

An aerial photograph of a desert canyon. The foreground shows deep, winding sand dunes and eroded rock formations in shades of orange and brown. In the middle ground, there are more rugged rock walls and a small, isolated butte. The background features a flat desert floor leading to a range of mountains under a vast, blue sky with scattered white clouds.

Drone Photography

A drone isn't just a camera in the air—it's a tool that allows photographers to reveal patterns, relationships, scale, and perspectives that are impossible to see from the ground.

Agenda

- Types of drones
- Recreational flying
- Flying under Part 107 Certification
- DJI Ban
- Composition
- A few shots
- Questions?



Camera Drones

- Camera Drones – what all we photographers use, though movie companies have bigger fancier ones.
- DJI is the undisputed leader in the field.
 - DJI Mini 4 or 5
 - DJI Mavic 2, 3, or 4
 - DJI Air 3





FPV – First Person View Drones

- Flown using goggles.
- Made for speed and immersive flying.
 - DJI Avata 2
 - iFlight Nazgul Evoque F5
 - Nazgul Evoque F5 with DJI Goggles
 - Custom racing drones
- Can go from 0 to 60 in less than a second
- Used for fast-moving chase scenes in films, sports broadcasts, ski videos, etc.

Racing Drones

- Extremely fast
 - Often 80–100+ mph)
- Minimal cameras
- Built for competition
- Require serious flying skills
- Organized racing events



Industrial Drones

- Over 55 lbs, and very expensive!
 - Inspections
 - Surveying
 - Public safety
 - Search and rescue
 - Crop dusting, etc.
- Can cost anywhere between \$6000 and \$250,000



Tiny Whoop Drones

- Built for indoor flying and cost not much over \$100
 - Palm-sized
 - Have propeller guards
 - Generally under 100 grams



