



# Modelação e Visualização Tridimensional em Arquitectura

**U** LISBOA

UNIVERSIDADE  
DE LISBOA



FACULDADE DE ARQUITETURA  
UNIVERSIDADE DE LISBOA

Mestrado Integrado em Arquitectura  
Ano Lectivo 2022-2023 2º Semestre  
Docente - Nuno Alão 3º Ano

20201277



MIGUEL ROSA RAMOS

# ÍNDICE

## Aula 1

1.1. Superfície Parabólica

## Aula 2

2.1. Box

2.2. Tetraedro

2.3. Hexaedro e planificação

2.4. Dodecaedro

## Aula 3

3.1. Octaedro

3.2. Dodecaedro

3.3. Icosaedro

3.4. Relação entre Sólidos Platónicos

## Aula 4

4.1. Secções planas de um cone

4.2. Superfície Esférica

4.3. Superfície Elíptica

4.4. Superfície Parabólica

4.5. Superfície Hiperbólica

4.6. Geratrizes

## Aula 5

5.1. Tabuleiro

5.2. Hiperboloide de Revolução

5.3. Hiperboloide com linhas

5.4. Paraboloides Hiperbólico

5.5. Subtração de Paralelepípedo a Superfície Curva

## Aula 6

6.1. Guggenheim NY Extrude com Helix

## Aula 7

Desenvolvimento do Trabalho de Grupo

## Aula 8

Introdução ao programa 3DS Max

## Aula 9

Exercício de modelação de uma lamparina

## Aula 10

Continuação da modelação e aplicação de materiais

## Aula 11

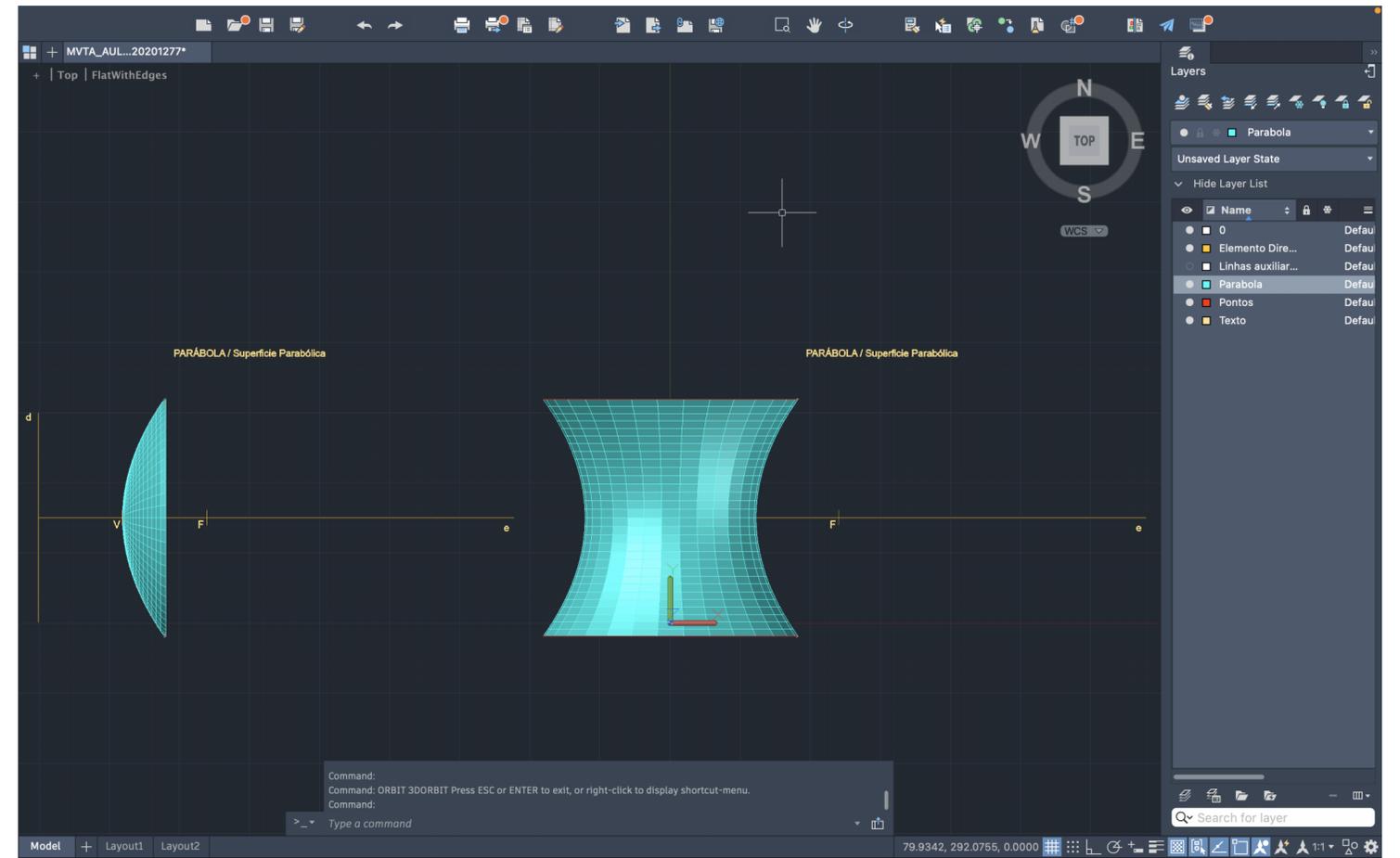
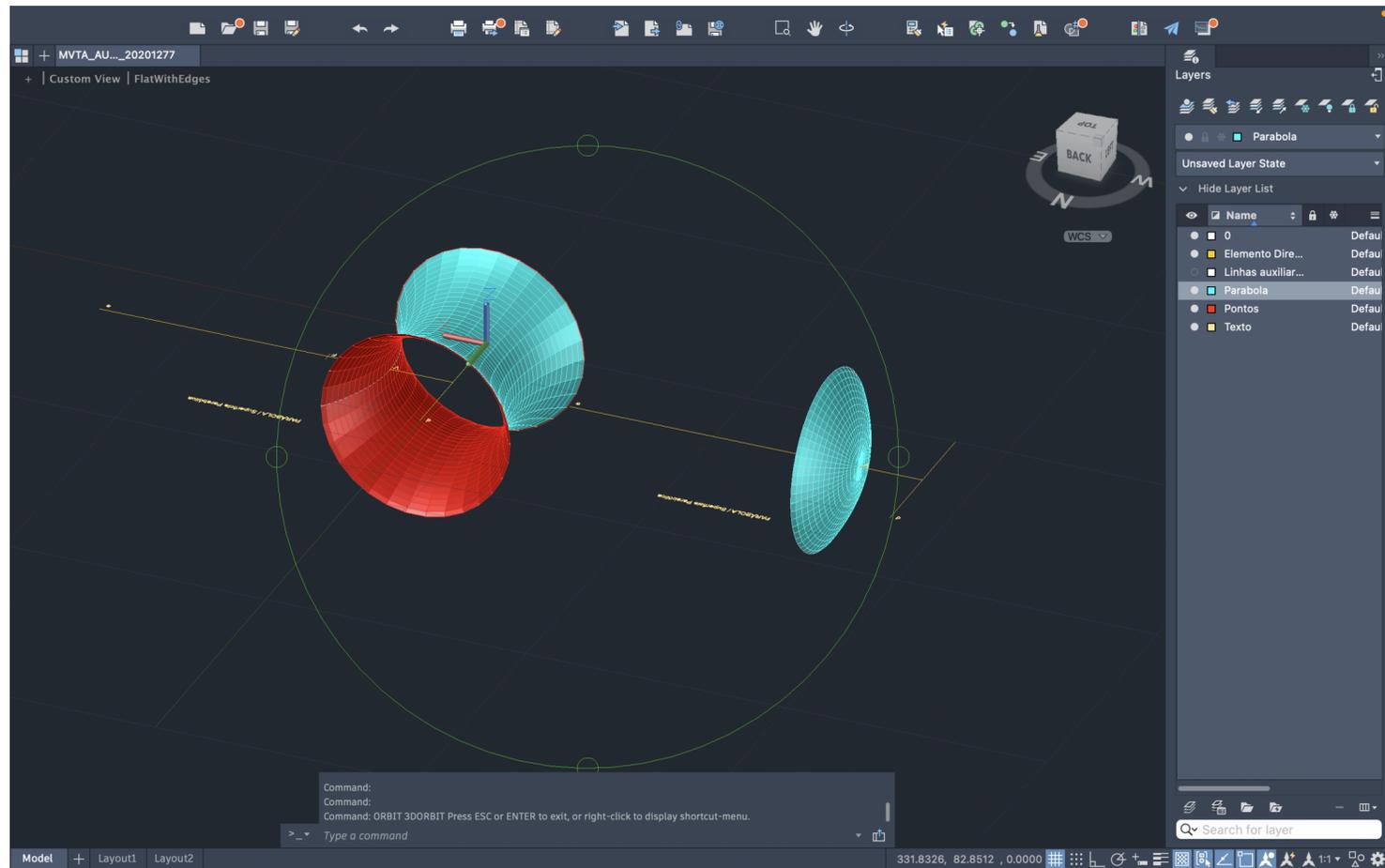
Continuação da modelação e aplicação de fontes luminosas

## 1ª Entrega (30/03) – Trabalho de Grupo

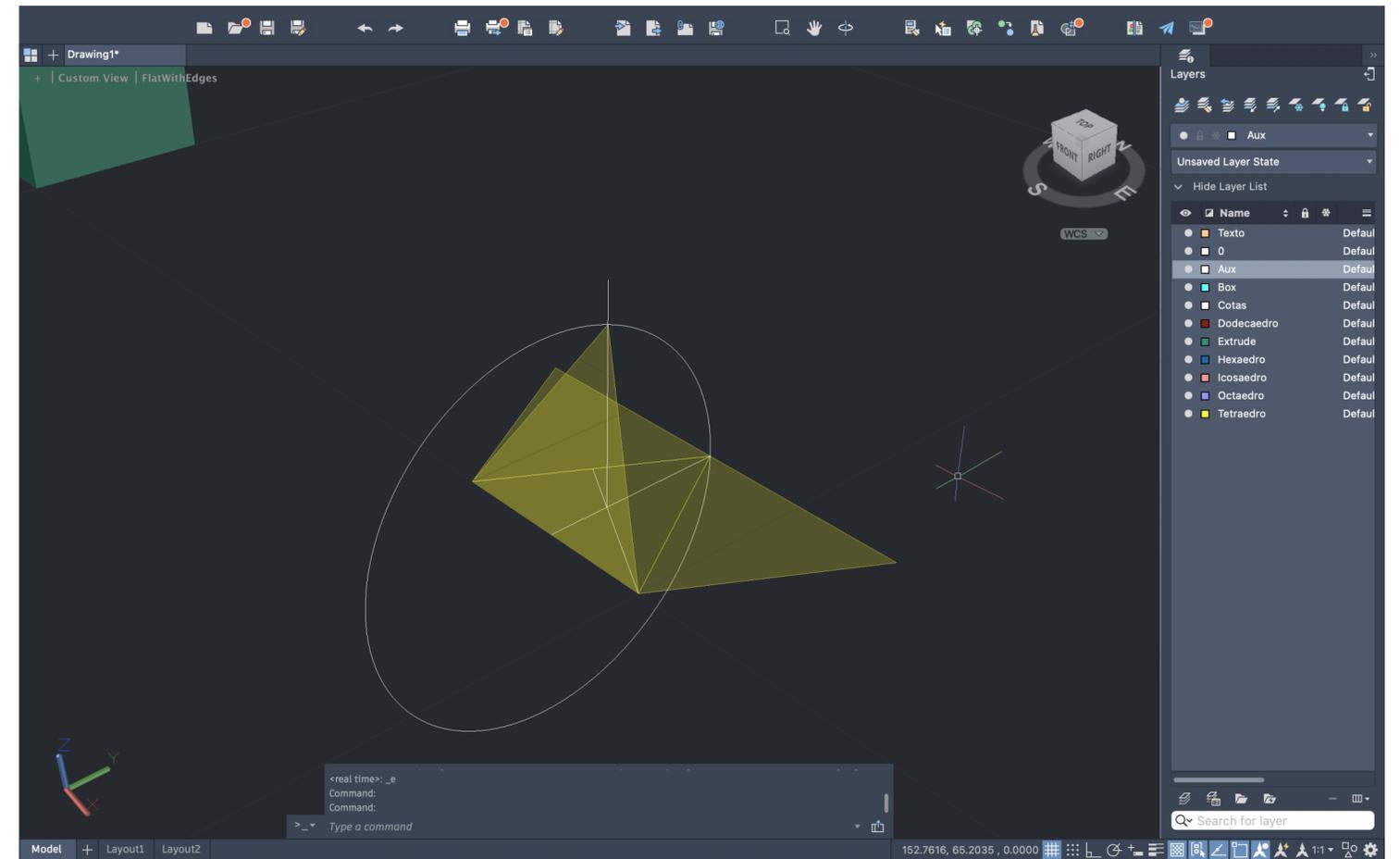
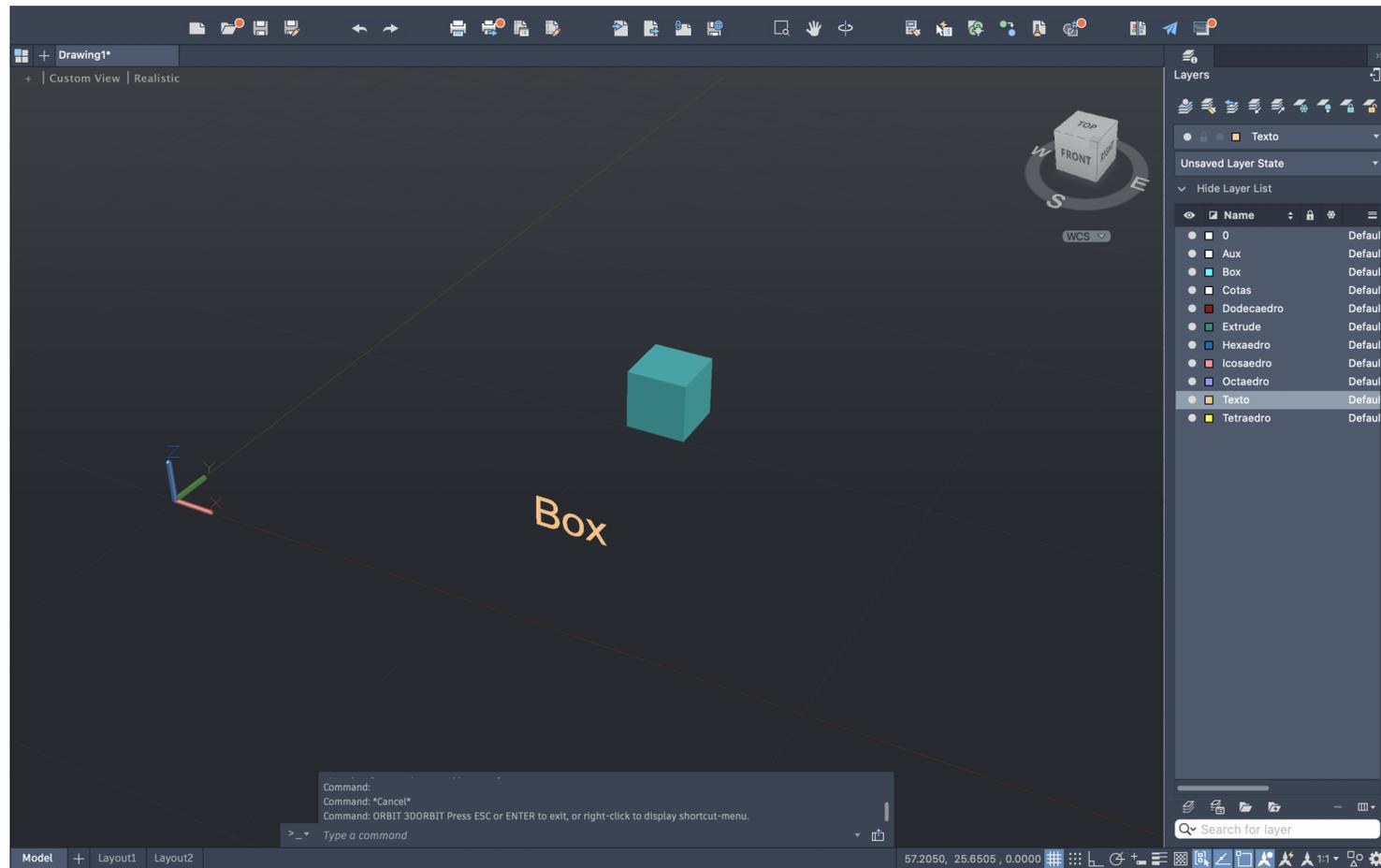
Guggenheim Nova Iorque, do arquiteto Frank Lloyd Wright

## 2ª Entrega (06/04) – Trabalho de Grupo

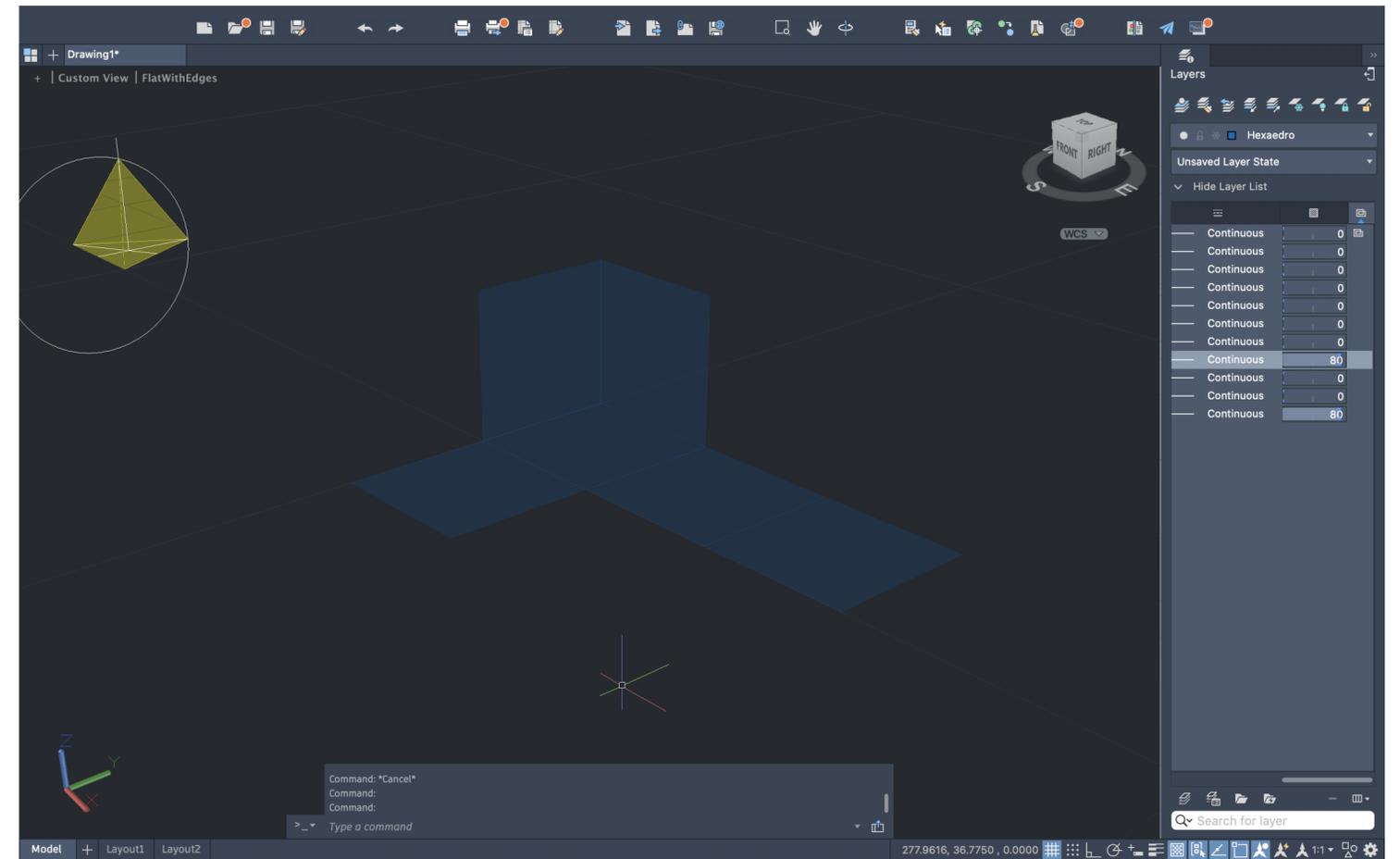
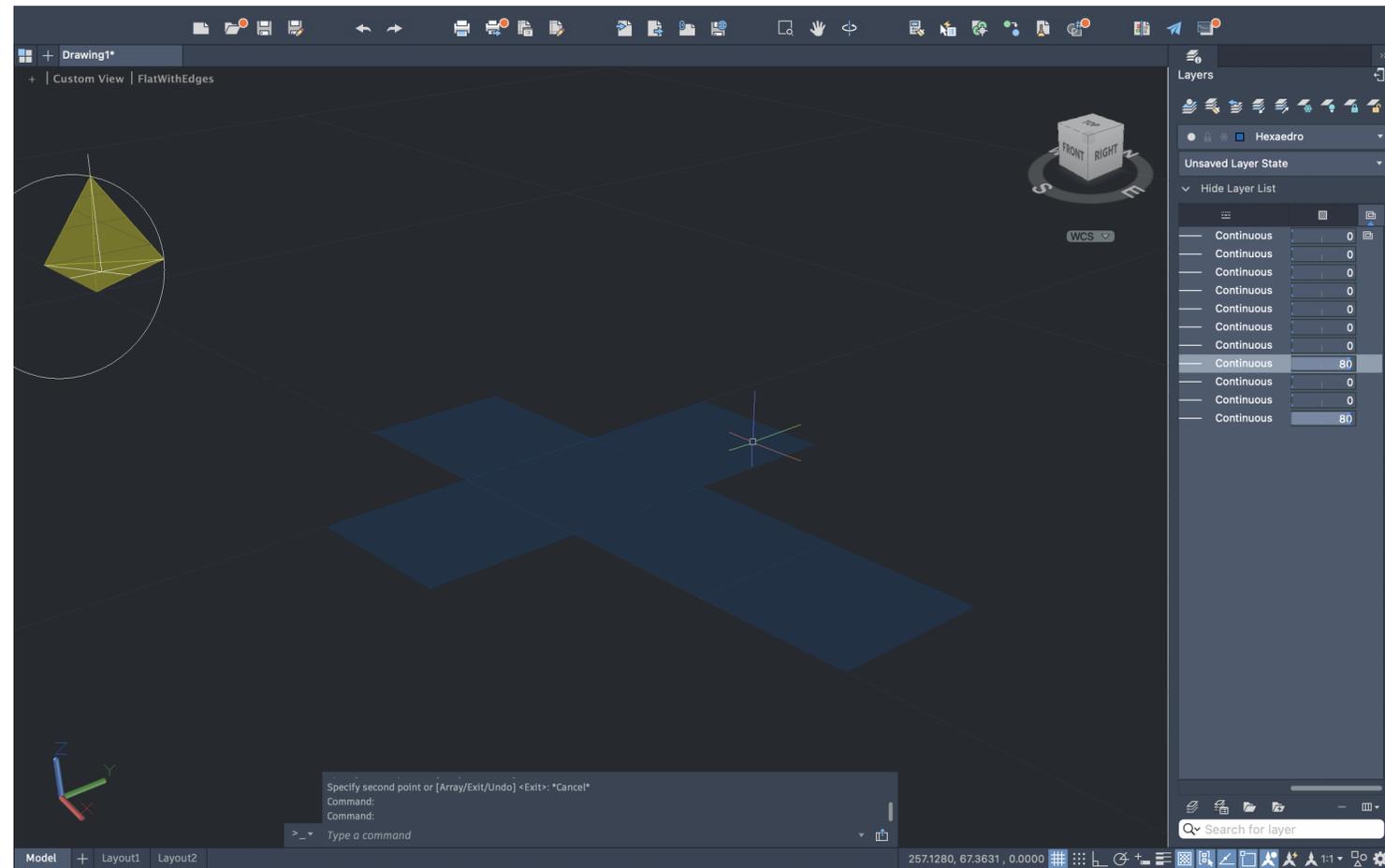
Guggenheim Nova Iorque, do arquiteto Frank Lloyd Wright



