



Blender Workshop

An introduction to Modeling with Blender
by
Zhuli & Florian

Schedule

09:00 - 09:30	Theory
09:30 - 10:15	Guided Hands on (Zhuli)
10:30 - 12:00	Guided Hands on (Florian)
12:00 - 13:00	International Lunch Break
13:00 - 16:00	You Design, We Teach
16:00 - 16:30	Presentation of Results





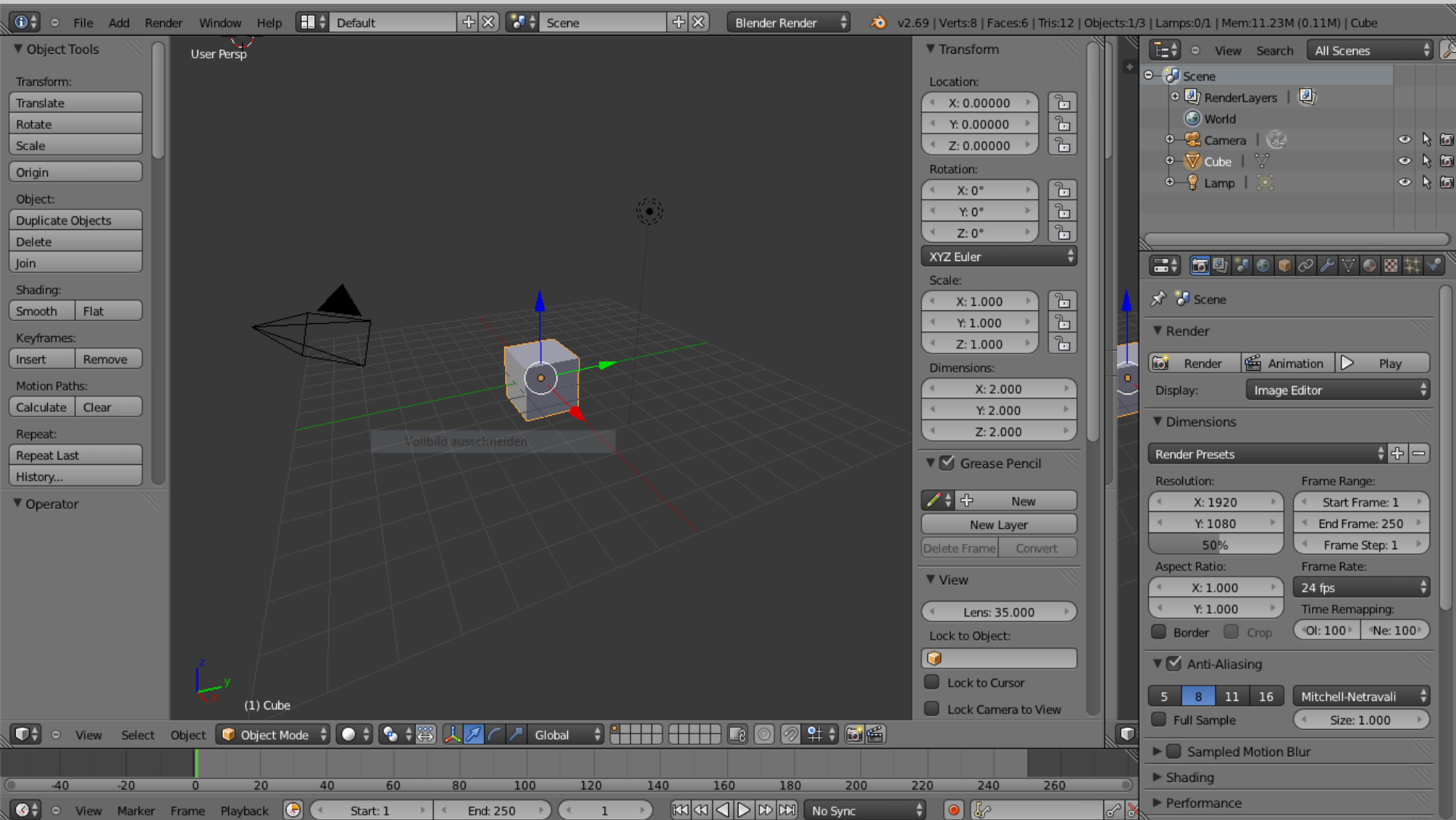
Our goal for today

“The participants will be able to independently create a simple 3D object, using basic blender features, such as extrusion and modifiers.”

