

# Outdoor Photography

By Ronald Horii

Volunteer park photographer & docent,  
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Secretary & Webmaster, Friends of Santa Teresa Park  
Webmaster, New Almaden Quicksilver County Park Association

[http://www.rhorii.com/Outdoor\\_Photography.html](http://www.rhorii.com/Outdoor_Photography.html)



# My First Camera, 1961

Kodak Brownie



# County Parks' Play Here Guide



Cover picture:  
Rancho San  
Vicente

# Interpretive Sign: Coyote Peak, Santa Teresa Park



# County Parks Busback Ads



Coyote Lake & Almaden Quicksilver

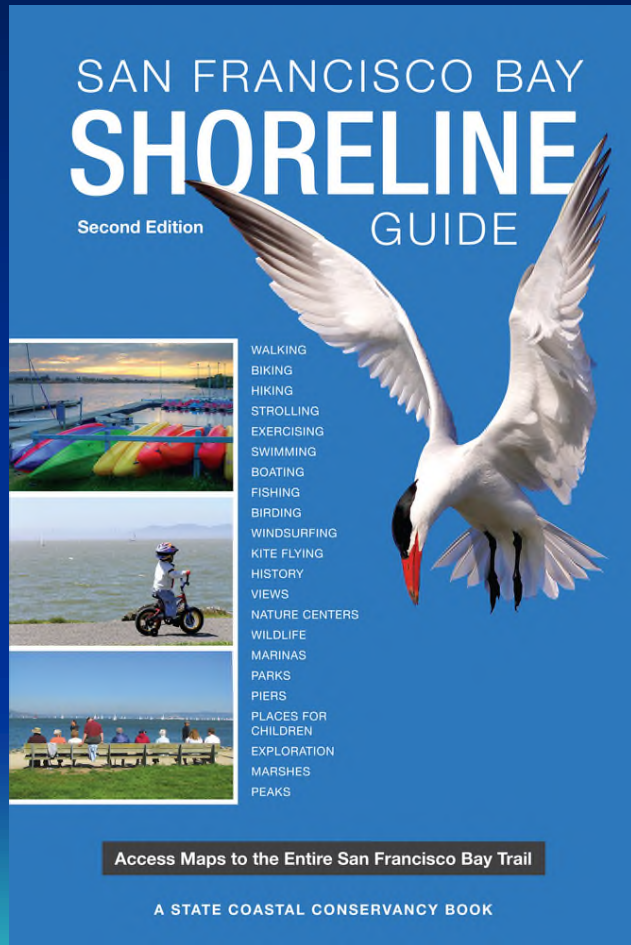
# County Parks Billboards

by Ron Horii



"Wish you were here?"  
campaign, 2017

# Contributed Pictures to San Francisco Bay Trail Guidebook



Top left cover picture, 15 pictures inside

# Photo Exhibit, Santa Teresa Library



September 2011

# Oak Hill Cemetery Monument



Picture from Santa Teresa Park illustrating  
"Homeland" on Gold Star Families Monument

# Why take pictures?

- Preserve personal memories
- Share with others (social media)
- Law enforcement, surveillance
- Documentation, news
- Science and education
- For art, creativity
- Publicity, advertising
- Enter in photo contests
- Submit for publishing
- Exhibitions
- Sell professionally



Increasing  
quality  
requirements

# Keys to Better Pictures

- Have a purpose/goal in mind
- Pre-visualize the picture
- Decide on the main subject(s)
- Concentrate on the main subject(s)
- Be prepared:
  - Proper equipment, know how to use it
  - Pick location (based on scouting, experience, research)
  - Timing (for best conditions, weather, lighting)
- Be patient, persistent
  - Wait for the right moment
  - Take lots of pictures, with variations, pick the best



# Indoor Photography: Artificial Lighting



# Outdoor Photography: Natural Lighting



Ansel Adams in Yosemite

# Outdoor Photography Types & Subjects



# Documentary vs. Expressive

## Fandango, Santa Teresa Park



Picture by Chris Horii

# Documentary vs. Expressive: Martial Cottle Park Trail



New Trail Surface 9/6/17



# Personal vs. Impersonal



Rancho San Vicente  
Trailhead

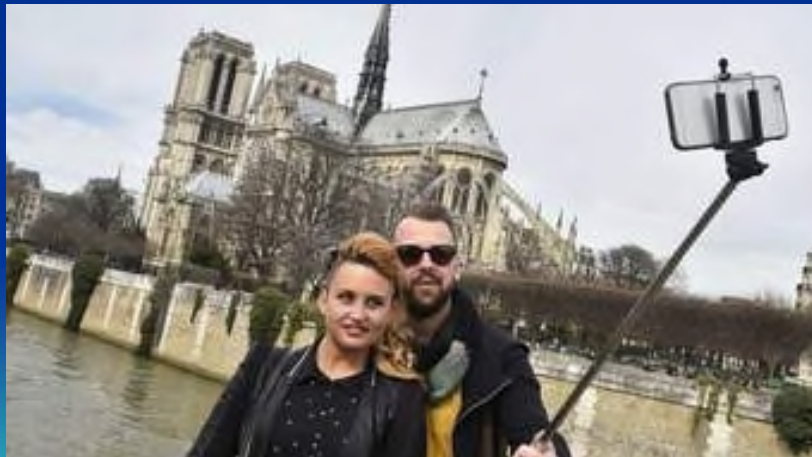
# Posed Outdoor Family Portraits



# “We Were Here” Travel Pictures



# Selfies: Handheld/Selfie Sticks



From Adorama

# Self-Timer Selfies



Bull Run, Almaden Quicksilver, camera on picnic table



Coyote Peak, Santa Teresa Park, camera on tripod

# Remote-Controlled Selfie



Camera on monopod, controlled by smartphone

# Pet Pictures



# Candid Group Event Shot

Trail Building, Santa Teresa County Park 11/5/16



# Posed Group Event Shot

## Santa Teresa Spring Cleanup 9/26/15



# Smartphone-Triggered Posed Group Shot



County Park volunteers, Vasona 9/23/18

# Outdoor Sports and Activities



# Action/Adventure



Pictures from Go-Pro

# News Event



Coyote Valley Press Conference, San Jose City Hall, 11/6/19

# News Event



Loma Fire over Calero Reservoir, 9/26/16

# Natural Landscape



Coyote Peak, Santa Teresa County Park

# Landscape Vistas

## Sierra Vista



# Urban Landscapes: Downtown San Jose



# Historic Sites



Bernal-Gulnac-Joice Ranch, Santa Teresa Park

# Mountains:



Guadalupe Trail, Almaden Quicksilver, Sierra Azuls

# Mountains: Mt. Umunhum



# Forest: Villa Montalvo



# Beaches: Carmel Beach



# Coastline: Fort Funston



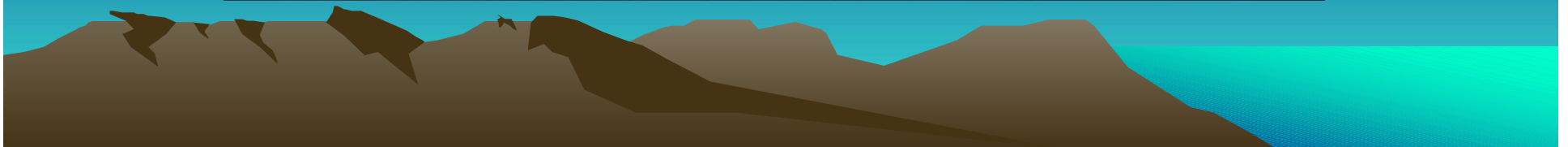
# Creeks and Rivers: Los Alamitos Creek



# Ponds: Little Uvas Creek



# Bayland Ponds: Charleston Slough, Mountain View



# Bayland Marshes: Alviso Marina



# Rock Formations



Sandstone cliffs, Mummy Mountain Trail, Coyote Lake/Harvey Bear County Park

# Nature Documentation:

Alum Rock Park BioBlitz, 12/8/18



Using iNaturalist app to record nature observations

# Wildflowers and Landscape View

## Rancho San Vicente



# Wildflowers: Medium View

Poppies, Coyote Ridge



# Wildflower: Closeup



Lindley's  
blazing star,  
Sierra Vista  
Open  
Space  
Preserve

# Wildflowers: Closeup



Woods  
Trail,  
Sierra Azul  
Open  
Space  
Preserve



# Mixed Wildflowers: Russian Ridge OSP



Winner: 2015 Committee for Green Foothills Photo Contest

# Wildflowers With People

Coyote Ridge

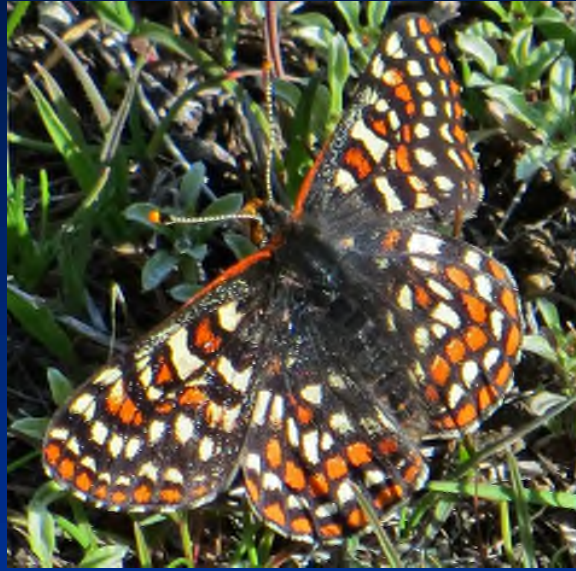


# Wildflowers With Action

Mountain Biker, Stile Ranch Trail, Santa Teresa Park



# Wildlife



# Birds: Palo Alto Baylands



# Wildlife Closeup



Burrowing Owl, Coyote Valley OSP

# Endangered Wildlife: Western Pond Turtle



Hidden  
Lake,  
Rancho  
Canada  
del Oro

# Natural Shapes

Rock by  
the Ridge  
Trail,  
Santa  
Teresa  
Park



# City Lights



Sierra Vista OSP Sunset/Moon Viewing



# Seasons



# Winter: Storm Clouds



Mine Trail, Santa  
Teresa Park

# Winter: Snow-Covered Mt. Umunhum from Santa Teresa Park



# Winter Rainbow

Ridge Trail, Santa Teresa Park 1/30/11



# Winter: King Tide and Rainbow

Cooley Landing, East Palo Alto 1/23/16



# Winter Waterfalls: Uvas Canyon County Park



# Winter Holiday Event: Fantasy of Lights, Vasona Lake



# Spring: Bernal Hill, Santa Teresa Park



# Spring Wildflowers



Low-  
angle  
view

Calaveras Trail, Coyote Lake/Harvey Bear

# Spring Views: Coyote Ridge



# Summer: Kiteboarders, Foster City



# Summer: Vasona Boating



Vasona Lake  
kayaking  
class



# Summer Nature Walk: Alviso



# Summer Hiking: Almaden Quicksilver



# Summer Interpretive Event Chitactac-Adams County Park Family Day



# Summer Concert: Vasona Vibrations



Taken with monopod

# Fall Colors (Non-Native Trees)



# Fall Colors (Native Trees)



Sycamores  
on Coyote  
Creek



# Fall Colors in the Sierras



Sagehen Summit, Mono County, by Sam Drake

# Fall Biking: Coyote Creek Trail



# Fall Wildlife: Tarantulas



Tarantula  
Hike,  
Rancho  
Canada del  
Oro/Calero

# Fall Event: Harvest Festival Martial Cottle Park 10/3/15



# Fall Event: Day on the Bay at Alviso Marina County Park



# Camera Basics



# Types of Cameras



Smartphone: iPhone 11 Pro



Compact: Panasonic ZS60

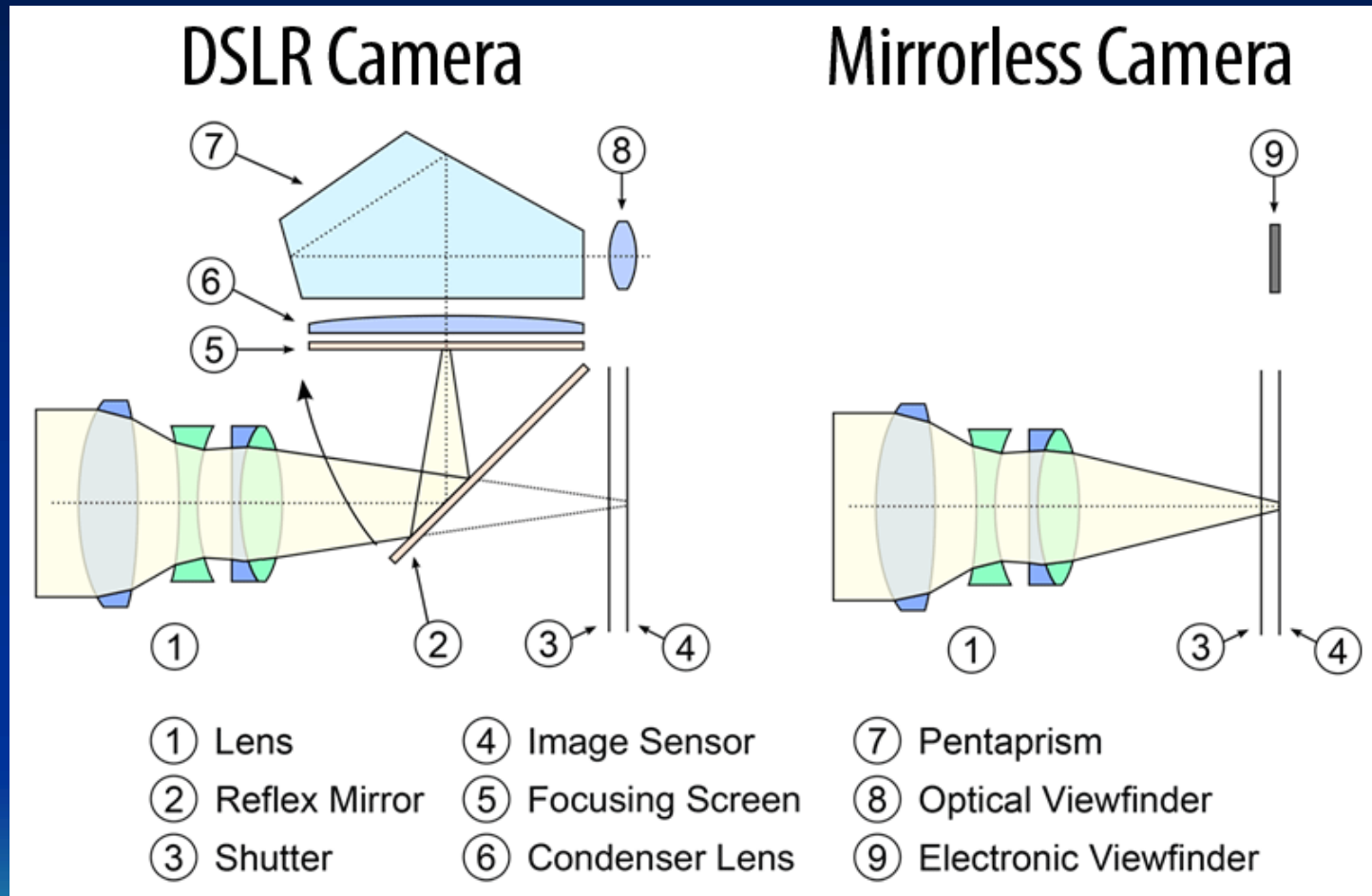


Mirrorless  
(CSC, ILC):  
Sony  
A6600



DSLR:  
Nikon  
D850

# DSLR vs. Mirrorless Camera



<https://photographylife.com/what-is-a-mirrorless-camera>

# Image Sensor

- Sensors convert light into electricity
- Sensors are a mosaic of units called pixels, for picture elements
- Sensor Speed:
  - Sensitivity of sensor to light
  - Specified as ASA/ISO number
  - Speed can be adjusted electronically
  - Higher speed = more sensitive, but more noise
- Sensor Size:
  - Larger sensor = higher sensitivity, lower noise
  - Smaller sensor = smaller camera, smaller lens, lower cost, weight
- Crop Factor: smaller sensor multiplies magnification of lens

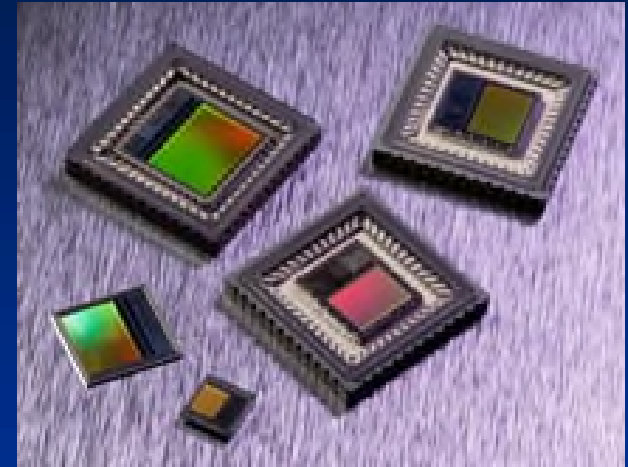
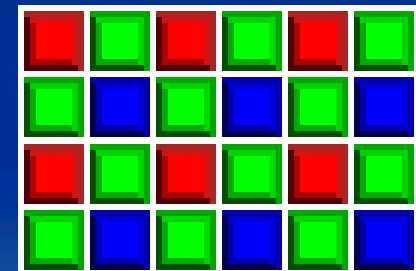


Image Sensors



Sensor elements

# Sensor Size Comparisons

## Sensor size comparisons for digital cameras.

PhotoSeek.com

A bigger **sensor area** captures better quality, but requires larger-diameter lenses. Smartphones compensate for tiny sensors via computational power. In 2018, a **1-inch Type sensor** optimizes portability for top **travel cameras**.

