

Modelação Geométrica e Generativa

20171392

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UNIVERSIDADE DE LISBOA

MGeG

Mestrado Integrado em Arquitectura
Ano Lectivo 2021-2022 1º Semestre
Docente - Nuno Alão 4º Ano

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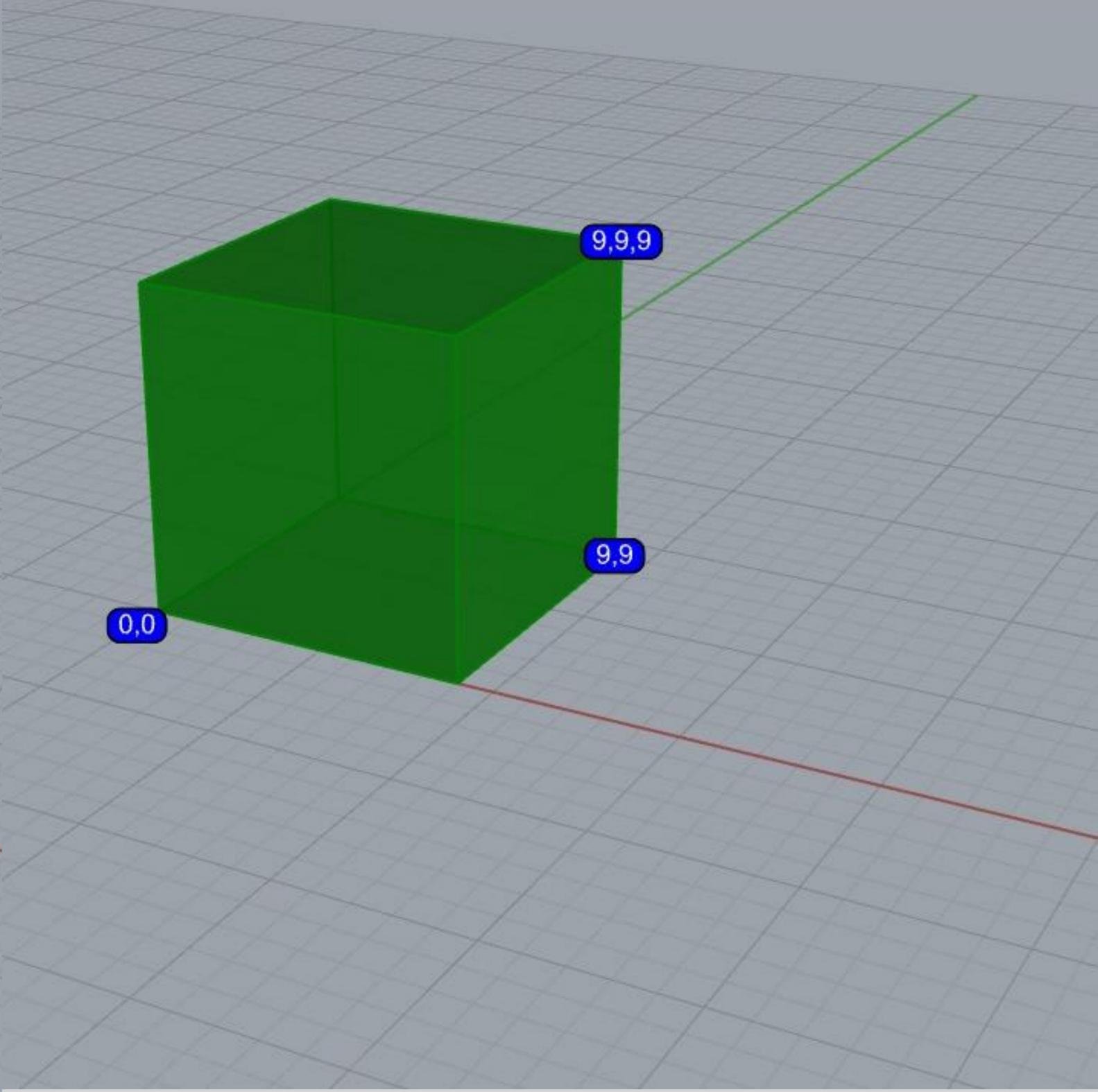
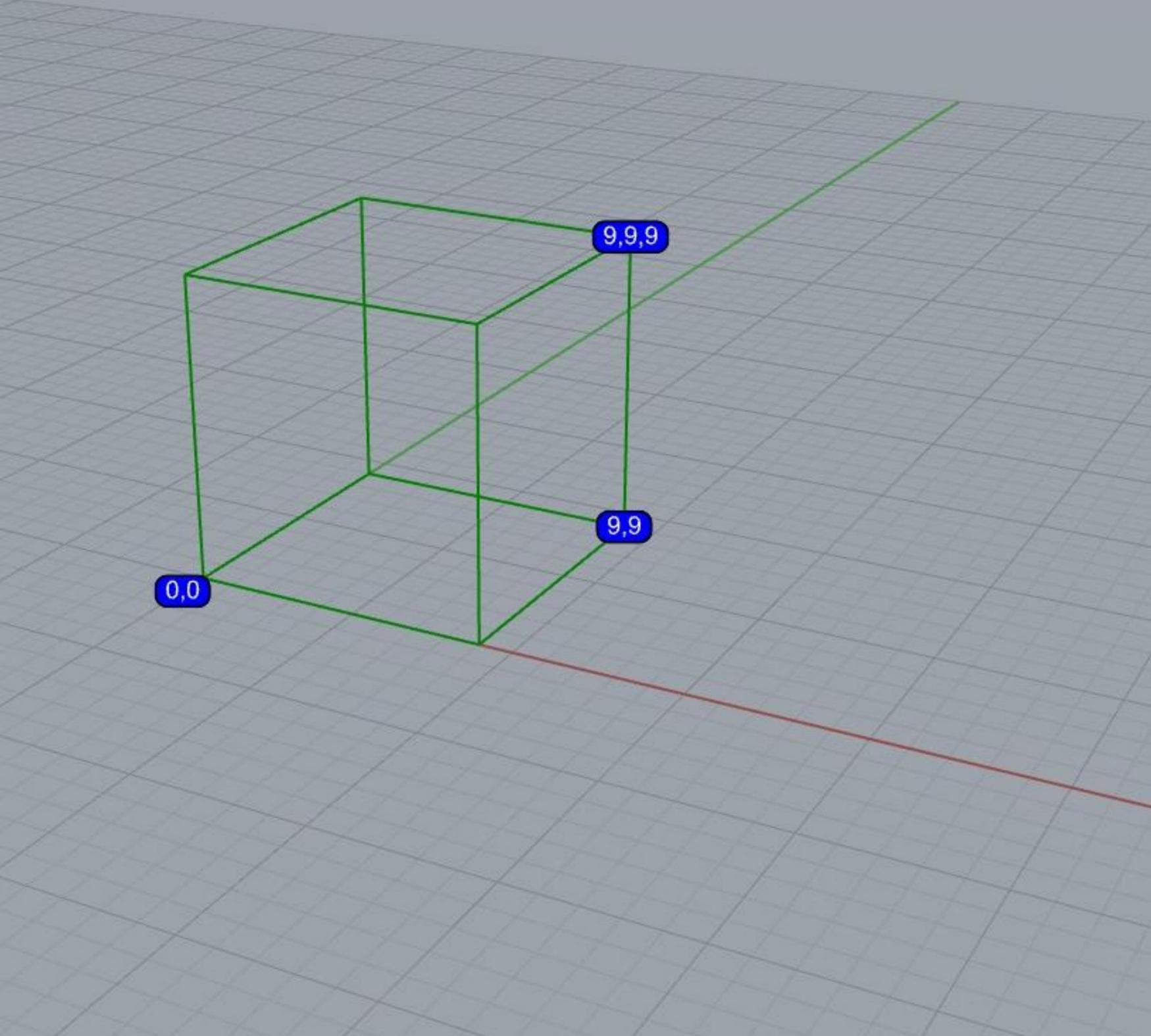
5.5-Toro

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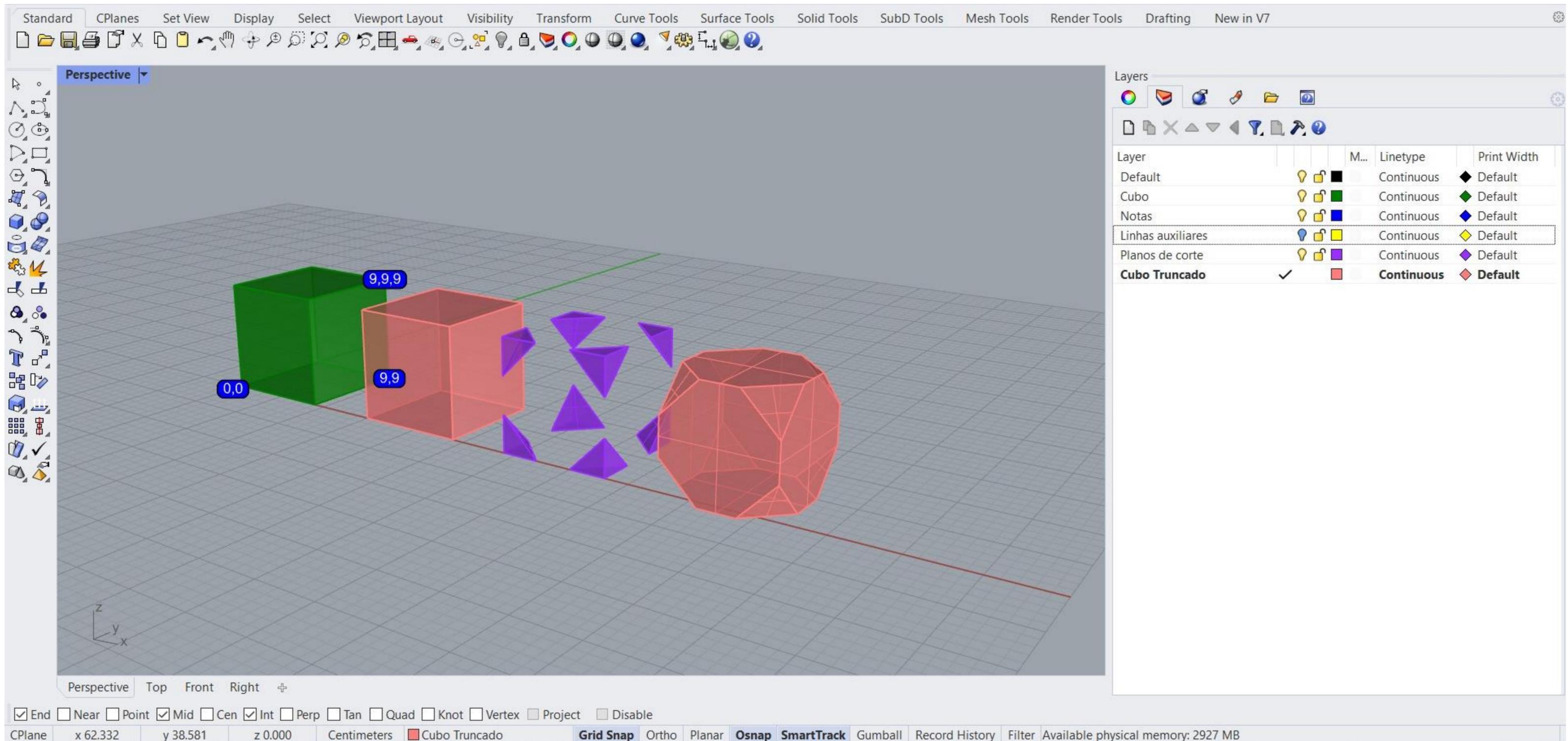
7-Corais

