Grade 11 Communications Technology                                      Mr. Brunato

Special Effects Unit (Revised March 27, 2012)

Special Effects: Disappearing into an object using a static mask

**Overview**

This is an exercise which uses layered video and a mask to make it look like someone is disappearing into an object. You will learn how to layer two video clips, one on top of the other. The layer with the static mask will make it appear as through you are disappearing into an object.

**Procedure**

• Watch the teacher' examples. Use the source files and the tutorial lesson to practice the special effect in Adobe After Effects.

• Film a sequence in which someone walks around an object and disappear into it

• The object should be something that is impossible to disappear into like a slender tree or lamppost.

• Use a camera mounted on a tripod to film the sequence, making sure that the tripod and camera does not move between two shots.

• You will film 2 these two shots:

• Shot One: This is an empty frame. Film for 10 seconds

• Shot Two: Walk, skip, jump or dance into the frame behind an object, and out of the frame again.

| Static Mask Assessment (Assessment) | Thinking | Application |
|---|---|---|
| Mask is accurately applied | | |
| Organization and timing of layers | | |

**Overview**

In this video you will learn to isolate layers of video, so that when everything is combined, you are walking around your "frozen" self. In the final video clip you will walk into a video frame and freeze in one spot. While you are frozen in the middle of the frame, a second "you" will walk into the frame, notice your frozen self, and walk around yourself, and exit the frame. After that happens, your frozen self will thaw out and continue to walk.

**Procedure**

• Use the provided source files and tutorial lesson to practice this effect in Adobe After Effects. WARNING: It's tricky!

• Use a tripod to film two shots that you will combine in the special effects program.

• It is very important that you use a good tripod; and that you do not move the tripod from one shot to the next.

• Shot one: Wait 5 seconds and walk across a the video frame from right to left. Make sure that you enter the frame and exit the frame.

• Shot two: Wait 5 seconds. Walk to the imaginary spot where you stand "frozen in time". Take your time to walk around your frozen self. Let the audience know that this is a very weird situation. Continue to walk out of the frame.

• Bring the clips into After Effects, and using the tutorial sheet, coordinate the layers to achieve the overall effect.

| Walking around Frozen Self Evaluation | Thinking | Application |
|---|---|---|
| Clipping path is accurately applied | | 20 |
| Organization and timing of layers<br>(Each layer is properly timed as outlined in the overview section) | 20 | |
| Blocking of the shots is properly done<br>(The actor is in the appropriate spot in both shots to achieve the effect of walking around the frozen self);<br>Overall impact | | 10 |

**Overview**

Kinetic means movement; and typography means the study of text fonts, or more accurately, the study of typefaces. You will create a sequence of moving words which will be timed with spoken dialogue taken from pre-recorded sound clips, or recorded by you. How the words appear on the screen will depend on the spoken dialogue.

You will learn the animation tools in Adobe After Effects to make the works appear at the correct moment and to bring them to life

**Procedure**

• Take a look at the examples on Mr. Brunato's Delicious Page, brunato_commtech. A link is found on his webpage, www.brunato.com
• Pick a sentence from recorded dialogue. It can be pre-recorded, or you may record the dialogue yourself.
• Bring the dialogue into Adobe Premiere Pro and drag it onto the "Source" window. You will see the sound wave, which you can expand and contract. Scrub through the dialogue, mapping out when the beginning and end of the words are said.
• In Adobe Premiere, clips are broken down in the following way:  Hours ; Minutes ; Seconds ; Frames
• Please note that in video, there are 30 frames per second. In Premiere Pro, the count starts 0 and goes to 29

| Kinetic Typography Evaluation | Thinking | Application |
|---|---|---|
| Timing of the appearing words is accurately coordinated with the spoken dialogue | 20 | |
| Overall composition and placement of words within the video frame | | 20 |
| Animation of words is lively and matches the cadence of the spoken dialogue | | 20 |
| Transition from one sentence or phrase to the next (Assessment) | | |
| Use of graphics to enhance the spoken dialogue (Assessment) | | |

**Overview**

Motion graphics are used extensively in industry. They are used in commercials, opening credit sequences, the news, sports broadcasts, just to name a few. They are still images that move across a screen, akin to animation.

