

# Photography After Dark

Matt Whitted

# Why at Night?

- Work during the day
- Things are more interesting at night
- A different perspective – things look different
- But.... but... there's no light!
- Why not?

# What do you need?

- A camera
  - Manual control recommended
    - Required for some techniques
  - Newer cameras often have very impressive high ISO performance
- A tripod
  - Can be substituted with some creativity

# Recommended

- Shutter release cable
  - Camera must support “bulb” mode
  - Shutter lock switch
  - Better yet – intervalometer
    - More on that later
- Prime lens(es)
  - Usually f/1.8 or better
  - More light hits the sensor

# A bit on tripods

- Skip the cheap aluminum Wal-Mart deal
- Something sturdy for long exposures
- Don't go too crazy!
- Creativity can bypass the need for a tripod



# General tips

- Manual Focus
  - Most auto-focus systems are poor in low light
  - Usually set mine to infinity and work back
- Bring a flashlight
  - It's dark out
  - Shine on a near object for auto-focus
- Don't bother with a flash
- Be safe!

# White Balance



MAY THE MOTHERHOOD OF  
CHRIST'S LORD AND MA  
GNET OF ALL MOTHERS OF  
FOURTY TWO LAMA AND  
THE SHEPHERD

A MOTHER LIGHT  
THE WORLD AT  
THE HOLY MARY  
SHEPHERD'S AND



# White Balance

- Huge variety in color temperatures at night
- Shoot in RAW
  - Allows you to set white balance after the capture
- Get creative in post
- If all else fails, or you are lazy like me...



MARY, O MOUNTAIN OF  
GRACE, O FOUNTAIN OF  
LIFE, O QUEEN OF SHEPHERDS,  
O BOTH THE LAMB AND  
THE SHEPHERD!

THE LIGHT OF THE WORLD  
IS IN THE MOUNTAIN OF  
GRACE, O QUEEN OF SHEPHERDS,  
O BOTH THE LAMB AND  
THE SHEPHERD!

# Techniques

- Handheld
- Tripod
- Long exposure
- Time Lapse

# Handheld Tips

- Don't be afraid of higher ISO settings
  - Upcoming examples of ISO 1600 – 2500
- Engage your VR or IS feature
  - Does not help with moving objects
- Underexpose a bit
  - You can re-gain ~1 stop in RAW
  - Underexposure can also lead to interesting results

# Tripod Tips

- Turn VR off
- Use a shutter release cable
  - Avoid camera shake
- Use lower ISO
- Experiment with lengthy exposures

# Long Exposure Tips

- Use a tripod!!
  - Sturdy surface
- Shoot in RAW
  - Better noise control in post
- Manual mode
  - Low ISO
  - Play with the shutter speed

# Long Exposure Tips

- If you have a prime lens, use it
  - Zoom lenses can creep
- Most cameras have max 30 sec shutter
  - Use “Bulb” mode
  - Shutter release cable with lock
  - Intervalometer
  - Poor Man's Shutter Lock

# Poor Man's Shutter Lock





# Examples



# Church



- Handheld
- ISO 1600
- 1/30 second
- 120mm
- F/5.3 – wide open on this lens at this zoom
- Aperture Priority



