# ΓΡΑΦΙΚΑ & ΕΙΚΟΝΙΚΗ ΠΡΑΓΜΑΤΙΚΟΤΗΤΑ

Διάλεξη #8

3ds MAX – Sub-Division Modeling (more…)

# 3ds MAX

## Sub-division Modeling – Swift_loop



- **Continue to scalp the Object**
  - Create a nose
    - We need more details in the area which we want to create the nose
  - Use “Swift loop” in either Object or Sub-Object mode to add details
  - Moving the cursor around the model we can see a preview of where a edge loop will be constructed (vertically or horizontally)
  - Go to Polygon or/and Vertex Sub-Object mode and select the polygon of interest
    - Move, Scale or/and Extrude
    - Delete the extra polygons because of symmetry
    - Turn off “Show & Results, select the polygons and delete them
  - Use “Swift loop” to add more details to any area of the model….

# 3ds MAX

## Sub-division Modeling – Constrain (transformation)



- **Constrain the sub-Object transform**
  - Move some detail on Object (for transformation purposes) but maintain the general shape
  - Select the Object – Go to “Editable Poly” level
  - Turn off “Show and Results”
  - Go to “Vertex” Sub-Object Mode from Modify Panel
  - Select a vertex from the base of ear and move it in “y” axis
  - Observe the connected edge changing direction while we move the vertex in “y”
  - Constrains OFF (vertices, edges, faces, surfaces) is the current state – Edit Panel (Ribbon)
  - Set **Constrains ON edges** and retry to move the vertex in “y” axis
    - Observe that the edge don’t remove – don’t change its angle

# 3ds MAX

## Sub-division Modeling – Weld_seam



- **Weld the seam of the Object**
  - To combine the two halves of the model into a single piece
  - Make sure that you have done with the symmetry transformations
  - Delete the “TurboSmooth” modifier
  - Make sure that the model has no gaps (by investigating it – ordit around)
  - Convert it to “Editable Poly” (right click on the object)
    - Collapse the modifiers stack
  - Re-add the “TurboSmooth” modifier (set Iterations=3)
  - At this time we have create a new object which has no symmetry modifier – it’s a sub-division model

# 3ds MAX

## Sub-division Modeling – Asymmetry



- **Add asymmetry to organic Object (animals, plants, etc.)**
  - Natural Object are never perfectly symmetrically
  - Go to “Editable Poly” level - Turn ON “Show and Results”
  - Go to “TurboSmooth” modifier - Turn ON “Isoline Display”
  - Go to “Editable Poly” level and start select thinks and make adjustments
    - Go to “Vertex” Sub-Object Mode from Modify Panel
    - Select the top vertices of right ear and move them
    - Observe that only this ear change position and not both of them
    - Continue with transformations to make more natural
  - Use “Soft Selection” also for transformations
  - Use the Move and Scale Gismo and try to create asymmetry!!!

# 3ds MAX

## Sub-division Modeling – Baking



- **Finish the model**
  - Bake the Sub-division mode to a finished model
  - Go to “TurboSmooth” modifier
    - Reduce the “Iterations”=2
    - Convert to “Editable Poly”
  - We have enough details to work on this new model
  - We can also add more details to render well
  - Add the “TurboSmooth” modifier
    - Set “Iterations”=0 (View port iterations )
    - Set “Render Iters”=1 or 2 (to specify a different numbers of iterations in render time)
  - Using the “Render Production” button (Main Toolbar – “Teapot” icon) make some tests
- **Sub-division power leverage**
  - Fast performance in View port and
  - Rendering with tiny polygons (maybe less than a pixel size) to make fully photorealistic objects

# Ερωτήσεις




why
when
who
where
what
why
QUESTIONS
who
how
where
who
what
how
why
when