Film Connection Quiz 9

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1. Describe the basic duties of a DP. Explain the difference between a director of photography and a cinematographer.

The difference between a DP and a cinematographer is that the DP does not operate the camera whereas the Cinematographer does. The DP is in charge of helping achieve the highest quality shot that is possible to achieve with tools such as lighting. The DP coordinate with the 1st and 2nd assistant camera operators as well as the gaffer who is in charge of the physical task of lighting the set – but of course the gaffer delegates to the grips.

DP’s are an element of the crew in a larger scale production. Often times on smaller productions, all you need is a cinematographer.

1. What jobs comprise the director of photography’s crew? What are the duties of each member of his team?
* The focus puller or 1st Assistant Camera is in charge of the lenses and being aware of the depth of field.
* The loader/clapper is in charge of slating the film and back in the old days I’m guessing the “loader” part was integral to film stock cameras.
* The DP also has some say in crew management in that he/she can pick their own gaffers and grips.
1. Why is depth perception important when lighting an actor?
* Depth perception creates the illusion of a world in and of itself. Since film is a 2D medium we want to see the actor in relation to his or her surrounds and lighting is a tool used to help him/her pop out and creates the illusion of a more 3D world.
1. What are the three main lights used in cinematography? How are they used to create the visual image?
* Key, Fill and Backlight are the main types of lighting. Since film is a 2D medium, it is necessary to create an added layer between an actor and the background. This is achieved through the backlight. The key light is used to directly highlight an actor’s face and the fill light is used to blend the lights from the foreground with the lights in the background. Often you need a key light for each actor.
* Key lights create the most contrast on the actor and they set the mood for the entire scene. Shadows on actor’s face change the mood drastically. The key is the first light to be established and the other lights follow in relation to that.
1. What is the difference between Tungsten, HMI, fluorescents, and LED’s?

Tungsten lights are warm and comparable to incandescents at home. They are good for lighting more domestic scenes and inside scenes. HMI’s recreate daylight which could come in handy if you’re trying to give the illusion that light is coming from a window and it’s actually nighttime. HMI’s are for outside. Fluorescents have a range of colors from warm to cool. LED’s range from tungsten to daylight.

1. What are some of the other tools a DP will use to create lighting effects?
* Bounce boards are foam boards used to redirect existing light.
* Gobos – dim the light
* Gels – affect the color quality of the light
* Scrims – anything you put in front of a light to diffuse it.

\*I’ve listed these tools but the Best Boy and gaffers would be more likely to have a hands on relationship with them. The DP would delegate someone to use these tools. DP’s also use the setting they shoot in to determine light sources in the room. Artificially recreating the daylight from a window or simulating moonlight are options that DP’s have when shaping a world.

\* Filters placed directly onto the lens are more in the DP’s domain or the first Assistant Camera guy’s domain. Filters block out specific wavelengths of light or add a certain tint to the footage. A lot of the color added footage can be done in post production or so I hear.

1. What are the different parts of a camera?
* The camera body or light tight box
* The lens – pieces of glass held in a cylindrical rubber or metal frame with a ring around them for focusing.
* Digital sensor- controls the shutter speed and ISO. Captures the image and stores it digitally.
* The aperture/iris– allows light to come in and expose your footage
* The view finder – allows you to see your footage as you shoot it
* The lens cap – protects the lens
* The shutter (physical element in old cameras but a software element in new cameras)
* The focal plane – the place where the film is resting or the place where the digital sensor is
1. Why is vetting your DP so important? When vetting him, what characteristics are you looking for? What do you want to avoid?
* The director and the DP must be able to work together and make quick and specific artistic choices about focal length and the mood of the scene.
* Checking out your DP’s previous work is important because you want to be sure that his or her previous work is not starkly in contrast to what you’re trying to achieve.
* Getting references from previous collaborators is also important.
1. What is the most important quality of a camera?
* A camera must be able to exclude light as effectively as possible so as not to interfere with capturing the image.
1. What is a lens and what is its primary purpose?
* The lens is the mechanism that traps the light and focuses the image. A lower number lens conveys a wider image and a greater depth of field. A telephoto lens or higher millimeter lens conveys a more zoomed in image with less depth of field
1. What is focal length and what does it affect?

\*The focal length is the distance within which one could capture an image in focus. The distance from the camera lens to the farthest object that is still in focus.

1. What is controlled by the iris?
* The iris controls the f-stop. The f-stop is a measurement of how open the aperture is. A lower F-Stop means more light can come through. A 5.6 f-stop allows more light to come in than an 11 f-stop which closes the aperture. A greater depth of field can be achieved when using a higher f-stop.
1. What does the shutter control?
* The shutter controls the amount of time the film is exposed or the amount of time the image is captured. In old fashioned cameras it was a tangible spinning piece of the camera. In contemporary digital camera’s the shutter speed is regulated by soft ware in the camera. It clips each frame in a fraction of a second but there is still the illusion of continuous movement because our brains retain an image for 1/50th of a second after the image is available. This is called persistence of vision.
1. In your own words, why is well executed sound important?
* Realistic sound is well executed sound. Realistic sound can really make or break the illusion of the world you are creating. Well executed and *consistent*  sound are necessary so that when the shots are spliced together there is the illusion of an established energy and dynamic.
1. Who generally comprises a sound crew?
* The sound mixer and the boom operator and one or two assistants.
1. What does the mixer need to make sure levels are kept within a proper range?
* Headphones help he or she monitor the consistency. A digital recorder saves all of the audio files.
* The actors may be wearing hidden microphones and the Sound Mixer is aware of these levels with the additional body mics and boom and he orchestrates all of these levels on a mixing board.
* He/She may have to wait until after a train passes or a plan flies overhead. Multiple takes are often necessary.
1. What are the tasks of a sound assistant?
* The sound assistant is in charge of placing and retrieving the microphones attached to the actors as well as wrapping cables and taking care of the equipment.
* Changing batteries of mics and other equipment.
1. What is time code used for?

This allows the editor of the footage to sync the visual footage with the audio. If there are multiple cameras used to shoot a scene, a signal is provided to them as well.