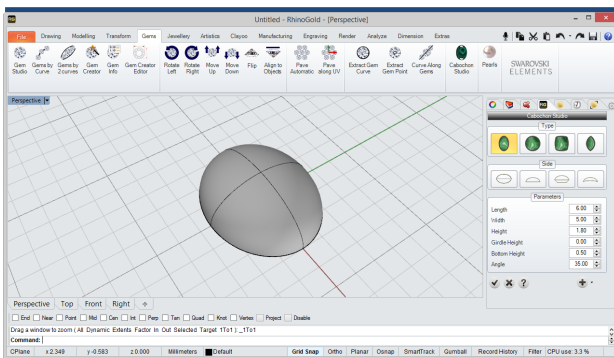


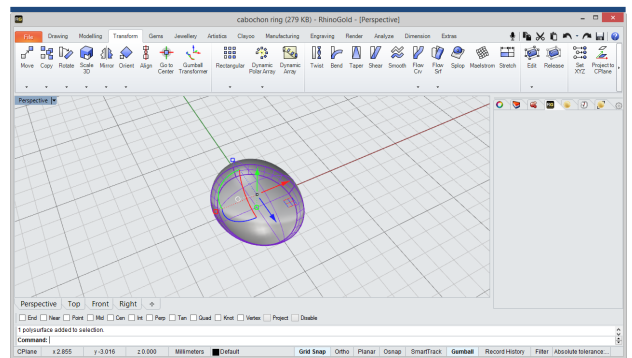
## Cabochon Ring

In this tutorial we will try out some of the most useful commands in RhinoGold. Tools as Dynamic Profile, Dynamic Array, Gems by Curve, Prongs in Line and Head Studio.



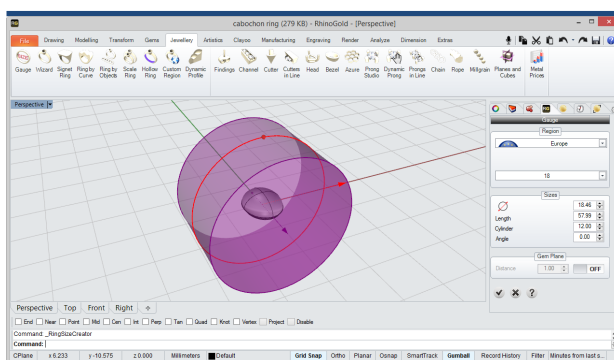
### 1 Cabochon

First create a Cabochon under the Gems tab. We will use the measures from the side panel, as the above image.



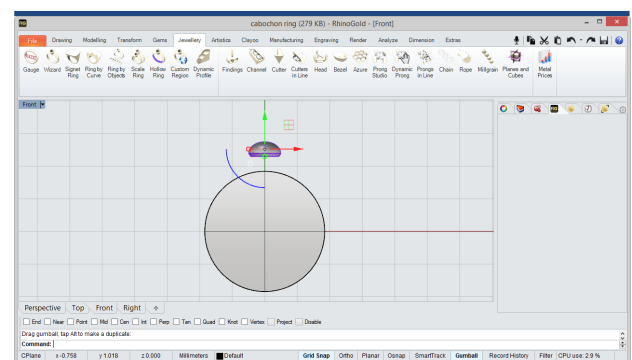
### 2 Rotate

Now, we will rotate the Cabochon 90 degrees, activate the Gumball transformer and Ortho to do it.



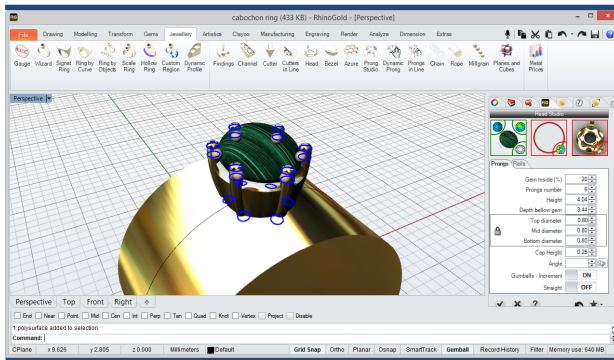
### 3 Gauge

Then, define the ring size with the Gauge tool, under the Jewellery tab. It's importante to activate the Cylinder option in the side panel.