**Procedure**

• Use the provided Adobe PhotoShop source files and tutorial lesson to practice animating the images in Adobe After Effects in meaningful way. It should be fairly easy to do as you have had practice with this in kinetic typography.

• Pick a theme and collect images that will fit the theme.

• Using Adobe PhotoShop, isolate your images with a transparent background, known as an Alpha Channel. In Adobe PhotoShop, open an image; duplicate the layer; delete the Background layer; and erase around the image. Save it in its native Adobe PhotoShop PSD format. This will preserve a transparent alpha channel.

• Apply any necessary filters in PhotoShop to create a consistent style.

| Motion Graphics Evaluation Part One (Using source files) | Thinking | Application |
|---|---|---|
| Appropriate movement of images | | 20 |
| Composition and coordination of moving layers fit the theme in a meaningful way | 20 | |

| Motion Graphics Evaluation Part Two (Using your own images) | Thinking | Application |
|---|---|---|
| Images are intact and cleanly separated from their background using Adobe PhotoShop to create the alpha channel | | 20 |
| Graphics have a consistency of style which fit your chosen theme | 20 | |
| Appropriate movement of images | | 20 |
| Composition and coordination of moving layers fit the theme in a meaningful way | 20 | |

**Overview**

This is where the magic starts! Special Effects is about coordinating and moving layers of video to interact with each other to create an illusion of something that you cannot otherwise film. In the 1933 version of King Kong, a stop animation King Kong was combined with filmed actors. In the 2005 version, King Kong was modelled and animated in a 3D animation program; and combined with actors filmed in front of a green screen. It is the layering of video that creates the illusion of King Kong grabbing the heroine, Ann Darrow.

You will be learning how to use the chroma key effect in After Effects. Actors act in front of a blue or green screen; and the colour is removed, leaving just the actor and a transparent background, known as an alpha channel, which can be layered over top of another layer of video. Why do they use blue or green as the colour of choice to remove a background? It is the furthest colour in colour spectrum from your skin tone; and you don't want to put a whole in your actor's face. The only limitation of using the chroma key special effect is your imagination!

In this assignment you will put yourself in a scene. You will be given the Adobe PhotoShop source files to work with. All the layers have been separated for you, so you will see a series of foreground, midground and background images. In the final product you will either be scaled down to size and walking amongst something small like sewing thimbles; or you will be scaled up in size and you will be walking around something big like the Taj Mahal, appearing as a giant. (Although you can easily create the layered PhotoShop image yourself, time does not permit such an exercise.)

**Procedure**

• Using the source files provided by the teacher practice keying out the green background. Practice on medium length shots as well as full length shots, which are more of a challenge as the background is less evenly lit.

• Bring the layered Photoshop image into After Effects; examine all the layers; and think of how you can integrate yourself into that image.

• Film footage of yourself in front of the green screen. Pay attention to the "blocking" of the shots, where you will move so it looks like you are actually in the scene.

• Combine chroma key footage of yourself with the layered PhotoShop image

| Chroma Key and Scaling Evaluation | Thinking | Application |
|---|---|---|
| Background is consistently keyed out throughout the entirely of each clip; the integrity of the actor is intact throughout the entirety of each clip | | 20 |
| Overall composition and timing of layers | 20 | |

**Overview**

Rotoscoping is the technique whereby a special effects artist will take a frame of video and isolate the foreground layer from the background layer, usually an actor from its background. It is usually done manually, making it very time consuming and tedious. This allows one to use the foreground layer, or to put another layer of video in between the foreground and background. This was done in Forrest Gump when the actor, Tom Hanks, is in line to shake hands with President Kennedy. Tom Hanks was chroma keyed and President Kennedy was rotoscoped. Kennedy's arm was substituted by an actor's arm who shake the hand of Tom Hanks. Watch for it!