RAILROAD  
CROSSING

CROSS  
ROAD

WINNER OF  
BEST SEVENWAY

HEY KIDS  
IF YOU ARE  
OVER 50"  
YOU CAN  
ONLY RIDE  
THE

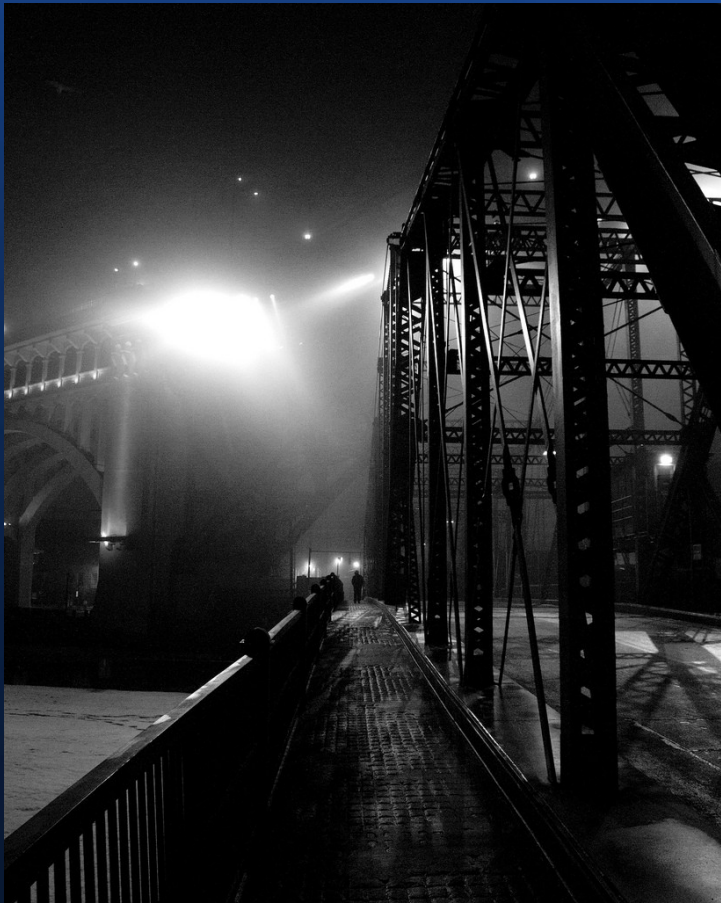
# Kiddie Park



- ISO 2500
- Handheld
- 1/3 second exposure
- VR of course!



# Man on Bridge



- ISO 800
- 1/50 sec
- Purposely underexposed ~1 stop
- Not all night shots require long shutters or steady hands





# Night Sky



- 30 second shutter
- Tripod used
- ISO 250, f/4
- Note the cloud motion



# Starry Night



- Tripod used
- 30 second exposure
- ISO 1600
- f/3.5 (wide open)
- 8mm Fisheye



# Power of Nature



- 4 second exposure
  - I cheated
  - Continuous fire
- f/8, ISO 250
- Tripod used
- I had to run fast shortly after this shot



# Self Portrait (sort of)



- Materials Park
- 8mm Fisheye
- 30 seconds
- ISO 250
- f/3.5
- Small light behind
- Point is – have fun!





# Stupid backyard experiment



- Most boring photo ever
- 36 Minute exposure
- Turn night into day
- Experiment!

# Time Lapse Photography

# Time Lapse

- Camera in fixed position (usually)
- Exposures at regular, specific intervals
- Resulting images are assembled
  - Exposure stacking
  - Time-lapse video
- Need to shoot in FULL MANUAL
- Use an intervalometer

# What is an intervalometer?!

- Tells your camera to take a certain number of photos, with a specific interval between each photo
- Most connect to your shutter release port
  - Doubles as shutter release cable
- Some cameras have one built in
  - Nikon D200, D300, others
  - IT STINKS

# Where to get one

- Name brand from your local camera store
  - Nikon & Canon make models specific to their camera lines
  - They are *expensive* - \$150 and up
- Generic Chinese brand from Amazon.com
  - Cheap - \$20-\$50
  - Replace 5, you are still ahead
- Make sure it supports your camera



An even cheaper alternative....

# Poor Man's Intervalometer





# General Tips

- Environment & location
  - Sturdy surface, good tripod & head
  - Somewhere you don't mind leaving your camera for an hour or more
  - One ruined frame *could* waste hours of effort
- Battery power
  - This will rapidly drain your battery
  - External battery or A/C adaptor

# Capture Images

- Pick an interval
  - Do some math
    - Video, ~15-24 frames / sec
    - 1 minute of video = ~ 1,440 frames
    - 30 second interval = 12 hours
  - Play around, guess at it
    - My preferred method
  - There is no wrong or right way

