

ENTER

Create a complex model in 3D modeling
Tools and Array Tools (Difference,
Union, Intersect, Slice)



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MODEL 3D OBJECTS FOR DIFFERENT USES

RENDER

- **2D/3D Illustration & Animation Rendering**

Rendering is an essential process in computer animation that is used to generate a sequential series of individual pixel based frames. Once rendered, the sequenced frames are assembled and consolidated in order into a “composition.” Part of this process also includes creating individual elements that are then composited together.

Software like Blender accommodates this type of process and can be used in workflows that employ 2D image manipulation software like Photoshop, Illustrator, and GIMP.





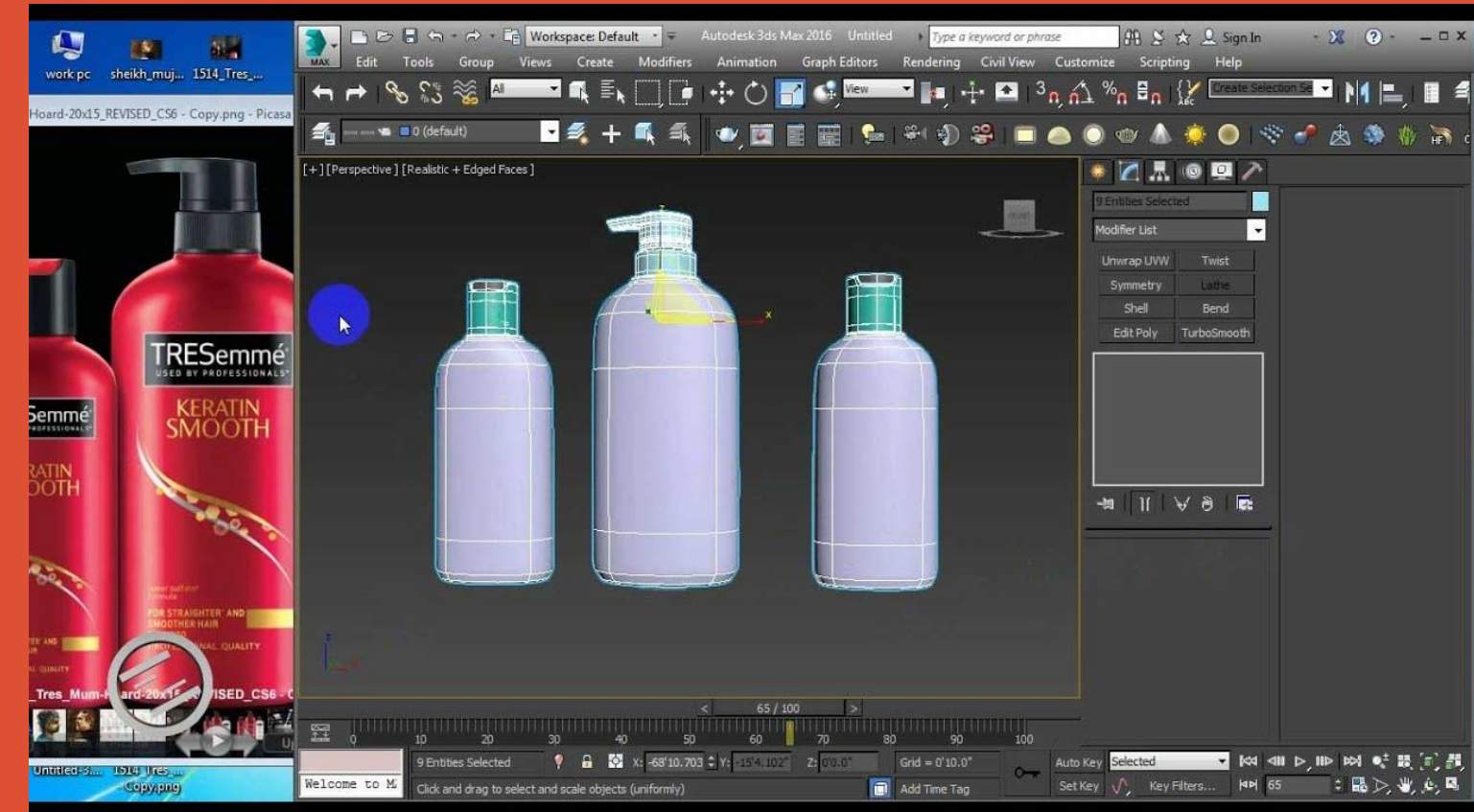
MODEL 3D OBJECTS FOR DIFFERENT USES

RENDER

- **Product Model Rendering**

3D product model rendering is a more cost-effective approach to prototype photography and simplifies the design process, allowing artists to evaluate materials and generate amazing eye-catching imagery even during the early stages of ideation.