8- Anémoma

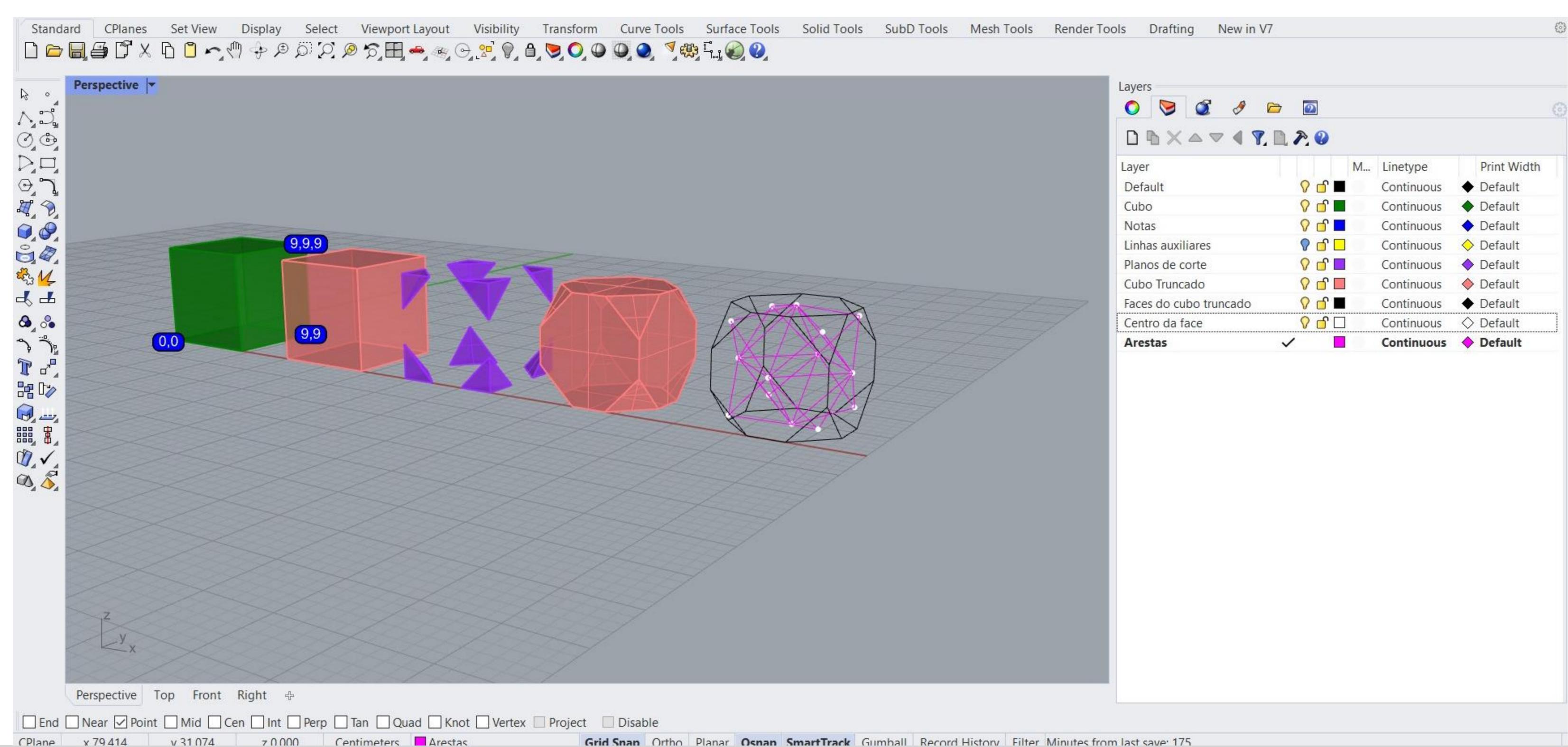
6- Continuação da Modelação do Terreno



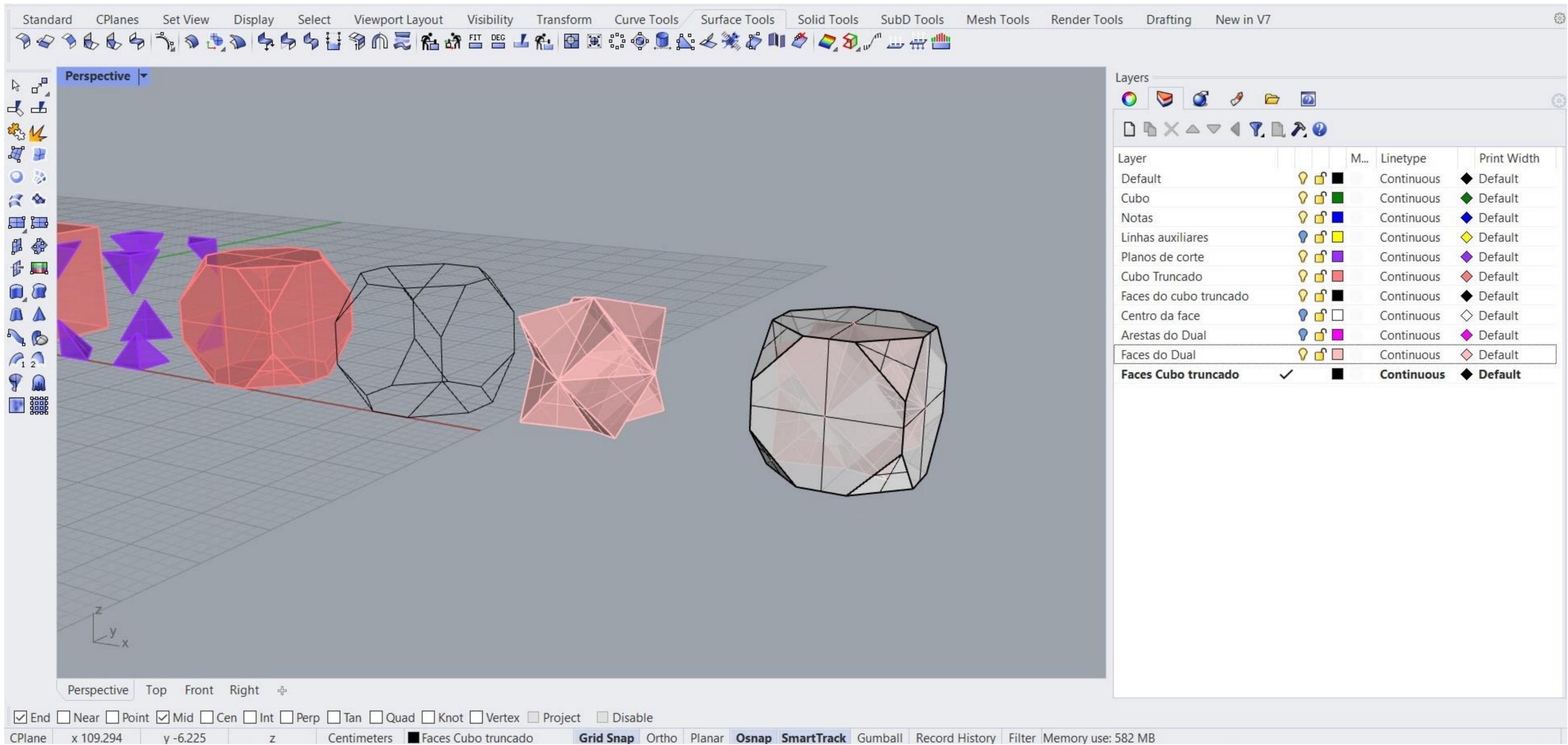
Exerc. 1 - Cubo



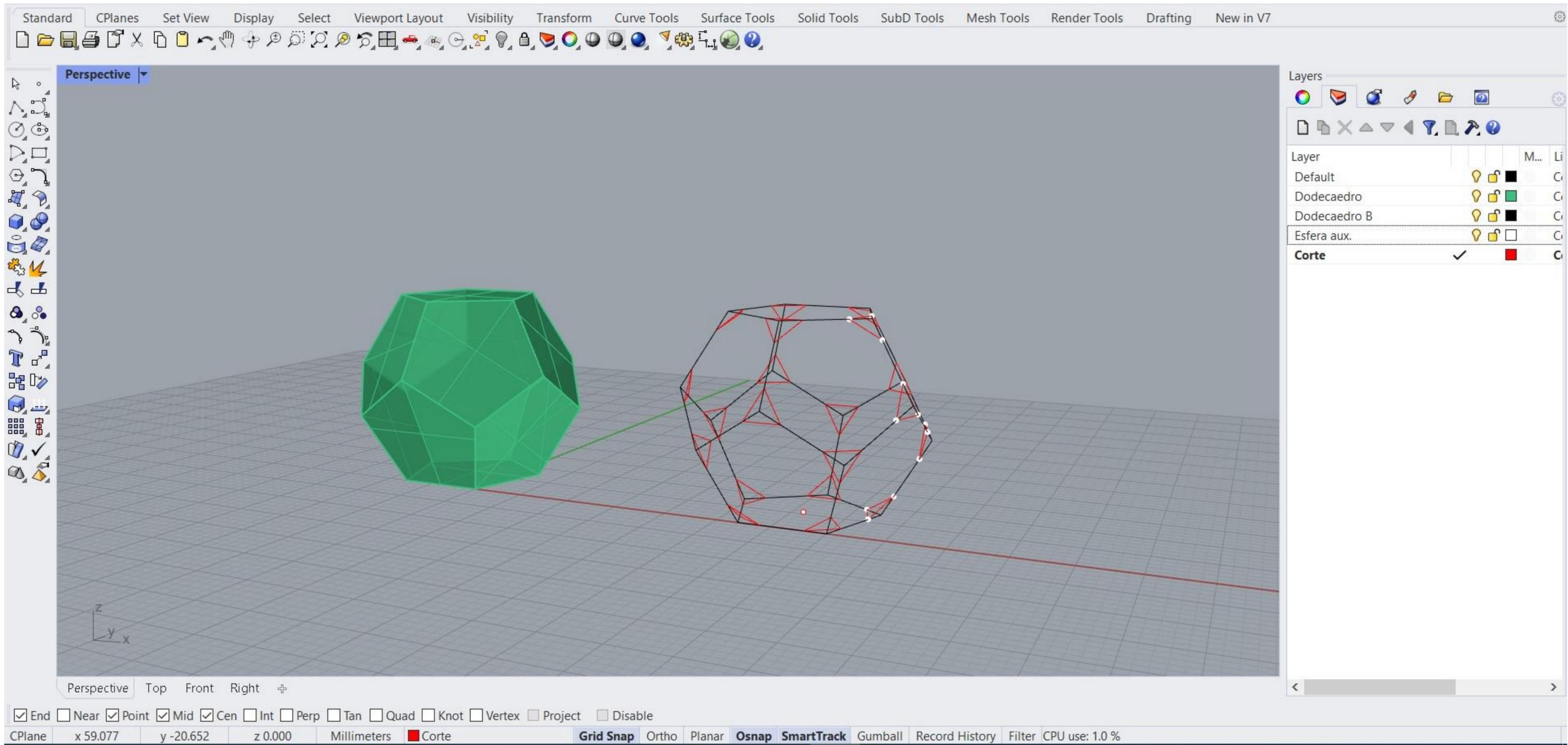
Exerc. 1.1 - Cubo Truncado



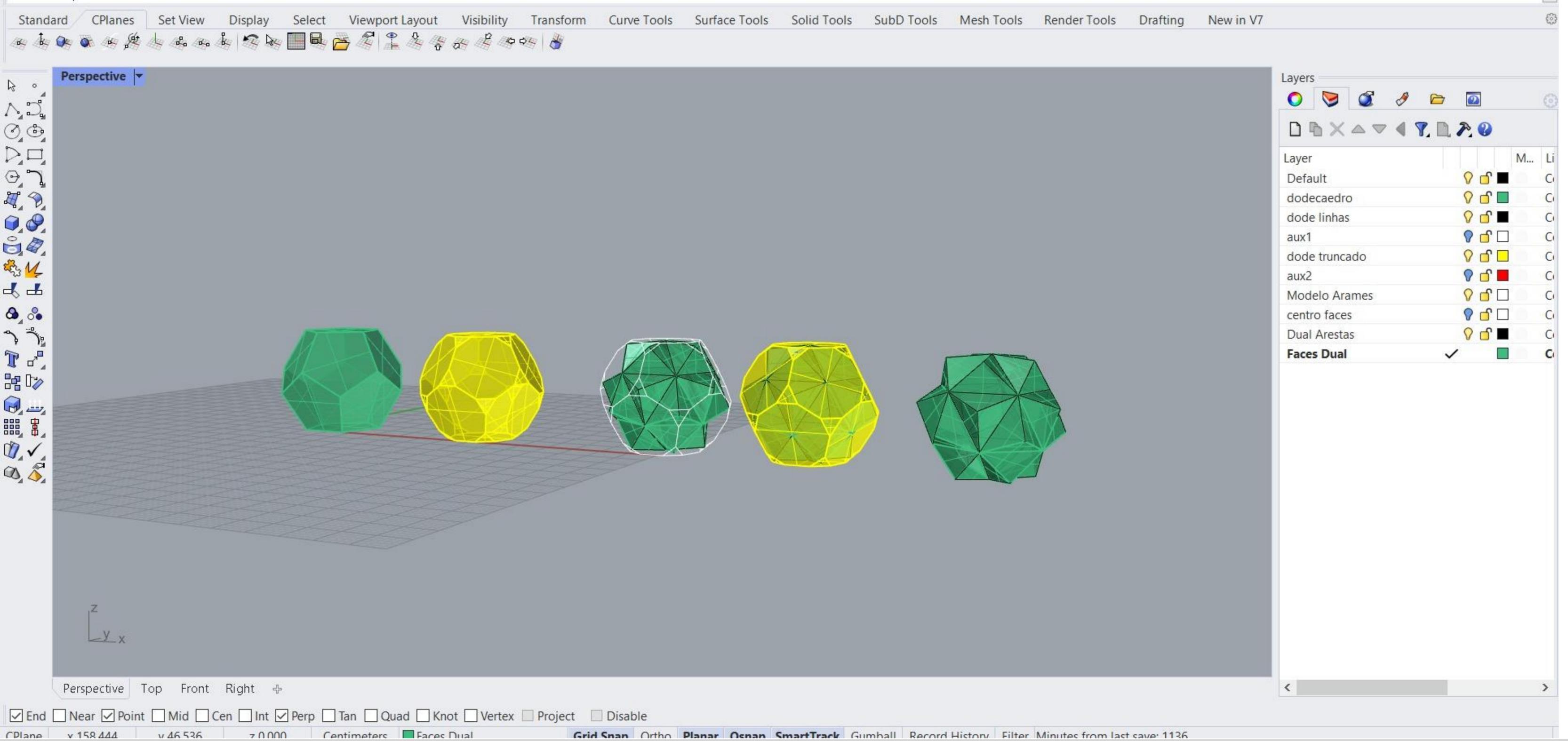
Exerc. 1.1 - Cubo Truncado



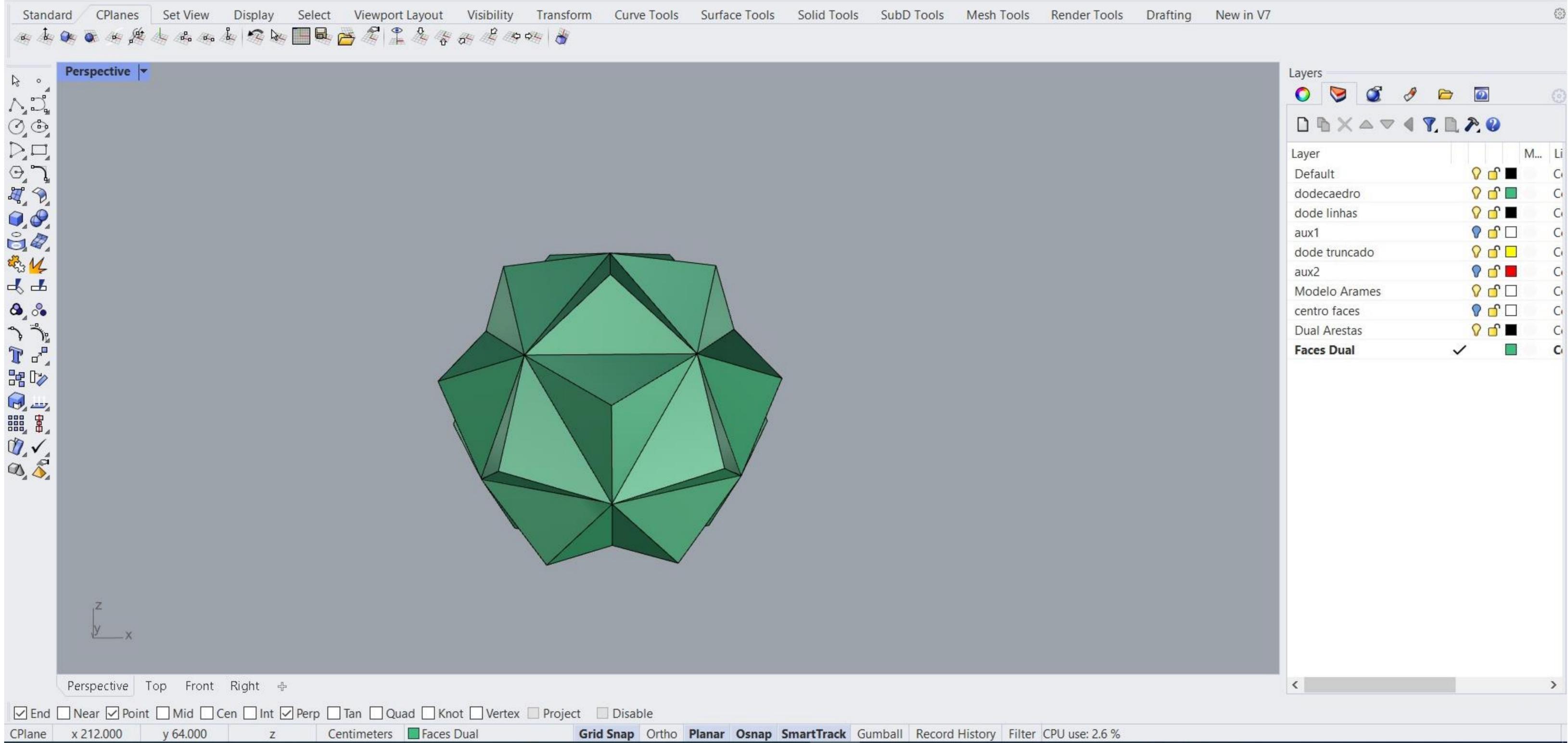
Exerc. 1.1 - Cubo Truncado



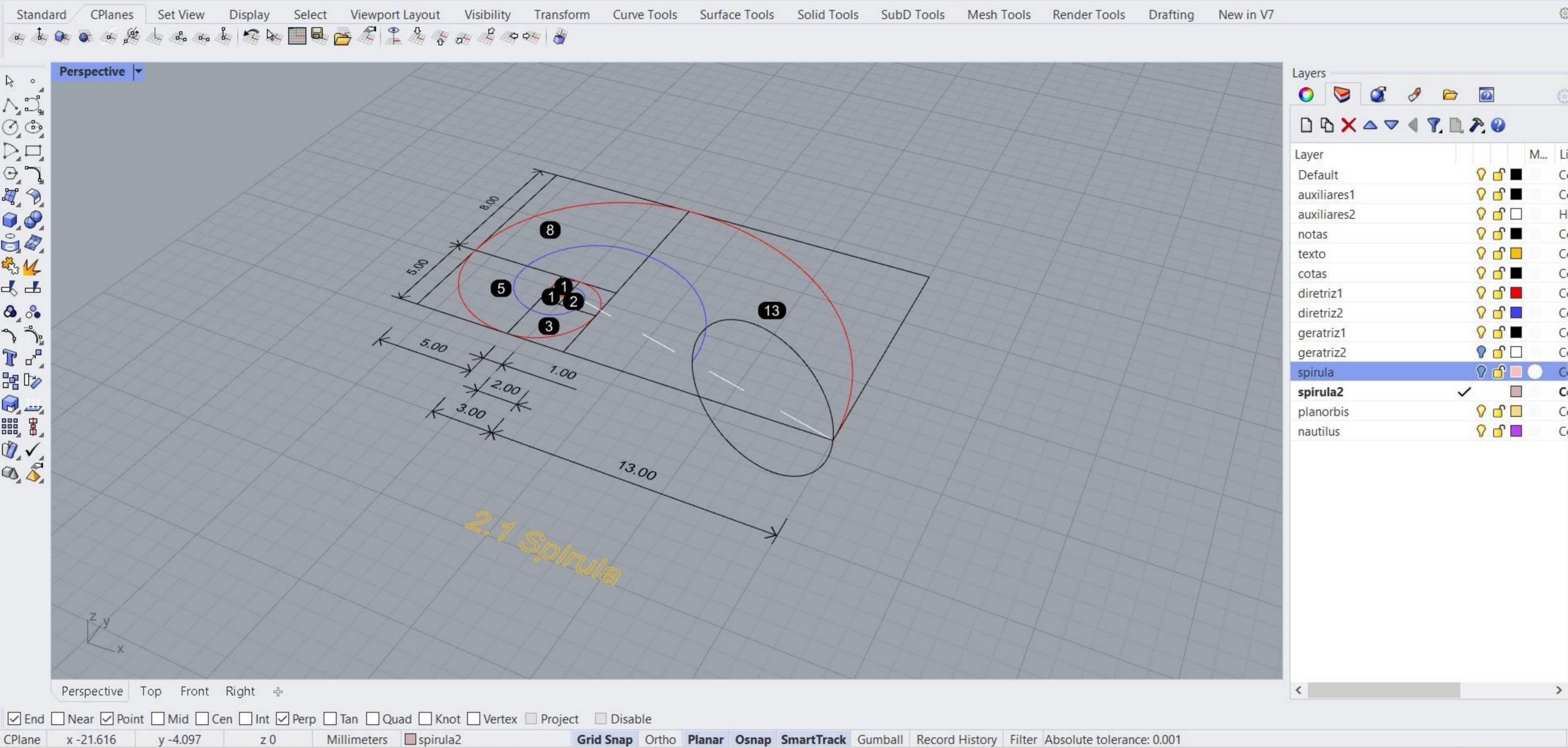
Exerc. 1.2 - Dodecaedro



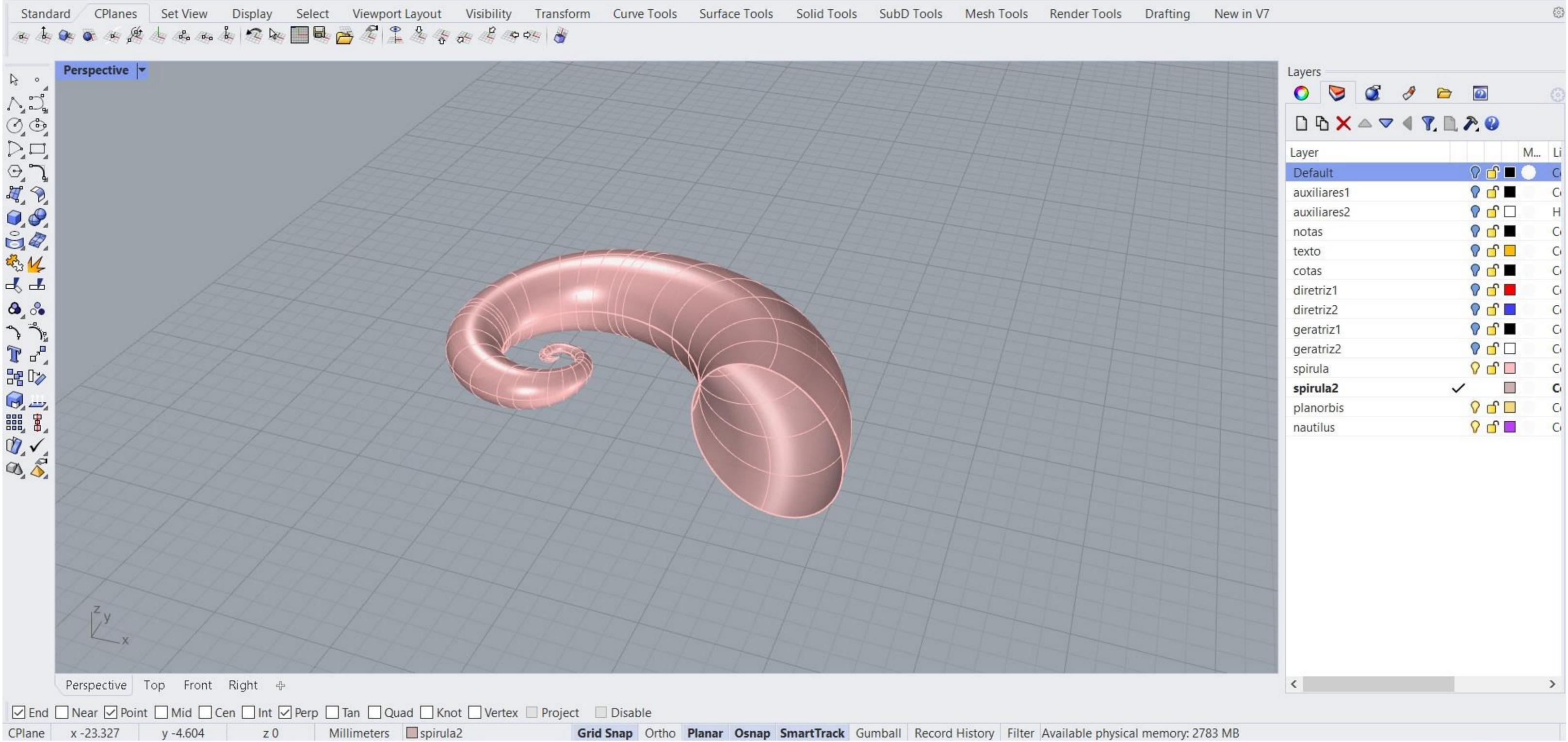
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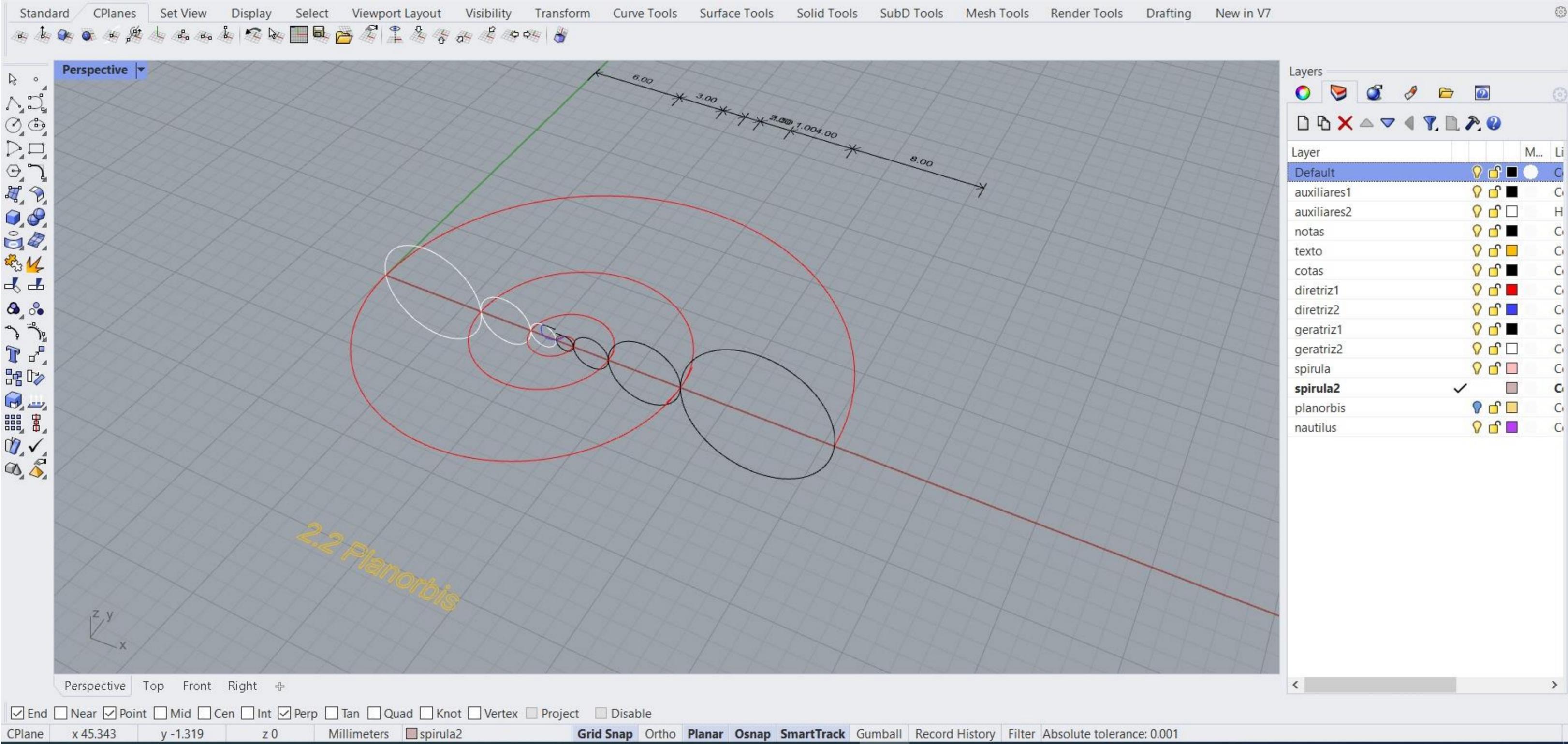
Exerc. 1.2 - Dodecaedro