**36 mm wide** = Full-frame sensor (Nikon FX, Canon EF, Sony FE)

**"Full-frame 35mm"** sensor / film size (36 x 24 mm) is a standard for comparison, with a **diagonal field-of-view crop factor** = 1.0

In comparison, a pocket camera's **1/2.5" Type sensor** crops the light gathering by **6.0x smaller diagonally** (with a surface area **35 times smaller** than full frame).

**APS-C Nikon DX, Sony E = 1.5x crop**

**APS-C Canon EF-S = 1.6x crop**

**Four Thirds 4/3" = 2x crop**

**1" Type = 2.7x crop**  
**Sony RX10; RX100**

**1/1.7": 4.6x**

**1/2.5":**  
**6.0x crop**

24 mm

"Medium format" size 48 x 36 mm

**1/2.3-2.5" sensors are small and noisy, as on compact & pocket zoom cameras.**  
**1/2.6" = Samsung Galaxy S9, S8, S7 smartphones.**  
**1/3" = Apple iPhone 8, 7, 6.**  
**APS-C sensor gathers 15 times more light (area) than a 1/2.5" Type sensor, and 2.4 times less than Full Frame.**

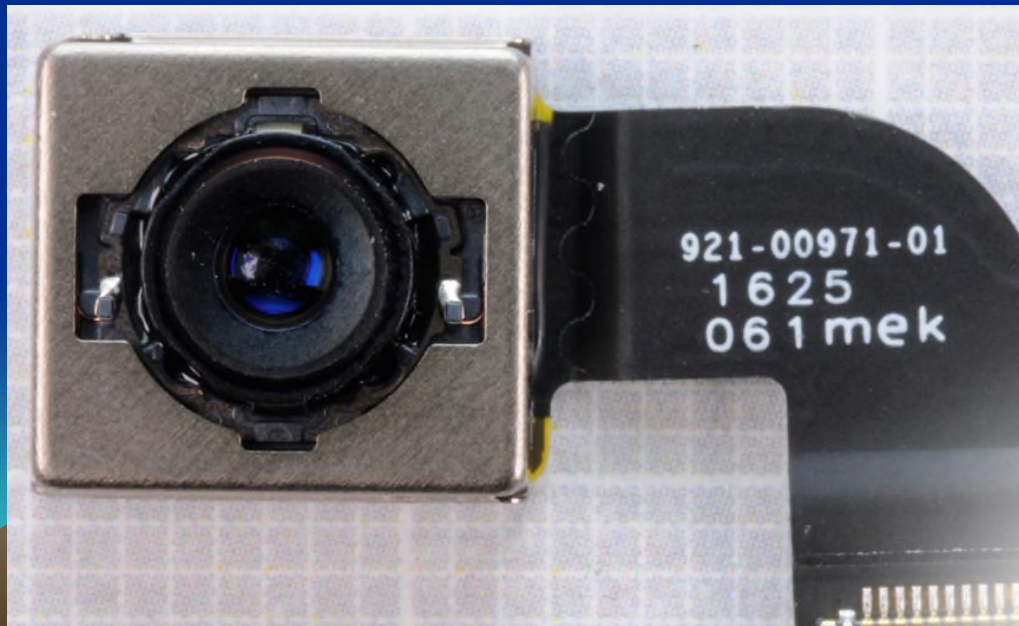
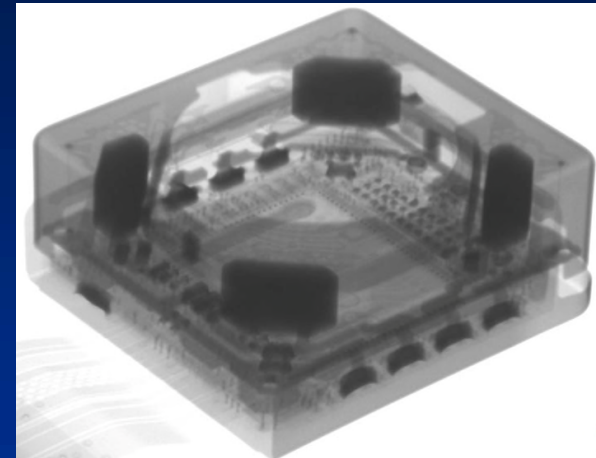
# How Many Megapixels?

- 35 mm ISO 100 film equivalent: 20 MP
- Internet, E-mail: < 1MP
- Maximum Facebook resolution: 2048 pixels/side
- Video display resolution:
  - 1024 X 768 video display (XGA): 0.8 MP
  - 1400 X 1050 video display (SXGA+): 1.5 MP
  - 1600 X 1200 video display (UXGA): 1.9 MP
  - 1920 X 1080 (full 1080P HD): 2.1 MP
  - 3840 X 2160 (4K Ultra-HD): 8 MP
  - 7680 X 4320 (8K): 33.2 MP
- Print Resolution (@300 DPI, the professional print standard)
  - 5"X7": 3 MP
  - 8"X10": 8 MP
  - 9"X13": 10 MP
  - 11"X17": 16.8 MP
  - 16"X20": 28 MP
  - 20"X24": 43.2 MP
- Top camera resolution (up to full-frame):
  - 50.6 MP Canon EOS 5DS full-frame DSLR
  - 61 MP Sony Alpha7R IV full-frame mirrorless
  - 64 MP, 108 MP smartphone sensors announced by Samsung, 48 MP in use

# iPhone 7 iSight Camera

- 12 megapixels, 1.22  $\mu\text{m}$  pixels
- Aperture f1.8, optical image stabilization
- Phase detection autofocus pixels
- 10.6 mm X 9.8 mm X 5.7 mm module size
- 5.16 mm X 6.25 mm sensor size

Source: Chipworks.com



# Canon EOS 5DS

- Highest resolution full-frame DSLR
- 50.6 MP sensor, 4.14 um pixels
- 36 mm X 24 mm sensor size
- \$3.5K (body only)
- Weight: 2 lbs (body only)



# Sony Alpha7R IV Full-Frame Mirrorless

- Highest resolution full-frame camera
- 61 MP sensor
- \$3.5K (body only)
- Weight: 1 lb 7.5 oz (body only)



# Smartphones Can Take Good Pictures



Google Pixel 3, at Filoli, by Chris Horii

# iPhone 7 Low-Light Capability



From Mobile Nations

# Google Pixel 3 Indoor Shot, Available Light



Picture by Chris Horii

# Google Pixel 4 Night Sight Astrophotography



# Lens Usage



# Lenses: Focal Length

## 35 mm Equivalents:

- Wide angle: 14-40 mm
- Normal: 50 mm
- Medium Telephoto: 80-100 mm
- Long Telephoto: 135-200 mm
- Super Telephoto: 300+ mm

Single focal length lenses called “Prime Lenses”



# Use Wideangle Lens for Landscapes



Coyote Peak, Santa Teresa Park

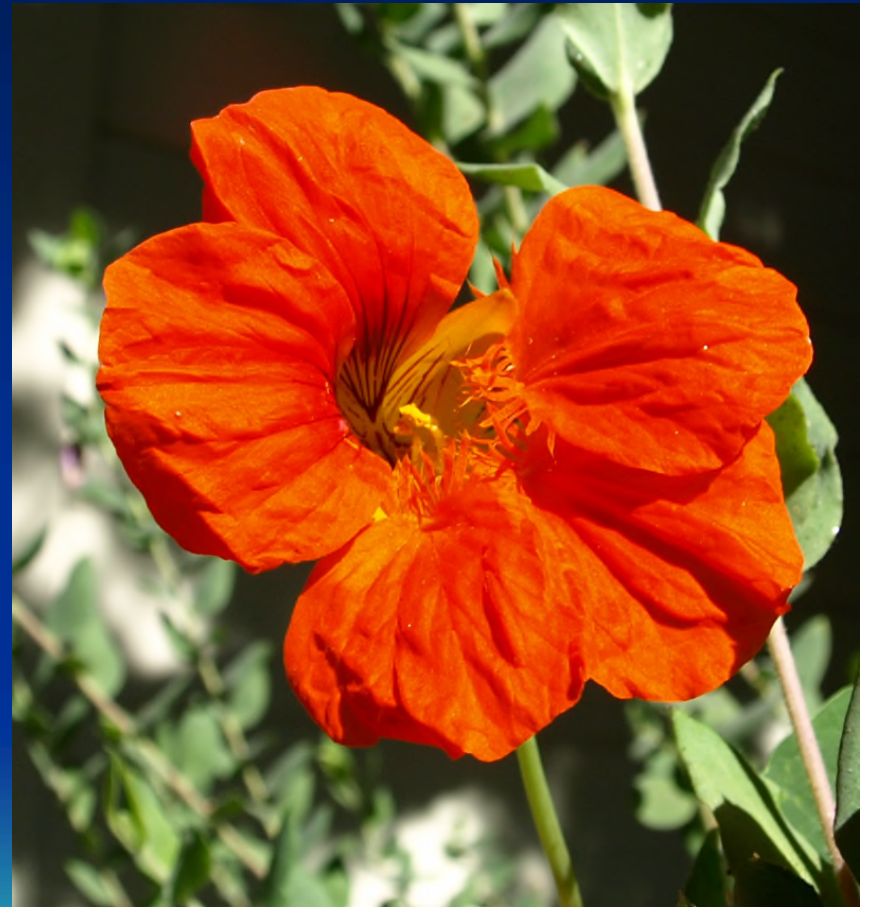
# iPhone6 Auto-Panorama



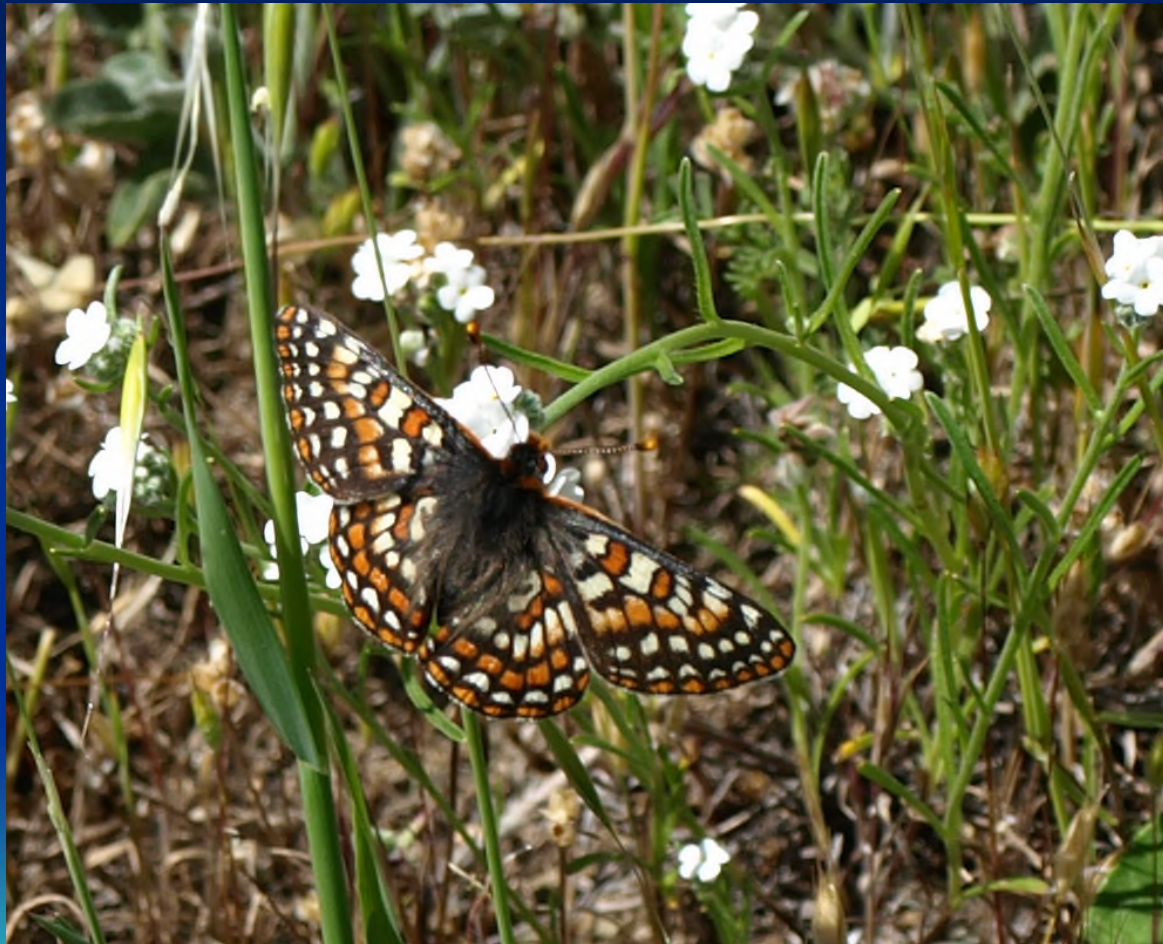
Coyote Peak, Santa Teresa Park



# Use Macro Lens/Mode for Flowers



# Macro Shot: Bay Checkerspot Butterfly, Coyote Ridge



# Macro Shot w/Closeup Lens



# Use Telephoto for Wildlife



Ed Levin County Park



# Super-Telephoto for Wildlife Photography



Canon 500mm f4, 10X

# Wildlife Images by Beth Hamel



Canon EOS 5D MkIV  
500 mm, f/4 lens

# Zoom Lens: Variable Focal Length



Tamron 18-400 mm, 22.2X Range, f/3.5-6.3



Nikon Coolpix P1000 compact, 24-3000 mm (35 mm equivalent), 125X range, f/2.8-8, fixed lens, 1/2.3" 16.8 MP sensor

Zoom range: ratio of largest to shortest focal length.

Max. apertures can be variable or fixed.

