

# Visual Effects for VR

Chris Healer  
The Molecule  
104 West 29th St. / 5th Floor  
New York, New York 10001  
chris@themolecule.com



Figure 1: Graham Sack on the set of "Lincoln in the Bardo"

## ABSTRACT

Chris discusses the VR creation process using examples ranging from Hollywood VR projects to those from The New York Times.

He'll dive into live-action VR photography and photogrammetric reality capture techniques, and will explore the linkage between tried and true VFX trickery and the illusion of a Virtual Reality.

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From this presentation audience members will take away a greater understanding of the VR Post Production process, especially in relation to VFX workflows.

He'll use recent recognizable VR projects as examples, including "Lincoln in the Bardo" from The New York Times, Doug Liman's "Invisible," and others.

## CCS CONCEPTS

• **Computing methodologies** → **Virtual reality**; *Computer graphics*;

## KEYWORDS

Virtual Reality, Visual Effects, Post Production

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## 1 PRODUCTION

After a quick discussion of some of the different cameras available today and their pros and cons, we will look at how camera selection impacts the post production and VFX workflow.

This will cover things like frame rate, genlock, on-set stitching, live review, color space and gamma, as well as techniques for moving the camera and what that means for post production.

## 2 POST-PRODUCTION

In today's post pipeline, the review process by creative teams and clients is finally starting to come together.

Chris will help the audience to understand the current state of stitching and render workflows, editorial workflows, stereoscopic considerations, and how these all coalesce to form a final product.

We will discuss common pitfalls and ways around them, and also how to use the Google Cardboard API for intermediate reviews.

## 3 VISUAL EFFECTS

This will lead into techniques necessary for Visual Effects, including keying and unwrapping green screens, nodal head photography, and important concepts about how certain traditional compositing operations like blur and noise don't necessarily translate well into spherical space.