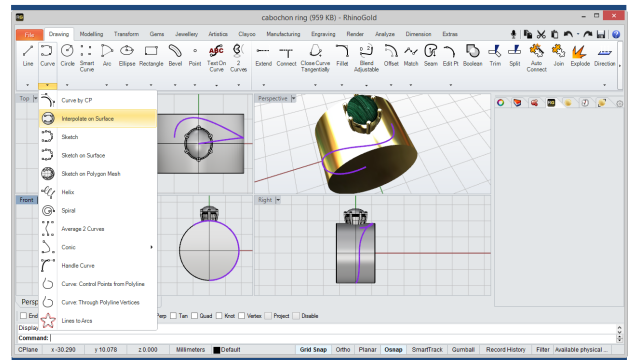
### 4 Move

Now, select the Cabochon and move it to the top direction by using the Gumball Transformer as seen above!



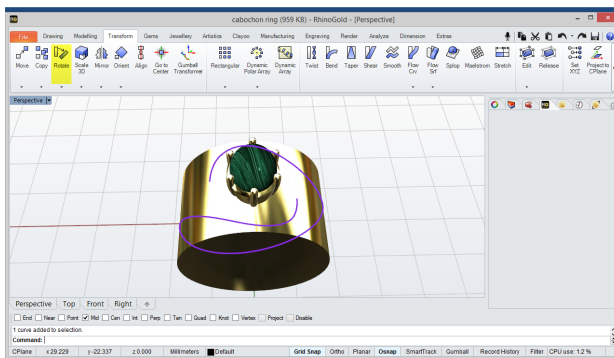
## 5 Head Studio

In this step, we will create a Head Studio to apply on the Cabochon under the Jewellery tab. In this case with six prongs and one rail as the above image!



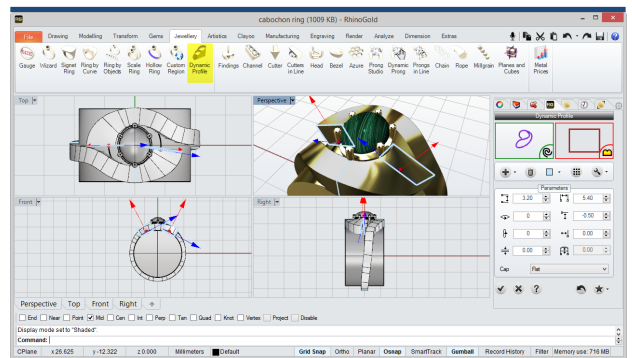
## 6 Curve: Interpolate on Surface

Now, with the Interpolate on Surface tool, under the Drawing tab to create a curve defining half of the ring shank. We will use the cylinder surface as orientation to this curve.



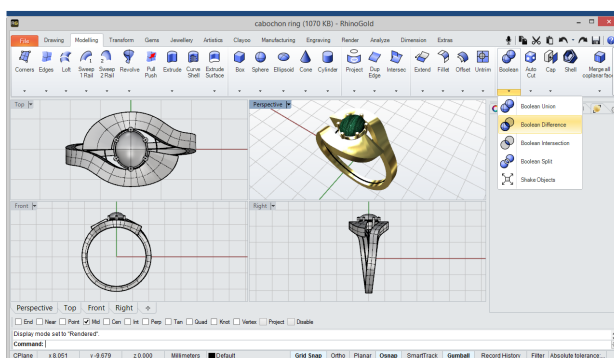
## 7 Rotate with Copy / Auto Connect

Then, select the curve and with the Rotate tool under the Transform tab to define the other half of the ring shank. It's important to enable the Copy option in the command line. Finally we can join both curves in a single one using the Auto Connect tool.