A product is created with 3D modeling software like Cinema4D or Blender and then visualized by adding materials and lighting inside the same software's rendering engine, creating a life-like, photo-realistic, or hyper-real representation of the product. With the ability to visualize and digitally interact with a product, potentially expensive design mistakes can be quickly caught and corrected. Likewise, elements like colors and materials can be easily edited to gauge what looks best before entering into the production phase.





MODEL 3D OBJECTS FOR DIFFERENT USES

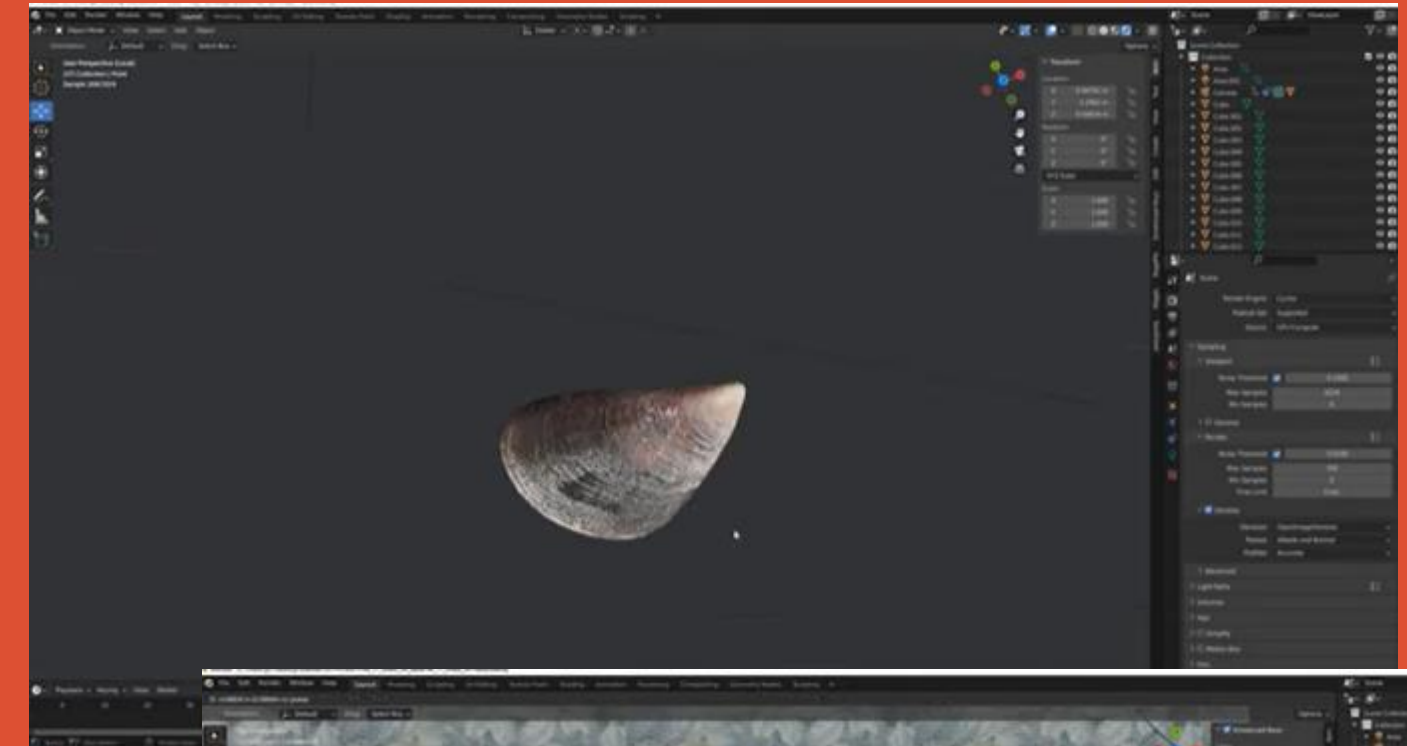
CINEMATICS

Follow this tutorial to make a movie scene from start to finish, step by step, and how to achieve photorealism. Users with little experience in Blender can easily follow the tutorial:

<https://blendermarket.com/products/creating-a-movie-scene-in-blender-after-effects-step-by-step---shells-on-the-table---2h-50-min>



Making a 3D Model | How CGI for Cinema is Done





MODEL 3D OBJECTS FOR DIFFERENT USES

VIDEO GAMES

3D models for video games have a very unique workflow that other processes meant for film or animation do not. Overlooking this may have a detrimental impact on a game and its performance.