# Zoom Comparison: iPhone 4 No Zoom



iPhone4  
Camera:  
5MP, 3.85  
mm, f/2.8,  
1/3.2"  
sensor

Santa Teresa  
Spring

# iPhone 4 5X Digital Zoom



# Optical Zoom (30X Range)



Max Wide Angle 4.3 mm  
(0.5X Magnification), f/3.3



Max Telephoto 129 mm  
(15X Magnification), f/6.3

Panasonic ZS50 Travelzoom, equivalent to 24-720 mm

# 30X Optical Zoom Range Demo



Wide Angle view from Joice Trail, Santa Teresa Park, 0.5X



15X zoom-in on Mt. Hamilton

Panasonic ZS60

# Wildlife Pictures With Travelzoom Camera



Camera:  
Panasonic ZS50

# Wildlife Picture With Travelzoom Camera



Tule elk on Coyote Ridge, Panasonic ZS50 185 mm equiv., 3.6X mag.

# iPhone 11 Pro w/ 3 Rear Cameras: 12 MP ultra-wide, wide-angle, telephoto

Ultra-wide:

f/2.4, 13 mm  
equivalent

Wide:

f/1.8, 26 mm

Telephoto:

f/2, 52 mm



# Smartphone Add-On Lenses



Fish-eye, wide, macro



20X zoom

# Smartphone Binocular Attachment



# Smartphone With Binoculars Picture



Moto E4 with Bushnell 21X zoom binoculars, Hellyer Park

# Distance Compression



←Wide Angle 0.5X



Mild telephoto 1.6X→

Long telephoto 6X→



Longer focal lenses make objects at different distances appear closer to the same size.

# Distance Compression: Eden Landing, Hayward

Wide Angle 0.5X

Telephoto 6X



# Distance Compression With Telephoto

Emphasizes crowds at Martial Cottle Park

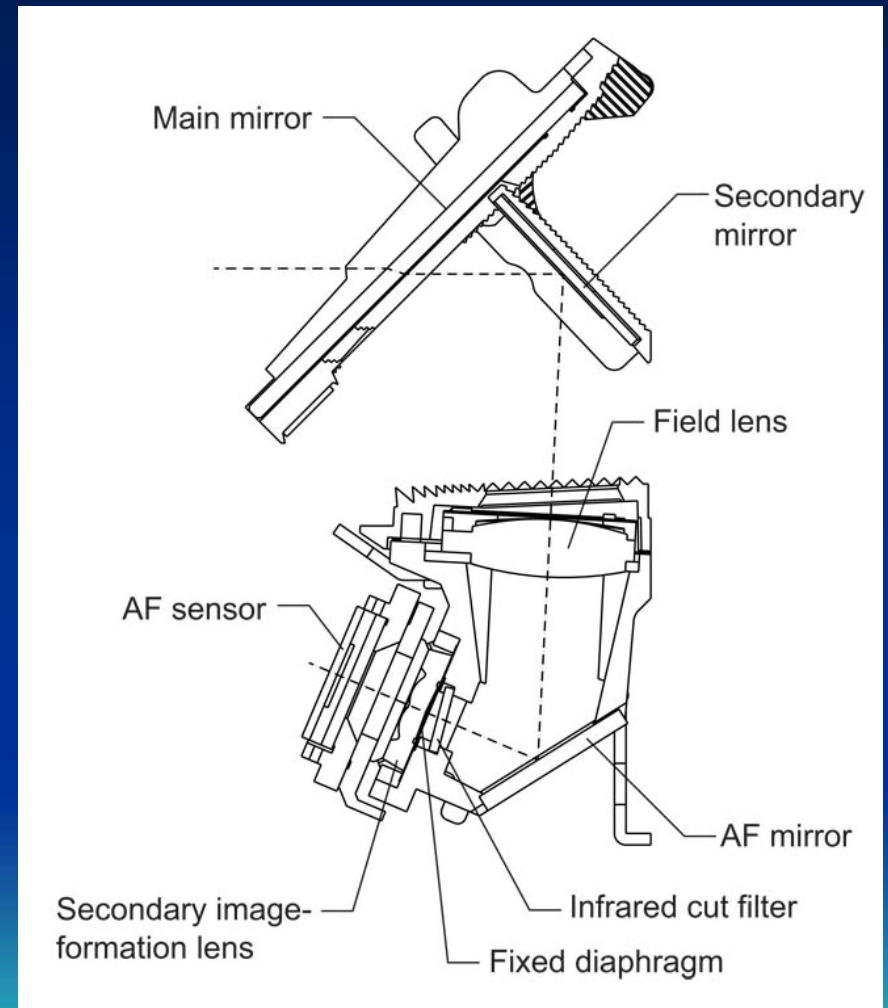
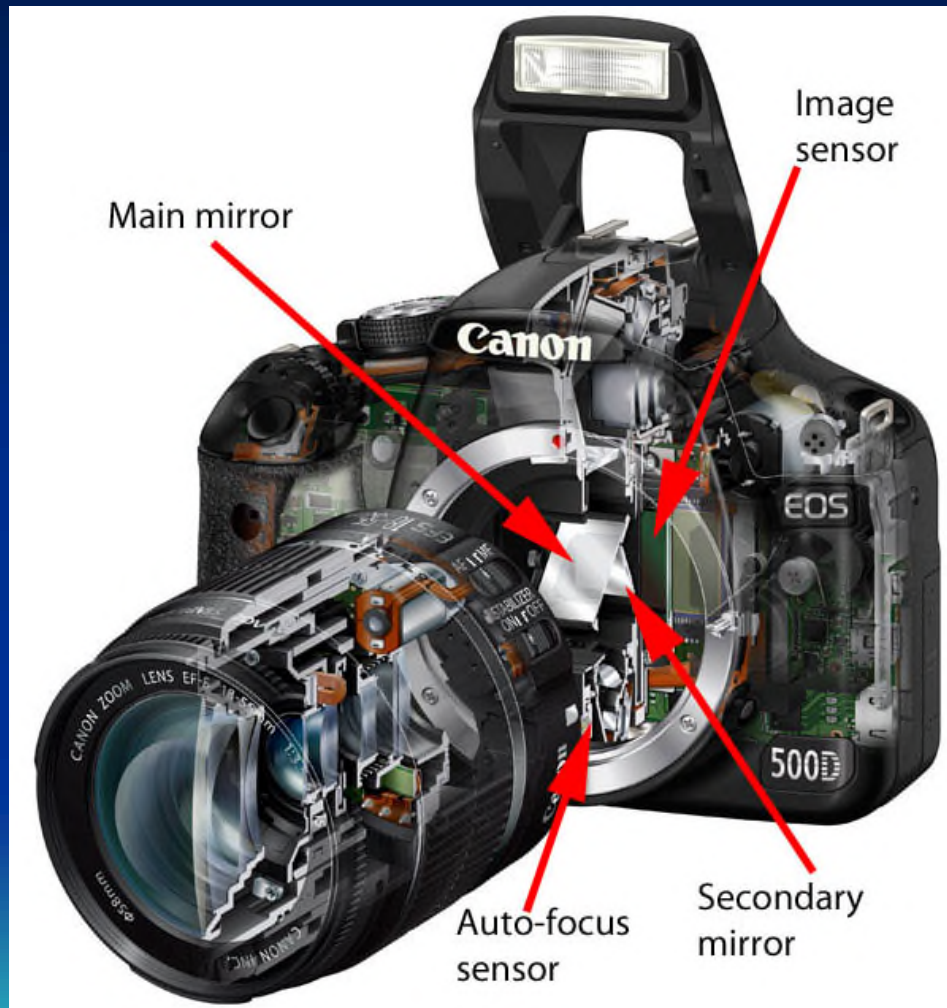


# Focus Types

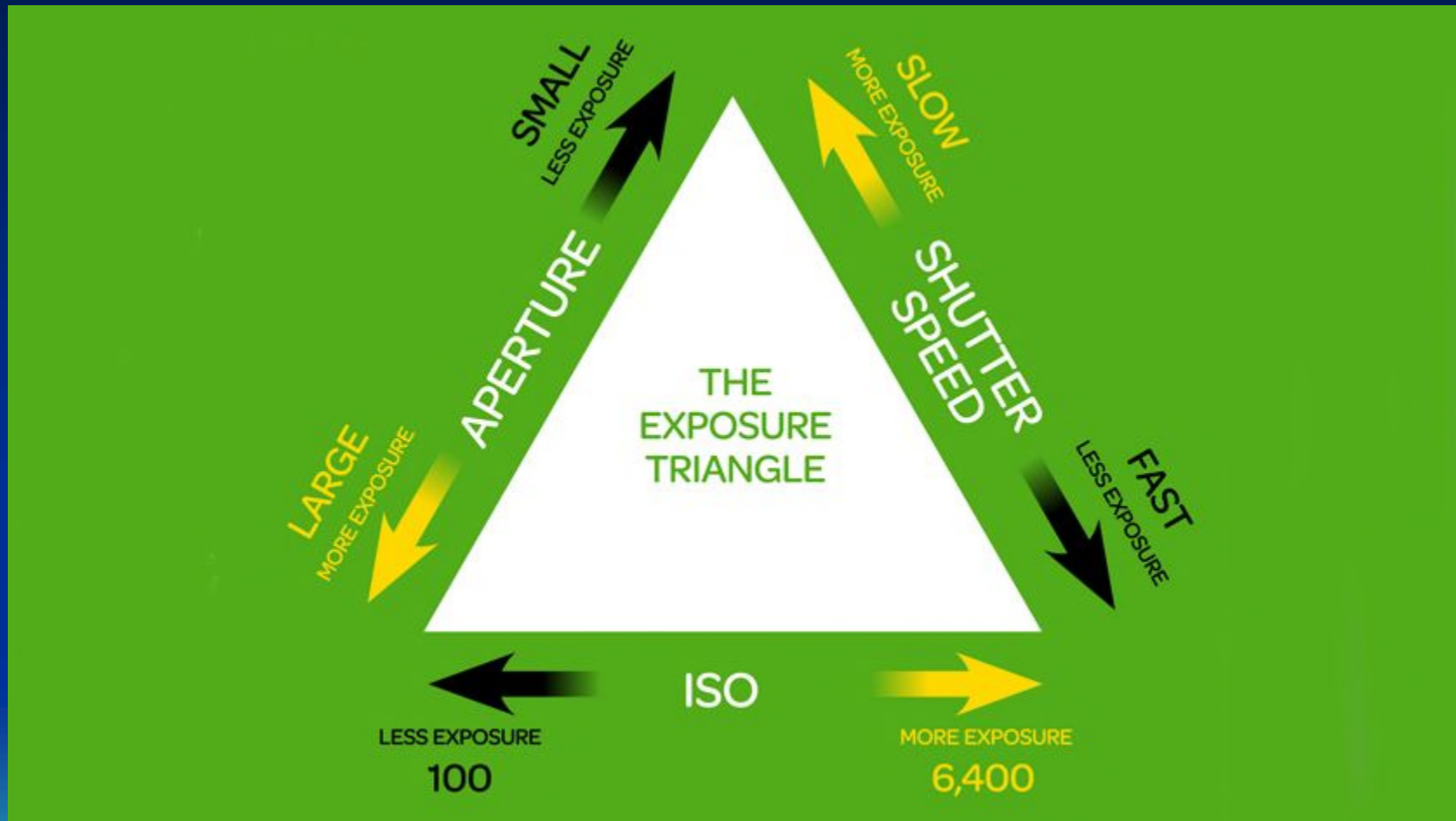
- Fixed focus (low-end, old cameras)
- Manual focus
  - Rangefinder (film cameras)
  - Viewfinder (SLR's, DSLR's)
  - Focus peaking highlighting, magnified view (compacts, mirrorless, DSLR's in live view)
- Active auto-focus (ultrasound, infrared, laser)
- Passive auto-focus
  - Contrast-sensing (cellphones, compacts, mirrorless)
  - Phase detection (DSLR's, some mirrorless)
  - Focus zones, touchscreen focus
  - Feature (e.g. face) detection



# DSLR Auto-Focus Mechanism



# Exposure Triangle



# Camera Modes

- AUTO: Full Auto, camera sets everything.
- P: Programmed Auto, can shift auto settings.
- A: Aperture Priority, pick aperture, camera picks shutter speed and ISO.
- S: Shutter Priority, pick shutter speed, camera picks aperture and ISO.
- M: Manual, pick aperture, shutter speed, and ISO.
- SCN: Scene Modes, presets for certain scenes \*
- ART: Artistic effects \*



\* Not in professional cameras

# ISO and Noise



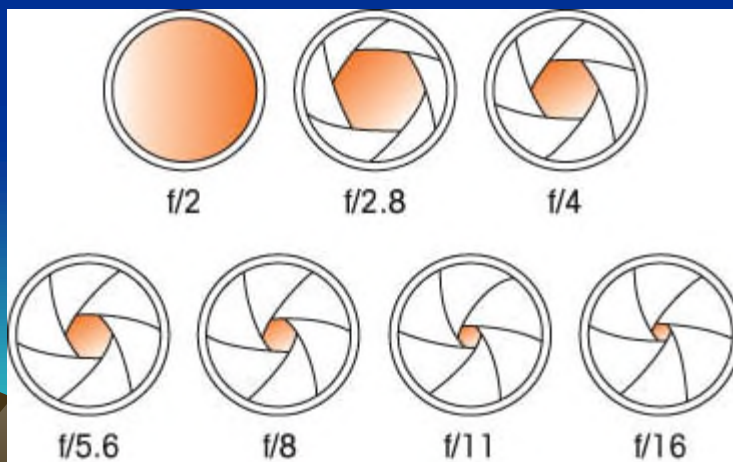
← ISO 80  
Low noise

ISO 1600 →  
High noise



# Lenses: Aperture

- Aperture = size of lens opening, specified by f number
- F number = Focal length / diameter of opening
- Smaller f-number = faster lens
- Aperture increments are called f-stops.
- Each successive f-stop drops the light by half
- Lower min. f-stop means bigger, more expensive lens
- Smaller aperture = greater depth of field
- Depth of field: range of distance from lens over which image is still in focus.
- Depth of field decreases with bigger sensor, higher focal length.



Note: cellphone cameras have fixed apertures. Smartphones are typically f/2.5 to f/1.7. Best is f1.6 (LG V30).

# Shallow Depth of Field: f5.6 @ 1/500 sec



# Deep Depth of Field: f22 @ 1/100 sec



# Closeup: Shallow Depth of Field



# Focus at Medium Distance: Deeper Depth of Field



# Distant Focus: Deepest Depth of Field



# Use Wide Aperture to Blur Background



Background blur is called "bokeh"

# iPhone7 Plus Simulated Bokeh

Multi-lens iPhones use multiple cameras to measure depth, blur background with software.



Simulated bokeh

Normal

<https://appleapple.top/sample-photos-the-iphone-7-plus-with-bokeh-effect-and-comparison-with-slrs/>

# Focus-Stacking: Helicon-Focus Software



Combines multiple shots taken at different focus distances for extreme depth-of-focus effects.