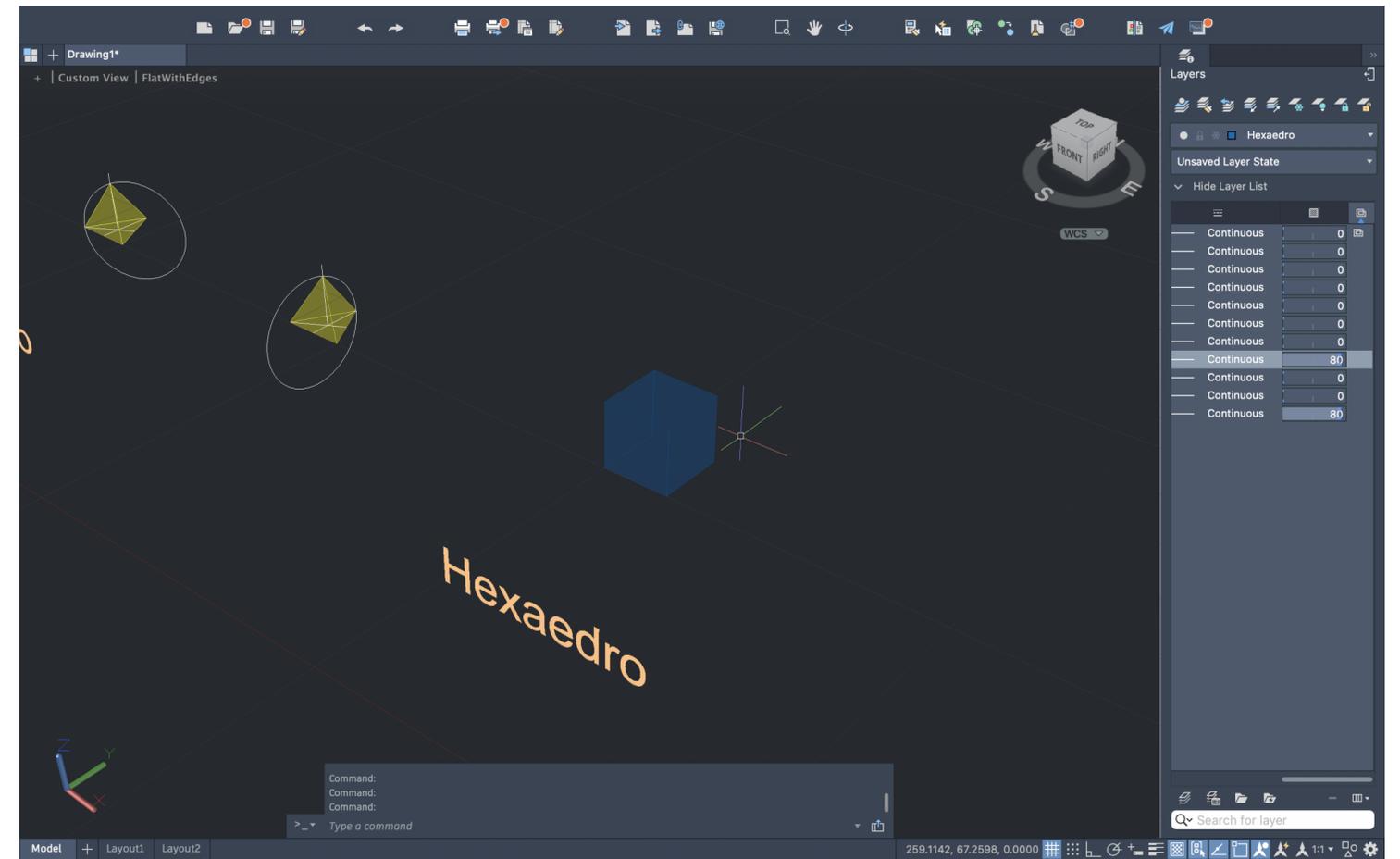
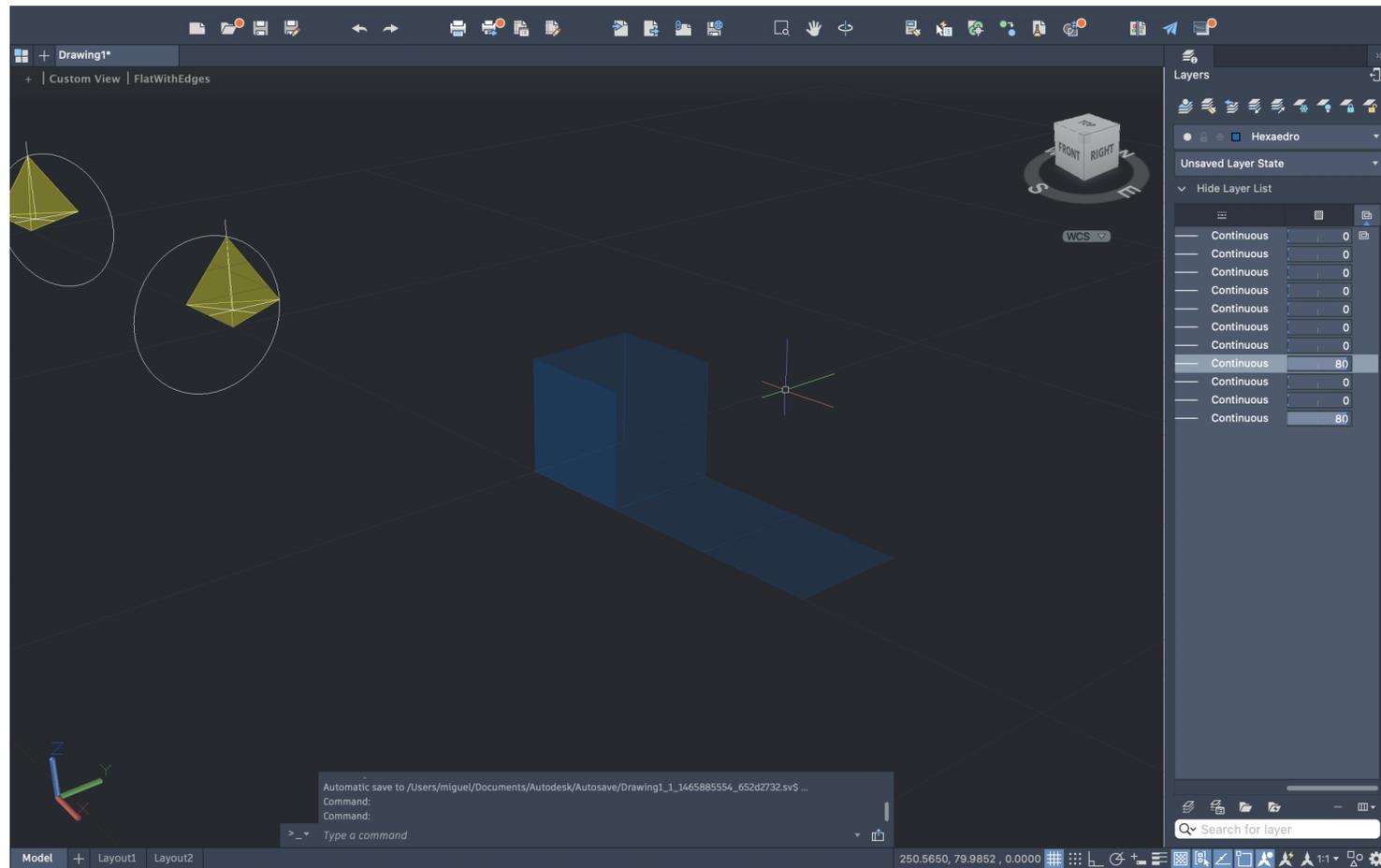
# Exerc. 1.1 - Superfície Parabólica



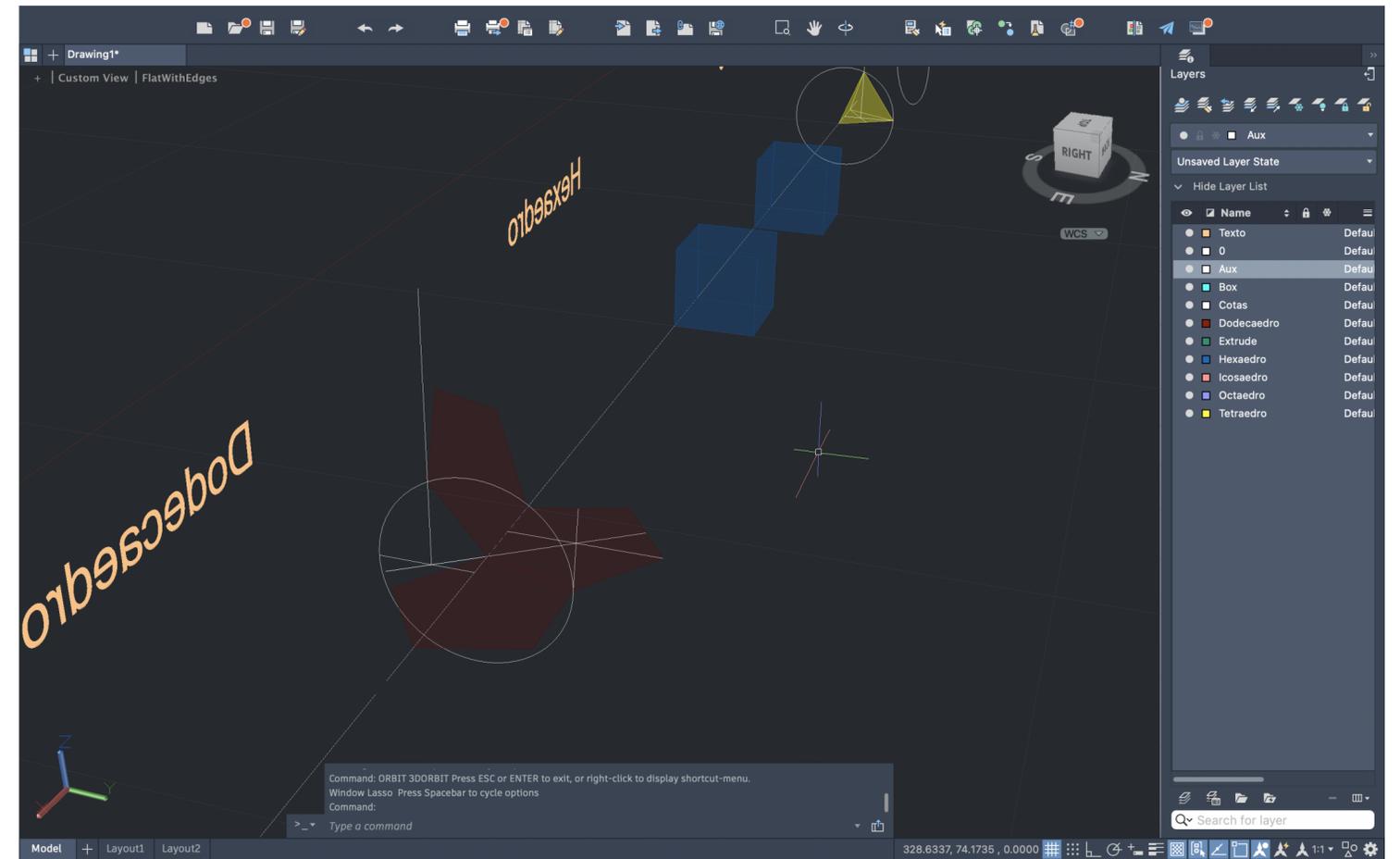
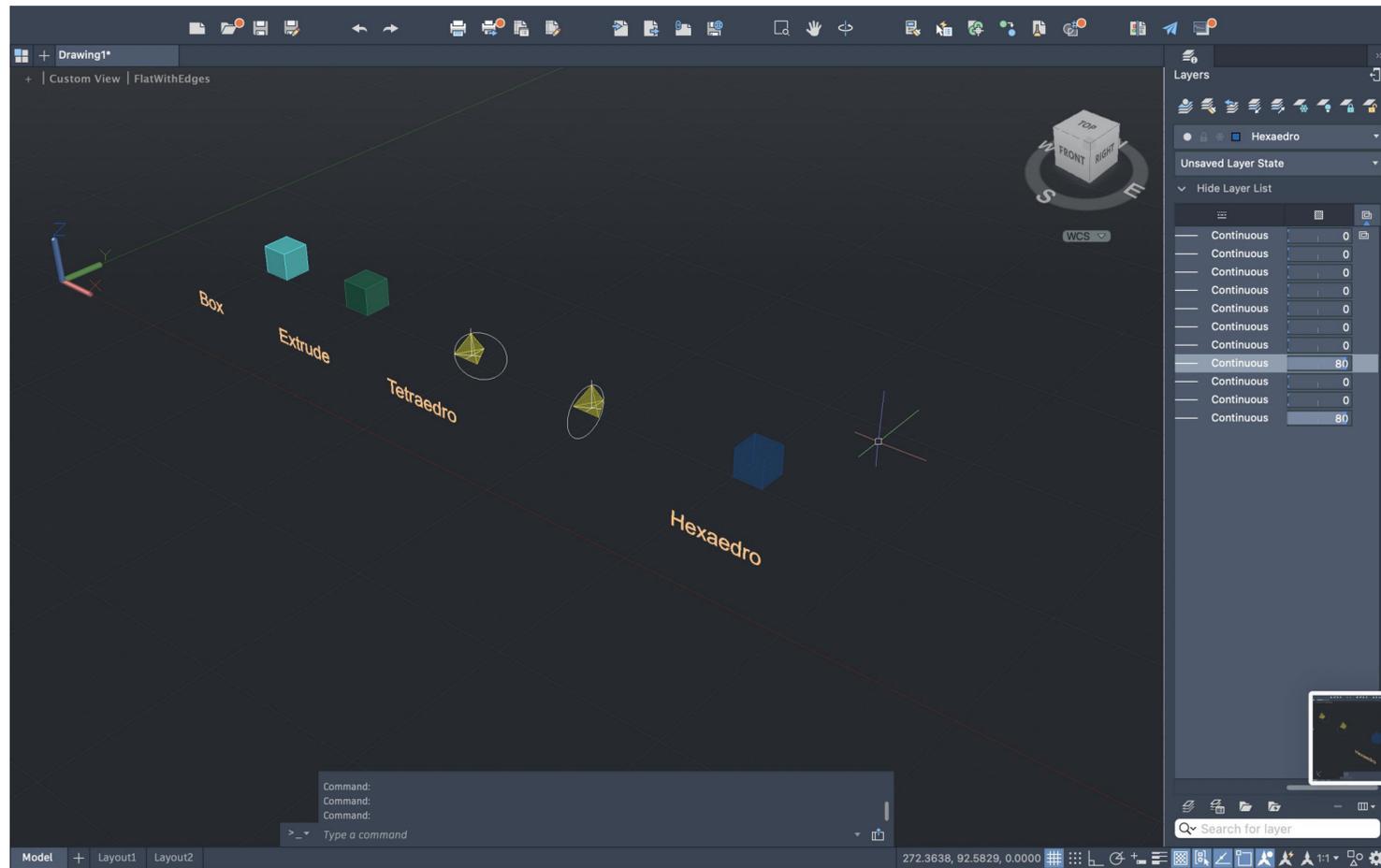
Exerc. 2.1 – Box . 2.2 Tetraedro



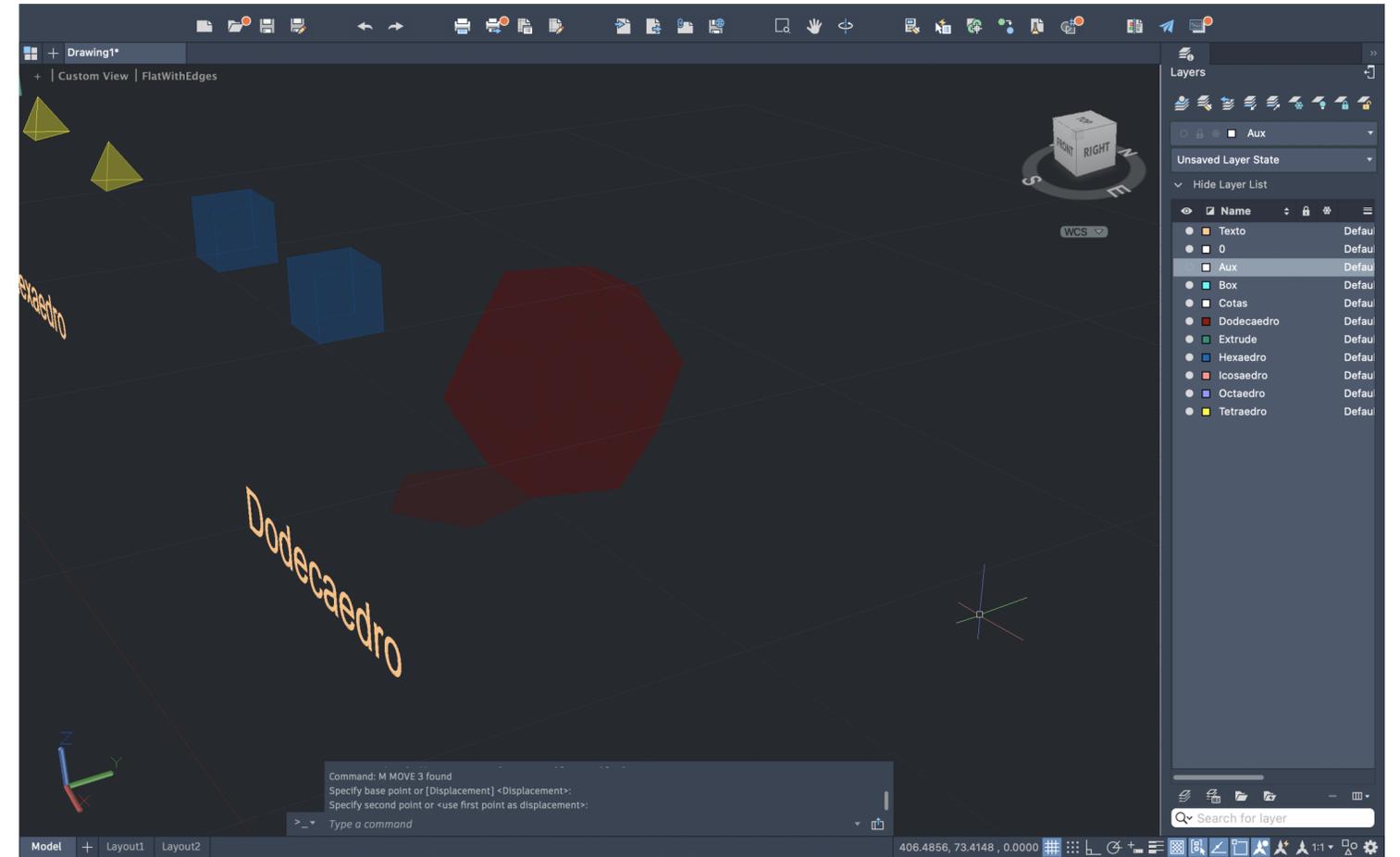
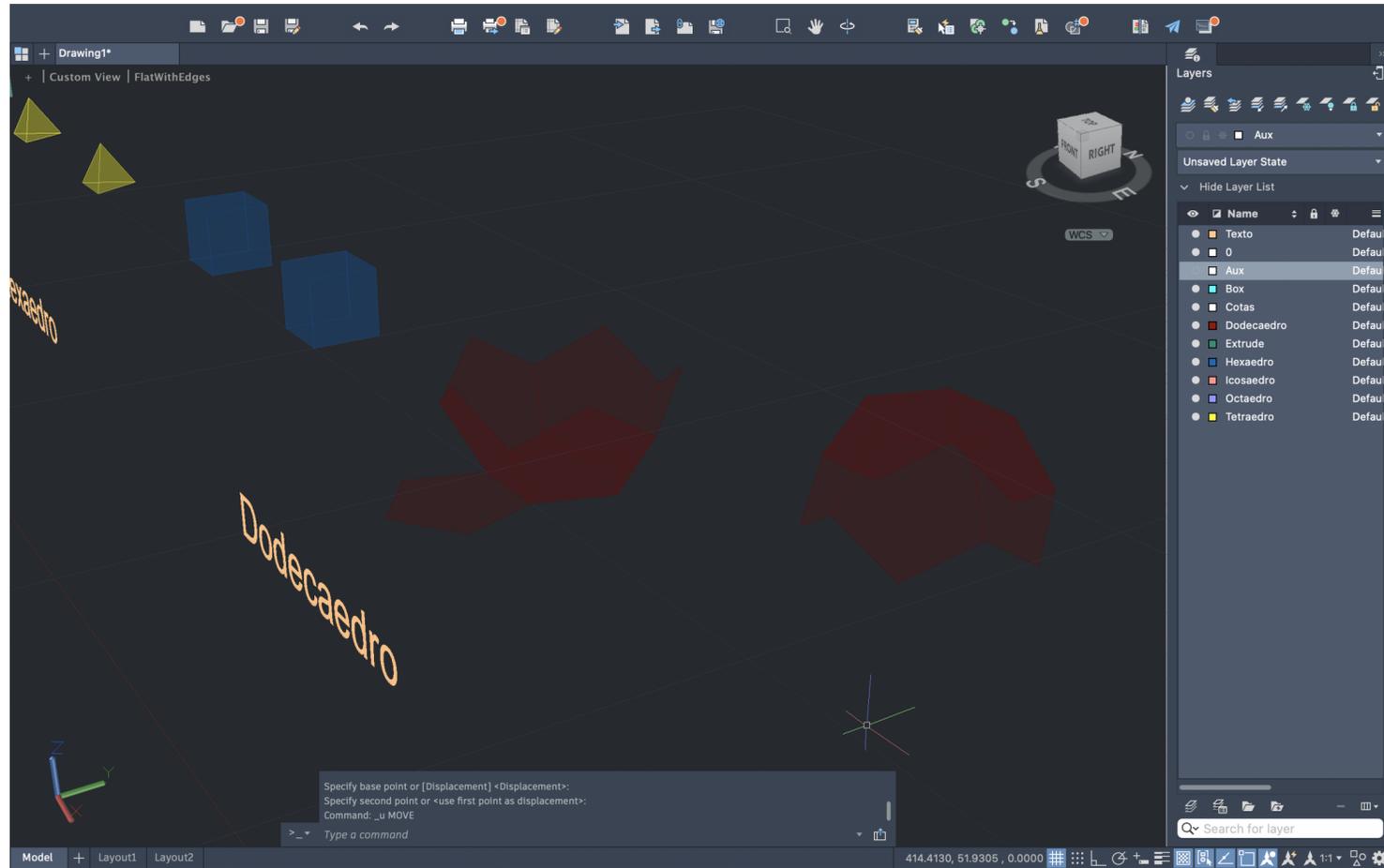
# Exerc. 2.3 – Hexaedro e planificação



