

Lighting Basics

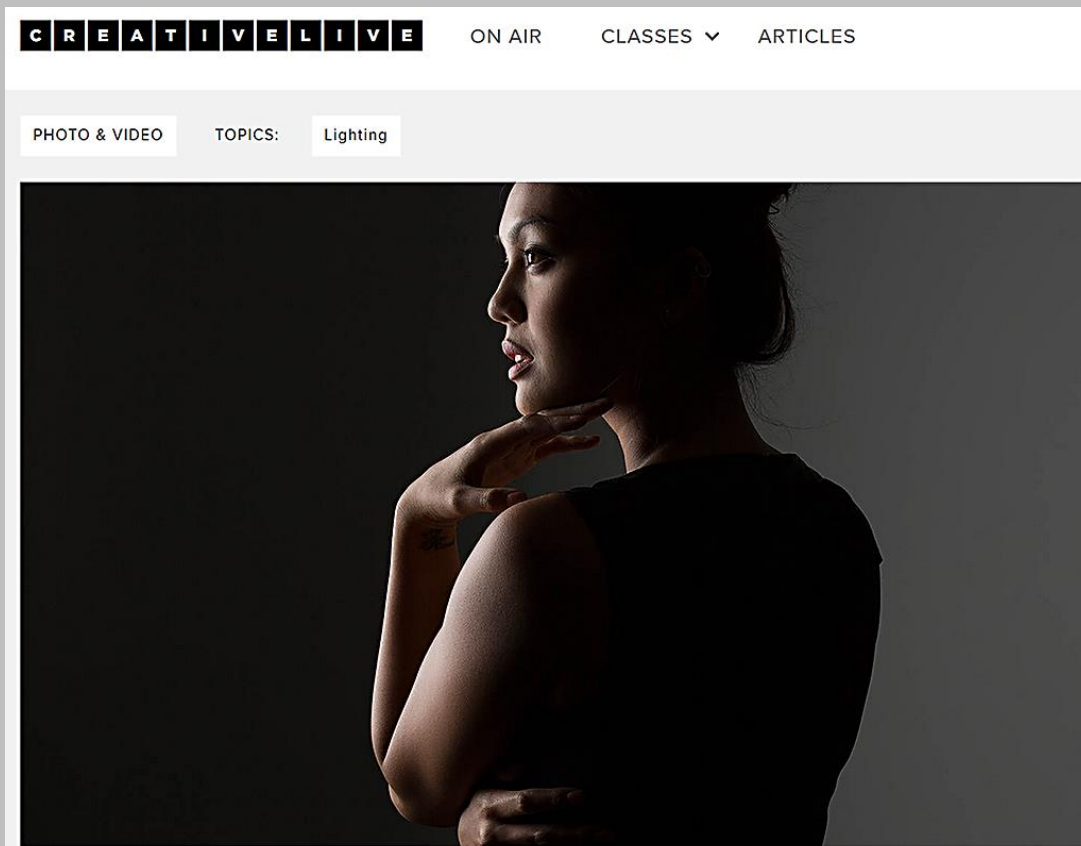
Tony Corbell

“Studio Lighting Basics”

Part of ‘Complete Home Studio Collection’
@ Creative Live

www.creativelive.com/courses/studio-lighting-basics-with-tony-corbell

Tony Corbell “Studio Lighting Basics” @ Creative Live



Short version of contents (4hours)

- Understand Foundation of Light
- Understand Light Quantity
- Understand Light Direction
- Understand Lighting Equipment
- **Shoot:** Portrait Female Model
- **Shoot:** Standing Portrait Female
- **Shoot:** Glamour Portrait Female
- **Shoot:** Portrait with Colour Gels
- **Shoot:** Fashion Plus Family
- Plus...
- Q&A sessions

I don't have studio lights so is this of any use to me?

The ideas behind using light apply to all types of light.

- Daylight – (sun, cloud, shade)
- Window light
- Speed-lights (camera flashes)
- Constant lights
- Studio strobes

Rembrandt used moveable window shutters to create the three tones of light need for a **3D effect**.

Leonardo da Vinci years before had written that to show dimensions in a painting he needed *“True brightness of the subject, a brighter tone and a darker tone”*

We'd call this “true tone of subject, highlights and shadows”



The Fundamentals of Light

In the studio you are in control of creating something that doesn't yet exist.
You are not a "photojournalist" recording something that's already happening.

It's important that you understand light and photography at a basic level.