# Effect of Shutter Speed



# Motion Blur at 1/50 sec



Los Gatos  
Creek Trail

# No Motion Blur @ 1/1250 sec



# Subject Motion: Worst Case Motion, 90 Degrees to Lens



# Subject Motion Inline With Lens = Least Motion Blur

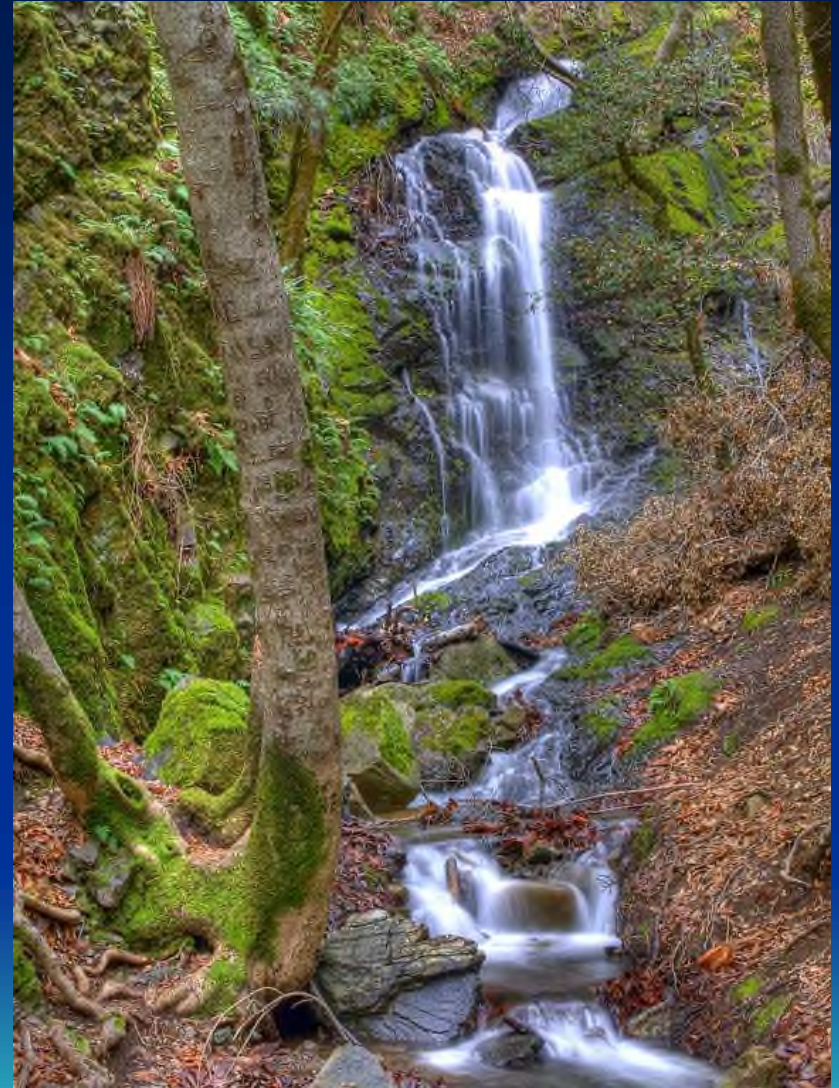


# Subject Motion: Pan to Follow Subject Motion, Background Blurs



Vasona  
Lake

# Use Long Exposures for Moving Water



Uvas Canyon

# Night Time Exposure (30 secs): Meteor Viewing Coyote Valley OSP



# Night Time Composite Exposure (40-Secs + 1/5 Sec)

Movie Night, Martial Cottle Park



# Time Exposure at Night Shows Motion



Xander's Crossing

# Time Exposure at Night With Rear Curtain Flash



# Time Exposure at Night With Light Painting



Pueblo Area, Santa  
Teresa Park

# What makes a bad picture? How Many Problems Can You See?

**Overexposed**

**Tilted**

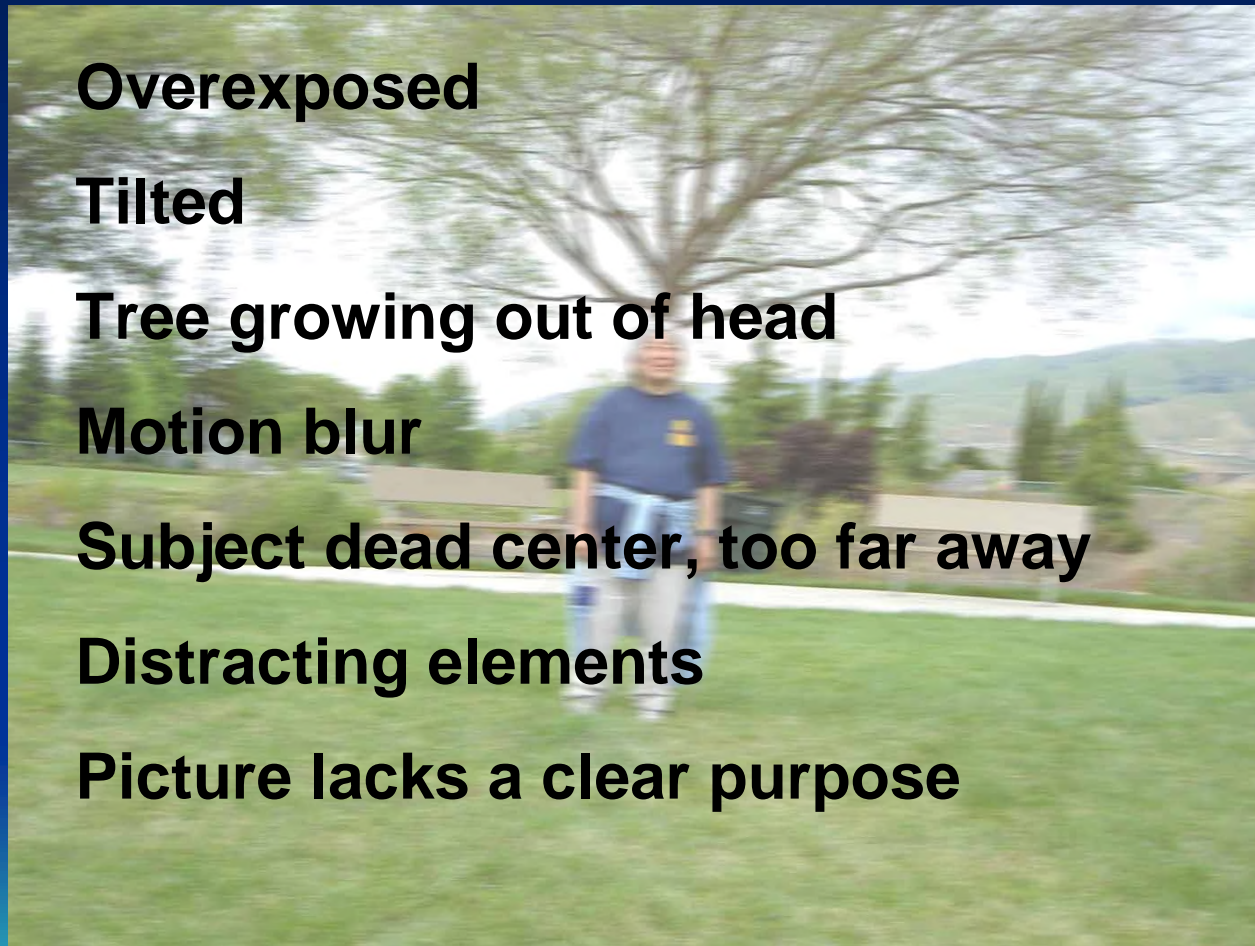
**Tree growing out of head**

**Motion blur**

**Subject dead center, too far away**

**Distracting elements**

**Picture lacks a clear purpose**



# Photo Composition Tips



# Horizontal Layout Evokes Peace, Rest, Stability



Vasona  
Lake

# Vertical Orientation Emphasizes Height, Strength, Best for People Standing



# Rule of Thirds: Position Subject(s) 1/3 From the Corners



Mine Hill  
Rotary  
Furnace,  
Almaden  
Quicksilver  
County Park

# Horizon 1/3 From Bottom



Martial Cottle  
Park

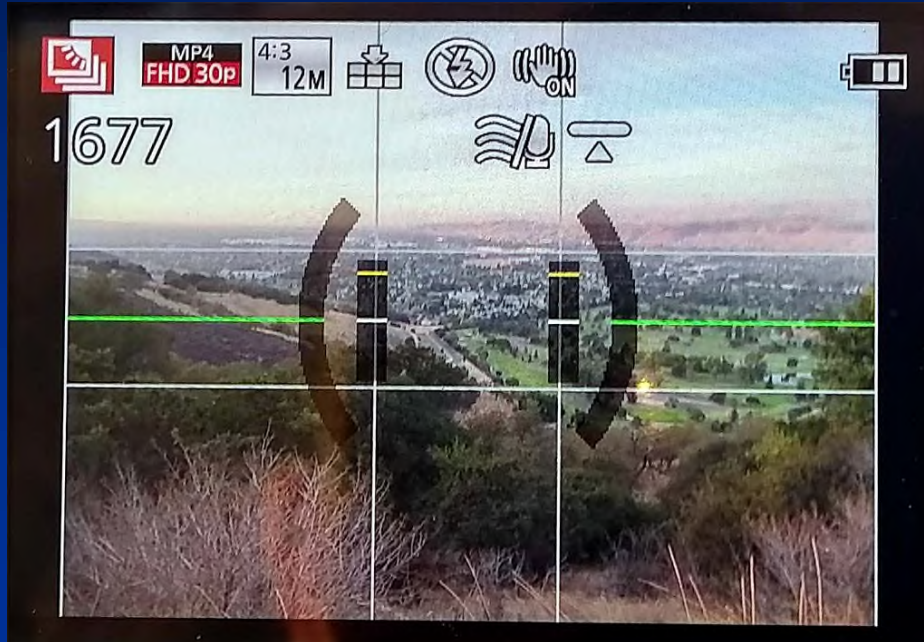
# Horizon 1/3 From the Top



Horizon at the top emphasizes mid-ground and foreground.

Ed Levin  
County Park's  
Monument  
Peak Trail

# Viewfinder Level/Composition Guides



Panasonic ZS50 Compact



Olympus OMD E-M10 Mirrorless

# Get Close to Simplify the Scene



Fandango, Santa Teresa Park

# Lock Focus on Subject, Then Compose



# Avoid/Hide Distracting, Unsightly Elements



Stonegate  
Park, San  
Jose

# Watch Horizon, Hold Camera Level



Sunnyvale  
Baylands

# Watch Your Shadow, Don't Get It in the Picture, Move or Hide It



Mine Trail,  
Santa Teresa Park

# Direction of Motion Leading Into the Picture



Montgomery Hill Park

# Leave Space for Moving Subjects to Move Into



Sunnyvale  
Baylands

# Diagonals Emphasize Motion & Depth



Coyote Peak  
Trail, Santa  
Teresa Park



# Converging Lines Lead Into Picture, Show Depth



Alviso  
Environ-  
mental  
Education  
Center

# Converging Lines



Hayward  
Regional  
Shoreline

# Curved Lines Lead Eye Into Picture



Sunnyvale  
Baylands

# Rhythm, Repetition of Elements



Byxbee  
Park, Palo  
Alto  
Baylands

# Forms in Motion: Dancers, Santa Teresa Park Founders Day Fandango



# Use Surrounding Elements to “Frame” the Scene



Wood Road Trail,  
Almaden Quicksilver

# Framing the Scene (Artificial Elements)



Love Temple, Villa  
Montalvo

# Background-Foreground Contrast



Japanese  
Friendship  
Gardens

# Use of Contrasting Colors

Lichens on Rock, Santa Teresa Park



# Foreground Objects Add a Sense of Depth

Poppies, Coyote Peak, Santa Teresa Park



# Use of Foreground Interest



Rancho San Vicente, Calero

# Atmospheric Effects Give a Sense of Depth: Hotel Trail, Grant Park



# Tips for Photographing People

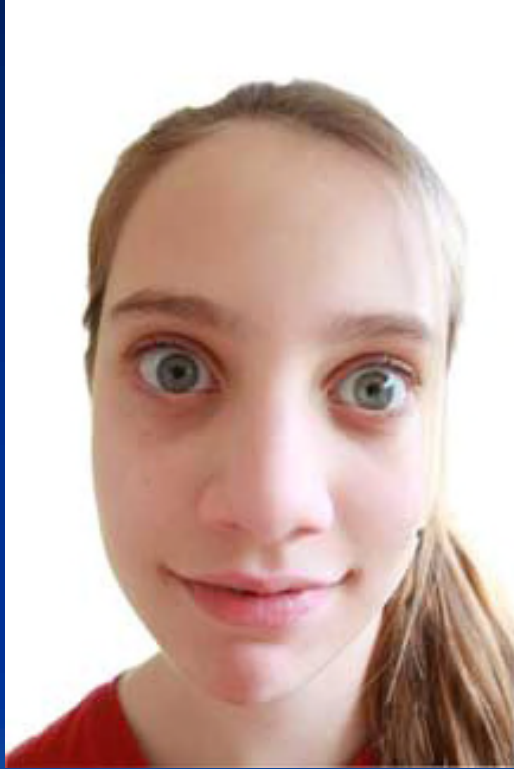


# Focus on the Eyes for Portraits

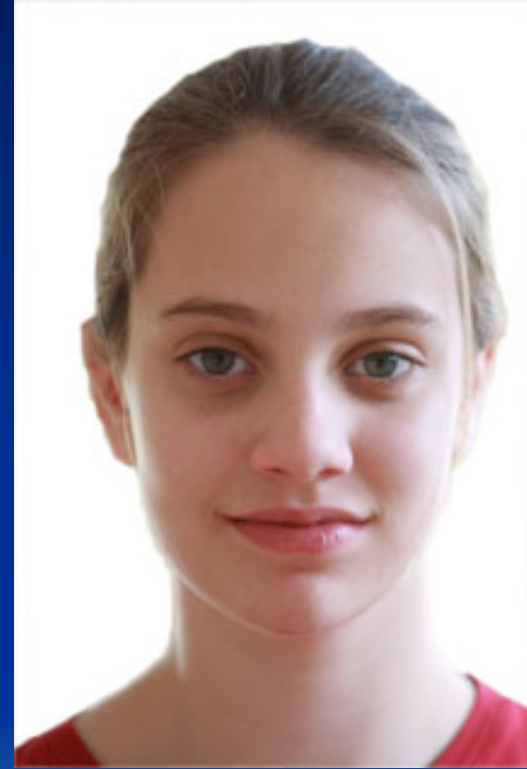


From <http://www.audreywoulardblog.com/>

# Use Mild Telephoto, Stand Back for Portraits



Wide angle, closeup



Mild telephoto from ~10 feet

[http://commonsensephotography.com/how\\_to\\_take\\_better\\_portraits/](http://commonsensephotography.com/how_to_take_better_portraits/)

# People Add Interest to Scenic Shot Sierra Vista OSP



# People Add a Sense of Scale, Depth Coyote Ridge OSP



# Telephoto Compresses Distance, Wide Aperture Blurs Background



Use a mild (1.5X-2X) telephoto for the most flattering portraits.

# Watch the Background Behind People



# Avoid Direct Sunlight for Portraits

Shade or cloudy weather is best to avoid squinting and harsh, unflattering shadows.