Toy Drones

Not worth talking
about unless you
have a child under
the age of 10

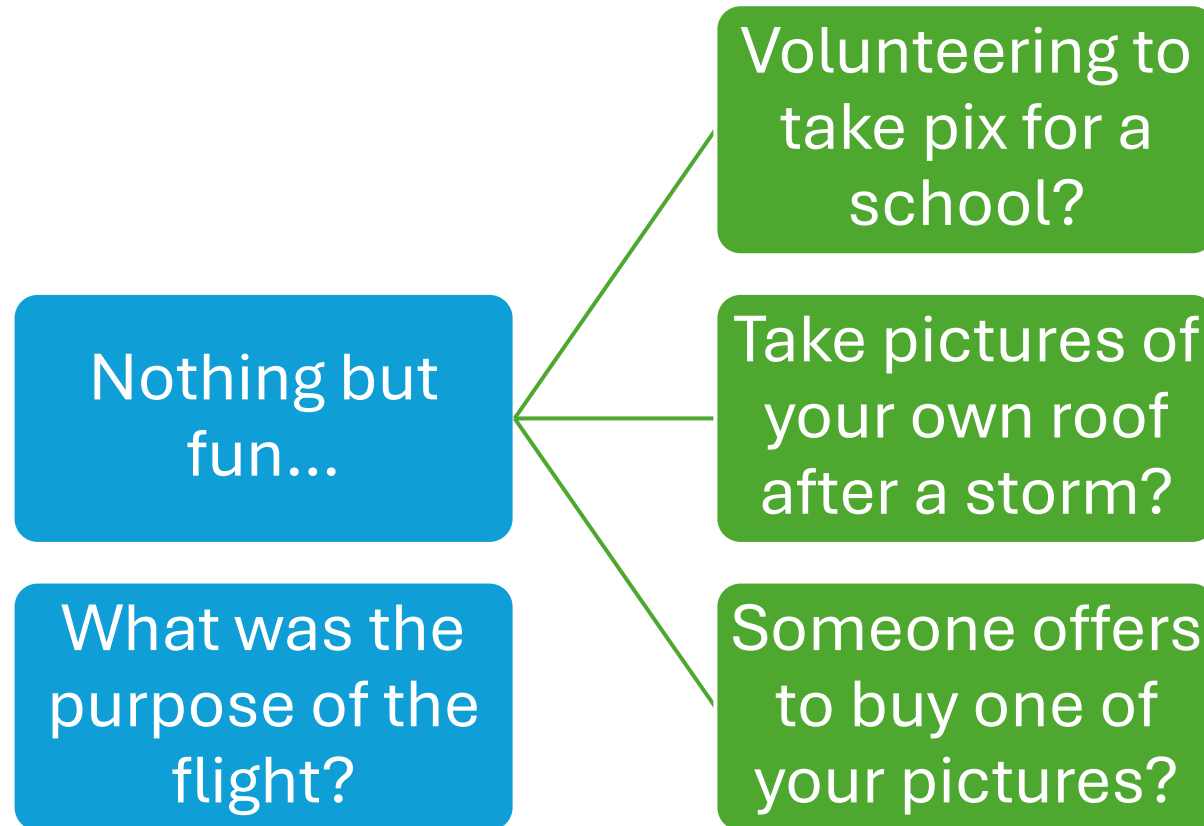


Recreational or Commercial?

- FAA groups drone users into two types of pilots
 - Recreational pilots fly just for fun
 - Part 107 – Everyone else



Let's Talk Recreational Flying



Before You Fly

- Pass the TRUST test and carry proof (free)
- Register your drone if necessary. \$5.00 for three years
 - Don't have to register under 250 grams
 - Watch out! Some batteries push the take-off weight to 250 grams
 - Over 249 grams go to FAA Drone Zone and register.
- Put the registration number on the drone
- Check the airspace – know when and where you can fly



Where CAN you fly?

- Pretty much any class G airspace. People own the land – not the air above the land
 - Go out to West Texas and have a ball
 - Be careful to avoid stampeding livestock. Stay high and zoom in.
- You can get an approval in restricted airspace.
- BLM land is some of the most scenic and you can fly most of it!
 - Valley of the Gods
 - Alabama Hills
 - Bear's Ears
 - White Pocket
 - Million Dollar Highway
- Not National Parks or designated wildlife preservation areas