# Capture Images

- Settings
  - This time I recommend JPEG!
    - Saves a lot of time in post
    - Conserve storage space
  - No automatic settings – **FULL MANUAL**
    - ISO, White Balance, focus, etc
    - Shutter speed = BULB
    - Some items may be buried in menus
      - Dynamic lighting

# Latest experiment



- Cabin in Virginia
- 29 second exposures
- 30 second interval
- Nikon D300
- Vivitar 28mm f/2.8
- Battery lasted ~2.5 hrs
- Approx 250 exposures



# Assemble Images

Image / Exposure Stacking  
Most commonly used for star trails



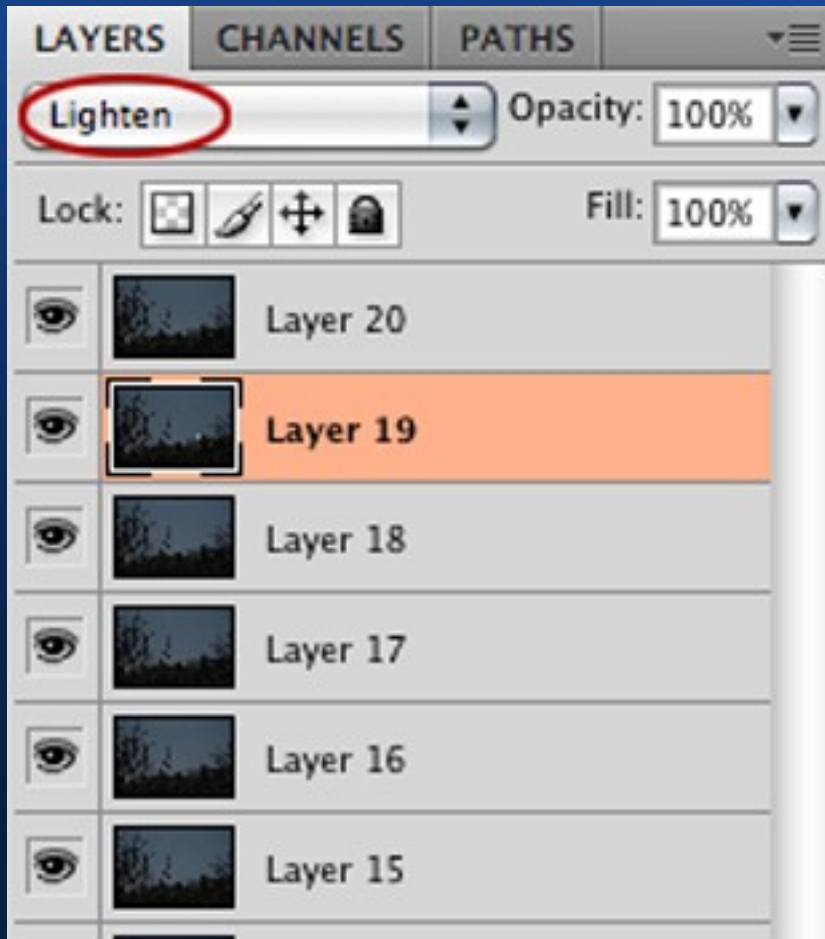
# Star Trails



- Proof we are moving 1,040 mph!
- 20 images
- Top layer “Hard Light”
- All others “Lighten”



# How to stack exposures



- Stacking – star or motion trails
  - Copy/paste each image as a Photoshop layer
  - Blend mode for each layer to “Lighten”
  - Specialized software & actions are out there to make this easier

# Assemble Images

Time-Lapse Video



# Time Lapse Video



- ~250 frames
- 20 frames per second
- ~2.5 hours of shooting
- 13 seconds of video

# Time-Lapse

- NOT using video function of your camera
- Assemble individual, still images as frames of a video
- Special Software Required
  - Mac – Quicktime Pro 7 (\$30)
  - PC - ???
- Too much to cover – possible future presentation

# Final Thoughts

- This is an art, not a science
- No right answers
- *Lots and lots* of experimentation
- **Have fun!!!**
- Questions? [matt@podsix.org](mailto:matt@podsix.org)

**And now, if we have time,  
some final inspiration...**