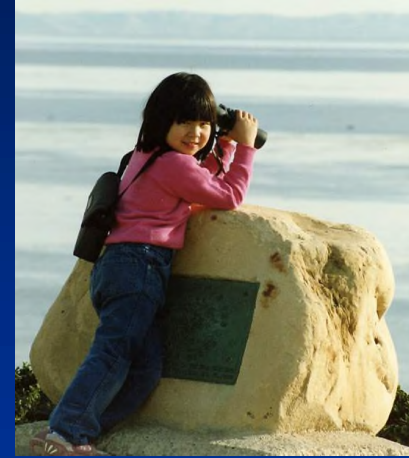


# Sunlight vs. Shade for Portraits



Eric Goodrich & Brendan Miele at Martial Cottle Park

# Afternoon, Side-Lighting Provides Softer, Warmer Lighting Than Mid-Day



# Open Shade Provides Softest Lighting

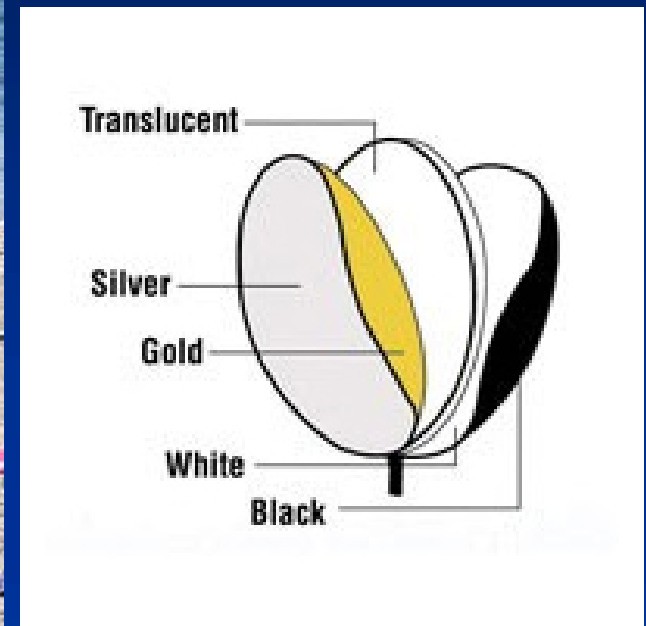
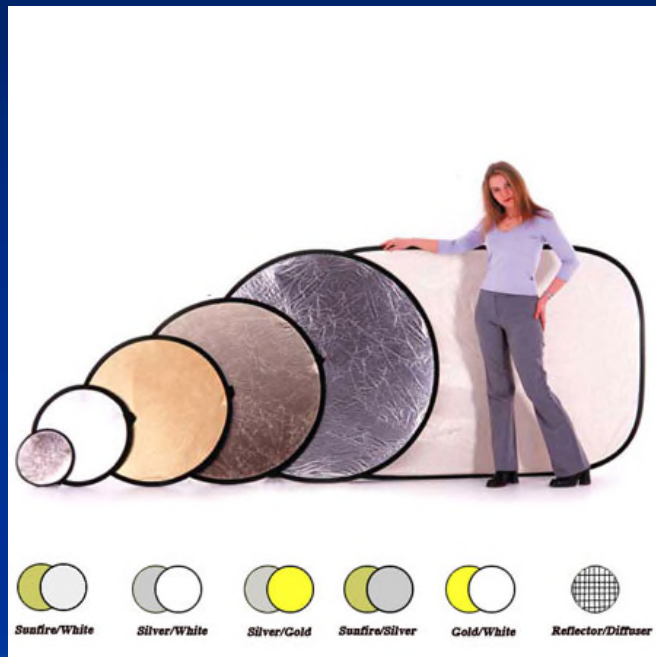


Hakone Gardens,  
Saratoga

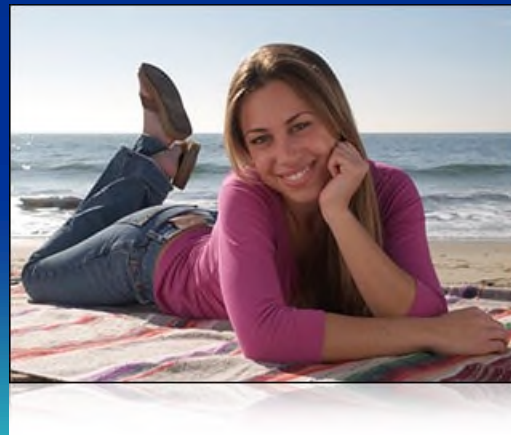
# Use Flash Fill With Backlit Portraits



# Use reflectors or diffusers to soften light, alter color, fill-in shadows



# Portraits With Reflector Fill



# Lighting



# Warm Lighting at Dawn



Vasona  
Lake,  
7:30 am

# Late Afternoon Warm Lighting



Willow  
Springs  
Trailhead  
Harvey  
Bear  
Ranch



# Sunset Lighting



Coyote  
Creek  
Trail,  
Milpitas



# Mid-Day Lighting: 2 pm



Vasona  
Lake

# Sunset Lighting: 7:20 pm



# Hayward Shoreline: Mid-Day



# Hayward Shoreline: Near Sunset



# Late Afternoon: Bay Trail Bridge, Hayward Shoreline



# Clear Mid-Day Lighting: 2 pm



Los Gatos  
Creek Trail

# Late Afternoon, Storm Clouds



# Mid-Day vs. Sunset Lighting: Norred Trail, Santa Teresa Park



HDR



# Sunset Lighting

Telephoto  
Magnifies  
Moon,  
Compresses  
Distance

Cottonwood  
Lake, Hellyer  
County Park



# Sunset: Harvey Bear Ranch



# Sunset and Clouds: Sierra Vista OSP Sunset Viewing



# On Cloudy Days, Look for Interesting Cloud Formations



Almaden  
Lake

# Highlighting With Broken Clouds



Santa  
Teresa  
Park, Golf  
Course

# Colors Can Wash Out in Direct Sun, Pop Out in Shade, Overcast



# Beware of Lens Flare When Shooting Towards the Sun



# Backlighting: Fandango, Bernal Ranch



# Backlighting and Highlighting



Senador  
Mine Trail,  
Almaden  
Quicksilver

# Backlighting and Framing



Hidden  
Lake,  
Rancho  
Canada  
del Oro

# Use of Sunbeam for Highlighting



Fortini Trail, Santa  
Teresa Park

# Use of Water Reflections



Hidden  
Lake,  
Rancho  
Canada  
del Oro



# Sunset Silhouette



Ponds by  
Coyote  
Creek  
Trail,  
Milpitas



# Monochrome Silhouette



California buckeye, Santa Teresa Park

# Night Water Reflections

Night Shot:  
Campbell  
Heritage  
Theater



# Use Polarizing Filter to Darken Skies, Intensify Green Foliage



No Filtering



With Filtering

Rancho San  
Vicente

# Polarizer Effect on Sky and Colors

Minimum Filtering



Maximum Filtering



# Use Polarizing Filter to Cut Water Reflection



No Filtering



With Filtering

Japanese Friendship  
Gardens, Kelley Park

# Use of 3D Movie Glasses for Filtering



No filtering



With filtering

Pueblo Area, Santa Teresa Park

# Dynamic Range and HDR



# Dynamic Range of Scene Too High



# Dynamic Range

| Stage                        | Dynamic Range     | Stops   |
|------------------------------|-------------------|---------|
| Typical outdoor sunlit scene | 100,000:1 or more | ~17 EV  |
| Human eye                    | 10,000:1          | ~14 EV  |
| Film camera                  | Up to ~2000:1     | ~11 EV  |
| Digital camera               | ~400:1 typical    | ~8.5 EV |
| Computer Monitor             | 500:1 to 1000:1   | 9-10 EV |
| Photo Print                  | 100:1 to 250:1    | 7-8 EV  |

# Adjust Levels in Photoshop



Ground over-exposed.  
Darken highlights, adjust  
levels in Photoshop  
Elements



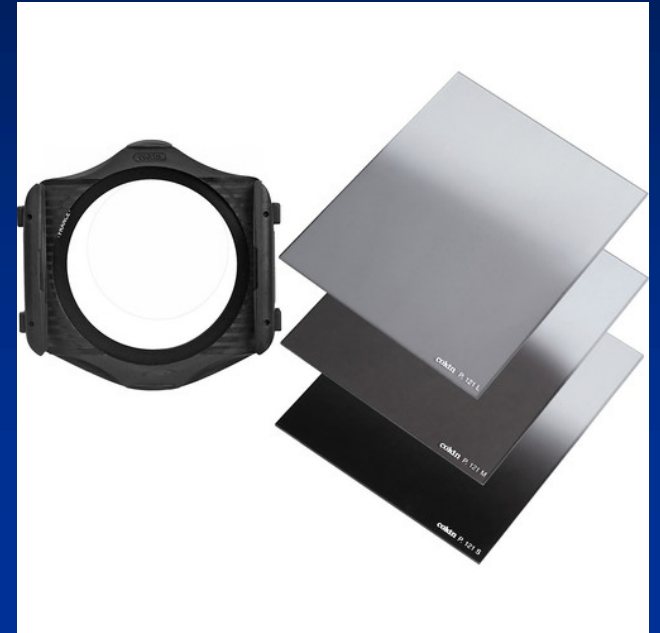
Guadalupe Oak  
Grove Park

# Adjust Levels in Photoshop



Shadows under-exposed.  
Lighten shadows, adjust  
levels in Photoshop  
Elements

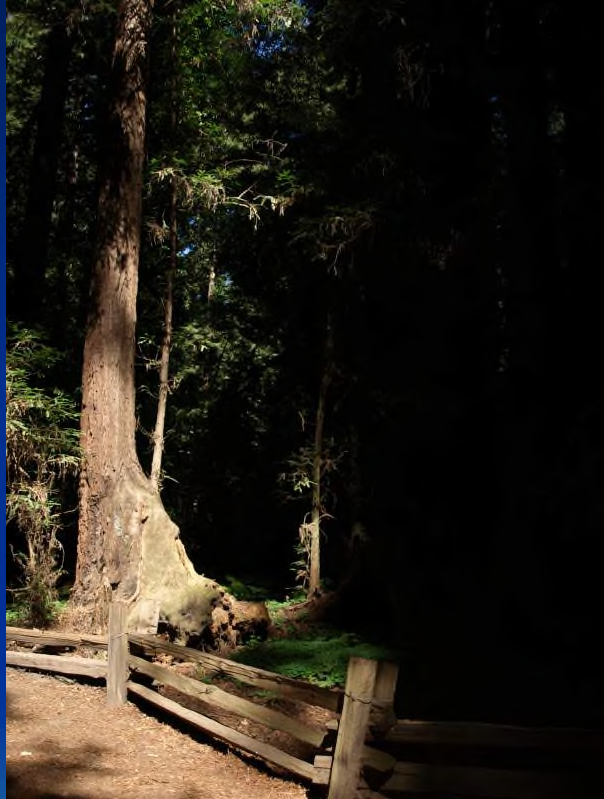
# Single Sunset Shot With Graduated Neutral Density Filter