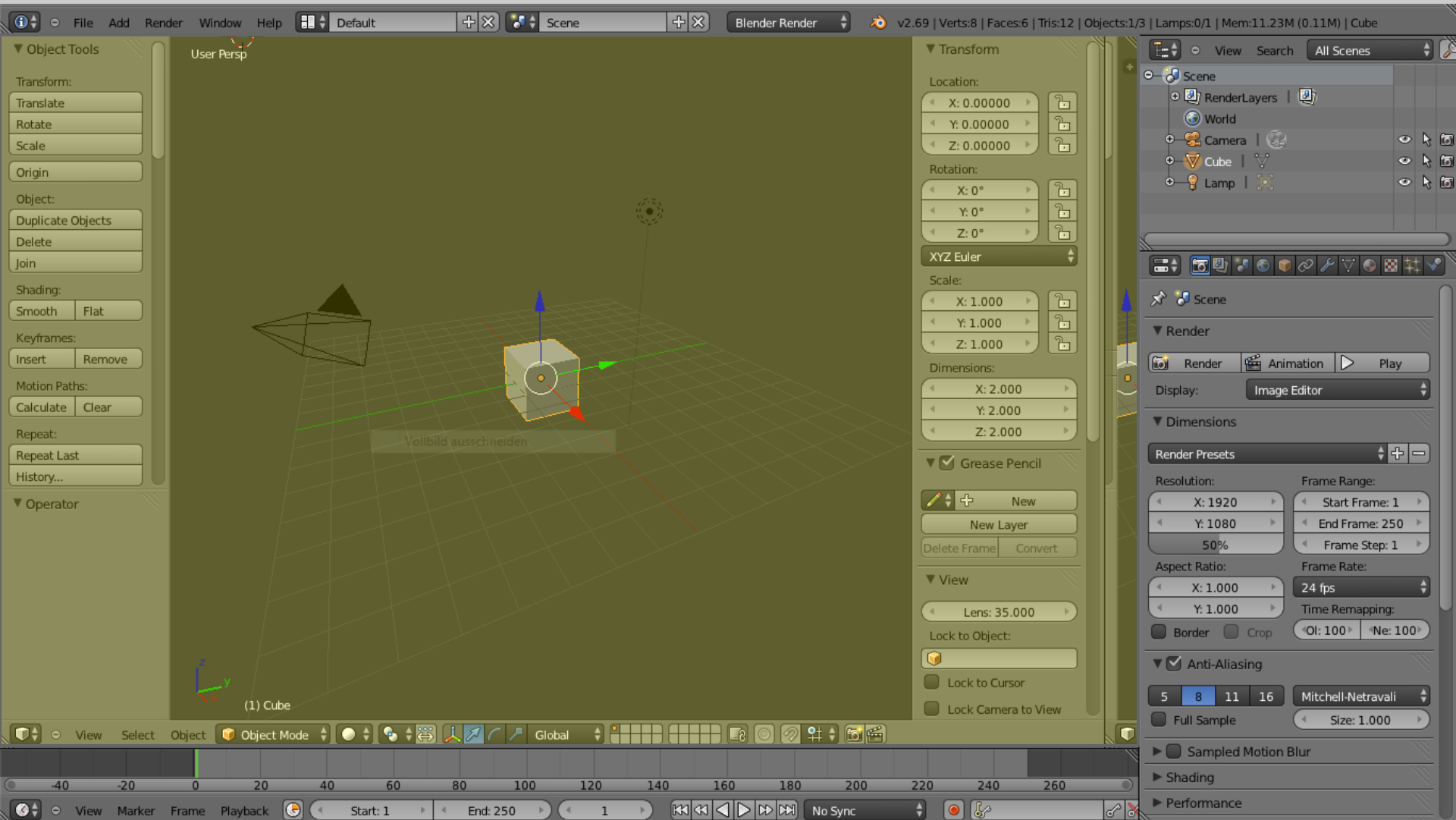
Getting Started



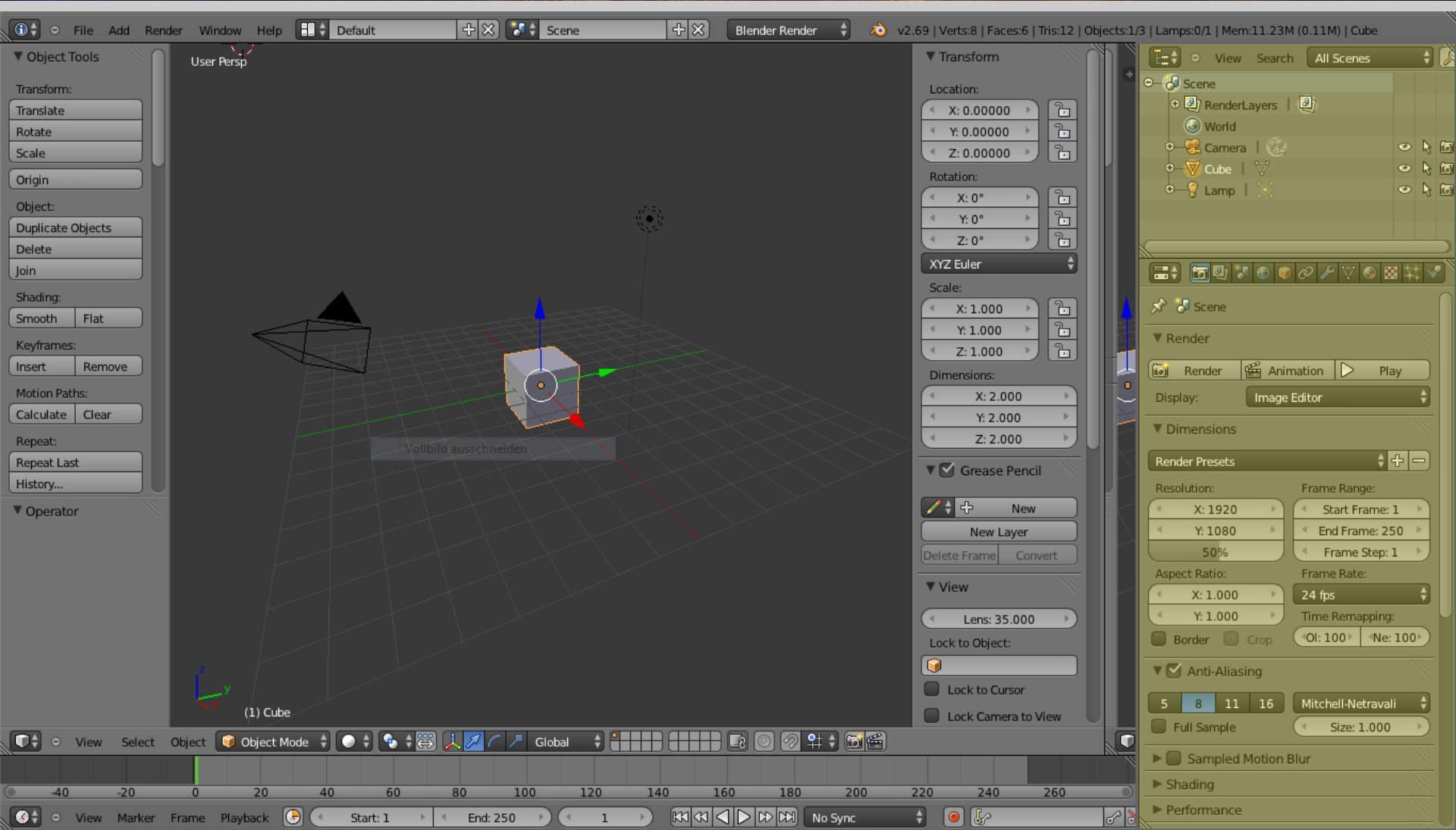
Getting Started: Interface Layout



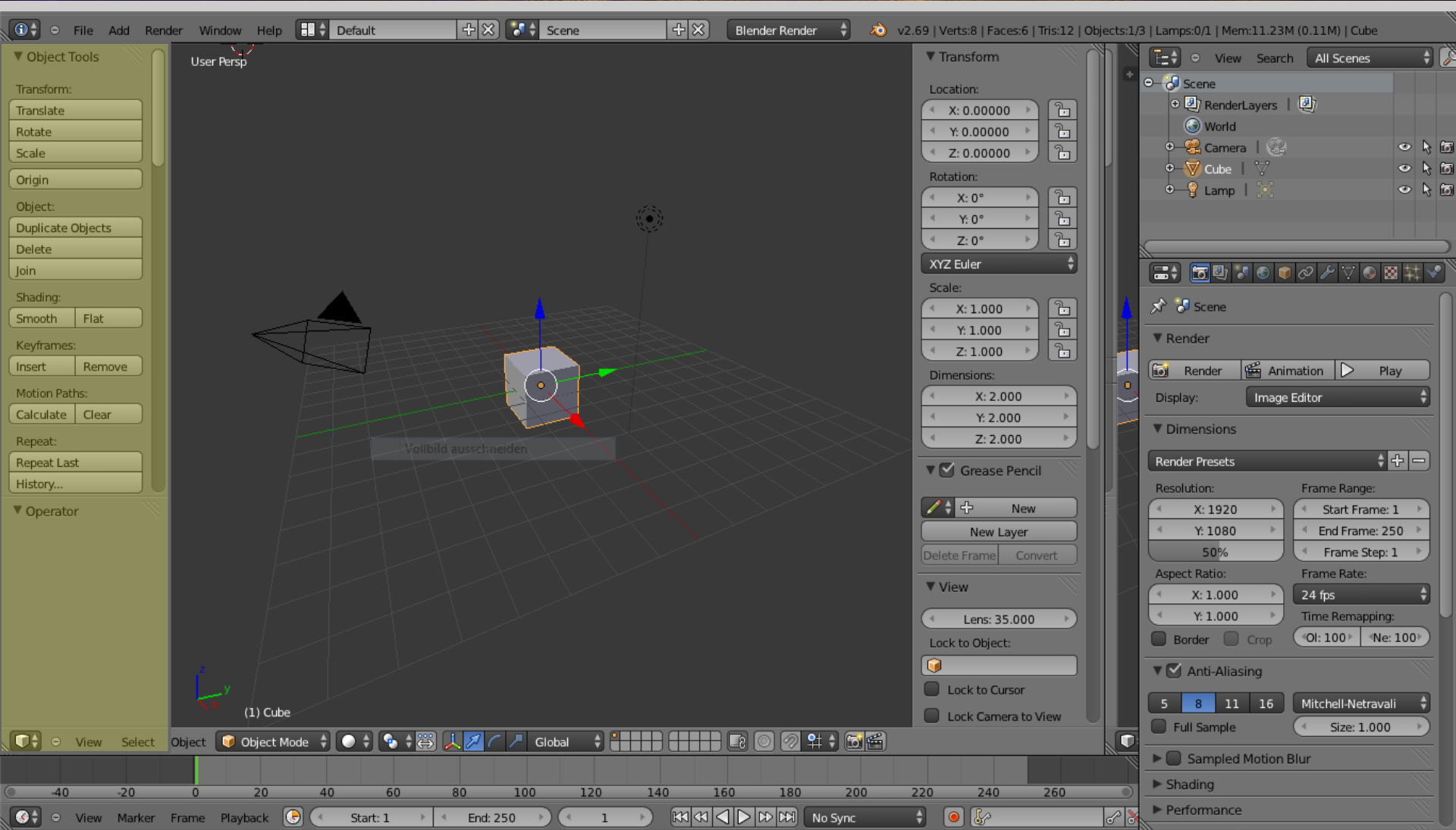
Getting Started: Interface Layout



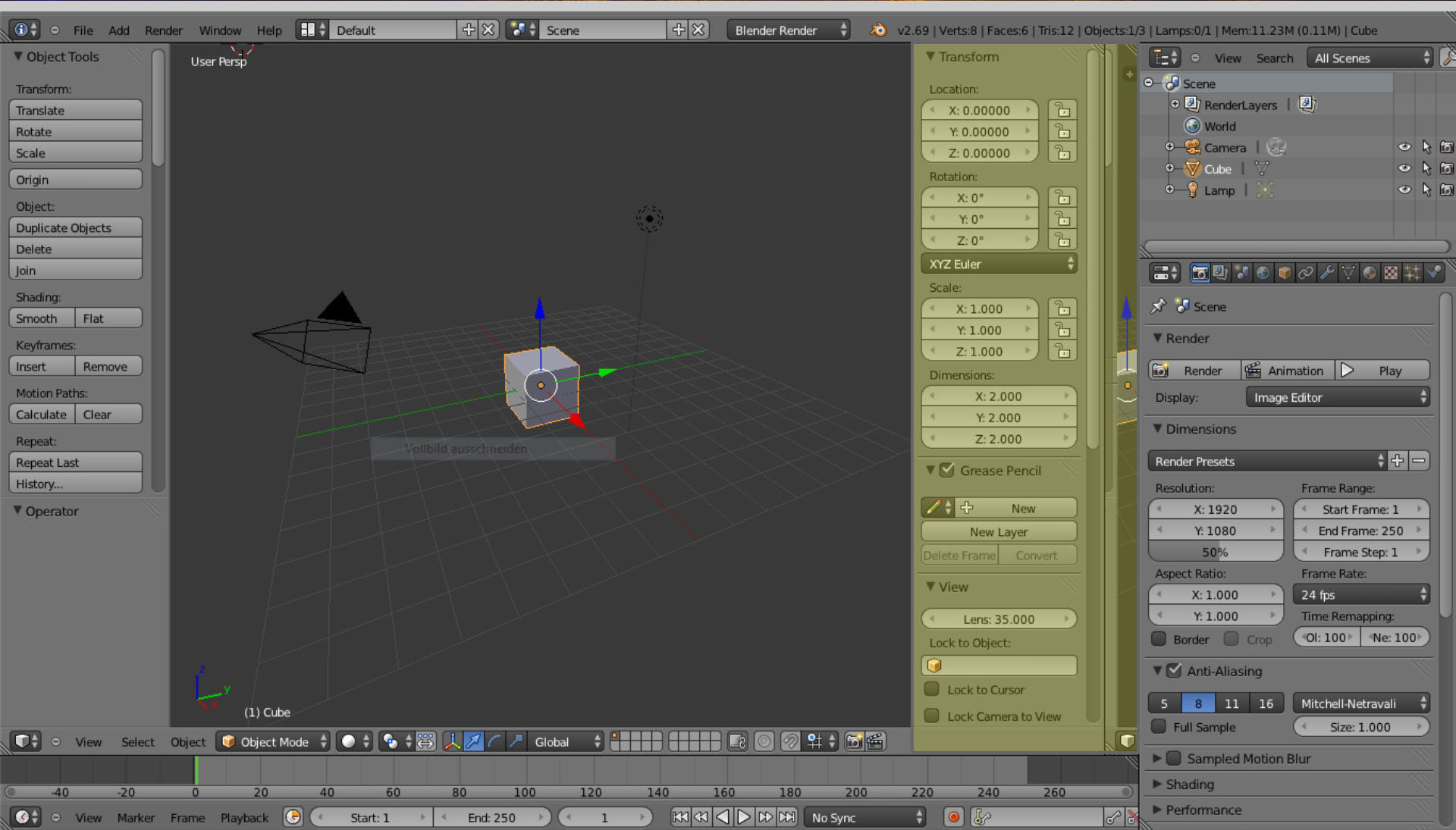