FAA Rules for Recreational Flight

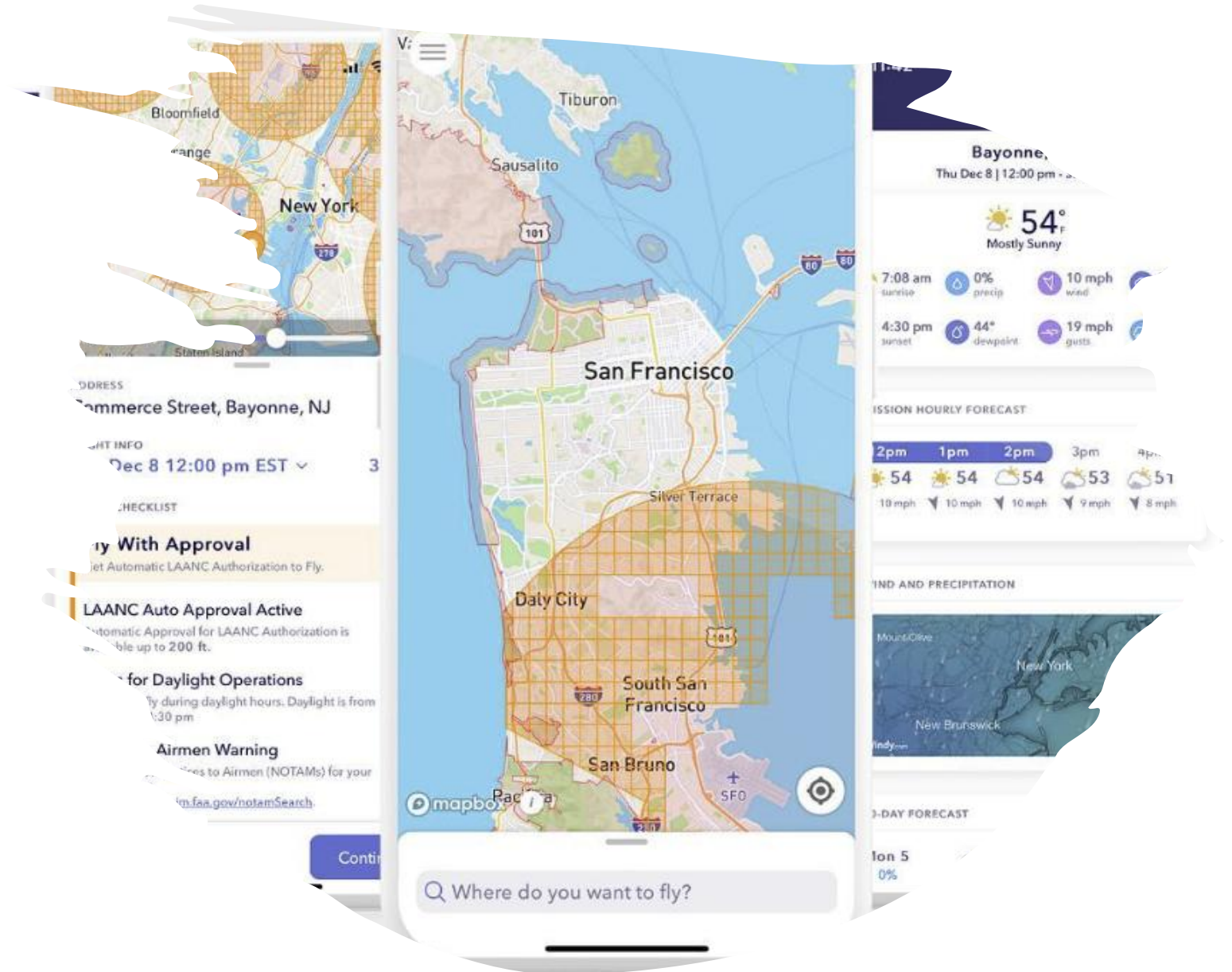
- VLOS
- Visual Observer – It's ok to position a second person some distance out to extend the range
- Must have at least 3 statute miles visibility.
- At least 500 feet below and 2000 feet horizontally away from clouds.

More FAA Rules

- Yield right of way to any manned aircraft
- Fly no higher than 400 feet AGL (Above Ground Level) – NO exceptions
- Controlled Airspace – Airports, the White House, Camp David, etc. Apply for LAANCE approval through your phone app.
- Nighttime flight – ½ hour after sunset to ½ hour before sunrise.

Helpful Apps

- 1. B4UFLY
- 2. Air Control
- 3. AutoPylot
- 4. DroneBuddy
- 5. OpenSky



Part 107 Certification

- If it's not recreational, it requires certification
- Must register the drone as commercial
- Why go for it?
 - You can make money
 - You can fly over people
 - You can fly up to 400 feet over manmade structures
 - Other special permissions
 - Bragging rights.





How Hard is It?

- Stuff the average drone user will never need
 - Read sectional charts
 - Know runway and taxiway signage
 - Landing approach for downwind run
- But also a lot of important info

What Does it Cost?

