

CS5245

Vision & Graphics for Special Effects

Project Update

Light of Destruction

Members

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1. Filming

Filming was done at the following locations:

a) NUS COM1 basement

The first scene is the news cast scene which requires the use of green screen. Green screen were placed at the back so as to allow keying of background image onto the scene.



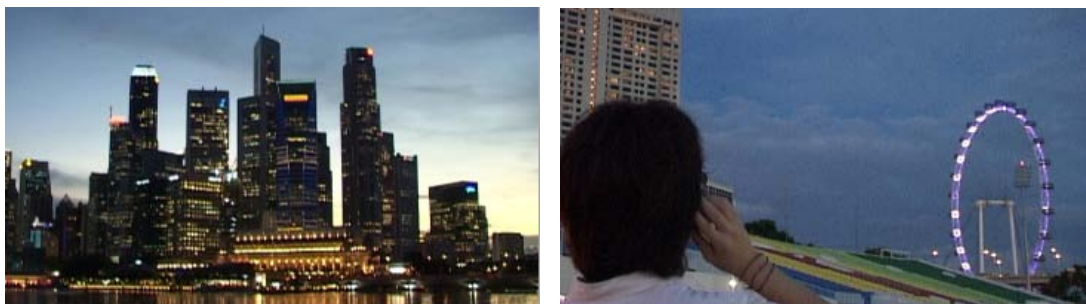
b) NUS COM1 Student Lounge

The second scene was shot at a location where a television set was available, along with sofas. Due to the unavailability of the dolly, the camera was fixed to a tripod, which was secured to a computer chair, to create an improvised dolly around the character.



c) Area next to Marina Bay Floating Platform Grandstand

The subsequent scene was shot at a location where the city skyline was visible and clear without any obstruction. With the unavailability of dolly, the scene was changed to be shot using a camera mounted on a tripod. As a result, only horizontal rotation was possible in the shot.



2. Changes to Project Proposal - Scene

2 cut scenes were added to portray the meteor impact and destruction on various angles. The first cut scene will provide an alternative view on the meteor impact on the building. The second cut scene is to show falling debris from the top of the building.



However, due to the different shooting condition (*weather and lighting and time as the window of filming sunset scene was small*) when the additional footage was filmed, the sky and lighting looked a lot different as compared to the original sunset footage. Considerations are being made to re-shoot these additional scenes.

3. Changes to Project Proposal – Roles

A couple of roles were changed due to allow better control and implementation over the main effects that each member was in charge of.

Choo Jen-Way – News Composition/Superimposition, Video Stabilization, Meteor (Modeling and Animation)

Goh Ivan – Blackout and Lighting, which includes sky and building lighting and water reflection.

Koh Swee Leng – Collapsing Skyscraper (Modeling and Animation) and Building Debris

4. Implementations

a. News Footage

Adobe After Effects was used to key in the background of the newscast scene, as well as the inclusion of captions and scrolling marquee to mimic an actual news cast scene.

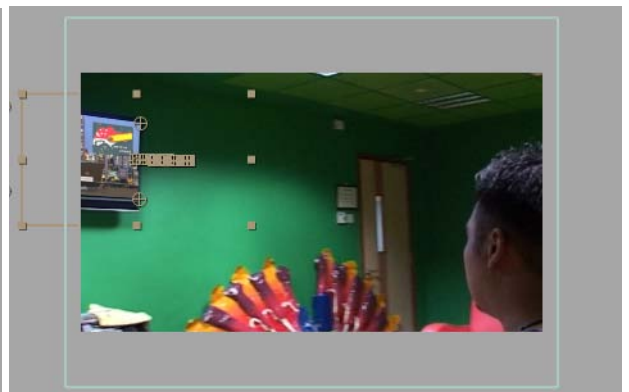
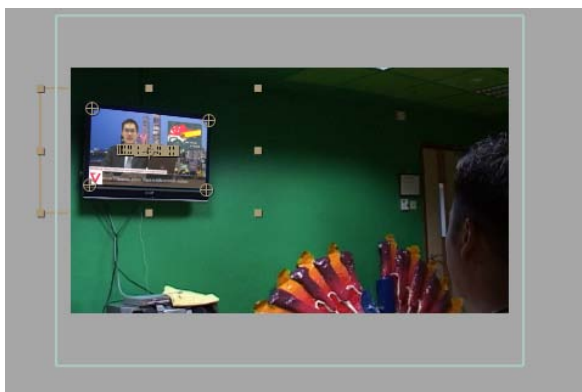


b. News Footage Superimposition

Superimposition was done using the Adobe After Effects Perspective Corner pin to track the four corners of the television set.

