

Storyboarding and Animation for 360⁰ Videos

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“ Now, VR needs to be driven by creative.
Creative will make the tech better.

- Cliff Plumer, President at Jaunt Studio

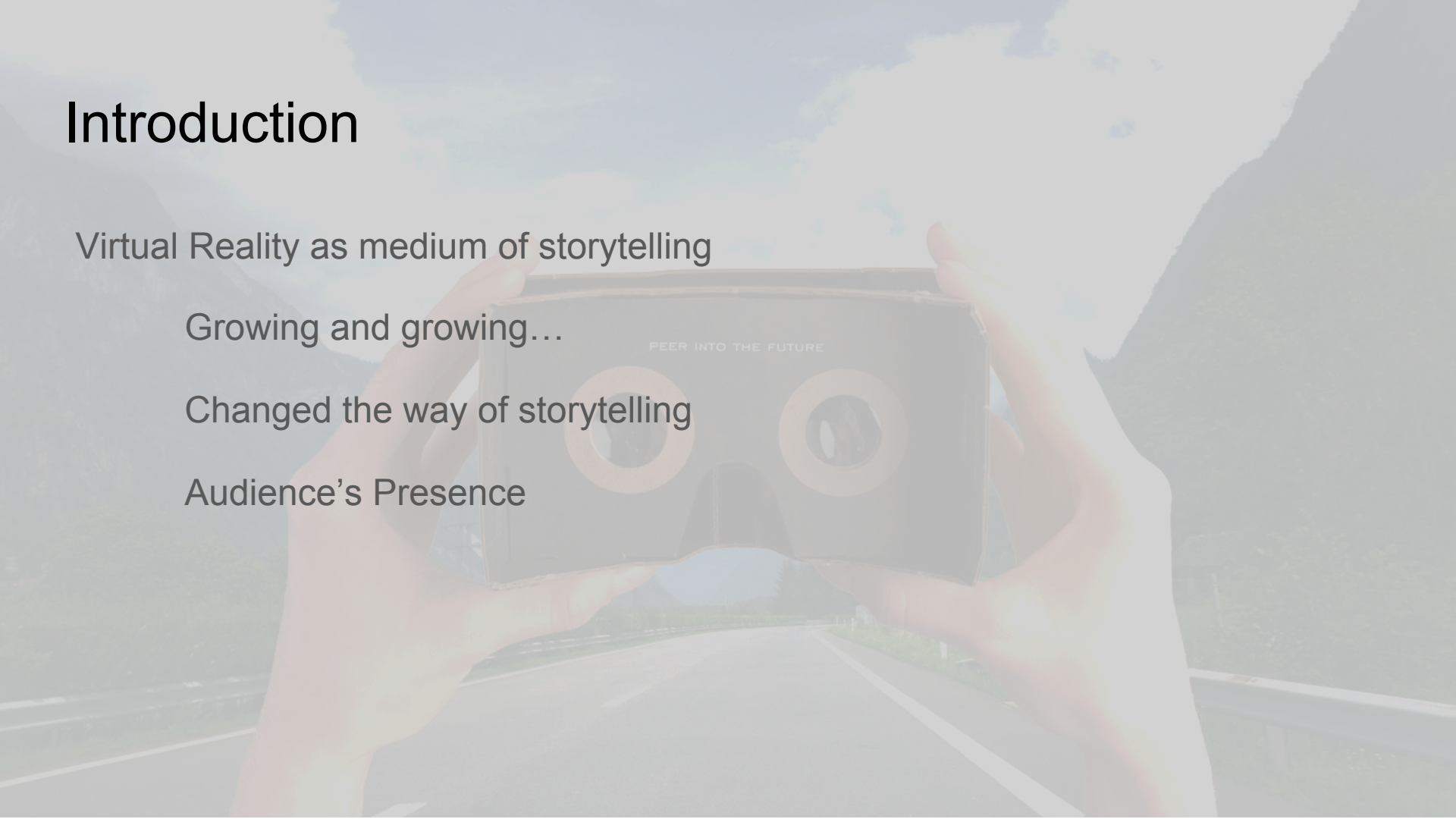
Introduction

Virtual Reality as medium of storytelling

Growing and growing...

Changed the way of storytelling

Audience's Presence



Objective

The objectives of this research project was to

Study, analyse, explore and to propose methods for storyboarding and animatic for 360 degree surround storytelling experience, other than conventional methods of storyboarding and animatic

To understand the animation techniques and workflow for making 360 degree videos.



