

Interaction Design Project 1

Cinematic Virtual Reality experience of The Kumbh Mela

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At:
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Interaction Design
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Experience Certificate



TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Akvil Sakhare has done his internship in Virtual Reality (VR) Experience Designing at Elysian Experience Studio Mumbai, from 6th June 2016 to 20th August 2016.

He has worked on a project titled 'Simhasth-Kumbh Mela'. This project is a VR Experience on Kumbh Mela. As part of the project he administered the development of this VR Experience by designing the complete experience in collaboration with a team of six members.

During the internship he demonstrated good design skills with a self-motivated attitude to learn new things. His performance exceeded expectations and was able to complete the project successfully on time.

We wish him all the best for his future endeavours.

For Elysian Experience Studio

Arvind Ghorwal, Founder

Declaration

I declare that this written document represents ideas in my own words and where others' ideas or words have been included, I have adequately referenced the original sources.

I also declare that I have adhered to all principles of academic honesty and integrity and have not falsified any idea/data/ fact/source in my submission.

I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Acknowledgements

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A special thanks to all my friends and classmates for all the motivation and support.

Most importantly, my family for all their love, patience and encouragement.

Akvil Sakhare

Abstract

Virtual Reality came up as a new medium of HCI which is being used extensively as a storytelling medium. Being new a medium a narrative documentary seems to be a good approach to learn the medium. This report describes different stages of creating a cinematic virtual reality experience of Kumbh mela. It talks about specific stages of creating a complete cinematic virtual reality experience.

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Introduction

Cinematic VR

Cinematic VR experiences consists of 360-degree video and ambisonic audio where the video and audio each account for 50% experience. 360 camera captures the visual spherical field of human awareness. Ambisonic mic records sound field which can be decoded to binaural audio. Many cameras and sounds systems are being developed in the field but as of now most 360 cameras record in 2D and don't have spatial audio. The basic idea of cinematic VR is to capture more senses for more presence.

Simhasth - Kumbh Mela

Simhasth - Kumbh Mela, is a reunion of Sādhus from all sects of India. It happens every twelve years in Ujjain, Madhya Pradesh and we captured it in the summer of 2016. It is largest gathering of people on Earth.



Sadhus Walking in Kumbh Mela

Pre-production

Scripting

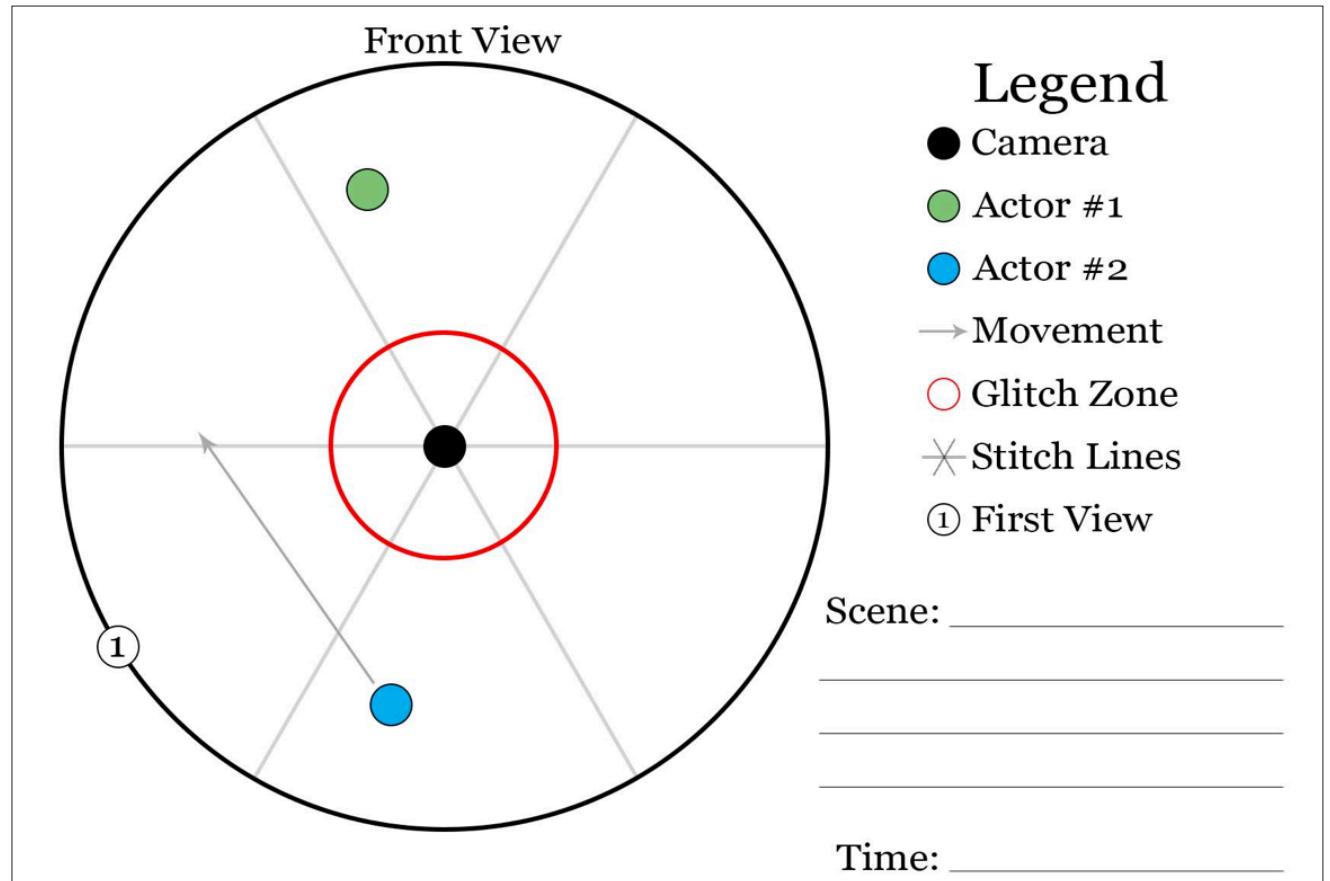
Pre-production started with creating scenes with no frames and describing the entire scene. Scenes were scripted to be longer to give a breathing space for editing which most just acted as guidelines to follow, giving a initial structure to the experience and improvise upon.