Getting Started: Interface Layout



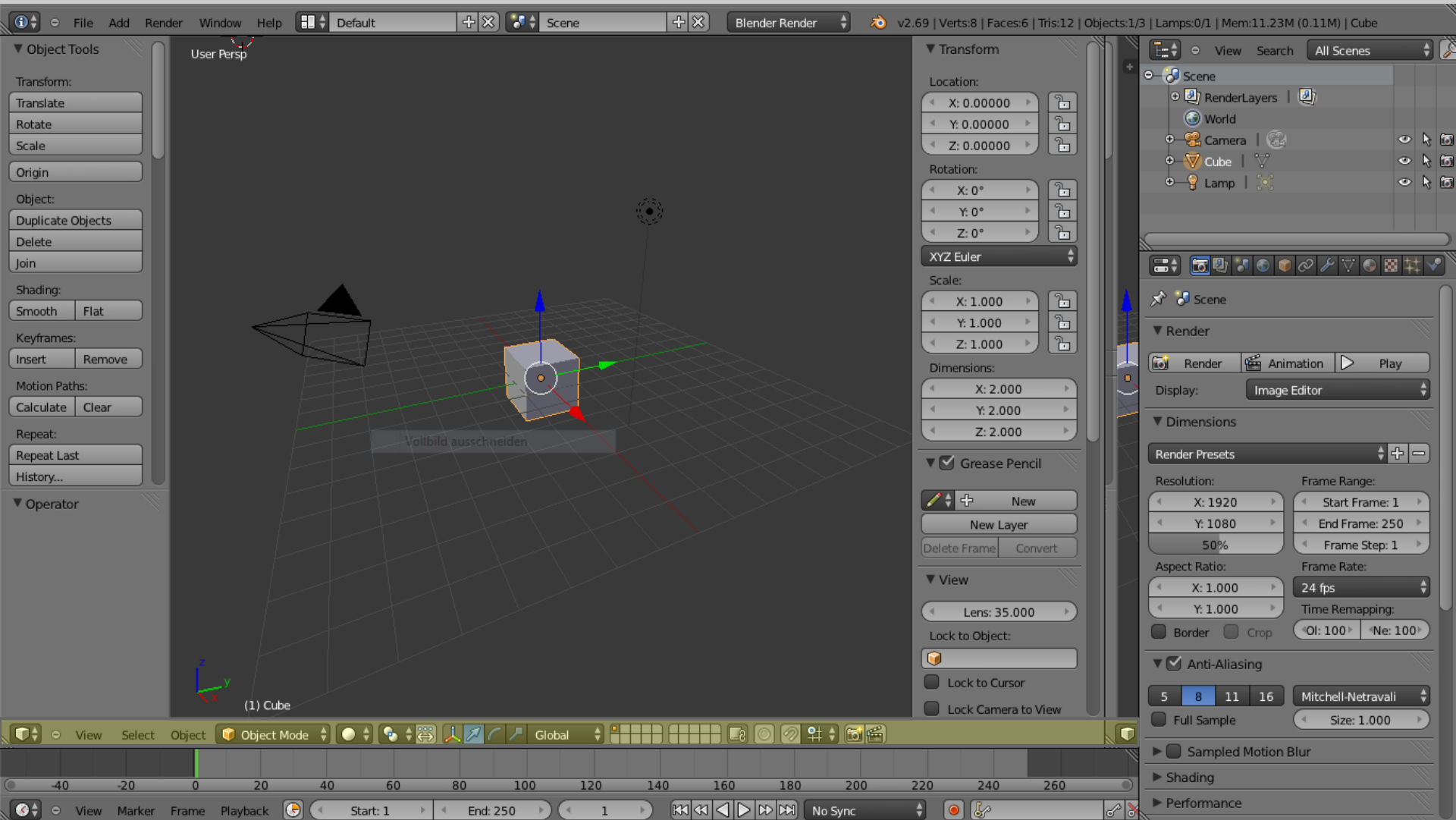
Getting Started: Interface Layout



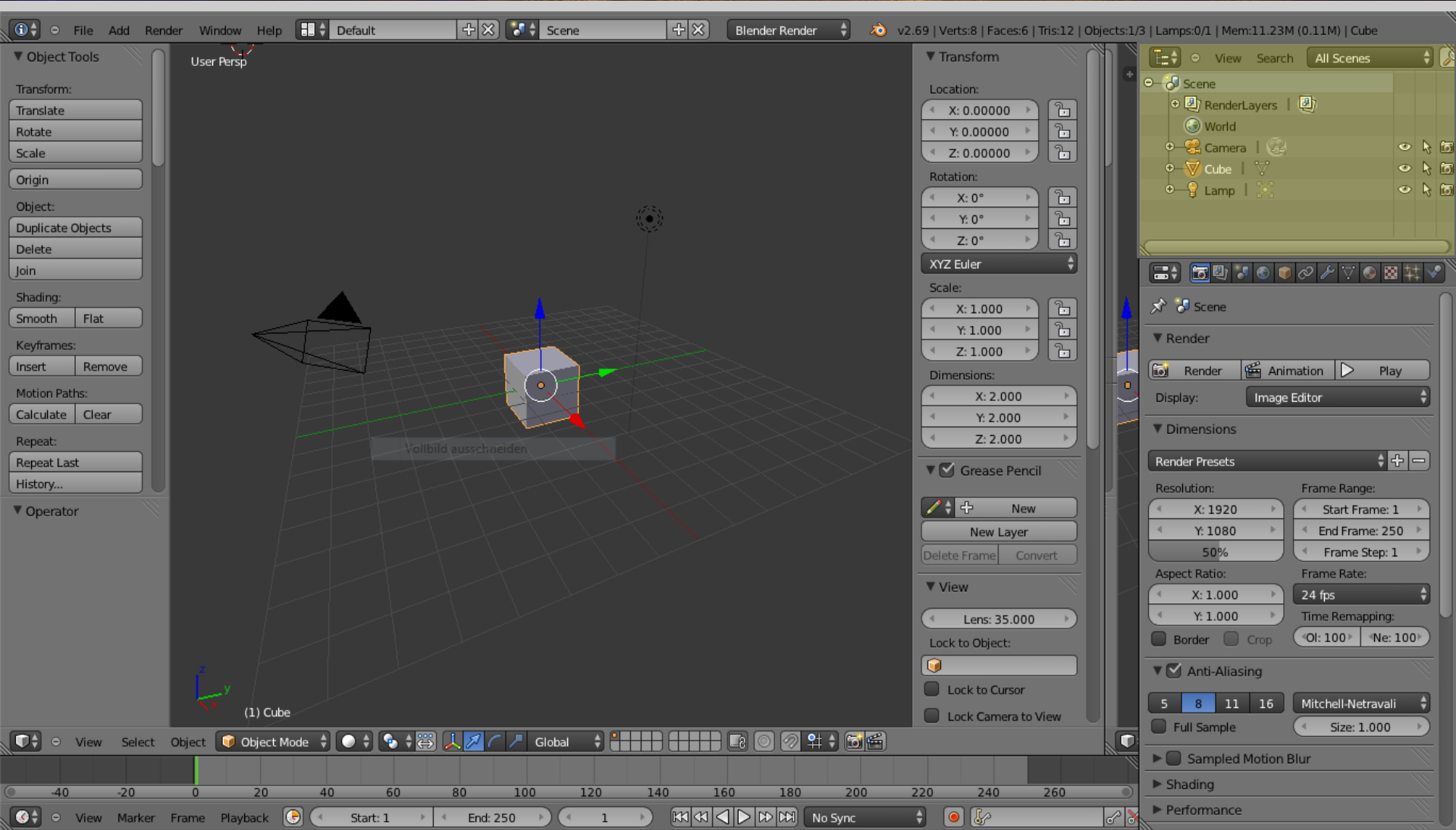
Getting Started: Interface Layout



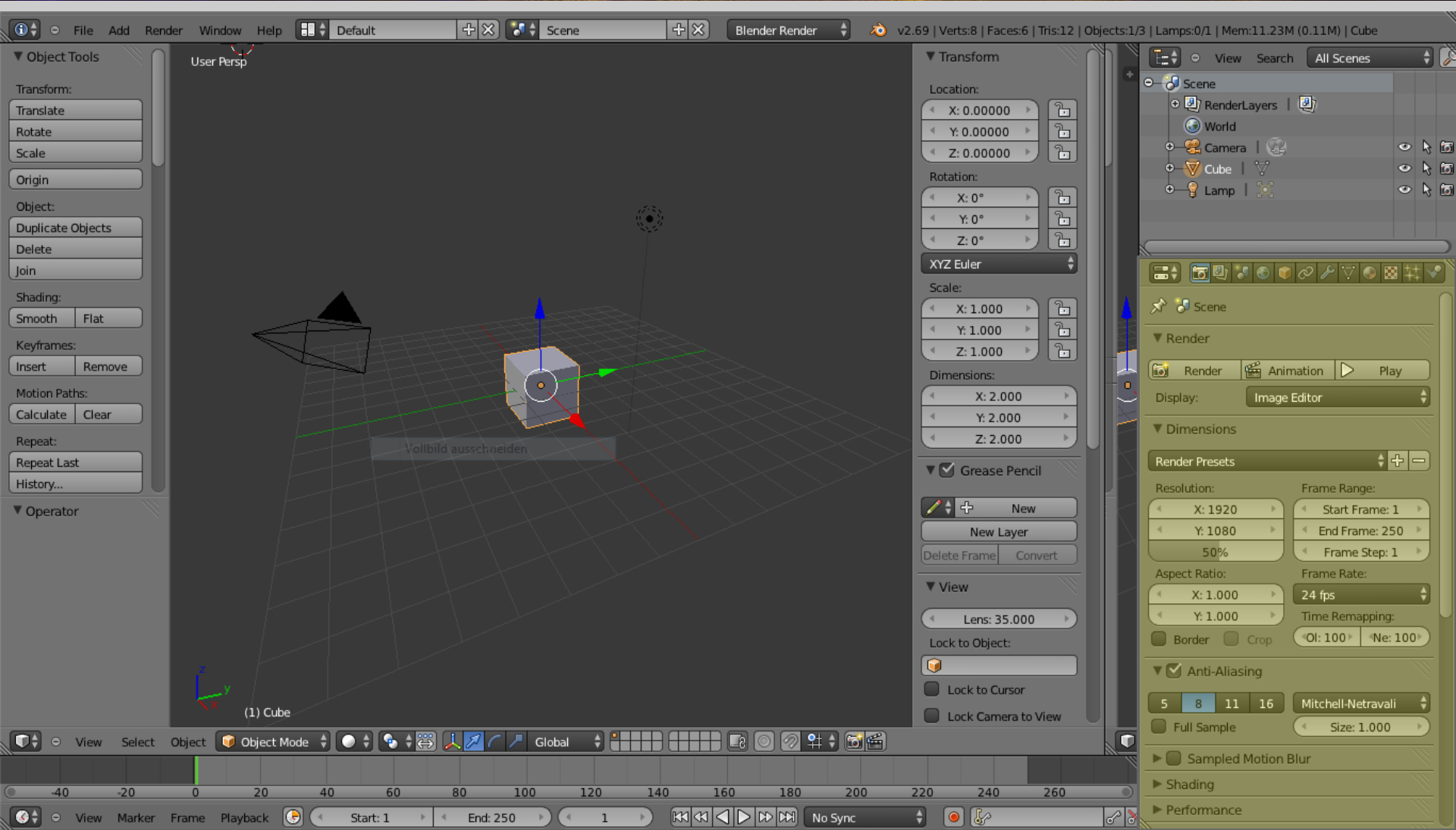
Getting Started: Interface Layout



