

An Introduction to Black Light Photography

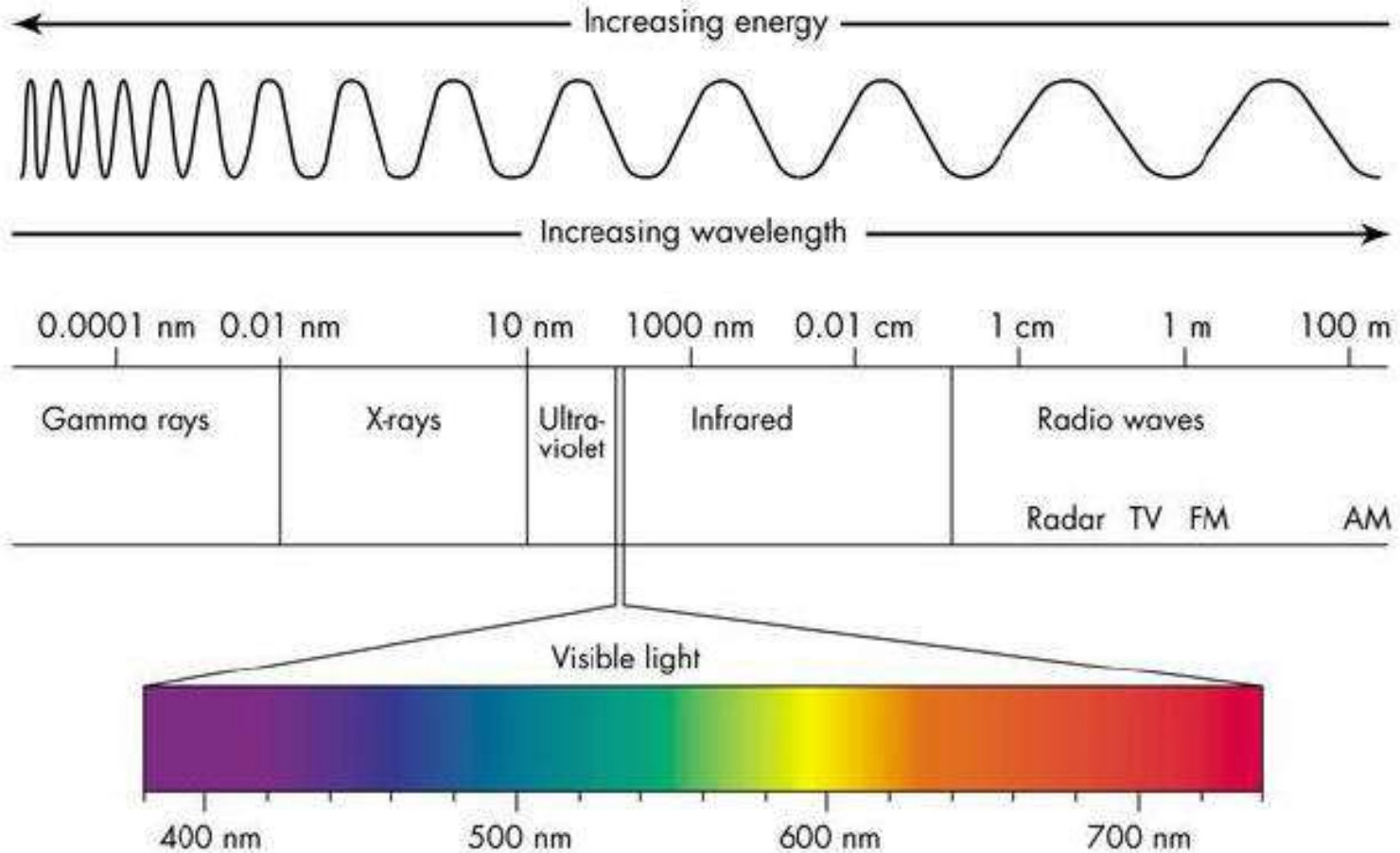
By Scott Musson

What is Light?

“Light is the propagation of energy in the form of electric and magnetic waves and is therefore also known as electromagnetic radiation. The electromagnetic spectrum is the entire range of possible kinds of electromagnetic radiation, which are classified by the frequency of the wave. The spectrum ranges from gamma rays, which have a very short wavelength and very high energy, to radio waves, which have a very long wavelength and very low energy. Visible light makes up a very small portion of the spectrum.”

- worldpress.com

What is Light?



What is Black Light?

“A Black light or UV Light is a lamp emitting electromagnetic radiation that is almost exclusively in the soft near ultraviolet range, and emits very little visible light. Ultraviolet radiation itself is invisible to the human eye, but illuminating certain materials with UV radiation prompts the visible effects of fluorescence and phosphorescence.”

- Wikipedia

What is Black Light Photography?

Photographing subjects illuminated by the light produced by fluorescence and phosphorescence of certain materials from being exposed to the UV radiation emitted by a black light.

Radiation? Are Black Lights Safe?

