

# Assignment # 5 - Adding UV's and Textures to 3D props

Assignment Description:

## A. Unwrapping 3D objects

- Unwrap all 3d prop objects (toothpaste tube, pencil, eraser) onto a single texture sheet of 1024 x 1024

## B. Create Unique Texture

- Make a unique texture for your newly unwrapped props

## C. Render Scene

- Render out your scene and overlay your original texture with your UV snapshot

**Lesson Topics:** UV Editor, UV Layout, Creating and applying unique textures.

Hints:

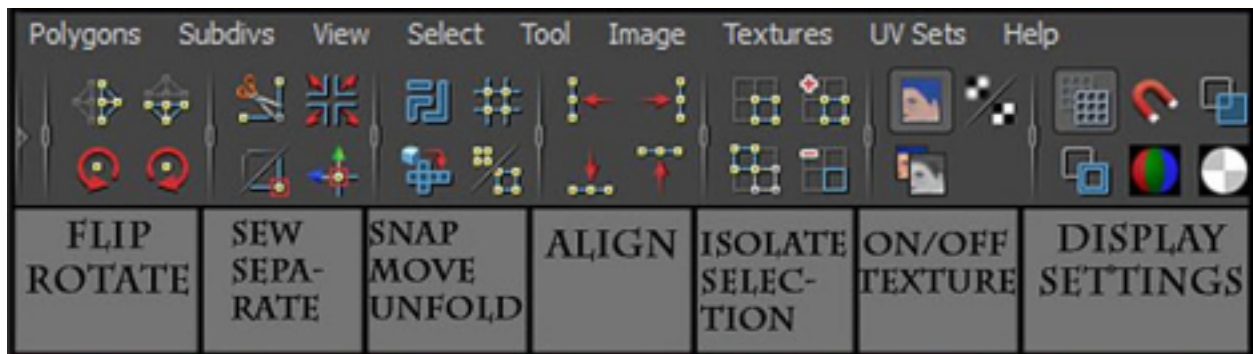
- Delete history on all meshes before using the UV editor. Edit >Delete by Type> History
- Bring each object to (0,0,0) in translation and rotation and freeze transforms so scale is at (1,1,1)
- All object meshes should be aligned with the axis, either upright or laying down: Tube and Pencil upright and the Eraser on it's wide surface
- Create New UVs for Eraser with Create UVs >Automatic Mapping (6 sided projection)
- Create new UVs for Tube with Create UVs >Cylindrical Mapping
- In face mode, select the Tube cap to Create UVs> Cylindrical Mapping
- Select the cap top faces and Create UVs > Automatic Mapping

Cylindrical Mapping for the tube:

Select specific separate faces to do this instead of taking the whole tube at once. Leave the cap out of it at first. Use cylindrical mapping for the body of the tube. Select the cap faces, without its top with another cylindrical mapping. Then select the top faces of the cap and apply a planar projection.

Use UV Editor commands demonstrated in class

- To select an entire shell: RMB UV mode >Select one vertex >Ctrl-RMB >go to Shell
- Cut and Sew Edges
- Use Transform Tool (Translation, Rotation, Scale)
- **To export the UV Layout to PhotoShop:** UV Editor >Polygons >UV Snapshot to 1024x1024
- [UV Texture Editor toolbar Autodesk Maya Documentation](#)



**Evaluation Notes:** Concentrate on using the UV space as efficiently as possible without overlapping in the (0,1) space. Spend time making a good looking unique texture.

## Grading rubric

5%	File Naming (Pass/Fail)
5%	Texture is personalized. Must be an original image on a single 1024 x 1024
20%	UV_layout.jpg image. Image with UV snapshot displayed on top.
20%	Appropriate projection. Three props with adequate projection for their UV's adjusted in UV editor
20%	UV layout. All UV's fit inside the (0,1) UV gray space with no overlapping UV's
20%	UV shells are packed. Uv's are arranged to utilize the most of the texture space
10%	Render shows all three props with the appropriate textures applied

## Naming Scheme

File name must use this naming convention: **S15\_cg125\_Briley\_YourName\_PropUVs**

## To Be Submitted

One zipped file including:

- Your resulting Maya file (.mb) All three props in scene, unwrapped, props have materials and textures assigned.
- .jpg of your original texture (1024 x 1024)
- Additional .jpg with the UV layout overlay on top of image. (this is your UV snapshot overlaid on top of your original texture)
- A rendered image of your scene HD720 (1280x720 resolution (jpeg) Props laid side by side on a gray background.

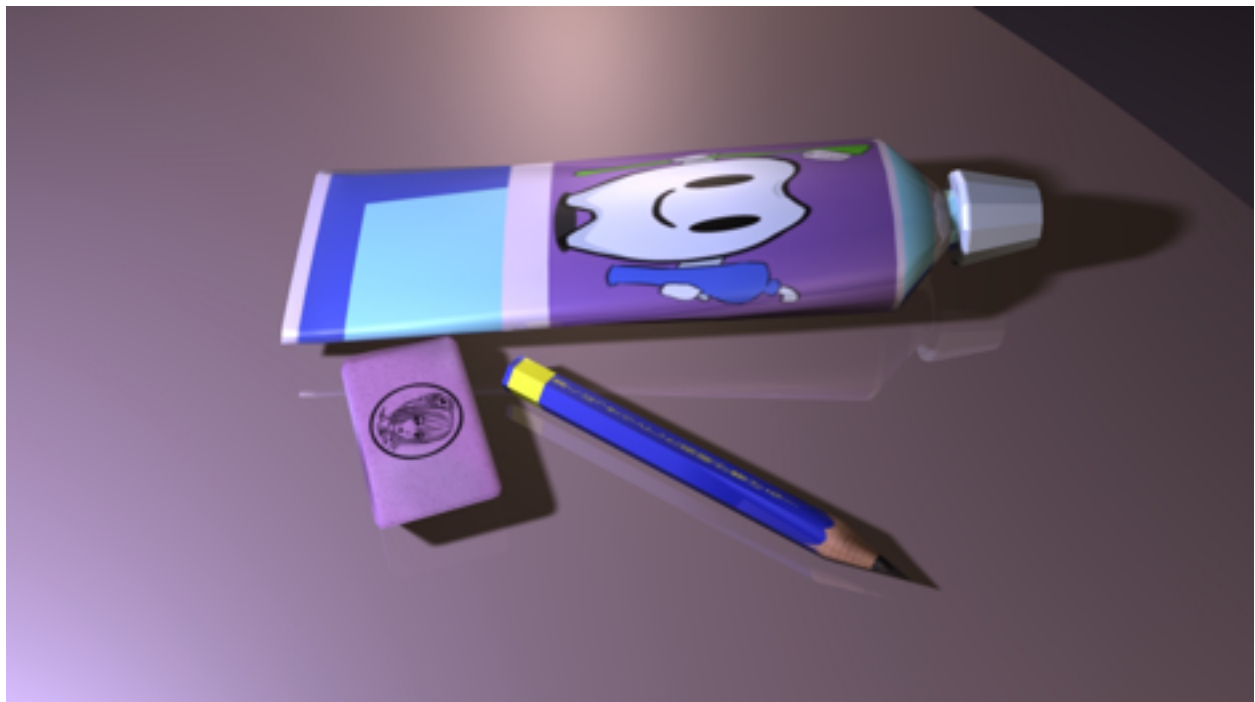
All files should be submitted to Moodle and the N: drive

## Assignment Due

**All assignments are due the day before class at 4PM**

## Reference

Example of props rendered with unique textures applied.



Example of unique texture sheet with UV layout (snapshot) overlaid on image. 1024x1024 jpg