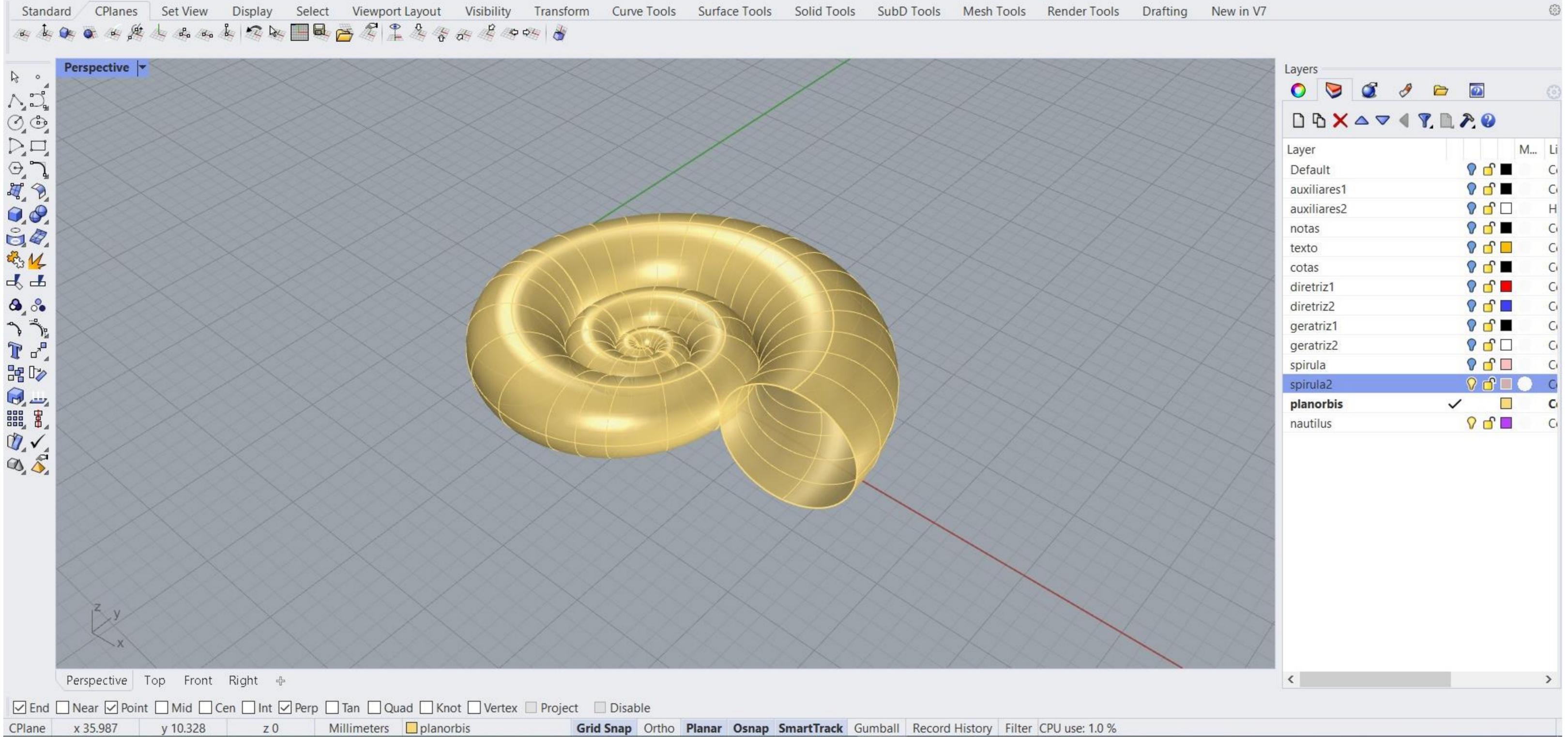
Exerc. 2.1 - Spirula



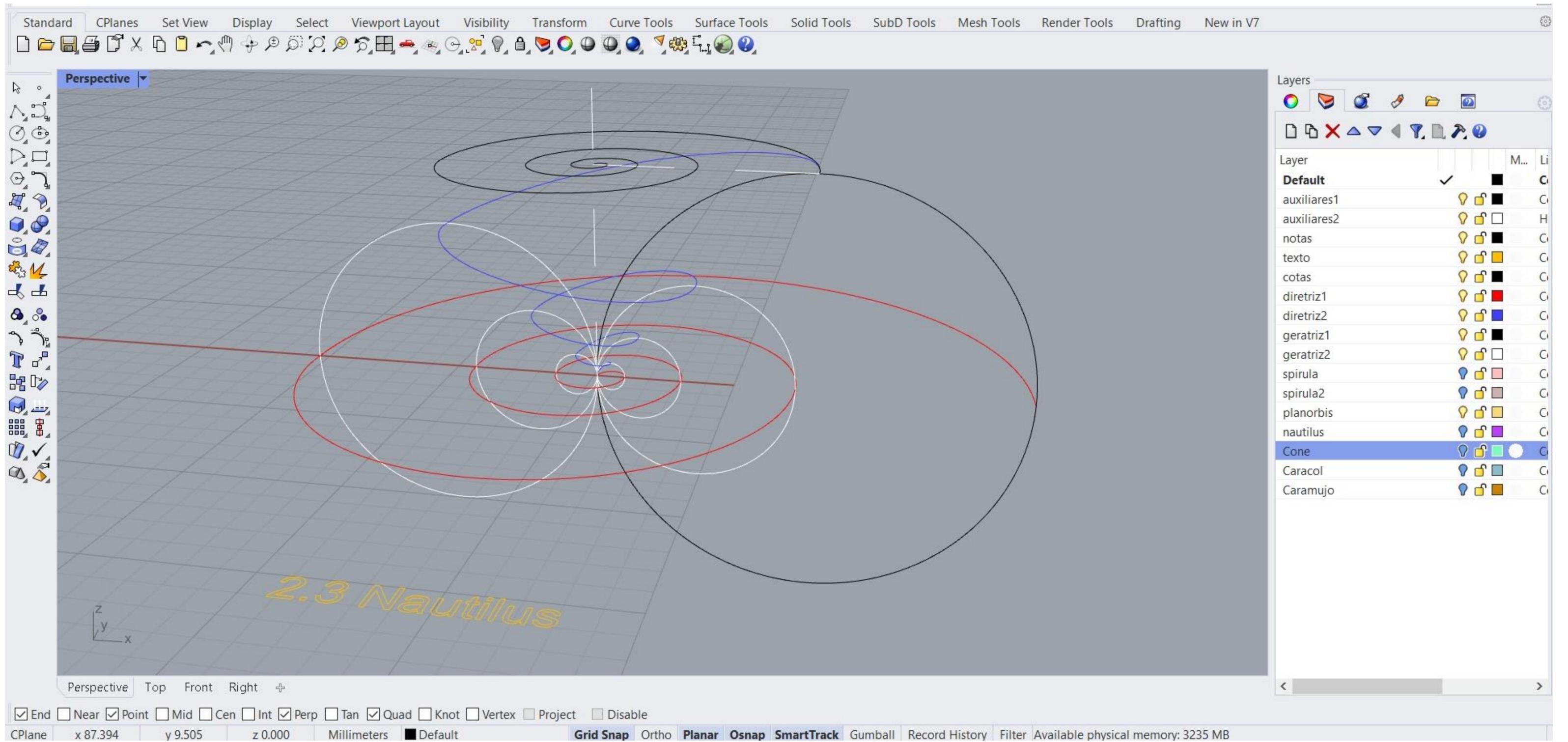
Exerc. 2.1 - Spirula



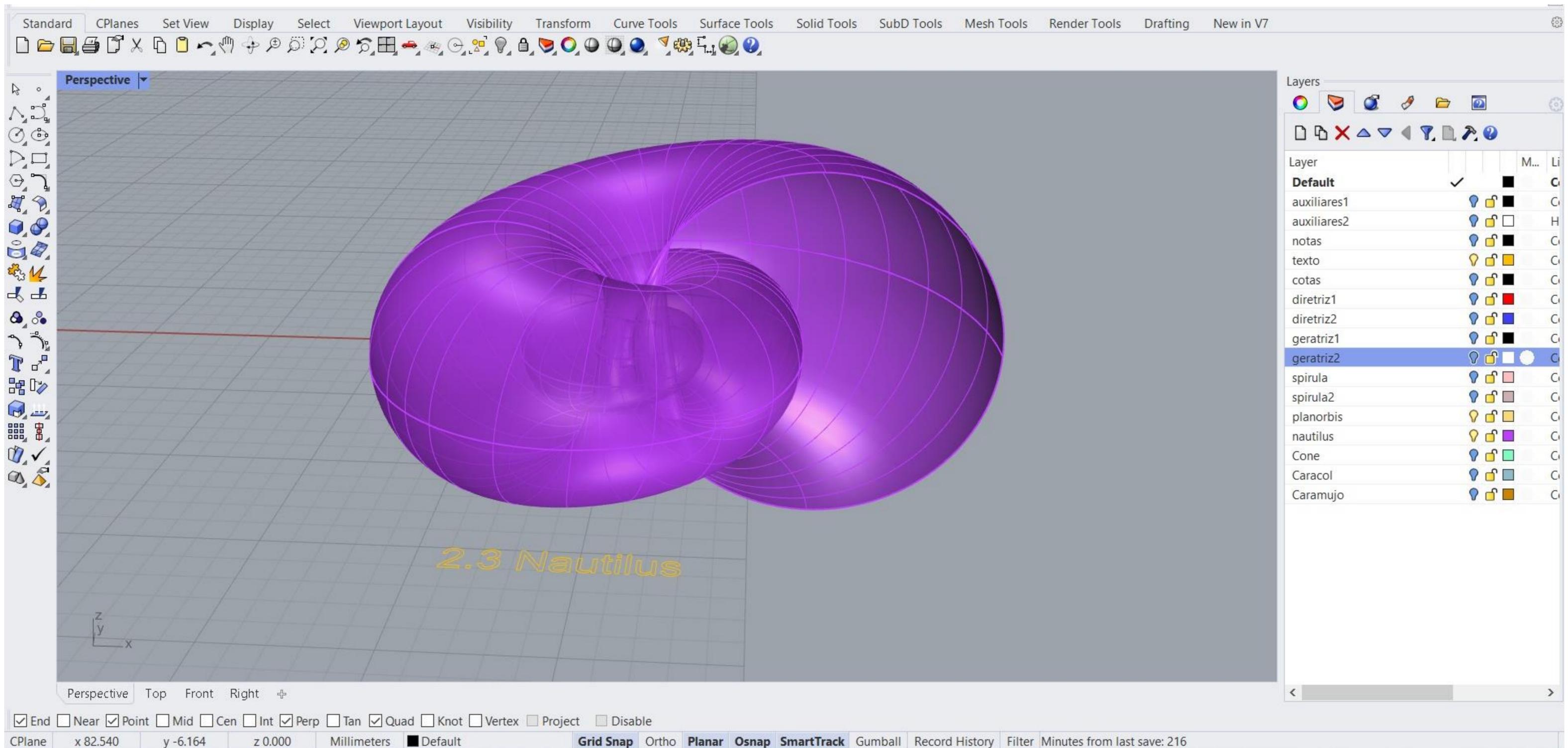
Exerc. 2.2 - Planorbis



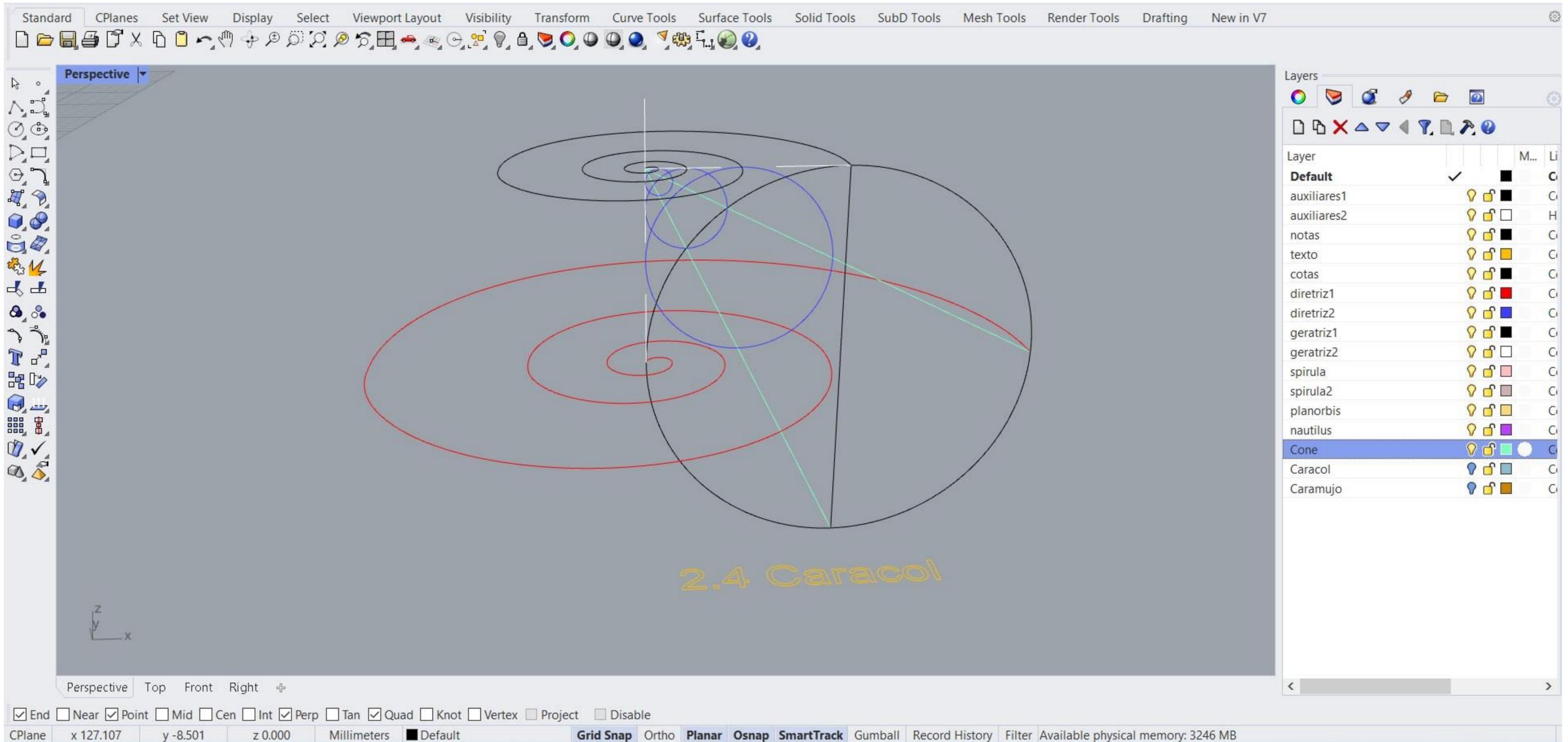
Exerc. 2.2 - Planorbis



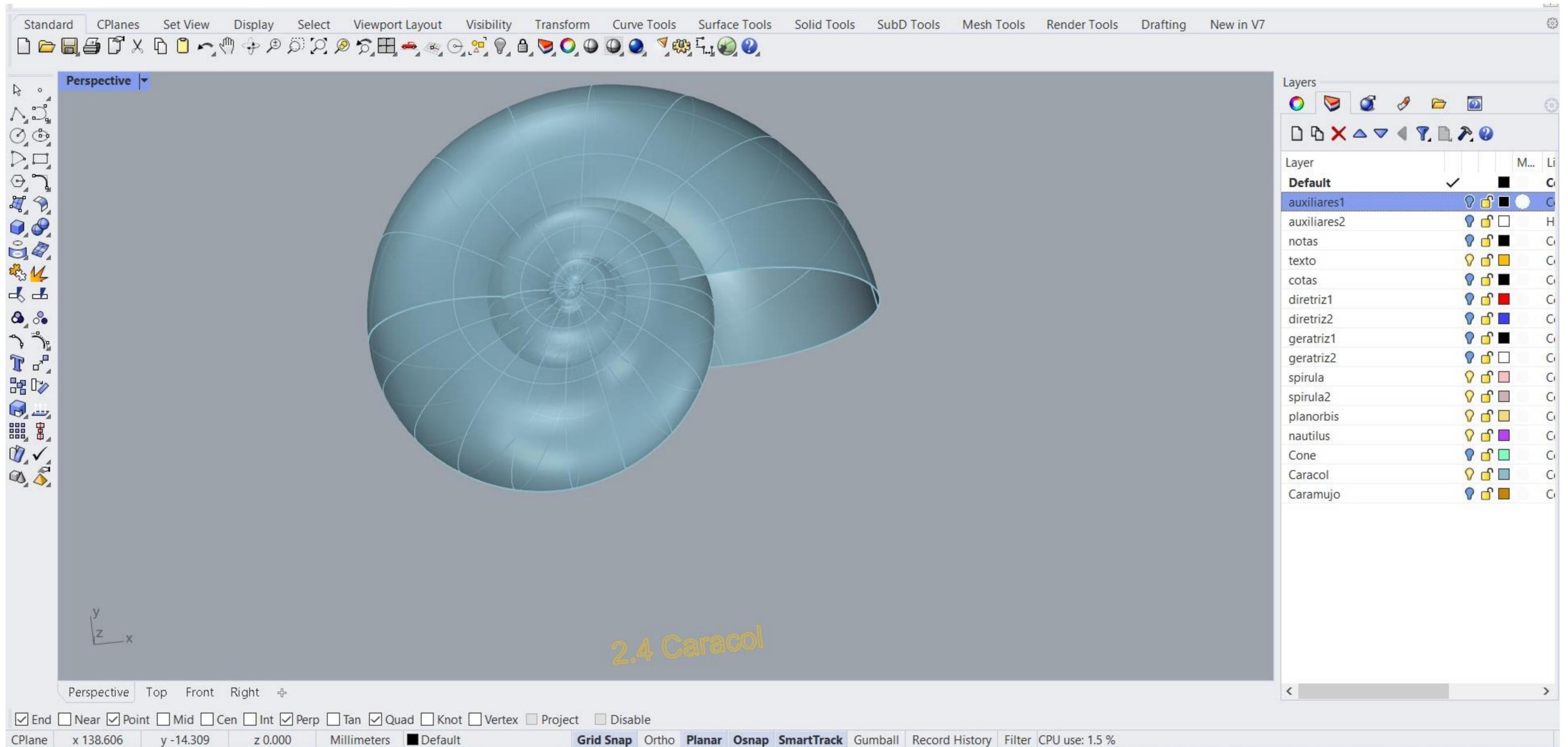
Exerc. 2.3 - Nautilus



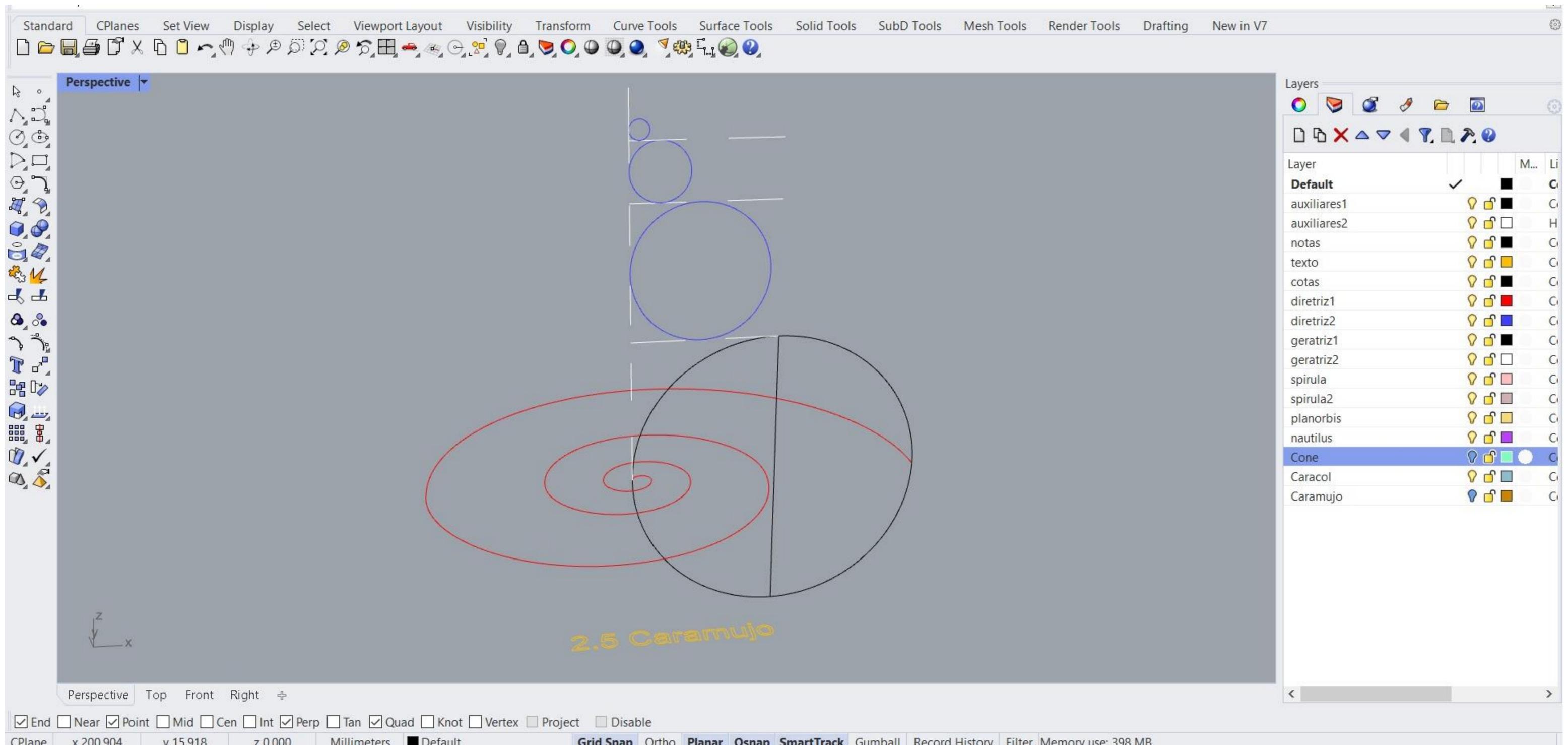
Exerc. 2.3 - Nautilus



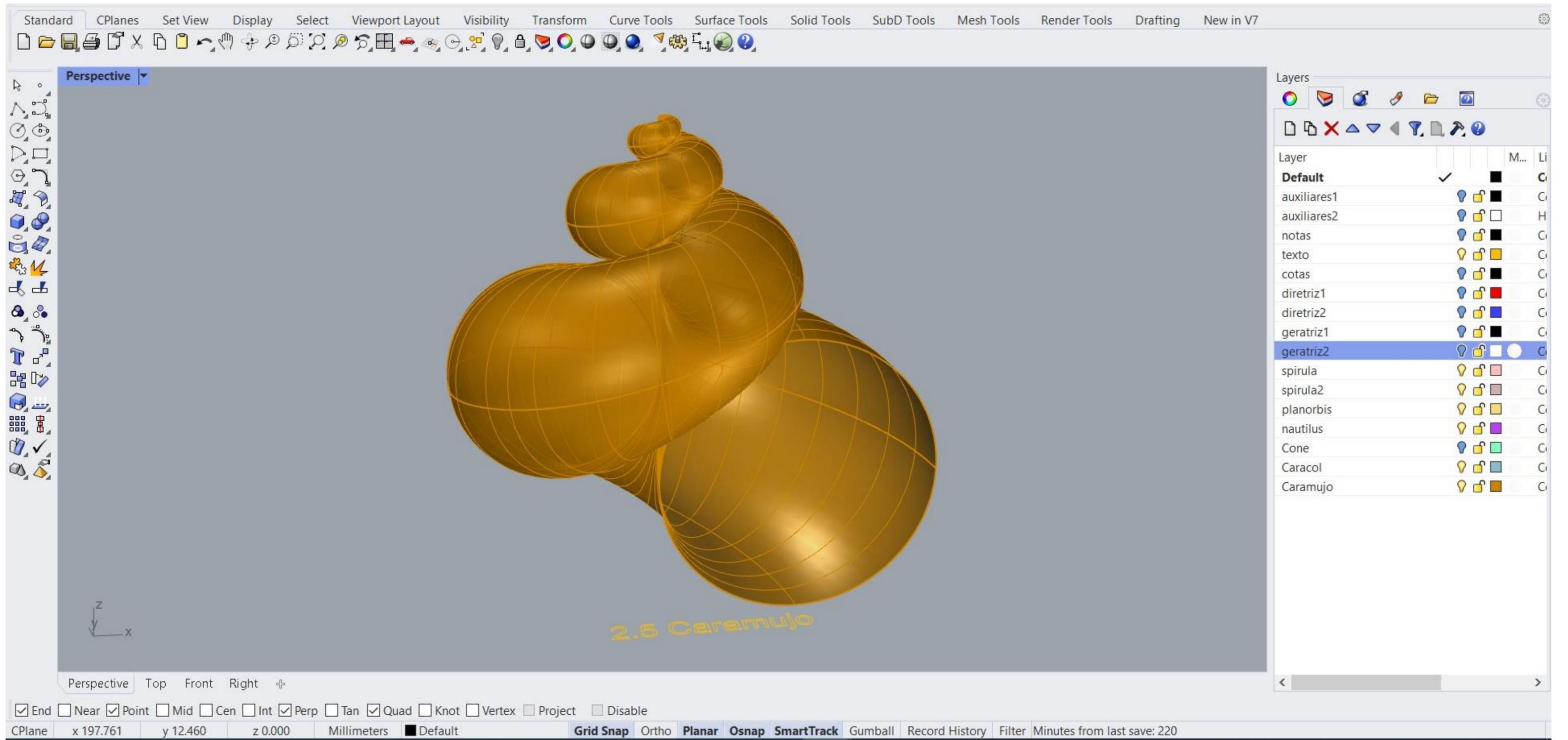
Exerc. 2.4 - Caracol



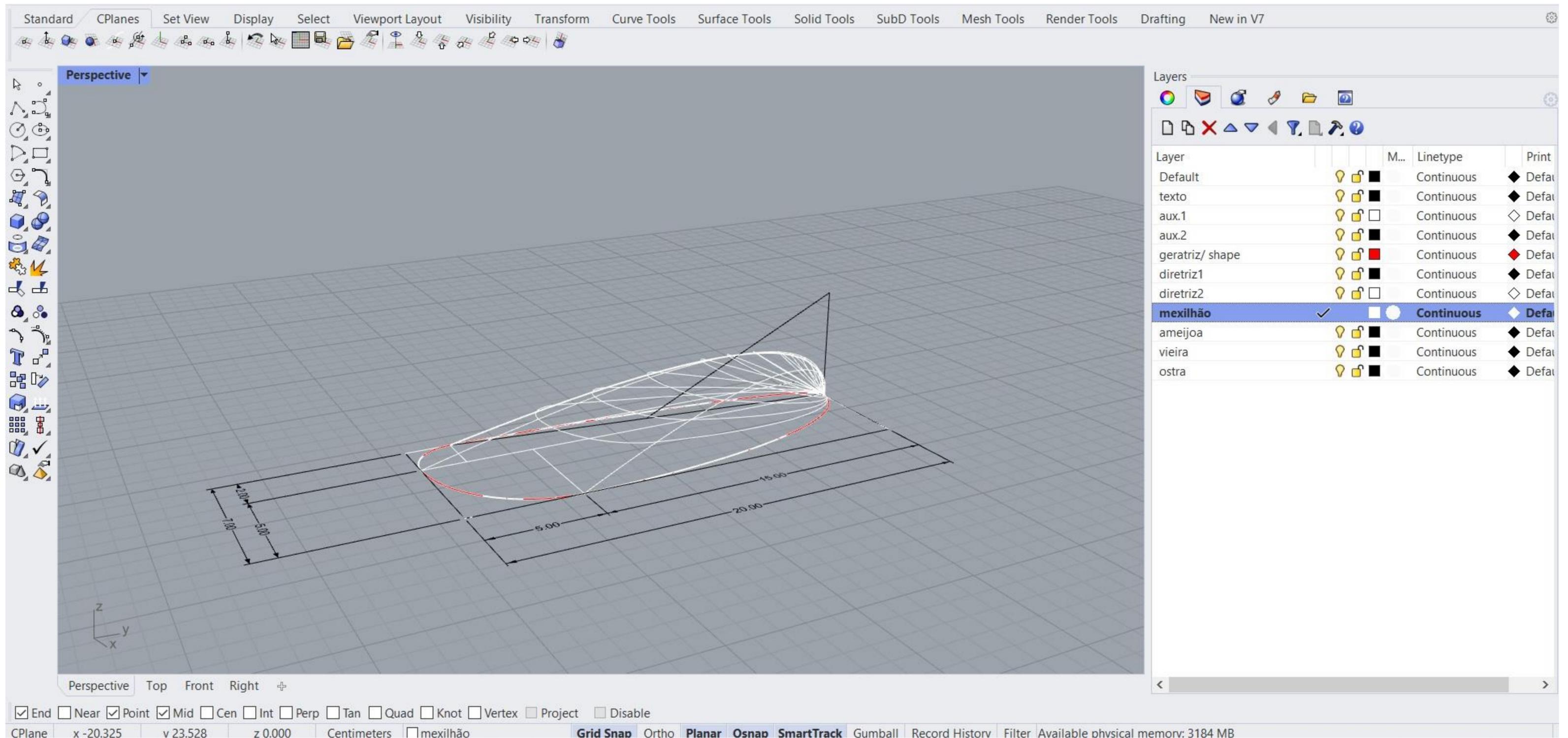
Exerc. 2.4 - Caracol



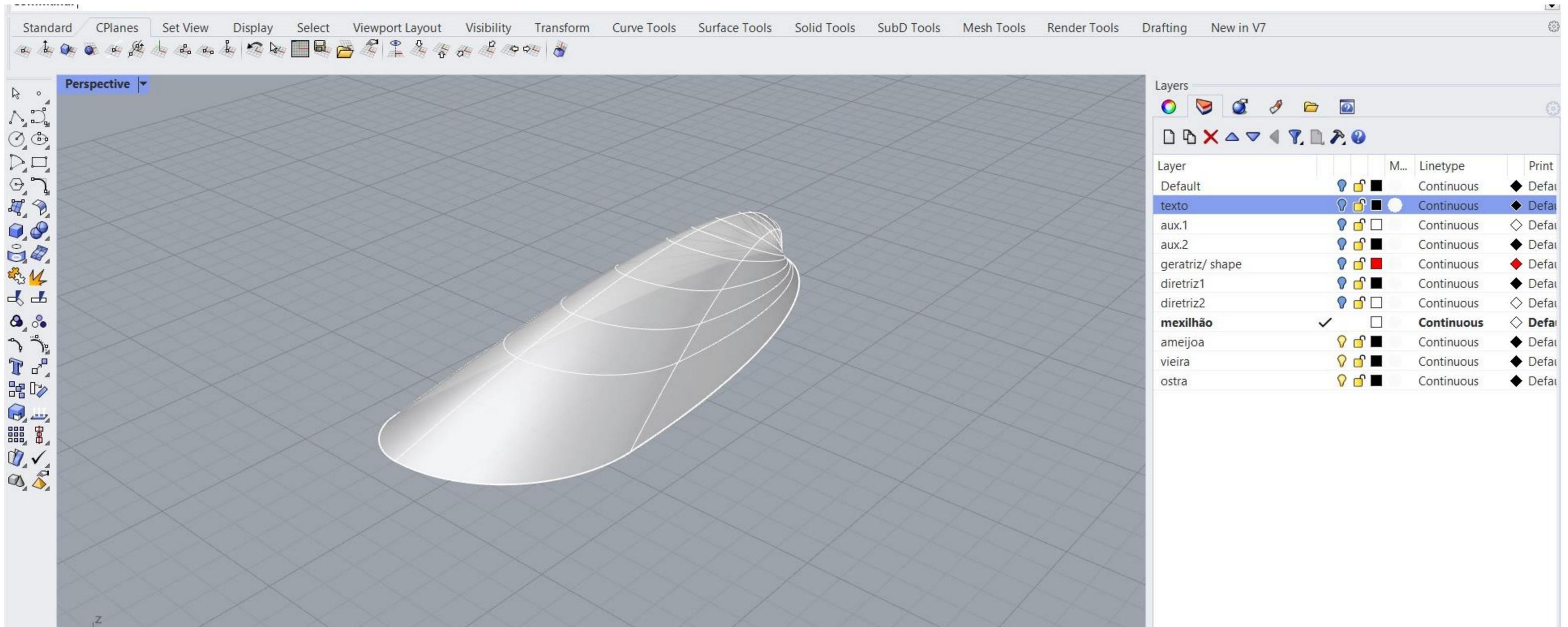
Exerc. 2.5 - Caramujo



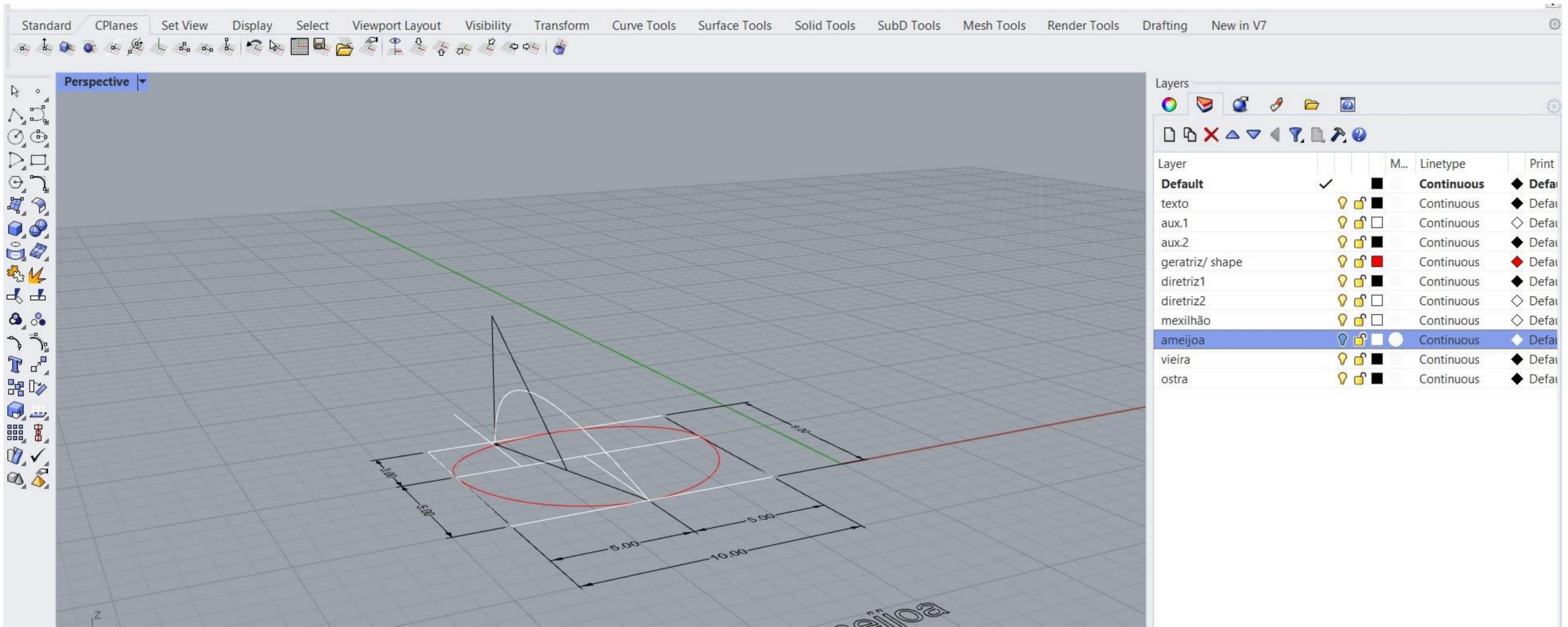
Exerc. 2.5 - Caramujo



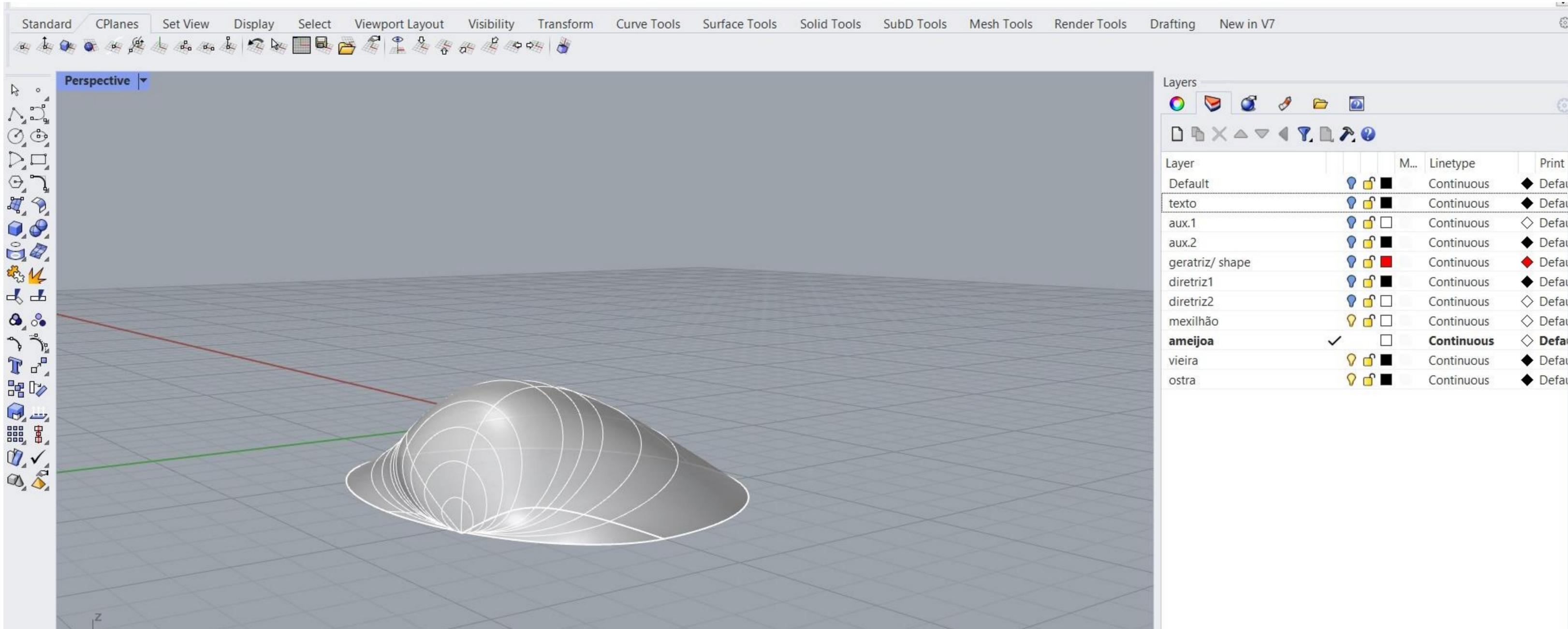
Exerc. 3.1 - Mexilhão



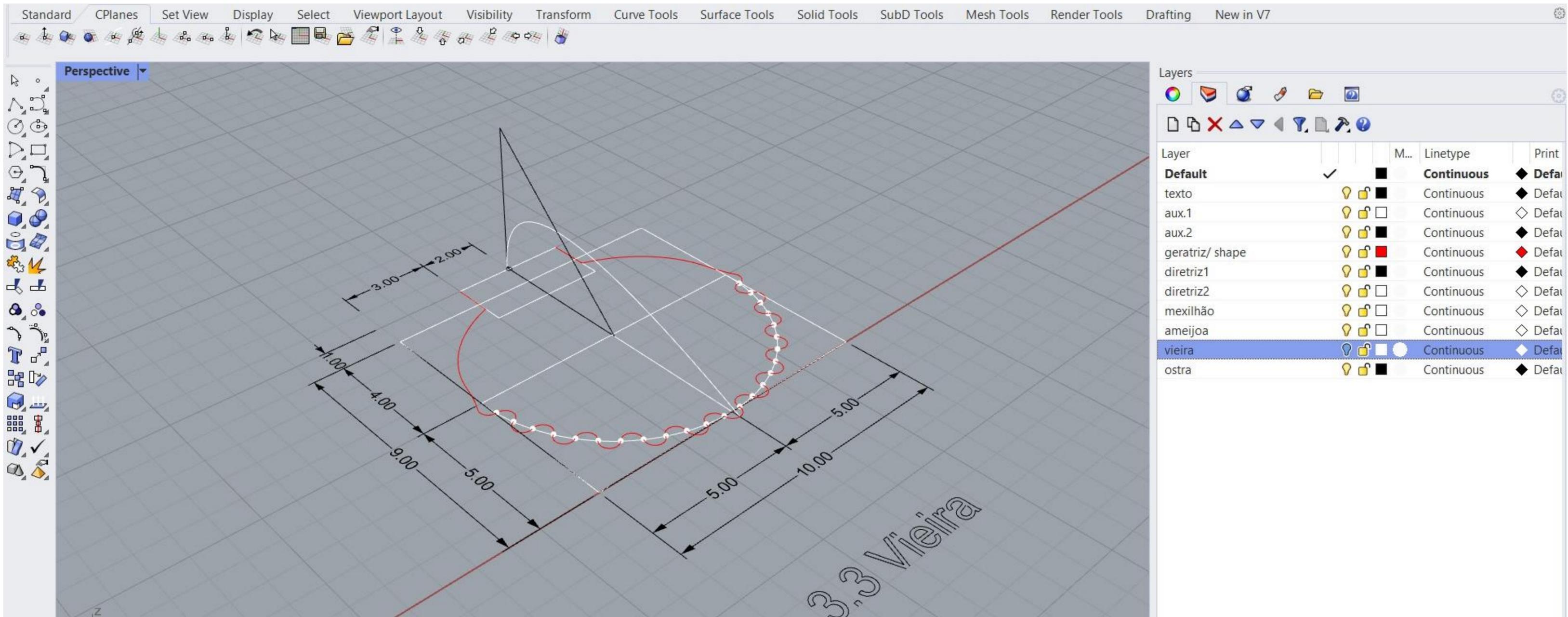
Exerc. 3.1 - Mexilhão



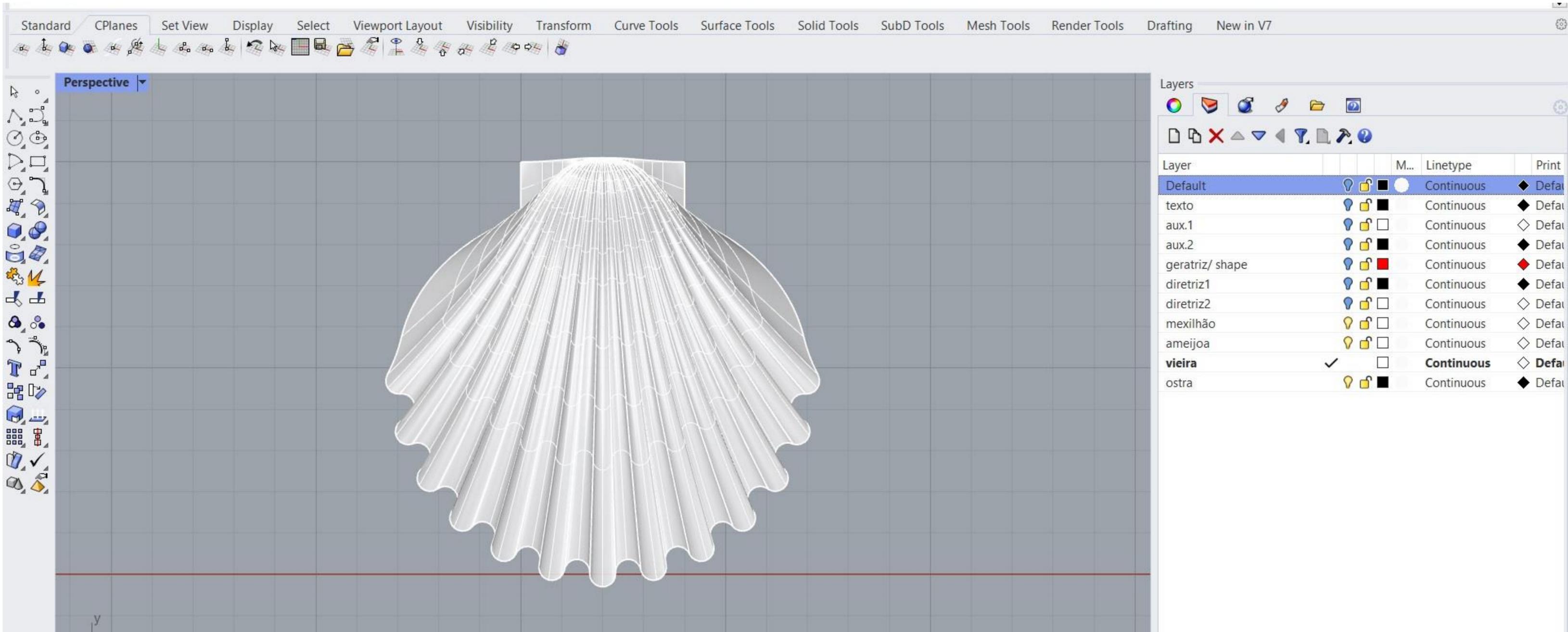
Exerc. 3.2 - Ameijoia



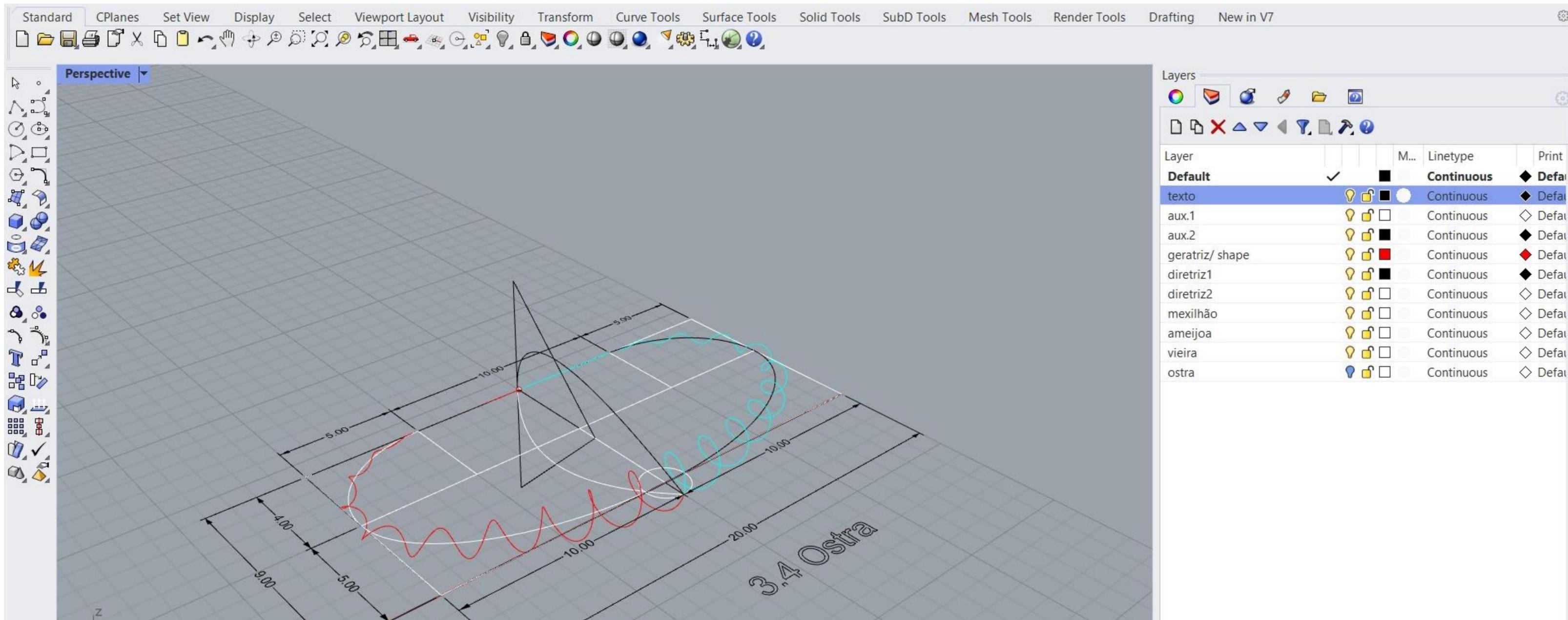
Exerc. 3.2 - Ameijoa



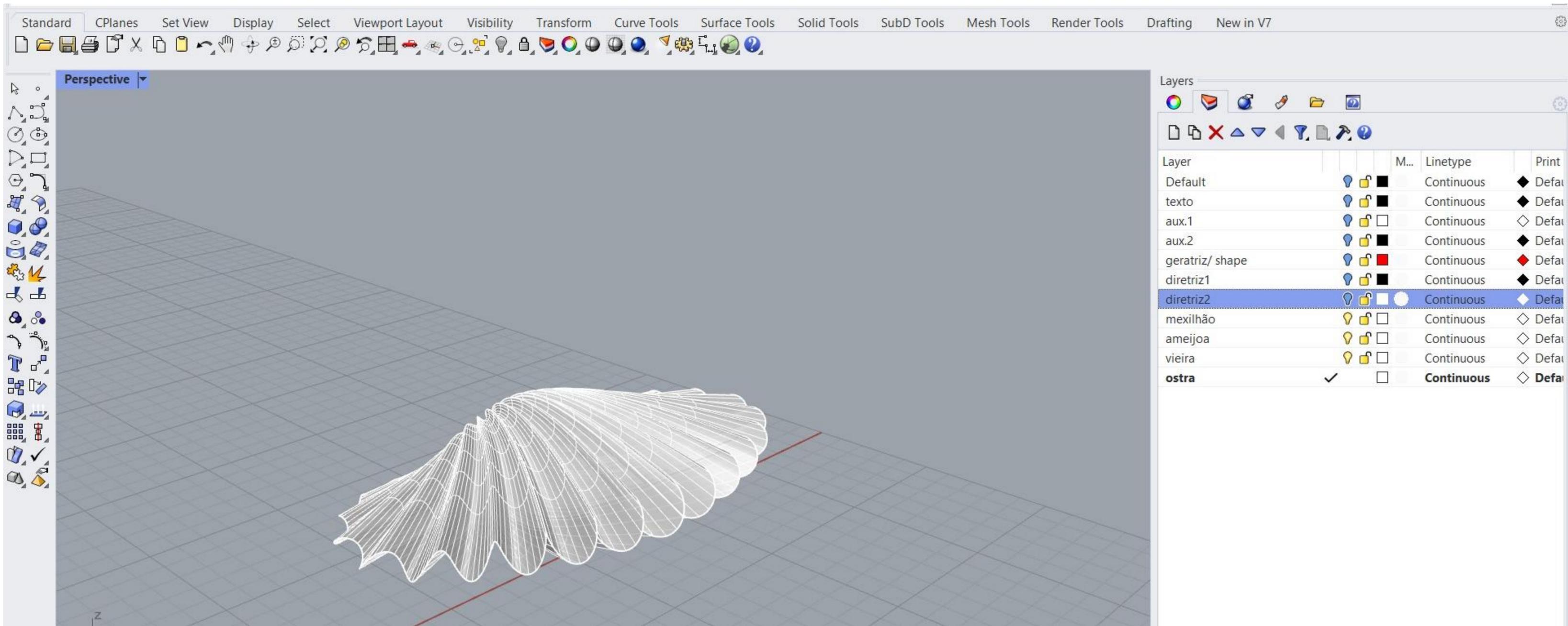
Exerc. 3.3 - Vieira



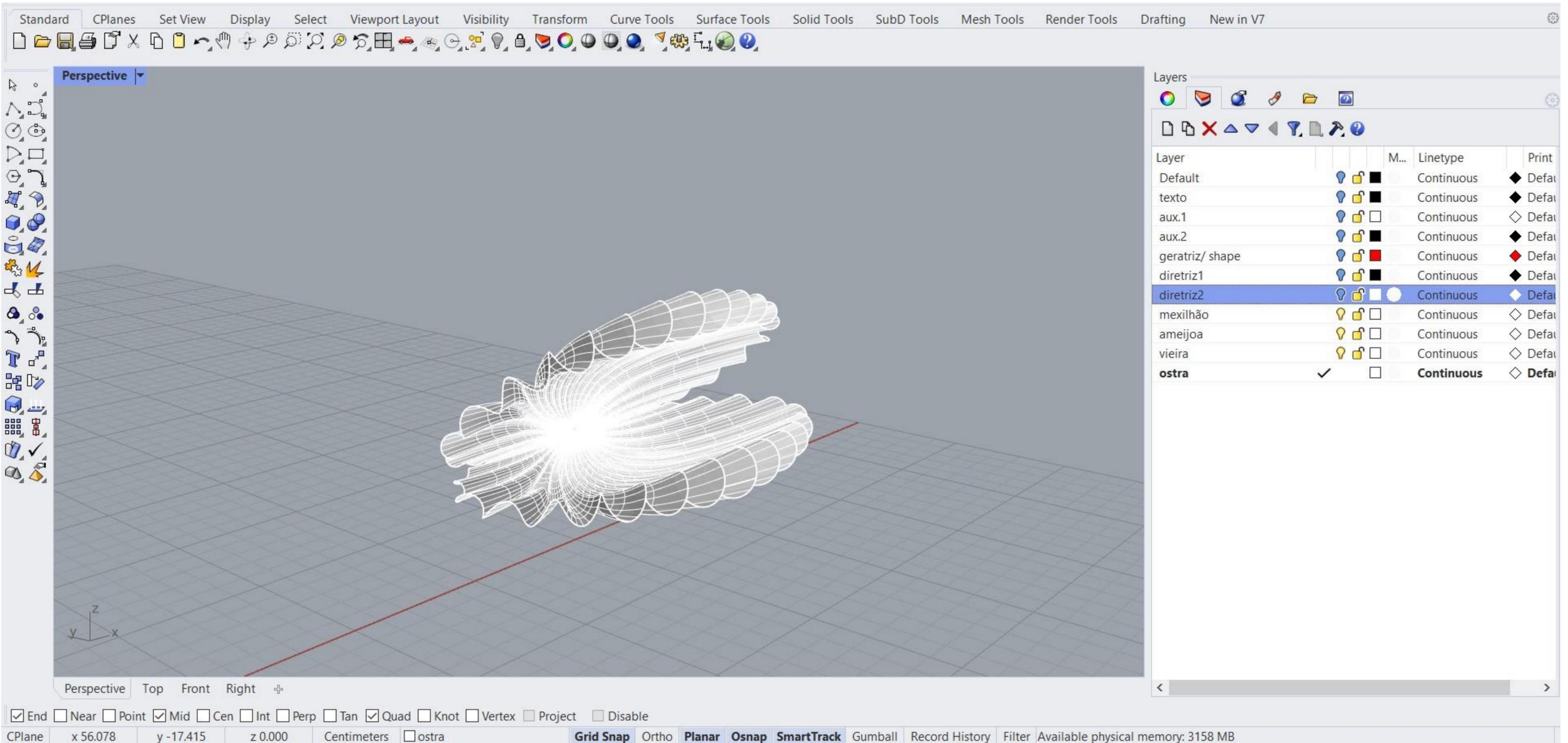
Exerc. 3.3 - Vieira



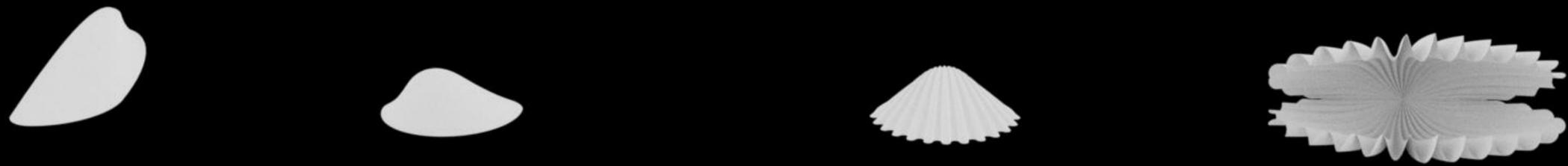
Exerc. 3.4 - Ostra



Exerc. 3.4 - Ostra



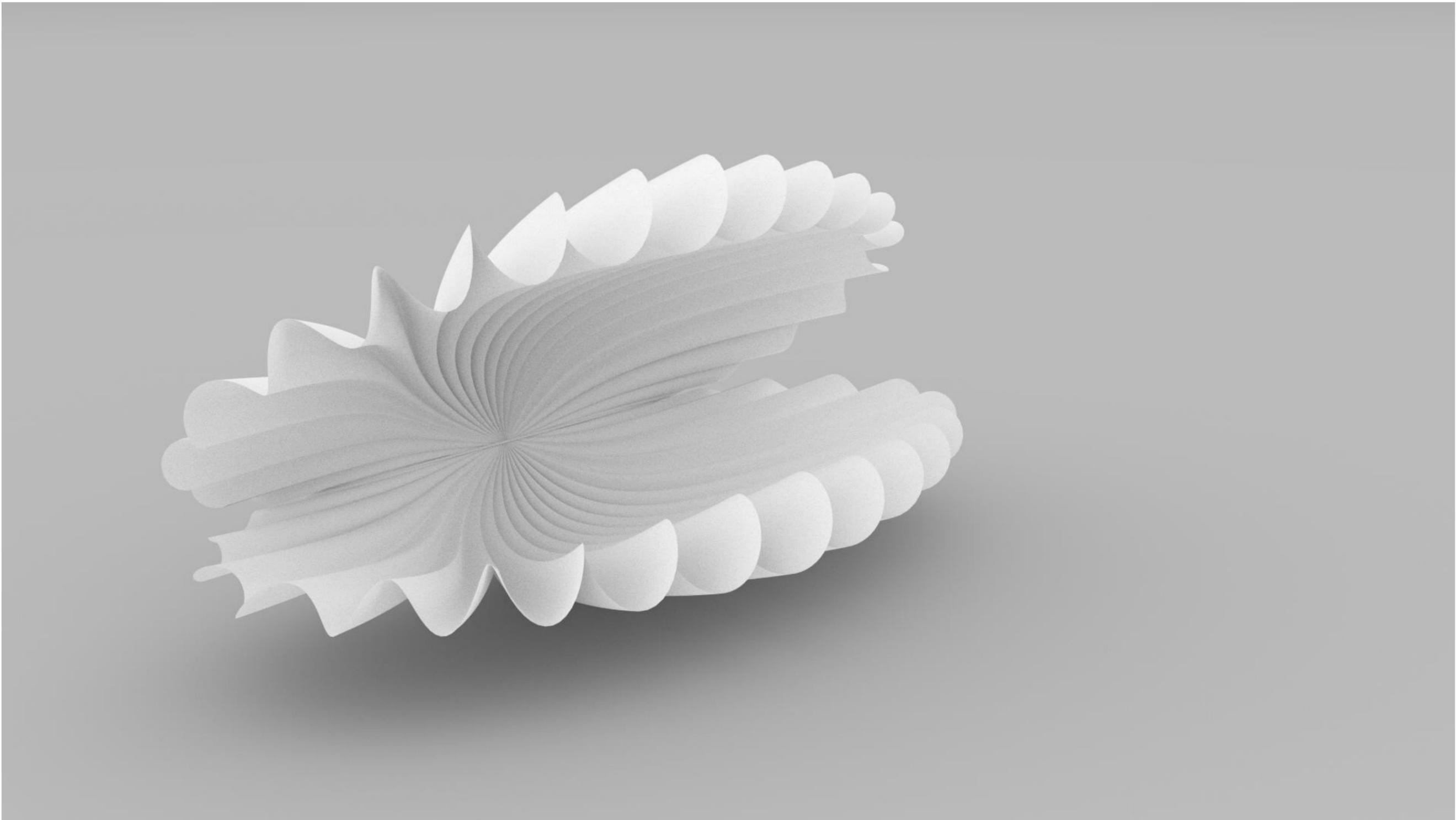
Exerc. 3.4 - Ostra



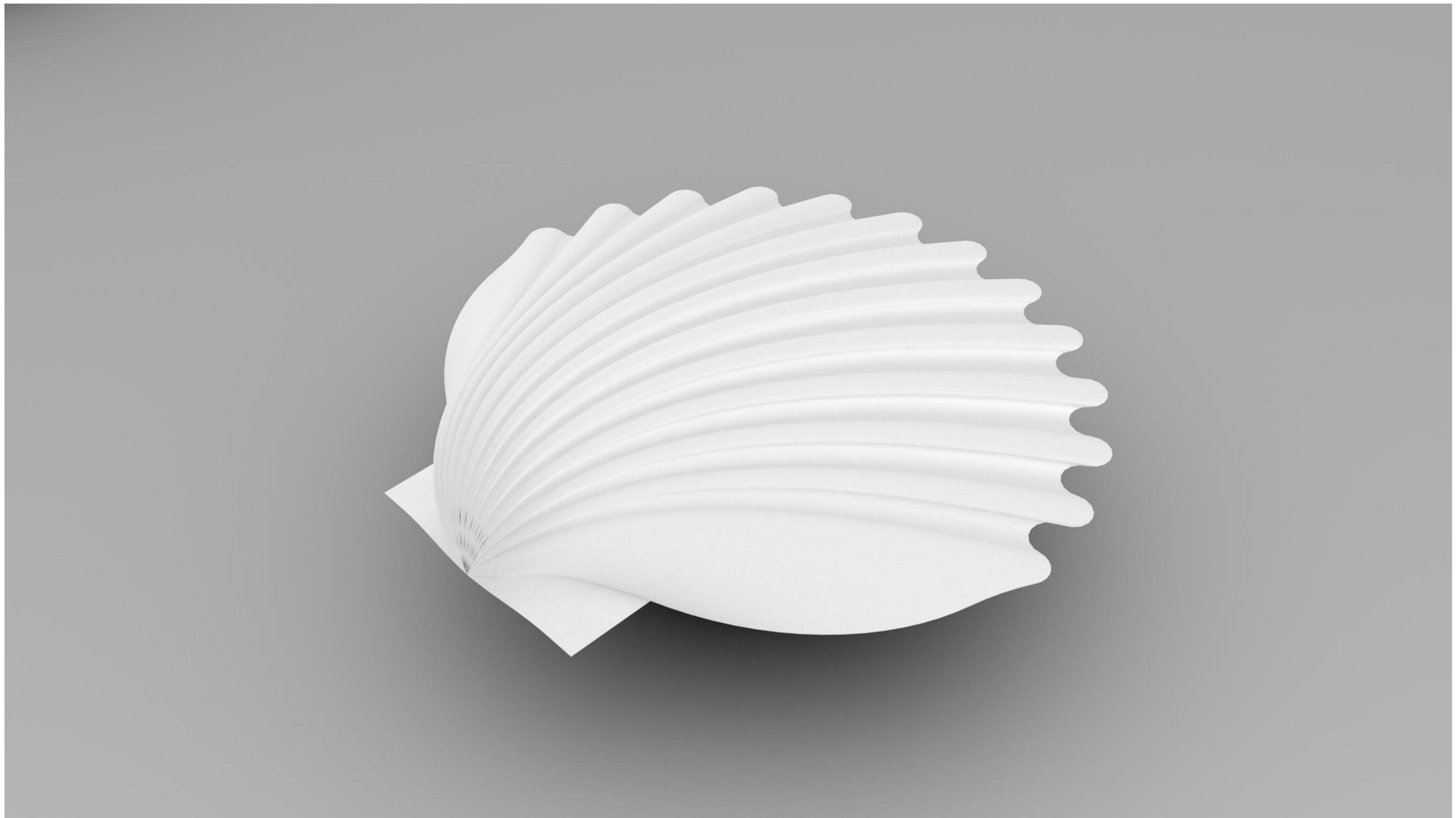
Exerc. 3.5 – Renders Conchas



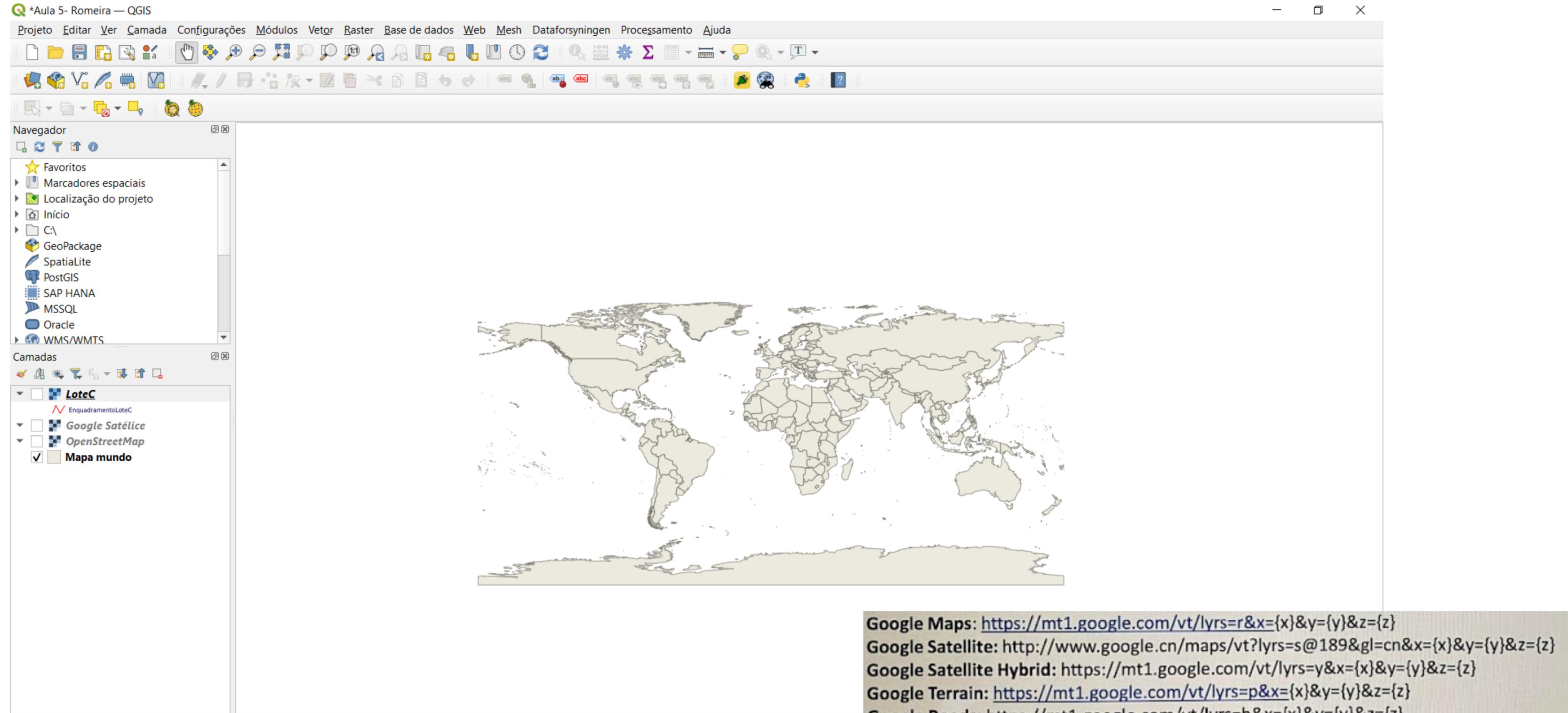