- Black lights produce light in the UV range
- Black light (BLB) is limited to UVA spectra
- UVA is the safest of the 3 spectra of UV light



Radiation? Are Black Lights Safe?

- UVB and UVC are responsible for damage related to skin cancer
- UVA light is much lower in energy and does not cause sunburn
- Recommend that you take precautions using black light, limit your exposure
 - If your eyes get tired –turn off the light for a while!



Recommended Photo Equipment

- Anything you would use with low light photography
- Required
 - A Sturdy Tripod
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 - An IS or VR lens alone nor high ISO will not suffice
 - A Black Light (BLB) source

Recommended Camera Equipment

- Optional
 - Macro lens
 - Extension Tube
 - Close Up Filter (Dioptor)
 - Cable Release or Remote Trigger
 - Mirror Lockup
 - Special UV Haze Filters UV 2A or UV 2B
 - Check your UV Haze filter under black light, if it looks hazy or blue, do not use it, it will make your images look bad.

Recommended Camera Settings

- White Balance
 - Florescent
- ISO
 - 100 or 200 is best
- Exposure
 - BLH (bracket, bracket, bracket)
 - Use your camera's histogram
 - Generally underexpose slightly $1/3$ – $2/3$ stop

Recommended Camera Settings

- Depth of Field
 - Suggest using “**A**” or Aperture priority
 - Use creative judgment
- Focus
 - May need to use manual focus as with any macro or low light photography

Recommended Lighting

- Florescent Tubes
 - 20 watts or better (no less than 15)
 - Use a BLB type blub (Black Light Bulb)
 - F20T12/BLB is the type I use
 - Do not use
 - Bug zappers
 - Sterilization lights



Recommended Lighting

- Incandescent Blubs
 - Very inefficient generating UV
 - Operate very hot
 - Lighting tends to be concentrated (hot spots)
 - Will work if you have them, but florescent will produce better results

Recommended Lighting

- Reflectors will help improving your exposures
 - White foam core
 - White matt board
 - Mylar sheets
 - Mirrors
 - Traditional 5 in 1 reflectors on a stand

Logistical Recommendations

- Dust
 - Your biggest enemy
 - Use lint rollers, lint brushes, masking tape, etc.
 - Hurricane blower
- Finger Prints
 - Your second biggest enemy
 - Use lint free cloths to remove (not paper products)

Creative Recommendations

- Black light photography works well with smaller scale subjects
 - Portraits
 - Abstract
 - Close-up & Macro

Creative Recommendations

- Black light photography is difficult with large scale subjects
 - Group portraits
 - Large scale abstracts
 - Etc.

Creative Recommendations

- Take your time, little things are emphasized
- Fill the frame with your subject
 - Get even closer!!!
- Reflections look great
 - Use mirrors
 - Use Mylar
 - Anything reflective

Creative Recommendations

- Compose for the background
- Be creative with the background
 - Florescent construction paper, foam core or matte board
 - Paint your own backgrounds using florescent paint
 - Mirrors
 - Sheets of Mylar

Creative Recommendations

- Use subjects that are
 - Florescent
 - Phosphorescent
 - Reflective
 - Transparent

What is Florescent in Black Light?

- Anything that glows in the dark
- Most anything that looks florescent in daylight
- Walk around your house with a black light, you'll be surprised!
 - Especially in your bathroom and on your carpets (Ewww!)

What is Florescent in Black Light?

- Florescent paint
- Glow in the dark paint
- Highlighters
- Some plastics (often toys)
- Florescent construction paper
- Security stripe in money
- Reflective clothing (e.g. tennis shoes)
- Woolite
- Milk
- Tonic water
- Liquid laundry detergent
- Tooth whiteners
- Petroleum Jelly
- Certain minerals
 - Fluorite
 - Calcite
 - Etc.
- Many, many, many more...

What Are Good Subjects?

- Inexpensive clear glassware
 - (Cheap stuff works great!)
 - Glass plates
 - Wine glasses
 - Martini glasses
 - Vases
 - Marbles
 - Tchotchke, bric-a-brac, etc.

What Are Good Subjects?

- Reflective and shiny objects
 - Silverware
 - Plastic-ware
 - Chrome objects
 - Vases
 - CDs
 - Tchotchke, bric-a-brac, etc.

What Are Good Subjects?

- Florescent Paint on...
 - Plastic plants
 - Fruit
 - Baskets
 - Leaves & branches
 - Inexpensive glassware
 - Limited by your imagination

What Are Good Subjects?