Secondary Research

Studying sample works

Storytelling / Films as a user centric process

Understanding the challenges

How users interact with the medium

Existing methods of storyboarding



Comparison of 360⁰ and frame based videos

Filming and production

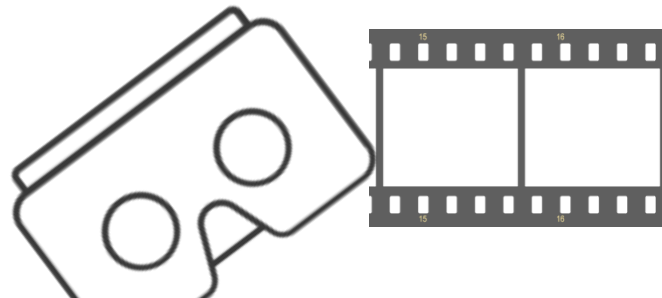
User Interaction / presence

Planning and Storyboarding

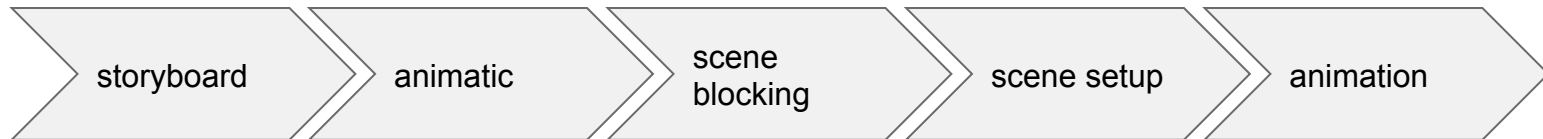
Production Time

Sound and Lighting

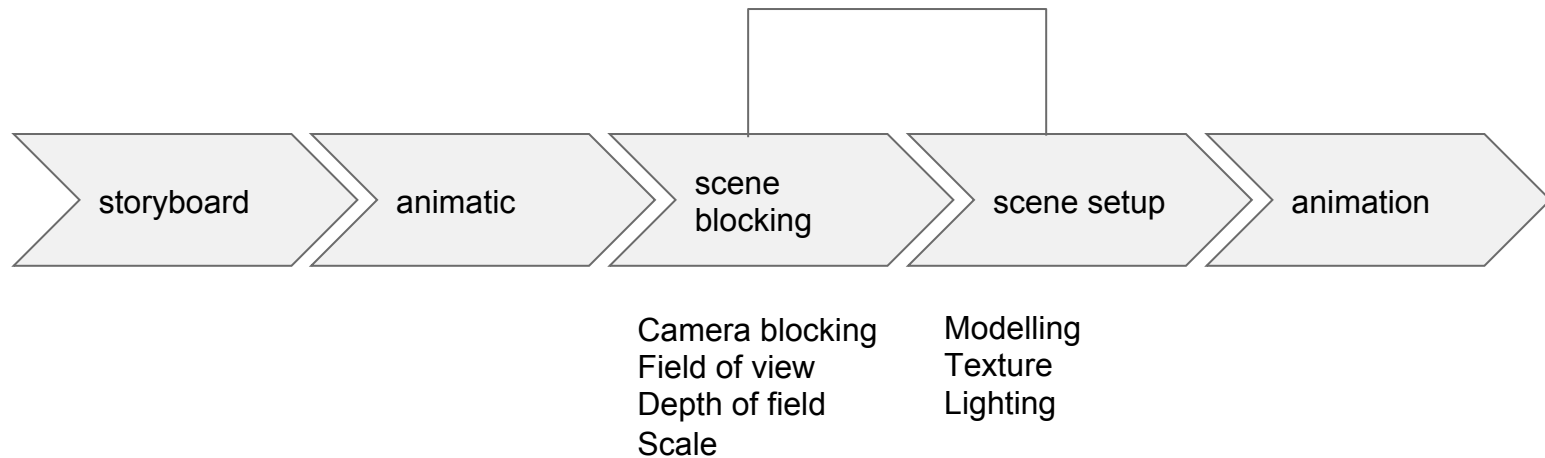
Post - production



Process

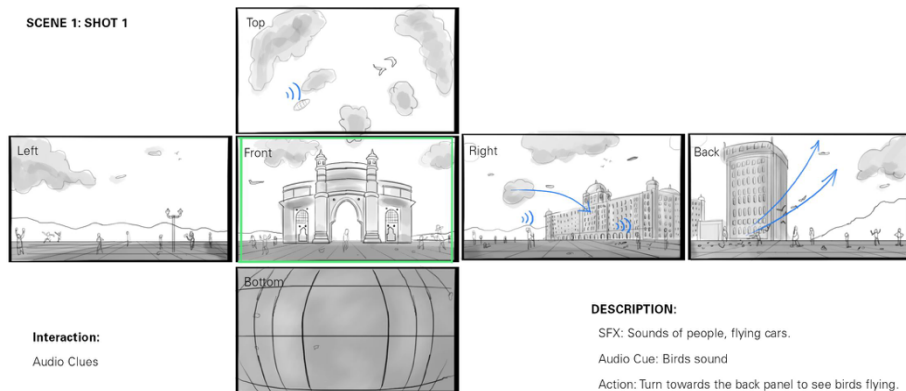


Process

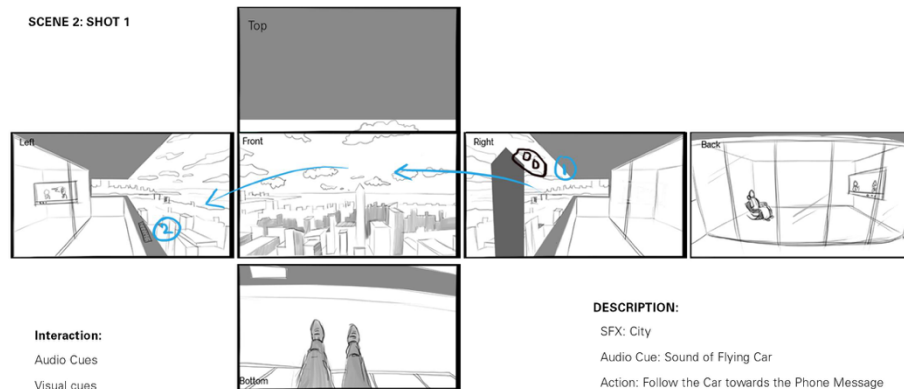


Storyboards

