

Rowan University

Rowan Digital Works

College of Communication & Creative Arts
Faculty Scholarship

Ric Edelman College of Communication &
Creative Arts

3-27-2024

Virtual Production

Jonathan Mason
Rowan University

Follow this and additional works at: https://rdw.rowan.edu/ccca_facpub



Part of the [Film Production Commons](#)

Recommended Citation

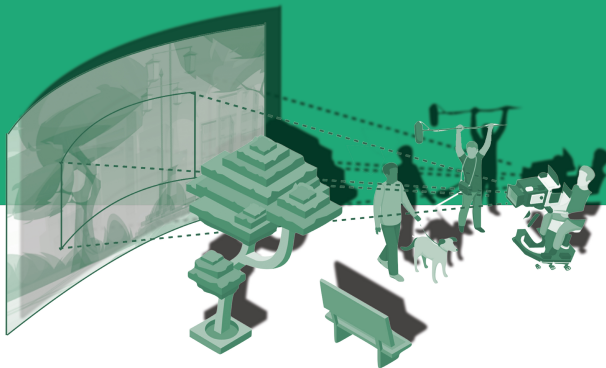
Mason, Jonathan, "Virtual Production" (2024). *College of Communication & Creative Arts Faculty Scholarship*. 18.

https://rdw.rowan.edu/ccca_facpub/18

This Poster is brought to you for free and open access by the Ric Edelman College of Communication & Creative Arts at Rowan Digital Works. It has been accepted for inclusion in College of Communication & Creative Arts Faculty Scholarship by an authorized administrator of Rowan Digital Works.

THIS IS WHATEVER YOU WANT IT TO BE.

SHOOT **ANY TIME OF DAY**, **ANY LOCATION**, **UNDER ANY LIGHTING CONDITION**
FROM THE COMFORT OF A STUDIO



LED VOLUME (OR GREEN-SCREEN)

High resolution LED walls project the background 3D graphics, but also emit physical light that is dynamic and controllable. Actors are able to feel immersed in their environment. When a LED wall is not available or cost-effective, green screen can be used instead and graphics are composited live with on-set monitors.



THE "BRAIN BAR"

3D graphics are generated by filmmakers and designers (called the **VAD** or Virtual Art Department) using a game engine like Unreal Engine (EPIC Games). All components of these graphics can be adjusted on the fly, and on set. Unlike traditional static background plates, 3D assets allow for parallax effects, and interact with the camera and physical foreground elements.



FRUSTUM

The region/portion within a virtual world that the camera captures. On an LED volume/screen, the inner frustum moves in sync with the camera, while the outer frustum is unseen by the camera and maintains the remainder of the environment static to provide consistent, realistic lighting and reduce computing load.

VIRTUAL PRODUCTION

JONATHAN MASON | PROFESSOR | RADIO TV & FILM DEPARTMENT
RIC EDELMAN COLLEGE OF COMMUNICATION & CREATIVE ARTS
ROWAN UNIVERSITY