Night Photography & Timelapse Photography

Tom Raithby

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Two Topics

- Time Lapse Photography
  - Gear
  - Settings
  - Shooting
  - Time lapse flicker
  - Workflows
    - Planning
    - Applications
  - Video
  - Options
    - Night, HDR, Motion

- Astrophotography Time Lapse
  - Photography at night
  - Time lapse at night – what’s different?
  - Workflows
    - Planning
    - Applications

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Time Lapse - Gear

- Tripod
- Intervalometer*
- Motion Control
- Exposure Control
- Filters (ND, Circular Polarizing, Protector)
- Camera
- Lenses (+ hoods)

- Power - Battery Grip +
- Memory cards
- Plastic (protecting your gear)
- Lens Heater?
Time Lapse - Settings

- Desired output?
- RAW versus JPEG
- Resolution pros & cons
- Power management
Time Lapse - Shooting

- Composition (still, moving)
- Design (# images, duration)
- Camera settings
  - aperture, shutter speed
  - ISO, intervals, focus
- Test shots +/- sequence
- Live view to focus
- Dew & Frost

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Time Lapse - Flicker

• What is it?
• Contributors
  • “Automatic settings” (Av, Tv, Auto ISO, Auto WB)
  • Mechanical (aperture and shutter curtains)
• Solutions
  • Manual everything
  • Software
Time Lapse - Workflows

• Concept
• Pre-planning
  • Location scouting
  • Applications – Google Earth, Photographers Ephemeris (moon & sun)
• Websites
  • Windfinder - http://www.windfinder.com/forecast/gardner-s_creek
  • Environment Canada - https://weather.gc.ca/city/pages/nb-23_metric_e.html
  • Fisheries & Oceans - http://tides.gc.ca/crane/traction/tab-69

• Field work
• Post-production
  • Applications – Lightroom, LRTimelapse, Photomatix >> JPEGs
  • Adobe Photoshop
  • Applications – Adobe After Effects, Premiere Pro
  • Overall flow, music?
• Sometimes video is the starting point
• Or DSLR
• Or GoPro...
• Final output is a video
  • Dynamic
  • Insight & discovery
Time Lapse - Options

- High Dynamic Range (HDR)
- Motion
  - In-frame (using high resolution of DSLR)
  - Mechanical (more toys)
- Night-time time lapse
  - Astrolapse
Astrophotography –

*Time Lapse Photography at Night*

- Workflows
  - More emphasis on pre-planning
  - Location scouting (in daylight)
- Applications
  - Google Earth, Photographers Ephemeris, Stellarium
- Websites
  - Same as previous *plus*
Astrophotography – Other Things

• It’s dark
  • Know your camera
  • Lighting
    • To see your way
    • To see your gear
    • To illuminate your scene (light painting)
    • A spare!
    • Headlamps ROCK! (seeing RED)
  • Higher ISO’s
• It might be cold or wet or damp
  • Protection for you and your gear
  • Lens Warmers
Astrophotography – Settings

• All Manual
• High ISO –
  • up to 3200 on 6D & 60D
  • XTi (older crop sensor) likes daytime better
• Aperture is usually wide open (f/4 ok, f/2.8 better…)
  • Fast glass really helps
  • Some lenses have severe chromatic aberration (or coma)
• Shutter speed
  • Test shots to be sure
  • Up to 30 seconds for stars as points of light
  • rule of thumb – 600/focal length – eg 600/24mm = 24 seconds +/-
  • Longer for star trails
Tips & Tricks

• Mark sequence starts with your hand (or a light)
• Consider a checklist for your settings
• Plan ahead
• Learn from your experiments
  • Field lessons – what worked, what didn’t?
  • Captures – even if it wasn’t what you planned…
• Clean the sensor & lens
Useful References

• My image processing is Lightroom-centric:
  • Adobe Lightroom Classic CC
  • LRTimelapse, Photomatix
  • Adobe Photoshop
  • Adobe Premiere Pro*, Adobe After Effects*
  • Photographers Ephemeris, Google Earth, Stellarium

• Books I’d recommend:
Planning App: Google Earth
Planning App: The Photographers Ephemeris

- **Date**
- **View**
- **Location Pin**
- **How dark is it?**
- **What’s above the horizon**
- **Time**
Planning App: Stellarium
Timelapse Planning – Environment Canada

https://weather.gc.ca/city/pages/nb-23_metric_e.html

Local 7-day forecast
• Good for trends & current conditions
• Sunrise & sunset at bottom of the page
Timelapse Planning - Windfinder

https://www.windfinder.com/forecast/gardner_s_creek
Timelapse Planning - ClearDarkSky

http://www.cleardarksky.com/c/SntJhnNMBkey.html?1
Some timelapse examples