Martial  
Cottle Park



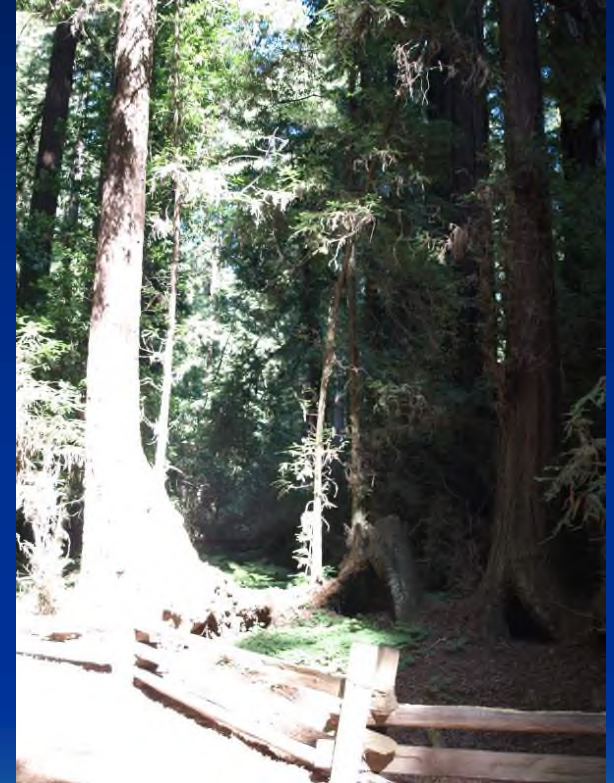
# HDR Processing: Source Pictures



Expose for highlights



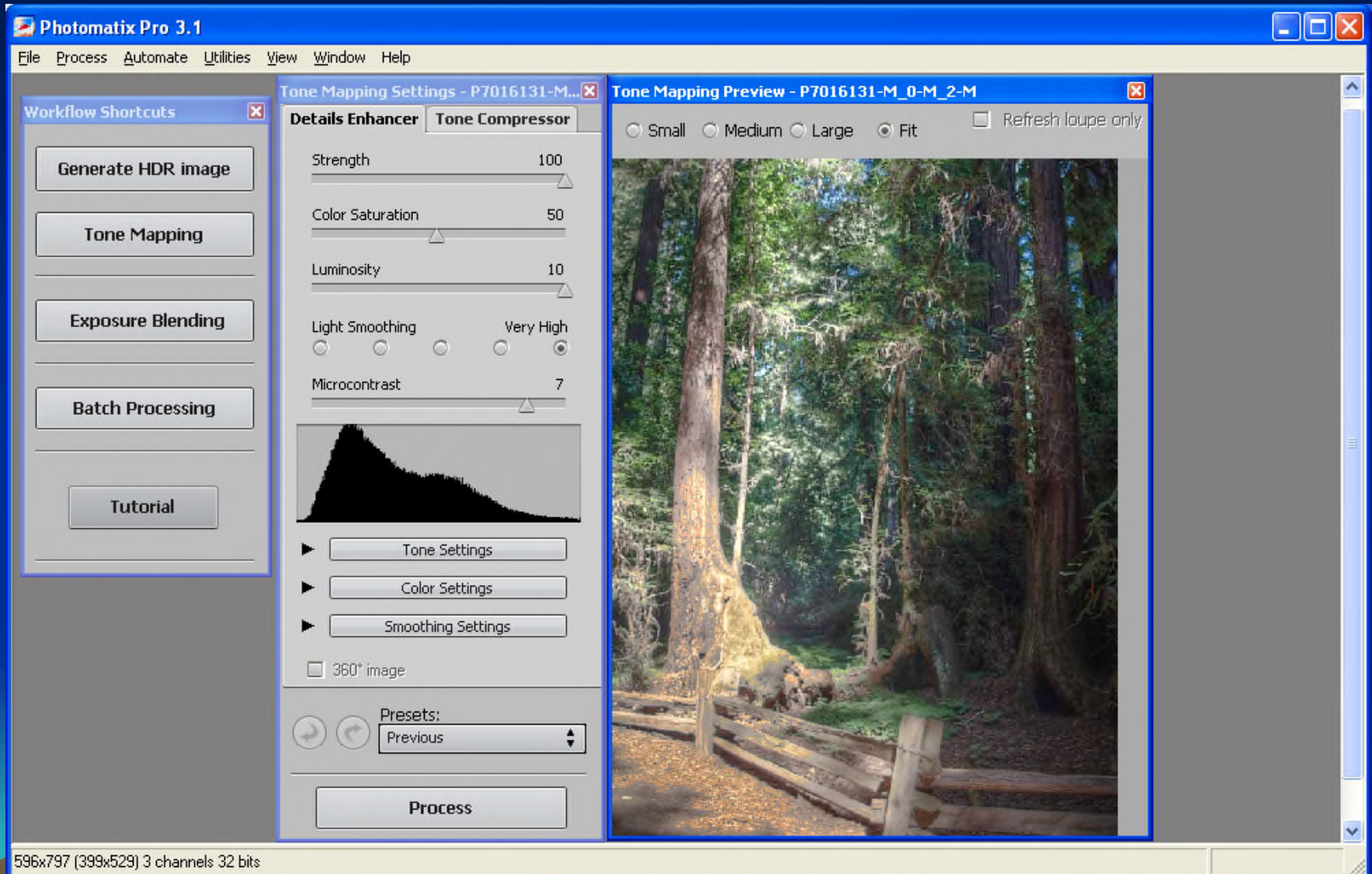
Expose for midtones



Expose for shadows



# Combine Pictures and Map Tones



# Combined HDR Picture



Henry Cowell State Park

# Exposing for Highlights: Shadows Are Too Dark



Rancho  
San Vicente

# Exposing for Shadows: Highlights are Blown Out



Rancho  
San Vicente

# HDR: 2 Shots Combined



Rancho  
San Vicente

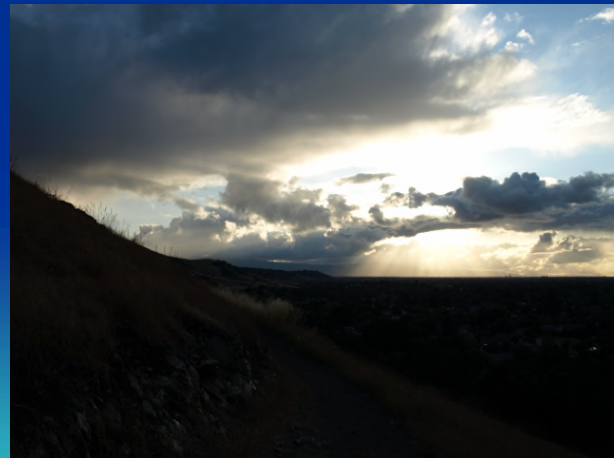
# Bernal Ranch House Silhouette



# Bernal Ranch House (HDR)



# 4 Successive Sunset Shots at Different Exposures



# 4 Sunset Shots Combined into 1



Norred  
Trail,  
Santa  
Teresa  
Park



# HDR: Martial Cottle Park



# HDR: Santa Teresa Golf Course



# HDR: Joice Trail, Santa Teresa Park



# HDR With Compact Camera on Tripod, Manual Shutter speed Setting



Cottonwood  
Lake Hellyer



# Handheld HDR With Compact Camera, Santa Teresa Golf Course

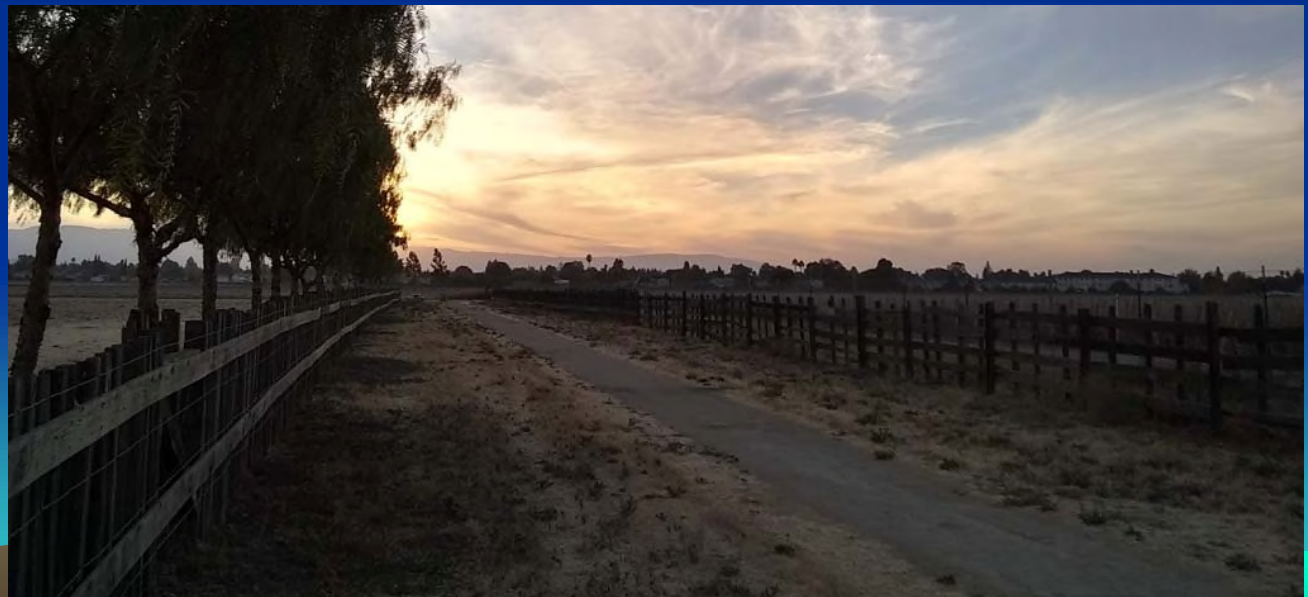


# Moto E4 Built-In HDR Off/On

HDR Off



HDR On



Martial Cottle Park

# In-Camera HDR w/Editing: Panasonic ZS50

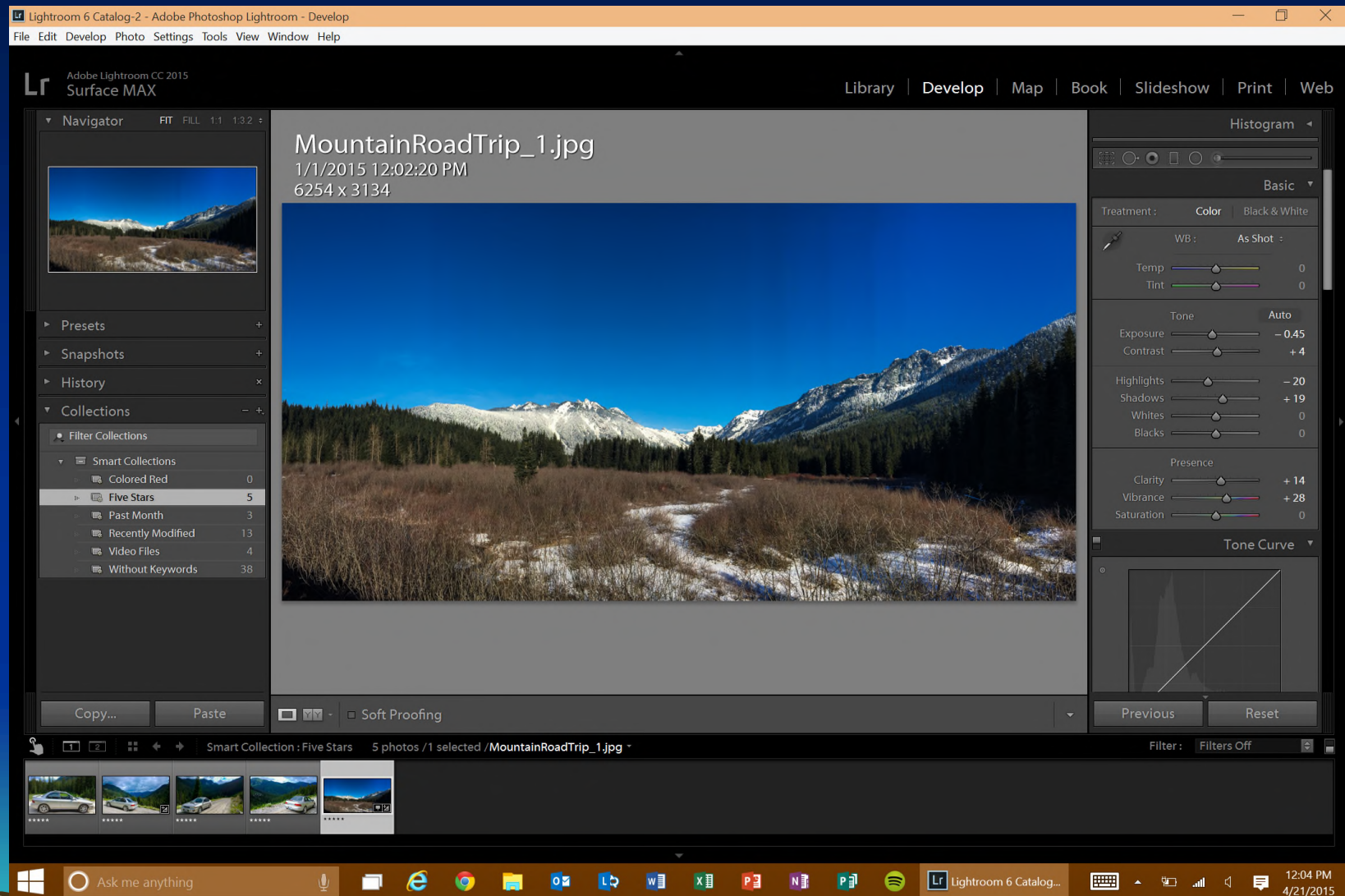


Martial Cottle  
Park

# Photo Editing



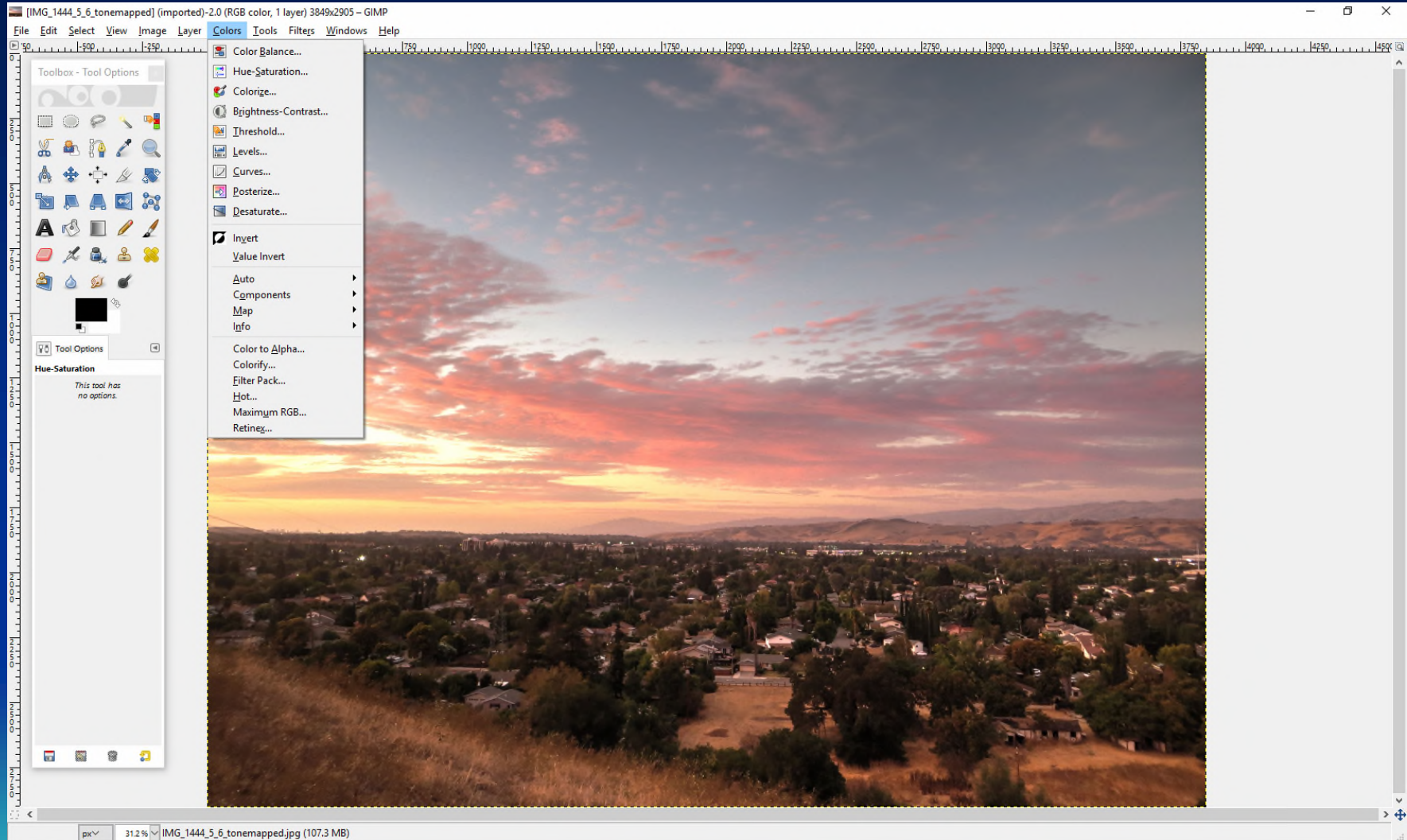
# Organizer/Editor: Adobe Lightroom



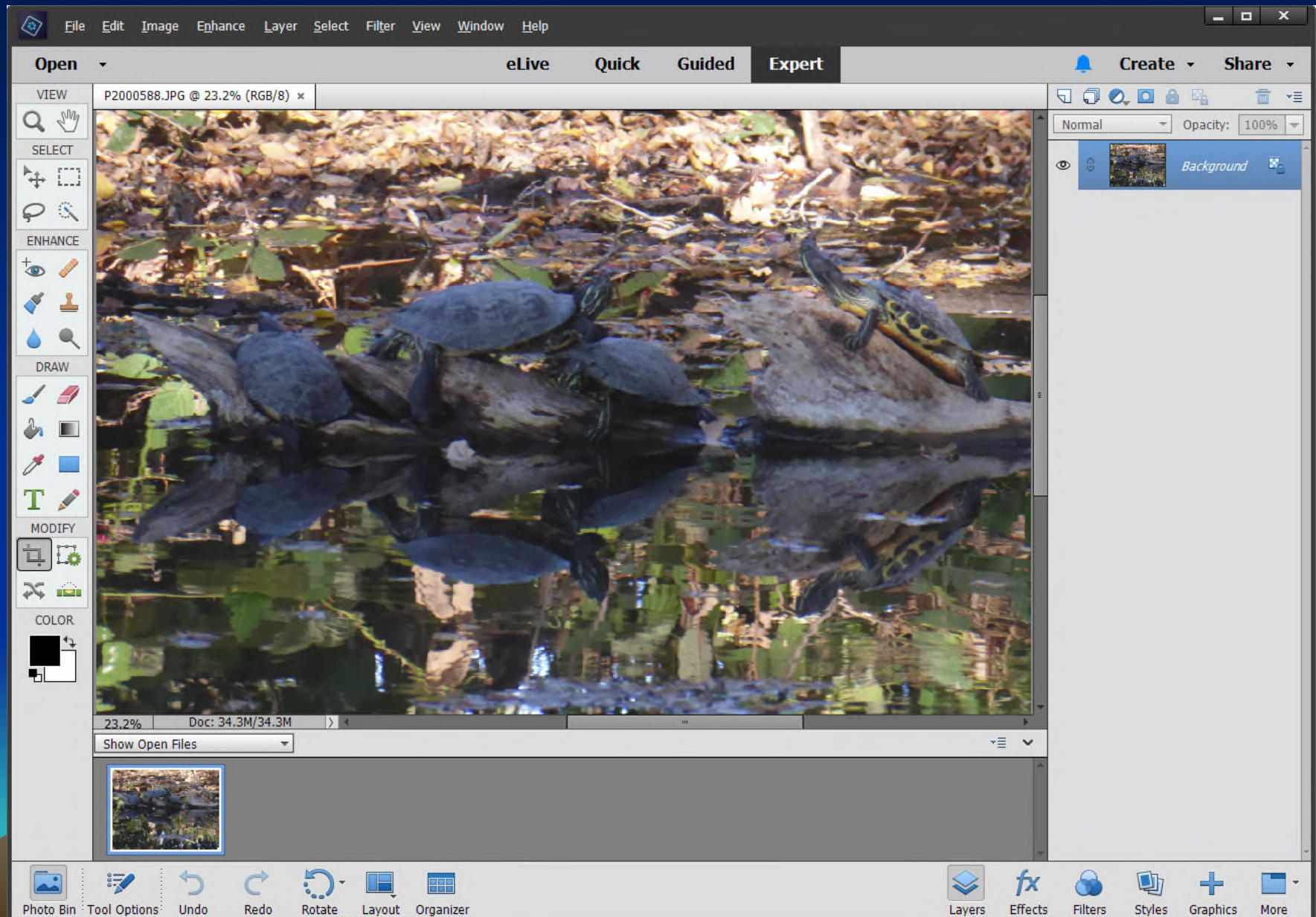
# Windows 10 Photos Editor



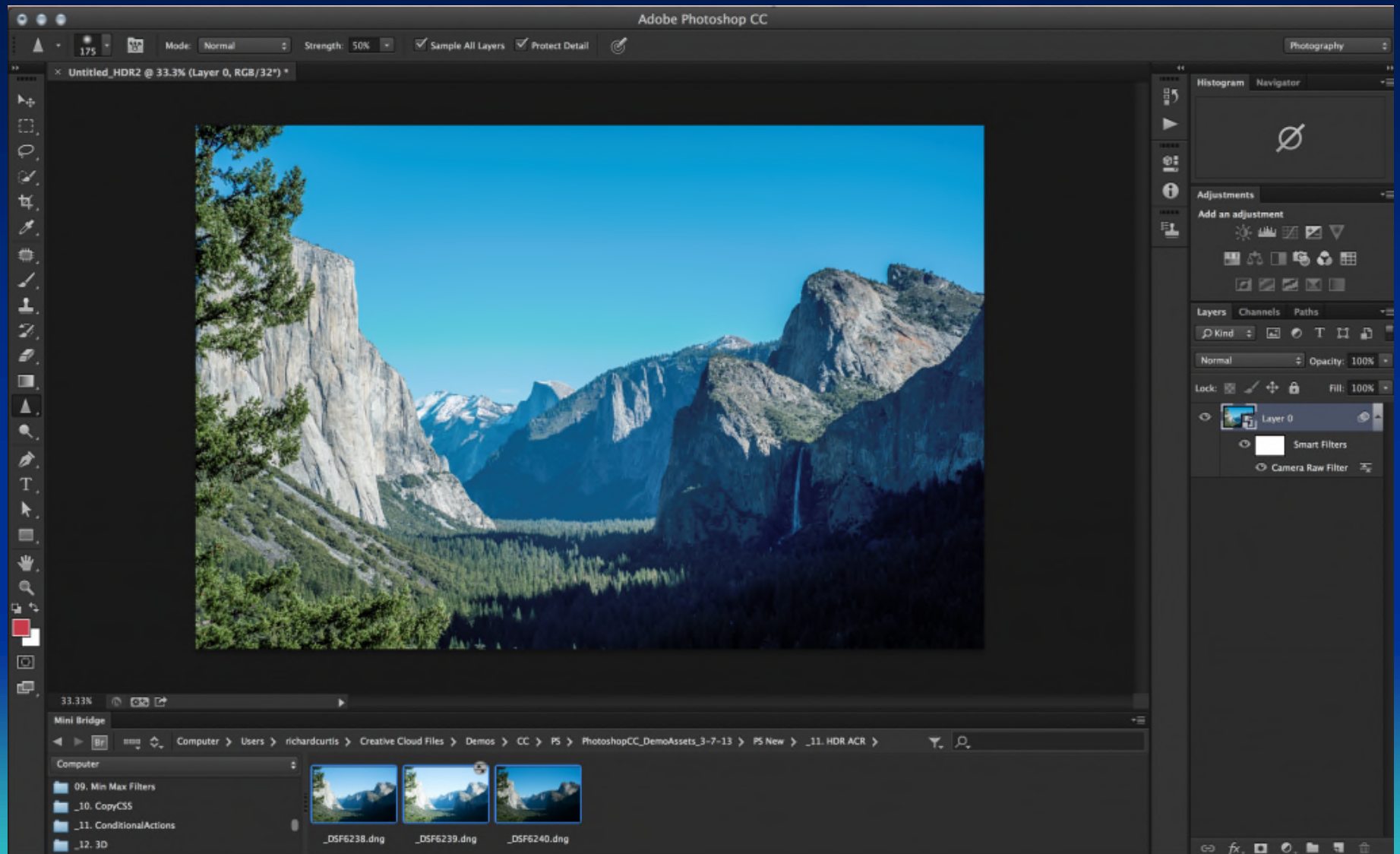
# Free Editor: GIMP



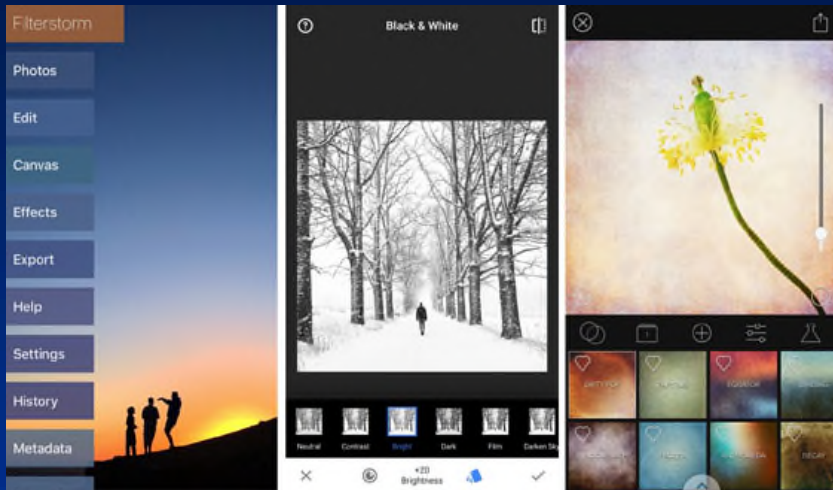
# Consumer Photo Editor: Photoshop Elements



# Professional Editor: Adobe Photoshop



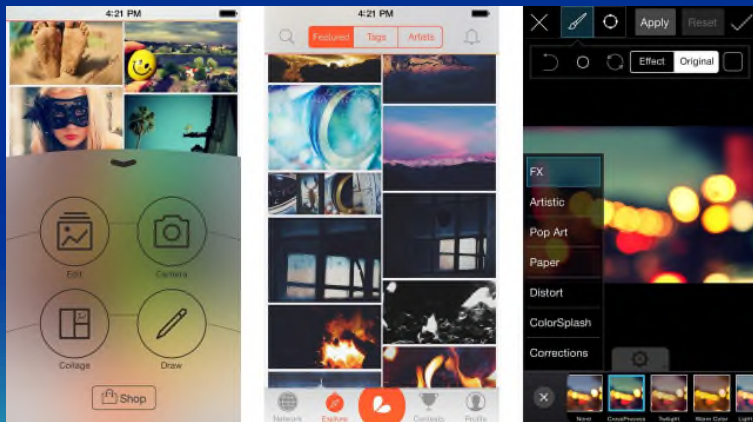
# Smartphone Photo Apps



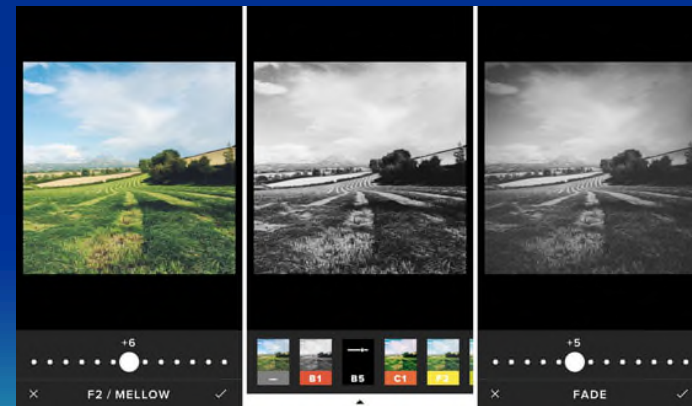
Snapseed by Google



Adobe Photoshop Express



PicsArt Photo Studio



VSCO by Visual Supply Company

# Rotate and Crop



# Cropping to Isolate Subject



Original

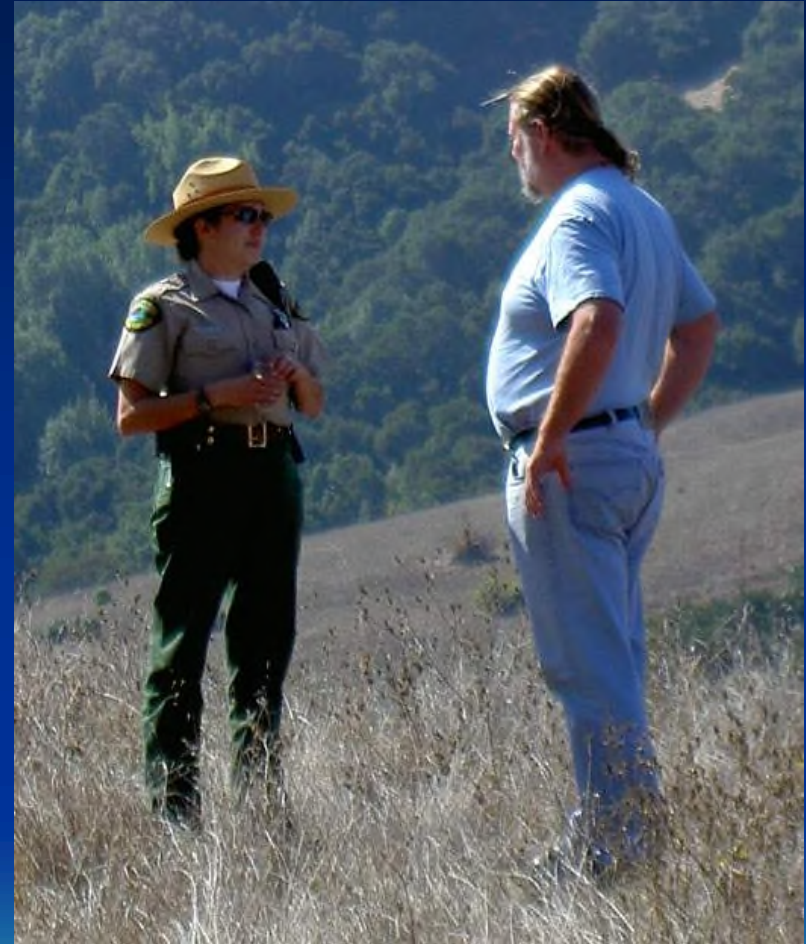


Crop 1



Crop 2

# Cropping to Change Emphasis of Picture



Almaden Quicksilver Spanishtown



# Cropping, Brightness, Sharpness Adjustment



Before



After



# Adjust Levels, Sharpen



Before



After



# Adjust Color Cast



Original picture: too blue



Color-corrected

Uvas  
Canyon



# Perspective Distortion Correction



Converging verticals caused by  
upwards shot



Corrected to straighten  
vertical lines

# Removing Unwanted Objects



Removed street lamps,  
adjusted contrast



# Painterly Effects



Original



Watercolor



# Christmas Card Picture



# Convert Color to B&W



Casa Grande, Almaden  
Quicksilver



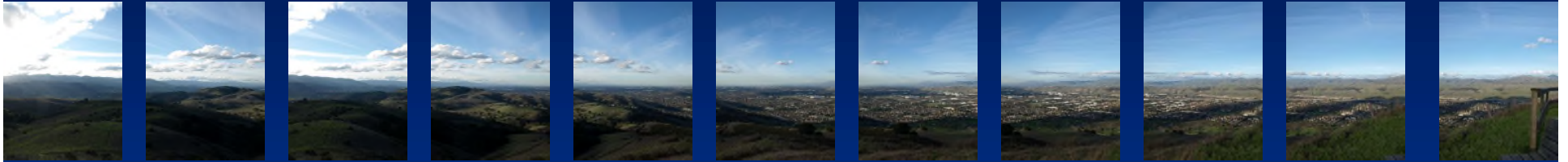
Winner: First place, 2015 Historic San Jose Photo  
Contest

