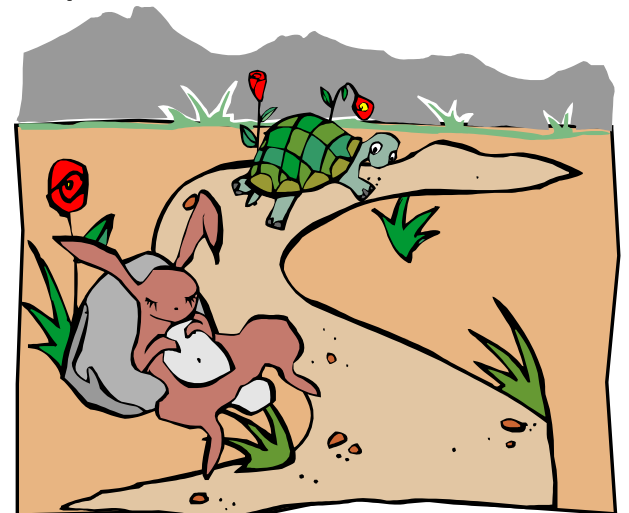


Port 2 Animation & Batch Rendering

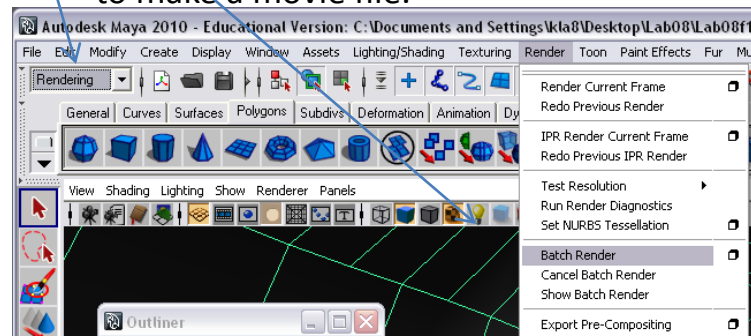
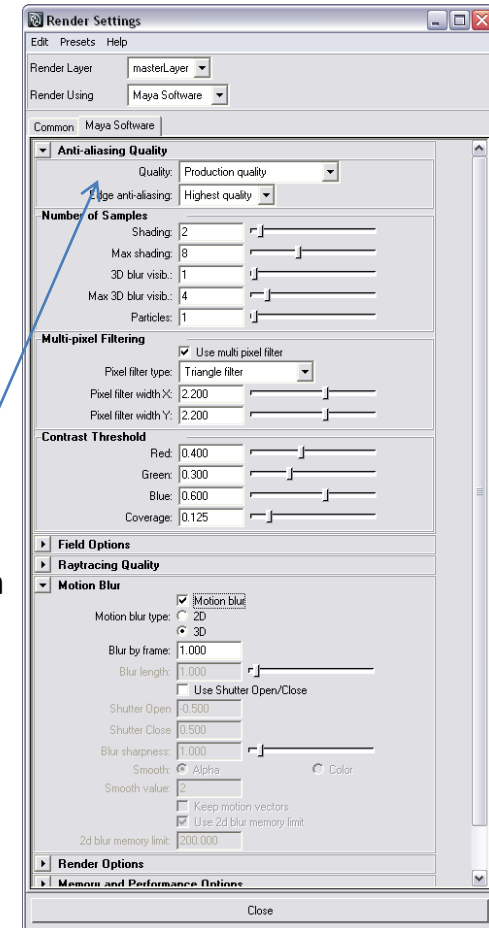
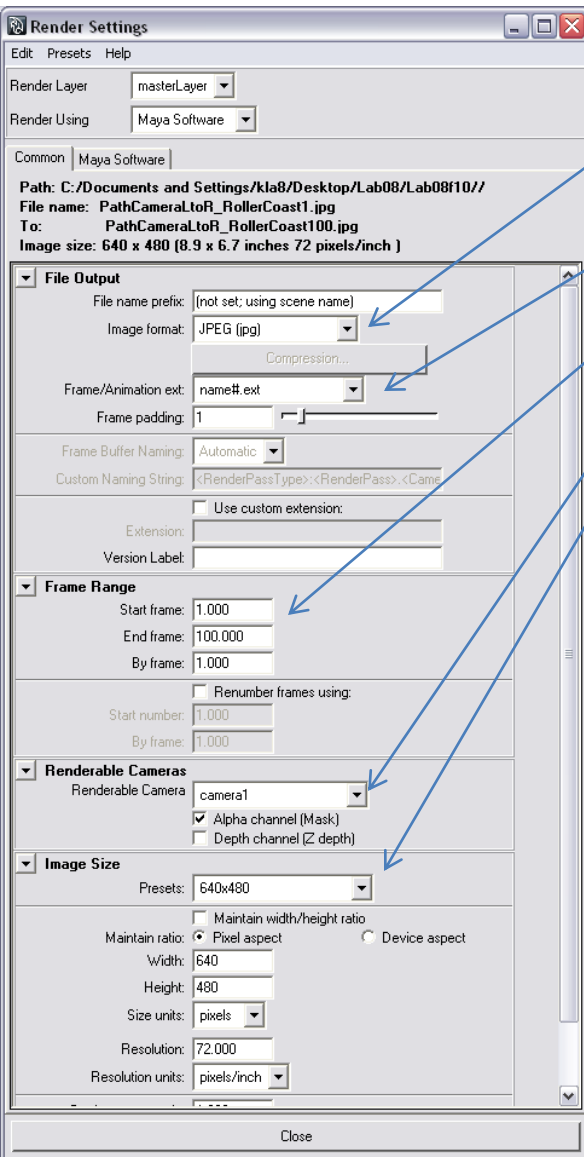
- In creating character, animated motion and metamorphosis can greatly affect character expression, acting, and believability, giving life, or the illusion of life" to an inanimate object. Through anthropomorphism, a character can be an object, such as a light, car or a teacup, an object which has human attributes, behaviors, and identities. Create a character in an animated environment using camera and animation to create an animated short.
- The work should include animating **1) skeleton based character, 2) camera and 3) lighting (or material/texture).**
 - Apply 12 Principles of Animation: **at least pick 4 principles and apply them on your character.**
 - Creating your character animation short movie of about minimum 15 seconds in length.
 - Submit
 - 1) Maya file (if texture included, add texture as well)
 - 2) Document explaining your overall animation approach and how 4 animation principles applied on your work
 - 3) Video file (see next two slides)