**Procedure**
• Open the video of you walking around your frozen self. Save a copy of it as, your name_rotoscoping.
• Unfreeze the layer of your frozen self. Right click on the layer and select **Time** and uncheck **Freeze Frame**
• Position the timeline to the point where the mask matches moving person (Remember, the character is walking)
• Under **Mask > Mask Path** click on a keyframe.
• Advance one frame on the timeline. Add a keyframe on Mask Path. (You will notice all the anchor points are highlighted.)
• Using the arrow keys on the keyboard, nudge the mask to the left or right.
• Make any small adjustments to the mask, using the selection tool. To make it fit the walking person.
• Add a keyframe before the first keyframe and make any adjustment.
• Hint One: The more work that you make to the first mask
• Hint Two: You cannot add or take away anchor points on proceeding or succeeding anchor points.

**Why are we only applying three keyframes to the rotoscope?**

The short answer: Time. We don't have the time to complete a full rotoscoping assignment, therefore, we will apply it minimally to the walking around one's frozen self video. Once you understand how to make the adjustment on each keyframe, you will understand the procedure of rotoscoping.

| Rotoscoping Evaluation | Thinking | Application |
|---|---|---|
| Keyframes are accurately applied to the mask path; and adjustments of the anchor points are accurately made to three consecutive keyframes | | 20 |

**Overview**

One cannot know all of the special effects that are available in Adobe After Effects, however, experimenting with each of the effects, one can problem solve how they work. You will problem solve a special effect to learn it. Then, you will purposely film something that the effect can be applied to; bring it into After Effects; and purposely apply the effect. Good luck!

Each particular effect in Adobe After Effects has different parameters, which are aspects of the special effect. One changes the parameters over time to control the desired effect.  The parameters are controlled using keyframes. Changing the value of the keyframe, changes what a particular parameter does. For each effect, there seems to be one parameter, which is affected the most by ZEROing it. In other words, when you type in the value of ZERO for that parameter, it appears as though nothing happens for that effect. The magic happens when you add another key frame, and change the value of the parameter from ZERO to 100.  (Please note that "100" is an arbitrary value.)

You may not use lighting or beam. The teacher has seen them a million times before and finds them boring :-)

**Procedure**
• Bring in any random clip into Adobe After Effects; and experiment with Bulge and Shatter first.
• Each effect has many different parameters which change how the effect is applied. This can usually be changed over time.
• The key to figuring out a special effect is to figure out the effect's ZERO point, that is, the point where nothing happens.
• Go through each parameter, one by one, and type in the value of ZERO. Scrub through the video clip and see if anything happens.
•  If nothing happens, then you found the ZERO point!
•  Add a keyframe, and change the parameter to ZERO.  Scrub through the timeline, add a keyframe, and change the value.
•  Watch how a change occurs.
•  Experiment with all the parameters
• Purposely film a clip and apply your new found special effect to your clip.
• Go to www.brunato.com and click on the Grade 11 link at the top. Under the subtitle, Special Effects Video Unit, click on "Experimenting with Special Effects Lesson". Here you will see a list of the Zero points of many effects.

| Exploring and problem solving an special effect evaluation | Thinking | Application |
|---|---|---|
| Many facets of the special effects are explored and employed | 20 | |
| The overall impact is purposefully applied to your video footage | | 20 |

## Exploring and problem solving a special effect (Communication)

Having applied a special effect, write about how you applied the parameters to the special effect. Write one paragraph on each parameter the you applied. In your discussion, describe how you keyframed each of the parameters over time. You are to write about a minimum of 3 parameters. (Please note that a thorough discussion may entail describing more than 3 parameters.)

| Level One | Level Two | Level Three | Level Four |
|---|---|---|---|
| 10 | 12 | 14 | 16    18    20 |
| Limited aspects of the special effects are clearly described using outline given; proper grammar and sentence structure are employed in a limited way; discussion is limited | Some aspects of the special effects are clearly described using outline given; proper grammar and sentence structure somewhat employed; discussion is somewhat thorough | Considerable aspects of the special effects are clearly described using outline given; proper grammar and sentence structure considerably employed; discussion is considerably thorough | Many aspects of the special effects are clearly described using outline given; proper grammar and sentence structure employed; discussion is very thorough * |

* A minimum of 3 parameters are discussed. A thorough discussion will entail writing about more than 3 parameters if you used more.