Exerc. 3.5 – Renders Conchas



Exerc. 3.5 – Renders Conchas

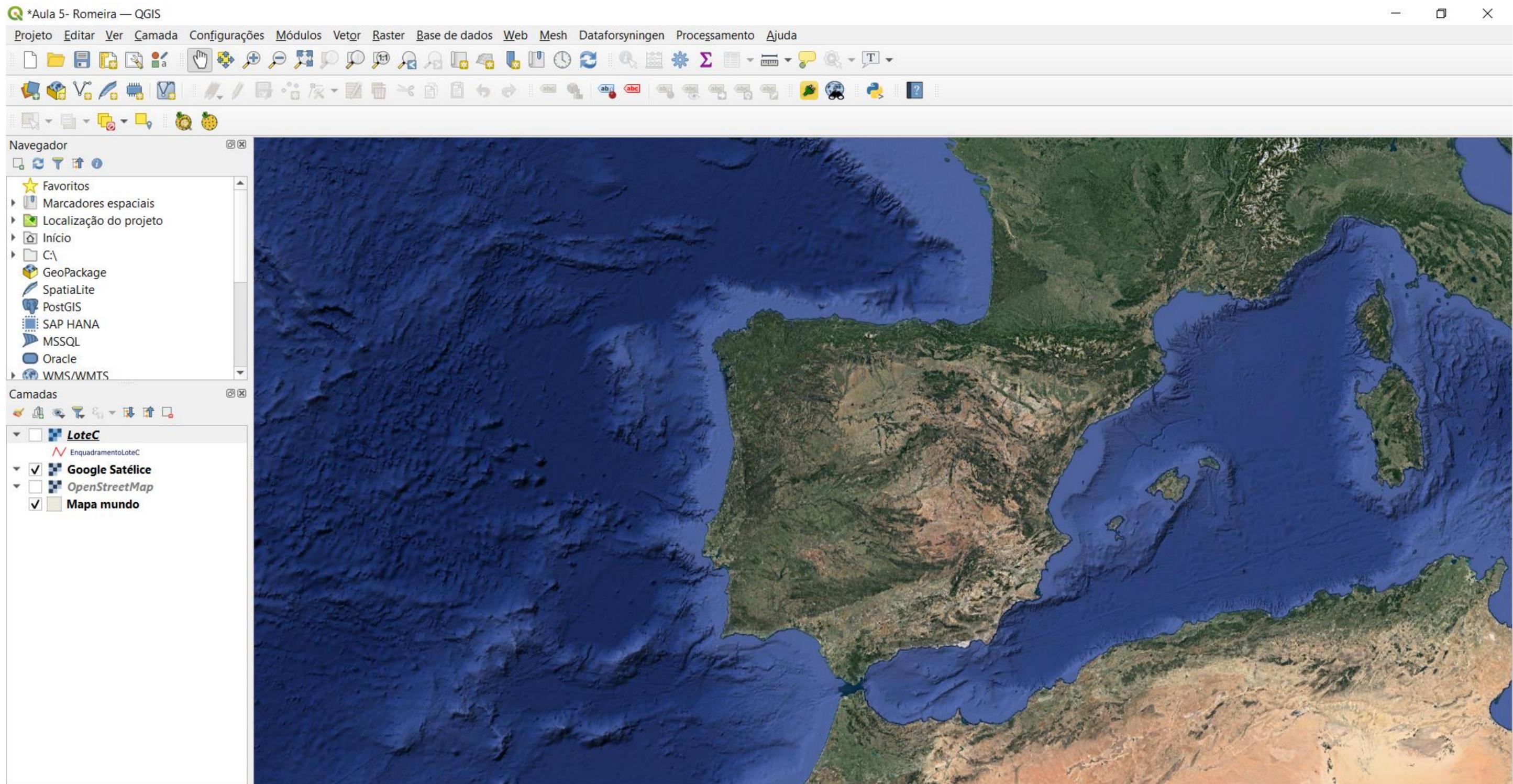


Exerc. 3.5 – Renders Conchas

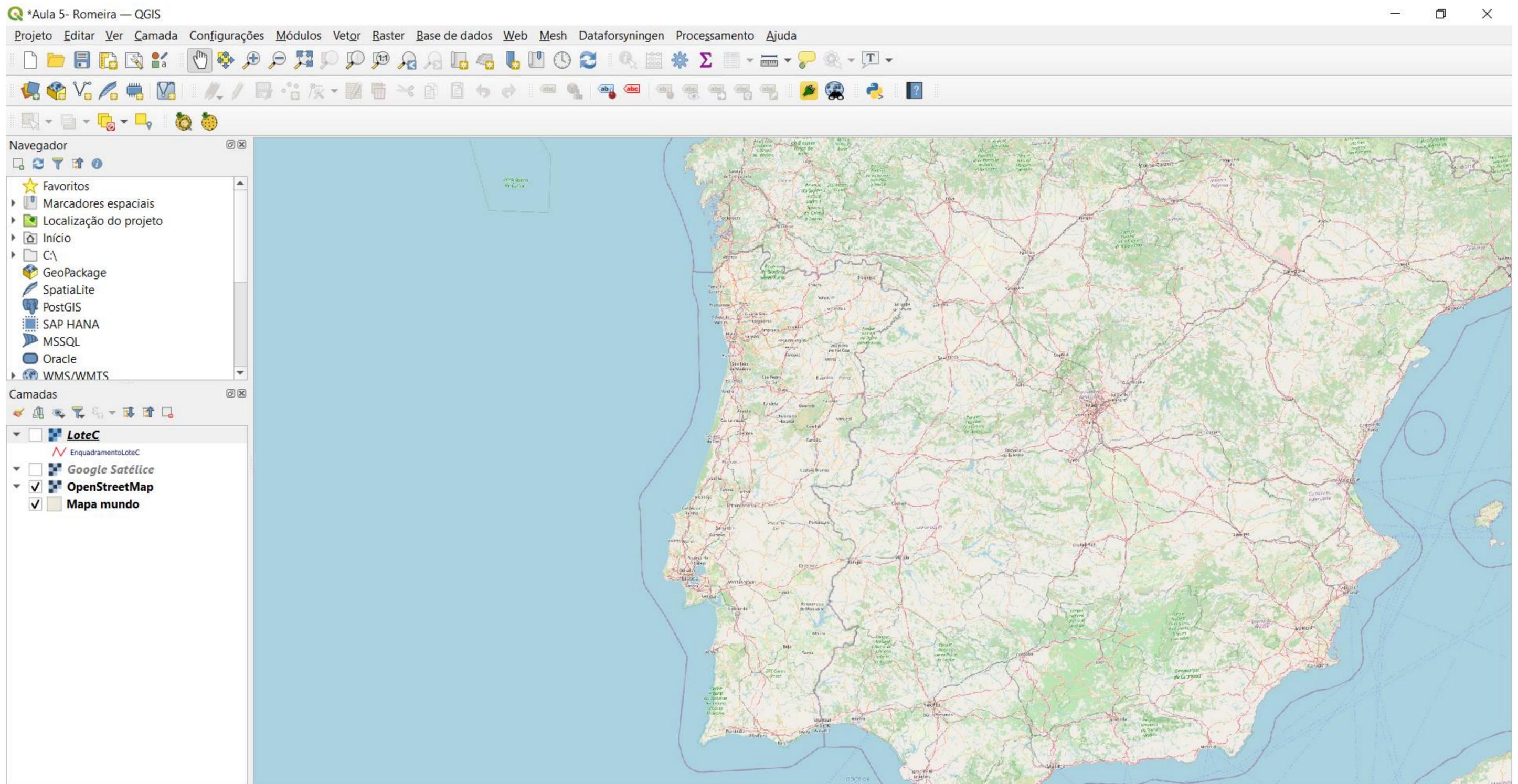


Google Maps: <https://mt1.google.com/vt/lyrs=r&x={x}&y={y}&z={z}>
Google Satellite: <http://www.google.cn/maps/vt?lyrs=s@189&gl=cn&x={x}&y={y}&z={z}>
Google Satellite Hybrid: <https://mt1.google.com/vt/lyrs=y&x={x}&y={y}&z={z}>
Google Terrain: <https://mt1.google.com/vt/lyrs=p&x={x}&y={y}&z={z}>
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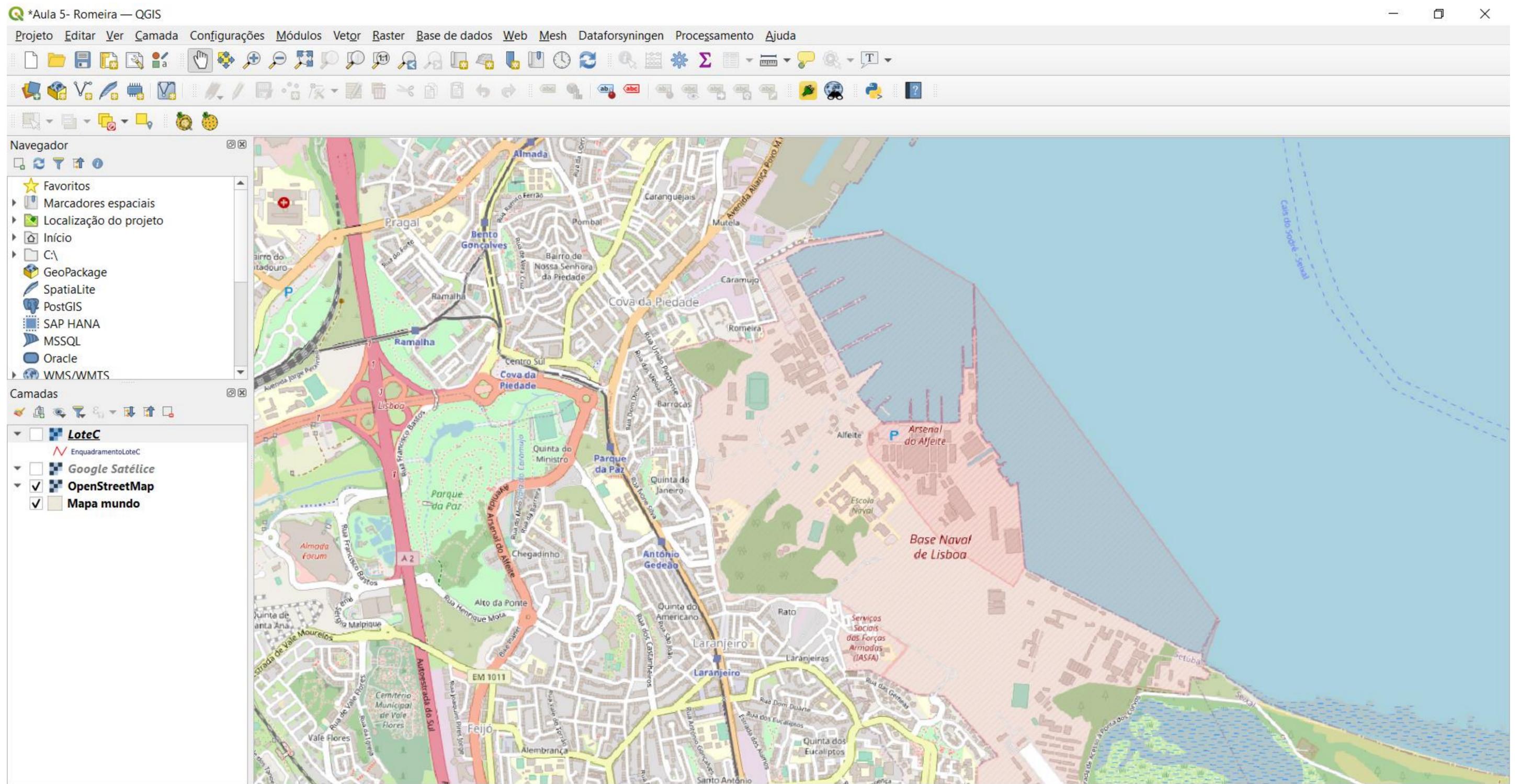
Exerc. 4 – QGIS



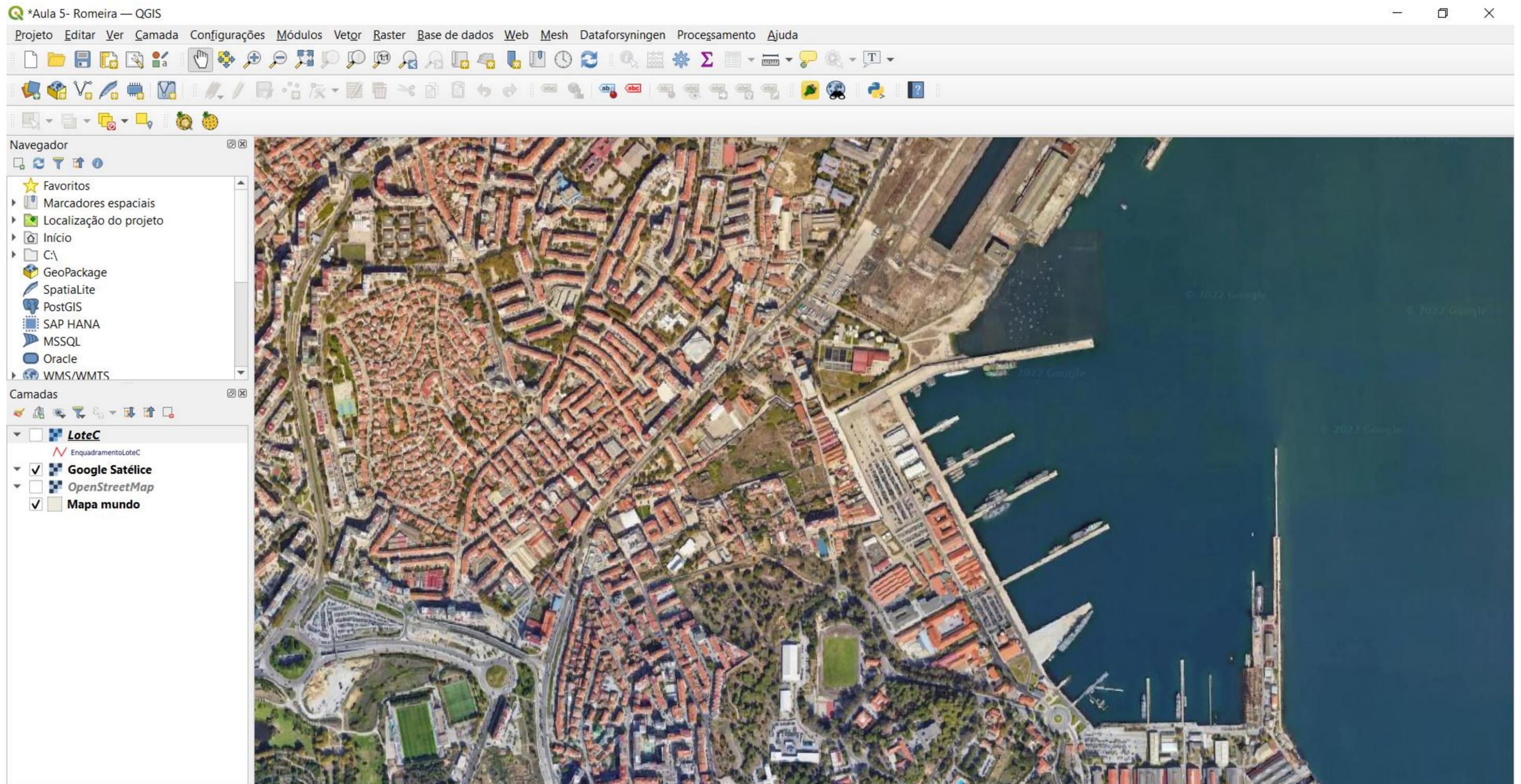
Exerc. 4.1 – QGIS



Exerc. 4.1 – QGIS



Exerc. 4.1 – QGIS



Exerc. 4.1 – QGIS



Navegador

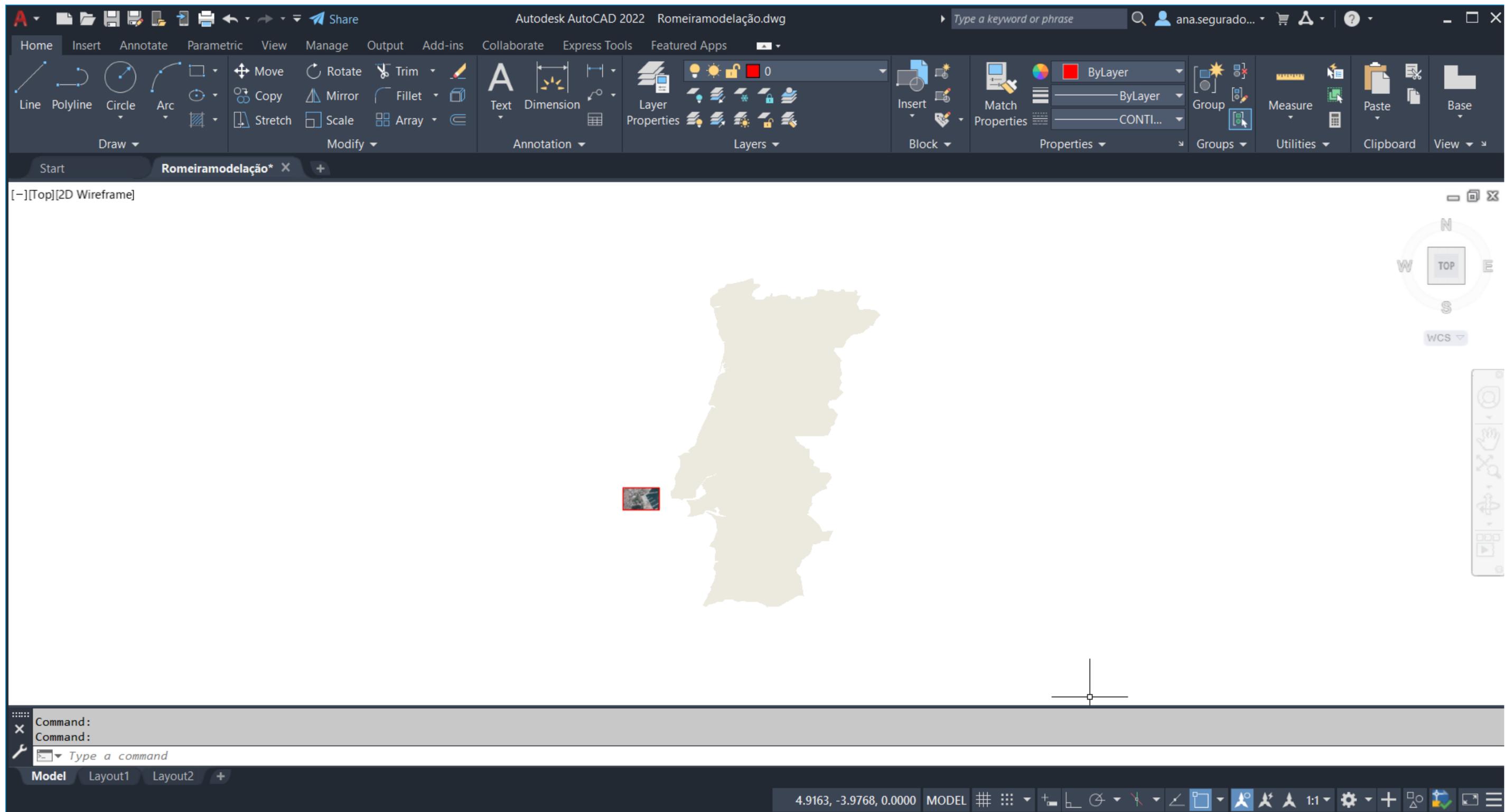
- Favoritos
- Marcadores espaciais
- Localização do projeto
- Início
- C:\
- GeoPackage
- Spatialite
- PostGIS
- SAP HANA
- MSSQL
- Oracle
- WMS/WMTS

Camadas

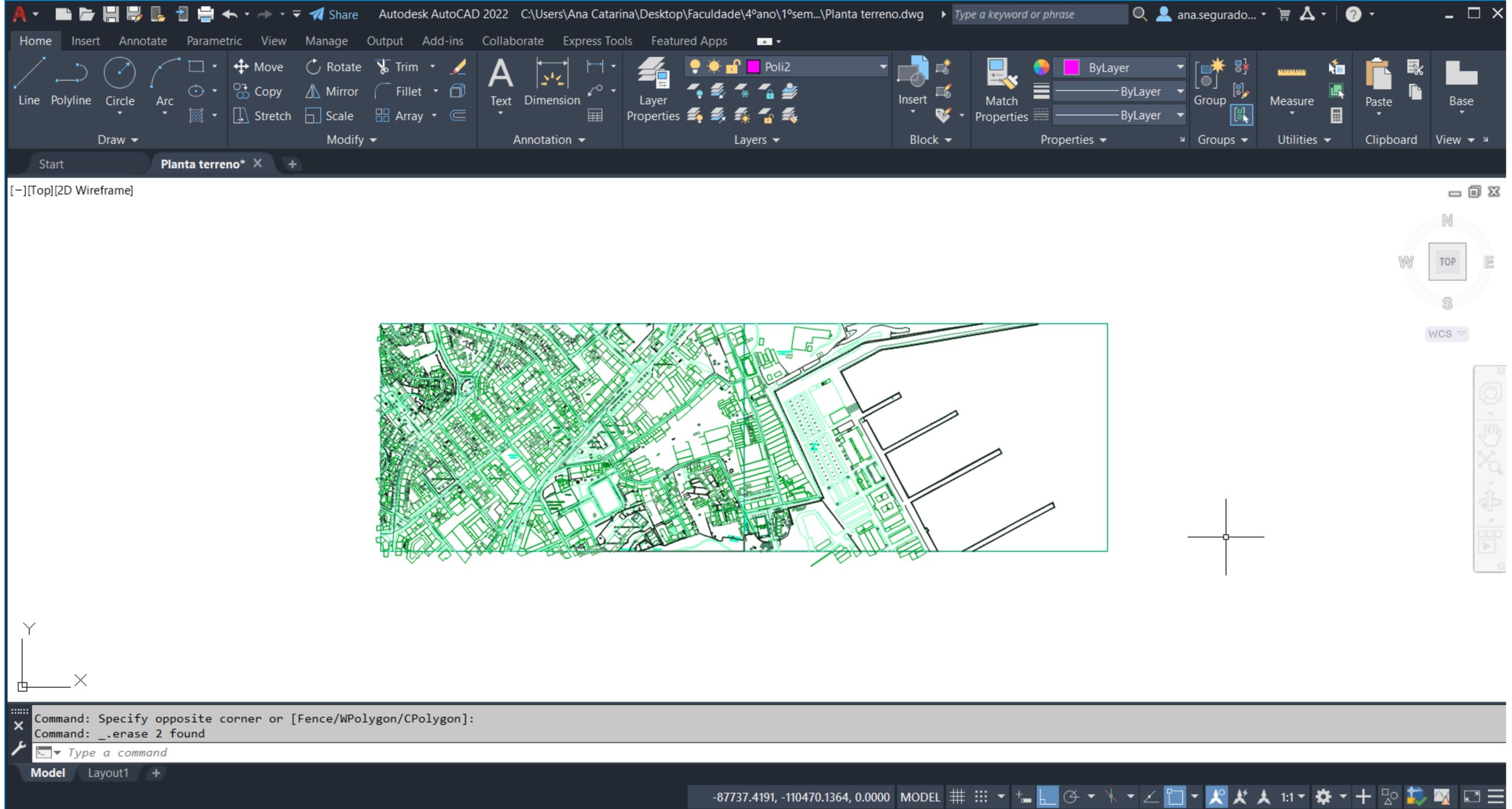
- LoteC
 - EnquadramentoLoteC
- Google Satélice
- OpenStreetMap
- Mapa mundo



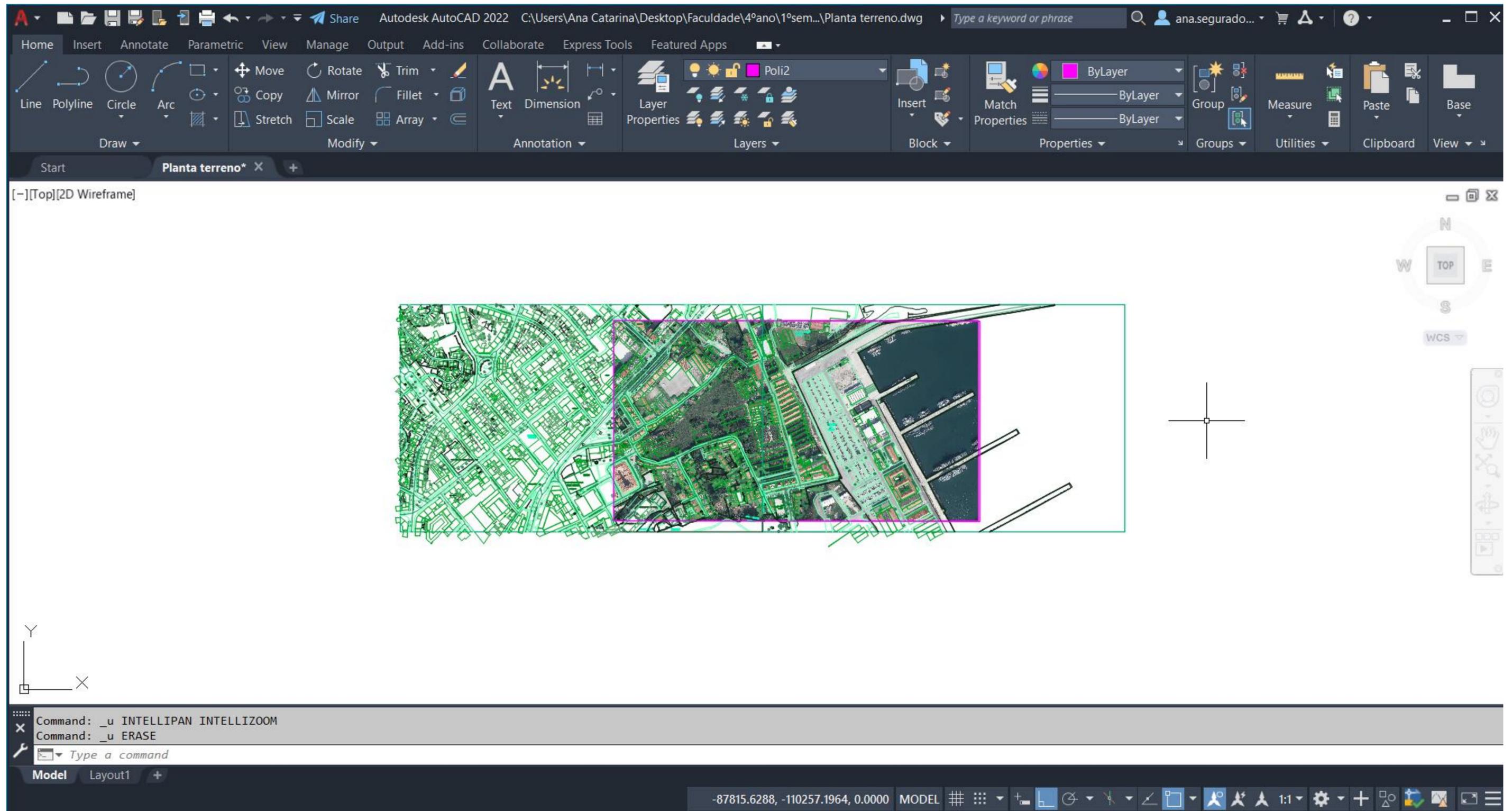
Exerc. 4.1 – QGIS



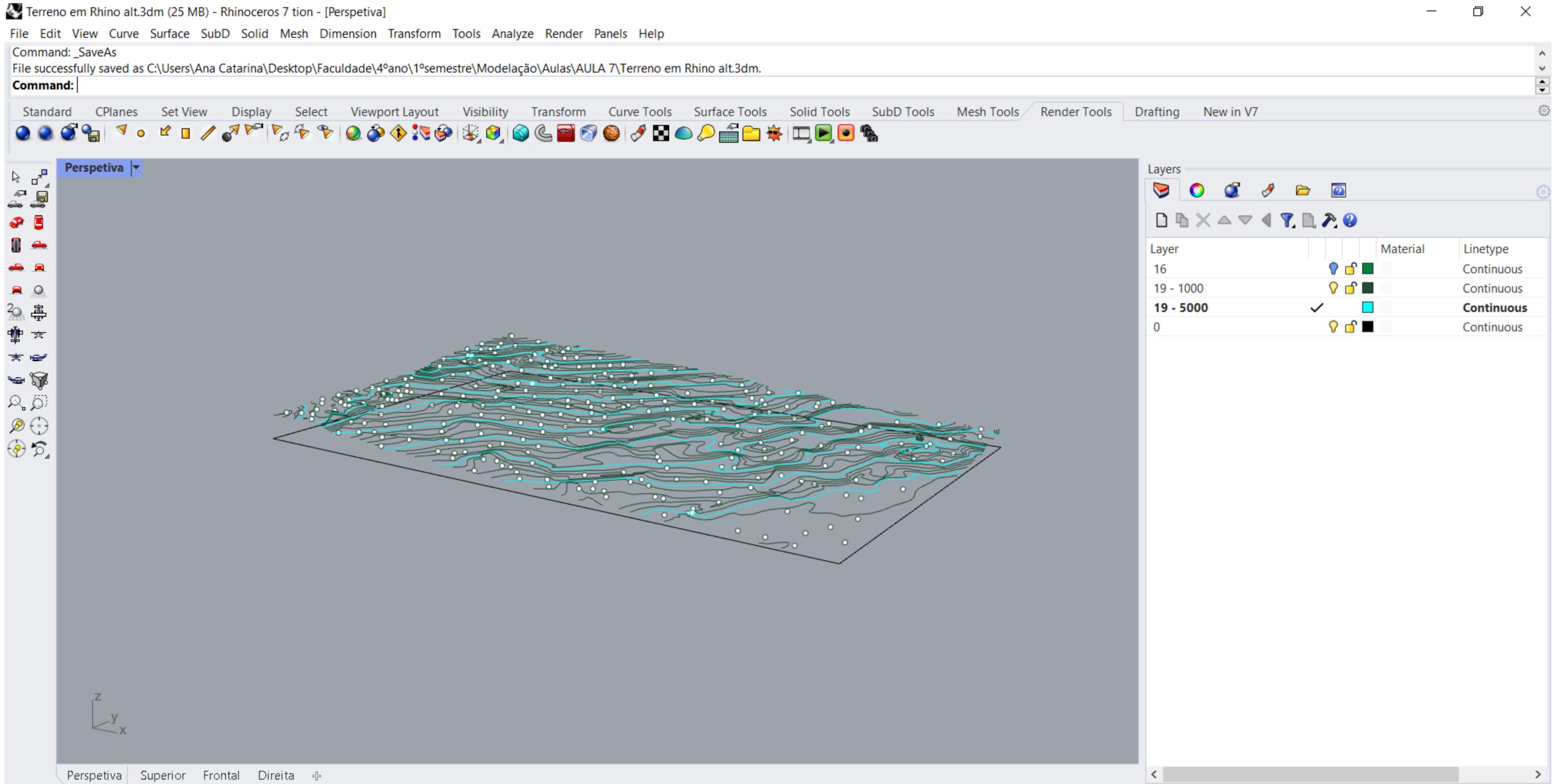
Exerc. 4.2 – DWG



Exerc. 4.2 – DWG



Exerc. 4.2 – DWG



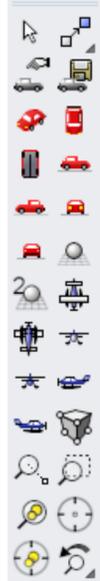
Exerc. 4.3 – Rhino

Point to move from (Normal Vertical)