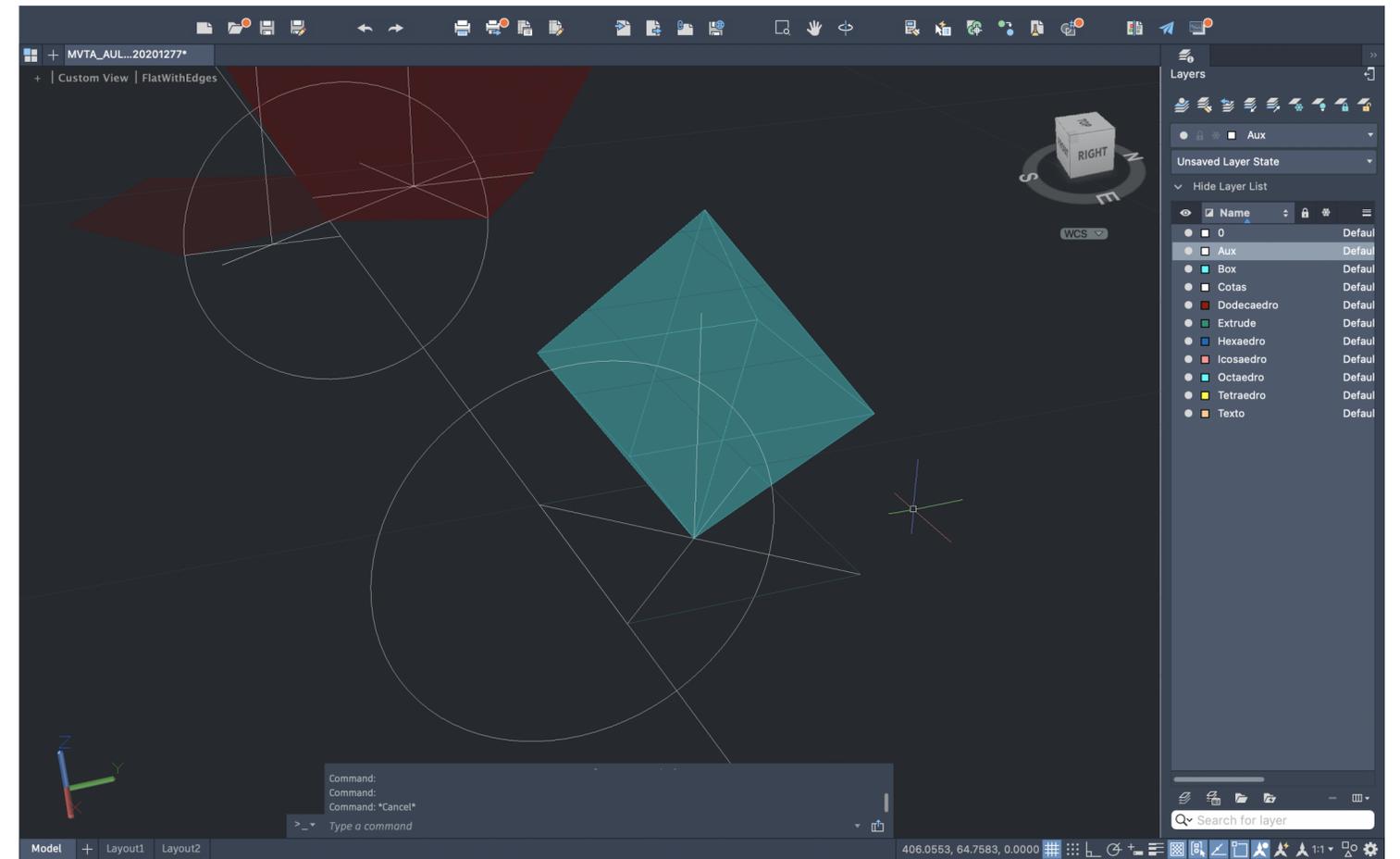
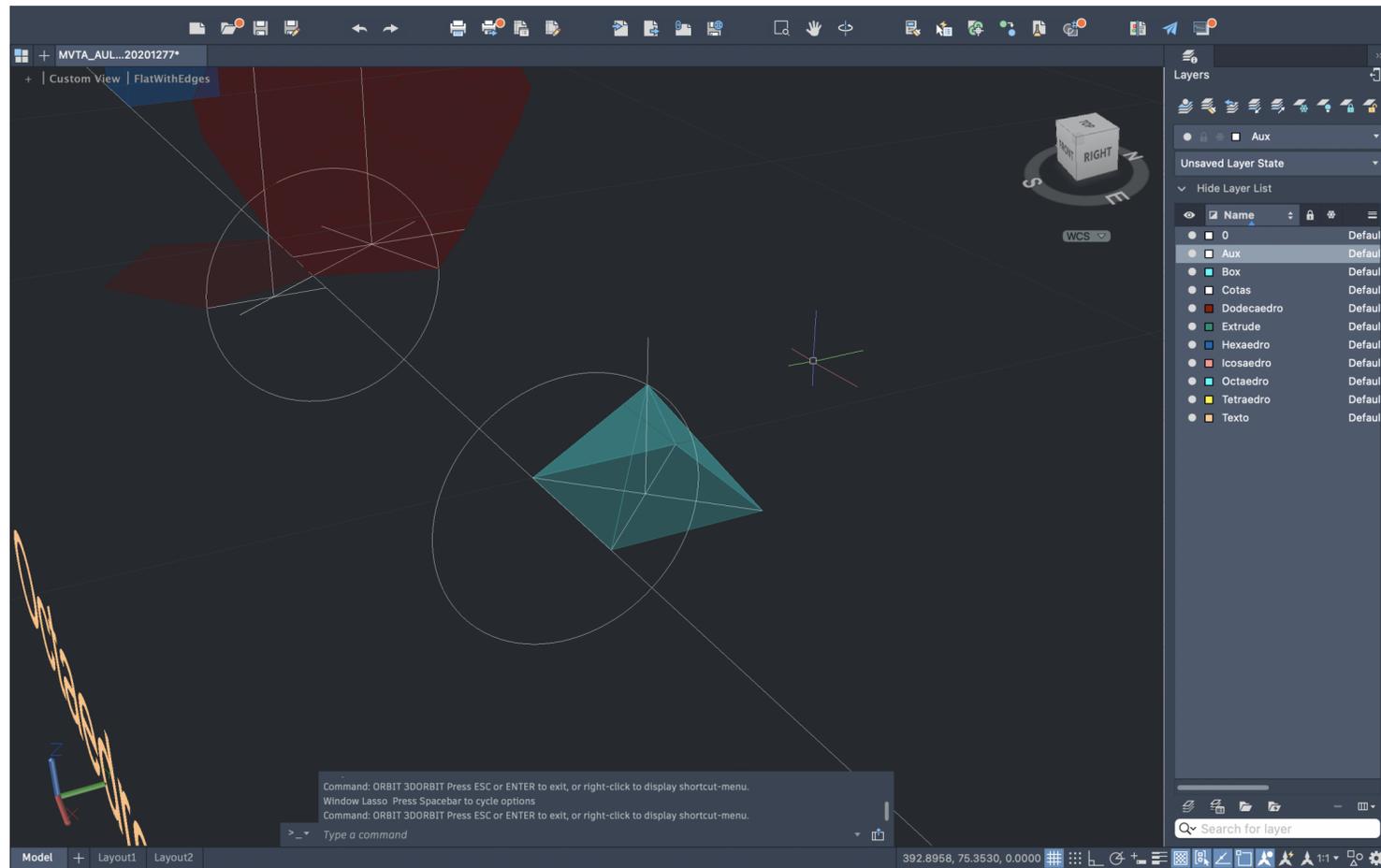
# Exerc. 2.3 – Hexaedro e planificação



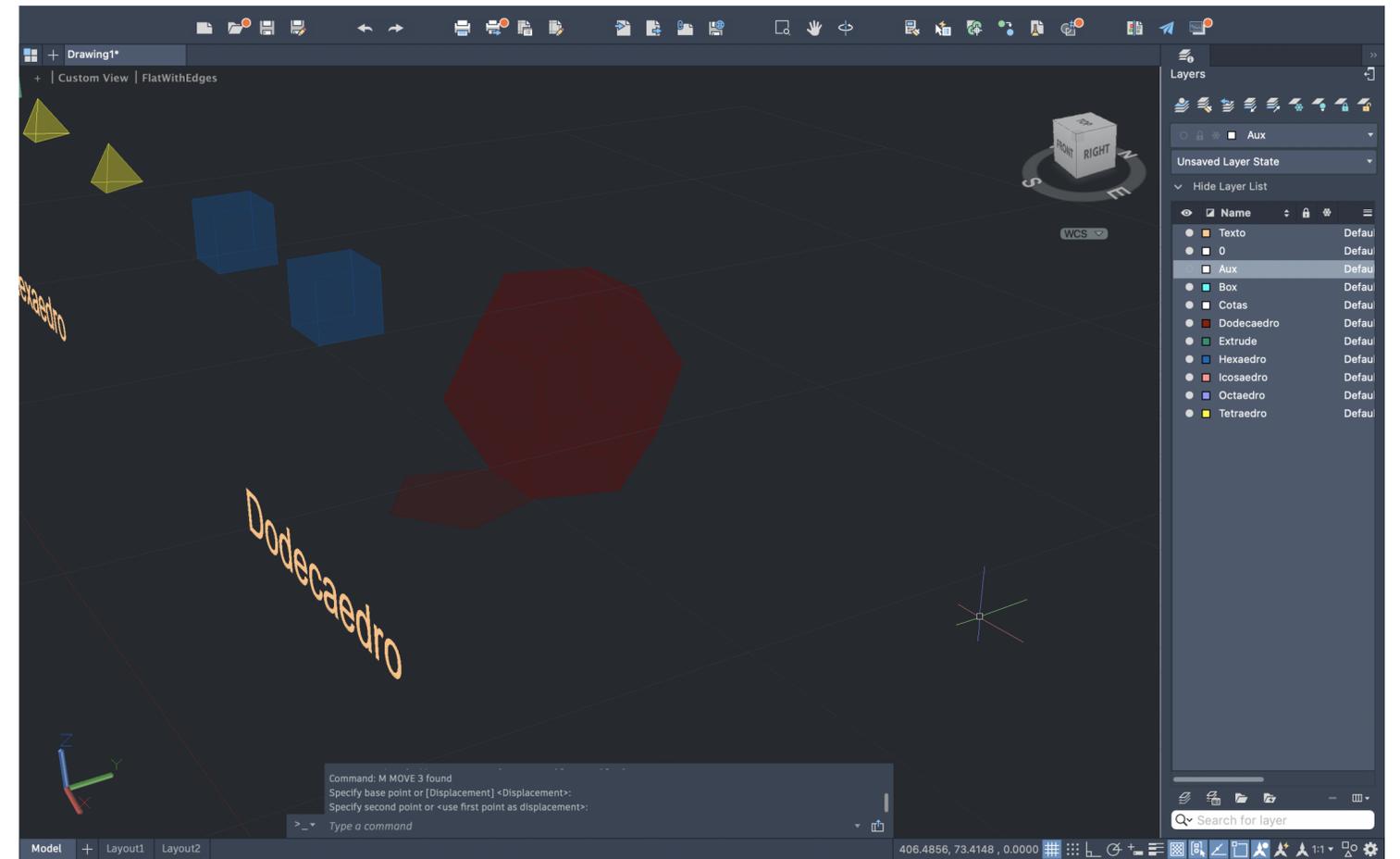
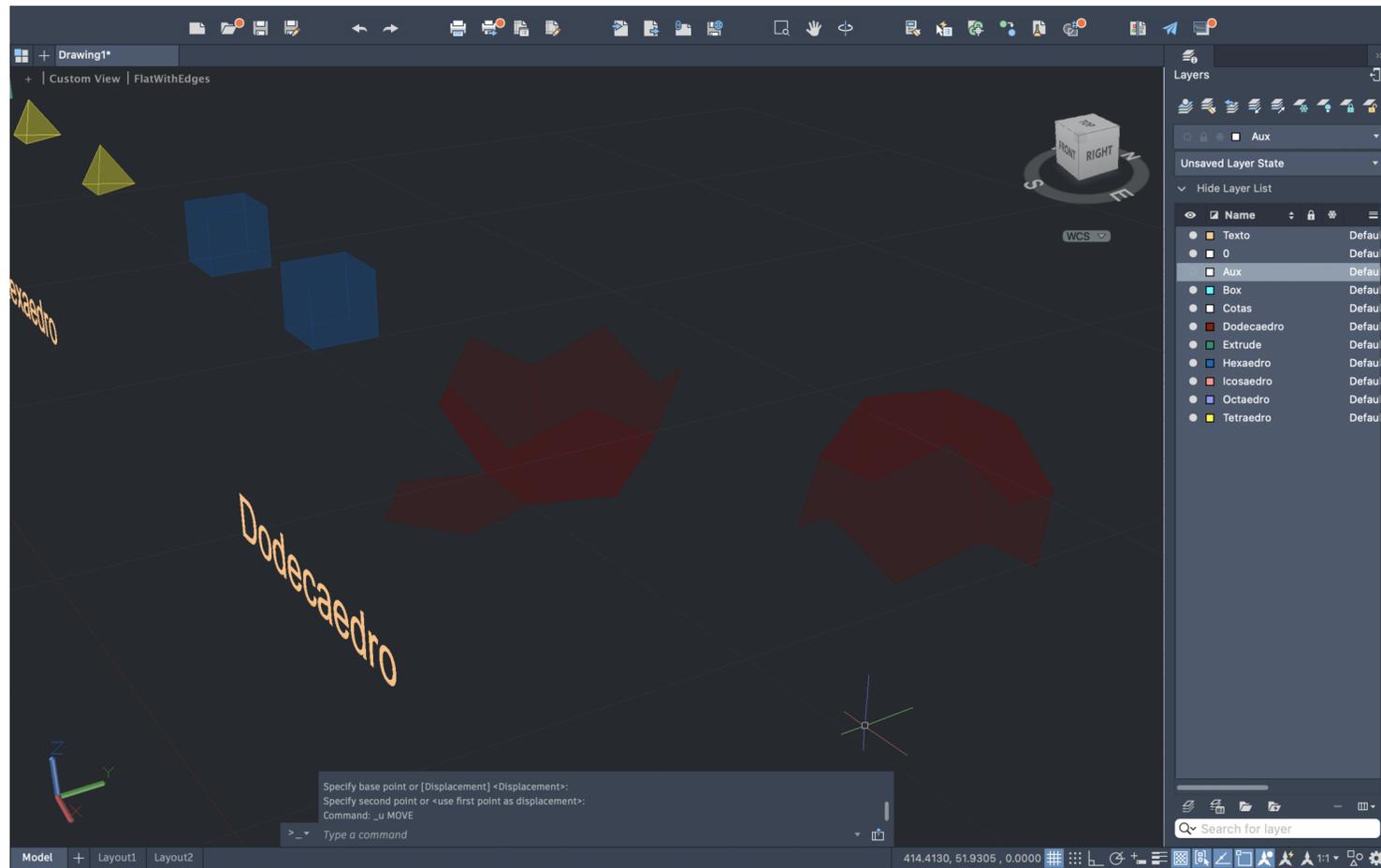
# Exerc. 2.4 – Dodecaedro



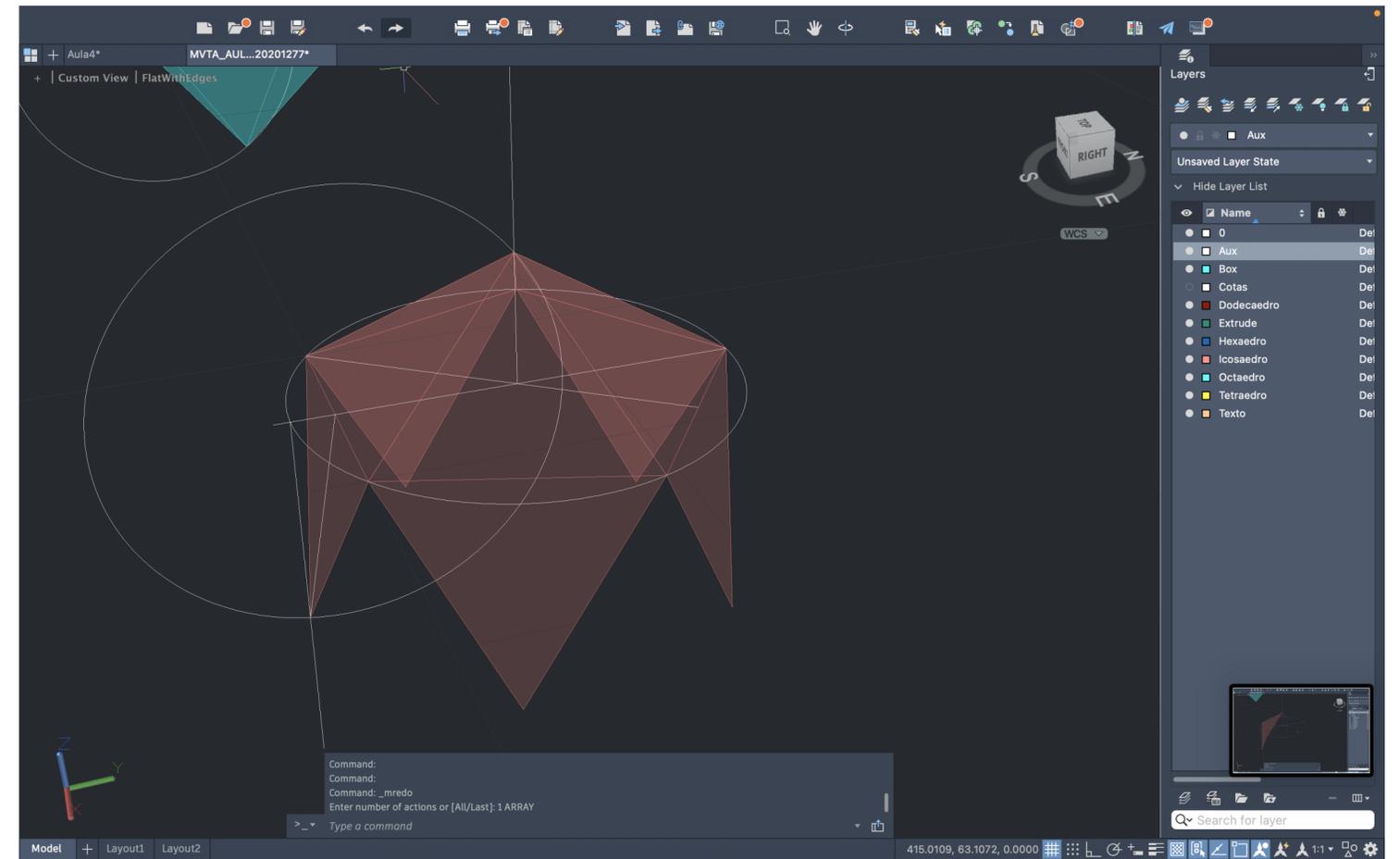
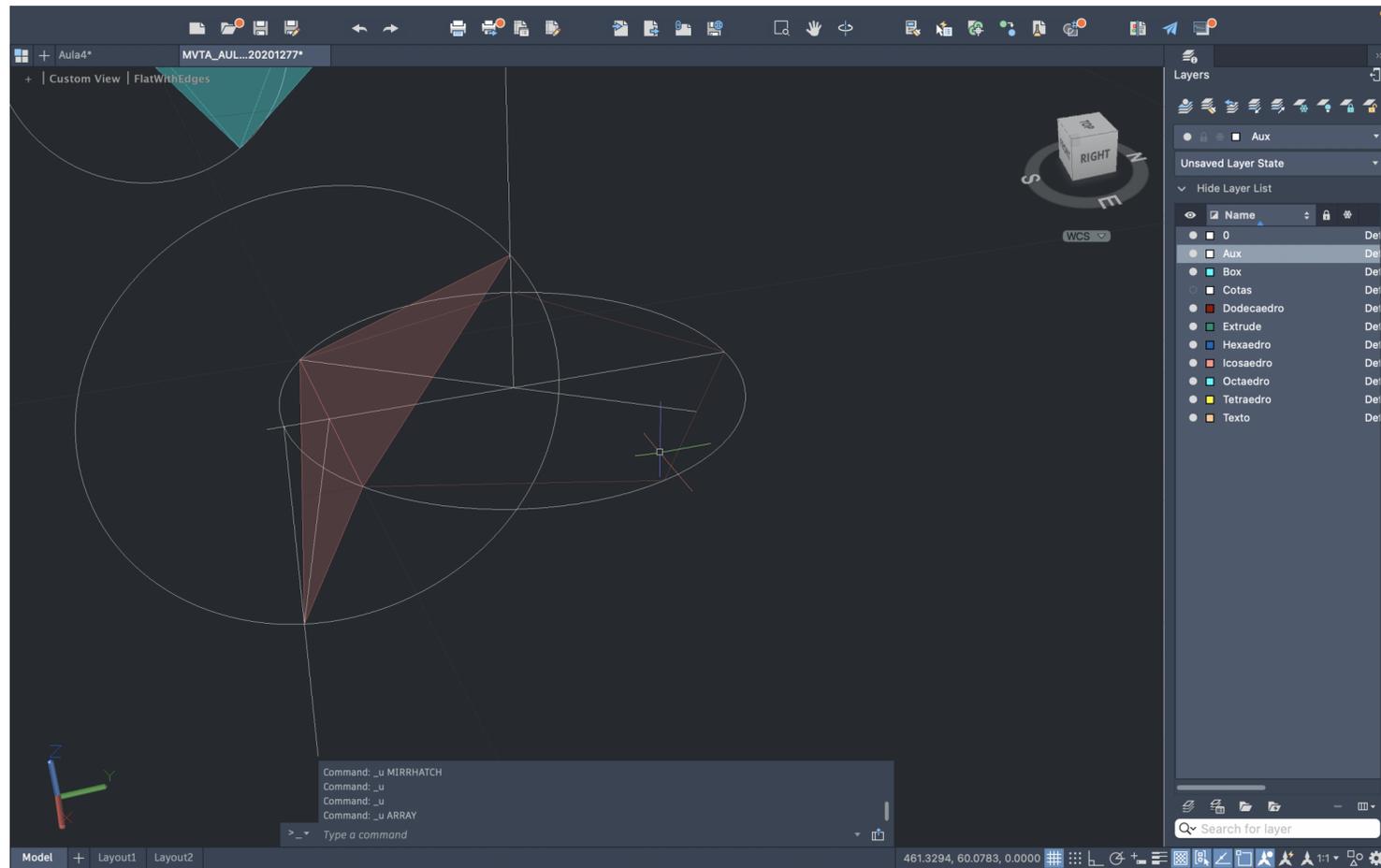
# Exerc. 2.4 – Dodecaedro