Planning

Planning started by visiting Studio Anugraha who is working on Kumbh project since a few years. Interesting insights were shared by the team. Which led to detailed description of scenes to be shot and translating them into Block Diagrams to Minimise Stitch lines and finding Hiding places for crew. Last thing was to make Soundscape and Light Plan.

Pre-check

Pre-check was done to use Identical Hardware and SD cards of same brand and capacity. Making sure of not mixing GoPro versions. Numbering hardware by Marking GoPros and SD cards; Stereo: Left eye Uneven, right eye Even.



Block Diagram of a scene

Production

Shooting

Test

- Turn on WiFi
- Check settings and files
- Record with remote

Record

- Record audio + cams
- Check if all cams are running
- Mention take number

Sync

- Motion sync by moving cam head
- Audio sync with some claps
- Hide!

Done

- Shout 'cut'
- Check if all cams have recorded
- Note Unusable takes

Troubleshooting

- Always carry spare parts: Cameras, batteries, SD cards etc.
- Overheating: Biggest problem
- Reset cam with power button or battery
- Limit length of takes to 3mins
- Power off rig after each take
- Cool: Turn on fan
- Replace malfunctioning GoPros

Breakdowns

- Lot of footage got destroyed due to over heating, Blur lens, One camera shut down, Threat by Sādhus
- Logistical issues: Entry, Timings, Permissions for Shoot and Equipment
- Health / Hygiene issues
- Re-visit
- Experience not Documentary



Shooting with 360 degree camera rig of 4 Go-Pros

Post-production

Craft of Stitching

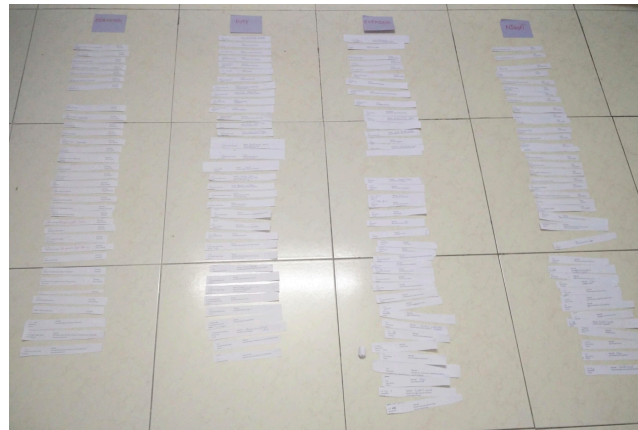
- Colour mark (Tag) takes to stitch
- Stitching Software: Autopano Video Pro
- Drag n Drop files
- Use audio to synchronise
- Stitch as GoPro or lens that is used
- Edit pano in Autopano Giga
- Rotate and strengthen horizon
- Use markers to make selection
- Grey, orange, blue, Green
- Uncompressed 3840x1920 @ 60fps
- Add to batch renderer

Structure

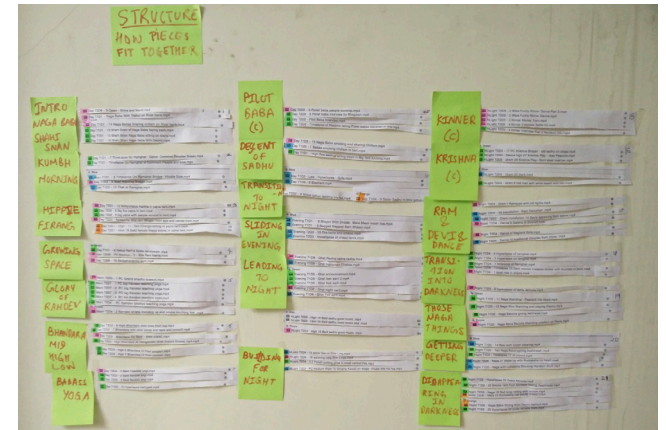
Structure is levels of worlds (sequence spheres)
It's creating series of one event after another to let you make stories.. To eliminate levels of information in a single scene, everything happens everywhere at the same time (physical reality).

Edit

- Match attention points (Point of interest - POI)
- Transitions: On Colour, Speed and Movement etc.
- Time-lapse for passage of time and Hyper-lapse for change in location
- Dance of Sequence Spheres and Discovering things
- Give time to look around and locate POI's and Develop the situation



Before Structure



After Structure

References

Websites

<https://www.youtube.com/watch?v=t3xDgONMdlM>

<https://www.udemy.com/cinematic-vr-crash-course-produce-virtual-reality-films/>