Lighting Design

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The art of "ooooh... pretty."

What is lighting design?

Lighting design is both an artistic and practical.

- You need to be able to see what's happening.
    - Not only that, but lighting should direct your attention to what you should be looking at.
- Lighting needs to create a mood.
    - Depending on the colors, angles, etc of the lights, it should make you feel a certain way.
- Lighting can help create the scene.
    - What time is it? Where are we?

So how do you do it?

Step one is decide what lights you want where.

BUT HOW DO I EVEN KNOW THAT?

You decide where lights should go and what color depending on the show and how you want it to look. A very serious drama will have very different lighting than a comedic sketch show.

So how do we decide what to do?

Honestly, experience and play.

Knowing what lights are capable of doing, how light can affect something. So here's what we can control:

- Angle - The angle the light is hitting the subject
- Color - The color of the light
- Brightness - How bright the light is
- Movement - Physical movement or "chases"
- Timing - How long it takes for a light to come on and go off
- Shape - The shape, manipulated by gobos, scenery or other elements
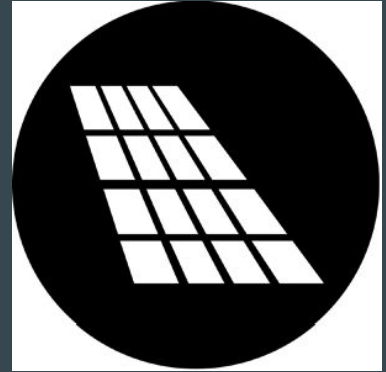
Here's all of those things (minus shape):

Gobos and Gel

Gobo: a metal sheet you put in front of a light to make it project something. Kind of like a shadow puppet

Gel: Colored transparent sheets that change a light's color.

Once that's done

So let's jump ahead a second here and assume we have out lights picked, hung, focused, colored and all ready to be programmed in a light board.

NOW WE MAKE CUES!

BUT WHAT'S A CUE!?

A cue is a look on stage that we save. When we do a show, we go from cue to cue, look to look. For example, if a play had a night scene and day scene, one cue would be night, the other would be day and we go between them.

WHEN DO I MAKE CUES?

This is subjective, but generally:

- When there is a change of scene
- When the actors would move into darkness
- When the mood has changed
- When attention is to be drawn elsewhere

Let's Get Technical

There are three sides to lighting:

- The Physical: Hanging, focusing lights.
- The Artistic: Designing lights, making cues.
- The Technical: Programming cues.

Board Syntax

Board Syntax is how we talk to a lighting board.

For example: To turn on channel 13 on the ION, we would say

    13 @ Full, Enter.

Another board might say

    Full @ 13, Enter.

This is Syntax.

Some Vocab

Groups: A set series of channels. Say 1-21 is your front, light blue lights. you almost always bring them up together. Rather than typing it, you make them group 1. Now when you want the front light blues, you simply put:

Group 1 @ Full, Enter

Submasters: Submasters are basically cues set to a fader. When the fader is all the way up, the cue is as you programmed it, full. When it it half, all the lights are half as bright as when you had it at full.

Faders: Sliding buttons that can be assigned many things,

including submasters, cues, and individual lights.

Creating Groups

Creating a Group:

    1 thru 21, Record, Group, 1, Enter

    This creates Group 1. If there is already a group one, it will ask if you want to override it. Using the thru button in this way selects every channel from 1 to 21. If, for example, we didn't want channels 14 and 17 in this group, we can do this instead:

    1 thru 21 - 14 - 17, Record, Group, 1, Enter

    That is the minus sign, it will subtract whatever channel following it from your selection.

Programming Workflow

Programming is creating the cues. In order to do that quickly and efficiently, before one jumps straight to making cues, one should consider how they are going to group and organize things before starting.

A lighting designer will often determine groups for the programming, but for the assignment, you are the designer and programmer.

Once you have made your groups and are satisfied, move onto creating the cue.

Creating Cues

Creating Cues

When working as a programming, the designer will be telling you what cues to make and what lights to turn on. Again, you're both.

First, create the look you want onstage by selecting and turning on channels and groups.

> But how do I do that?

> Oh, right, yeah, you need to know that stuff.