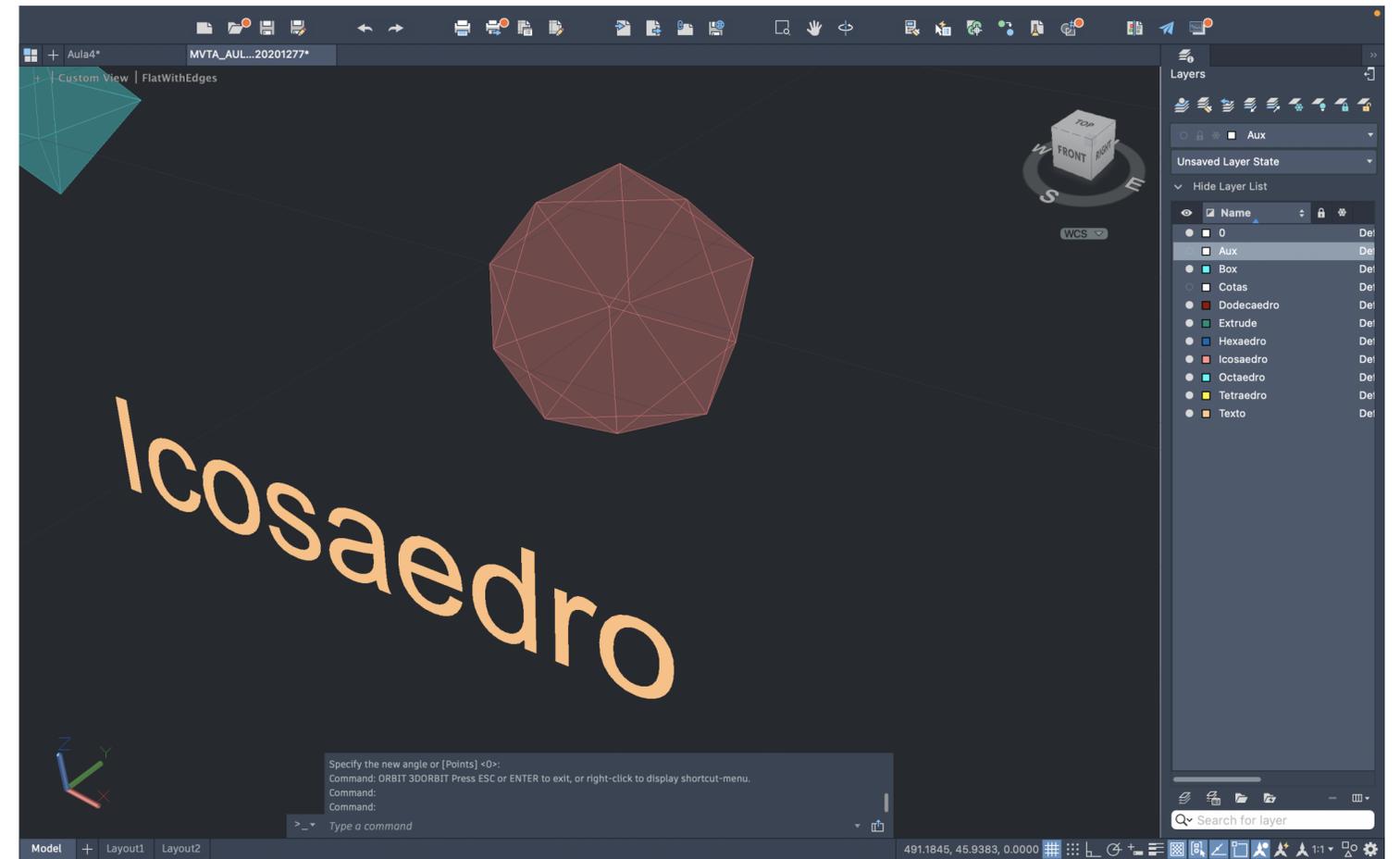
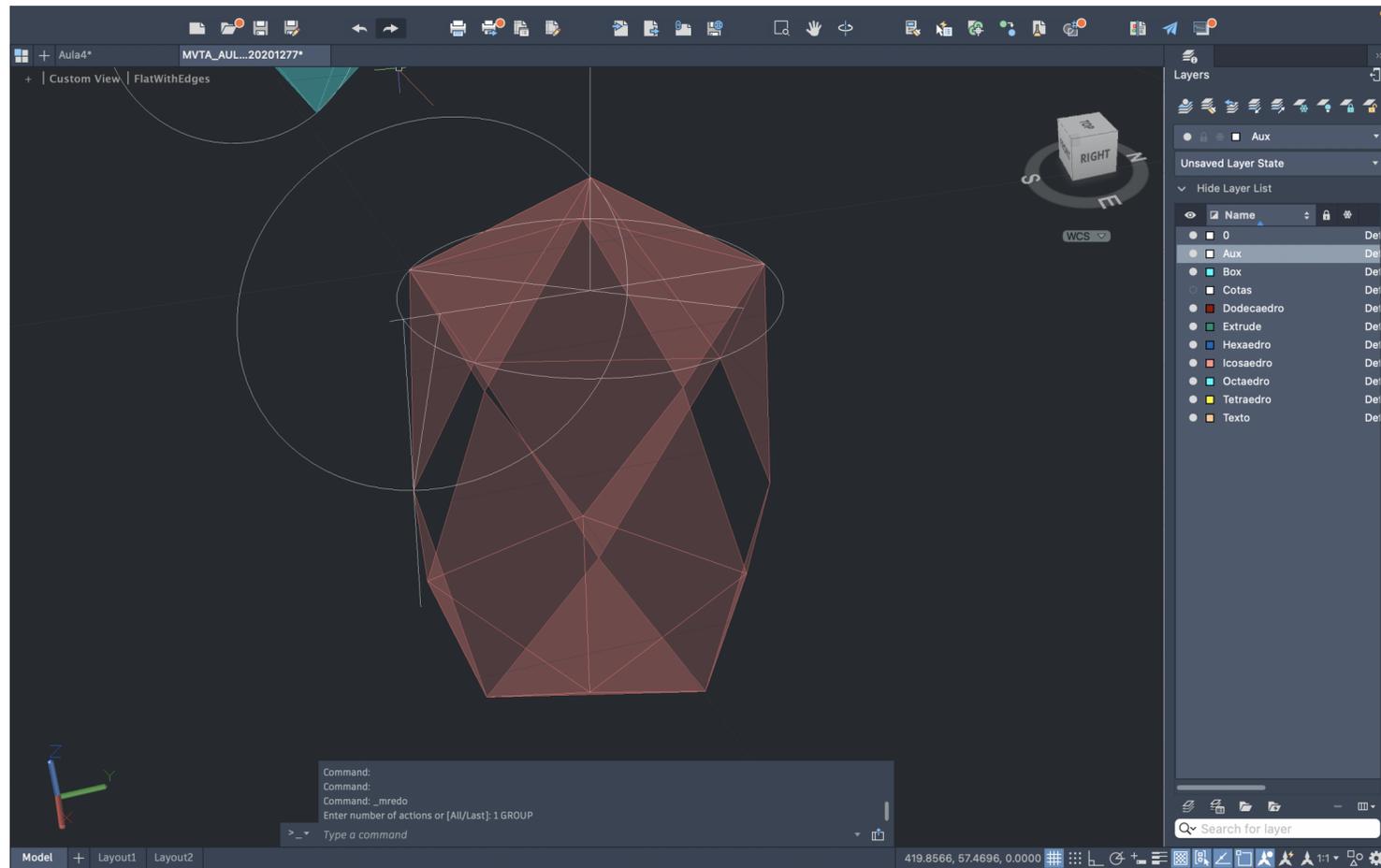
# Exerc. 3.1 – Octaedro



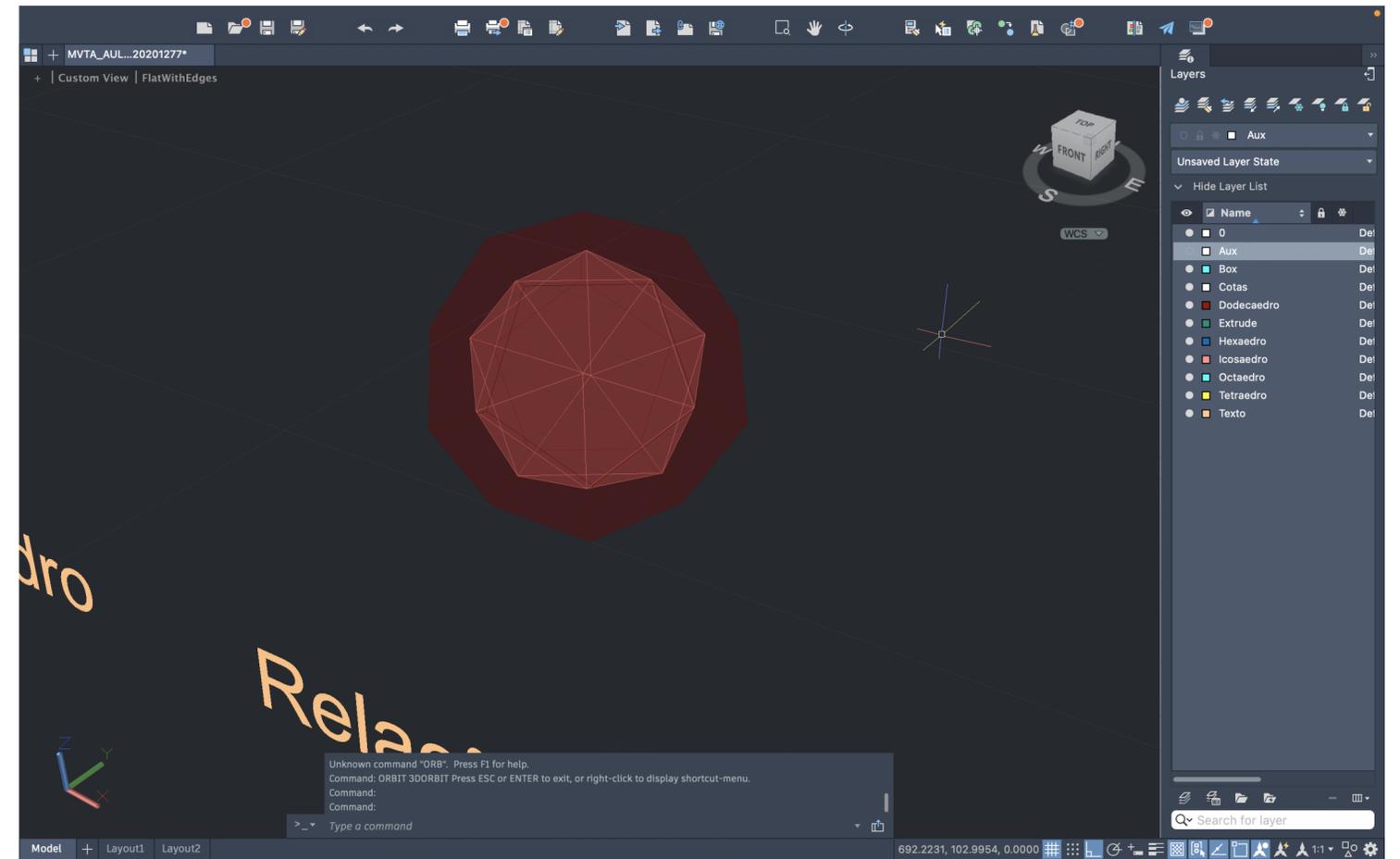
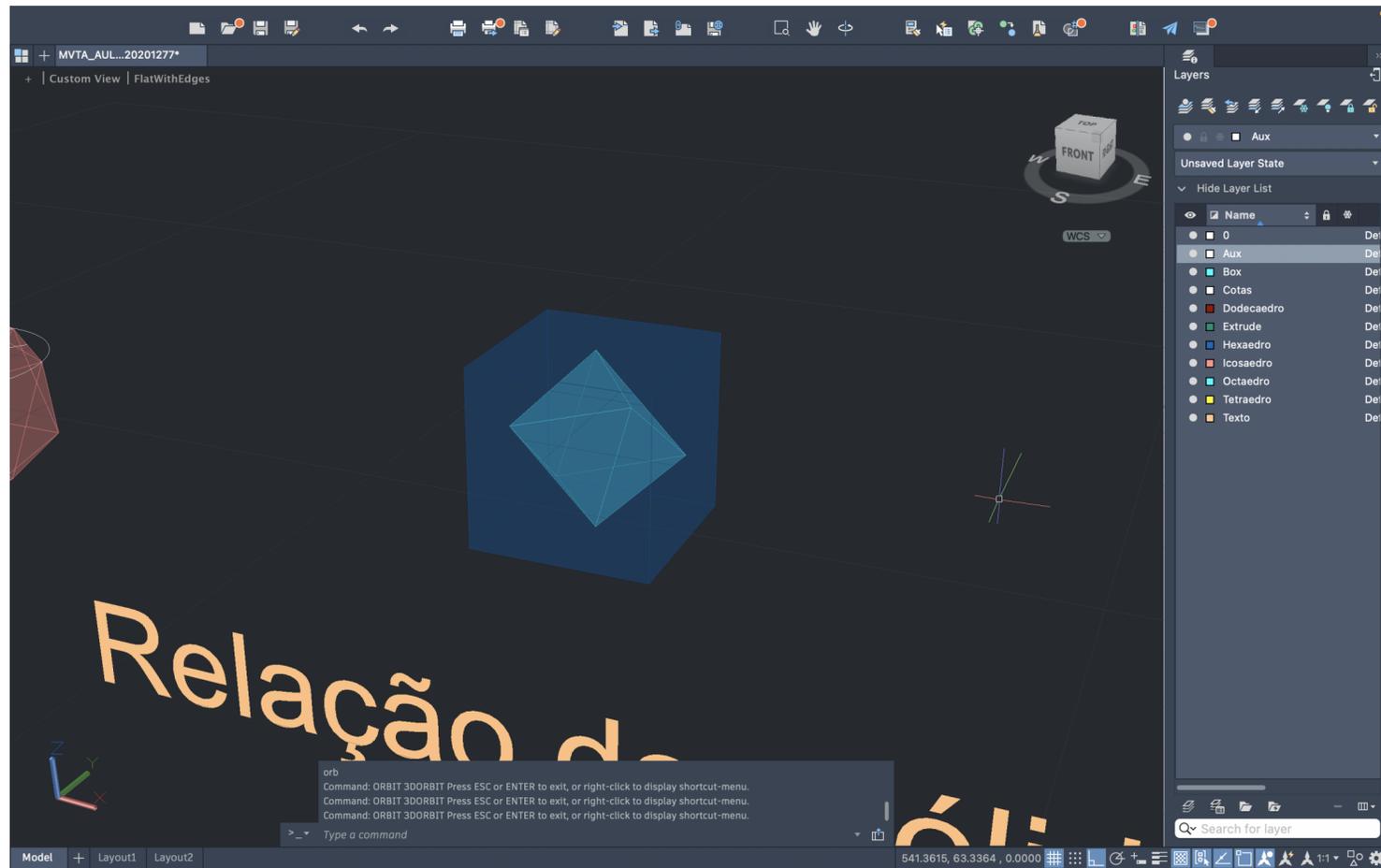
# Exerc. 3.2 – Dodecaaedro



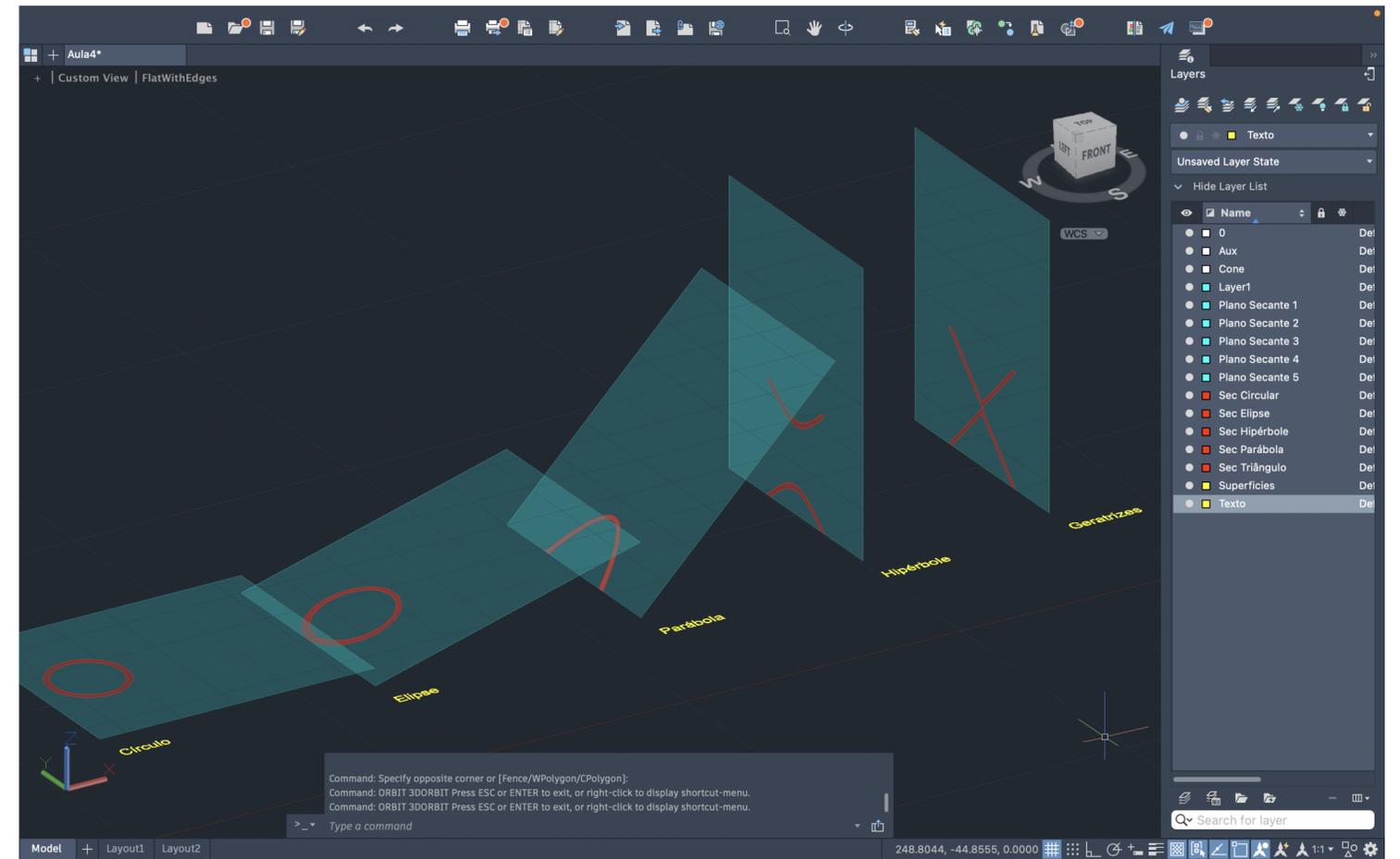
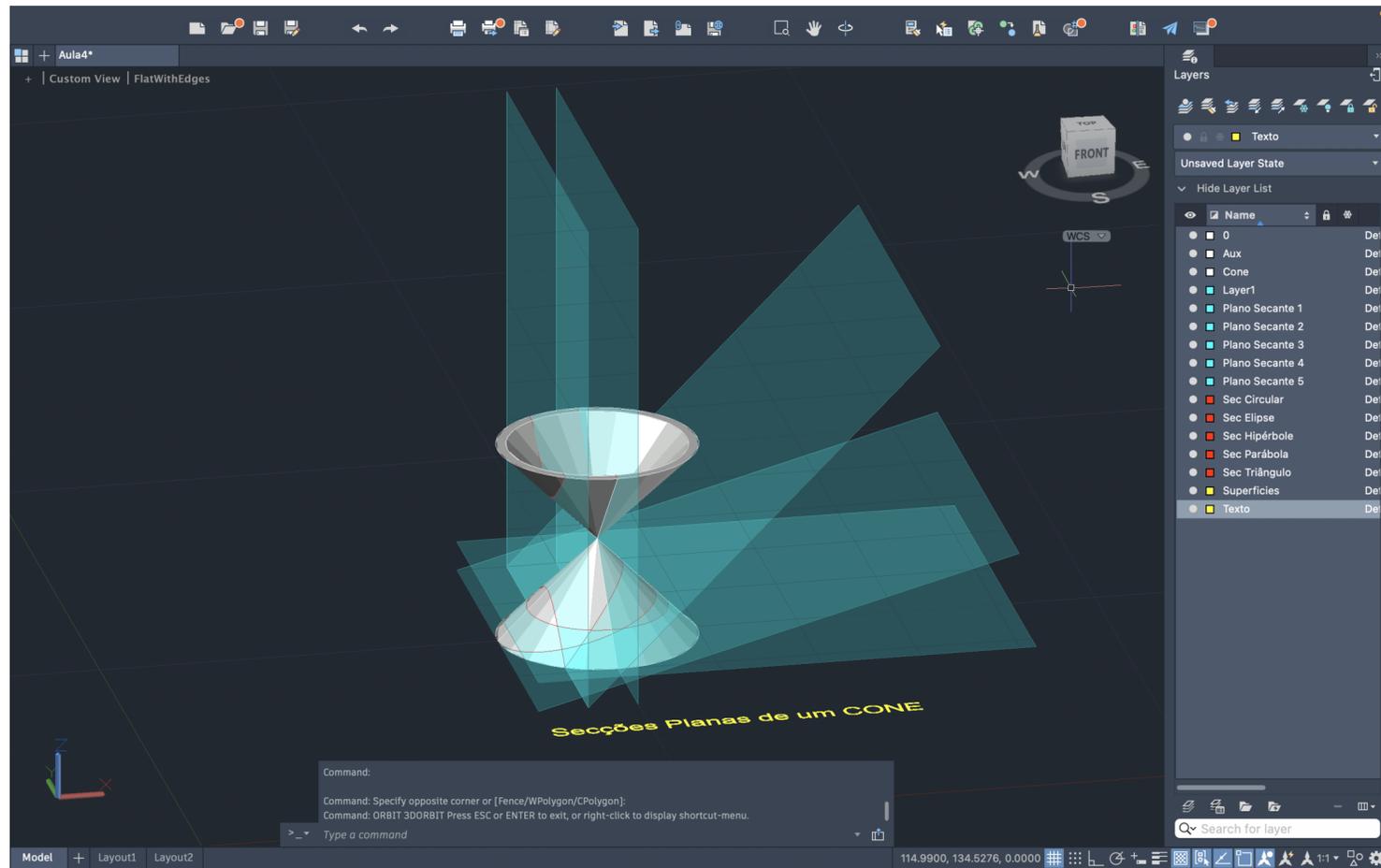
# Exerc. 3.3 – Icosaedro



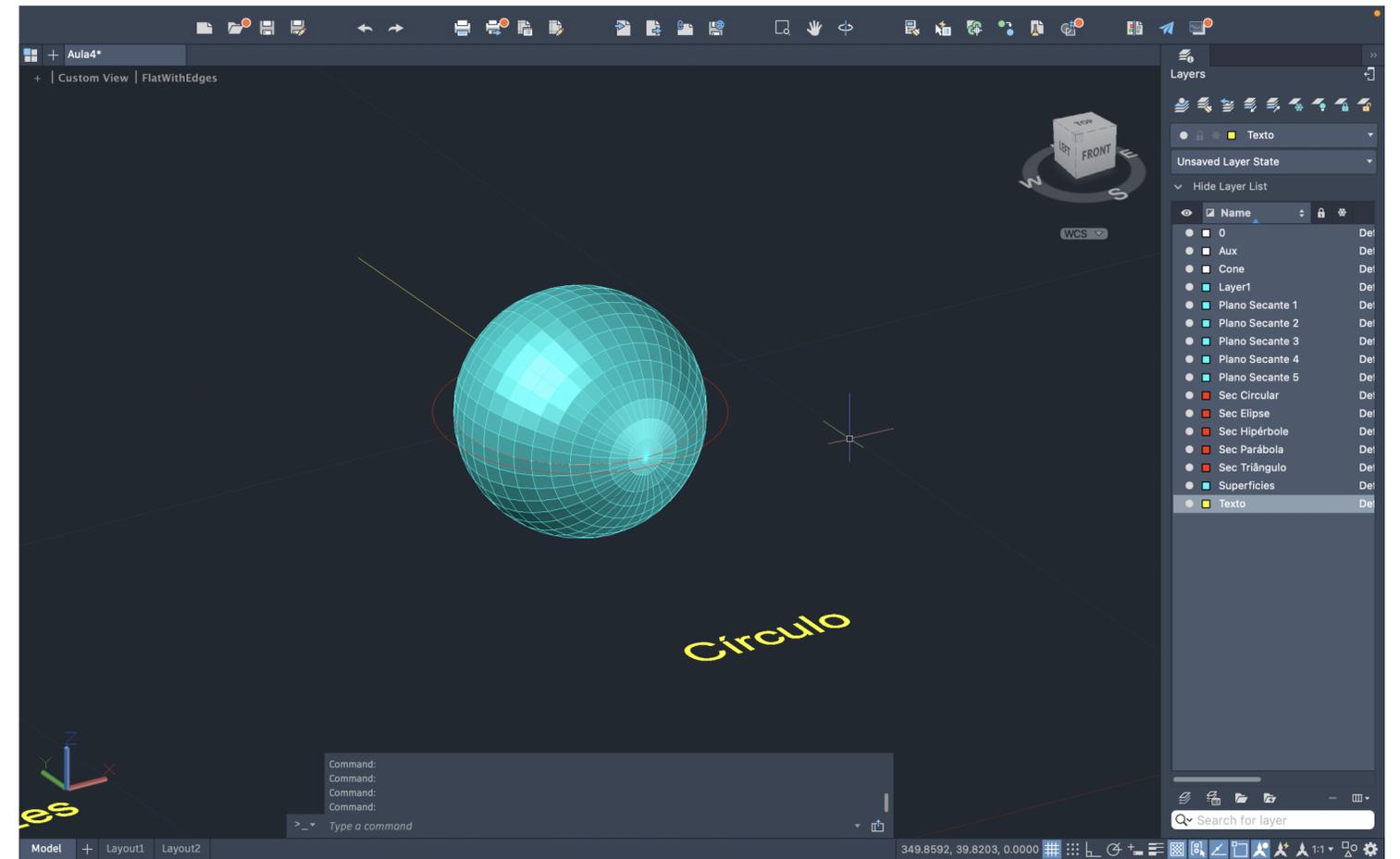
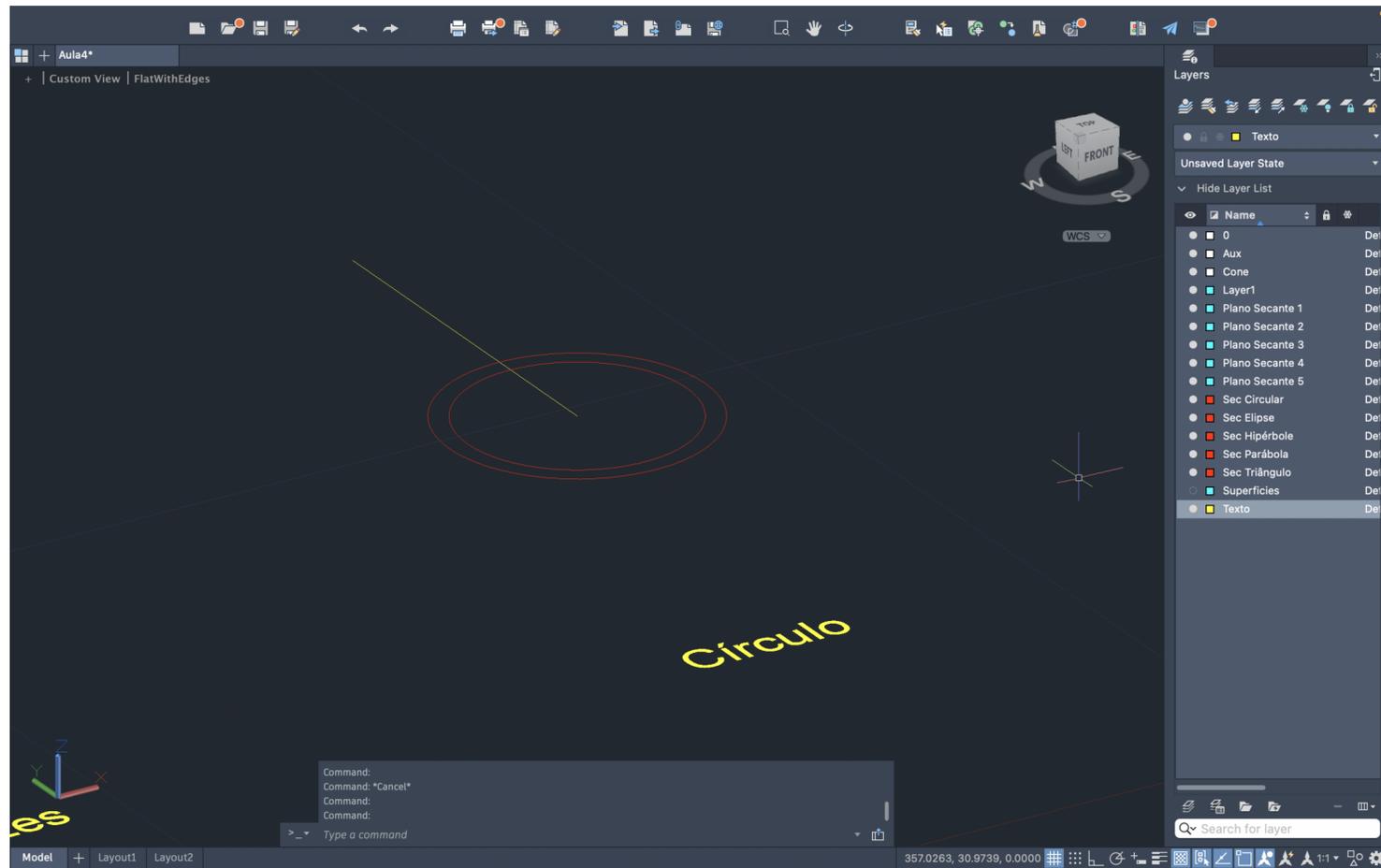
# Exerc. 3.3 – Icosaedro