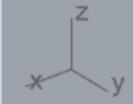
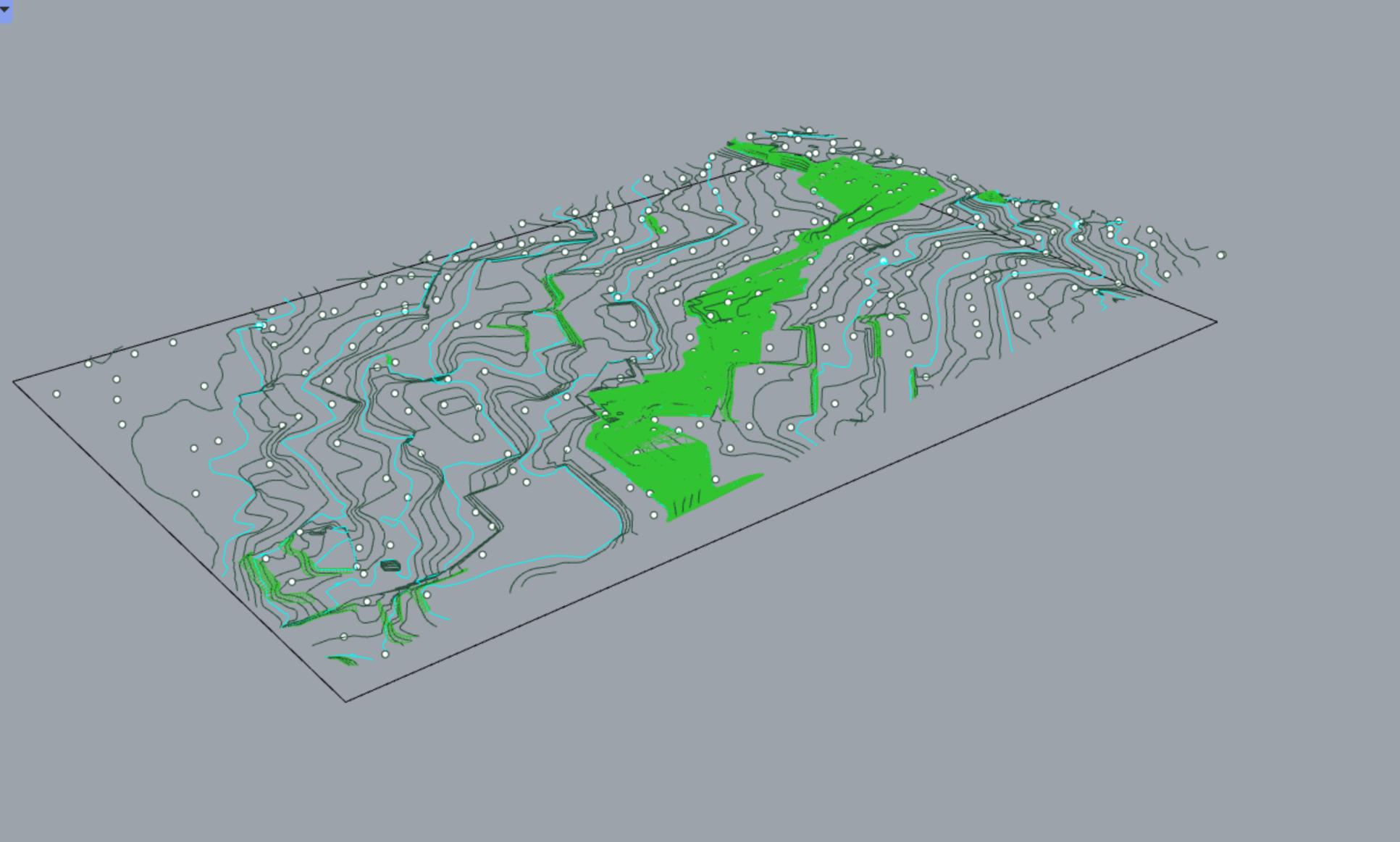
Point to move to

Command:

Standard CPlanes Set View Display Select Viewport Layout Visibility Transform Curve Tools Surface Tools Solid Tools SubD Tools Mesh Tools Render Tools Drafting New in V7

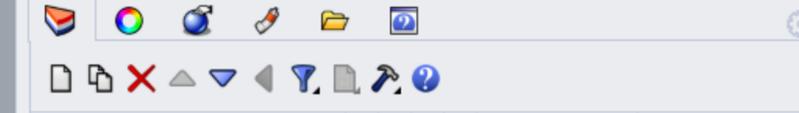


Perspetiva



Perspetiva Superior Frontal Direita

Layers



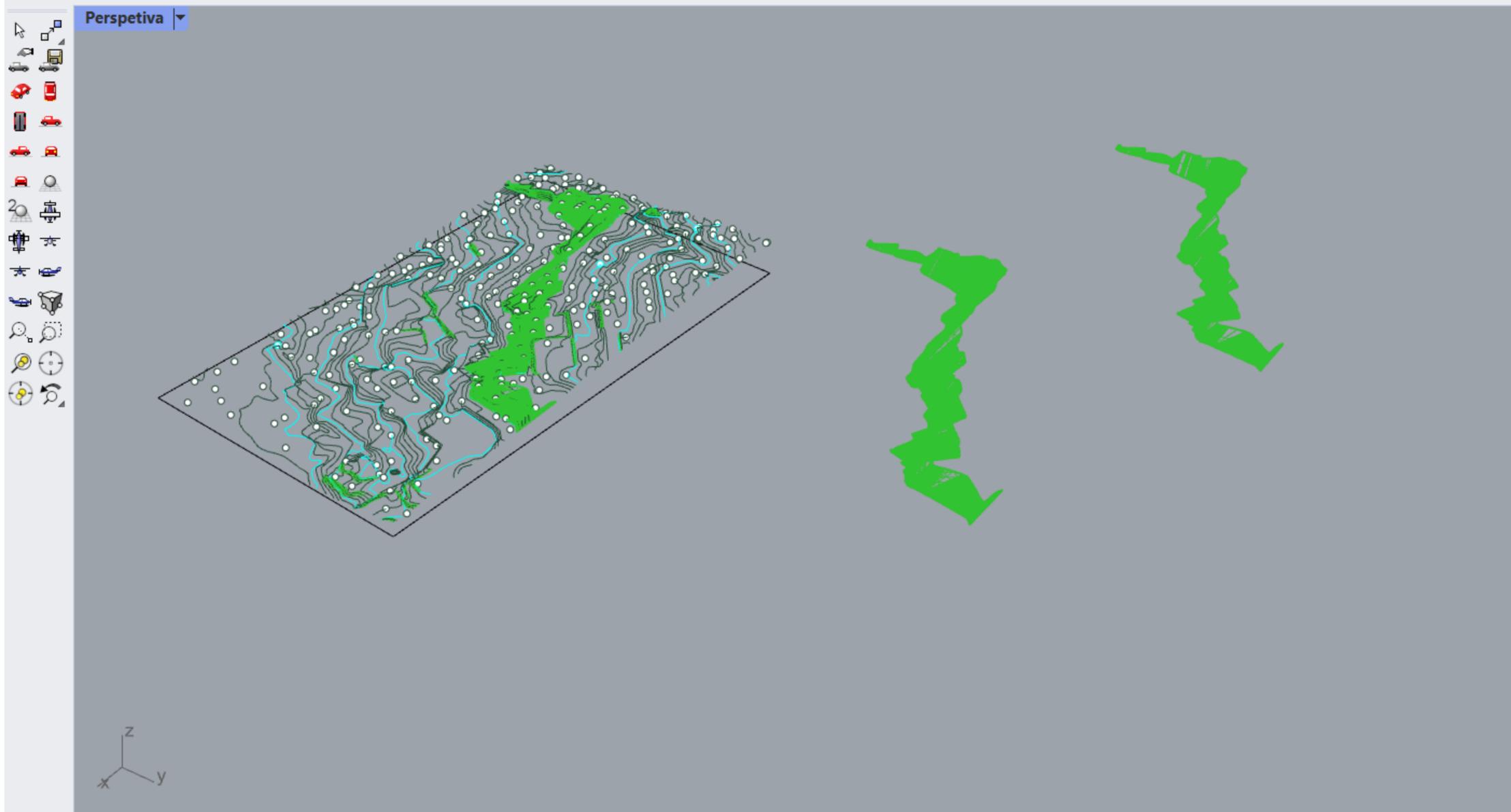
Layer		Material	Linetype
16			Continuous
19 - 1000			Continuous
19 - 5000			Continuous
0			Continuous

Exerc. 4.3 – Rhino

Point to move from (Normal Vertical)

Point to move to <172.061>

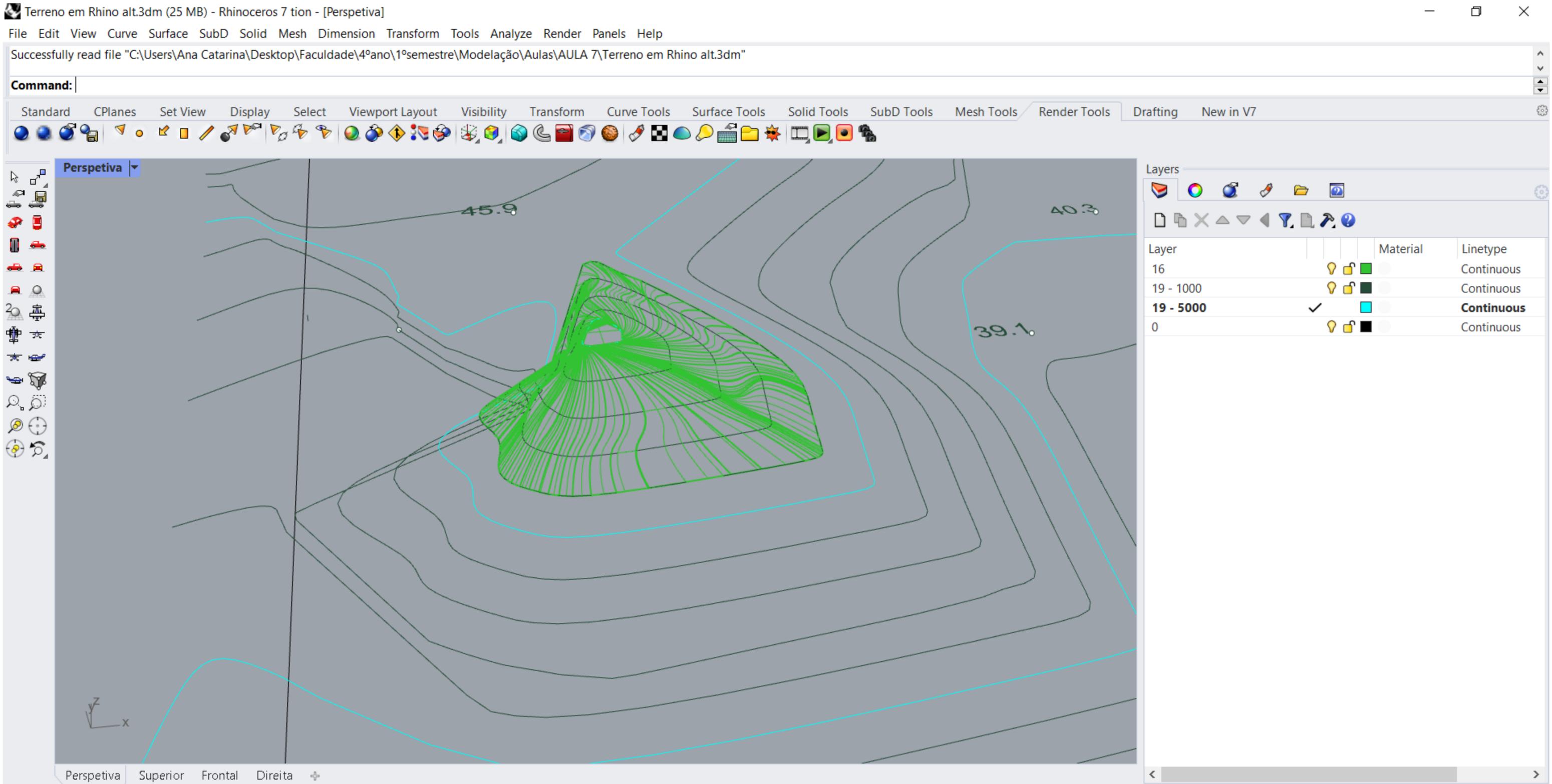
Command:



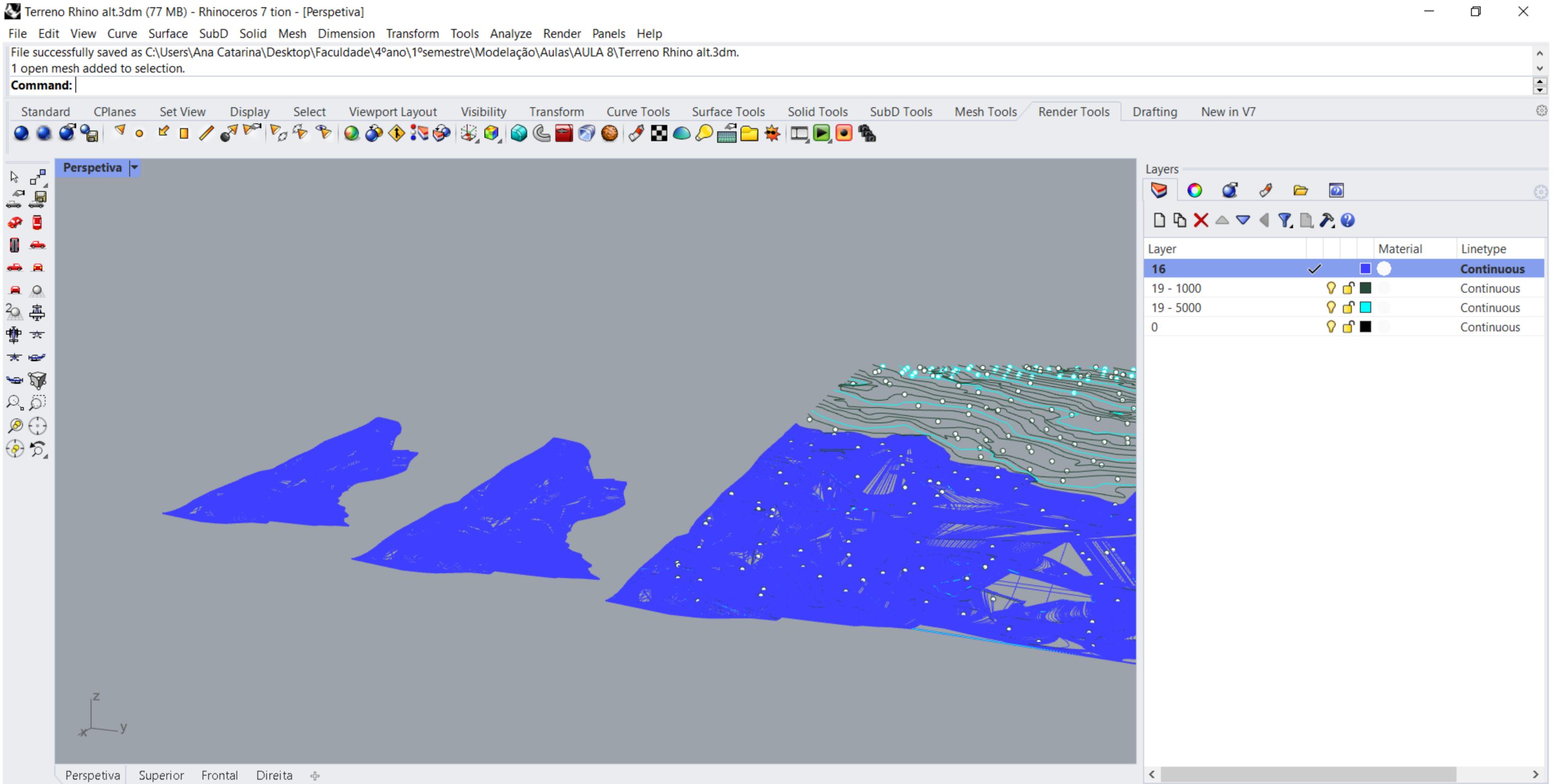
Layers

Layer	Material	Linetype
16		Continuous
19 - 1000		Continuous
19 - 5000		Continuous
0		Continuous

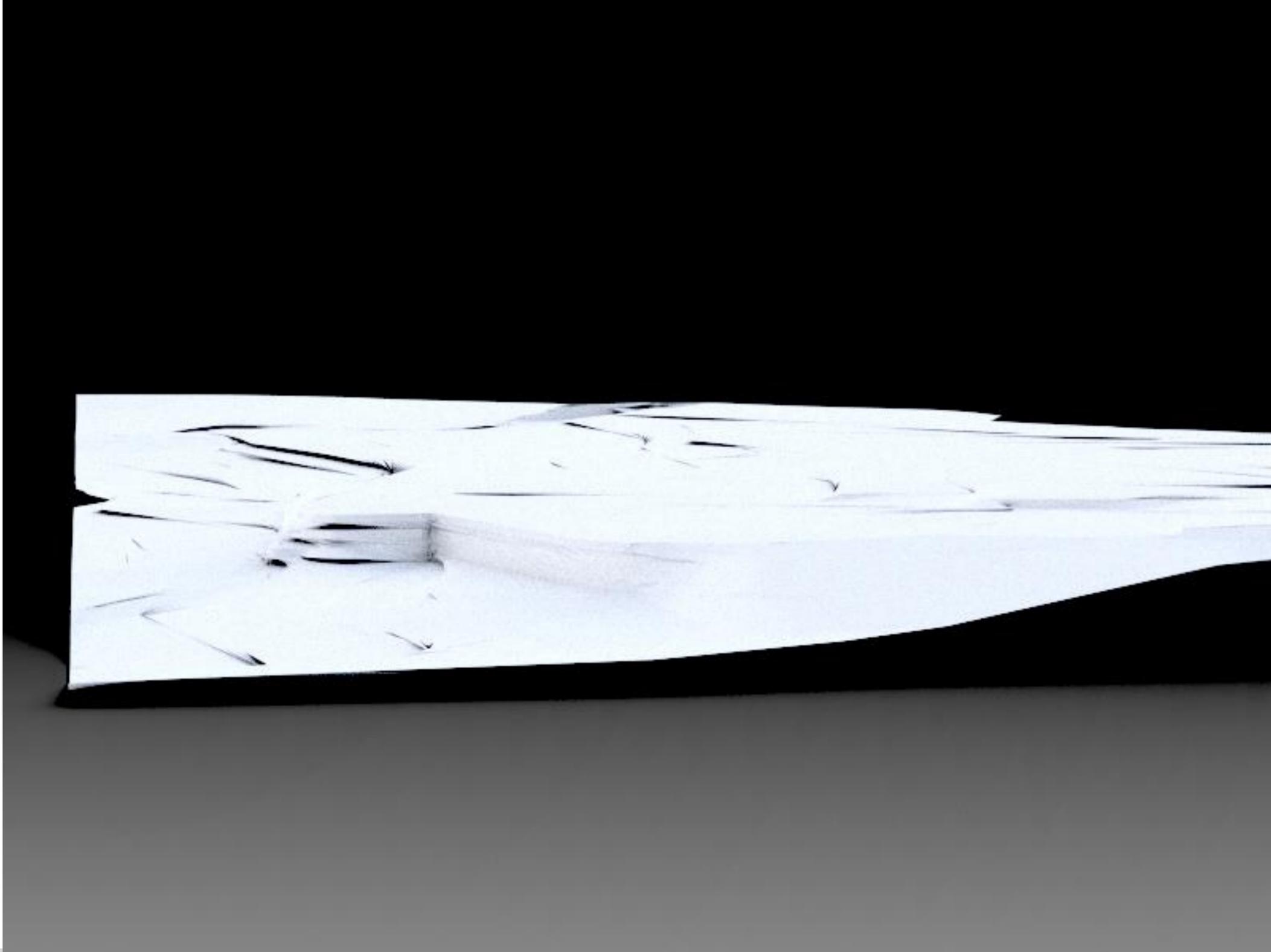
Exerc. 4.3 – Rhino



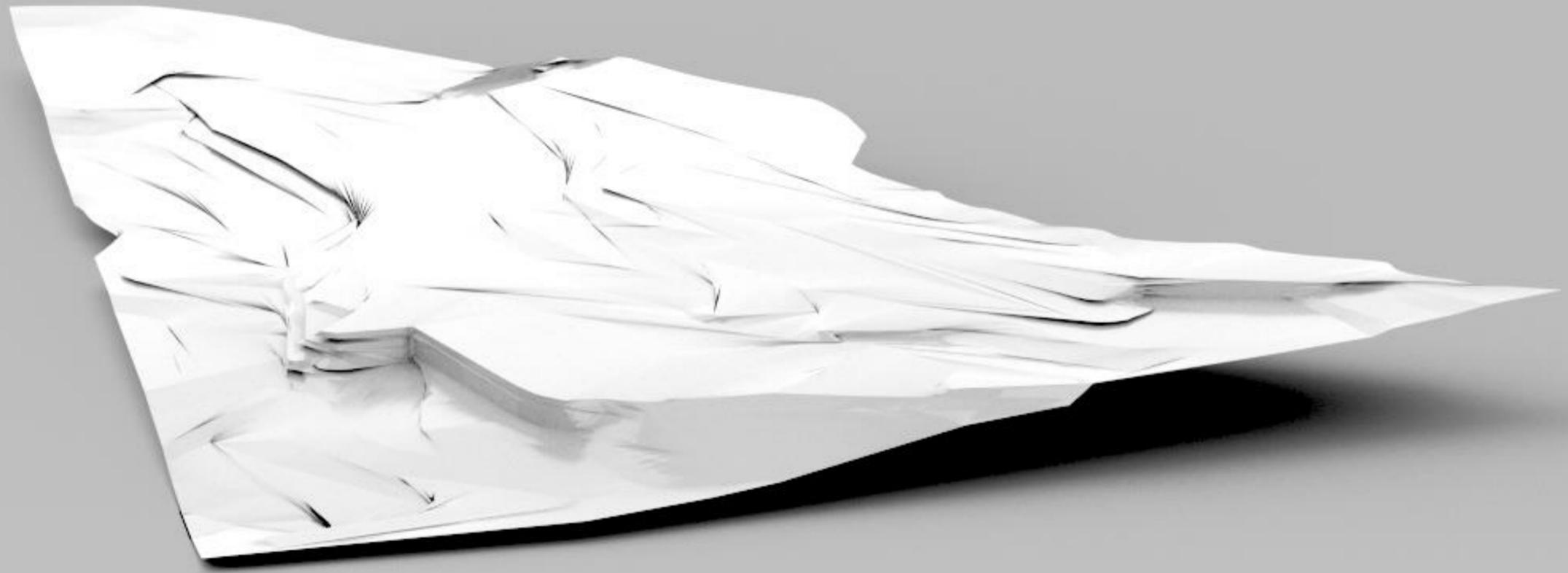
Exerc. 4.3 – Rhino



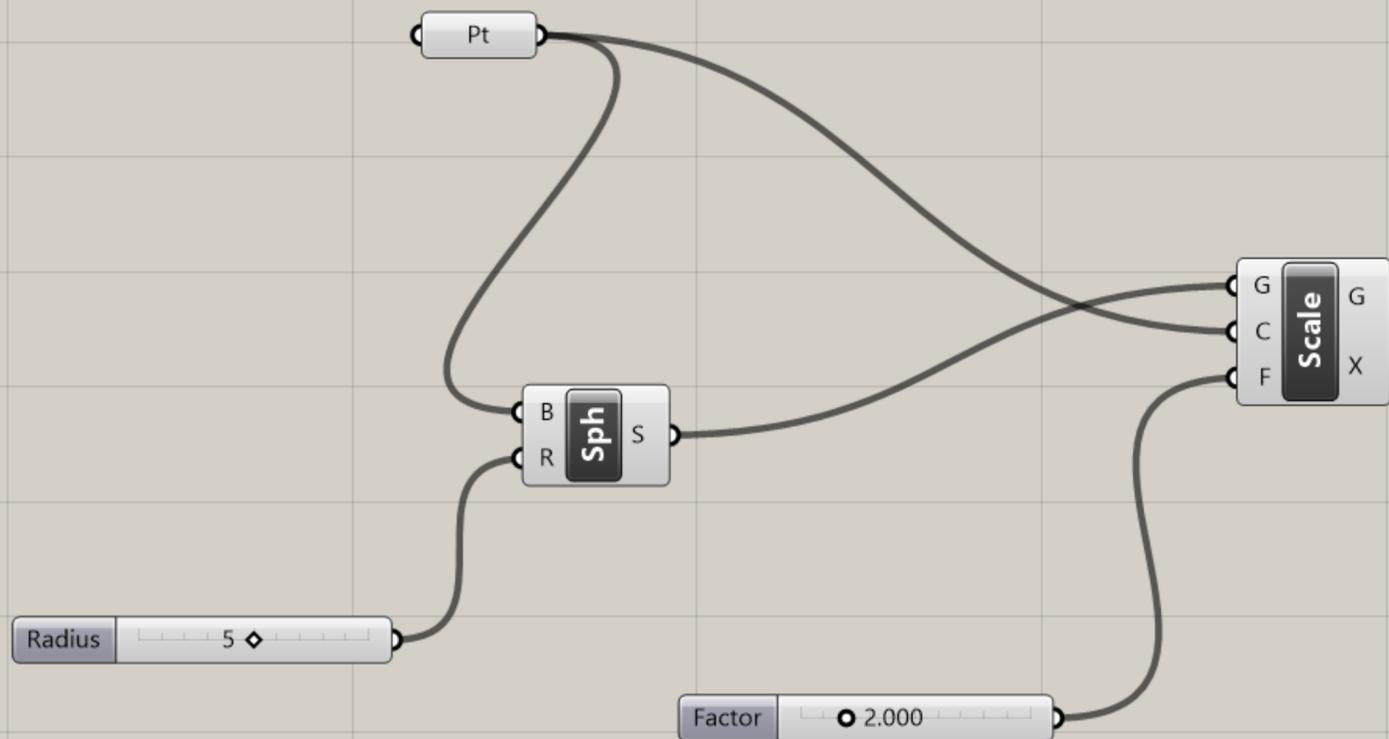
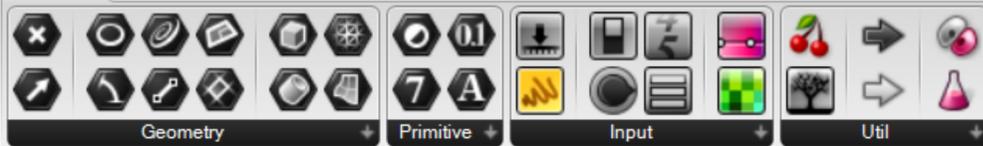
Exerc. 4.3 – Rhino



Exerc. 4.3 – Rhino



Exerc. 4.3 – Rhino

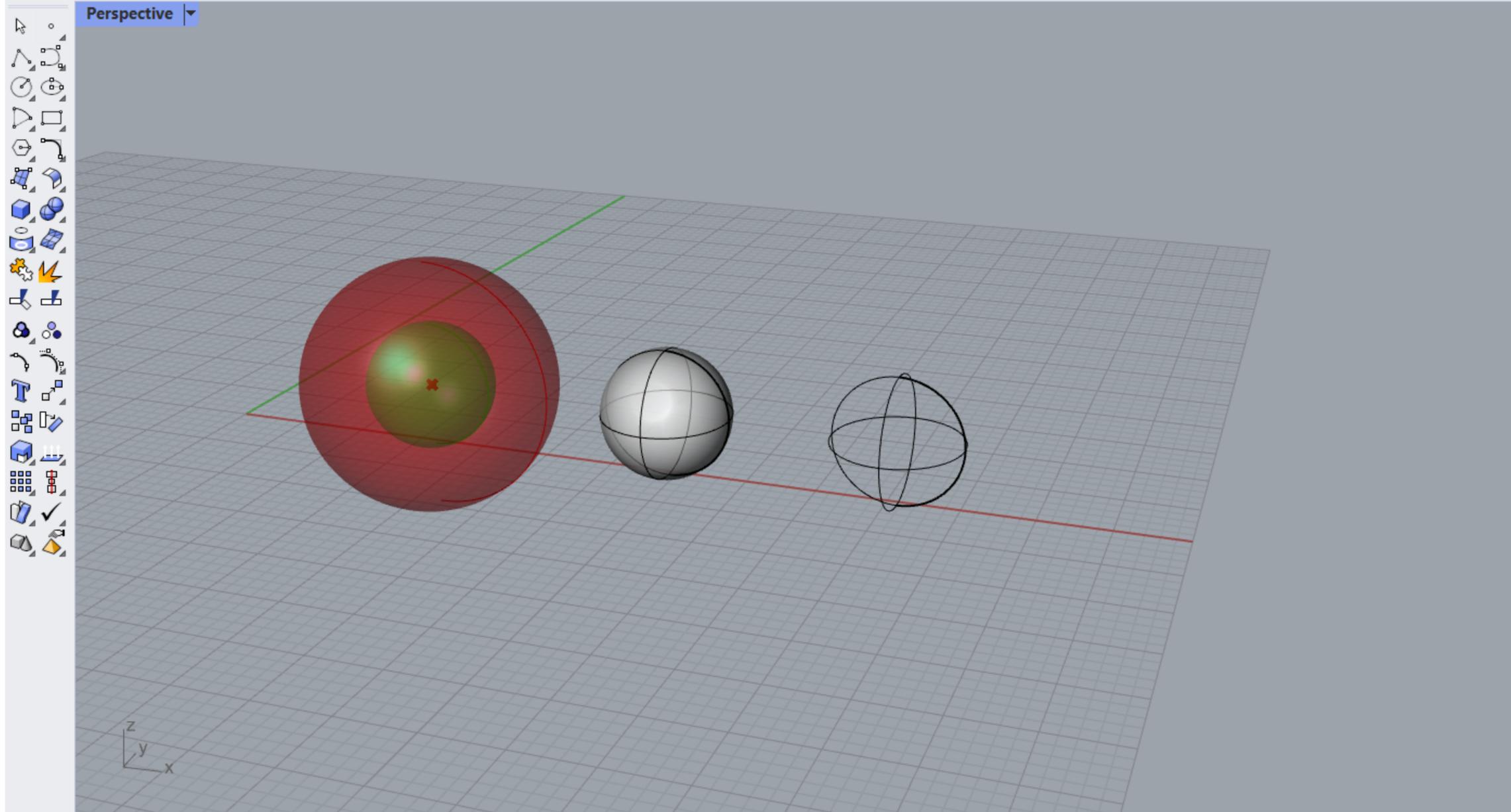


Exerc. 5 – Grasshopper

Point to move from (Normal Vertical)

Point to move to <15.085>

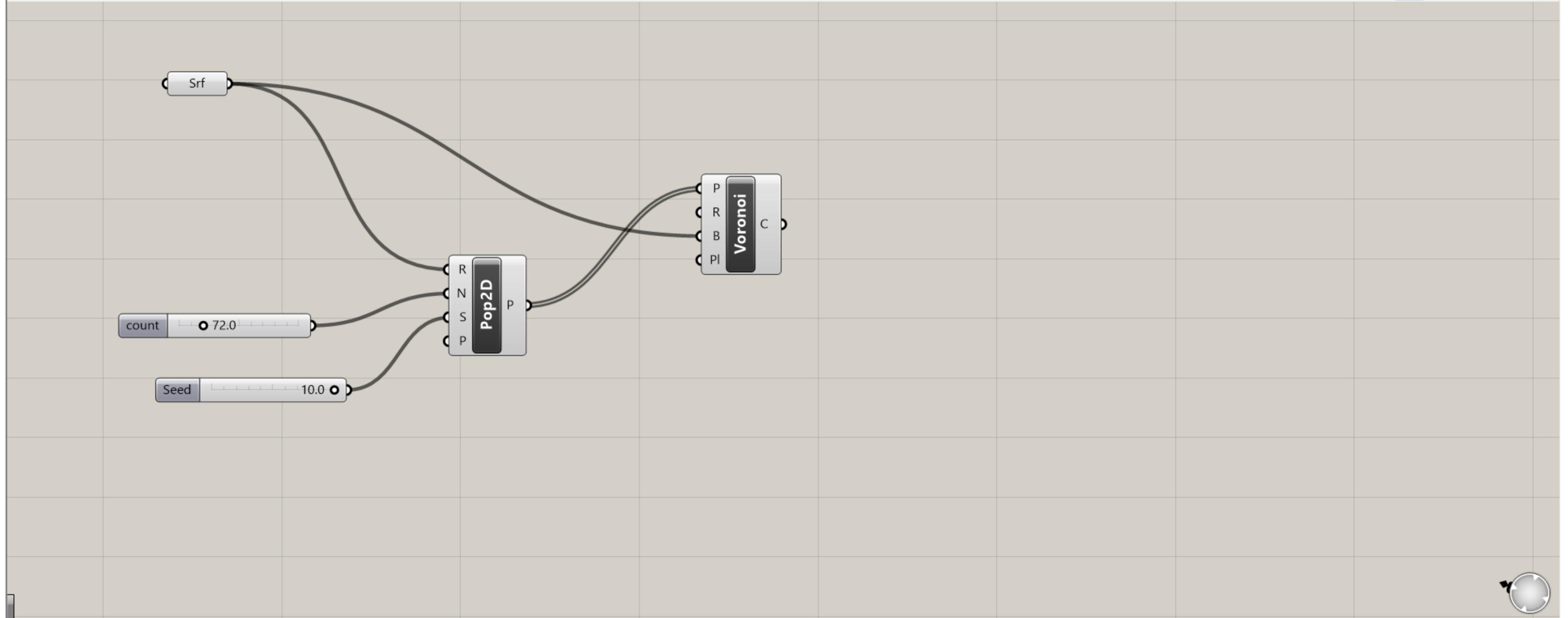
Command:



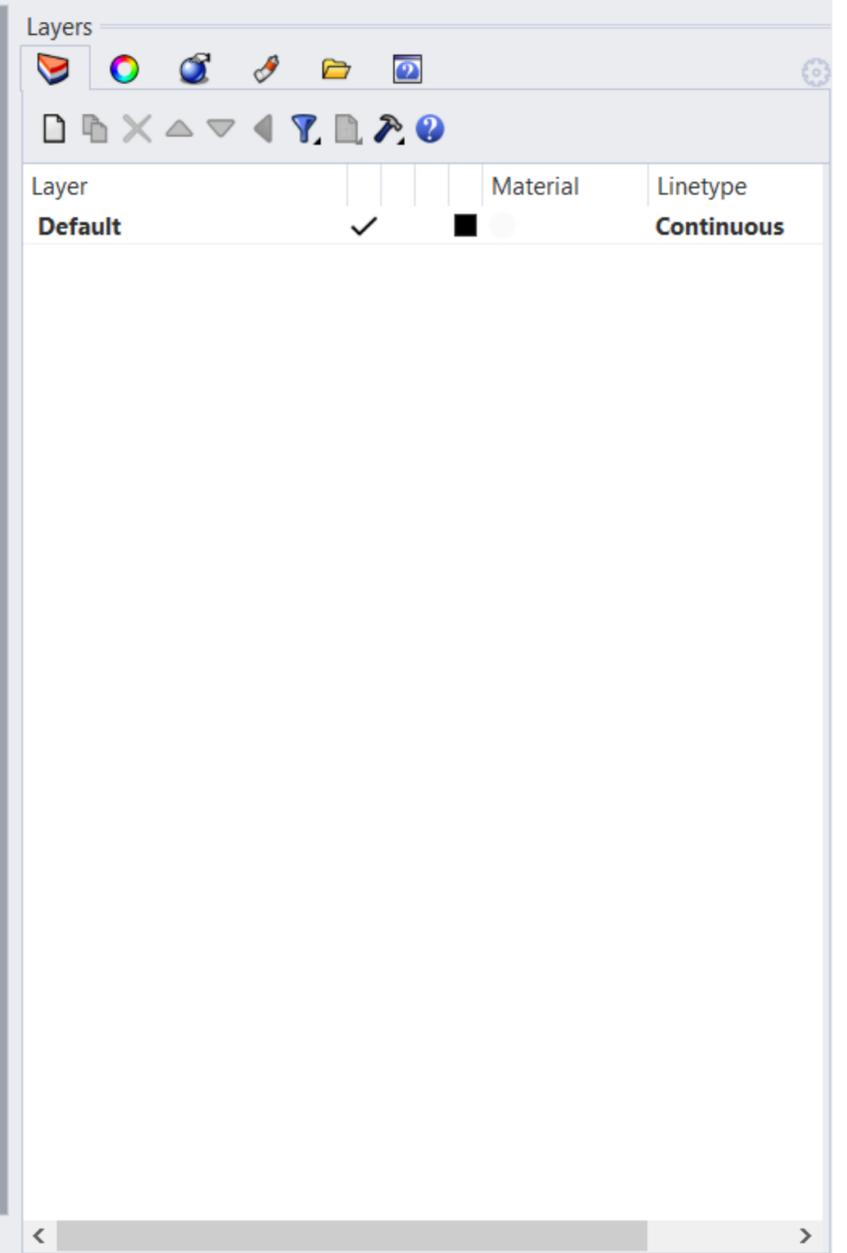
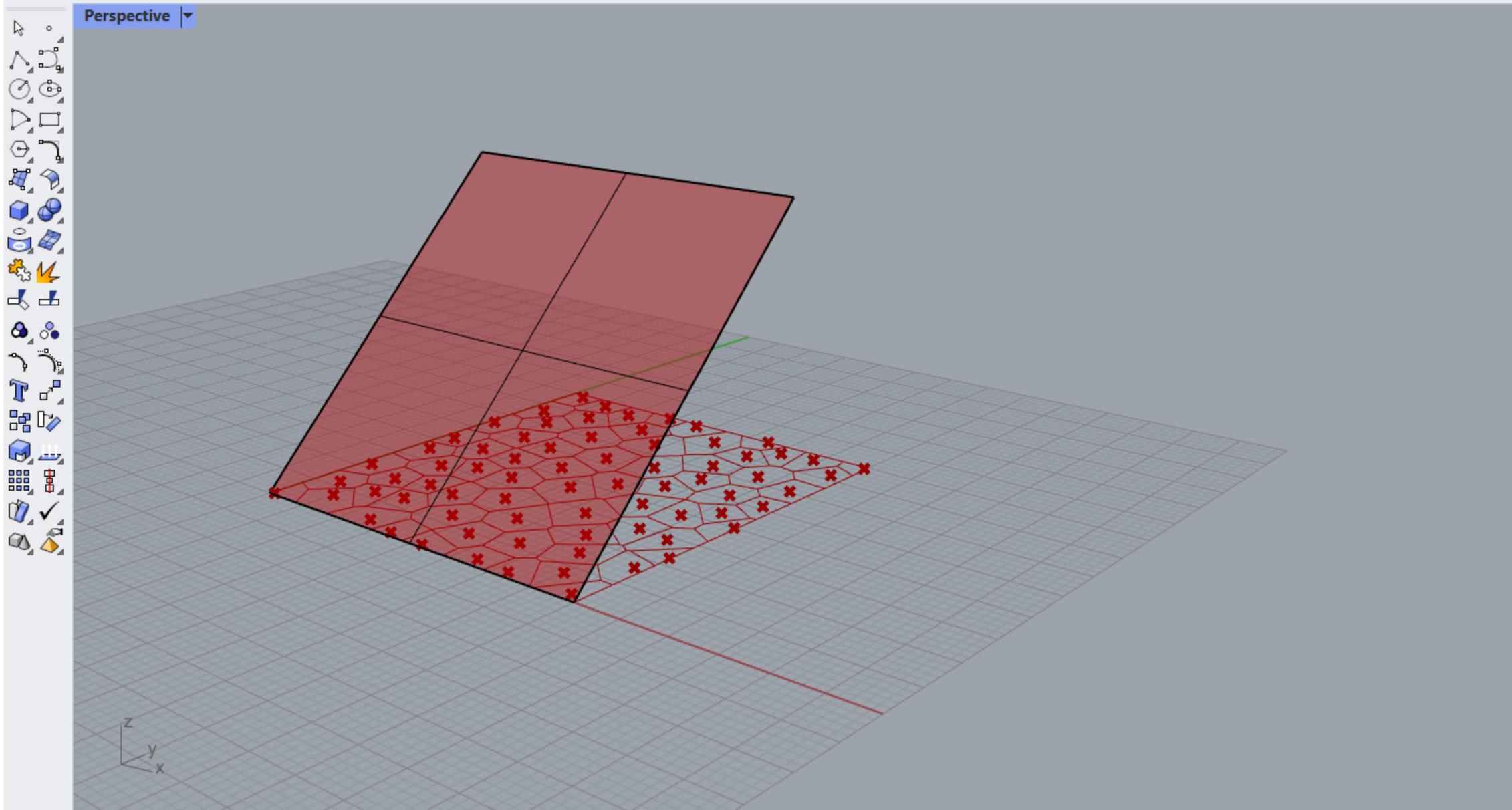
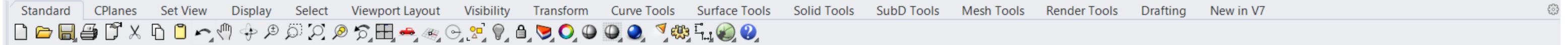
Layers

Layer	Material	Linetype
Default		Continuous

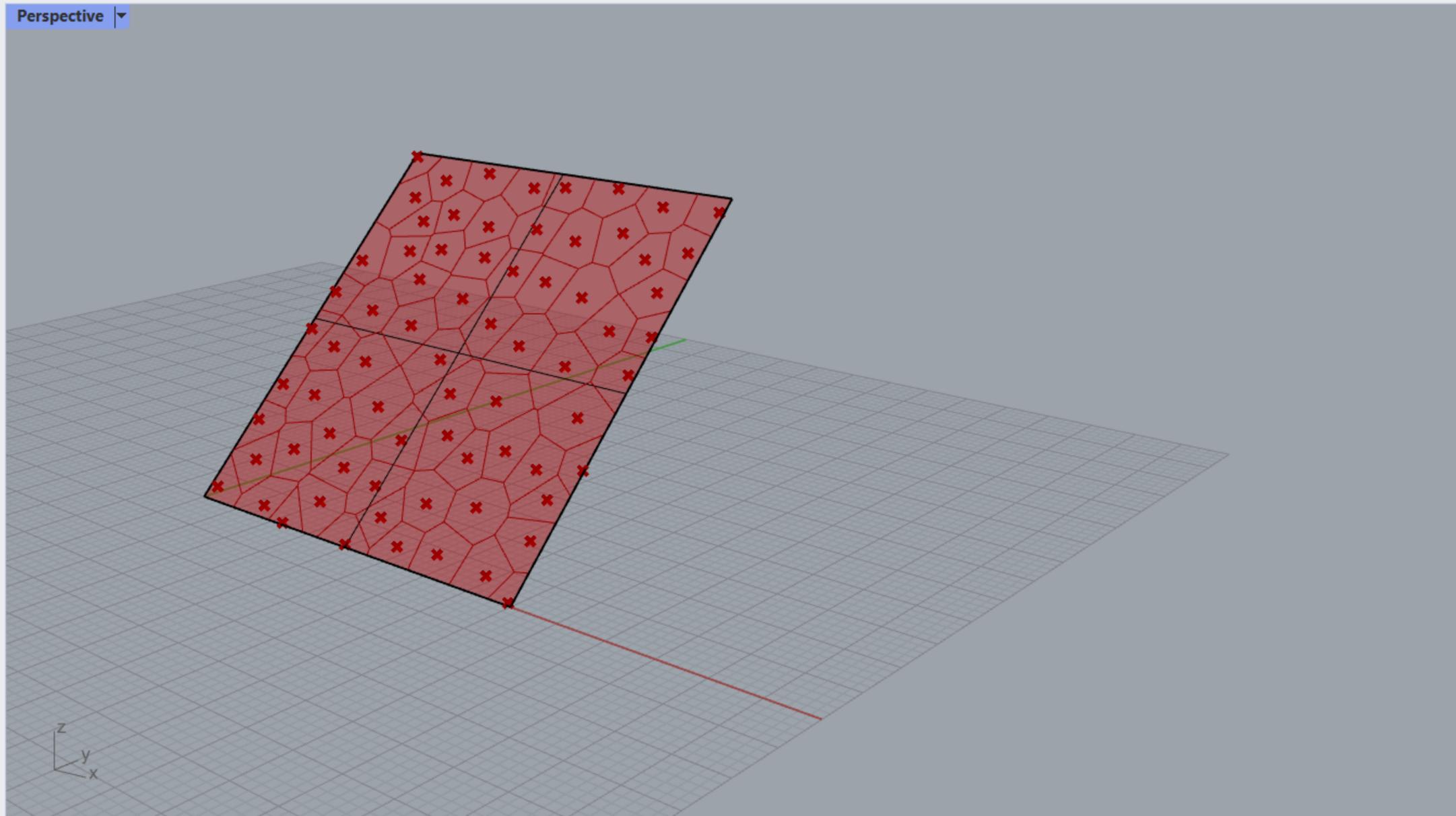
Exerc. 5.1 – Esferas



Exerc. 5.2 – Células



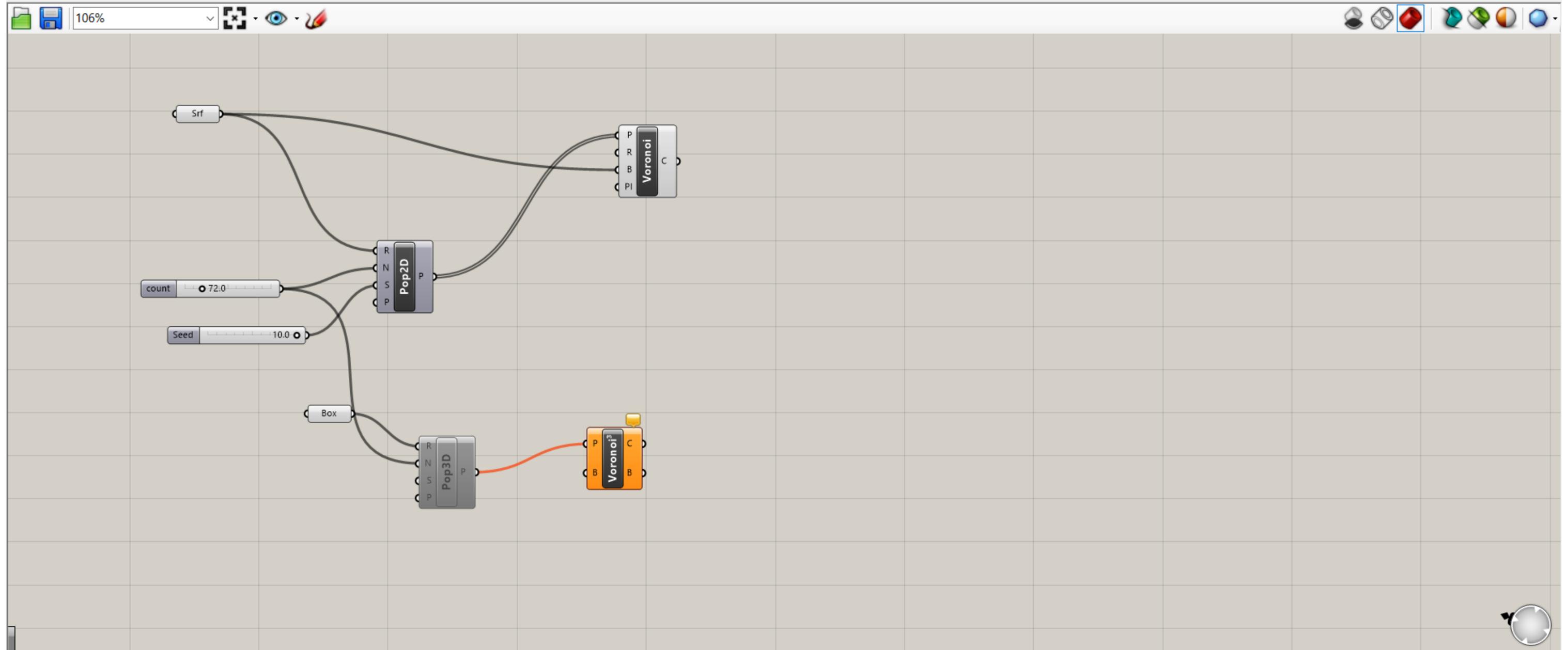
Exerc. 5.2 – Células



Layers

Layer	Material	Linetype
Default	<input checked="" type="checkbox"/>	Continuous

Exerc. 5.2 – Células

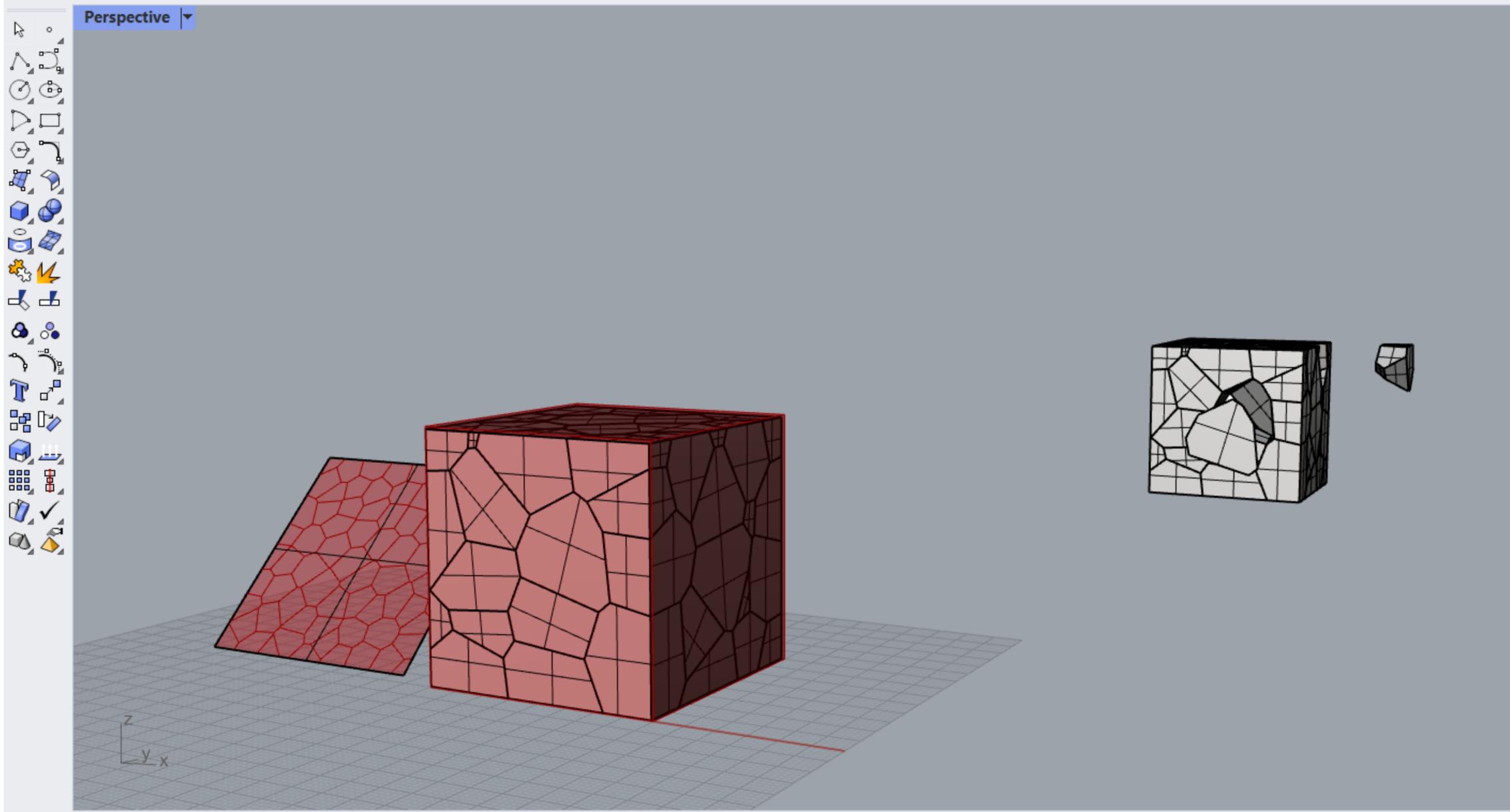


Exerc. 5.3 – Cubos

Point to move from (Normal Vertical)

Point to move to <61.415>

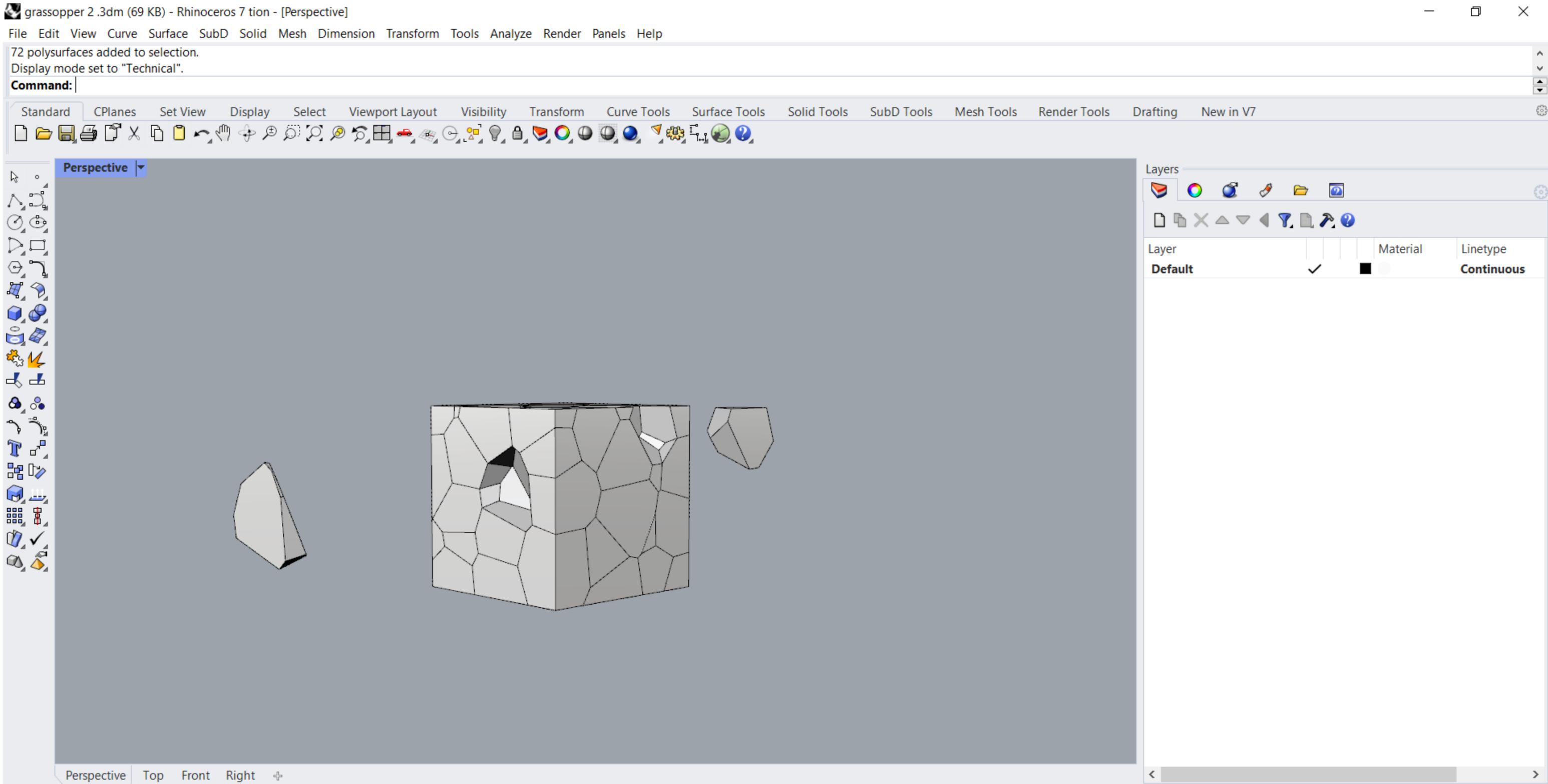
Command:



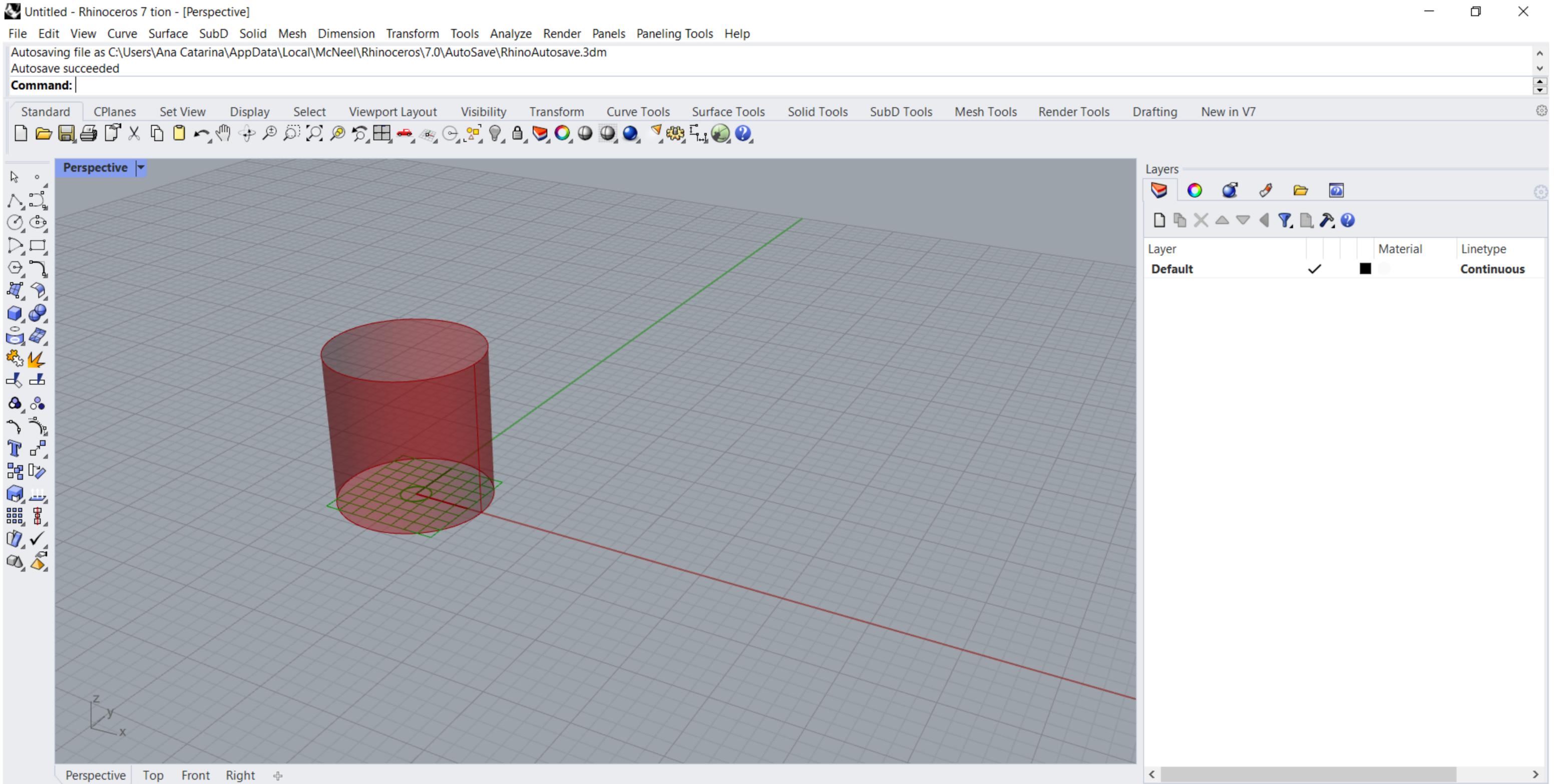
Layers

Layer	Material	Linetype
Default	<input checked="" type="checkbox"/>	Continuous

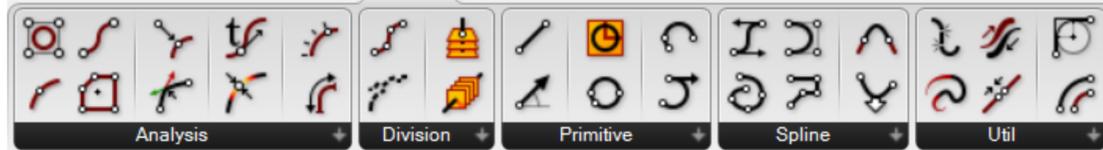
Exerc. 5.3 – Cubos



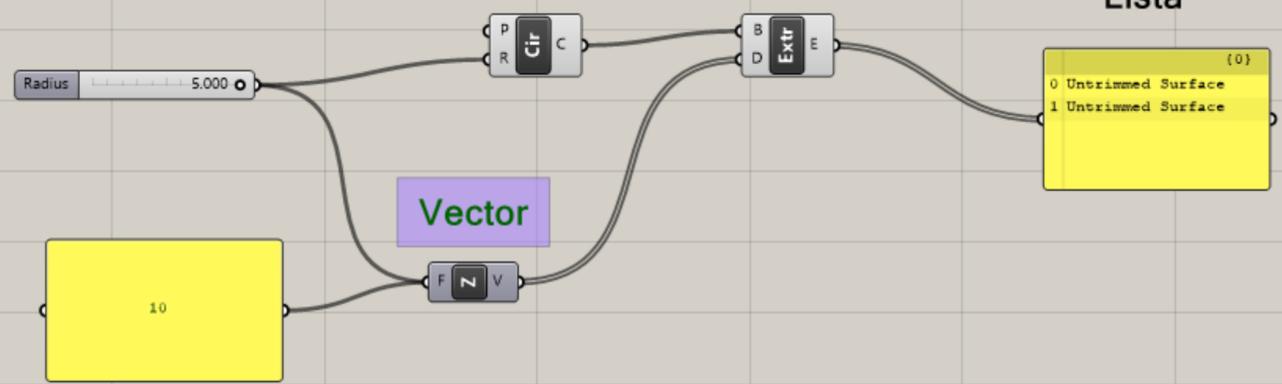
Exerc. 5.3 – Cubos



Exerc.5.4 – Cilindros



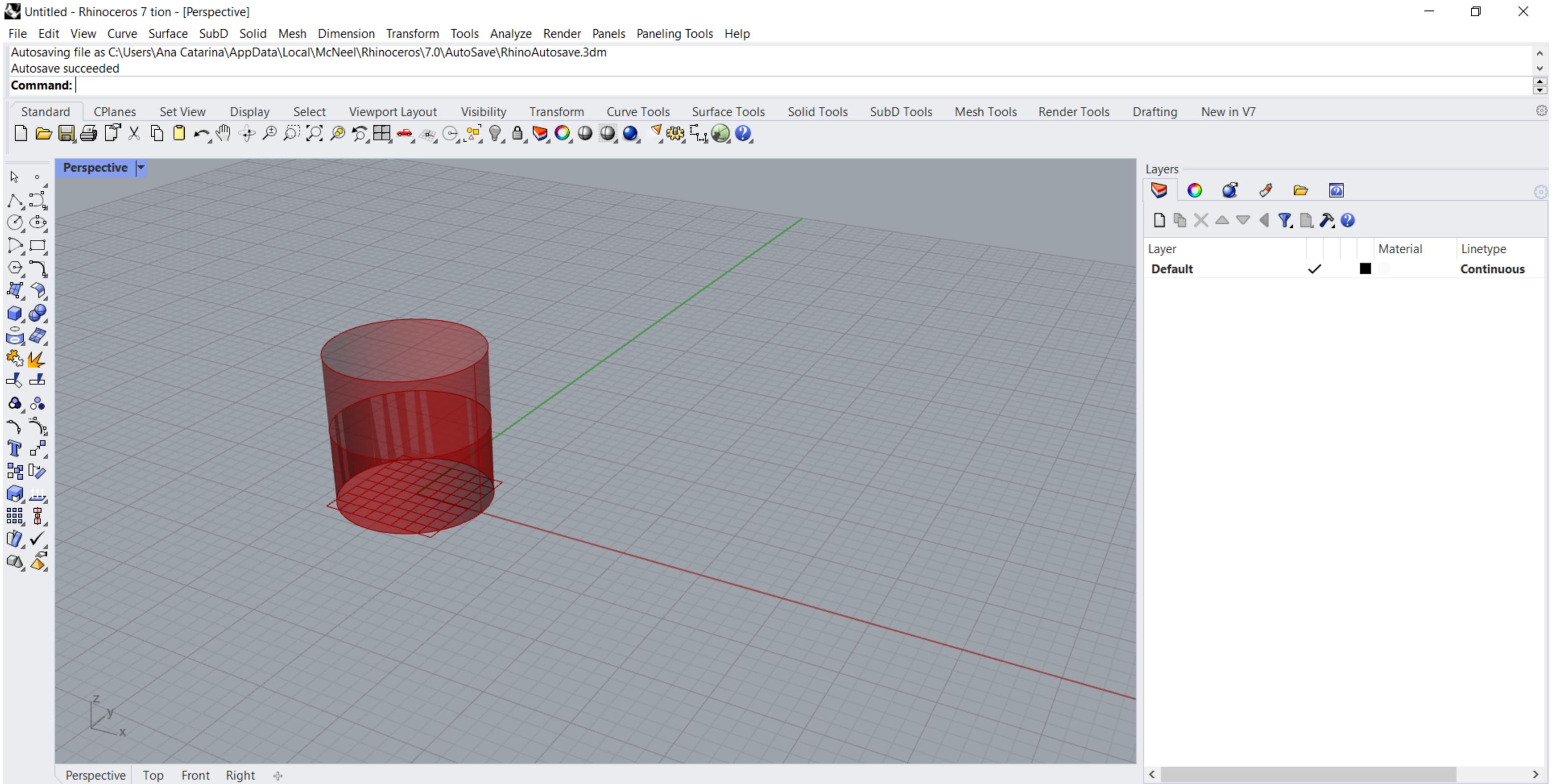
Cilindro a partir do extrude



Lista

(0)
0 Untrimmed Surface
1 Untrimmed Surface

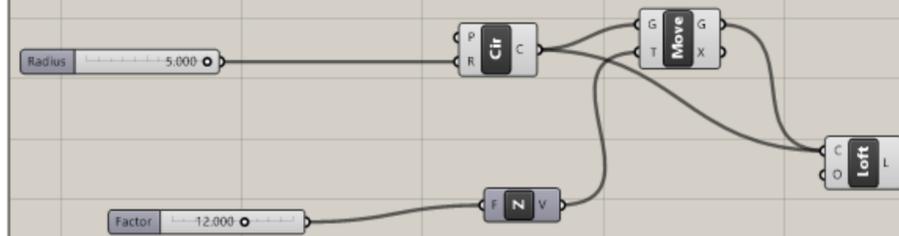
Exerc.5.4 – Cilindros



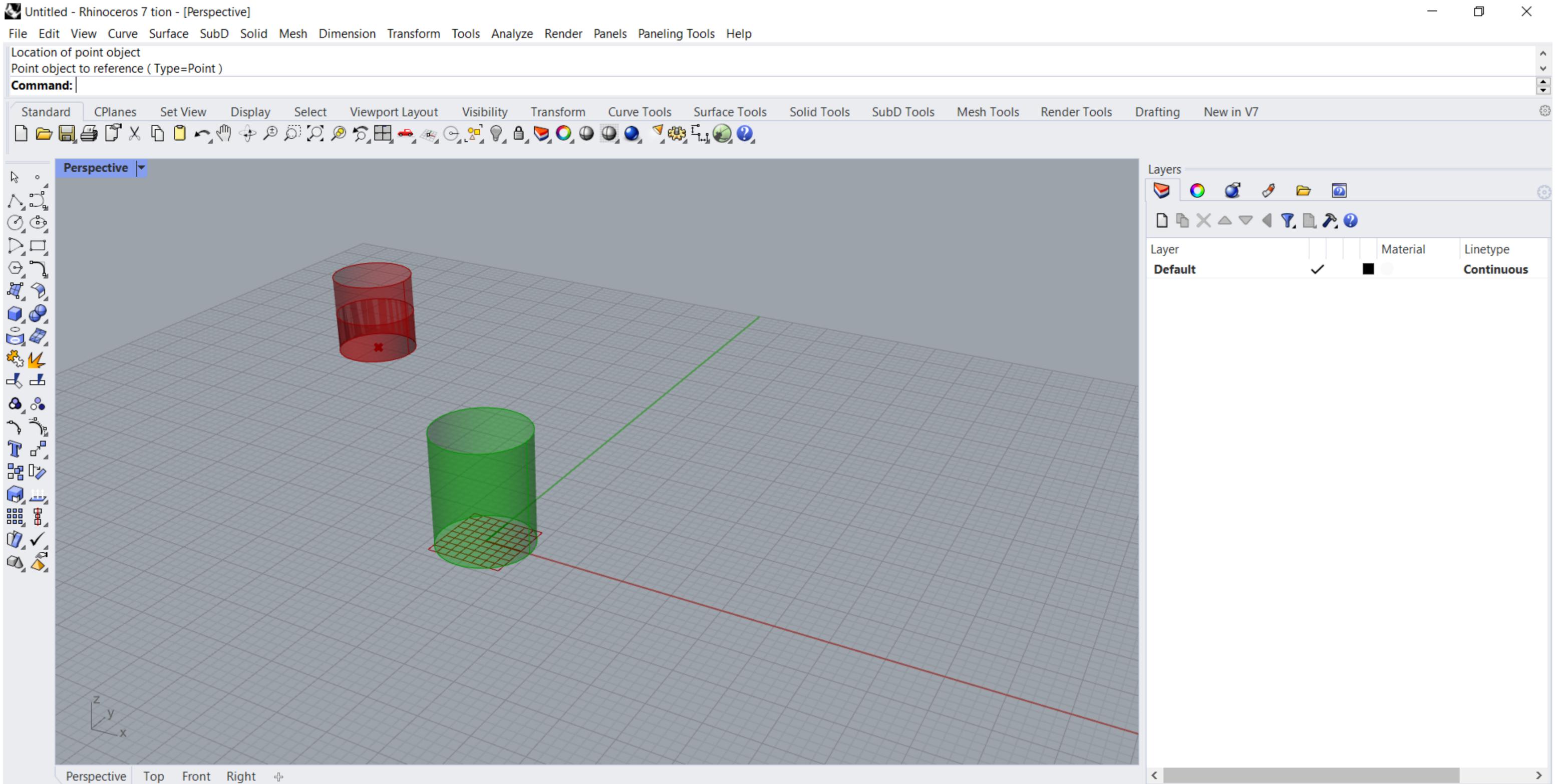
Exerc.5.4 – Cilindros



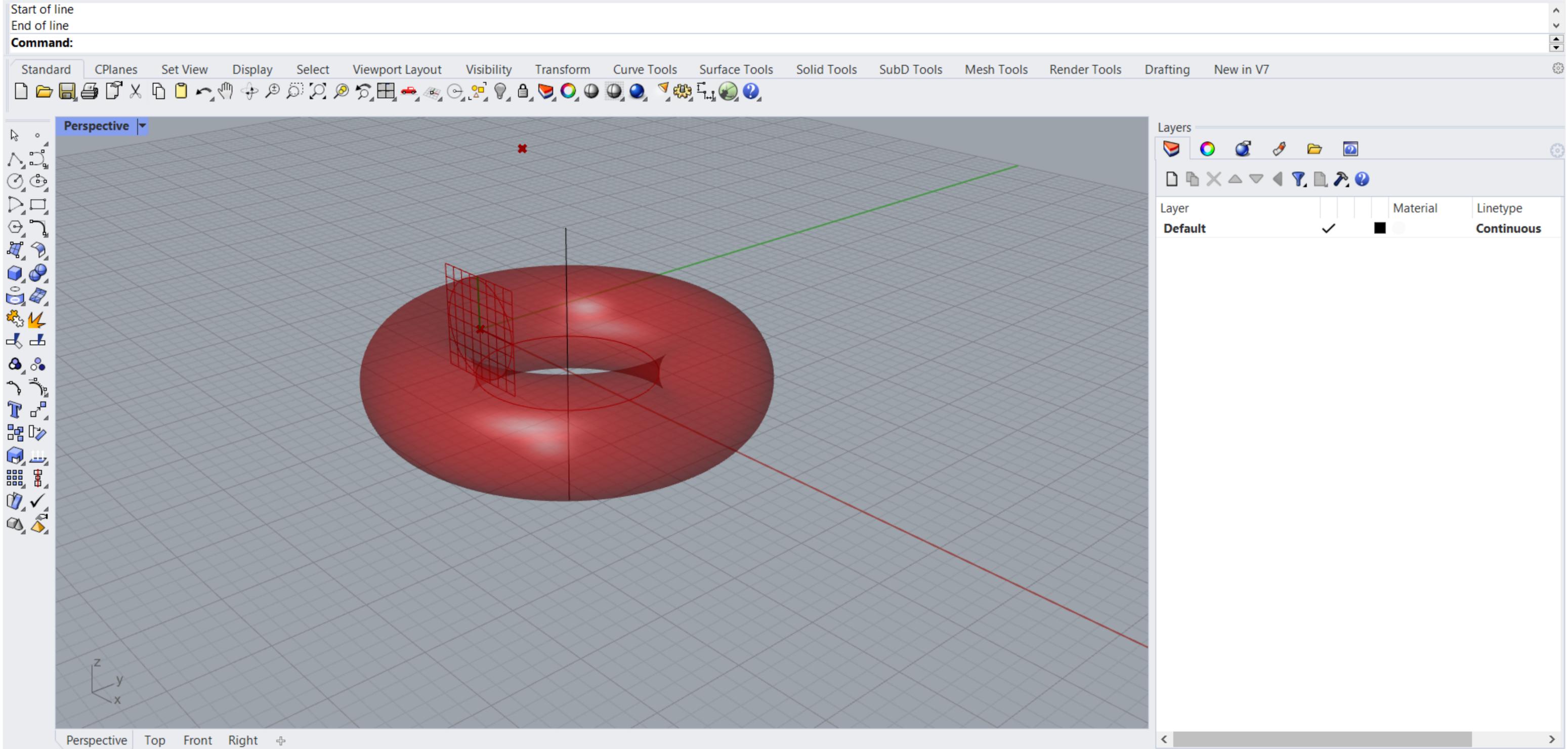
Cilindro a partir do componente Loft



Exerc.5.4 – Cilindros



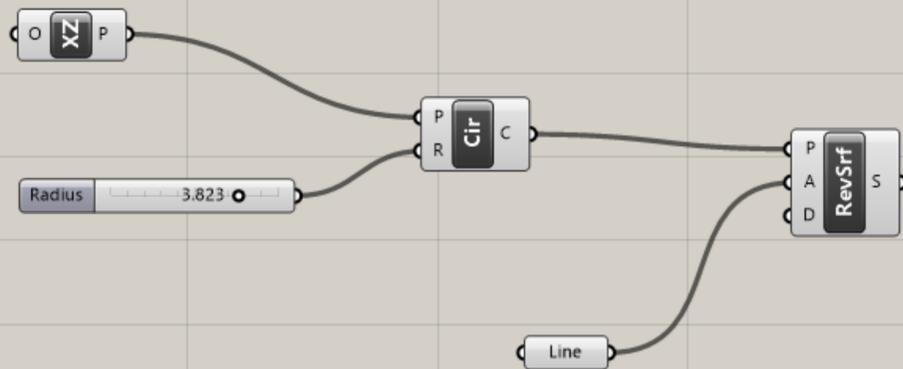
Exerc.5.4 – Cilindros



Exerc.5.5 – Toro



Construção de um Toro ou Superfície Tórica

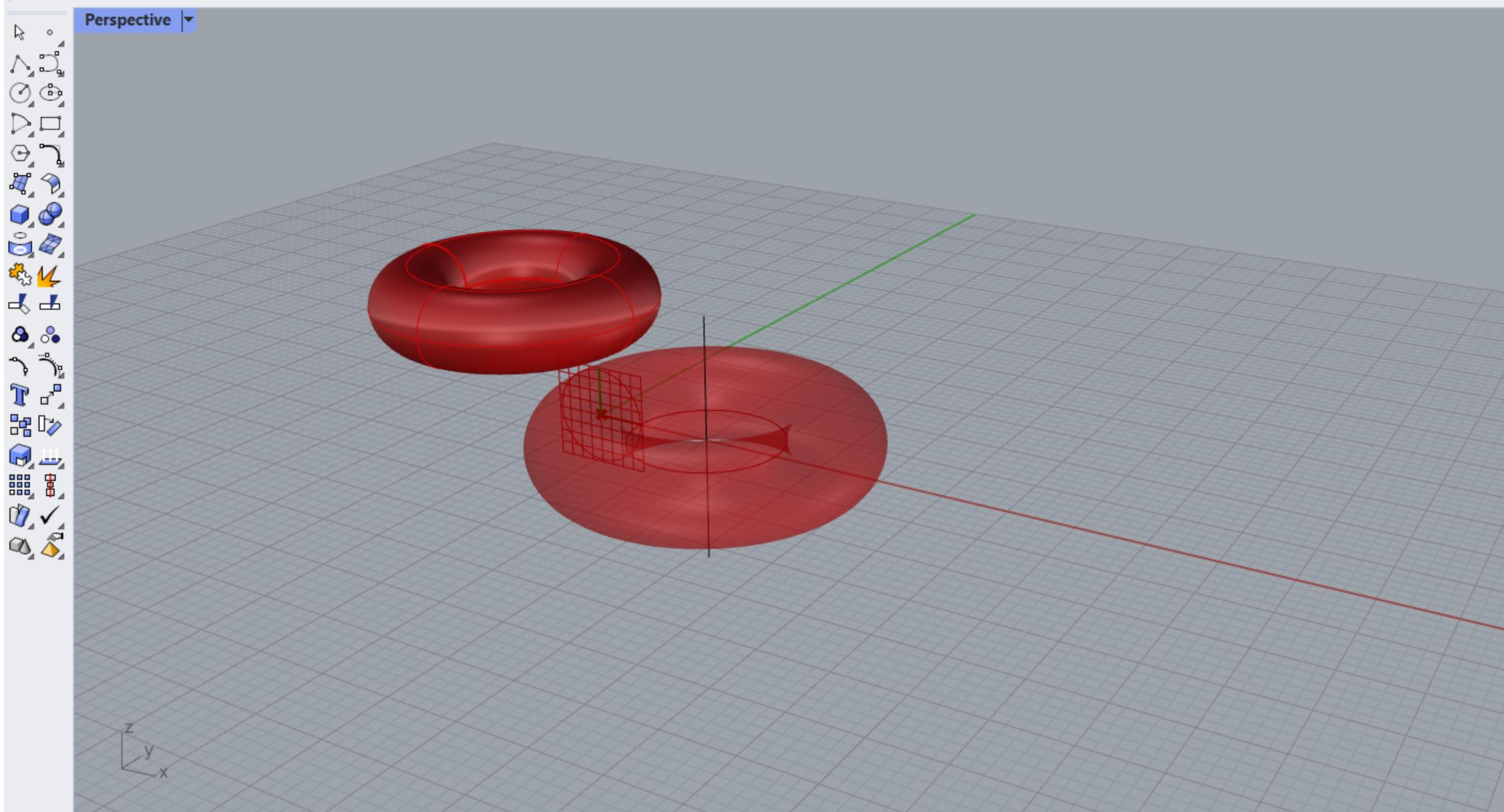


Exerc.5.5 – Toro

1 closed surface added to selection.
 Drag objects, tap Alt to make a duplicate

Command:

Standard CPlanes Set View Display Select Viewport Layout Visibility Transform Curve Tools Surface Tools Solid Tools SubD Tools Mesh Tools Render Tools Drafting New in V7



Properties: View properties

Viewport

Title	Perspective
Width	1342
Height	750
Projection	Perspective
Locked	<input type="checkbox"/>

Camera

Lens Length	50.0
Rotation	0.0
X Location	76.19
Y Location	-98.46
Z Location	49.94
Distance to Target	122.92
Location	Place...

Target

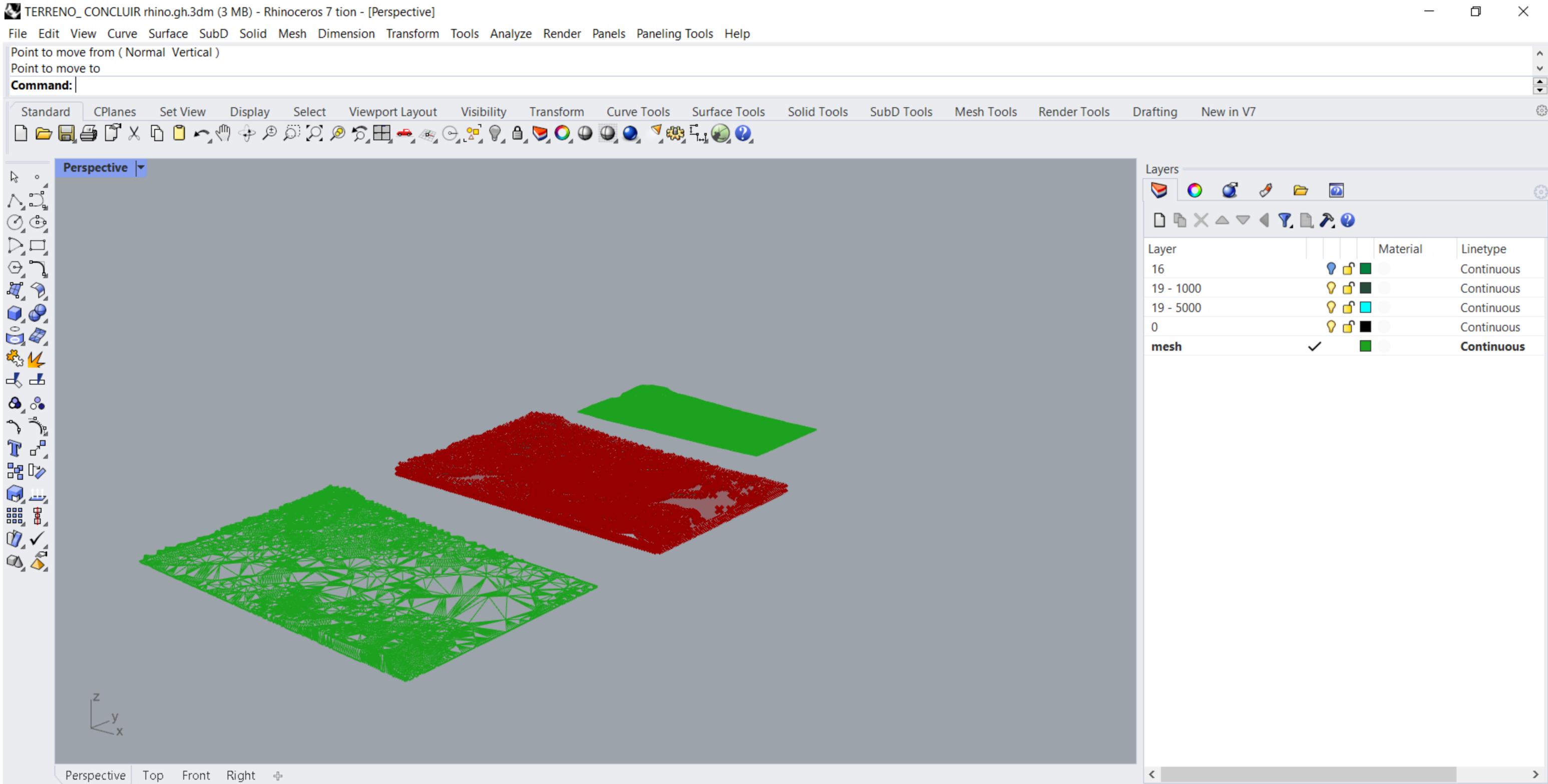
X Target	18.13
Y Target	-0.3
Z Target	4.09
Location	Place...

Wallpaper

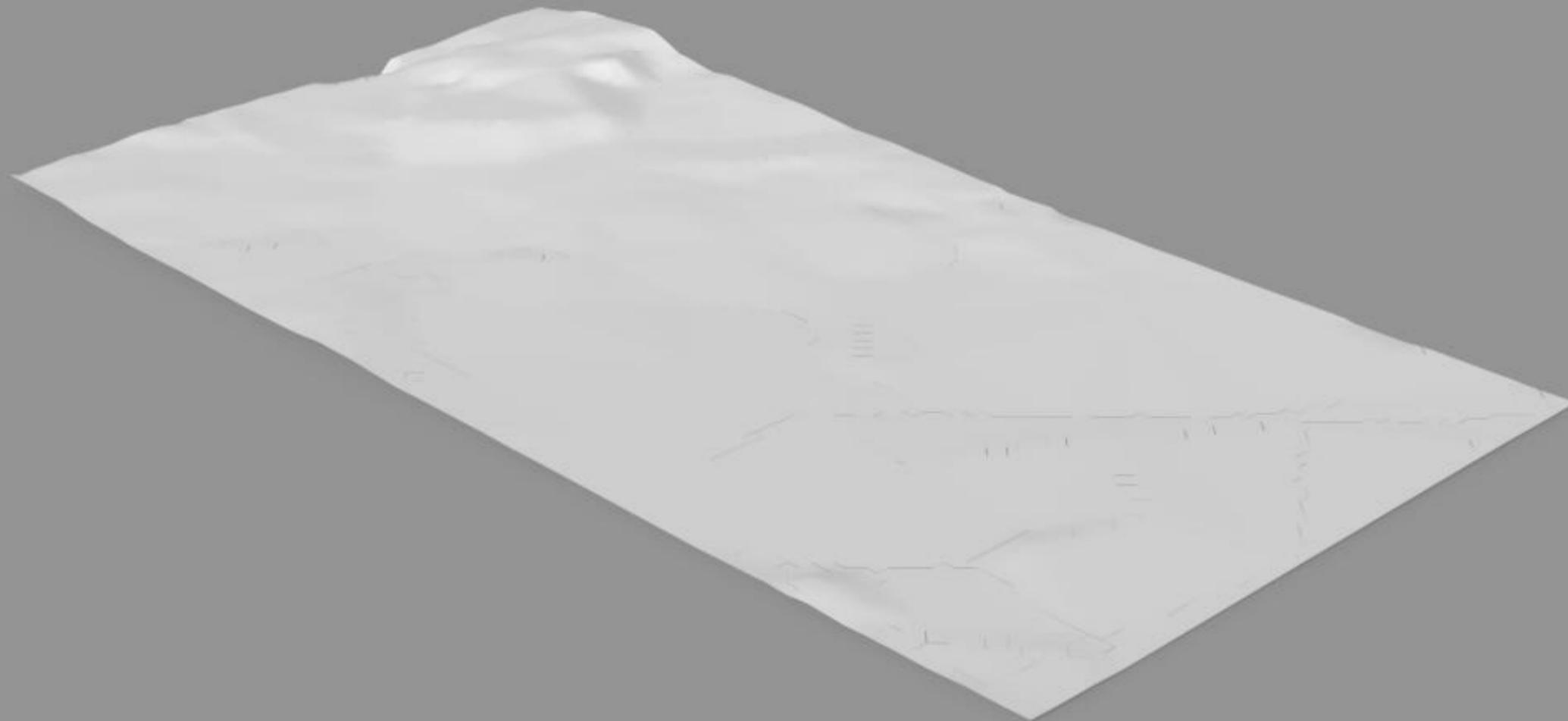
Filename	(none)
Show	<input checked="" type="checkbox"/>
Gray	<input checked="" type="checkbox"/>

Perspective Top Front Right +

Exerc.5.5 – Toro



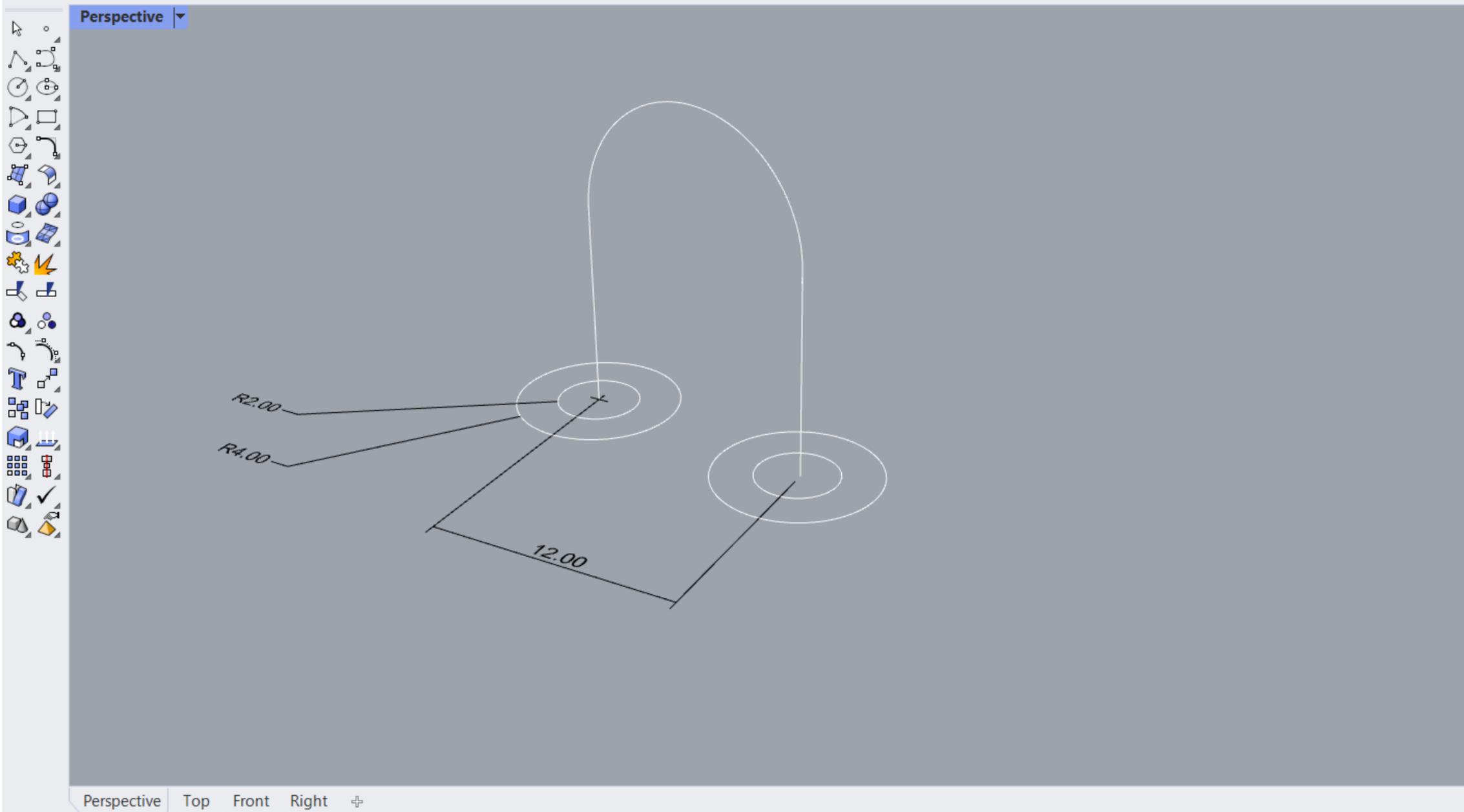
Exerc.6 – Modelação do Terreno



Exerc.6 – Modelação do Terreno

Command:

Standard CPlanes Set View Display Select Viewport Layout Visibility Transform Curve Tools Surface Tools Solid Tools SubD Tools Mesh Tools Render Tools Drafting New in V7



Layers

Layer	Material	Linetype
Default		Continuous
Geometria 1		Continuous
Geometria 2		Continuous
Curvas		Continuous
Superficie Interior		Continuous
Superficie Exterior		Continuous
Grid Interior		Continuous
Grid Exterior		Continuous
Painel A		Continuous
Painel B		Continuous
Painel C		Continuous
Coral A		Continuous
Coral B		Continuous
Coral C		Continuous
Texto		Continuous
Notas		Continuous
Cotas		Continuous

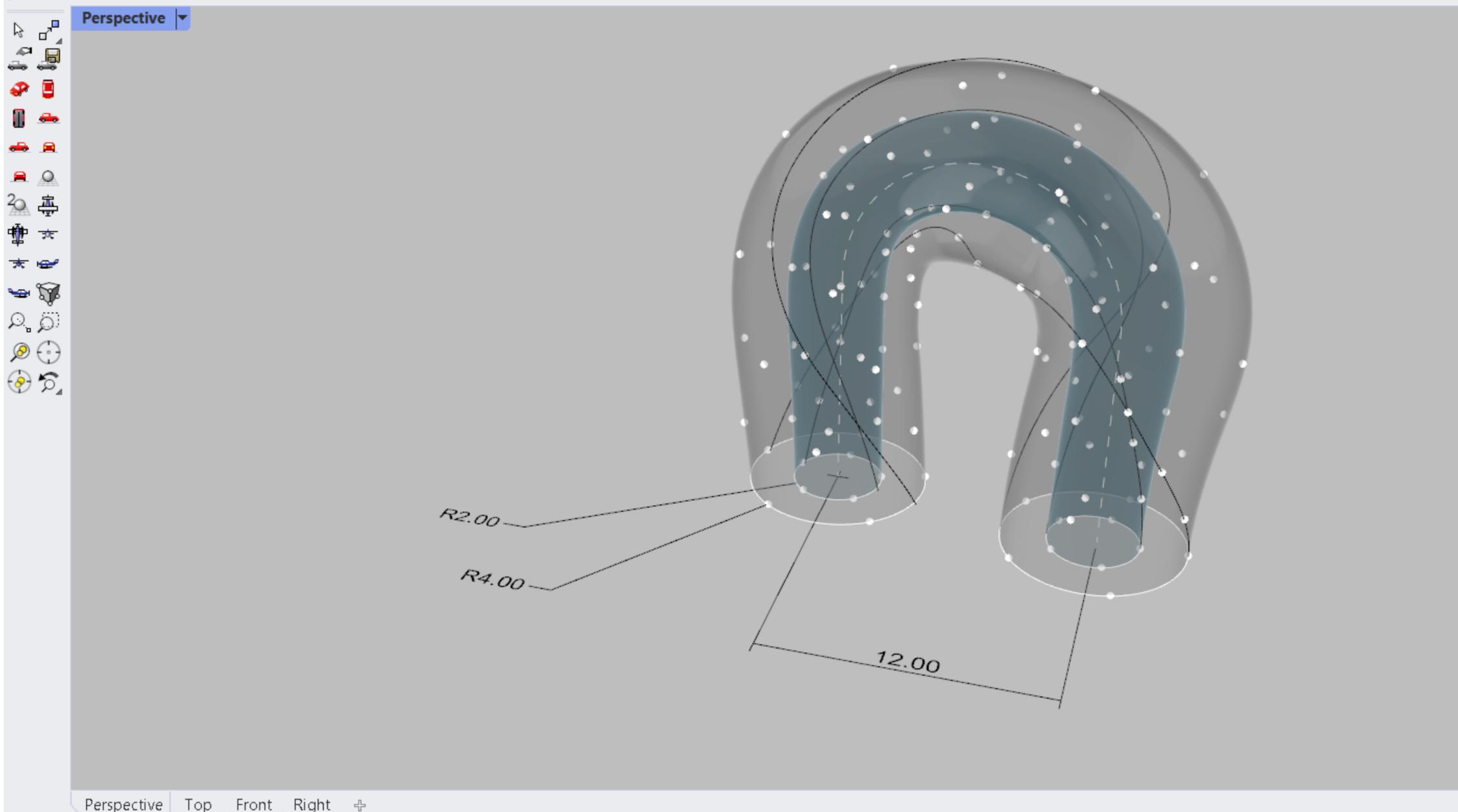
Exerc. 7 – Corais

Point to copy to

Point to copy to. Press Enter when done (FromLastPoint=No UseLastDistance=No UseLastDirection=No)

Command:

Standard CPlanes Set View Display Select Viewport Layout Visibility Transform Curve Tools Surface Tools Solid Tools SubD Tools Mesh Tools Render Tools Drafting New in V7



Layers

Layer	Material	Linetype
Default		Continuous
Geometria 1		Continuous
Geometria 2		Continuous
Curvas		Continuous
Superficie Interior		Continuous
Superficie Exterior		Continuous
Grid Interior		Continuous
Grid Exterior		Continuous
Painel A		Continuous
Painel B		Continuous
Painel C		Continuous
Coral A		Continuous
Coral B		Continuous
Coral C		Continuous
Texto		Continuous
Notas		Continuous
Cotas		Continuous

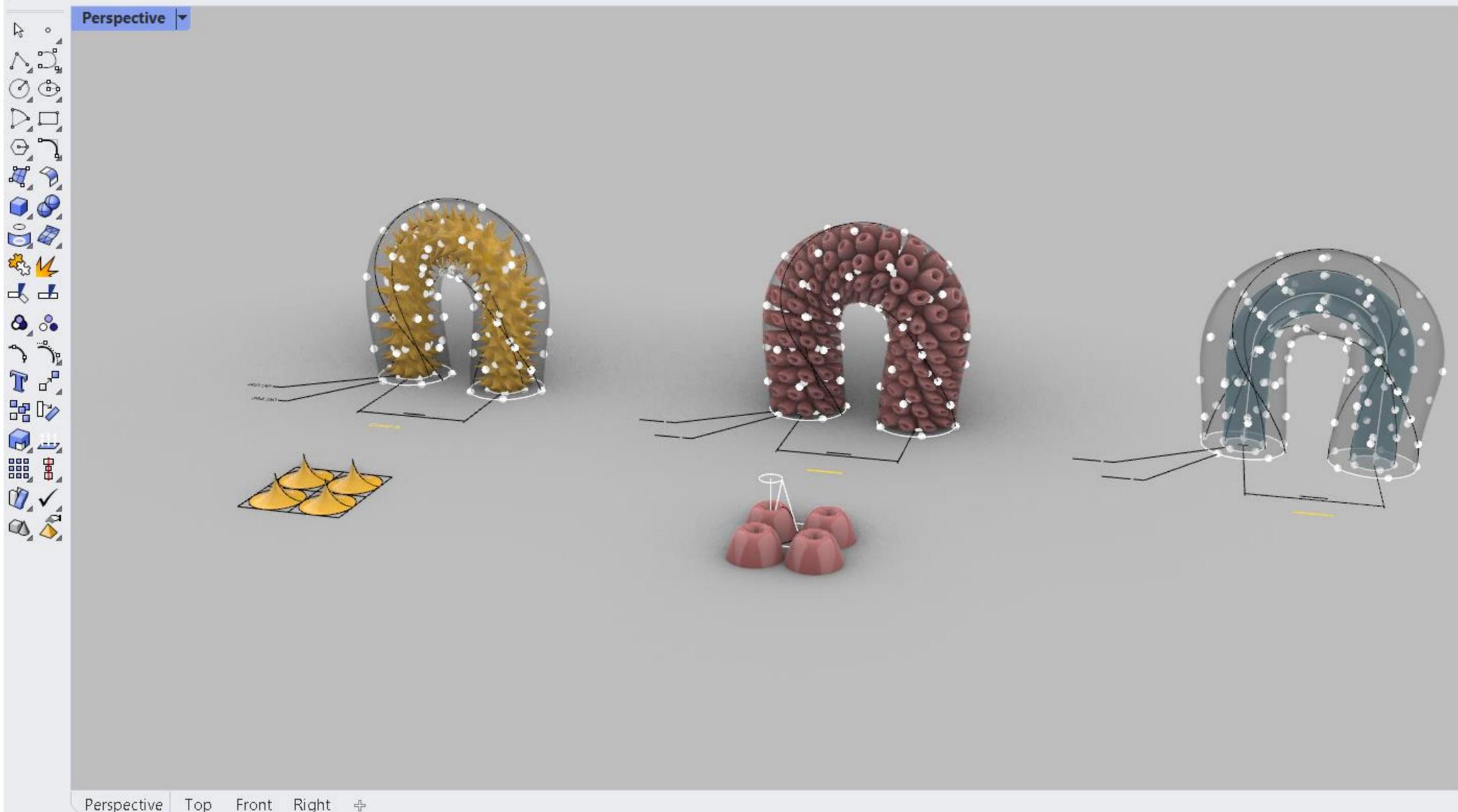
Exerc. 7 – Corais

244 surfaces added to selection.

244 surfaces added to selection.