- **Light Quantity – Light Quality – Light Direction**
- **Understanding your lighting tools** – *camera, light meter and the results of different soft boxes, beauty dishes, reflectors etc. and their positions*
- **Which of the above will give your desired effect**
- **How to use these items to Shaping & Control light** – *position, distance etc.*
- **The effective sizes of light shaping tools**

The foundations of light centre around:

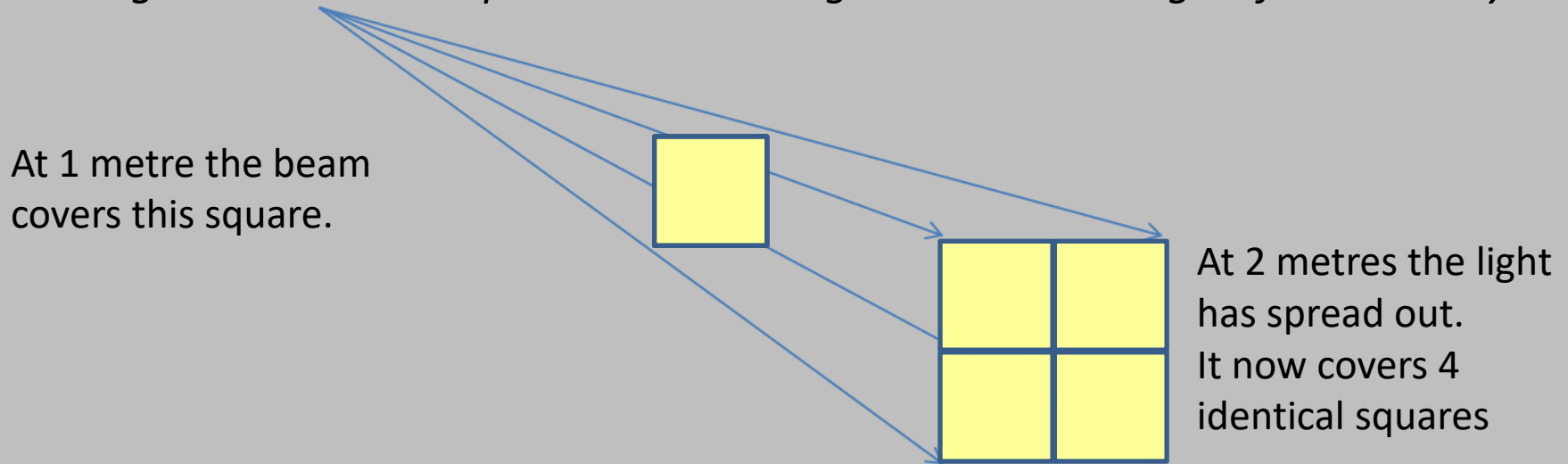
1. ***Controlling Light Quantity***
2. ***Understanding Light Quality***
3. ***The Effects of Light Direction***

Light Quantity: How the **power** of light **changes** with **distance** !!!

“The Inverse Square Law of Light”

Light rays travel in straight lines from a source - e.g. LED / Speedlight / Flash
They spread out as they move away from the source.

e.g. A torch beams spreads to cover a greater area as it gets further away.



Doubling the distance spreads the same amount of light over **4** squares.