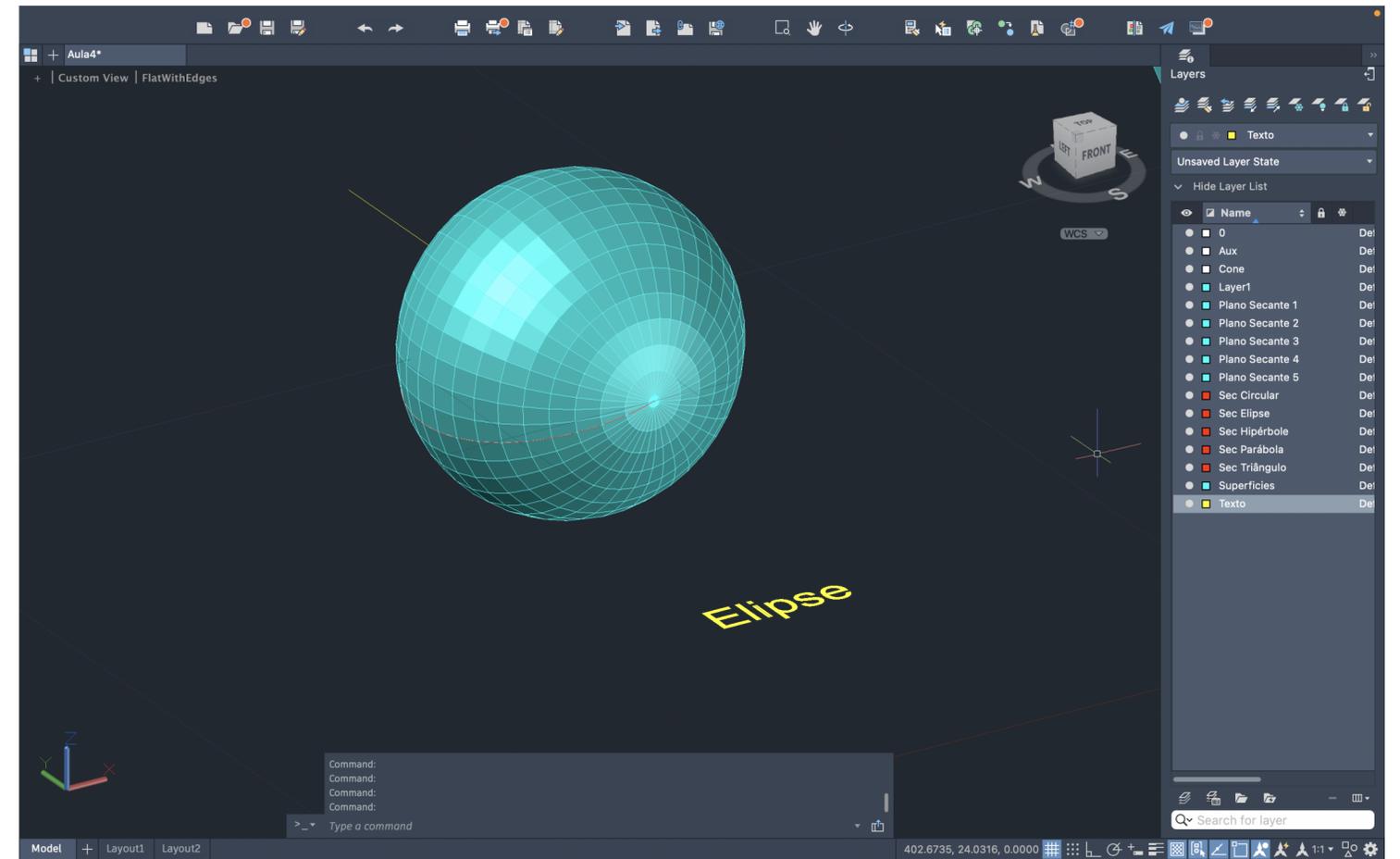
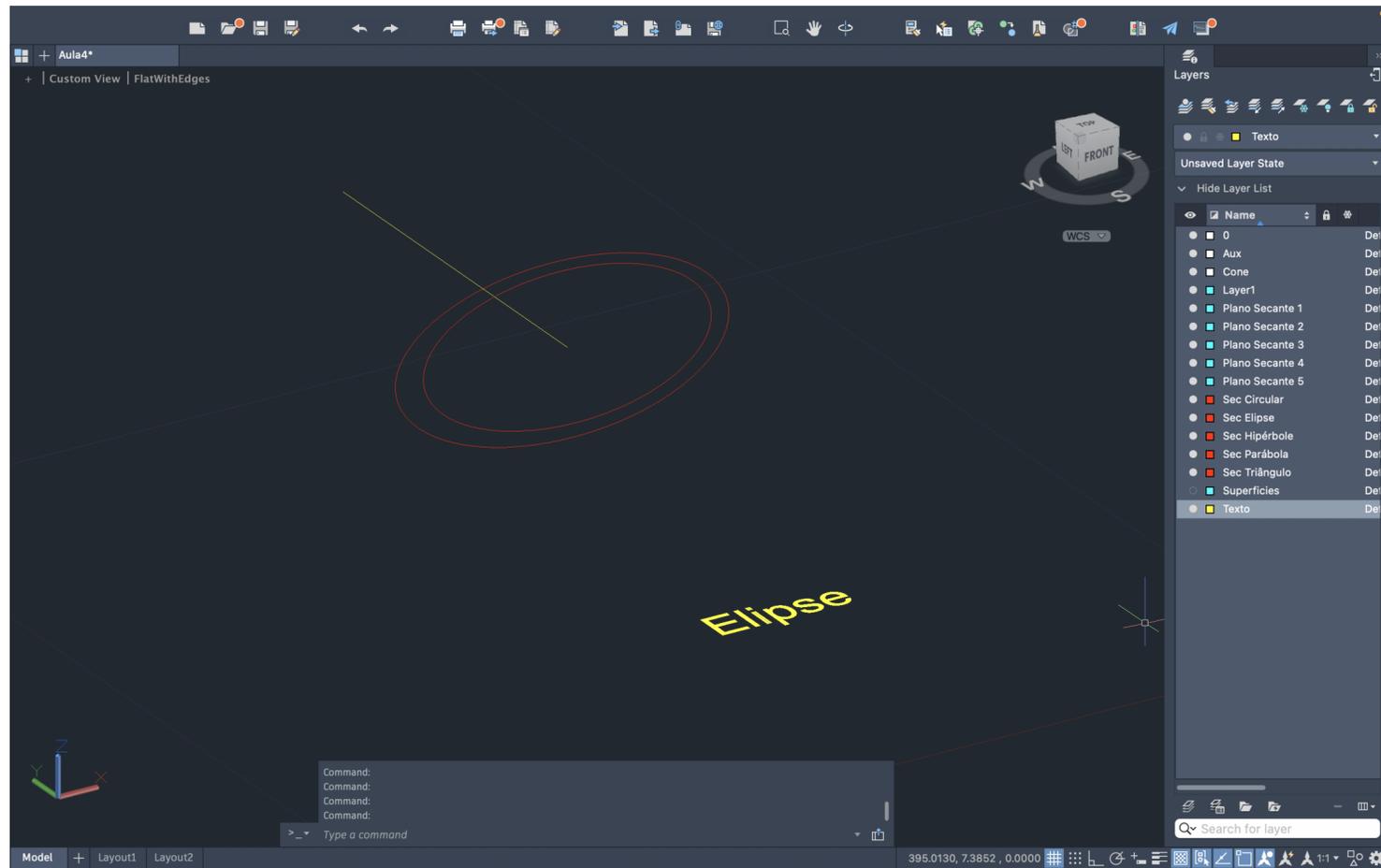
# Exerc. 3.4 – Relação entre Sólidos Platônicos



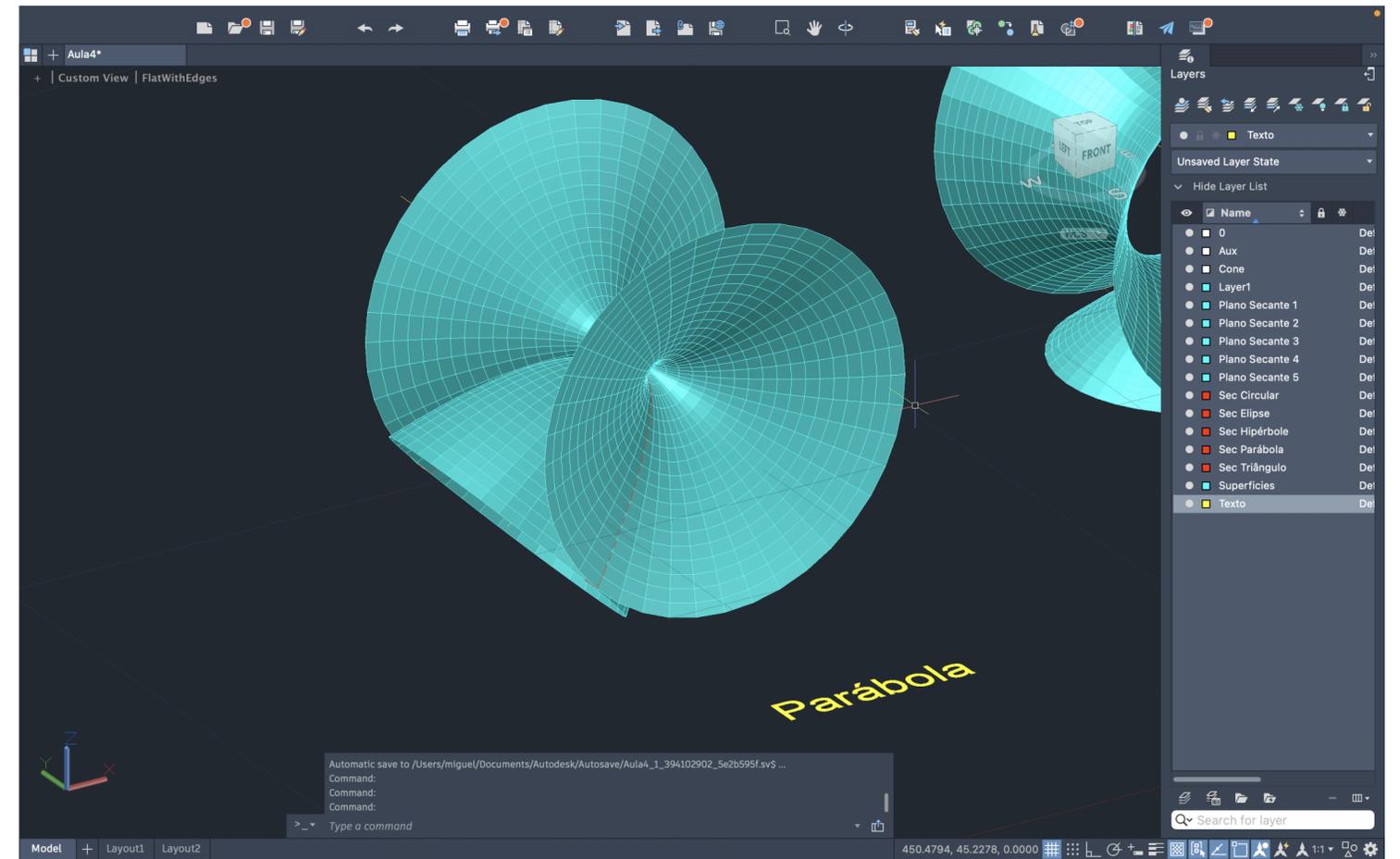
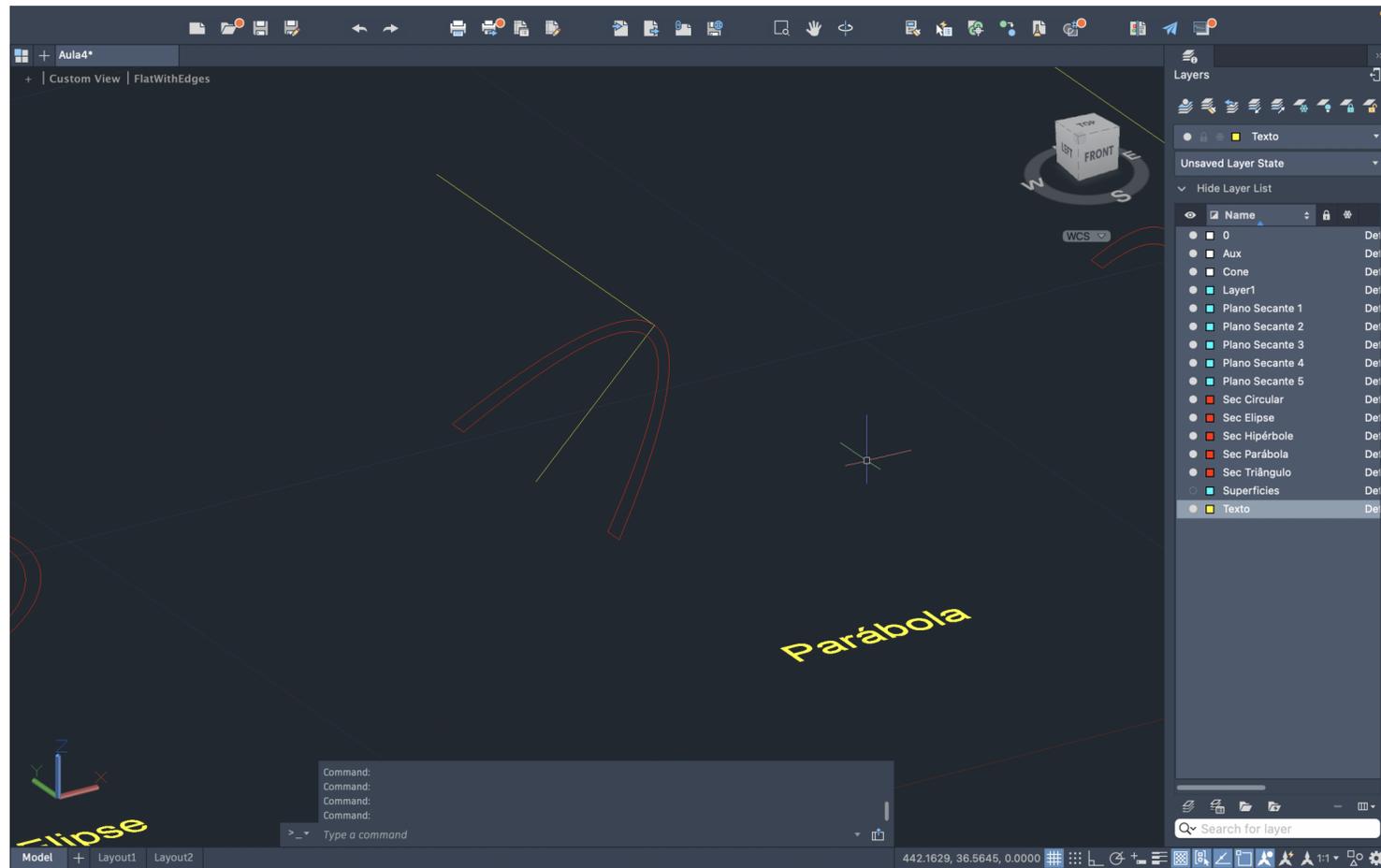
# Exerc. 4.1 – Secções Planas de um Cone



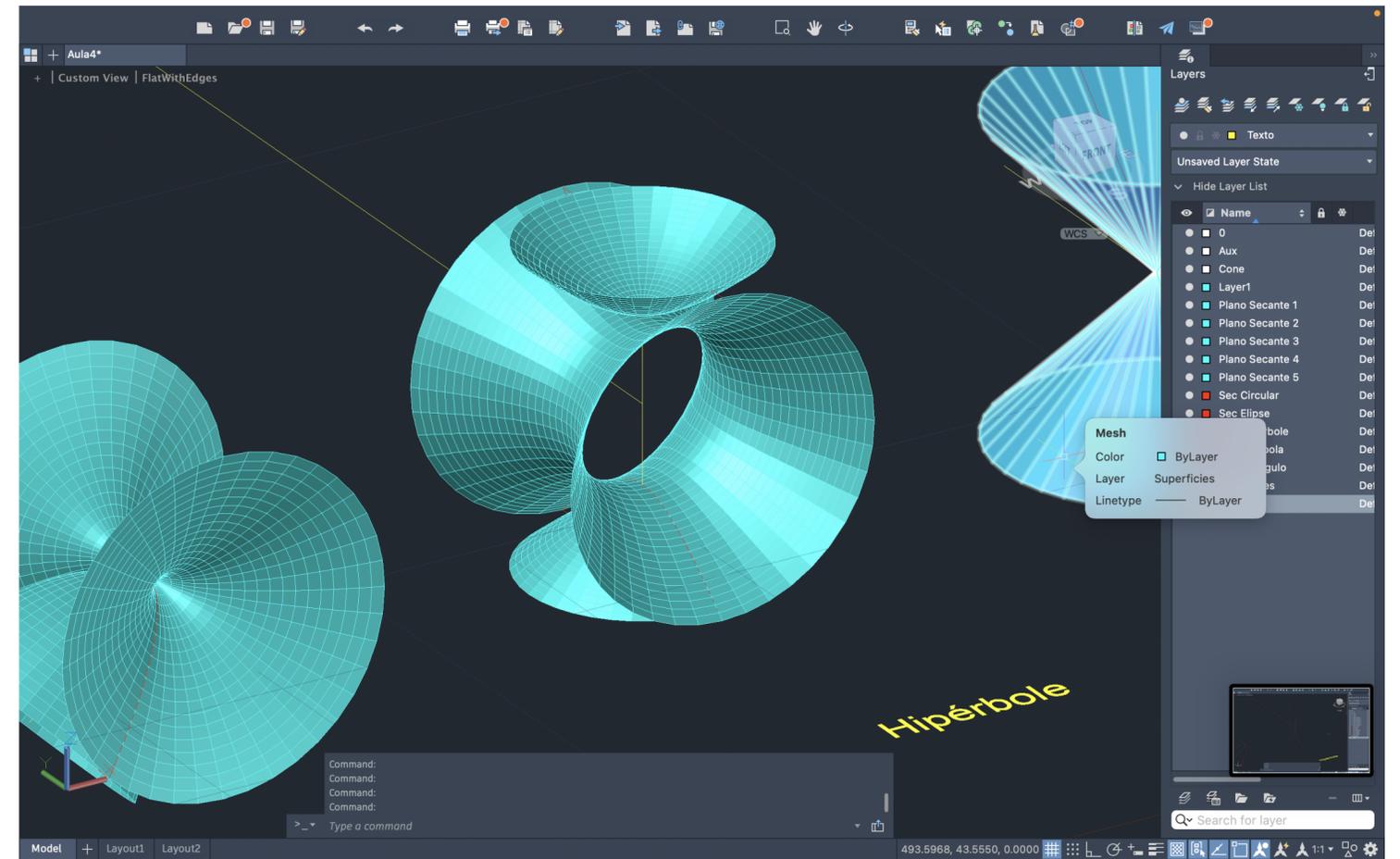
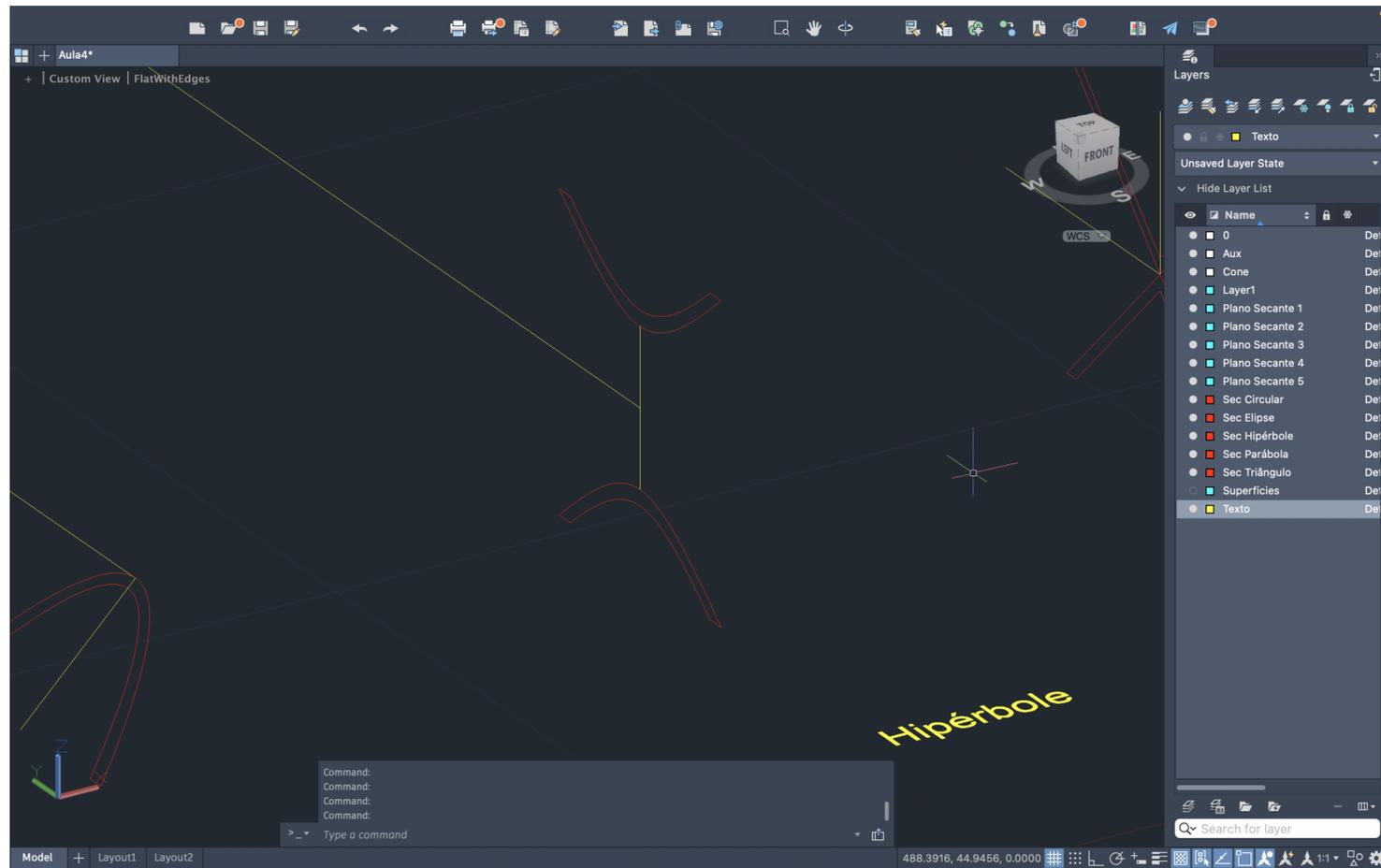
# Exerc. 4.2 – Superfície Esférica