Selecting lights

We already went over through and minus, here's plus:

> 1 + 3 + 5 +7 @ 7 Enter

This turns channels 1, 3, 5 and 7 to *not* 7%, but 70%. If we wanted to do 7%, we'd enter: @ 07 Enter. This is because we use 70% more often than 7, so they save us from having to press an extra "0." This is true of all the multiples of 10.
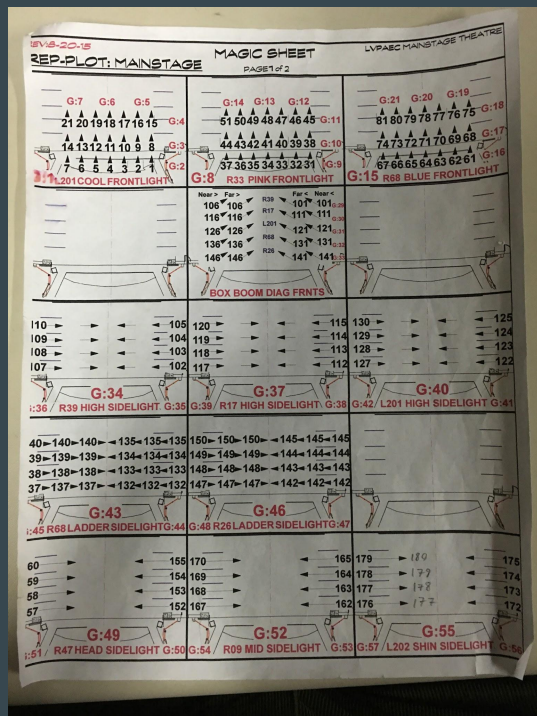
You can also combine groups and channels in a single line:

> Group 2 - 15 + 87 + 342 @ 65 Enter

This turns on group 2 without channel 15 and adds 87 and 342 and turns them on at 65%

Magic Sheets

Magic Sheets Tell us where lights physically are, what they do and what color they are.

Creating Cues

Now that we know how to select a light and where the lights are, we can make the cue.

The first thing to do is consider the cue.

What is this cue for?

What emotion should it portray?

What needs to be seen?

Creating cues

So then you turn lights on and save it.

So let's go through this.

I am downstage and sad. Let's turn the downstage top blues on.

    201 thru 205 @ 5 enter. Record cue 1 enter.

Now let's focus in more on me and bring up the center special.

    273 Full Full. Record cue 2 enter.

Pressing the Full button twice saves you from having to press enter or @.

Creating a cue

Great, but now you can't see my beautiful face. Let's turn on a front blue on center.

    4 @ 4 enter. Record cue 3 Enter.

But now I start moving stage right, and as I do so, I am filled with resolve. Lets brighten up a bit. Let's turn on more fronts, take out the spotlight and turn on the amber down lights.

    5 thru 7 @ 7 enter. 273 out. 231 thru 235 Full Full. Record cue 4 enter.

You don't need to press enter when you press the out button.

Creating a cue

Now I'm going to suddenly be hit with the existential crisis of self. Who am I, really? What's the world even about? Why am I here? OH MERCY! Again, very suddenly. So let's make this sad and make this cue a fast one.

First let's turn off everything and start from scratch. Then we'll add blues and a special where I am.

goto cue, out. 231 thru 235 Full Full. 275 Full Full. record cue 5 enter. time 0 enter

The "goto cue" button lets you jump to cues in your show. "Goto Cue, 5, Enter" would take you into cue 5. Going to cue "out" turns off all the lights.

"Time" lets you change how fast a cue goes.

Worksheet:

General Tips:

Avoid front light in Dance. Light from the side looks cool, front light makes it so you can't see the contrast.

Contrast is interesting to the eye. Try to avoid having the same color lights from different directions.

This is a subjective and creative art, so it takes getting used to.

Color Guide:

Sheet 1:

r39: Magenta
r17: Amber
L201: Lt. blue
r68: Drk blue
r26: Red
r47: Lavender
r09: Lt. Amber
L202: Lt. Blue

Sheet 2:

r80: Drk Blue
r21: Amber
NC: no color
r26: Red
r83: Blue
r95: Green
r21: Amber

Don't use LEDs or Moving lights.