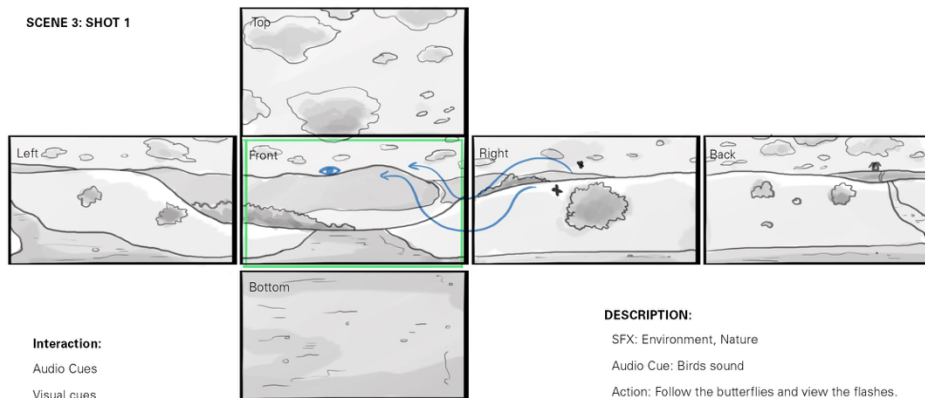
SCENE 1: SHOT 1



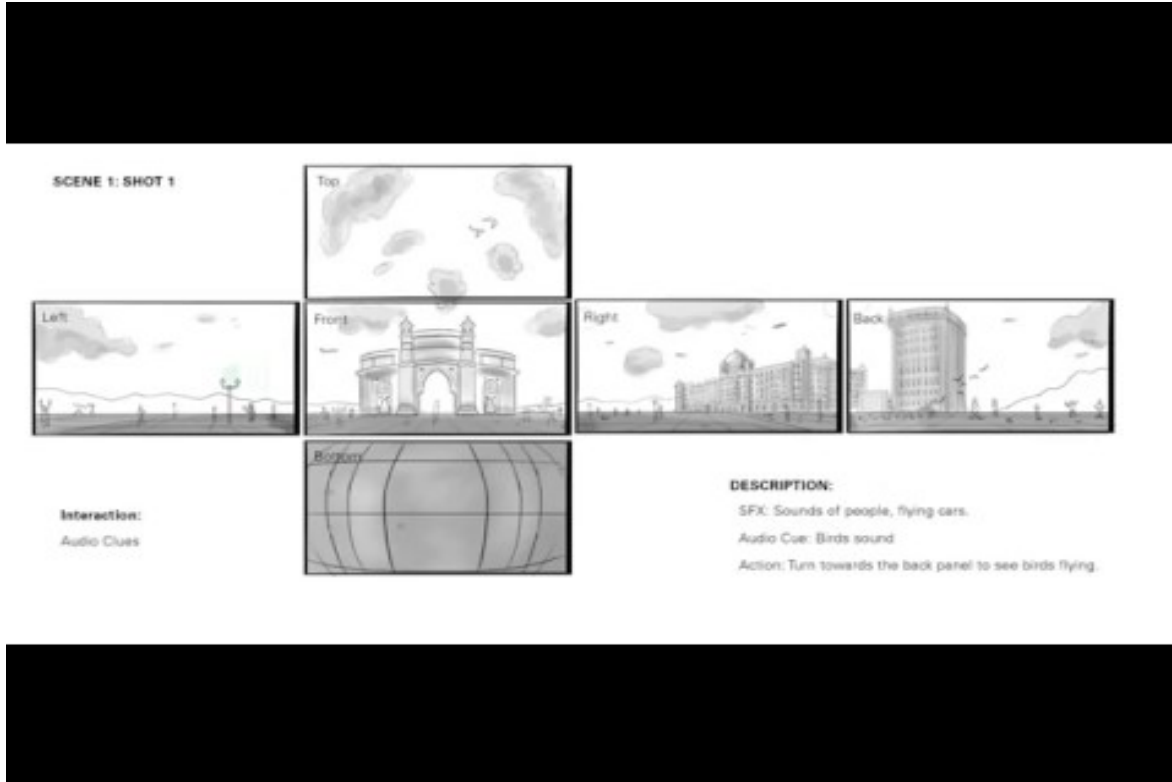
SCENE 2: SHOT 1



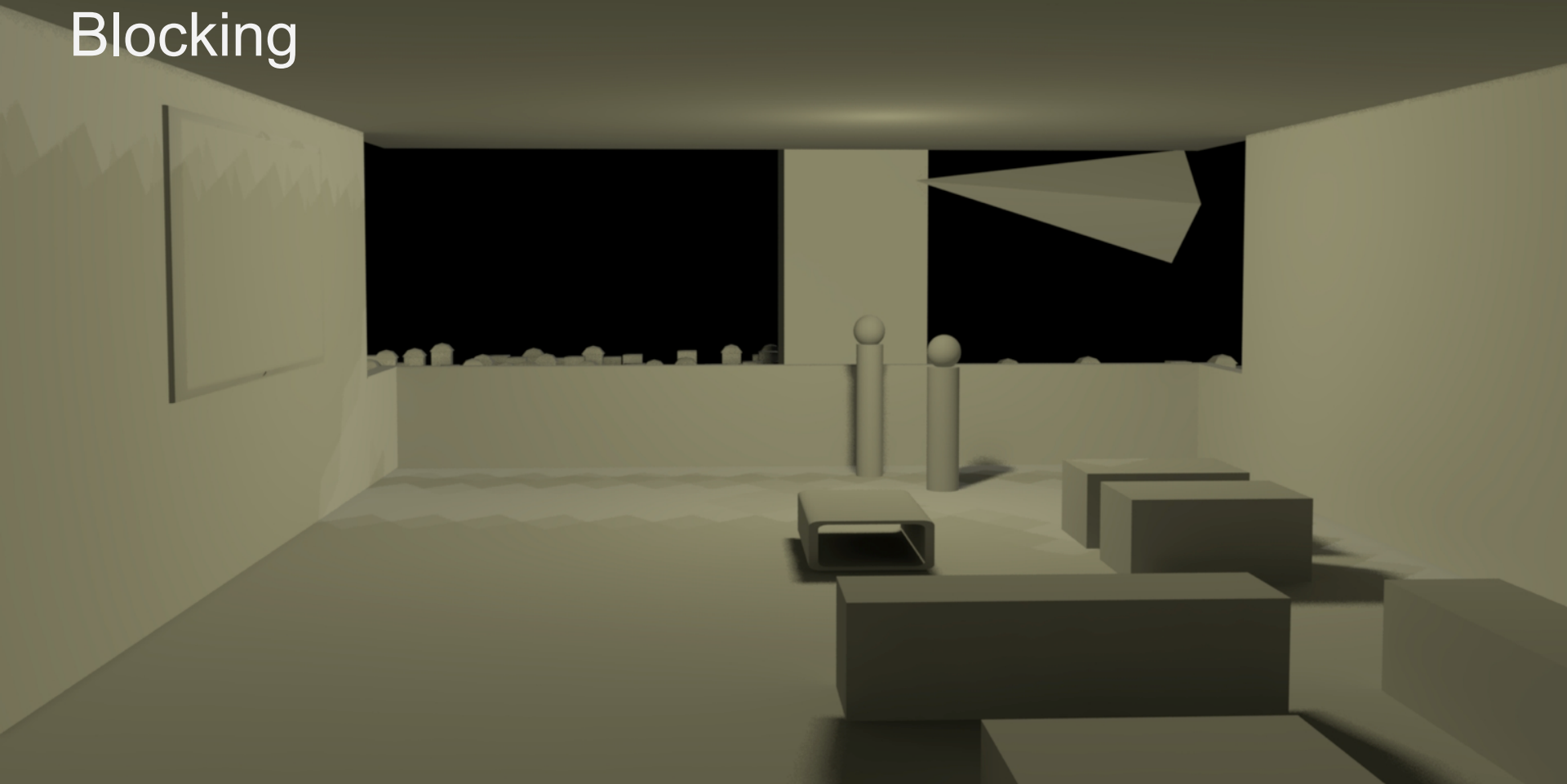
SCENE 3: SHOT 1



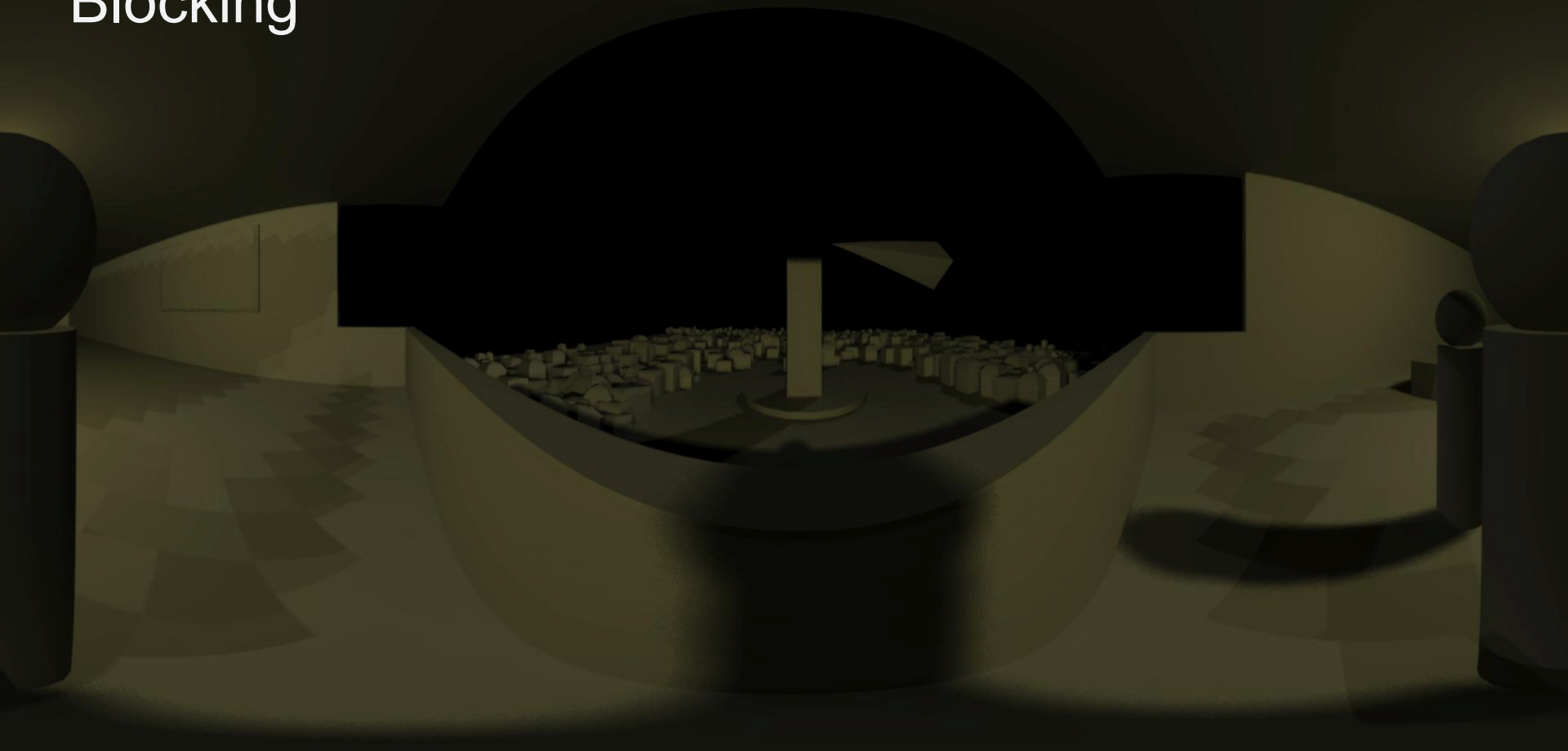
Animatic



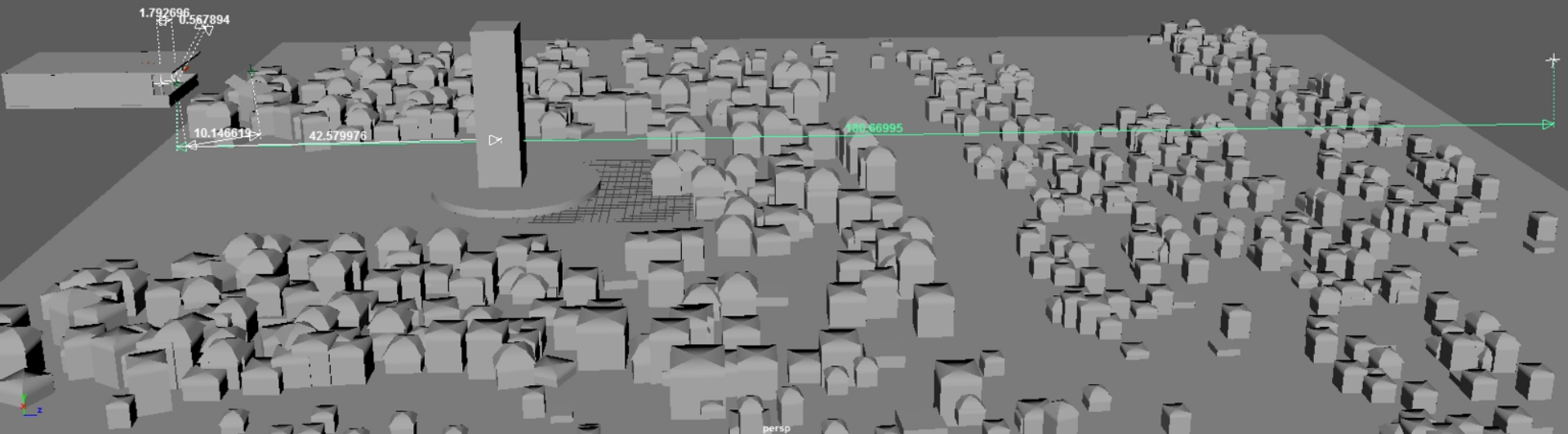
Blocking



Blocking



Blocking