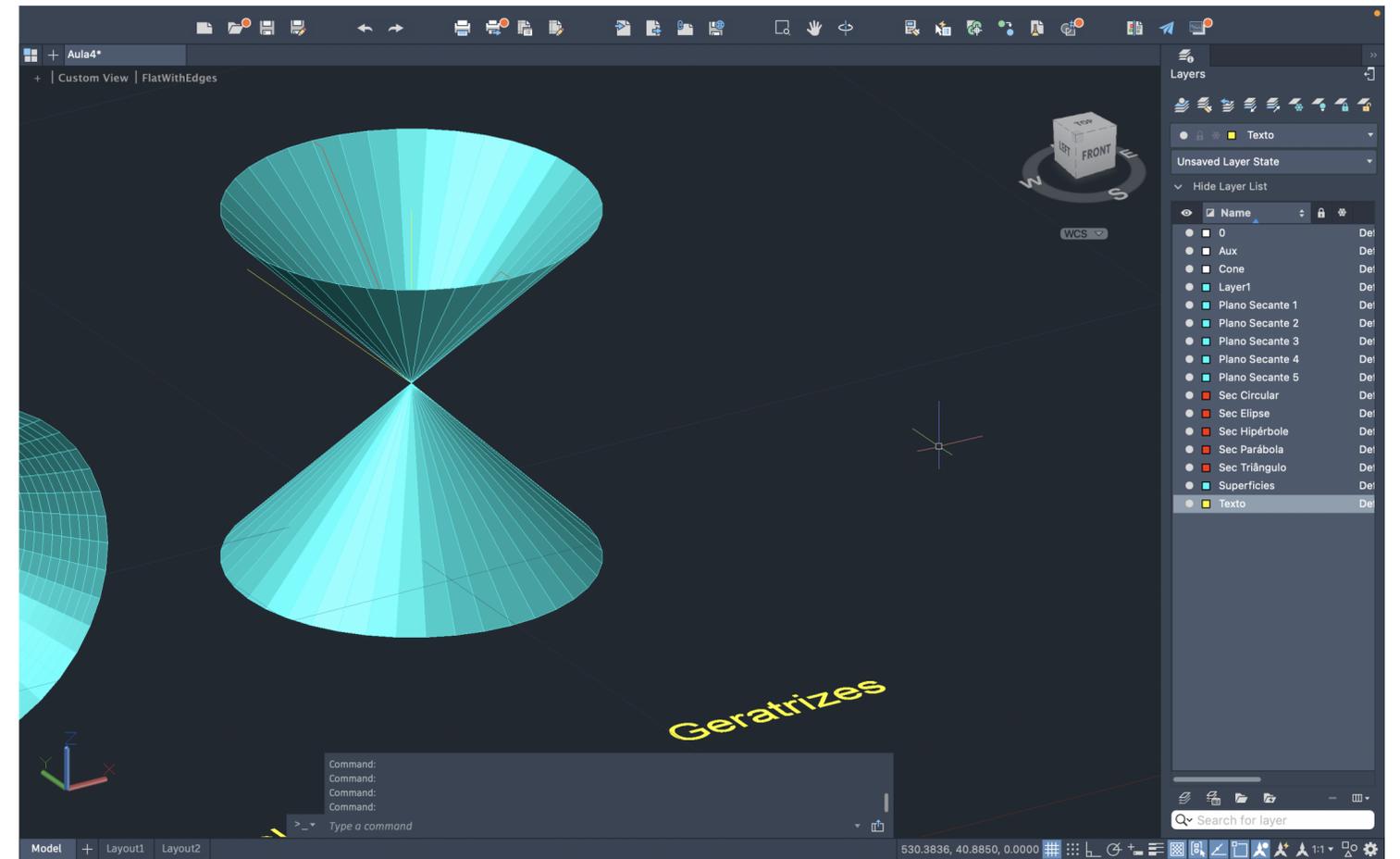
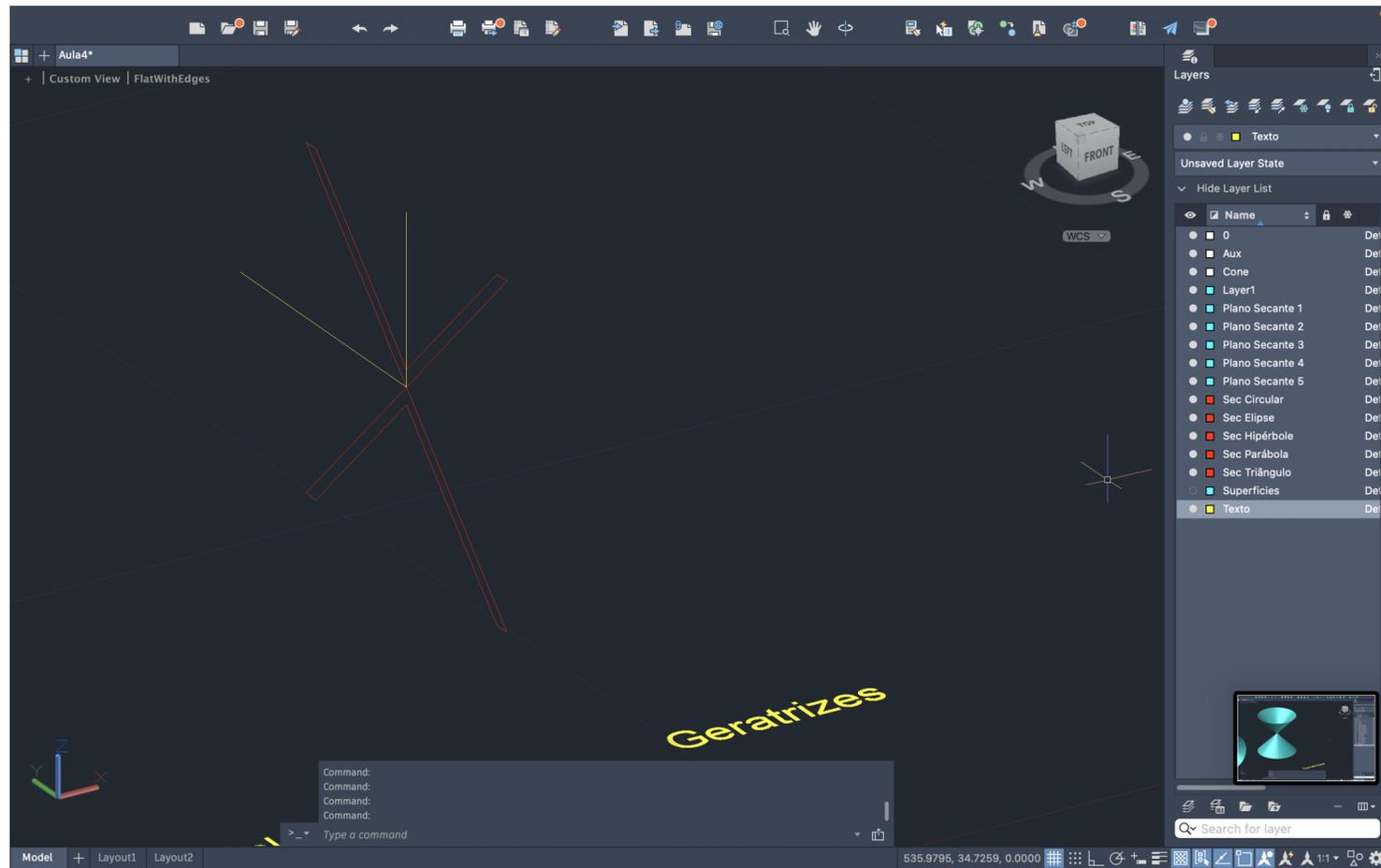
# Exerc. 4.3 – Superfície Elíptica



# Exerc. 4.4 – Superfície Parabólica



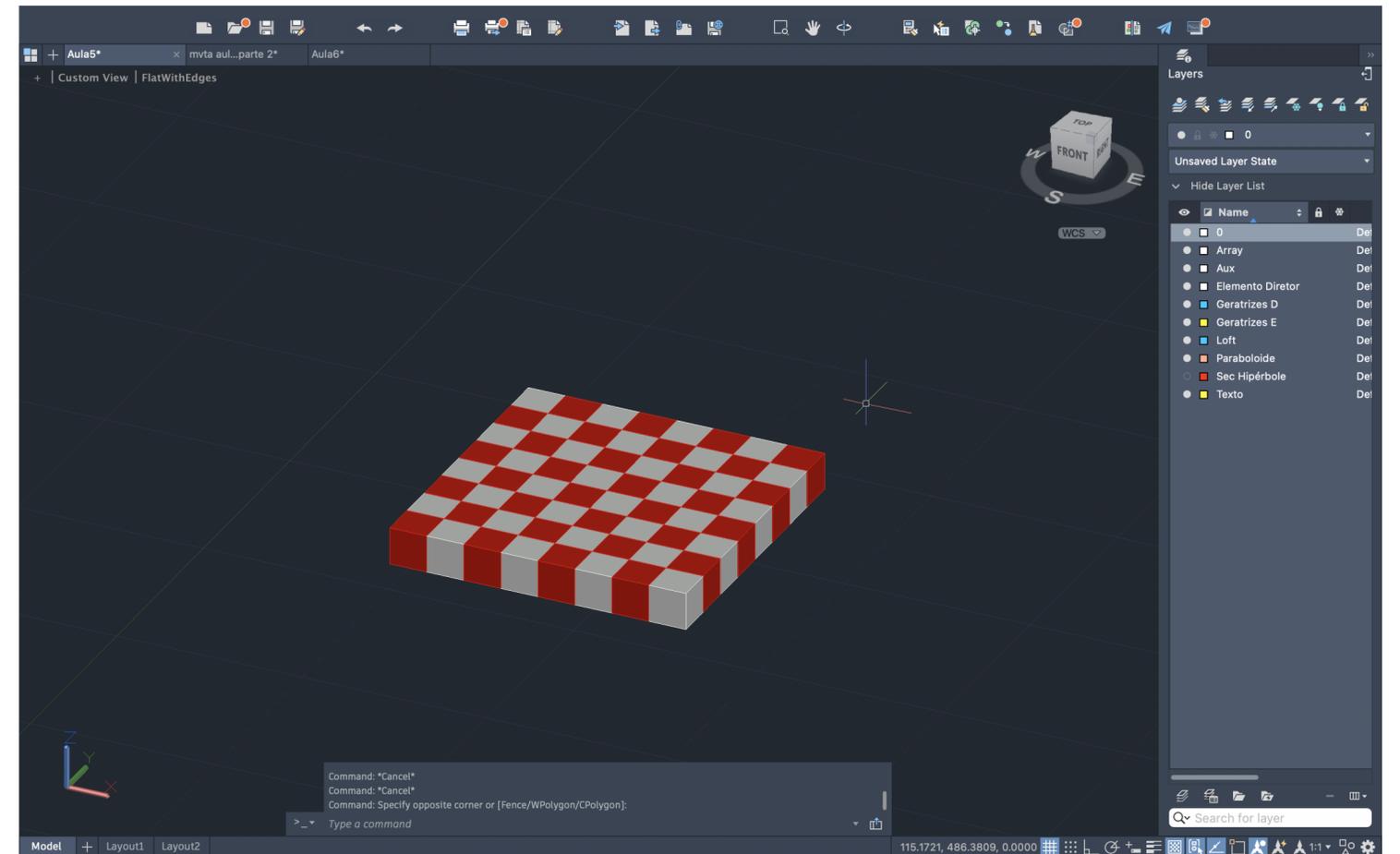
# Exerc. 4.5 – Superfície Hiperbólica



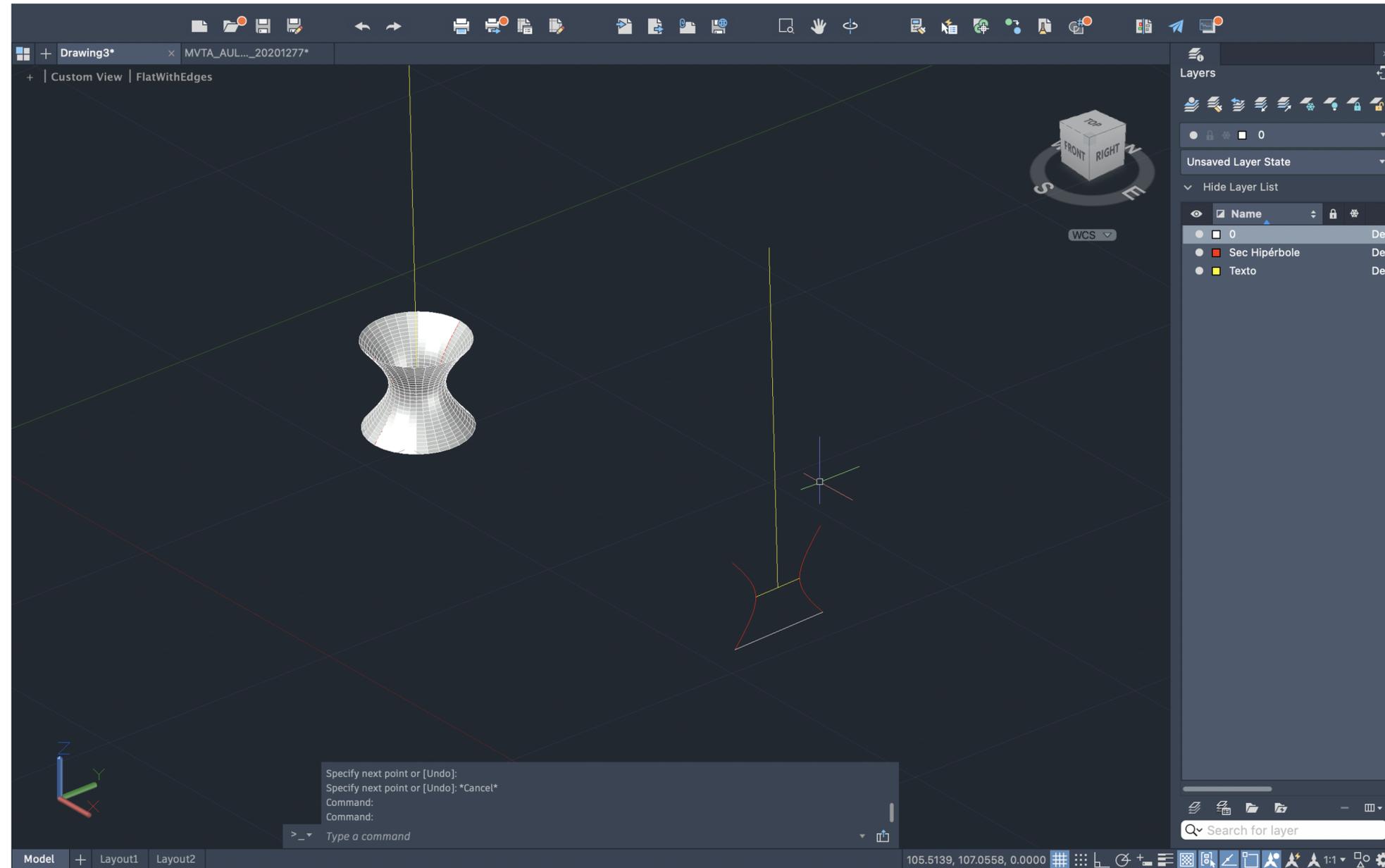
# Exerc. 4.6 – Geratrizes

```
xad.lsp
1 (defun c:Xcad()
2
3 (command "box" "0,0,0" "10,10,10")
4 (command "copy" "last" "" "0,0" "10,10")
5 (command "mirror" "all" "" "10,0" "10,10" "")
6 (command "chprop" "previous" "" "c" "1" "")
7 (command "array" "all" "" "R" "4" "4" "20" "20" "
8 )
```

Line 8, Column 2      Tab Size: 4      Lisp



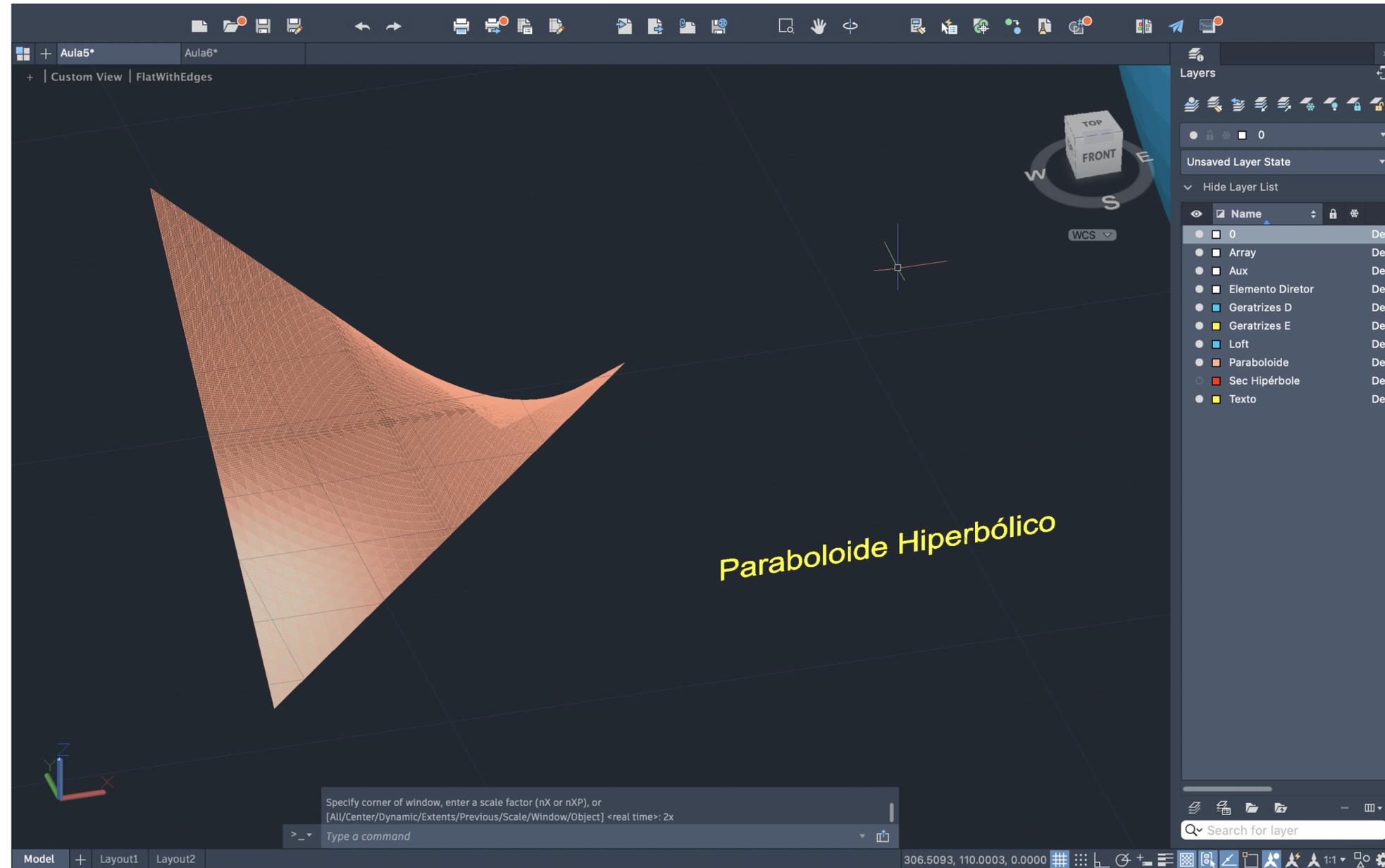
# Exerc. 5.1 – Tabuleiro



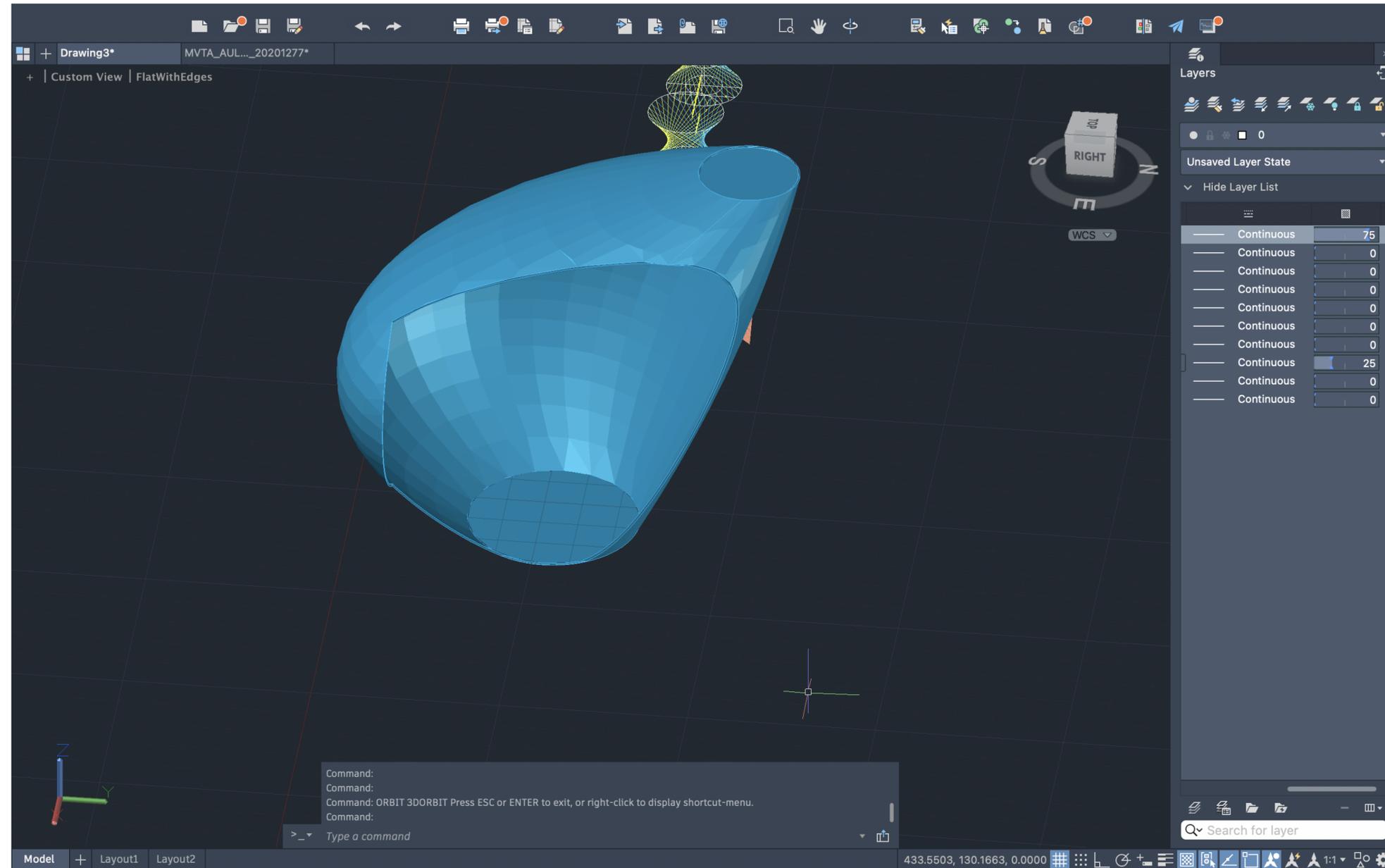
# Exerc. 5.2 – Hiperboloide de Revolução