1. Batch render your Maya images (frames) as 'tga' file format (see the next slide).
 2. No Playblast. Since both animation and rendered image quality are important , please use either Adobe Premiere or other editing software to **generate a video file** ('mov' or 'avi') from your rendered images.
- You are welcome to reuse your individual work for the completion of your team project. Even team members share the same character, the animation/movements should be unique and different.
 - No plagiarism..



Rendering image sequences in Maya

1. If you already set a project folder (**File > Project > New**), the rendered images will be saved under the 'images' sub-folder.
2. Switch your viewport to the target camera and it is good to turn on the **Resolution Gate (View > Camera Setting)**.
3. Open the **Render Settings** window.
4. In the **Common** tab, Select an image format (e.g., jpeg, tiff etc).
5. Change the **Frame/Animation ext** to 'name#.ext'.
6. Change the **Frame Range** for the Camera1 (**Start frame & End frame**).
7. Set the **Renderable Camera** to camera1.
8. Set the **Image Size** to '640 x 480' pixels.
9. Switch to Maya software tab.
10. Set the **Anti-aliasing Quality** to the **Production Quality**.
11. Switch to the **Rendering** module and apply the **Batch Render** function from the **Render** menu.
12. Switch to the next camera and adjust both **Frame Range** and **Renderable Camera** (if you have multiple cameras). Bring all files to a video editing application (e.g. Adobe Premiere) to make a movie file.



The 12 Principles of Animation (Walt Disney Studio, 1930s)



(Kerlow, 2004).