Scene Setup



Scene Setup



Scene Setup



Tools used

Adobe photoshop | Storyboarding

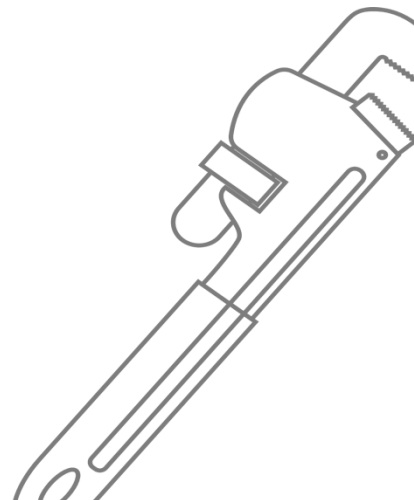
Autodesk Maya | Modelling and Animation

Mental Ray | Renderer

Domemaster 3D | Stereo plugin for Maya

Adobe After Effect | Compositing

Five Machines | To Render



Analysis

Panoramic storyboards

Standard wide screen 16:9

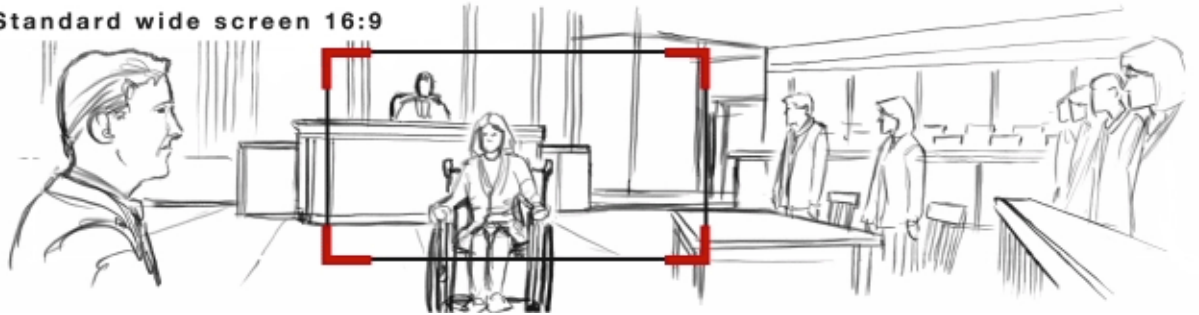


Image Source: <https://famousframes.com/blog/view/the-virtual-reality-of-storyboards>

Analysis

Storyboards based on field of view

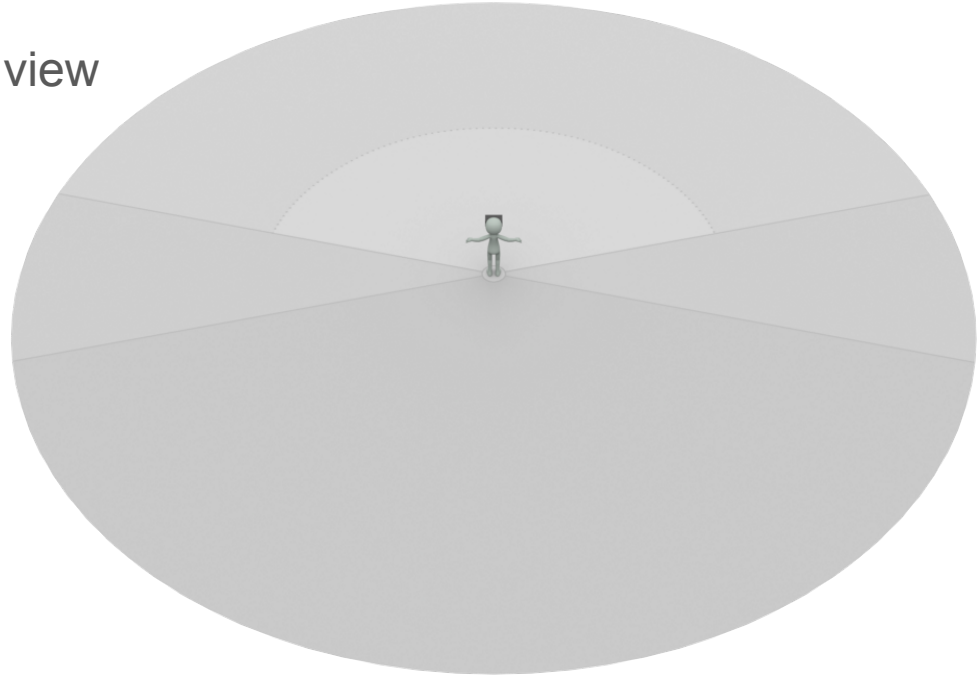
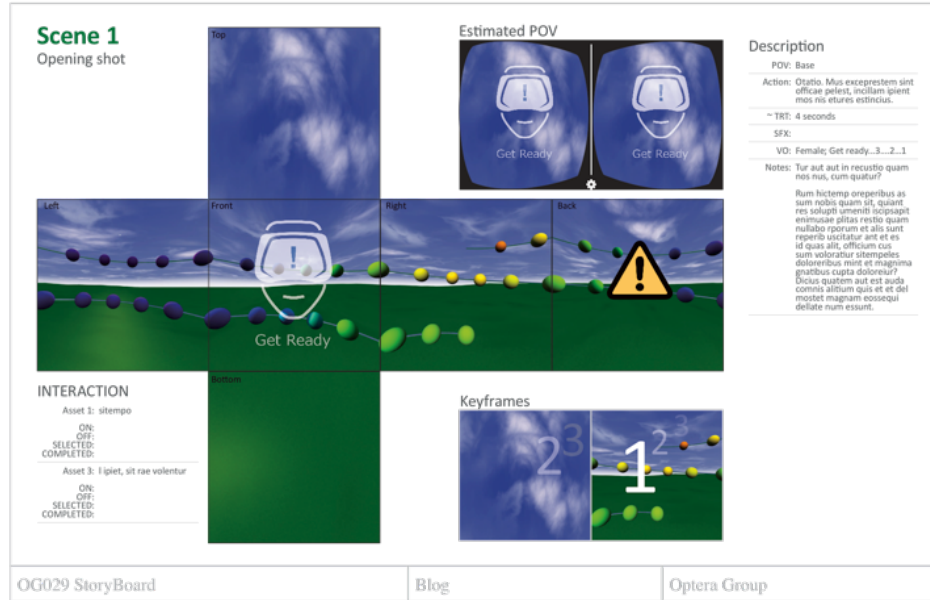