Getting Started: Interface Layout

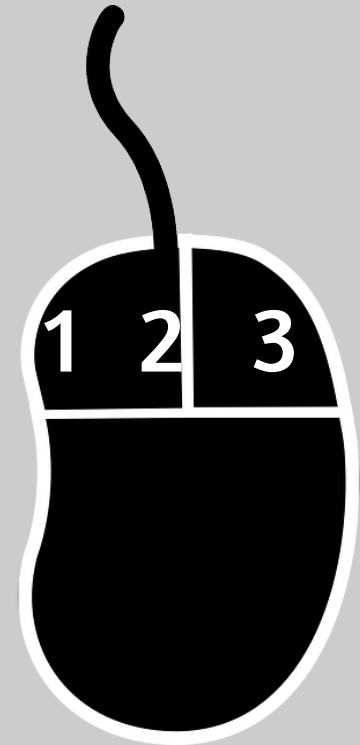


Getting Started: Interface Layout



Getting Started: Navigation in 3D

1. Left key → Change 3D cursor position
2. Middle key → Change view point
3. Right key → Select object



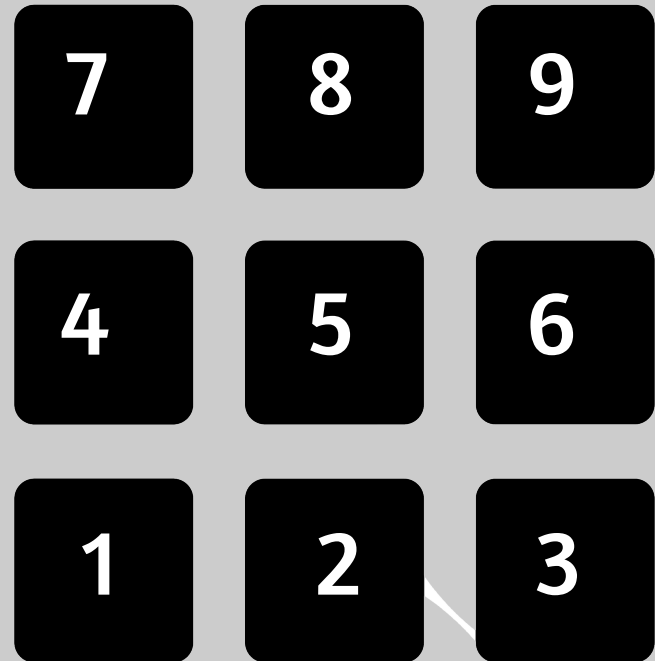
