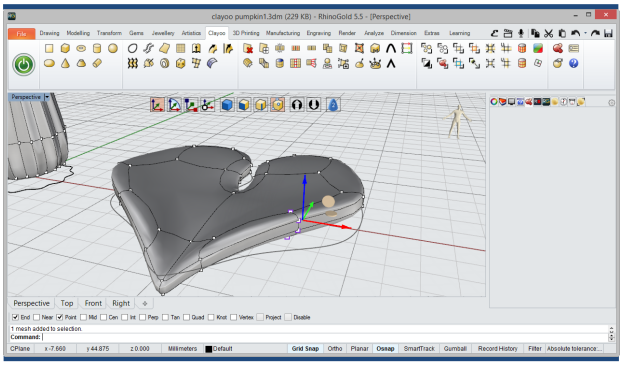
23 Smart Curve

Then, we'll trace a similar curve shown in the image using the Smart Curve tool.



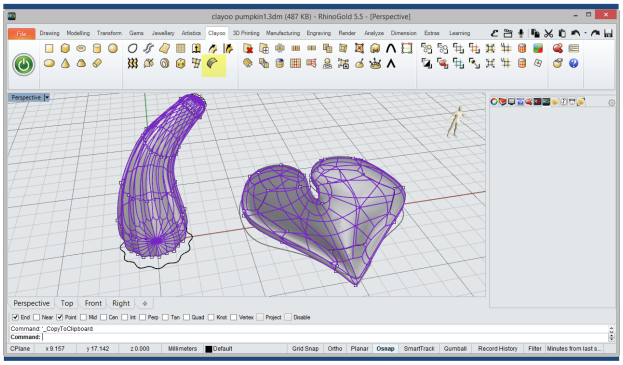
24 Clayoo: Create by Curve

Now, we'll define another object Clayoo with Create by Curve tool, we'll respect the parameters shown in the image.



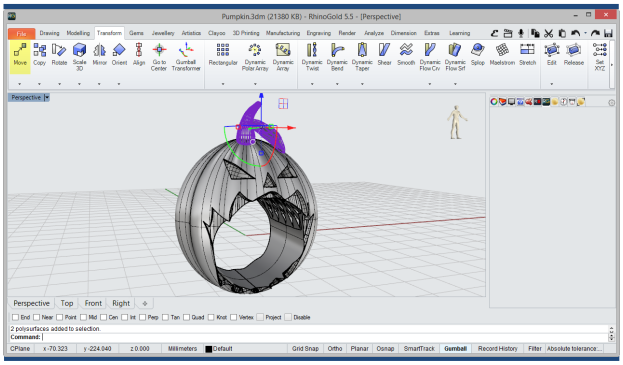
25 Clayoo: Edit by Points

In this step, we'll define the leaf shape to the second Clayoo object editing points, we'll use the controllers to move the points.



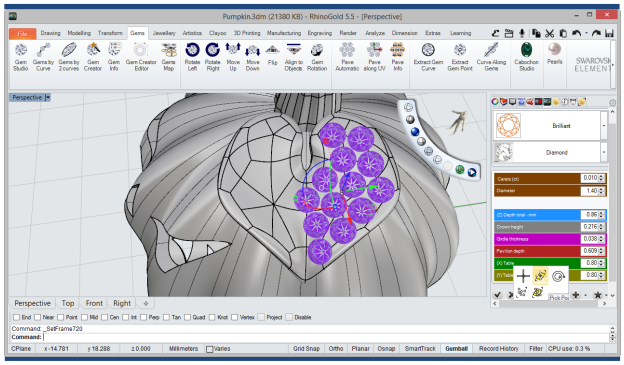
26 Clayoo: Transform to Nurbs

Now, we'll transform to Nurbs the two predefined Clayoo objects.