Unlike pre-rendered imagery, 3D in-game models are required to be quickly rendered in real time; anywhere from 30 to 60 times per second. In order to accomplish this, a model's polygon count needs to be kept as low as possible through retopology and dynamic topology. This usually results in lower detail, so texture mapping is used to give the illusion of photo-realistic surfaces. Though Maya or Cinema4D would be chosen for rendering cinematic visuals or non-playable sequences, software like the Unreal and Unity engines are used to render and optimize 3D models meant for in-game visuals.

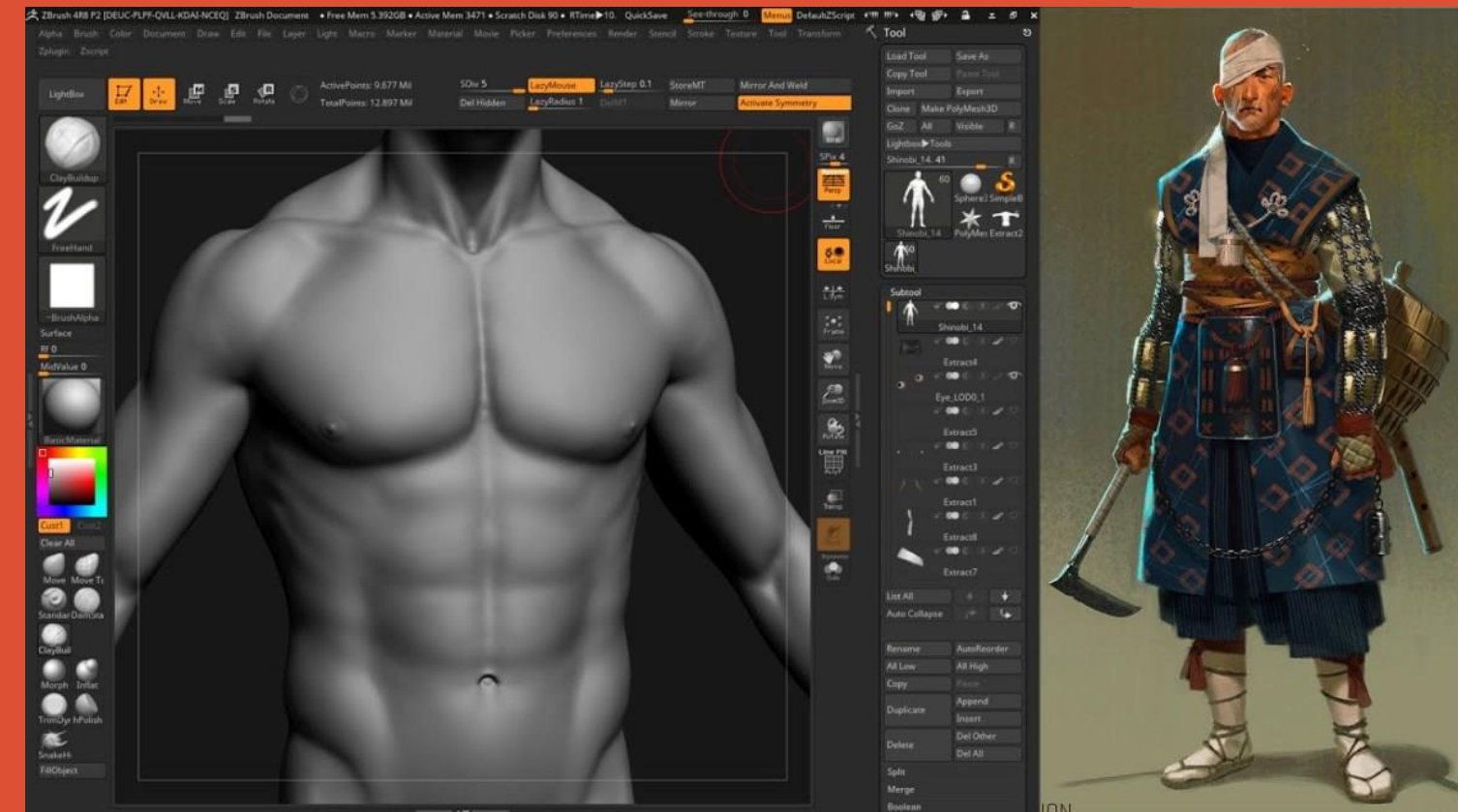




MODEL 3D OBJECTS FOR DIFFERENT USES

VIDEO GAMES

In order to optimize a model for rendering, reducing the surface geometry, or “retopology,” of a 3d model is done to make it less computationally heavy. The speed to render an image is not dictated by the surface area of the model but by how many individual polygons it needs to render.