- People!
 - Painted with florescent body paint
 - Posed with florescent props!
 - Posed with light sticks, glow jewelry, etc.
 - Inspiration found online
 - http://www.pbase.com/tglass0000/tims_blacklight_gallery

Black Light Photography Setups

- Demonstrated setups
 - Table top setup
 - Shoot through table top setup
 - Mylar tube setup
- Other setups will work too

Black Light Photography Setups

- Table Top
 - Use black background and table top
 - Velvet cloth, black mat board, black foam core or black paper over cardboard
 - Any type of table will work
 - Provide support for background(s)
 - Binder clips or clothes pins to attach backgrounds
 - String hung across setup can be used to hang props or backgrounds (optional)

Black Light Photography Setups

- Table Top continued
 - Provide stage for props (box)
 - Place black lights in front or the side facing background
 - One black light on each side vertically positioned (minimum
 - Reflectors, foam core, mat board, Mylar, etc. to reflect light onto the stage from lights

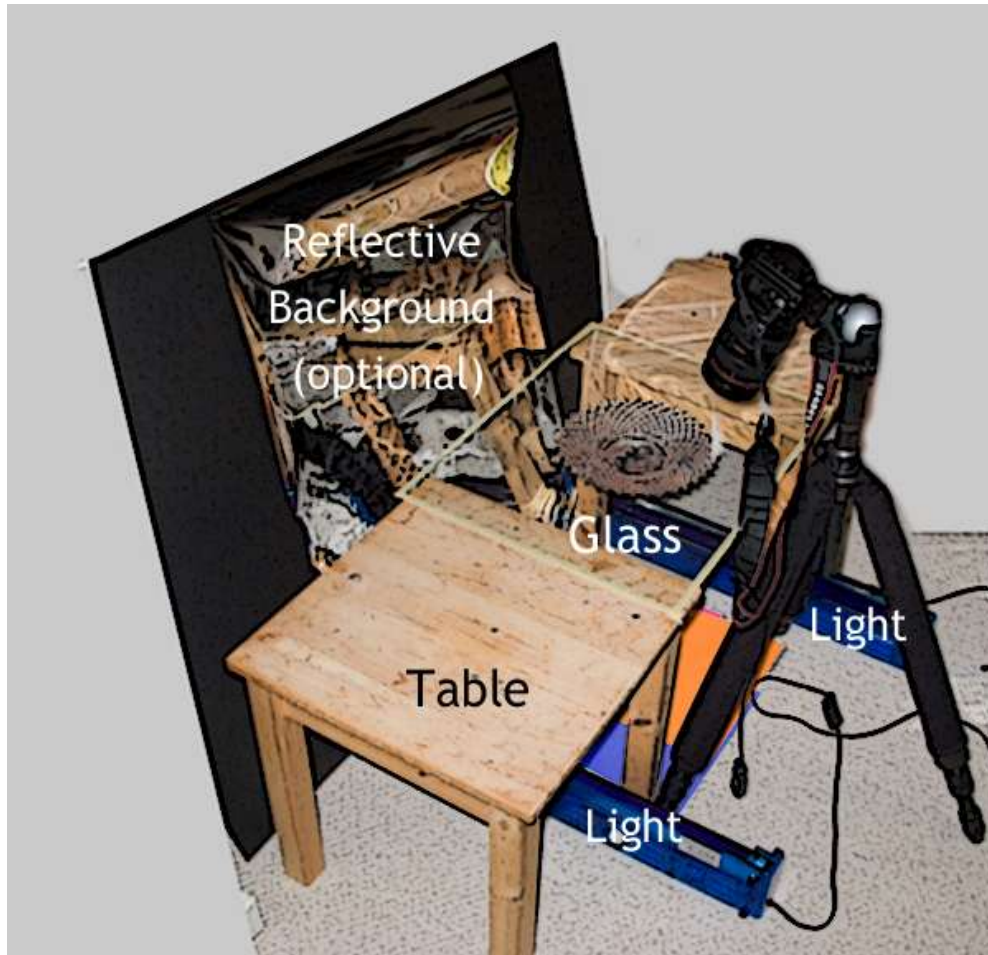


Table Top Setup

Black Light Photography Setups

- Shoot Through Table Top
 - Use a glass stage and shoot from above
 - Glass from a picture frame works well
 - Put backgrounds on floor
 - Put lights on floor facing in towards background
 - Place subjects on glass stage
 - Shoot as close as you can to your subject (macro lens, extension tube)

Black Light Photography Setups



Shoot Through
Table Top Setup

Black Light Photography Setups

- Mylar Tube
 - Tape a 6-12 inch tube of Mylar around the lens barrel
 - Don't tape it to the barrel so you can move it and focus
 - Point your tube towards background illuminated by a black light
 - Bend, crinkle, fold, tape, rubber band, squeeze the Mylar tube to change your image (also move around background)

Black Light Photography Setups



Mylar Tube Setup

Black Light Photography

- Now it's your turn to give it a try!
- Try to be patient, sometimes it takes a few tries to get satisfying results
- Most of all try to have fun!
- Remember this was only an introduction, it's up to you how far you take it.
- Notes from this presentation will be posted on the website in the "F-Stop" section.

After The Hands On Session

- Send 3 – 5 of your best images captured to blacklight@nvps.org and we'll post them to the NVPS website photo gallery.
- If you include the words “Please Critique” in your email subject, I will post a critique of your images soon after they are posted

Thank you!