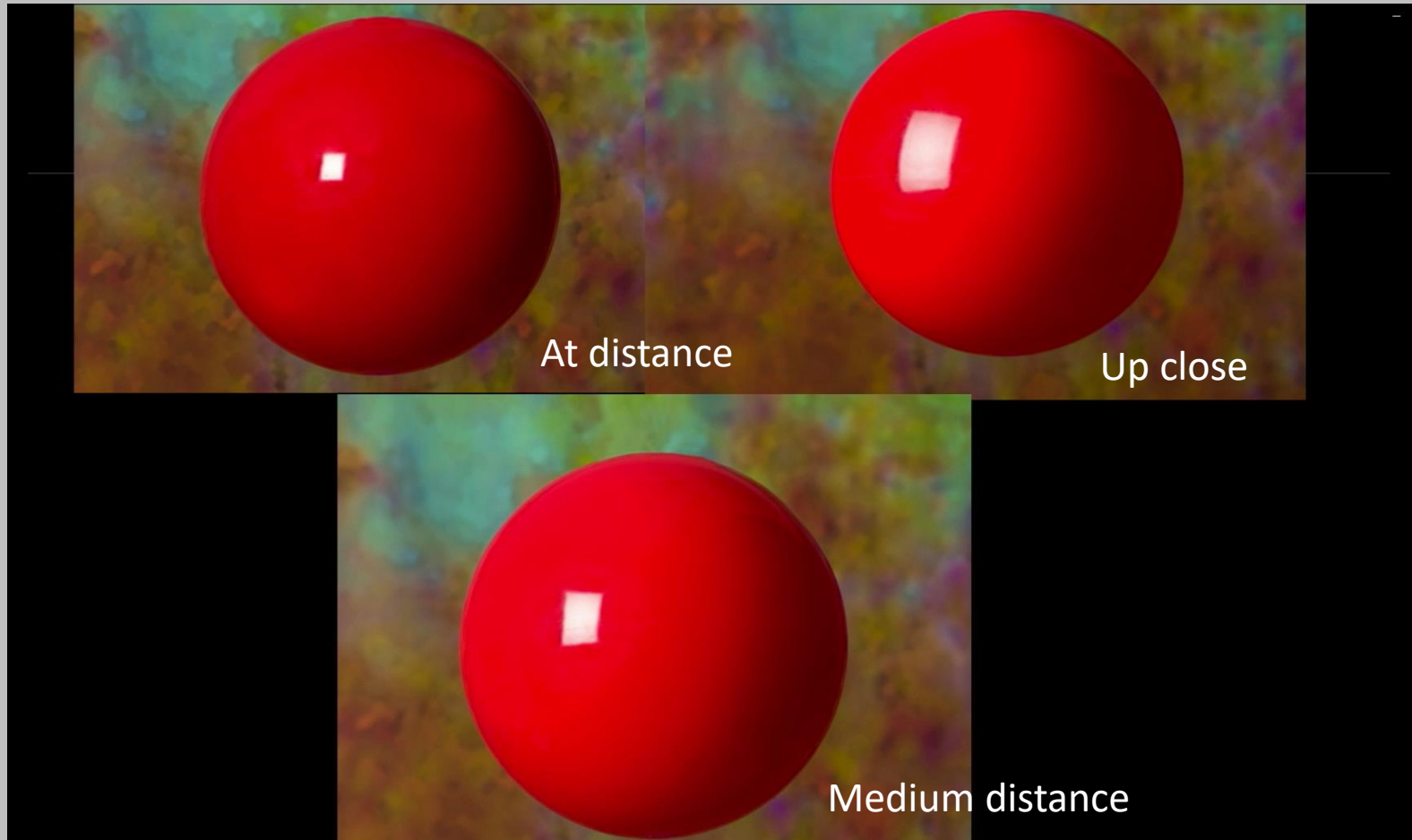
So, if you double distance the light on any single square is only $\frac{1}{4}$ the strength.

Effect of the same softbox at different distances

It's obvious how the size of the softbox appears smaller at farther distances.

The **highlight** (reflection of the box) on the ball also changes in **brightness**.

Up close it's **large and soft** – **at distance** it becomes **smaller and brighter**.



Controlling Light Quantity

- This is essentially how you add depth to an image by controlling the ratio of; *highlights* → *true tone* → *shadows*.
- It's up to **you** to decide how best to interpret the subject.
- **If the distance between subject and light changes, re-meter** as even small changes can affect the exposure. (*"The Inverse Square Law"*)

- **To add light:** increase power or move source and subject closer together.
- **To subtract light:** decrease power, increase distance
- **To reflecting light:** use reflectors, bounce light off white wall etc.
- **To diffuse light:** use diffusion panels in soft box or add a diffusion scrim *

* Diffusing light reduces the quantity of light passing through.

Understanding Light Quality - (Essentially the **types** of shadows and highlights)

To control the quality of light there are 4 main points to consider:

1. **The size and type of light source** (e.g. soft box, octa, beauty dish)
 2. **Distance between light source and subject**
 3. **Diffusing light**
 4. **Reflecting light**
- These control the progression from 'true tone to highlights and shadows'
 - The size of a light source is relative to distance from subject

For example, on a sunny day;

*light from the **massive Sun** acts as a **small** light source because it's **so far away***

*if **clouds** cover the sun, it now lights the clouds and these become a **large source***

Small Light Source = shadows **sharp/harsh**, highlights **small & bright**

Large light source = shadows **soft-edged**, highlights **large & soft**

Working with subjects



This is what the ‘model’ sees when you’re behind the camera using the viewfinder & giving instructions – **no eye contact, no real connection, no feedback.** They can easily lose confidence in themselves or you.



Start by making a connection with them – **get to know them a little.**

Give any instructions/ideas first – use ‘mood’ images, ask which ones they’d like to try.

Put your camera on a tripod if possible – you can set your focus point then holding it come out from behind the viewfinder and reconnect with the model.