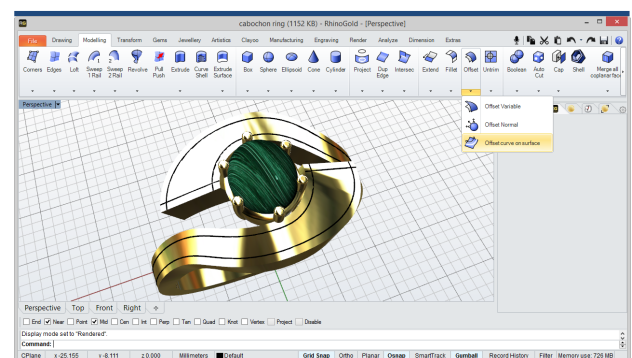
## 8 Dynamic Profile

Now we can apply a shape along the curve created previously with the Dynamic Profile tool under the Jewellery tab. The idea is to define a shape as the above image using the parameters in the side panel.



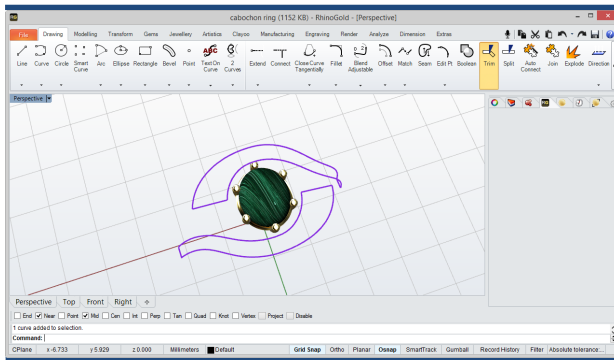
## 9 Boolean Difference

Then we can remove the cylinder from the shank and head of the ring in order to respect the ring size defined before. To do it, we use the Boolean Difference tool from the Modelling tab.



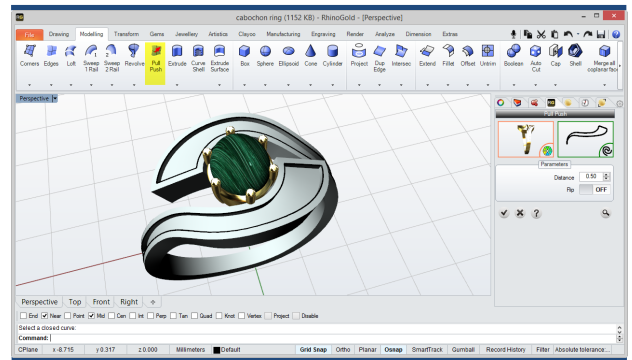
## 10 Offset Curve on Surface

Now, with the Offset Curve on Surface tool under the Modelling tab to create the curves in the top of the ring in order to define a recessed area to apply some gems. In this case with 0,6 mm distance.



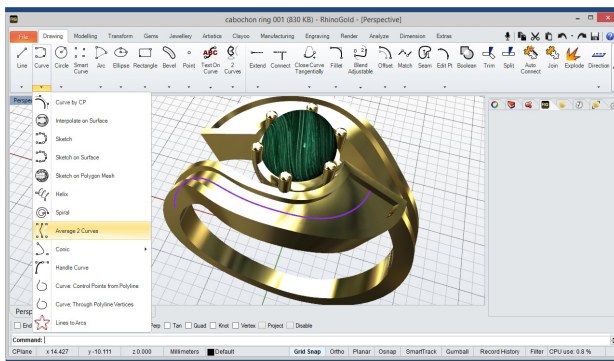
## 11 Trim / Join

Once created the curves, with the trim tool to cut the exceeds and then with the Join tool to unite these curves in closed ones.