# Exerc. 5.3 – Hiperboloide com linhas



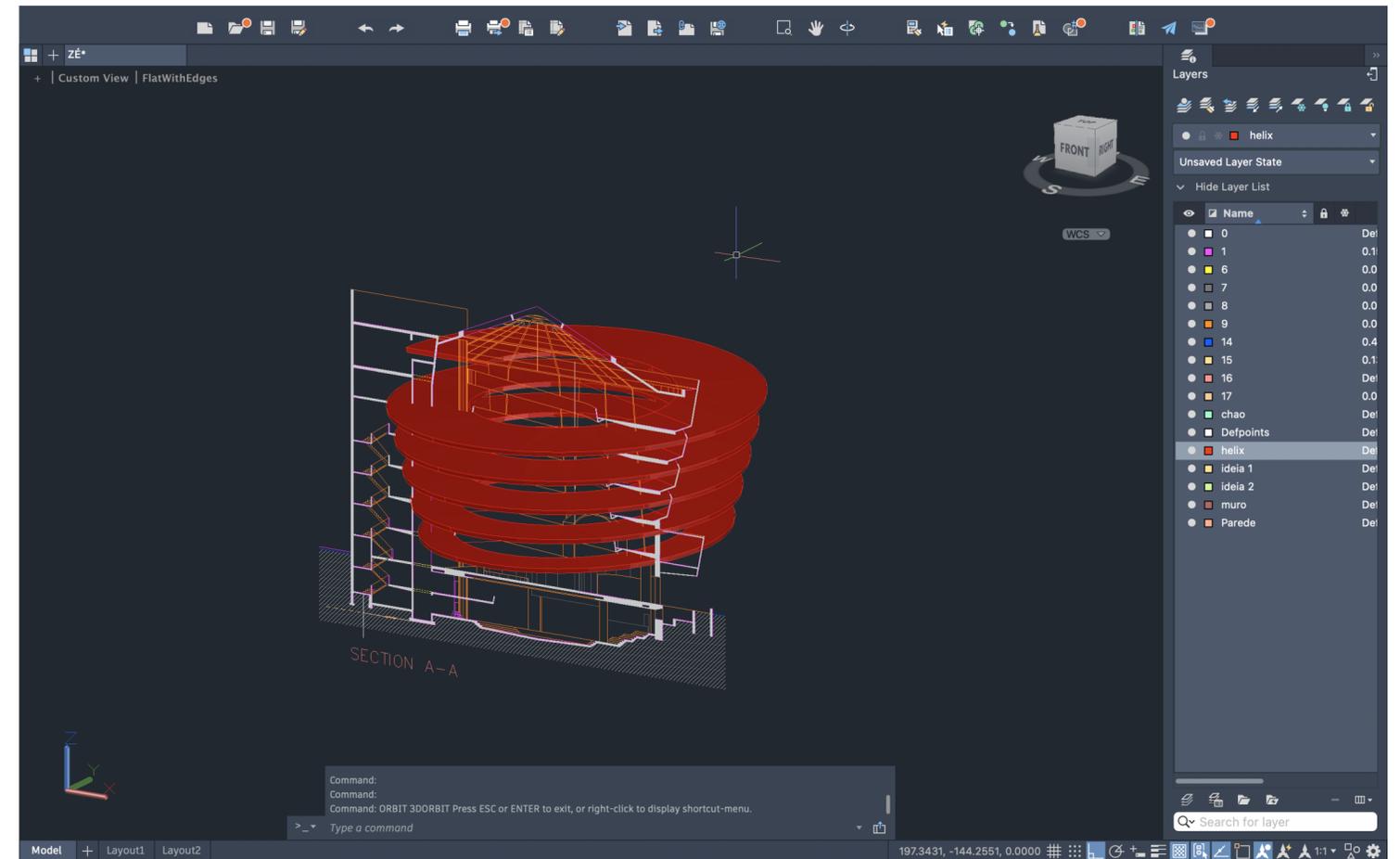
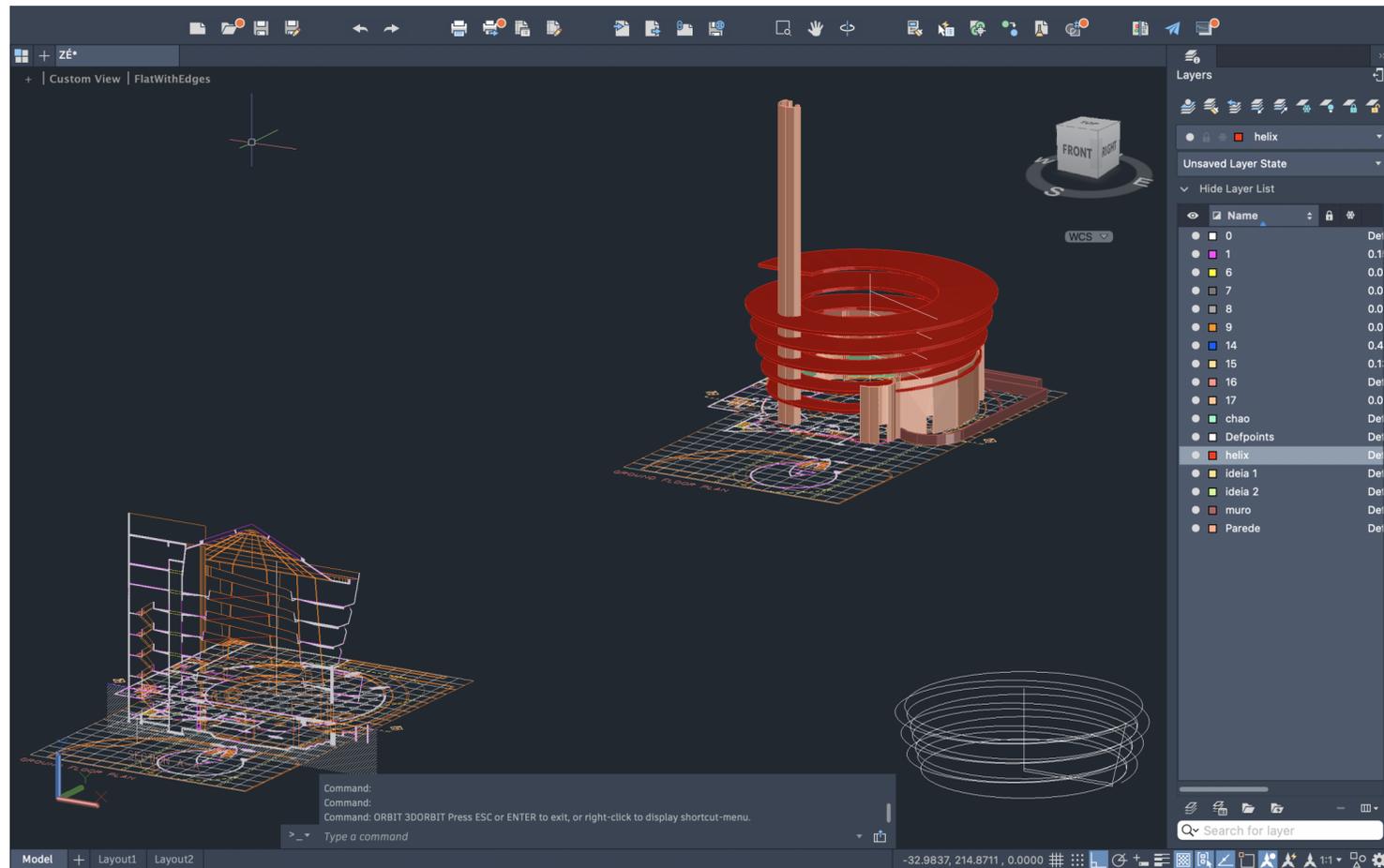
# Exerc. 5.4 – Paraboloide Hiperbólico



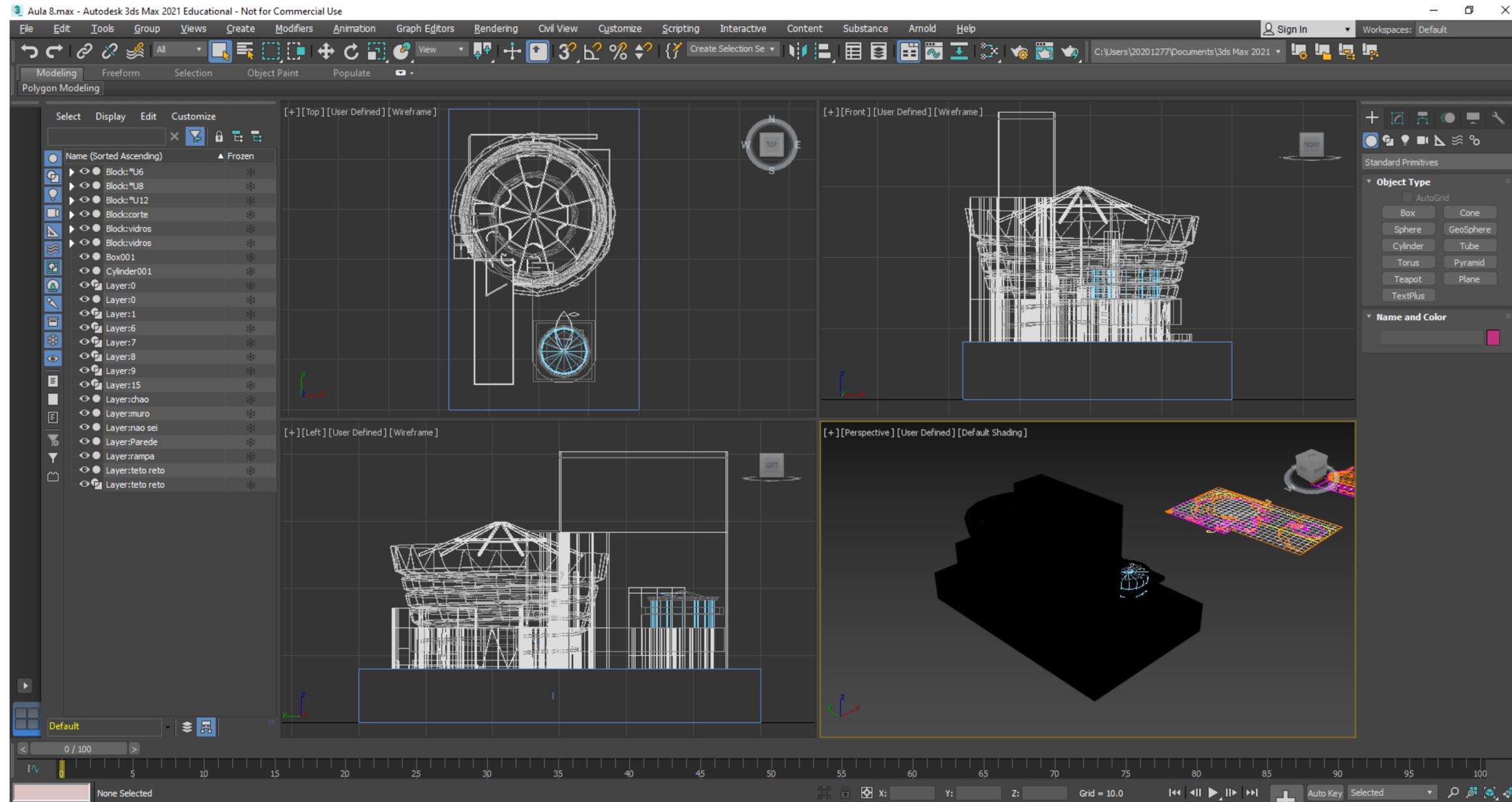
# Exerc. 5.5 – Subtração de Paralelepípedo a Superfície Curva



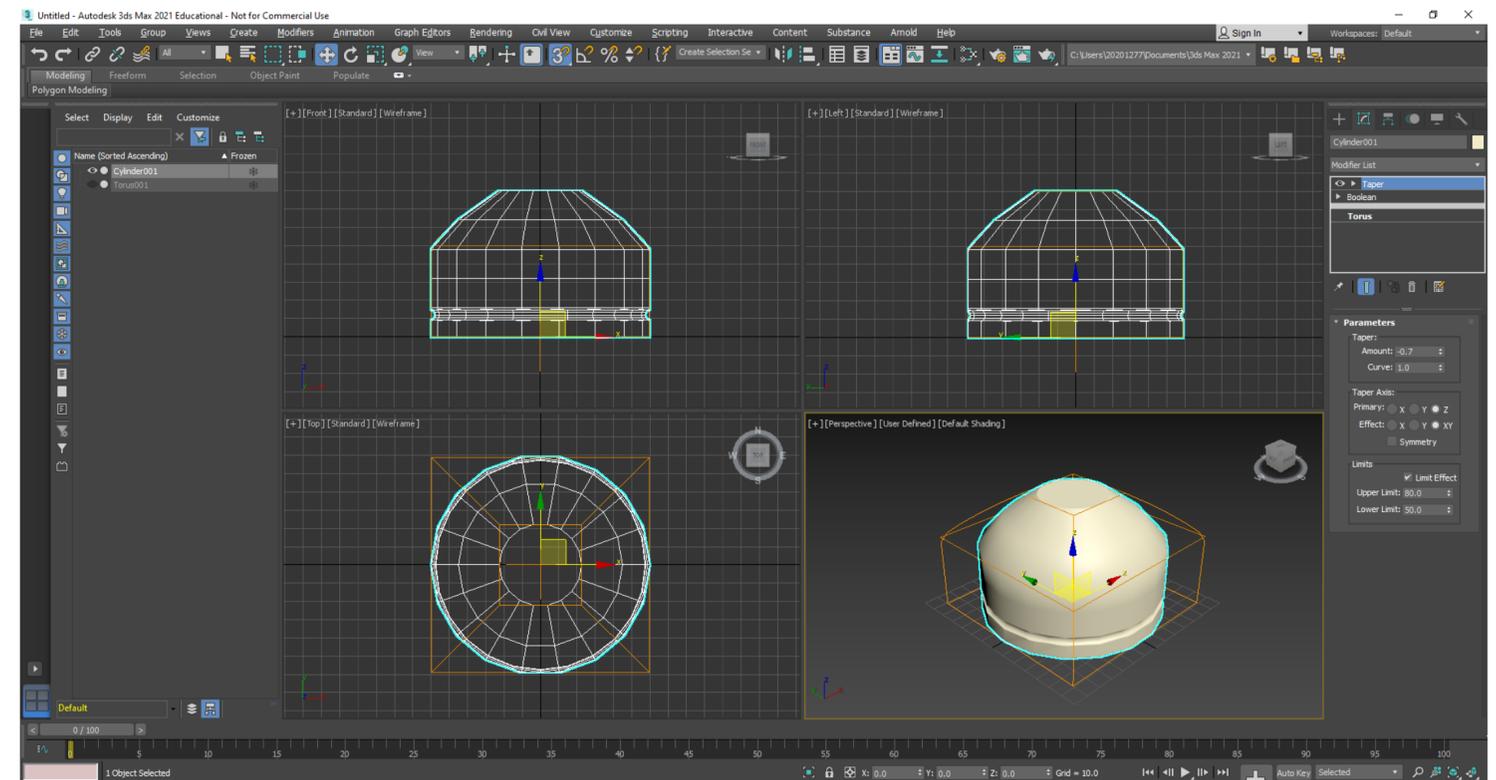
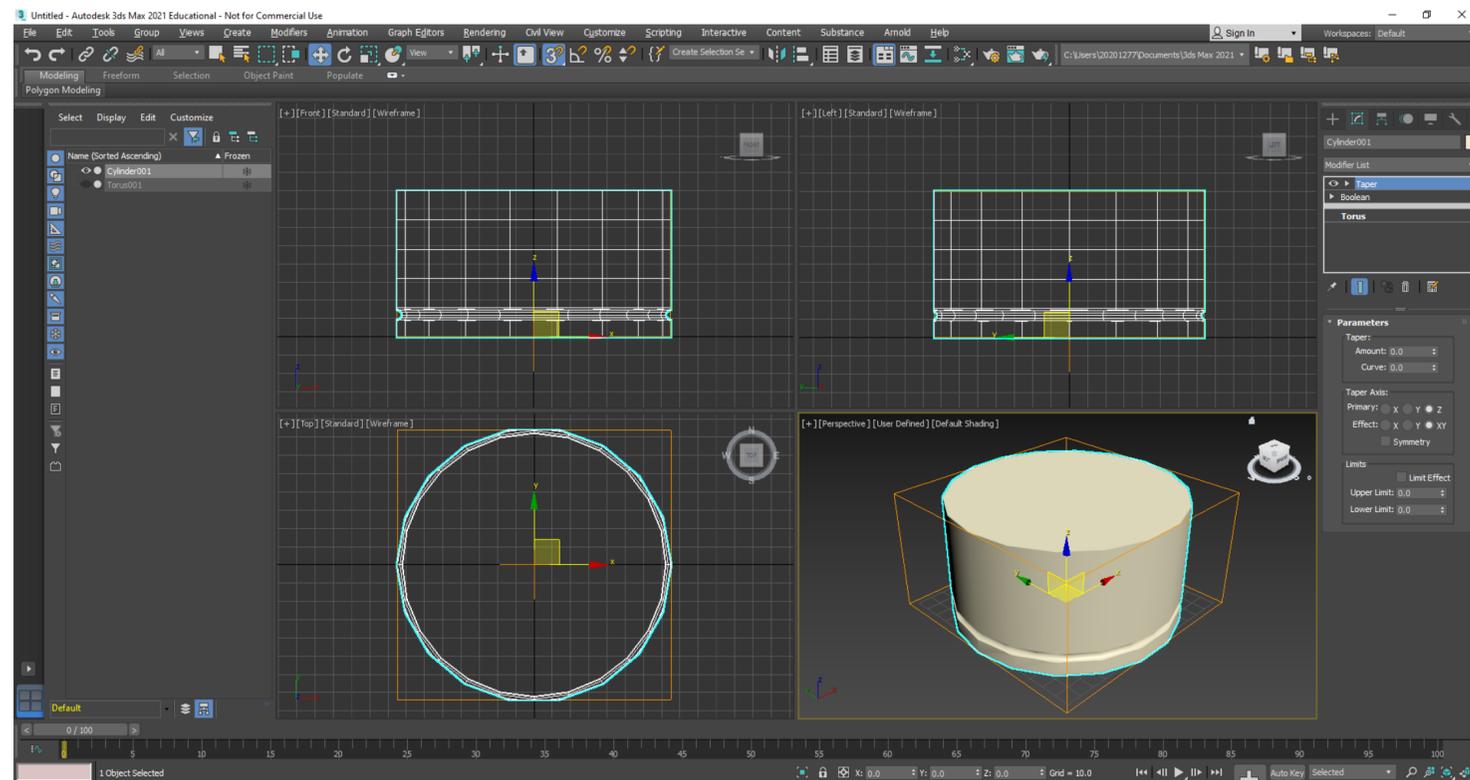
# Exerc. 6.1 – Guggenheim NY Extrude com Helix



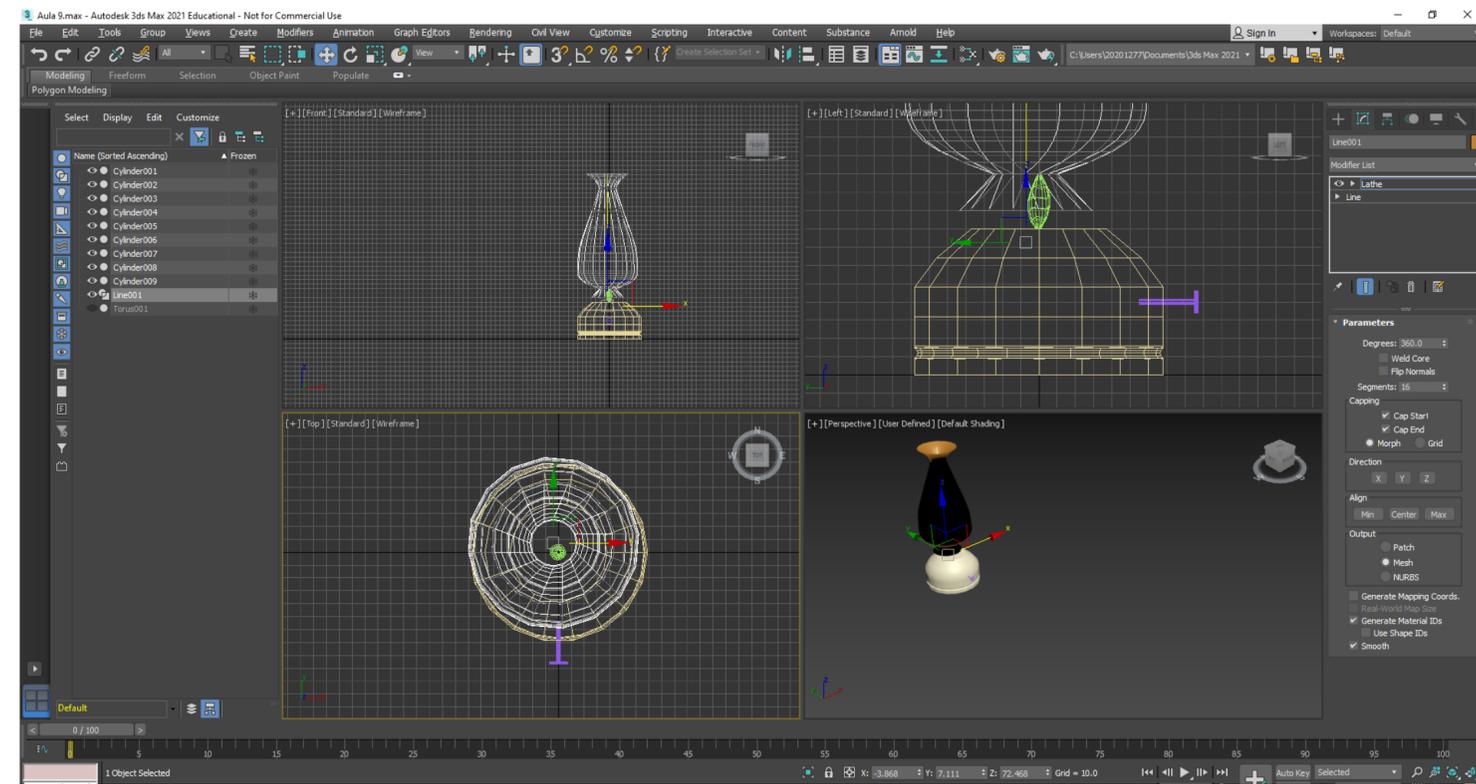
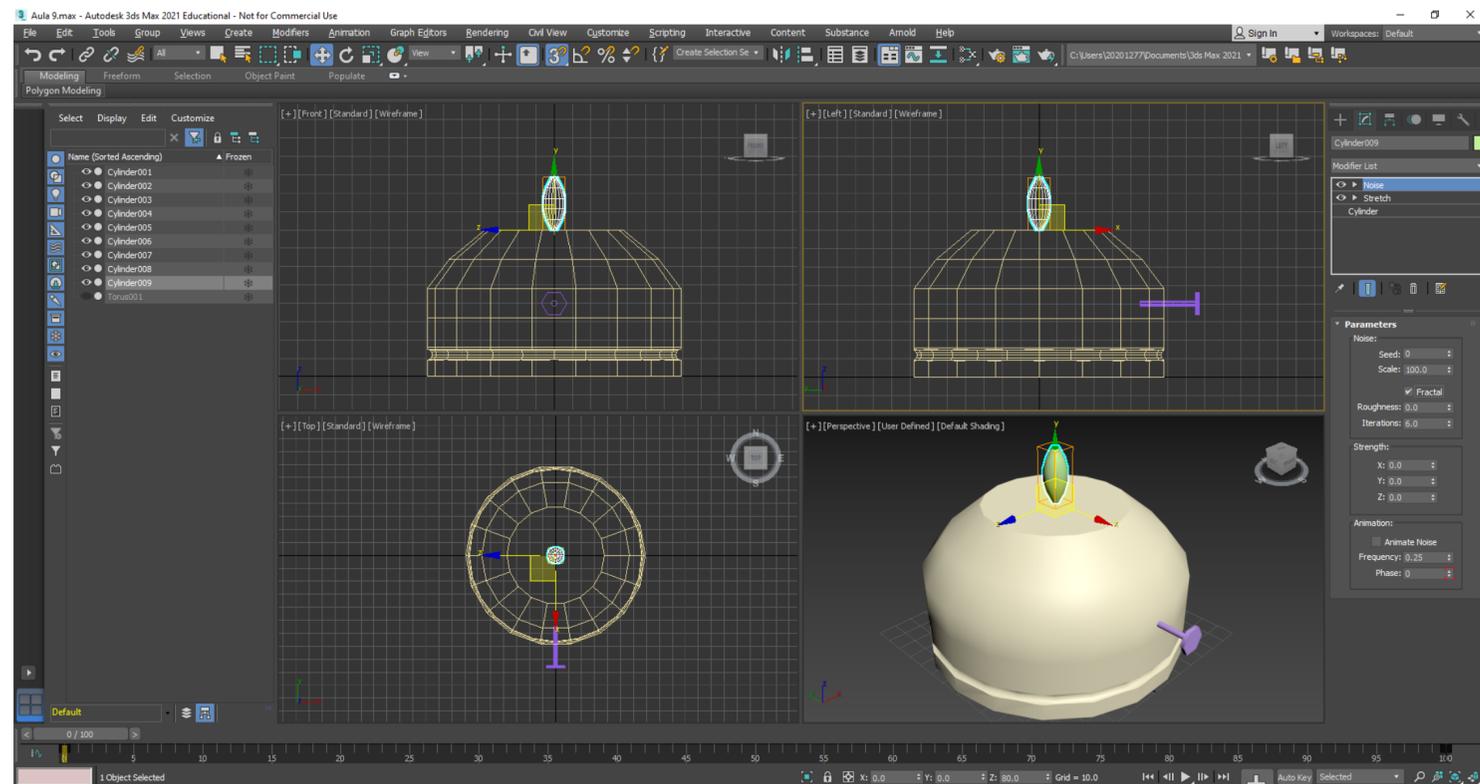
Exerc. 7 – Desenvolvimento do Trabalho de Grupo  
Guggenheim Nova Iorque, do arquiteto Frank Lloyd Wright