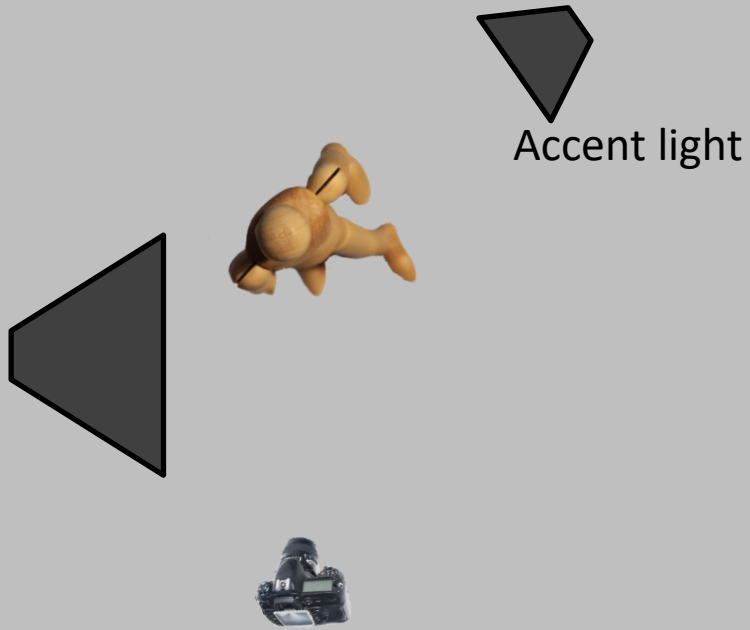


Show them any **good** images you get. Get their feedback.

If they’d like to change something give it a try.

A **mirror** is a great aid if they’re not sure about a pose

Portrait Glamour



Model at **back** of large soft box.
Accent light at least 1 stop lower than
shooting aperture – *“angle makes it
more efficient”* - (See next slide)
Woman’s shoulders away from main
light to reduce ‘light trap’ of chest.
Head turned back slightly to light.



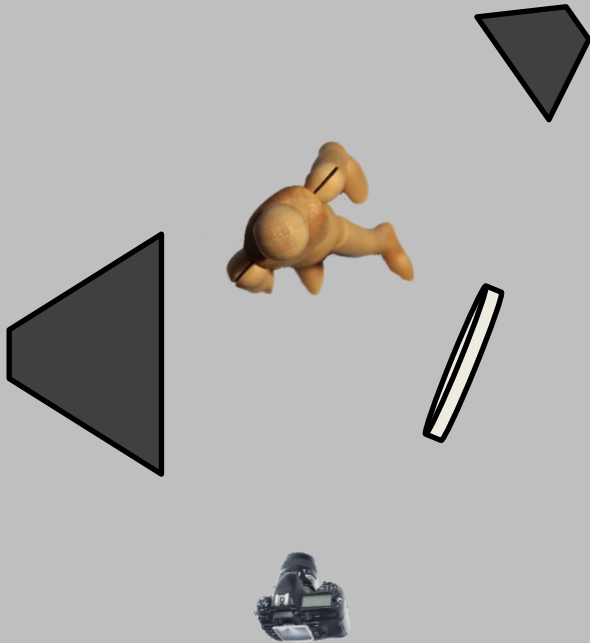
Accent light same as shooting aperture



1 stop below shooting aperture



Setup 1 Portrait Glamour with reflector



You may want to change the ratio of highlight to shadow on the face. Placing a white reflector *slightly in front of model and facing back* will achieve this. Move the reflector towards or away from model to control the amount of shadow.



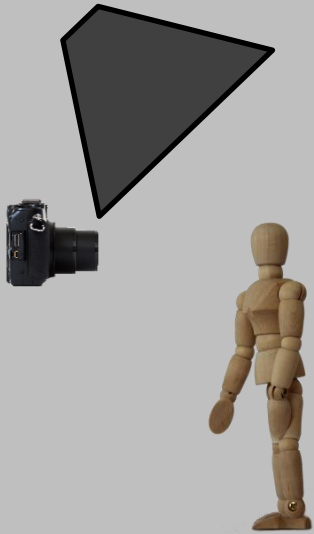
Without reflector



With reflector



Overhead Glamour shot



Soft box above and angled **down** about 45°. It should only be **just** out of frame. The *larger and closer* the soft box, the *softer the shadows and highlights* – great for removing blemishes.



Overhead Glamour shot - plus white reflector – “clamshell”



To fill in shadows under the eyebrows, nose and chin add a reflector below. Try white or silver and experiment with the angle.