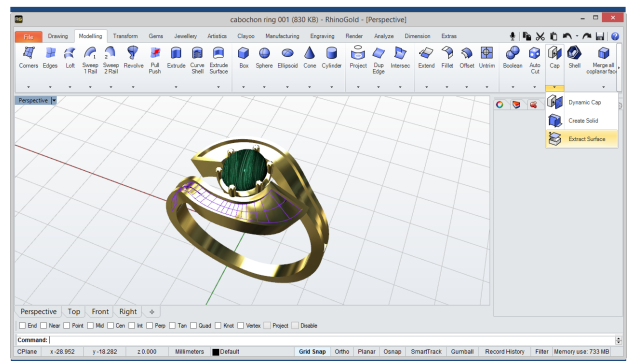
## 12 Pull Push

Then, with the Pull Push tool on the Modelling tab to create the recessed area on the ring shank using the curves created previously, as the above image.



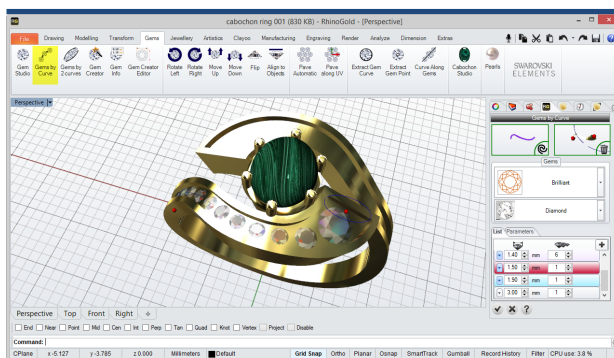
## 13 Average 2 Curves

Now, with the Average 2 Curves tool under the Drawing tab to get the middle curve from the surface in order to apply the gems.



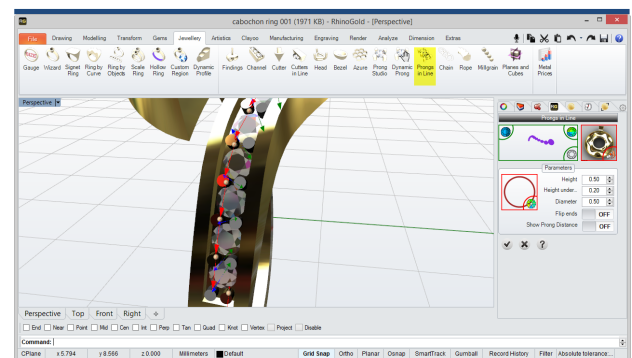
## 14 Extract Surface with Copy

In this step, we copy the surface to orient the gems by using the Extract Surface tool and activating the copy option in the command line.



## 15 Gems by Curve

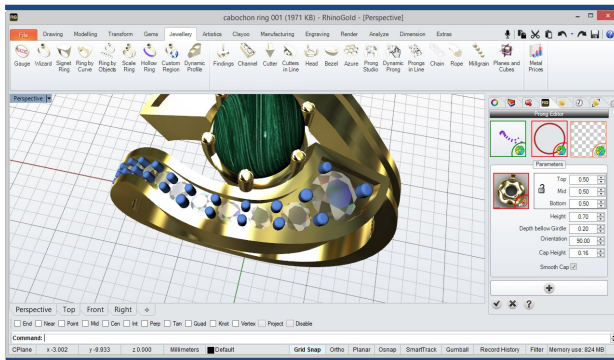
Then, select the Gems by Curve tool to apply some gems along the curve created previously, in this case with several gem sizes.