Getting Started: Switching viewport

“1” → Front View

“3” → Side View

“7” → Top View

Num Pad



Basic Operation

1. Object Mode <-> Edit Mode
2. Move, Rotate and Scale
3. Select all, Deselect all

Subdivide & Loop Cut

1. Subdivide -> “W”
2. Subdivide menu

1. Loop Cut -> “Ctrl” + “R”

Note: You need to be in “Edit Mode” to do these operations.

Extrude

Shortcut key -> “E”



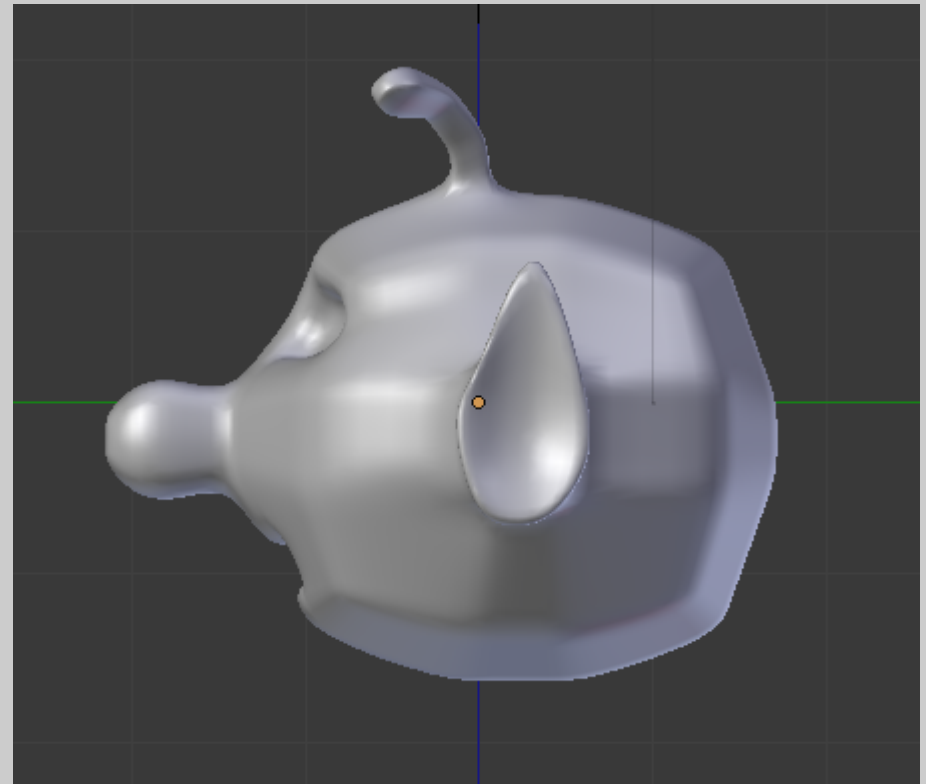
What can I do with these basic operations?



You can make a cartoon head!

Guided Hands - Cartoon Head

Zhuli will now model this, while you may follow:





Go ahead!

**Use the same trick,
DIY the eyes and mouth!**

Modifiers

- Non-destructive editing of Mesh
- wide variety of purposes
- can speed you up
- update in realtime
- can slow you down
- order matters !