Command:

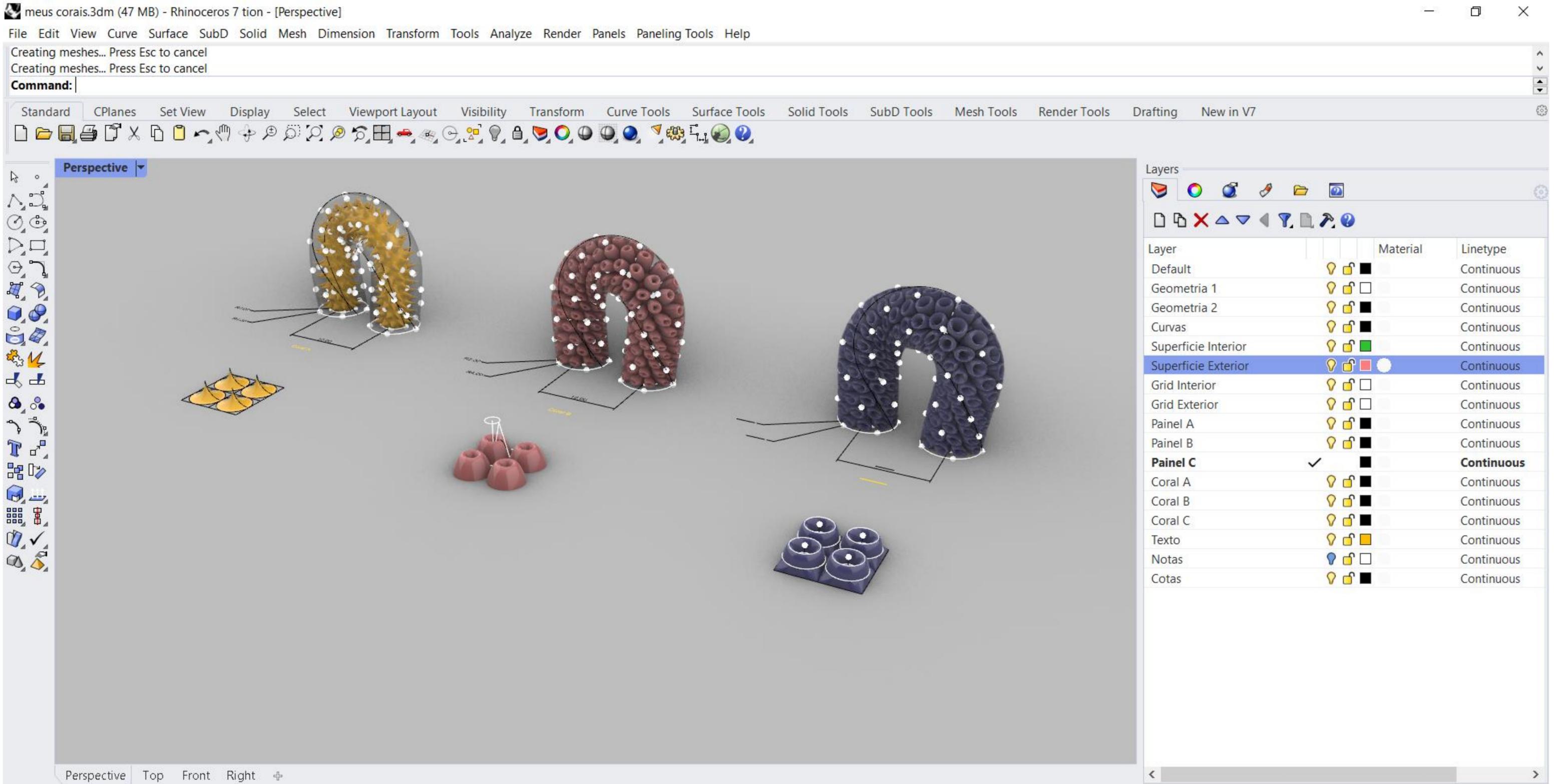
Standard CPlanes Set View Display Select Viewport Layout Visibility Transform Curve Tools Surface Tools Solid Tools SubD Tools Mesh Tools Render Tools Drafting New in V7



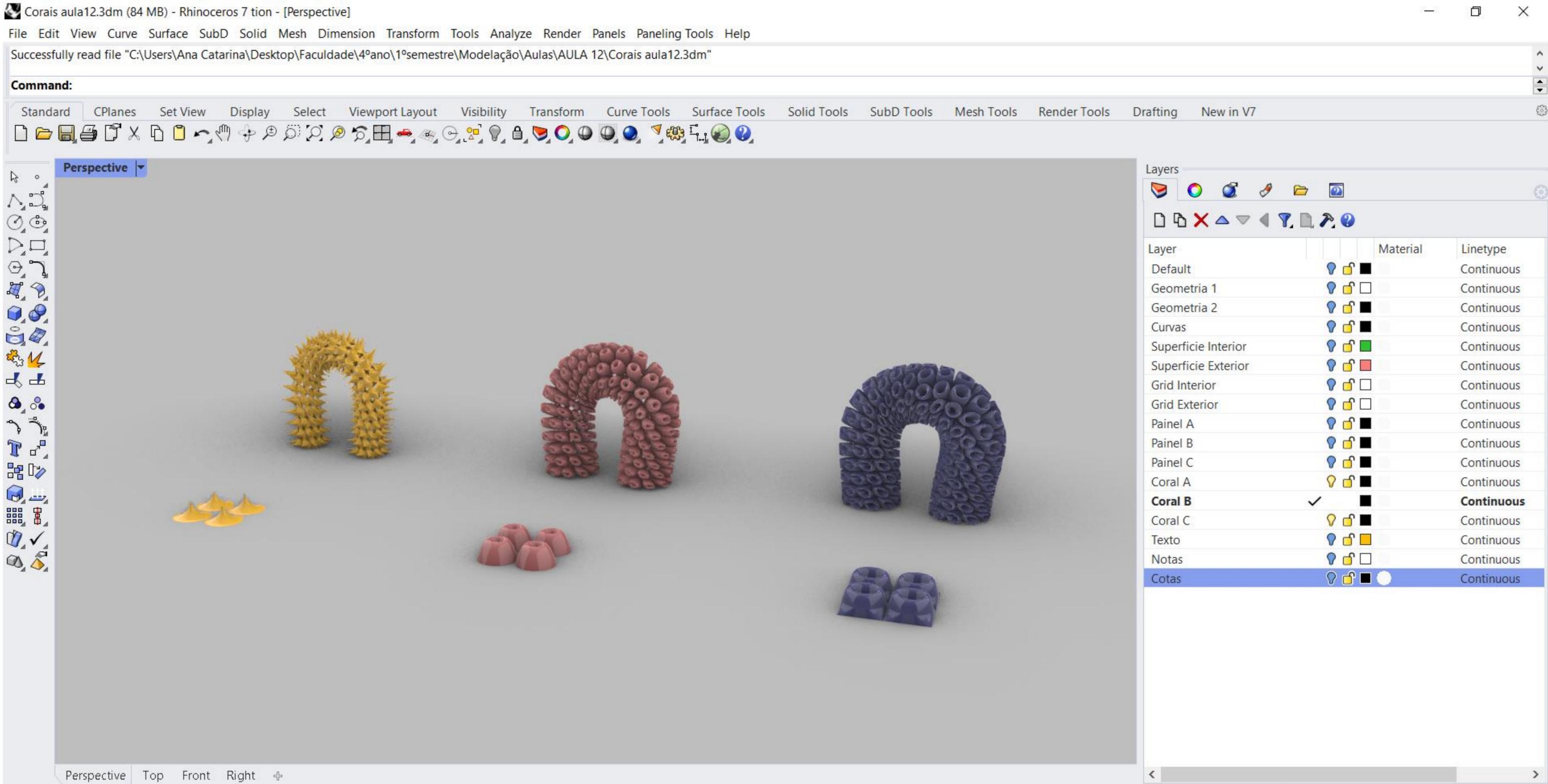
Layers

Layer	Material	Linetype
Default		Continuous
Geometria 1		Continuous
Geometria 2		Continuous
Curvas		Continuous
Superficie Interior		Continuous
Superficie Exterior		Continuous
Grid Interior		Continuous
Grid Exterior		Continuous
Painel A		Continuous
Painel B		Continuous
Painel C		Continuous
Coral A		Continuous
Coral B		Continuous
Coral C		Continuous
Texto		Continuous
Notas		Continuous
Cotas		Continuous

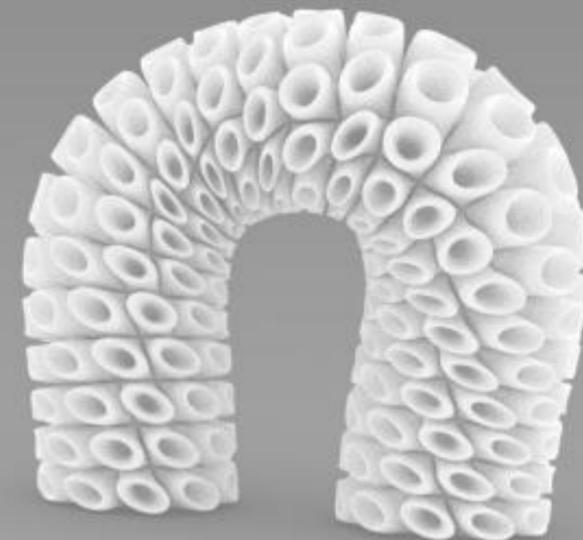
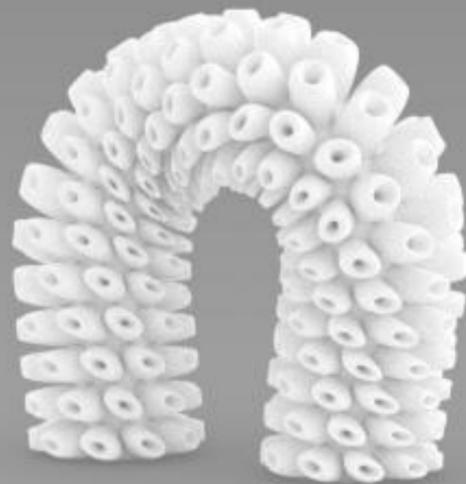
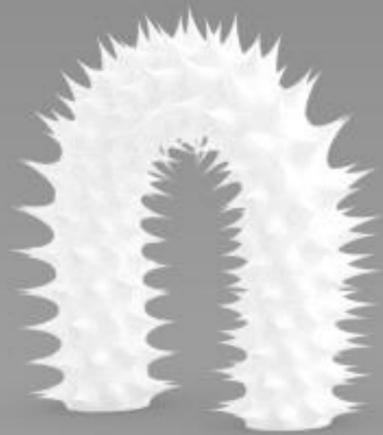
Exerc. 7 – Corais



Exerc. 7 – Corais



Exerc. 7 – Corais

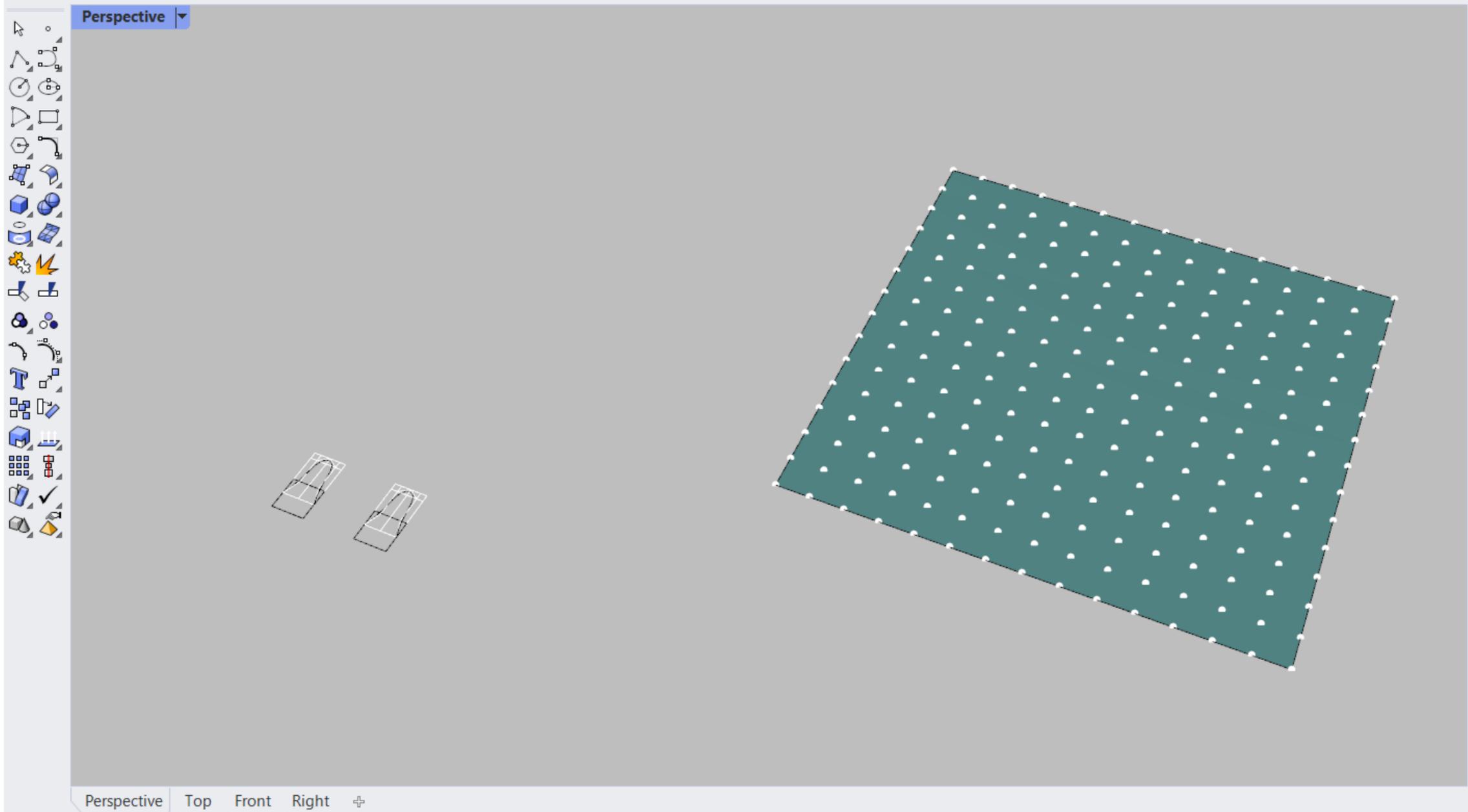


Exerc. 7 – Corais

Point to copy to
 Point to copy to. Press Enter when done (FromLastPoint=No UseLastDistance=No UseLastDirection=No)

Command:

Standard CPlanes Set View Display Select Viewport Layout Visibility Transform Curve Tools Surface Tools Solid Tools SubD Tools Mesh Tools Render Tools Drafting New in V7



Layers

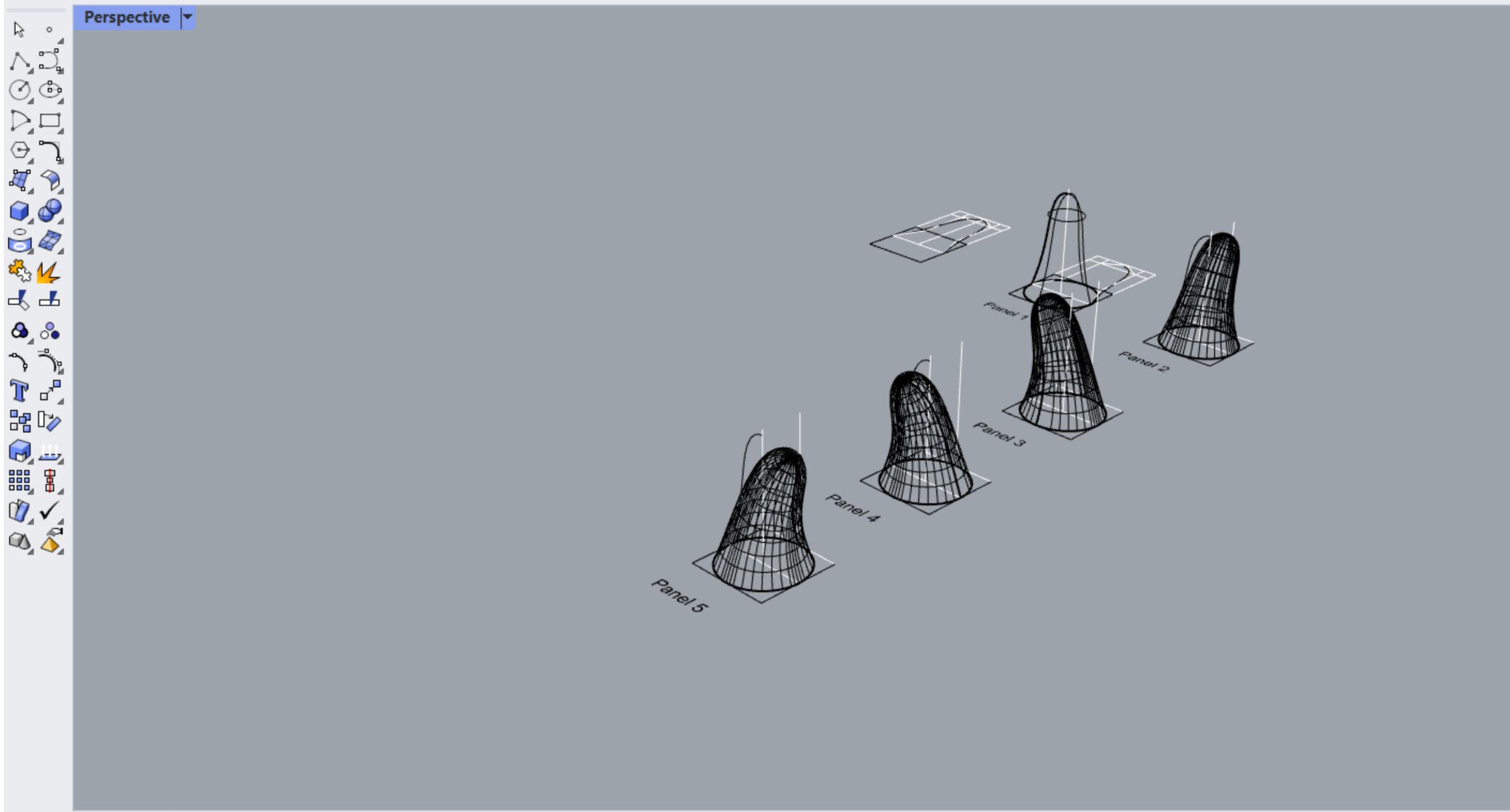
Layer	Material	Linetype
Default		Continuous
grid 1		Continuous
grid 2		Continuous
geometria 1		Continuous
geometria 2		Continuous
curvas		Continuous
panel 3d		Continuous
panel box		Continuous
Superficie 1		Continuous
Superficie 2		Continuous
texto		Continuous
cotas		Continuous
notas		Continuous

Exerc. 8 – Anémoma

1 text added to selection.

1 text added to selection.

Command:



Materials

Plastic (1)

Plastic Plastic (1) Plastic (2)

Color: [Reddish-brown color swatch]

Reflectivity: 0 100%

Transparency: 0% 100

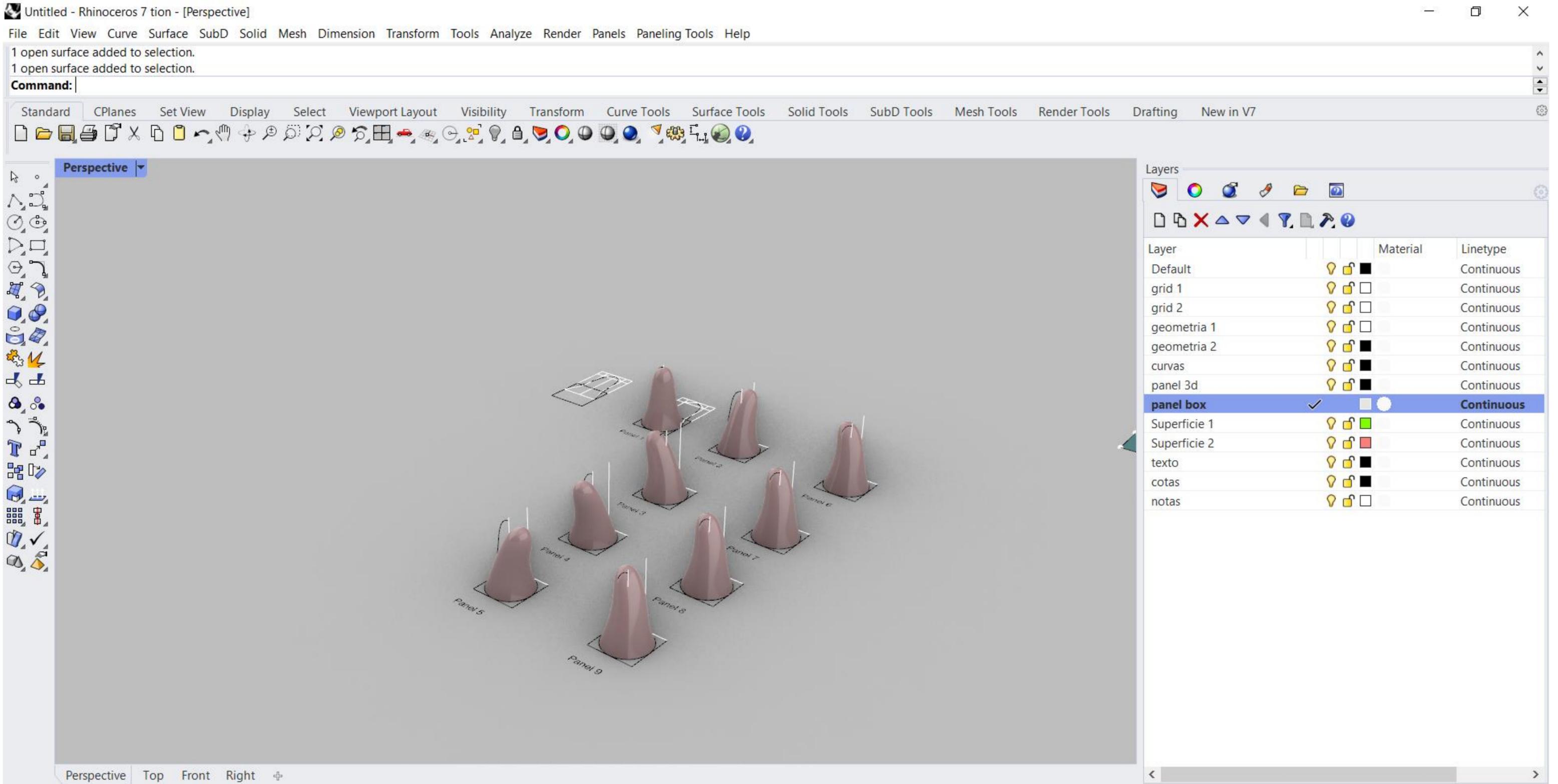
Clarity: Frosted Polished

Bump texture: None

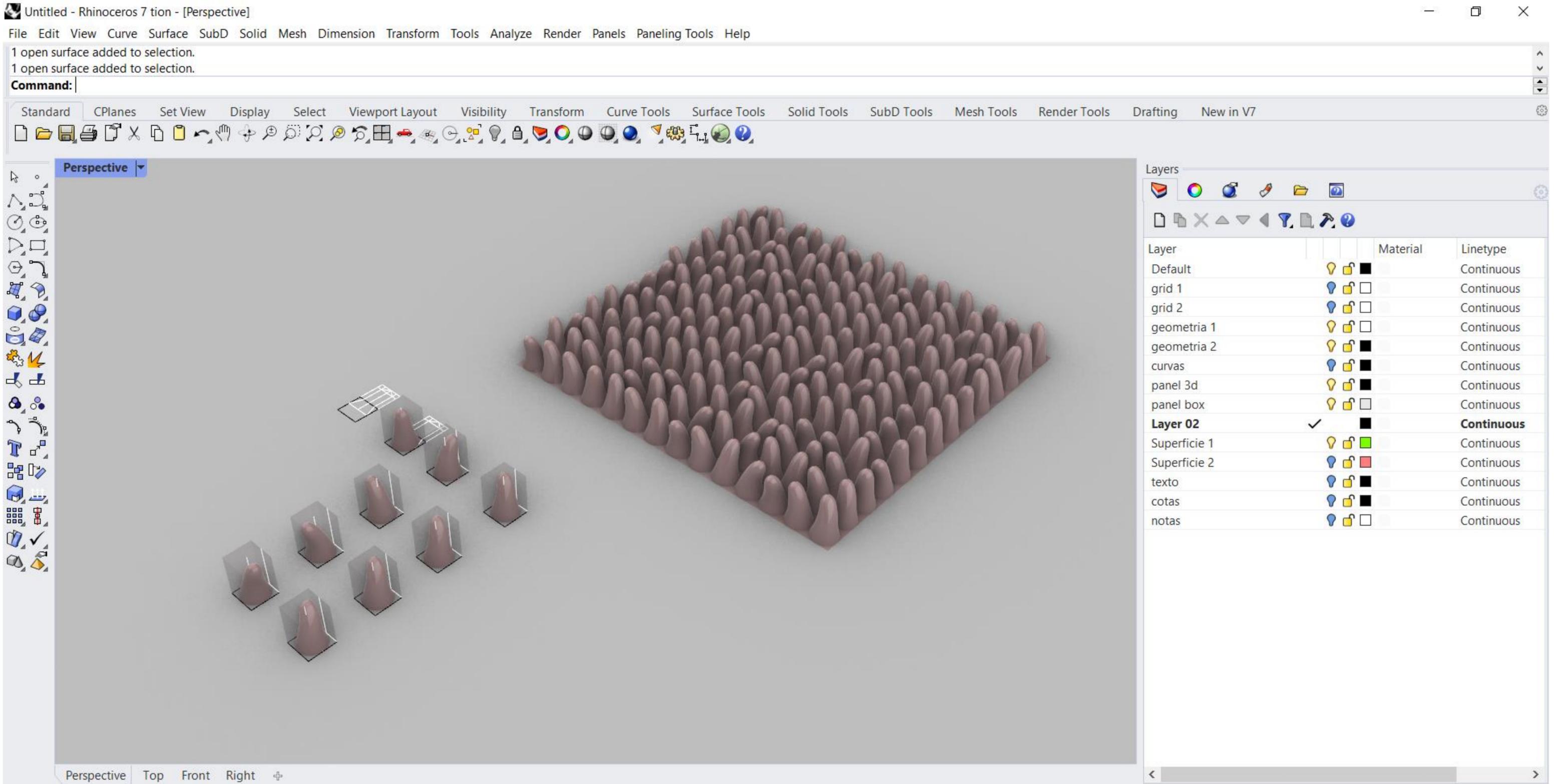
Scale: Medium

Notes

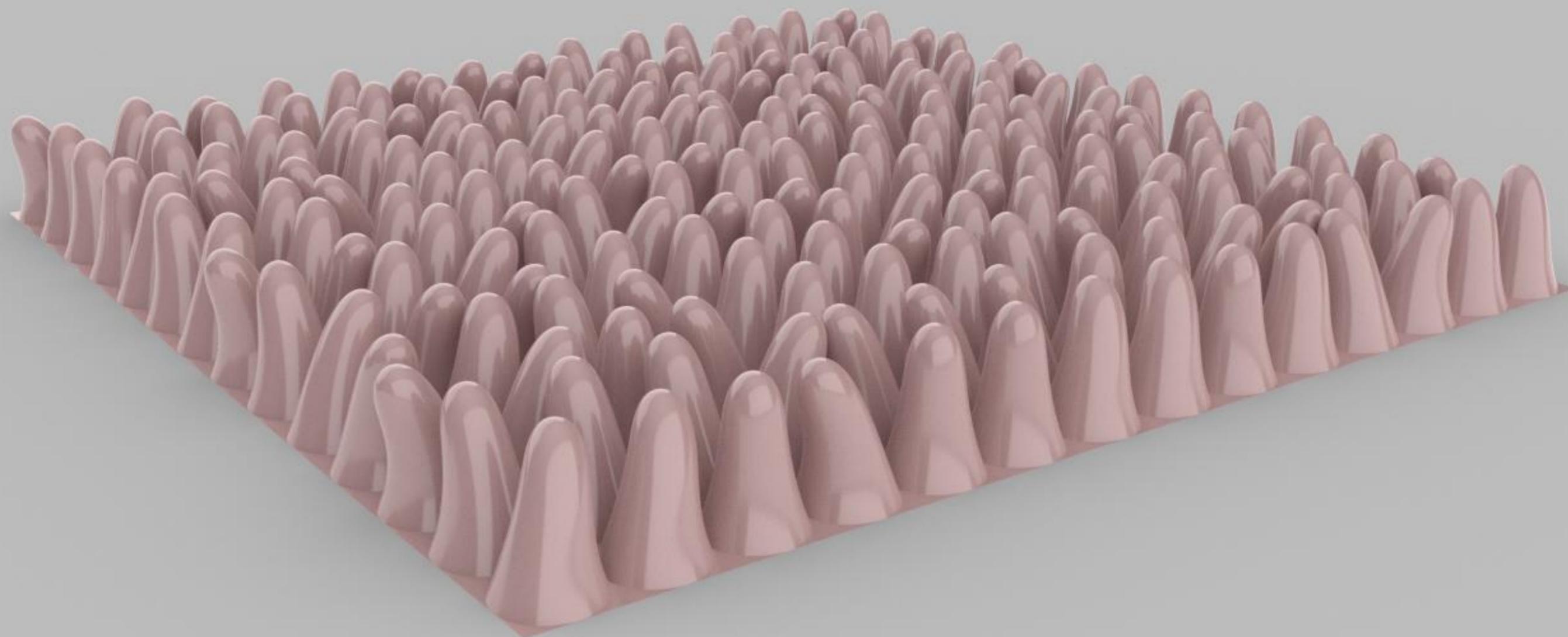
Exerc. 8 – Anémoma



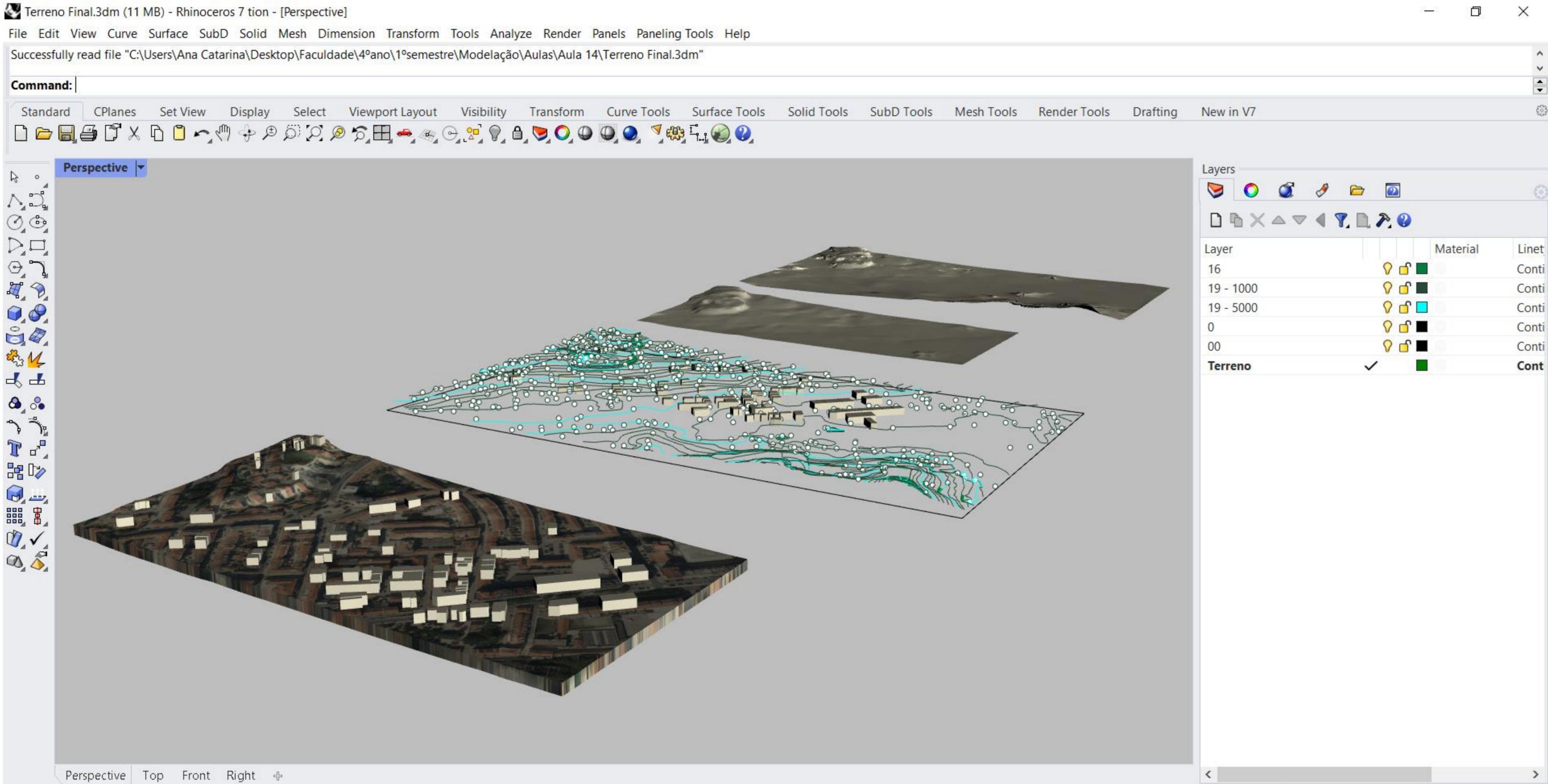
Exerc. 8 – Anémoma



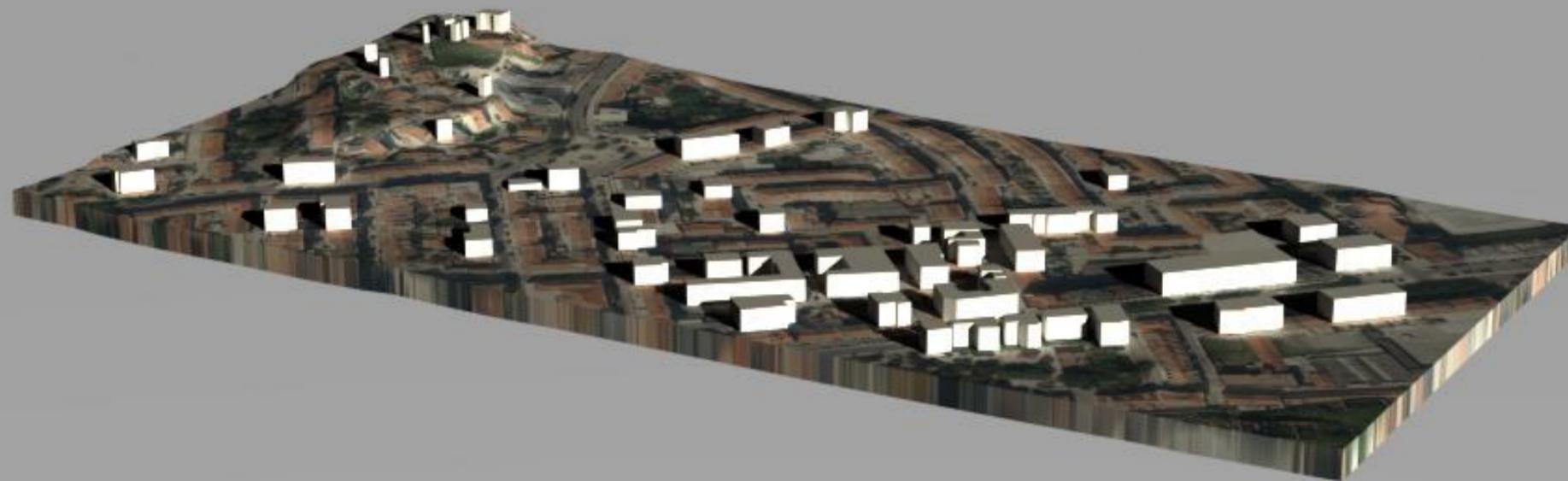
Exerc. 8 – Anémoma



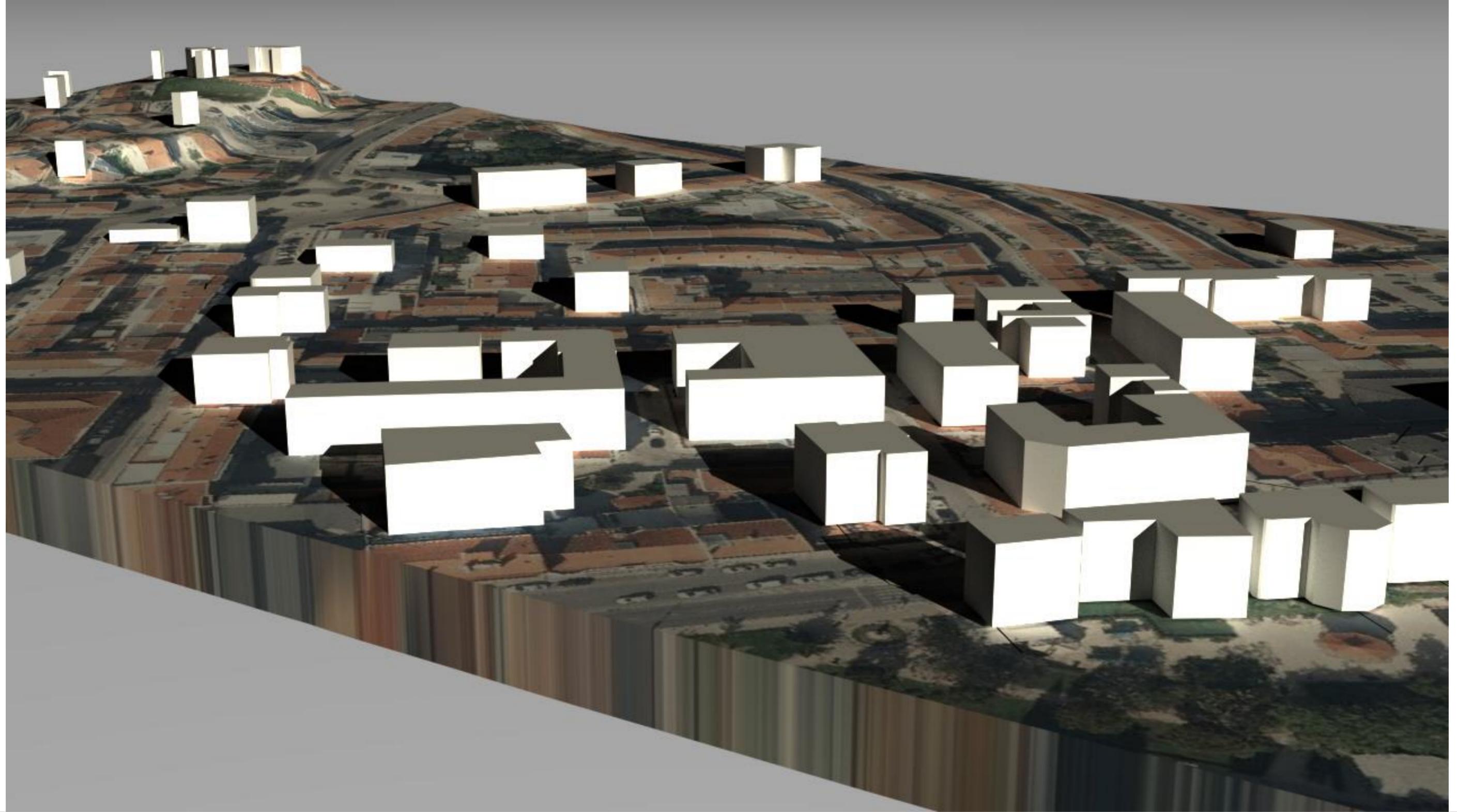
Exerc. 8 – Anémoma



Exerc. 6 – Continuação Terreno



Exerc. 6 – Continuação Terreno



Exerc. 6 – Continuação Terreno