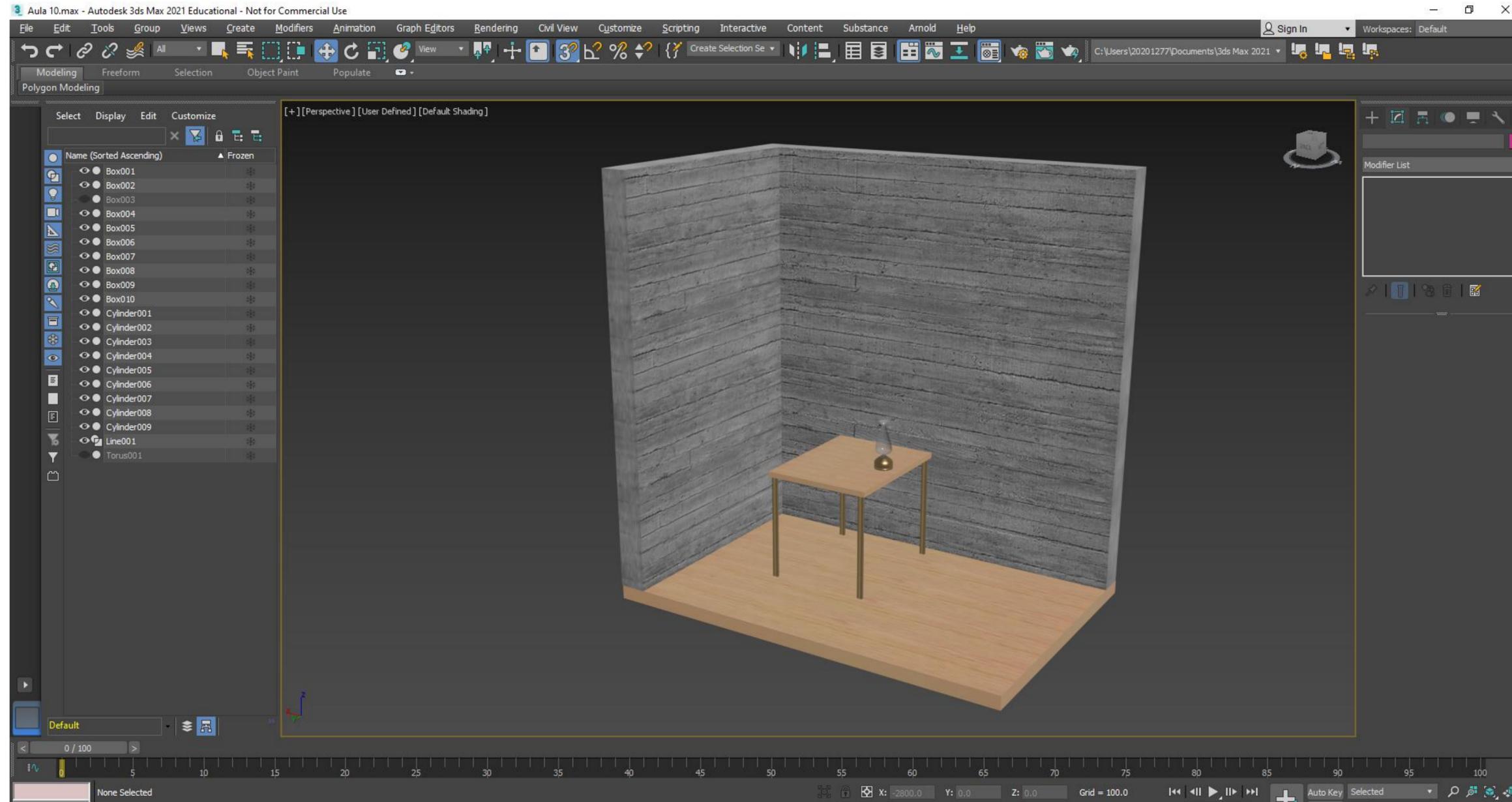
# Exerc. 8 – Introdução ao programa 3DS Max



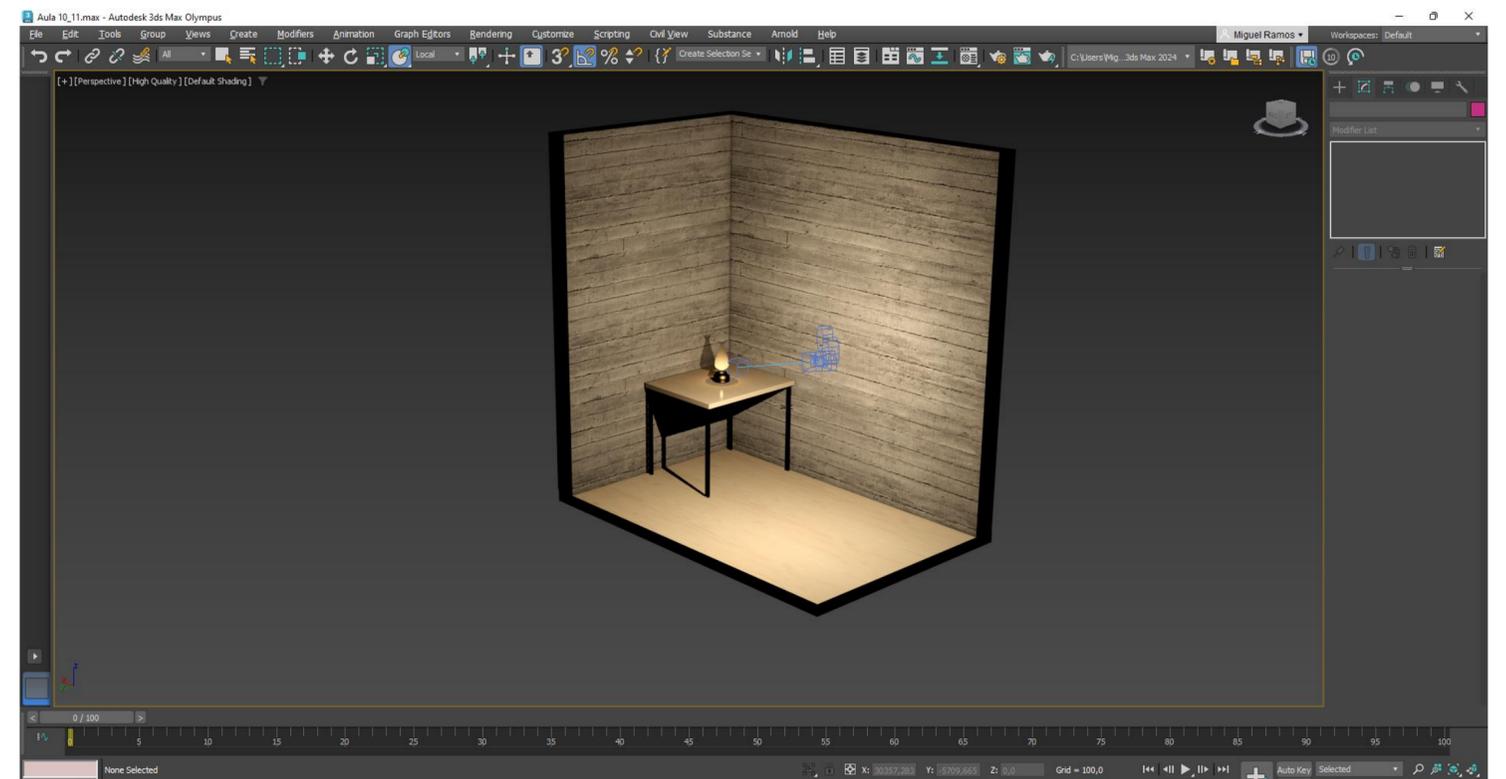
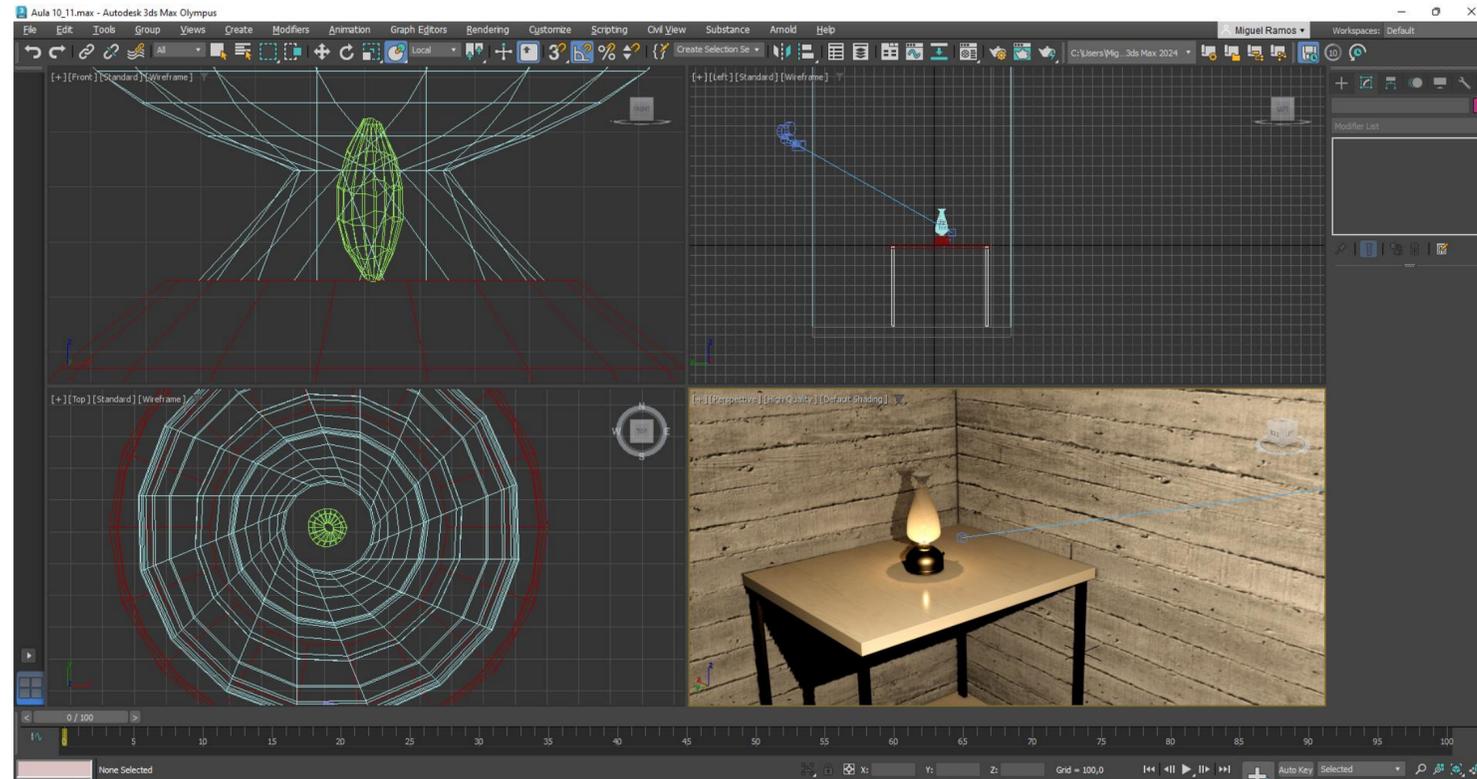
Exerc. 9 – Exercício de modelação de uma lamparina



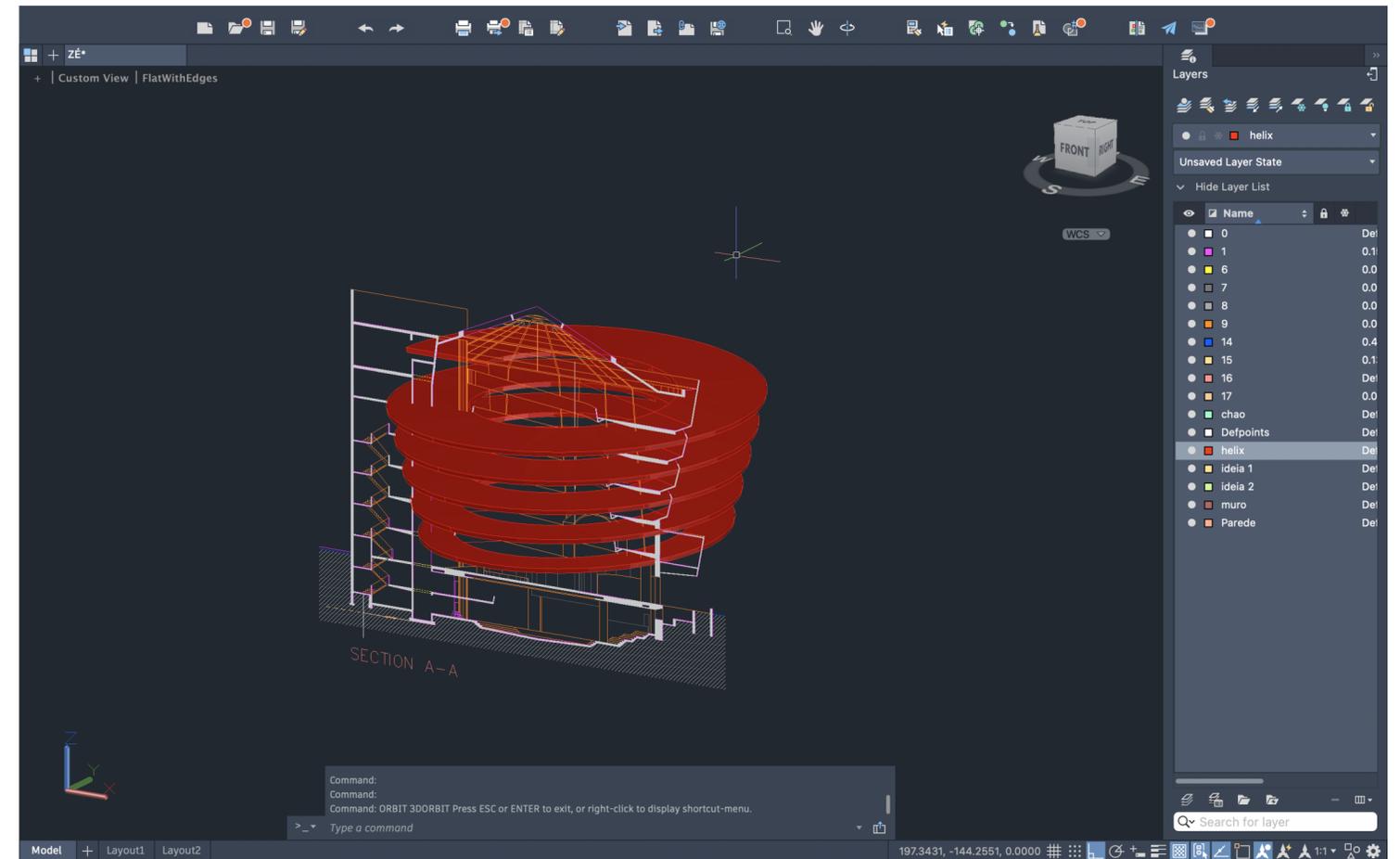
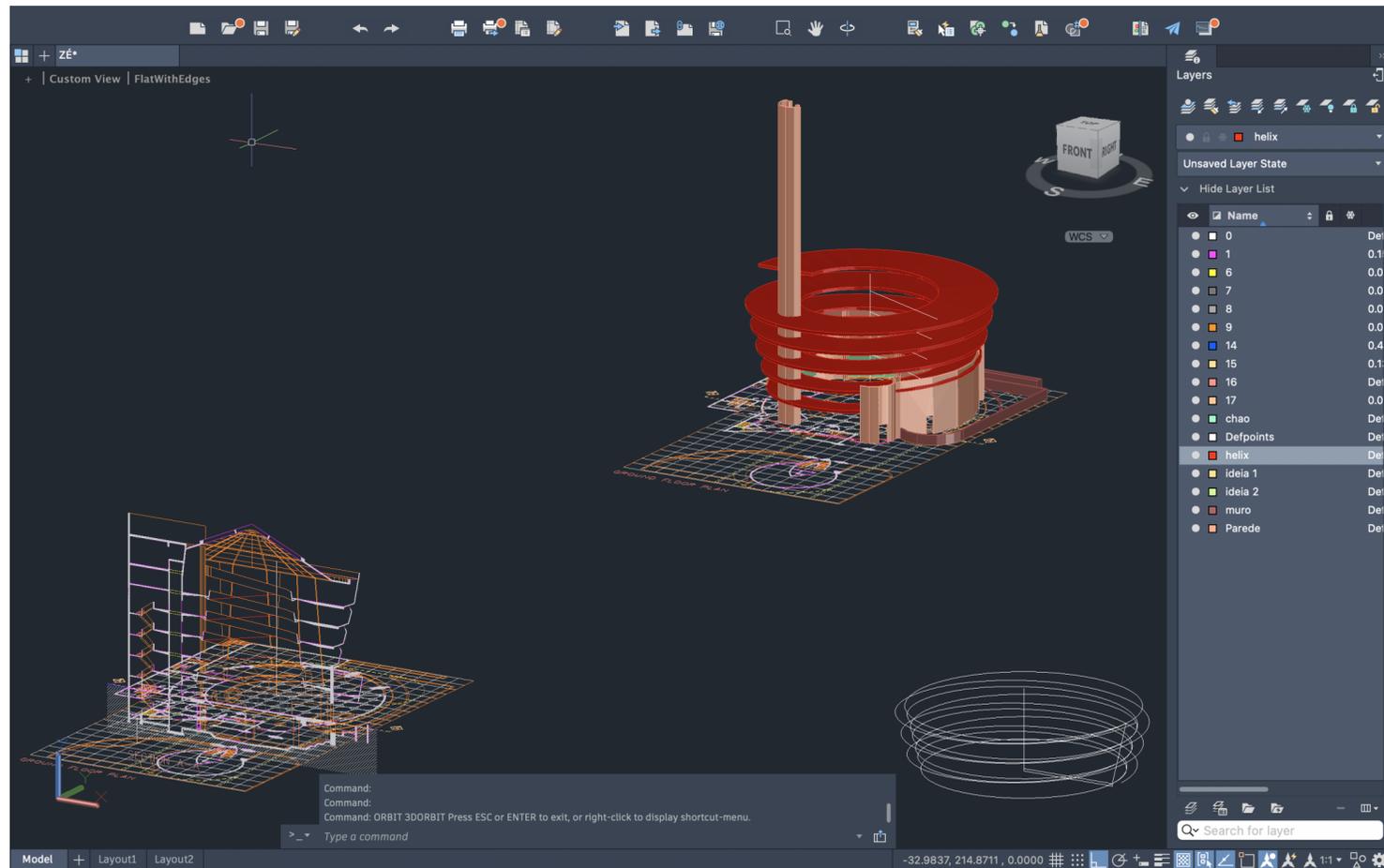
# Exerc. 9 – Exercício de modelação de uma lamparina



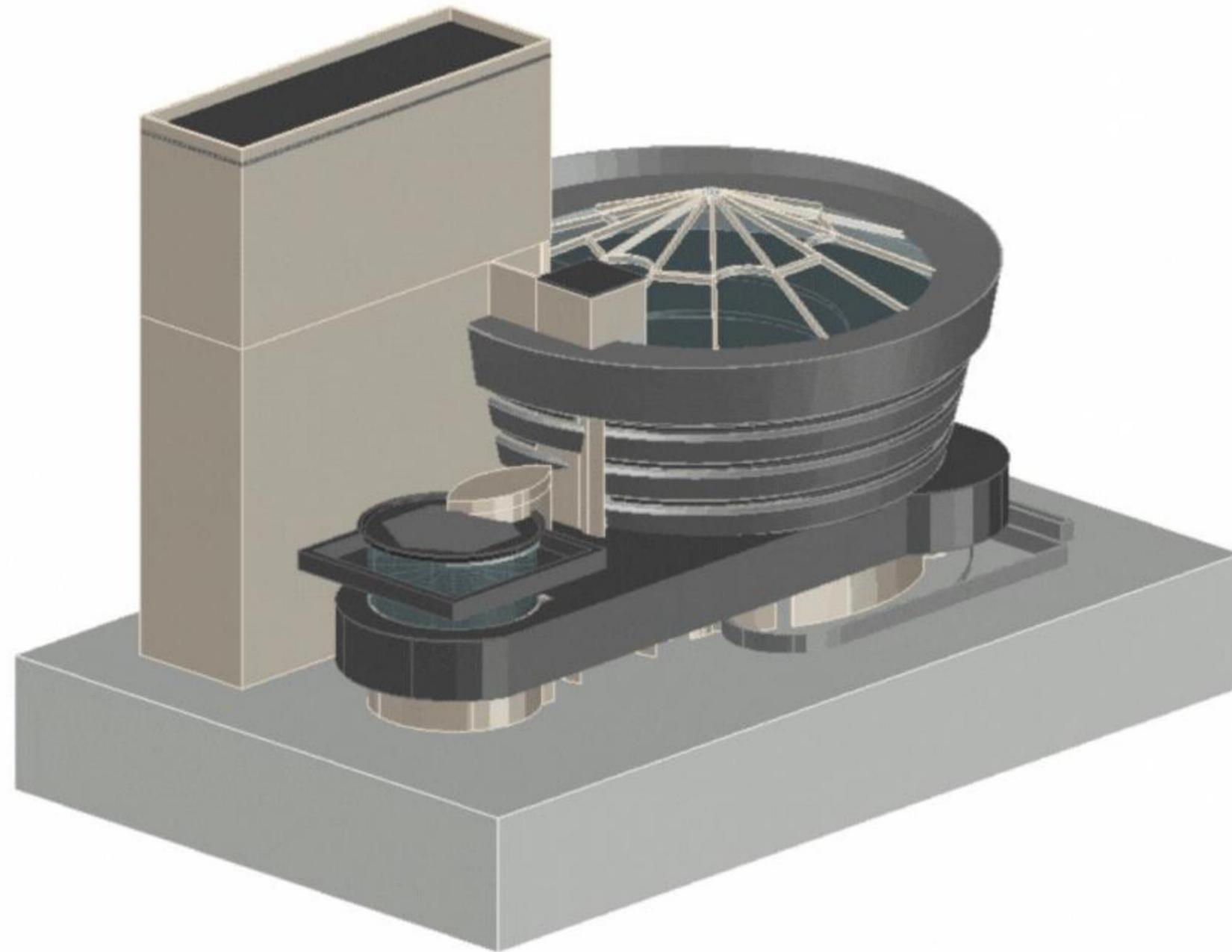
Exerc. 10 – Continuação da modelação e aplicação de materiais



Exerc. 11 – Continuação da modelação e aplicação de fontes luminosas



1ª Entrega (30/03) – Trabalho de Grupo  
Guggenheim Nova Iorque, do arquiteto Frank Lloyd Wright



2ª Entrega (06/04) – Trabalho de Grupo  
Guggenheim Nova Iorque, do arquiteto Frank Lloyd Wright