# More B&W Conversions



Santa Teresa Park

# Create Panoramas From Multiple Shots



Multiple source pictures, w/overlapping views, taken on a tripod



Composite panorama created with Photoshop Elements' Photomerge



# Uses for Digital Photos



# Examples of Printed Uses of Digital Pictures



# Photo Printers



Low-end inkjet (8.5", 2 tanks): \$30



High-end inkjet (17", 12 tanks): \$1300



Compact printer



Dye Sublimation



Color Laser

# Newsletters & Publications

Friends of Santa Teresa Park Newsletter June-July 2015

## FRIENDS OF SANTA TERESA PARK



*The Hidden Springs Trail leading to Coyote Peak*

### Coyote Peak Interpretive Sign Dedication Event

By Mike Bouland

On a rainy Saturday morning, October 25, 2014, The Friends of Santa Teresa Park held its Coyote Peak Interpretive Sign Dedication event at the Pueblo Picnic Area in Santa Teresa County Park. The festive community morning event started with music from Santa Teresa High School's "The Concor Larkin Jazz Trio" while eating donated breakfast treats: muffins and oranges from Sweet Tomatoes, coffee cake from Hobbes's, and coffee from Starbucks.

FOSTP member Sam Drake, Master of Ceremonies, welcomed the over fifty guests who braved the unusually wet weather to attend the event. Five Cub Scouts from Pack 247 and their pack leader, Chris Gilmore, led the flag salute to start the event. FOSTP president Mike Bouland spoke and explained the schedule and agenda of the day and thanked the many supporters, volunteers and sponsors. County Parks Interpretive Program Manager Julie Lee described the three-year process of working with FOSTP to overcome the many hurdles and draft copies it took develop and create the beautiful interpretive sign. Next, Santa Clara County Parks and Recreation Director Robb Court-

#### About Us

The Friends of Santa Teresa Park (FOSTP) is a volunteer organization, founded in 1992 and based in San Jose, whose purpose is to support Santa Teresa County Park. We are a diverse group with a wide range of interests. Our members include equestrians, hikers, runners, mountain bikers, historians, teachers, photographers, trail crew leaders, geocachers, 4H and scout leaders, and concerned members of the community. We serve as an interface between the community and the County Parks Department. We report on problems and concerns in the park and recommend changes and improvements to it. We help out with trail maintenance and park events. If you are interested in helping out at the park or just want to know what's going on, you are welcome to join us. See our website for more information. You are welcome to join our Yahoo Group.