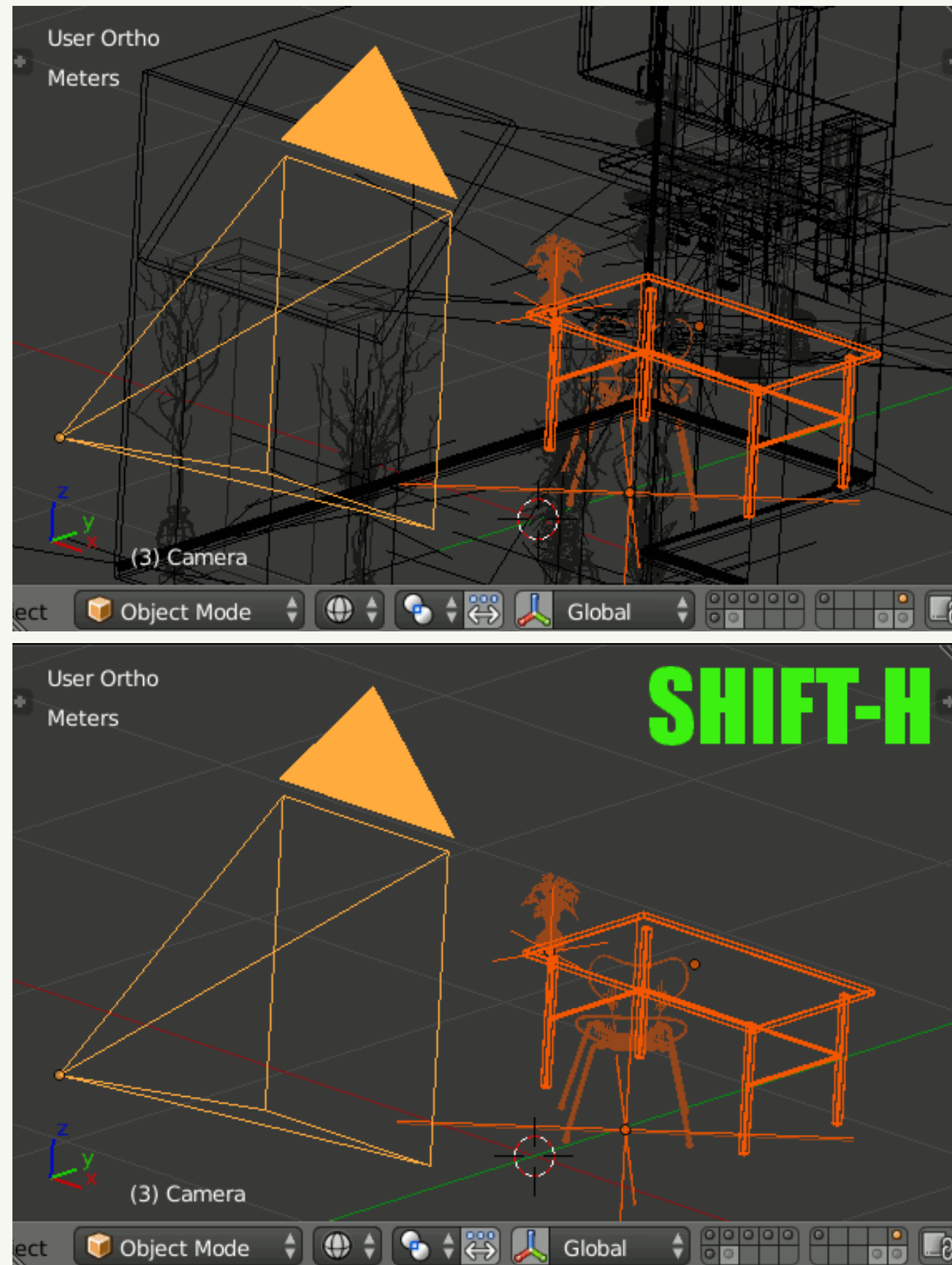
TRAINING IN THE WORLD OF 3D WITH COURSES AND TUTORIALS

- [3D Models for Virtual Reality](#)
- [Introduction to 3D Modeling](#)
- [Basic 3D Animation using Blender](#)
- [Fashion Technology: A Beginner's Guide to CLO 3D](#)

MORE ABOUT BLENDER: Useful Blender Tricks

1. Hide Everything Except the Selection
In complex scenes, this can be very useful as it reduces the clutter and mess when working on you're scene so you can focus on just these objects in the meantime.

Hotkey: SHIFT+H.