Image Source: <https://virtualrealitypop.com/storyboarding-in-virtual-reality-67d3438a2fb1#.7a9in81se>

Analysis

Unfolded Cube



Images Source: <http://www.opteragroup.com/ar-vr-storyboard/>

Analysis

Nine frame spherical storyboards

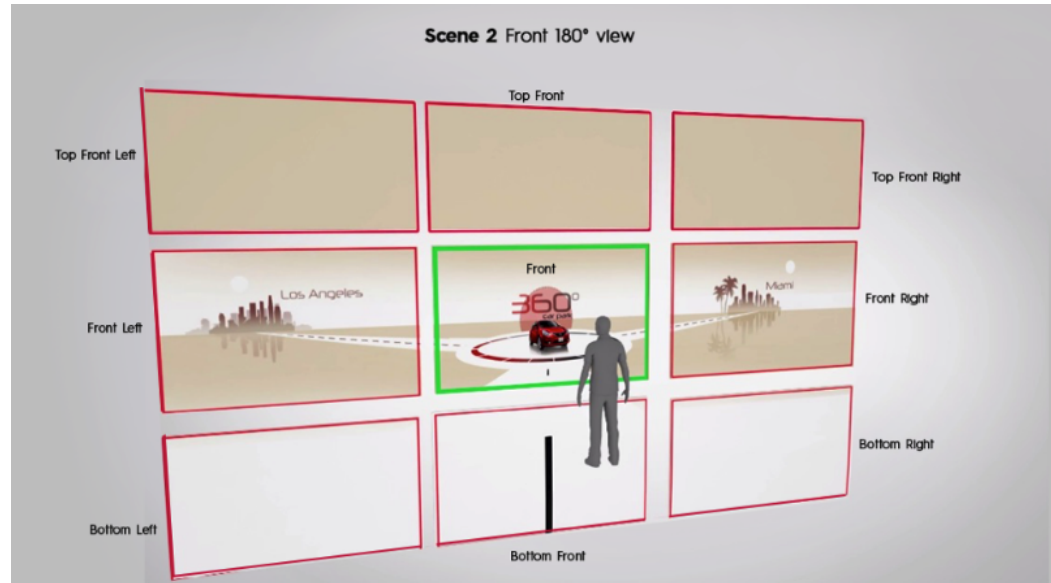
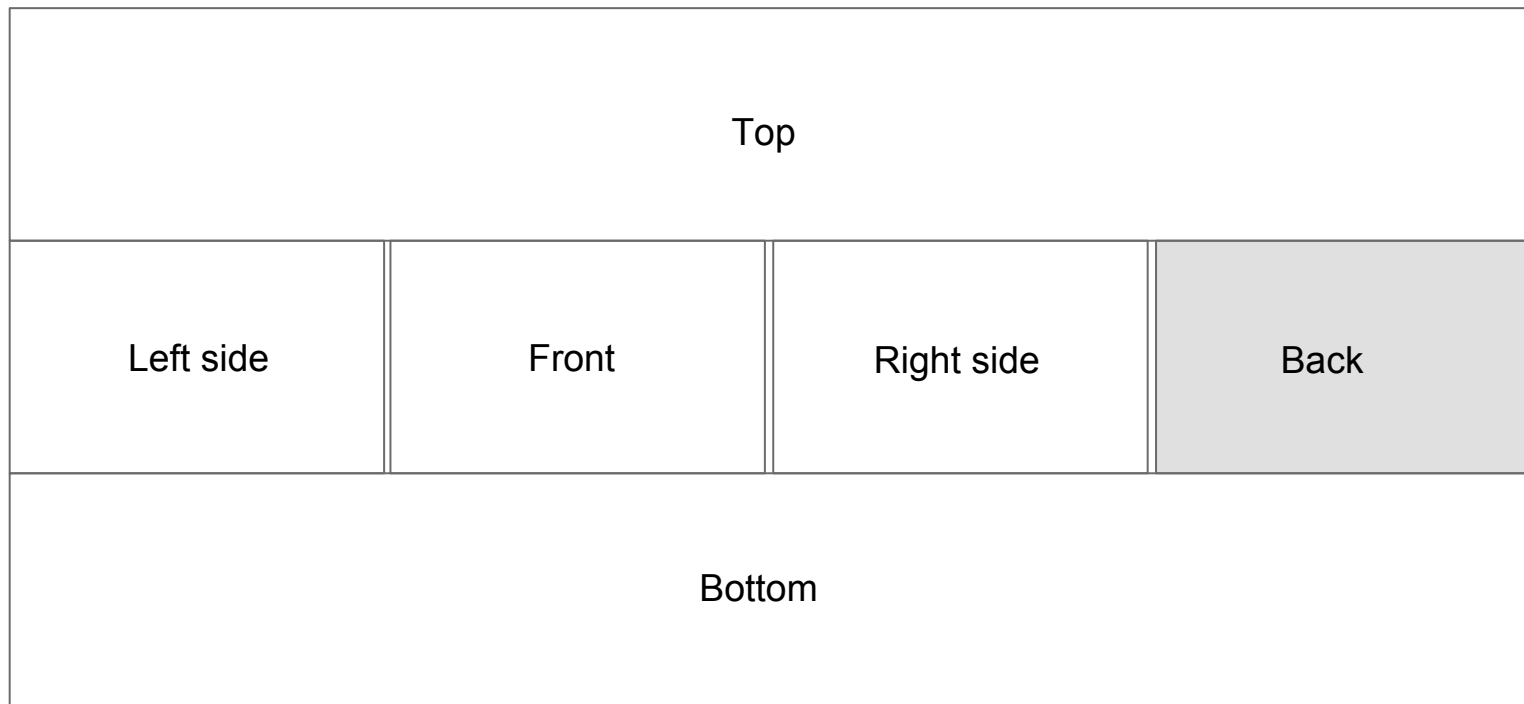