## 16 Prongs in Line

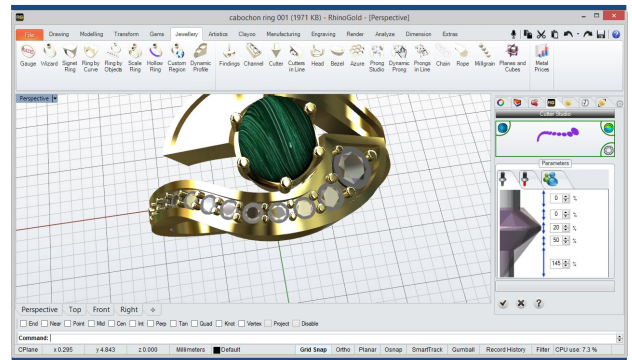
Now, with the Prongs in Line tool to apply the prongs on the gems created before, in this case two prongs for each gem.





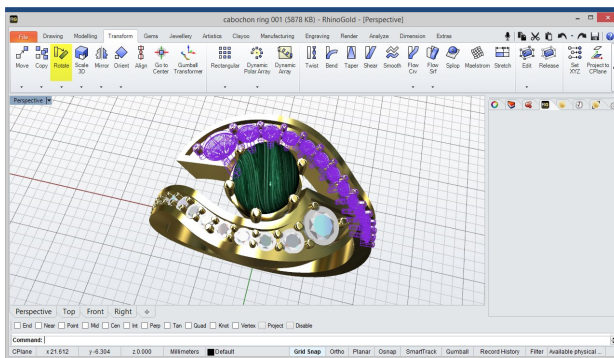
## 17 Prong Editor

In this step, we will edit the prongs created before by selecting them and press F2. The idea is to define Round Cap option and also adjust some positions.



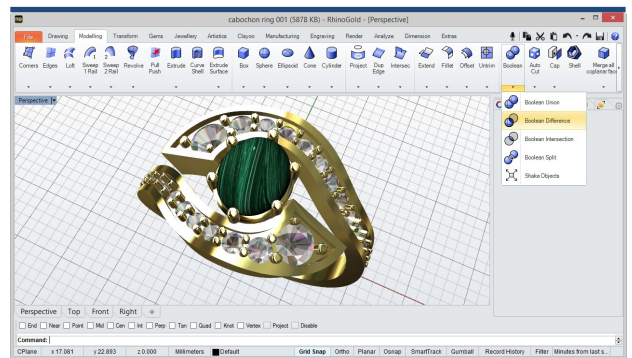
## 18 Cutter Studio

Now we can apply the Cutters to the gems, under the Jewellery tab with the Cutter Studio tool as the above image.



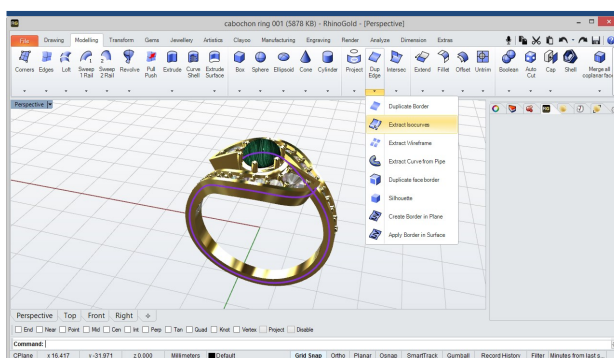
## 19 Rotate with Copy

Then, select the gems, the prongs and the cutters and apply a Rotation with 180 degrees and the copy option activated in the command line.



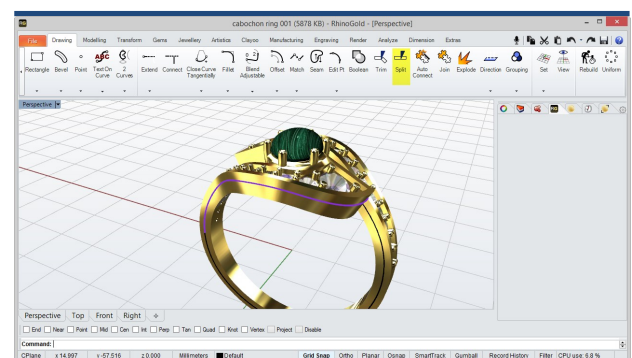
## 20 Boolean Difference

Now, we can remove the cutters from the ring's shank using the Boolean Difference tool under the Modelling tab.