<http://www.artof3d.com/feature.htm>

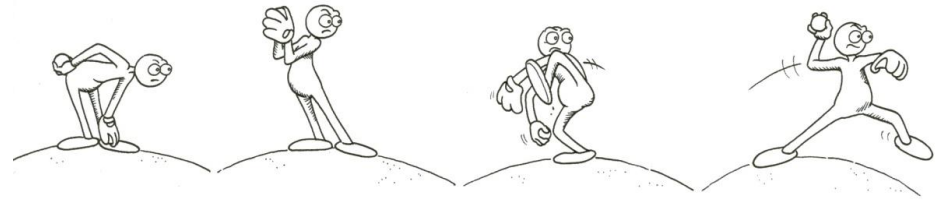
1. Squash and stretch
2. anticipation
3. Staging
4. Straight-ahead action and pose-to-pose
5. Follow-through and overlapping action
6. Slow-in and slow-out
7. arcs
8. Secondary action
9. Timing
10. Exaggeration
11. Solid modeling and rigging
12. Character personality

Web Source:

<http://www.evl.uic.edu/ralph/508S99/contents.html>

STRAIGHT-AHEAD ACTION

10.2.4 The improvisation, spontaneity, and unpredictability in the walk of a drunken character illustrates straight-ahead action.



ANTICIPATION

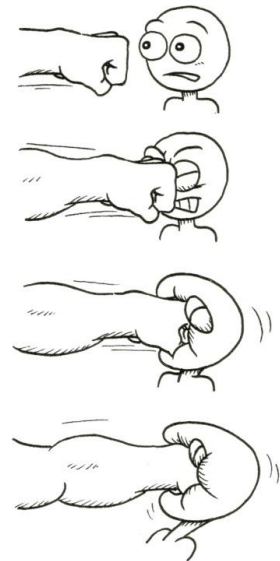
10.2.3 Before throwing the ball the pitcher anticipates the target and winds up for the pitch.



STAGING

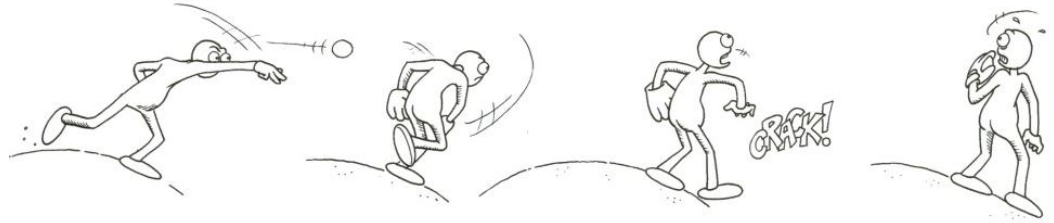
10.2.5 Differences in staging can turn the same scene from happy to suspenseful.

1. Squash and stretch
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12. Character appeal/personality



SQUASH AND STRETCH

10.2.2 The first of the twelve principles developed by Disney animators in the 1930s, squash and stretch is used here to distort a face after receiving a punch.



1. Squash and stretch
2. anticipation
3. Staging
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5. Follow-through and overlapping action
6. Slow-in and slow-out
7. arcs
8. Secondary action
9. Timing
10. Exaggeration
11. Solid modeling and rigging
12. Character appeal/personality

y.

FOLLOW-THROUGH

10.2.6 Follow-through includes the reactions of a character after an action. These let the viewer know how the character feels about what has just happened.

or

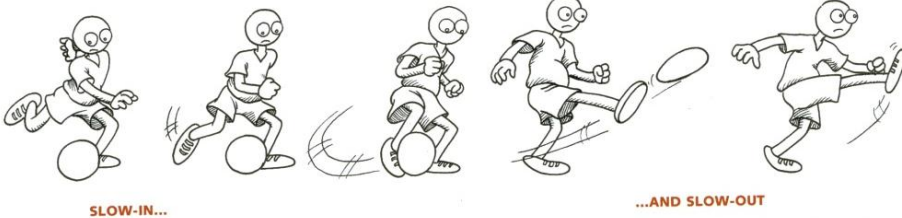
2



OVERLAPPING ACTION

10.2.7 Multiple motions happening at the same time result in overlapping action, for example when a character falls.

1. Squash and stretch
2. anticipation
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4. Straight-ahead action and pose-to-pose
5. Follow-through and overlapping action
6. Slow-in and slow-out
7. arcs
8. Secondary action



10.2.8 Right before and right after kicking the ball a soccer player slows-in and slows-out; this highlights the precise moment of the kick.