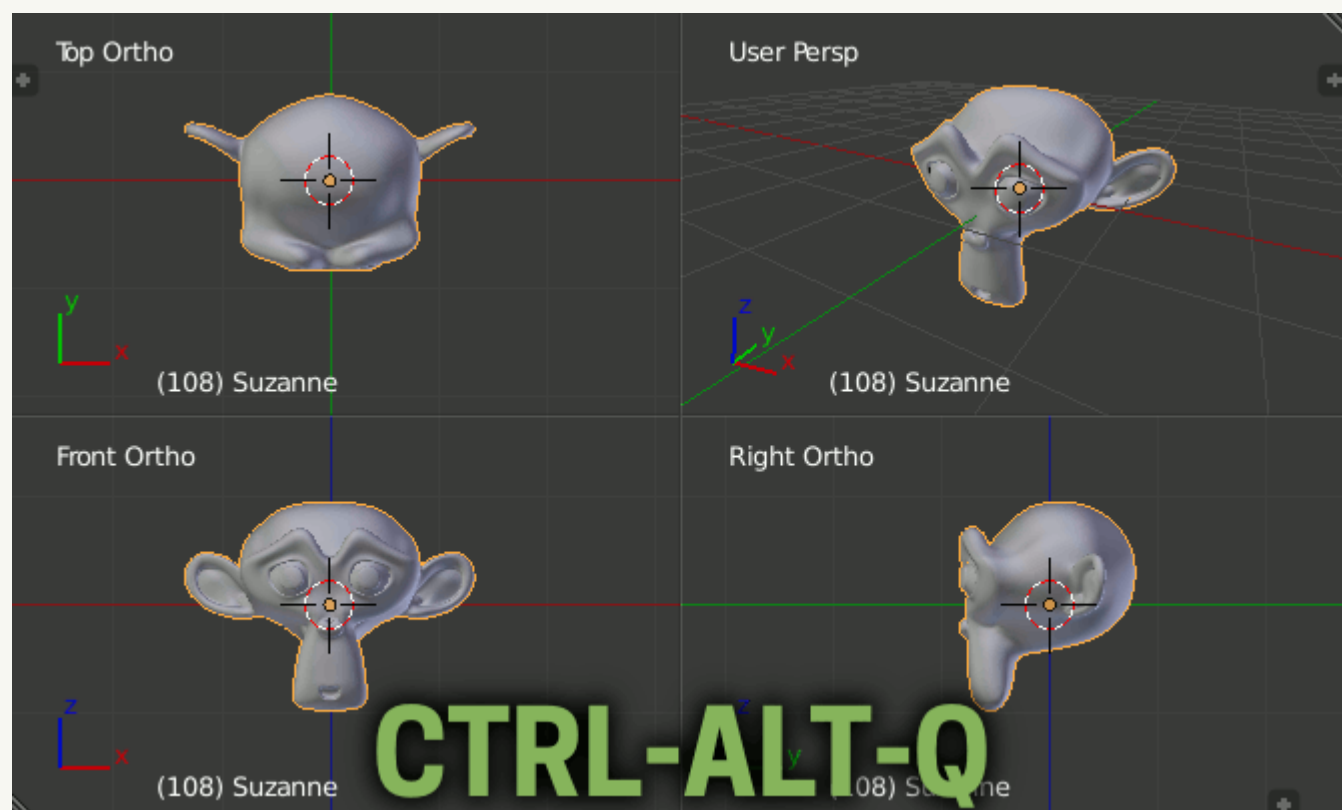
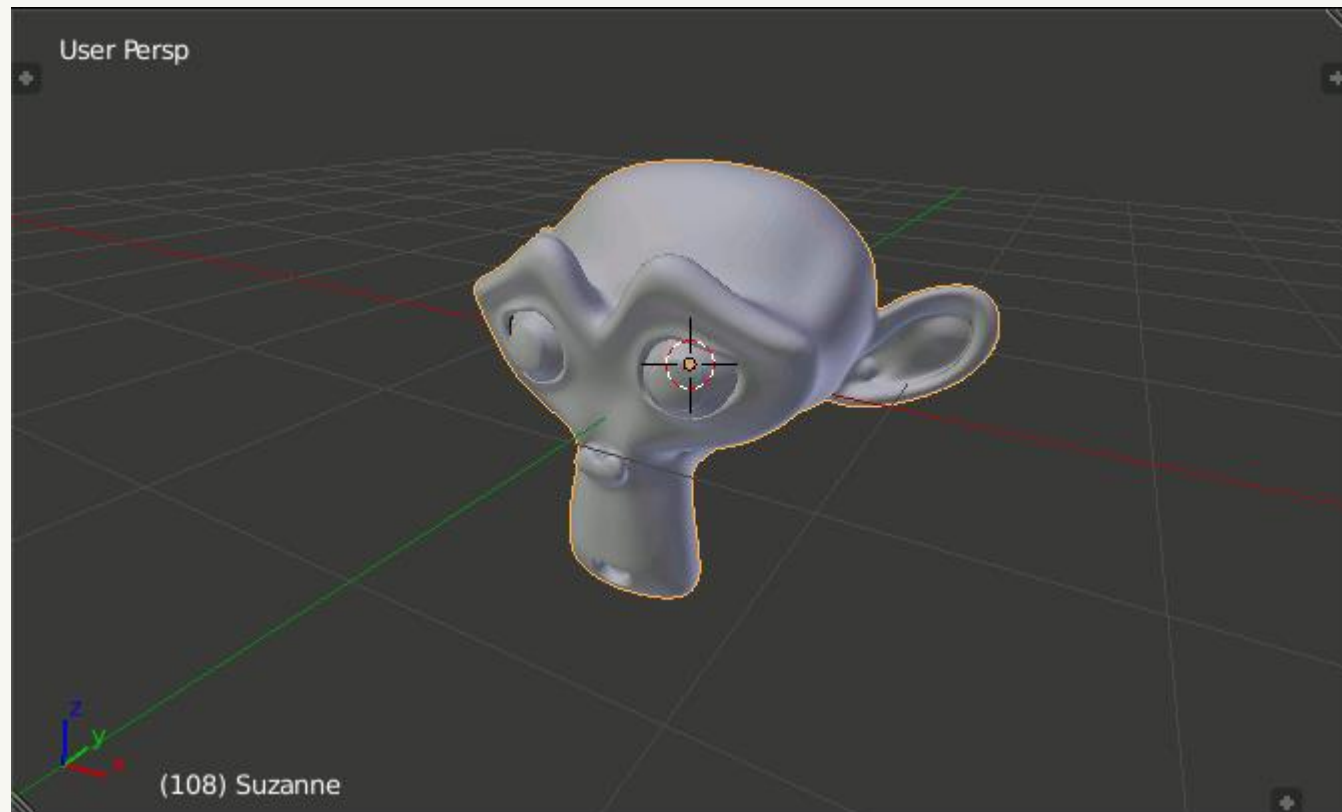