Guided Hands On II - Christmas Ornament

Florian will now model this, while you may follow:





Go ahead!

**Use the same trick,
DIY the hook, and decorate it further**

International Lunch Break



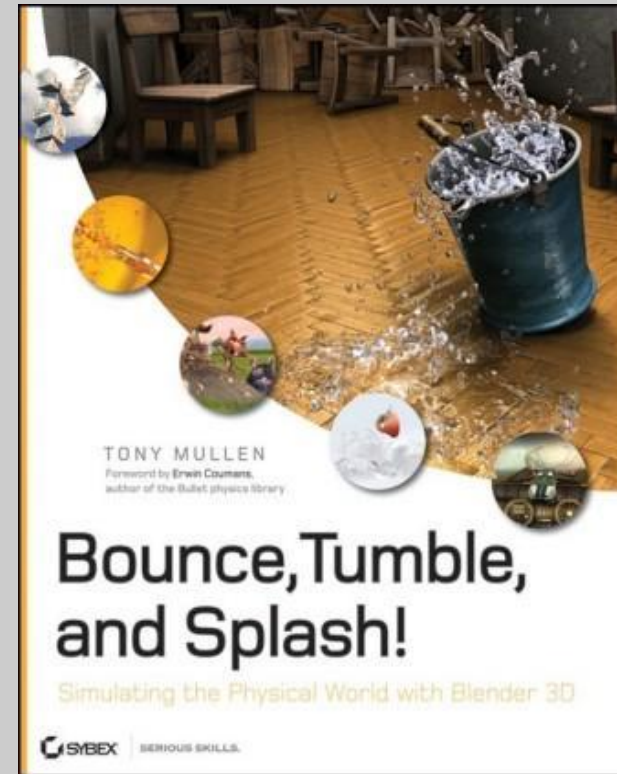
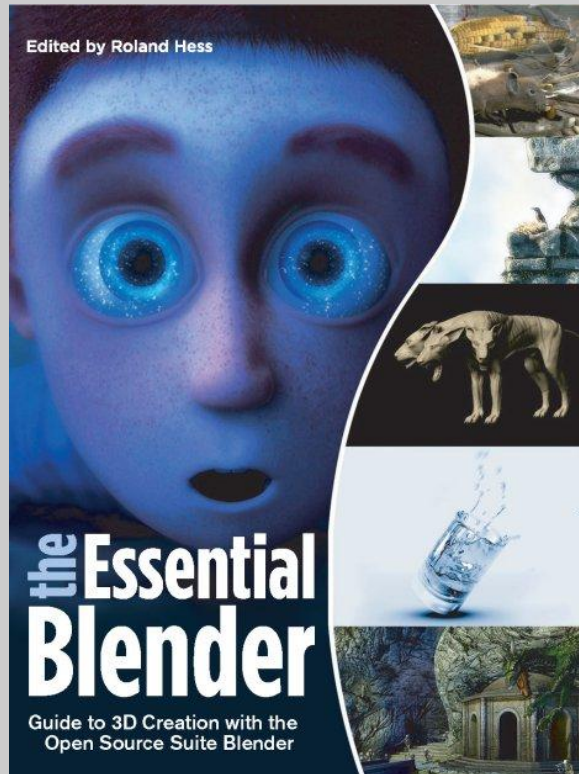
Guten Appetit! Enjoy your Meal!

Hands on: You build, we watch

Now it's time to get out your sketches and
start remaking them in 3D

Presentation of Results

Further Reading:



Further Resources

- Official Blender Website:
<http://www.blender.org>
- BlenderGuru.com - high quality blender tutorials:
<http://blenderguru.com>
- Blender Material Repository:
<http://matrep.parastudios.de/>
- BlenderNation:
<http://www.blendernation.com/>,
- BlenderArt Magazine:
<http://blenderart.org/>

Image sources

- Presentation Header: The Cabin by Timothy - <http://leitingbug.blogspot.in/2011/01/modelled-by-andrew-kin-fun-chan-and-dan.html>
- BlenderLogo with stars: Blender Showreel 2013 - <https://www.youtube.com/watch?v=1XZGulDxz9o>
- wideEyedBoy: StarryNight by Mathias Pedersen: <http://www.mathiaspedersen.com/portfolio/3d-portfolio/starry-night/>
- Bread: From the tutorial “How to create realistic bread” by AndrewPrice - <http://www.blenderguru.com/tutorials/how-to-create-realistic-bread/>



Thank you!
&
You did a great job!

Intermission/Excourse: A Question here

Step 1: Turn a cube into a basic head

- 1) Subdivide a cube to $3*3*3$ smoothly
- 2) Select central faces and scale out
- 3) Select corner points and scale in
- 4) Smooth it

-> *View object from different perspective*

Step 2: Make a basic nose

- 1) Select a central face
- 2) Scale it down and exclusive it
- 3) Pull it out and scale it again
- 4) Repeat your operation!

Step 3: Make basic ears

- 1) Select two faces on a side
- 2) Extrude them and pull them out
- 3) Refine it by adding more details
- 4) Not symmetrical?

Step 4: Use mirror modifier

- 1) Cut your object into half
- 2) Tick “Clipping” in the modifier
- 3) “Apply”!

Step 5: Use your imagination!

- 1) Select some faces on the top of the head
- 2) Extrude them and pull them up for 3 times
- 3) Select the 4 points in the corner of the second layer, scale and rotate them to make a windmill.