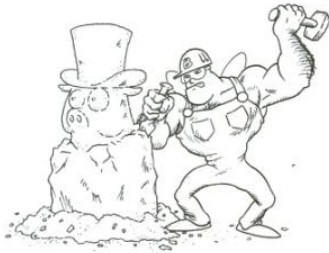
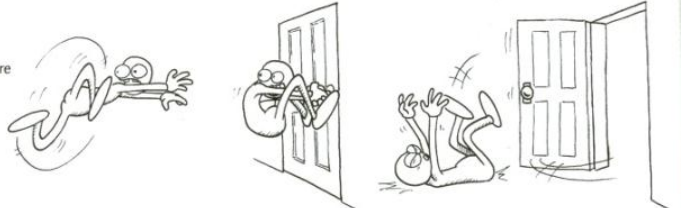
ARCS, AND POSE-TO-POSE

10.2.9 The smooth motions of a ballerina follow curved paths. Her structured movements, from one key pose to another, are a good example of pose-to-pose action.

ion
eling and rigging
appeal/personality

EXAGGERATION

10.2.12 Exaggerated reactions are often comedic.



SOLID DRAWING

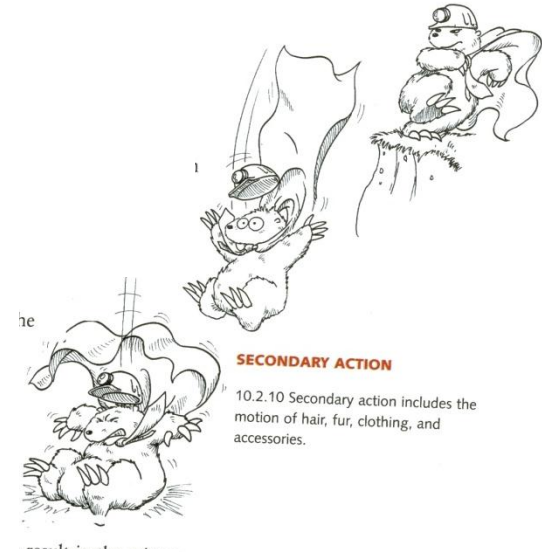
10.2.13 Solid drawing helps to pose silhouettes that are easy to read visually, and good rigging helps animators deliver performances that are adequate to the character. The equivalent of this principle in 3D computer animation is solid modeling and rigging.



CHARACTER APPEAL

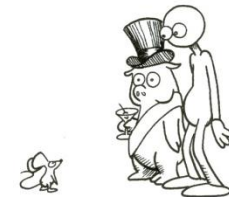
10.2.14 Understanding the motivations and desires of characters makes their personality better defined and increases their appeal.

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10. Exaggeration
11. Solid modeling and rigging
12. Character appeal/personality



SECONDARY ACTION

10.2.10 Secondary action includes the motion of hair, fur, clothing, and accessories.



TIMING

10.2.11 The timing of a response to someone calling us, or to a noise, tells a lot about our attitude, confidence, and disposition.

- Previous 343 works
- <http://www.sfu.ca/~jpw3/iat343/assignment2.html>
- <http://www.sfu.ca/~shk10/iat343/portfolio2.html>
- <http://www.sfu.ca/~justink/iat343/portfolio2.html>
- <http://www.sfu.ca/~stl6/iat343/portfolio2.html>
- <http://www.sfu.ca/~kcalder/iat343/assignments.html>
- <http://www.sfu.ca/~bva7/iat343/>