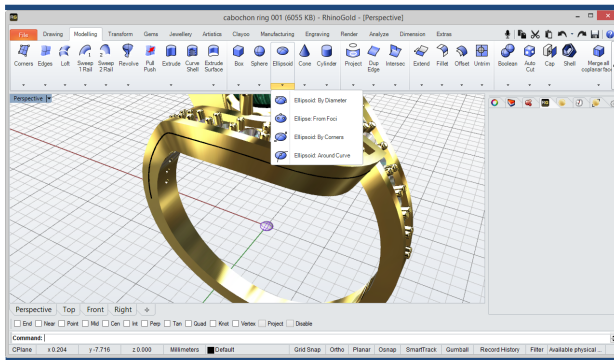
## 21 Extract Isocurves

In this step, we will get a curve from the side of the ring surface with the Extract Isocurves tool in the Modelling tab.



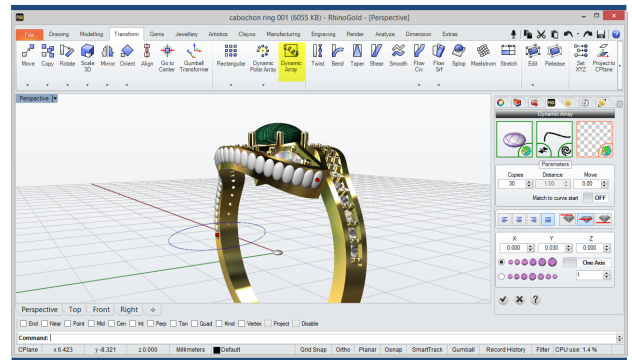
## 22 Split

Now we can Split the curve as the above image, under the Drawing tab with the Split tool using the Point option in the command line.



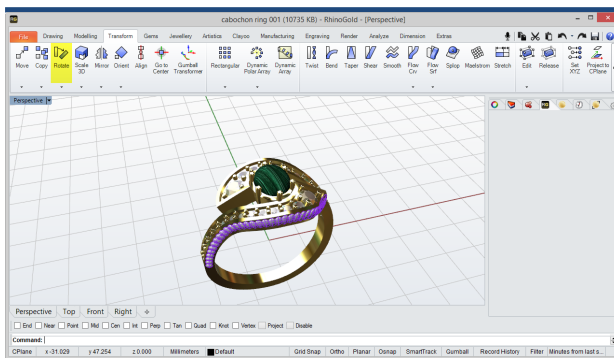
## 23 Ellipsoid

Then, with the Ellipsoid tool to define a single ellipsoid as the above image.



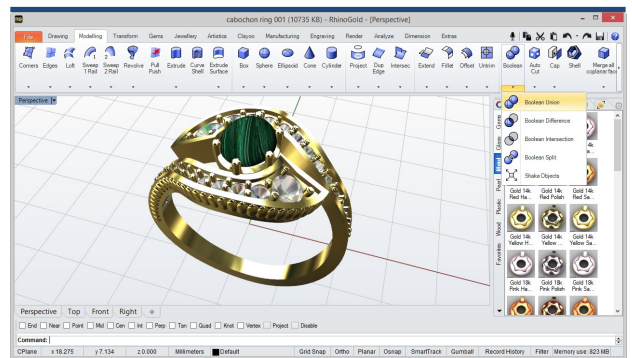
## 24 Dynamic Array

Now, with the Dynamic Array tool to copy the ellipsoid created before along the curve extruded in the side surface. We can use the gradient option in one single axis as shown above in the parameters on the side panel.



## 25 Rotate with Copy

Select the ellipsoids created previously and Rotate them 180 degrees to copy into the other side of the ring.



## 26 Boolean Union

Finally select all the solids and with the Boolean Union tool under the modelling tab to unite them in a single one!