MORE ABOUT BLENDER: Useful Blender Tricks

2. Quad View

This allows you to quickly and simultaneously check your scene on all the common axes and is similar to Maya's default view.

Hotkey: CTRL+ALT+Q

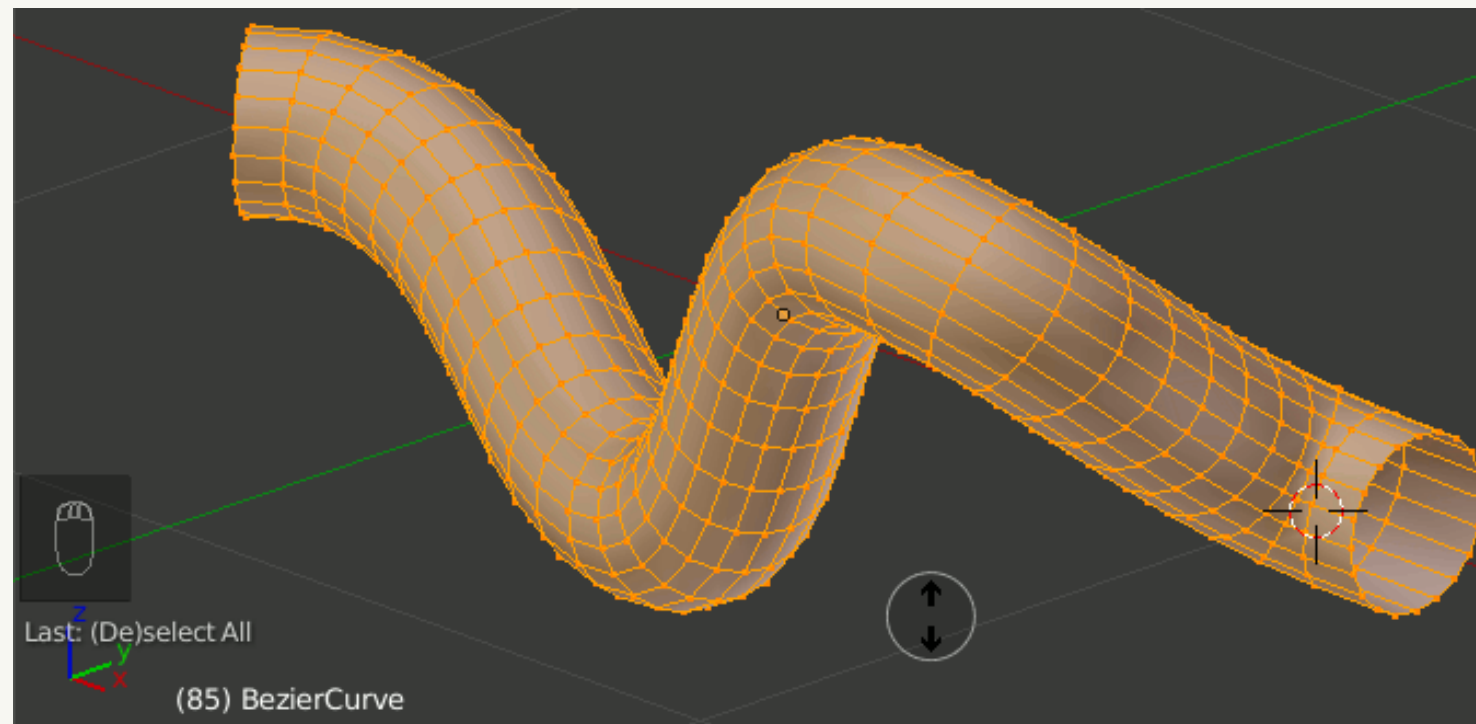
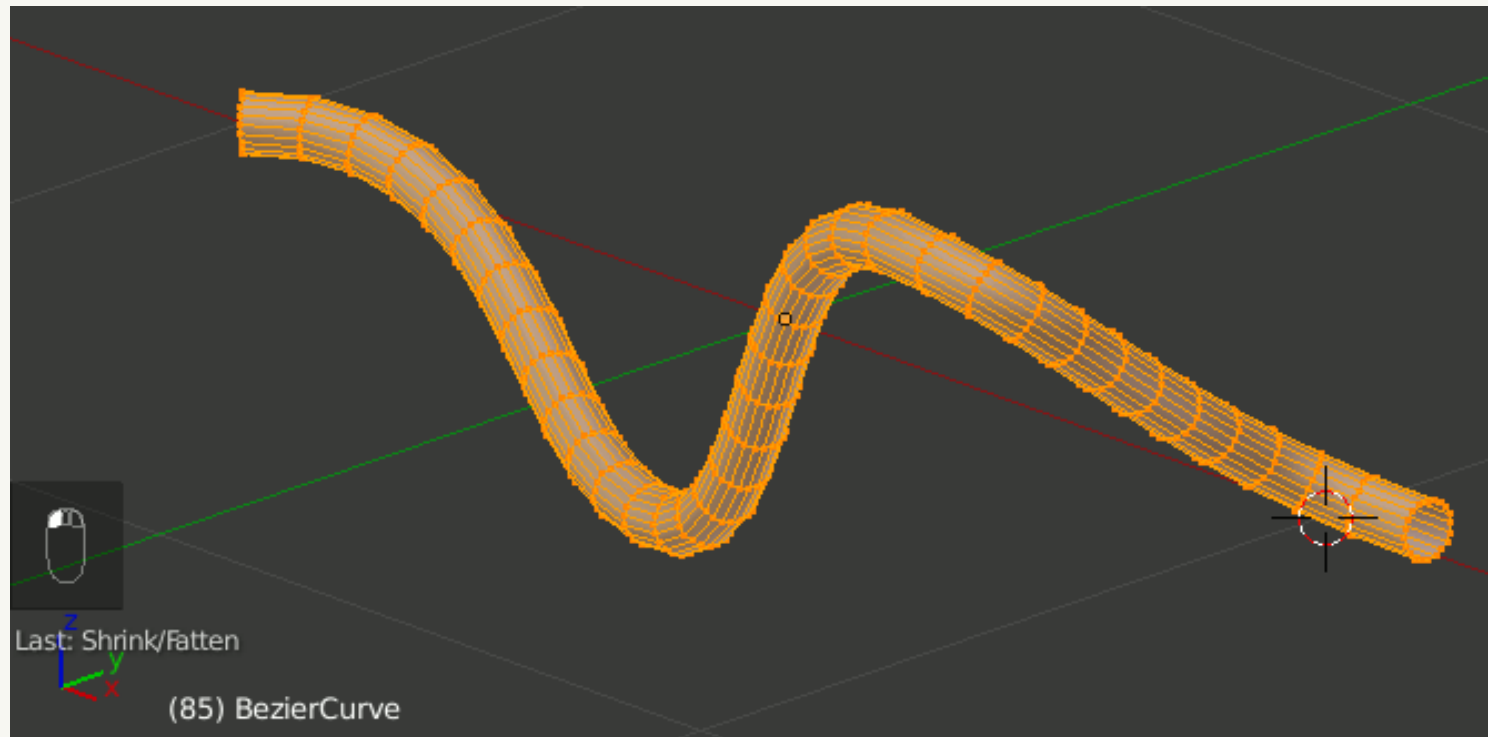