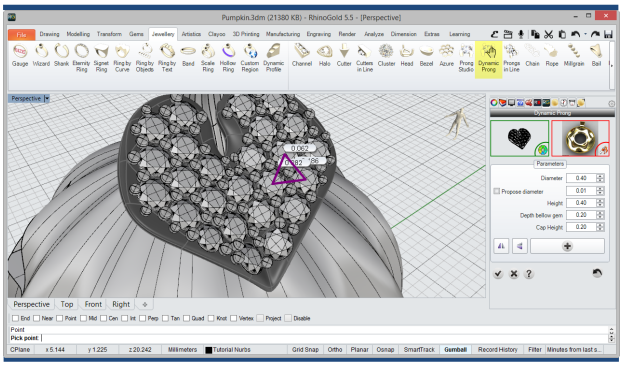
27 Move

Then, we'll position the two Clayoo objects converted to Nurbs at the top of the sphere with the Move tool or the Gumball controller.



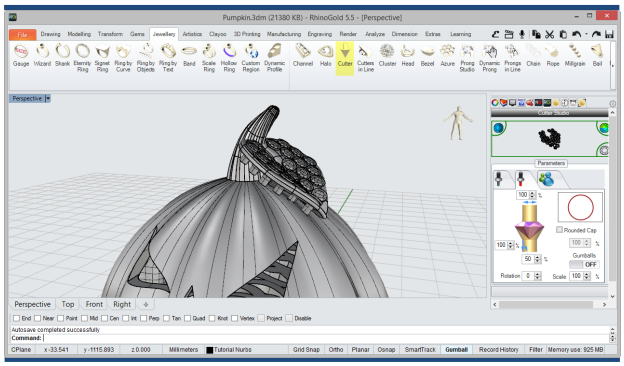
28 Gem Studio

Then, we'll open the Gem Studio too, located in the Gems tab and define some gems on the surface of the Clayoo object. Activate the option to Orient by Surface to position the gems.



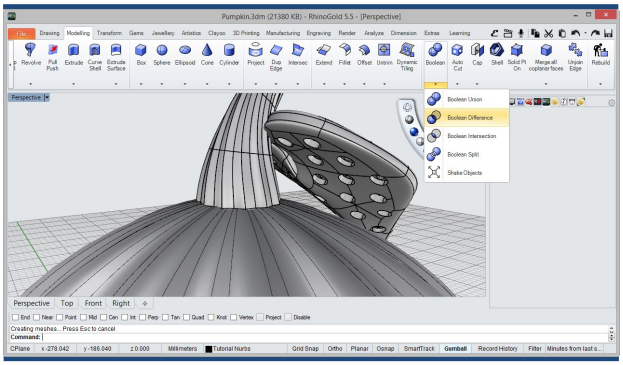
29 Dynamic Prong

Then, we'll apply the prongs to the gems with the- Dynamic Prong tool, at the Jewellery tab.



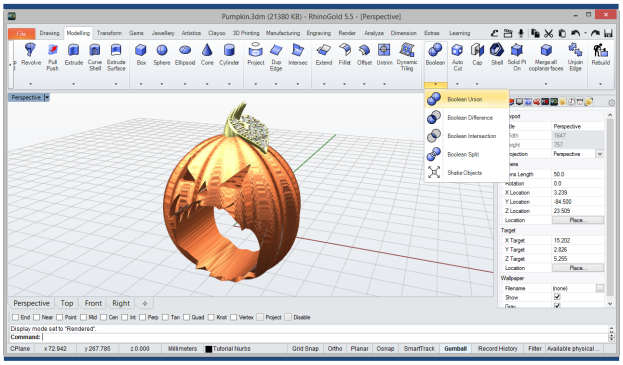
30 Cutters

Now, following in the Jewellery tab, we'll define the cutters to the gems, using the Cutter Studio.



31 Boolean Difference

In this step, we'll perform a Boolean Difference to subtract the cutters from the surface of the Clayoo object.



32 Boolean Union

Finally, we'll apply a Boolean Union between all solids to unify the piece.