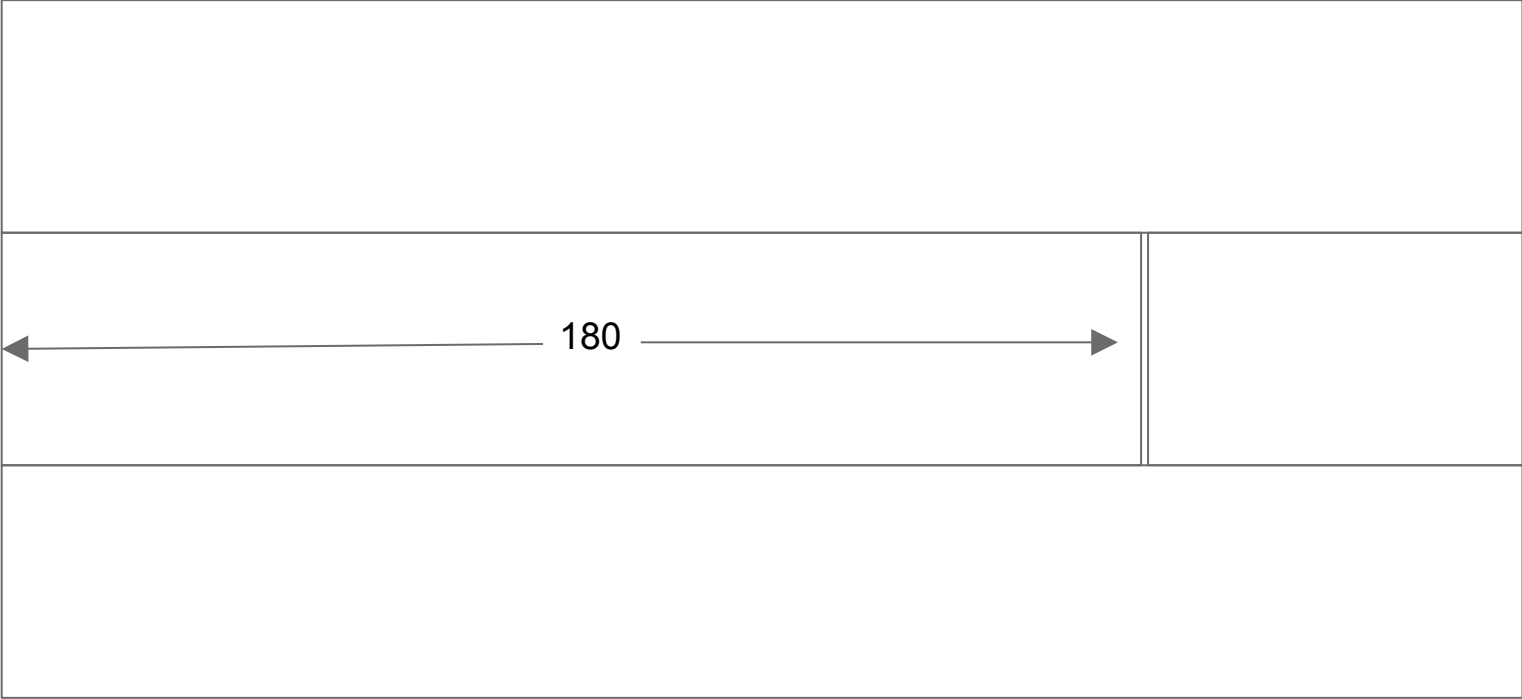
Image Source: <https://www.linkedin.com/pulse/how-storyboard-virtual-reality-360-video-scott-ownbey>

Proposed method for storyboard



Proposed method for storyboard

Proposed method for storyboard



Challenges

Creating Depth

Scale and Distance

Gaze Control

Scene to Camera Scale Ratio

Rendering Time

Compositing

Hardware and Software issues



Thank you