MORE ABOUT BLENDER: Useful Blender Tricks

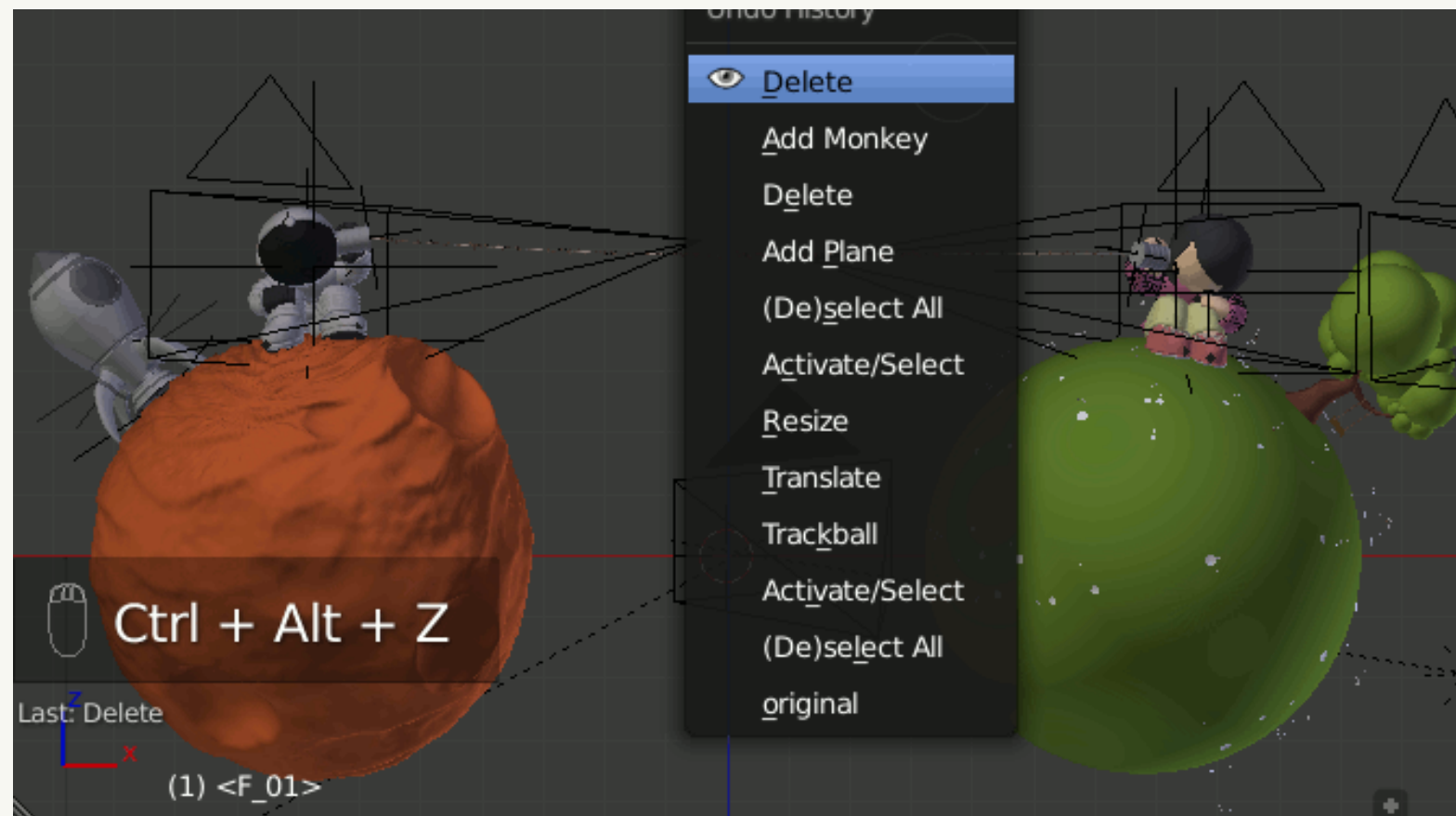
3. Shrink/Fatten

Without this, I don't know how else to modify rope-like objects in Edit Mode. Also applicable to curve segments. Huge time-saver!

Hotkey: ALT+S



MORE ABOUT BLENDER: Useful Blender Tricks



4. Undo History

Just like Photoshop or Gimp, Blender has an Undo History - which comes in handy after you've made some changes only to realize it was better before.

Hotkey: CTRL+ALT+Z

EXPAND YOUR KNOWLEDGE



Practice using references.



Watch and follow tutorials.



Try new tools, don't be afraid!



THANK YOU

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