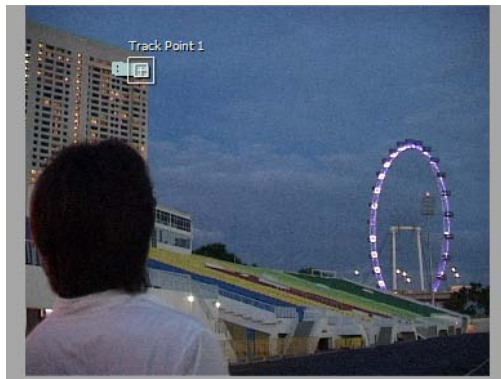


This function though, actually has its limitations of not being able to apply the news footage as tracked points leaves the frame (*points leaves the frame but the video does not*). As a result, manual point superimposition is done by editing the corner pin of the news footage frame by frame.



c. Video Stabilization

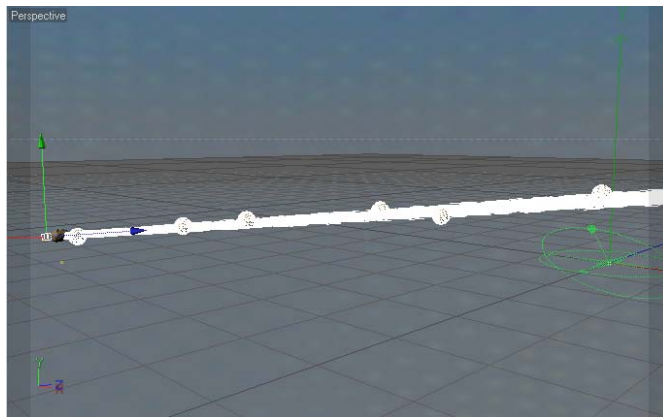
In order for our 3D models and special effects to be implemented, the videos have to be stabilized. This is done through the Stabilize Motion function in Adobe After Effects. All scenes after the first two scenes required stabilization.



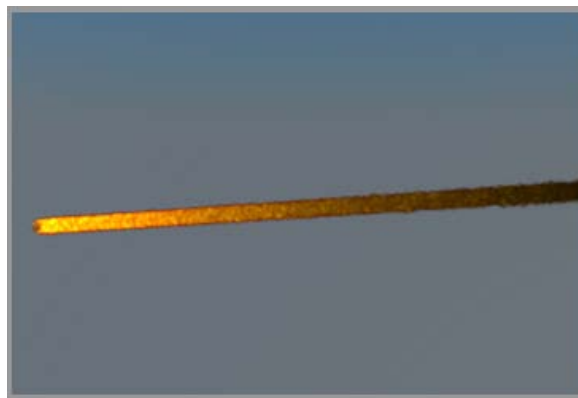
Points at well defined corners were used to track the video for stabilization.

d. Meteor

Modeling for the meteor was done using Cinema4D instead of Maya to make use of the Pyrocluster module that effectively creates particle trail that can be used as a meteor's tail.



Additional tweaking on the attributes (*age of particles, colour, speed*) were made to make the meteor streak as real as possible.



Next step for this will be to implement it into the video after the final video sequence is confirmed.

e. Lightings

Currently, the buildings are each separated into different layers in Adobe Photoshop to create the blackout effects when the meteor hits the area. Each building will have an original picture as well as one that set with the blacked out effects. Shadows of the buildings that collapse will fall onto the other buildings and the floor if required.



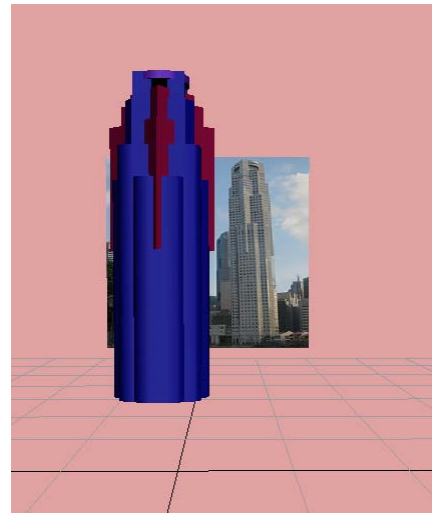
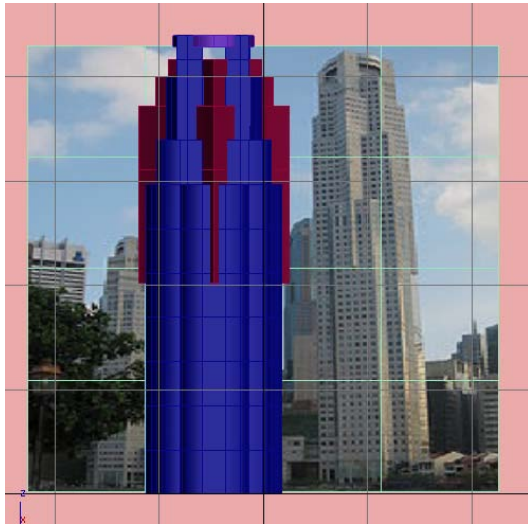
f. Water Effects

In addition, reflection of the lights in the water must also be taken into consideration when the buildings black out. This process is currently in progress. The lights reflected in the water must tally with the lights of the buildings on land and turn off or on in regard to the buildings.

Water ripples are being taking into consideration. Due to shockwave as the meteor hits the ground, the earth will tremble and cause shockwaves to hit the water, resulting in ripple moving outwards further into the sea.

g. Collapsing of Buildings

Building(s) to be bombed are up in 3D models and currently experimenting with the particles system in Autodesk 3D Studio Max to create a crumbling effect when the buildings collapsed. Work is still in progress for more realistic effects.



Particle illusion will be used to create smoke effects to be included into the crumbling of the buildings. Another close, bottom-up model of the building is currently in progress for a change of shot when the meteor hits the building to increase the tension and excitement of the video.