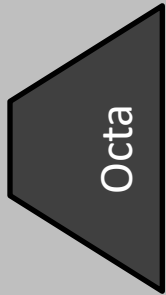
Overhead without reflector



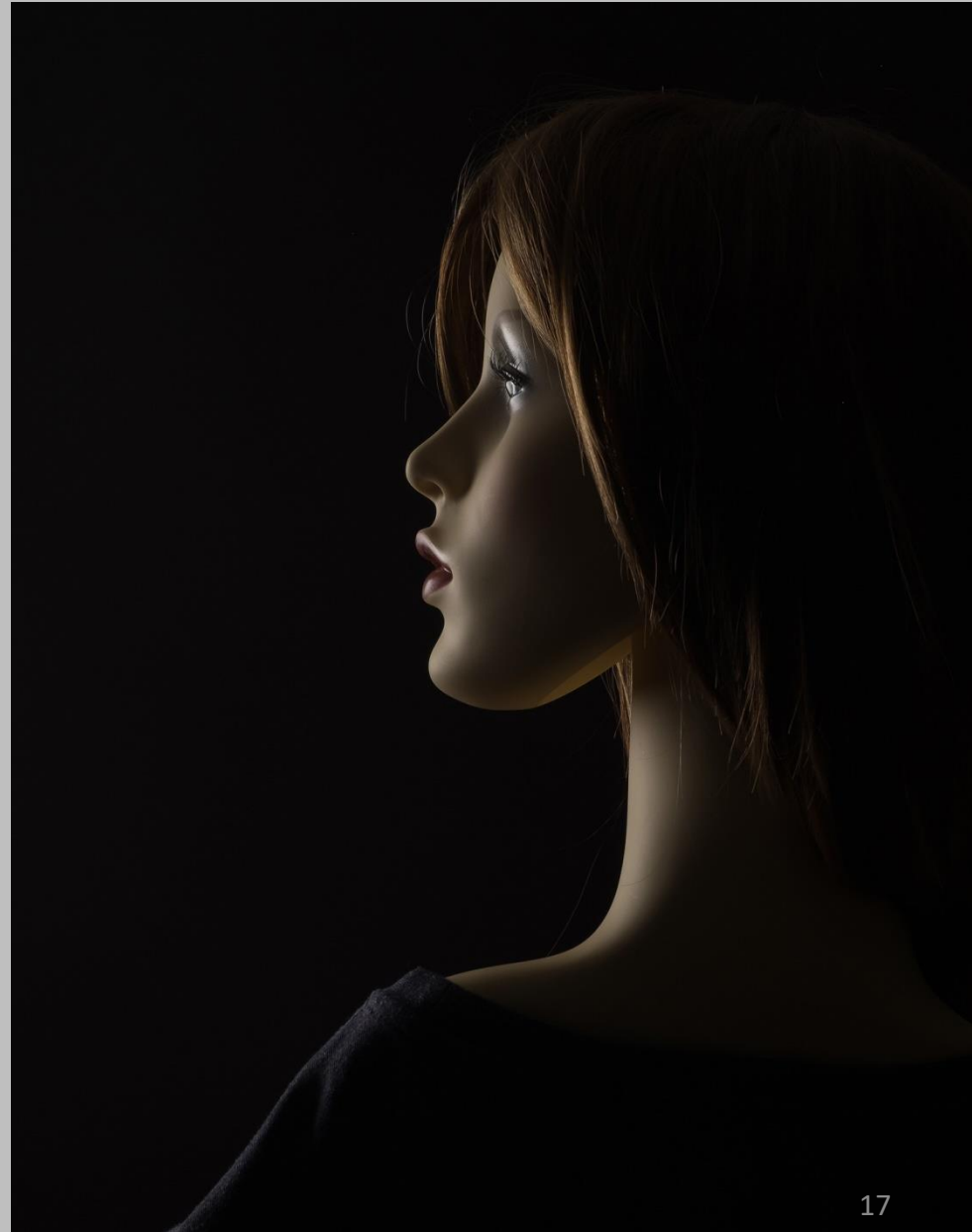
Overhead with reflector



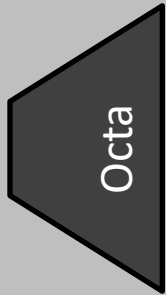
Back Profile Glamour – back to camera



Model faces away from camera with face turned to side facing the light. Soft box is behind model (perhaps facing slightly forward). Face, and arms, should be angled to receive just a thin edge of light. Take a light reading then **reduce aperture slightly** to allow for the efficiency of the bounced light.



Front Profile Glamour – front to camera



Model faces towards camera with face turned to side facing the light.

For a woman angle the chest slightly away from the camera.

Face, and arms, should be angled to receive just a thin edge of light.

Take a light reading then **reduce aperture slightly** to allow for the efficiency of the bounced light.



I've donated these plus many others to Reflex
well worth a look if only for images

