SETC 2025 - Baltimore

Visualization To Teach Lighting Design

Session Leader:
Shawn Paul Evans
Professor of Theater
W&L Department of Theater, Dance, and Film Studies

Link to session resources: https://shawnpaulevans.com/page/

Session Poll Data

Knowing a little bit about the people attending the session.
(Small amount of adapting time allotted.)

Please feel free to ask questions.

What is the software?

- Capture
  - Capture is a software that allows a lighting designer to visualization, design, and document.
- EOS ETCNomand
  - EOS ETCNomad is a software version of the Eos family of control consoles, which enable lighting design programing and control.
- QLab - Sequencing Software
- Trimble SketchUp Pro - 3D Modeling Software

Example

Real-time control and visualization.

Know your students.

- W&L is a small liberal arts university.
- This year we have 5 theater majors all of whom are focused on performance.
- Most of the students in my class are general education students who have never designed before and for many this class is their first theatrical experience.
- Students who are interested in lighting design take this course as an introduction and take independent study courses afterwards to further their design training and experience.

Learning Outcomes

- That the student begin to develop their own systematic approach to lighting design.
- That the student learns to recognize, analyze, and use the controllable qualities of light.
- That the student learns to recognize, analyze, and use the functions of light.
- That the student begin to understand how light and shadow can influence storytelling in a theatrical environment.

Know your Students

- How do you talk with someone who has never thought intentionally about what light is, what light can do, and how to control light?
- Light is an ephemeral energy that shapes the perception of visual reality for most humans. Most humans take light for granted and don’t spend much time purposefully thinking about how “light” shapes their world.
- Through the course of my 30+ years of teaching I discovered that “lecturing” or trying to talk with others about light using words wasn’t effective or even possible until both parties involved in the conversation had “really” looked at light, examined and analyzed what they had seen and tried to control its various qualities.
- Example

DAY 1 DESIGNING

Within 10 minutes of the start of the first class the students are seated in front of a console and are controlling lights set-up on a subject.

Having stations for all students in the class to work simultaneously.

Example

Real-time control and visualization.

1st Project

- Light a Song (Using Qlab to run Audio)
- USB A/C Drive (Contains all components of project)
- Project Handout
- Cue Sheet
- Next class create 5 cues.
- Access to Design Lab
- 2 Weeks to Create Design (10-15 each class in actual space w/ virtualizer)
- LATER - Design Story (Concept Statement)

Handout

THTR 336- Project Handout

LIGHT A SONG PROJECT
Lighting Design

Project Objective:
To introduce the student to the the controllable qualities of light, and to have students make choices regarding those qualities by creating cues that will help tell the story of a song. This project will introduce students to some of the software tools and fixtures used by theatrical lighting designers.

Project Details:
Listen to the song that you have been given and think about what the song makes you feel and what sort of story you think the song tells. Using the lights provided in the space record a sequence of cues that contain your design of the controllable qualities of light (particularly intensity, direction, color, and timing) to tell your story regarding the specific song. Students should listen to their music and prepare an approach to lighting their song. Each lighting cue should focus on creating an interesting look for specific moments to support the designer's narrative of the song along with dynamic transitions between the cues in time with the music. Students are given specific lights pre-hung in the theater to create looks (Cues) based on their personal interpretation of the content of the song. The scenic objects are the focus of the lighting design not the rest of the room or the floor. Remember the main components of light to be explored during this project are intensity, direction, color, and timing.

A cue is a record of all the fixtures and attributes that are being controlled to represent the shape of the illumination for a specific moment of your story.

Record a sequence of cues that contain your design of the controllable qualities of light (particularly intensity, direction, color, and timing) to tell your story regarding a specific song.

Cue Sheet

Light A Song Cue Sheet

Song Number: #4

Lighting Designer: Cue Number Range: 401-499

CUE #	Time In Music	Cue Description	Fade Time Up/Down
	00:00	Blackout - no fixtures on	5

Cue Number Range represents the number range you can use for your cues for this project. This range of numbers is unique to your project and we want each designer to use separate numbers to avoid overwriting another designers cues.

Cue # is a list of your cues in sequential order. The cues do not have to be in consecutive order, and in fact leaving space between cues can be helpful when you decide to add new cues between cues you have already created. For example if your first cue 101 then your next cue might be 106. That way later on you can add cue 103 in between later on. Cues can even have decimal points, for example 104.1.

Station break for these important messages:

Network:

How do Capture and EOS talk to each other?

University wired and wireless network blocks ports that
Capture and EOS use.

Lab situation - have to create independent network for each computer,
so there is no crosstalk between consoles in lab.

Must create a LAN (Local Area Network) for each machine
NOT connected to University network or internet.

Order Matters!

EOS ETCNomad File

Capture File

Presentation File

Supplemental Support - Flares

- Video Guides
- Small Chunks - Specific Tasks
- Listening and adding all the time
- Include basics of turning on computer and starting network, opening and using applications. How to use actual controls in theater.

Video Examples

Project Presentation

- Show Design - designer runs console with their own cue sheet watching QLab time of music.
- Have two chances. If after the first run through not happy can run a second time. Pressure off performance - focus on techniques.
- Students in class use a rubric to comment on qualities controlled in the design and take a guess at the designer’s story.
- Be sure to provide time to practice in actual space while viewing virtualization.

Light a Song Rubric

How well did the designer use INTENSITY (light and shadow) and control the relative perceived brightness of light on Dolly during the song? 1 2 3 4 5
Describe a specific example below.

How well did the designer use DIRECTION and control the angle and direction of direct light on Dolly during the song? 1 2 3 4 5
Describe a specific example below.

How well did the designer use DIRECTION and control the angle and direction of reflected light on Dolly during the song? 1 2 3 4 5
Describe a specific example below.

How well did the designer use COLOR and control the hue, value, and saturation of the light on Dolly during the song? 1 2 3 4 5
Describe a specific example below.

How well did the designer use timing and cueing for controlling the pace and rhythm of the transitions and the movement through time of the lighting looks on Dolly during the song? 1 2 3 4 5
Describe a specific example below.

In one sentence describe the story of the lighting for the song as you saw it.

Further Projects

- Qualities of light demonstration.
- Plot and Documentation.
- Designing a Dance performance.
- Day and Night project.
- Second Take Light a Song.

SETC 2025 - Baltimore

Visualization To Teach Lighting Design

Session Leader:
Shawn Paul Evans
Professor of Theater
W&L Department of Theater, Dance, and Film Studies

Link to session resources: https://shawnpaulevans.com/page/