Meetings: 7:00 pm, 1st Thursday of each month.  
Upper Clubhouse/Banquet Facility, Santa Teresa Golf Club  
260 Bernal Road, San Jose, CA  
Website: <http://www.stpfriends.org>

#### Officers:

- Mike Bouland, President
- Kerry Monahan, Vice President
- Ronald Hori, Secretary, Webmaster, Newsletter Editor
- Greg Kloopman, Treasurer



*The new interpretive sign on Coyote Peak*

ney was introduced and Justice Paul Bernal, a family descendant of Rancho Santa Teresa, recognized the efforts of Friends of Santa Teresa Park members' contributions to Santa Teresa Park's development. FOSTP secretary and photographer Ron Hori, talked about the trail that leads to

*Continued on page 6*

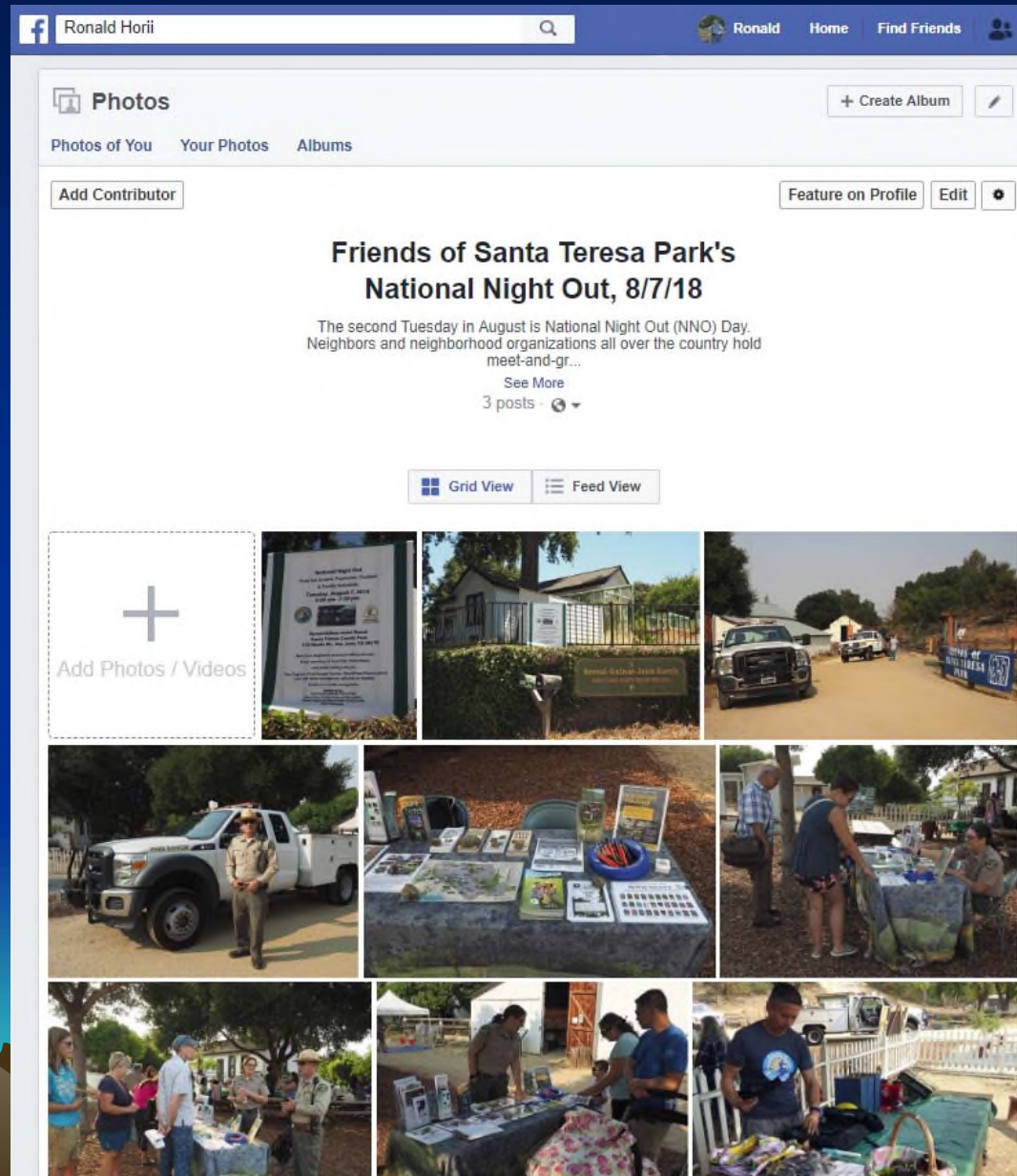


*The group gathered at the Pueblo Picnic Area for the dedication.*

#### Inside this Newsletter:

- Cruise Drive Street Improvements, pg. 2
- Parks for Life Challenge, pg. 2
- Parks for Life Challenge: A Great Way to Encourage Park Use, pg. 2
- Rewarding Hikes, pg. 3
- Explore Santa Teresa County Park on Two Wheels!, pg. 3
- Saving Mt. Umunhum's Tower, pg. 3
- Coyote Peak Transmission Tower, pg. 4
- Schools Run in the Parks, pg. 4
- Summer 2015 Events at Santa Teresa Park, pg. 4
- Santa Teresa Pictures, pg. 5

# Upload to Social-Networking Sites



Facebook album

# Upload to Picture-Sharing Sites

The screenshot shows a Flickr album page for 'Rancho San Vicente'. The page features a large header image of a field with yellow flowers and a person in the distance. Below the header, there are four smaller thumbnail images: a person standing in a field, a close-up of a yellow flower, a wide view of a green field with yellow flowers, and a group of people in a field. The page includes navigation links like 'Back to albums list' and 'Edit in Organizer', a search bar, and a footer with various links and social media icons.

flickr You Explore Create

Photos, people, or groups

< Back to albums list Edit in Organizer

## Rancho San Vicente

*Click here to enter a description for this album*

4 photos

By: Ronald Horii

About Jobs Blog Mobile Developers Guidelines Feedback Report abuse Help forum English

Privacy Terms Yahoo Safely Help Flickr, a Yahoo company

t f

# Upload to Custom Webpages



## Bay Area Outdoor Photo Gallery

Below are examples of pictures I've taken while biking, hiking, and travelling around the Bay Area in the past few years. These were all taken with digital cameras. These are shown by region, roughly from south to north. There are also a few from outside the Bay Area.

### South County, South Bay



Willow Springs Trailhead, Coyote Lake Harvey Bear Ranch County Park

- [Contents](#)
- [Introduction](#)
- [Camera Basics](#)
- [Choosing a Camera](#)
- [Taking Good Pictures](#)
- [Digital Photography Advice](#)
- [Internet Publishing](#)
- [Photo Links](#)
- [Photo Gallery](#)
- [HDR Part 1](#)
- [HDR Part 2](#)
- [HDR Part 3 Hellyer Park](#)
- [HDR Part 4 Uvas Canyon](#)
- [Santa Teresa Pueblo HDR Sunset](#)
- [HDR Sunset Norred Trail](#)
- [Bay Area Back Pages](#)
- [Bay Area Biking](#)

# Friends of Santa Teresa Park



## Friends of Santa Teresa Park



- Santa Teresa Park
- Official Park Page
- Park Map
- Greetings
- News
- News Archive
- Newsletters
- New Pictures
- Yahoo Pictures
- Santa Teresa Events
- Other Park Events
- Special Reports
- Geo-caching
- Meetings
- Volunteer Hours

The Friends of Santa Teresa Park is a volunteer organization based in San Jose whose purpose is to support Santa Teresa County Park. The president is [Mike Boulland](#). Meetings are normally held the first Thursday of each month. Check for schedule changes below. The public is invited. Typical meeting topics include park news, history, trail conditions, community issues, volunteer opportunities, and future plans.

Our meetings are held at the [Santa Teresa Golf Club upper clubhouse/banquet room](#) (on top of the hill) at 260 Bernal Road, San Jose on the first Thursday of the month. Our next meeting will be on Thursday October 4, 2018 at 7:00 pm.

Minutes from past meetings are [available below](#). See the meeting minutes for park news and upcoming events.

See you Thursday night,  
Mike Boulland

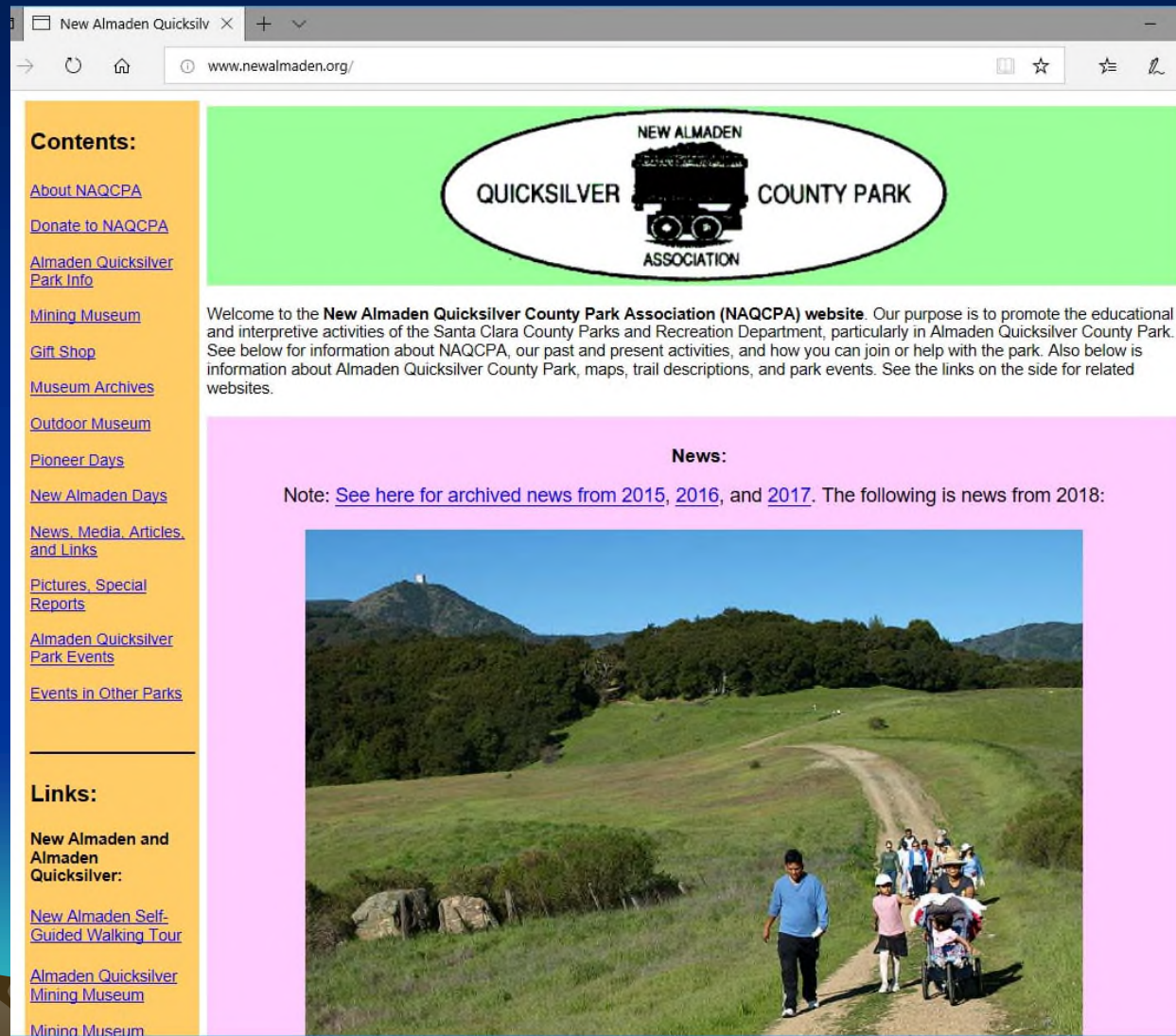
For more information on the Friends of Santa Teresa Park, contact [Mike Boulland](#). See and join our [Yahoo Group](#) for the latest news and updates.

Like us on our [Facebook page](#). For questions on the stpfriends.org website, contact our webmaster, [Ron Horji](#).

For County Parks volunteers, [enter your volunteer hours here](#). This is the new Samaritan system. [Contact the County Parks Volunteers Office](#) for access information and instructions.

[www.stpfriends.org](http://www.stpfriends.org)

# New Almaden Quicksilver County Park Association



The screenshot shows a web browser window with the address bar displaying "www.newalmaden.org/". The website has a green header with a logo for "NEW ALMADEN QUICKSILVER COUNTY PARK ASSOCIATION" featuring a black silhouette of a mine cart. Below the header, a yellow sidebar on the left lists various content categories under "Contents:" and "Links:". The main content area has a pink background and includes a "News:" section with a note about archived news and a photograph of a group of people walking on a dirt path in a park setting.

**Contents:**


- [About NAQCPA](#)
- [Donate to NAQCPA](#)
- [Almaden Quicksilver Park Info](#)
- [Mining Museum](#)
- [Gift Shop](#)
- [Museum Archives](#)
- [Outdoor Museum](#)
- [Pioneer Days](#)
- [New Almaden Days](#)
- [News, Media, Articles, and Links](#)
- [Pictures, Special Reports](#)
- [Almaden Quicksilver Park Events](#)
- [Events in Other Parks](#)

**Links:**

- New Almaden and Almaden Quicksilver:**
  - [New Almaden Self-Guided Walking Tour](#)
  - [Almaden Quicksilver Mining Museum](#)
  - [Mining Museum](#)

**News:**

Note: [See here for archived news from 2015, 2016, and 2017.](#) The following is news from 2018:



The photograph shows a group of people, including a man in a blue shirt, a woman in a pink shirt, and a person in a wheelchair, walking along a dirt path in a park. The path is surrounded by green grass and trees, with a mountain in the background.

www.newalmaden.org

# Ron Horii's San Francisco Bay Area Parks, Recreation, and Travel

Ron Horii's San Francisco x + v  
www.rhorii.com

**Contents:**

- [Santa Teresa County Park](#)
- [Friends of Santa Teresa Park](#)
- [Geocaching](#)
- [Almaden Quicksilver County Park](#)
- [New Almaden Quicksilver County Park Association](#)
- [Slideshows and Videos](#)
- [Other Santa Clara County Parks](#)
- [San Jose City Events, Parks, and Trails](#)
- [Open Space Authority of Santa Clara Valley](#)
- [San Francisco Bay Trail](#)
- [Southern California](#)
- [Mid-Peninsula Regional Open Space District Preserves](#)
- [Other Park and Trail Pages](#)
- [Outdoor Photography](#)
- [Colleges](#)
- [Museums and Exhibitions](#)
- [Facebook Photo Albums](#)
- [My Work Used By Others](#)
- [Awards](#)
- [Notes on migrated Geocities Pages](#)
- [Bay Area Back Pages](#)
- [Disclaimer](#)

## San Francisco Bay Area Parks, Recreation, and Travel by Ron Horii



*Me in Santa Teresa County Park, at the [interpretive sign on Coyote Peak](#), 12/6/16. I took most of the pictures, including the panorama, and helped with the sign's design.*

**Welcome!** My favorite hobbies and activities are photography, hiking, biking, computers, geocaching, travel, and travel writing. I've created a number of Web pages on travel and recreation in the San Francisco Bay Area and California. Here you will find links to pages with photos and information on parks, beaches, trails, history, and places to visit.

I'm a retired electrical engineer. I spent over 34 years in the computer disk drive industry, working for IBM, Hitachi, and Western Digital. Among other activities, I am a volunteer photographer and docent for the [Santa Clara County Parks & Recreation Department](#), a docent for the [Open Space Authority of Santa Clara Valley](#), and a member of several volunteer and non-profit organizations.

Note that this is entirely a volunteer effort, with no commercial intent or sponsorship. These pages are for information only and are based on my opinions, research, and observations.

**News:**

- My picture of the Casa Grande in Almaden Quicksilver took first place in the non-professional category of the VisualSJ photo contest. See the [Awards](#) section below.
- My pictures have been used for some of the County Parks' "[Nature is Nearby](#)" Billboards.
- I taught my annual [outdoor photography class](#) at the Bernal-Gulnac-Joice Ranch in Santa Teresa County Park on Saturday November 14 at 10 am - 1 pm. "Join a Docent for a FREE outdoor photography workshop. Learn how to choose and use a camera, how to take better outdoor pictures, and about photo composition. Workshop begins with an indoor slideshow, followed by demonstrations and a walk around the historic area to take pictures. Meet at the Bernal Ranch barn, 372 Manila Dr., San Jose." [Here are pictures from the class.](#)
- My pictures were used in an article in *Edible Silicon Valley Magazine* on Martial Cottle Park: [Farm Forward: Planting the Seeds For The Future of Family Farms, January 20, 2016](#)

[http://www.rhorii.com/Outdoor\\_Photography.html](http://www.rhorii.com/Outdoor_Photography.html)

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[HDR Part 4  
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[Santa Teresa  
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[HDR Sunset  
Norred Trail](#)

[Bay Area Back  
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[Bay Area  
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[SF Bay Area  
Rec. & Travel  
Home](#)

[Bay Area Parks](#)

[Contact Me](#)



By Ronald Horii, Volunteer park photographer, Secretary & Webmaster, [Friends of Santa Teresa Park](#). This was originally created from the text of a Powerpoint presentation given at a class on 9/17/05 at Santa Teresa Park.

Contents:

[Introduction to Outdoor Photography](#)

- [Why Take Outdoor Pictures?](#)
- [Types of Outdoor Pictures](#)
- [Picture Gallery: Types of Pictures](#)

[Camera Basics](#)

- [Definitions](#)
- [Film/Sensor](#)
- [Lens Focal Length](#)
- [Lens Aperture](#)
- [Shutter Speed](#)
- [Focus Types](#)
- [Exposure Control](#)
- [Image Stabilization](#)

[Choosing a Camera](#)

- [What is the Best Camera?](#)
- [Types of Film Cameras](#)
- [Film vs. Digital: Film Advantages](#)