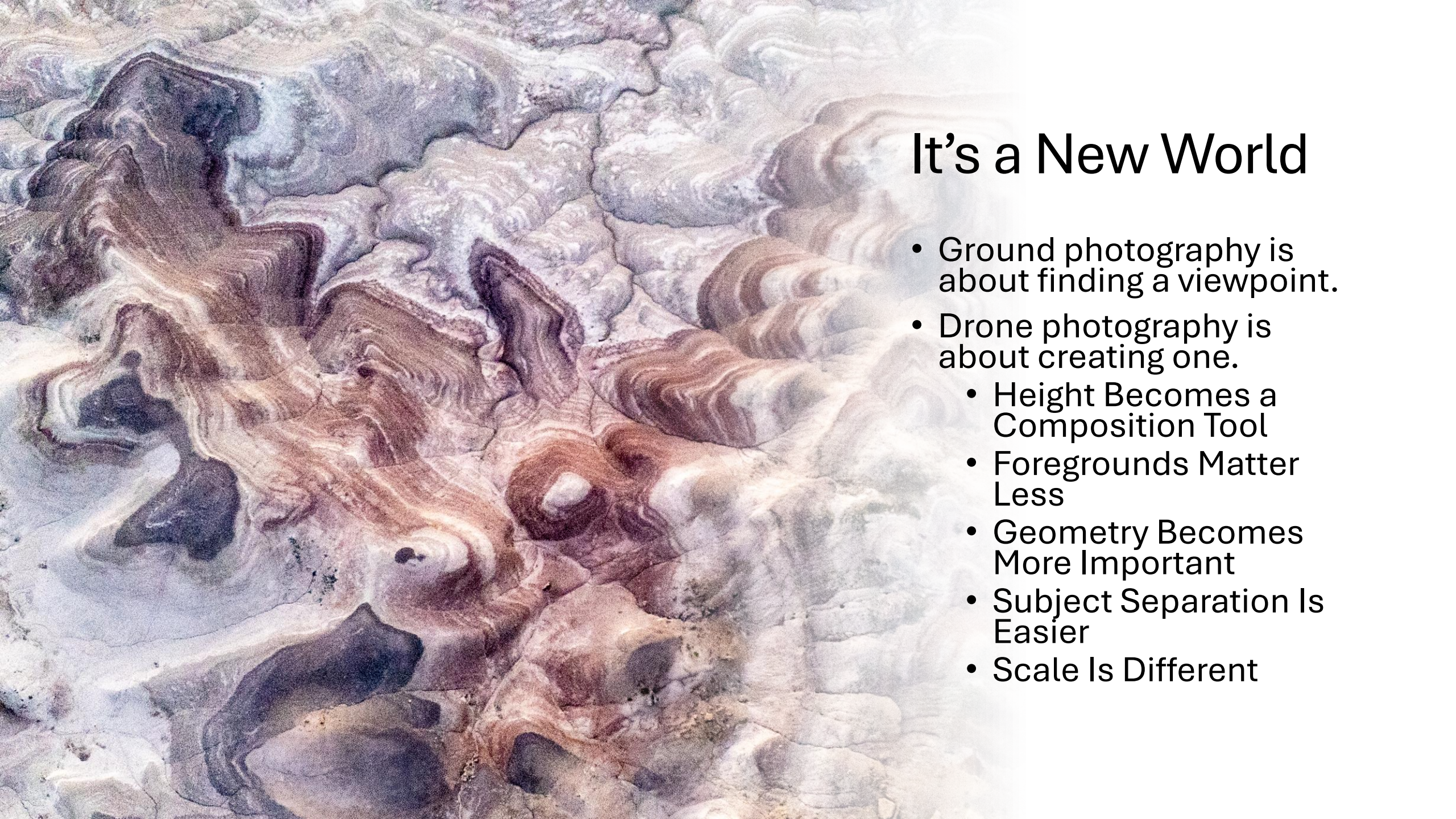
- \$175 per attempt, so study hard.
- I took an online class, which cost me another \$150, but it was worth it.





DJI Ban

- Not so scary
 - Only affects drones that have not been approved
 - Firmware updates extended to 2029
 - Drones are readily available
 - Amazon
 - B&H



It's a New World

- Ground photography is about finding a viewpoint.
- Drone photography is about creating one.
 - Height Becomes a Composition Tool
 - Foregrounds Matter Less
 - Geometry Becomes More Important
 - Subject Separation Is Easier
 - Scale Is Different

The Biggest Challenge

- Experienced drone photographers constantly ask:
 - Should I go higher?
 - Should I go lower?
 - What happens if I move 50 feet left?
 - What does the scene look like straight down?
 - Can I simplify this composition?
- The drone's greatest advantage isn't altitude—it's the ability to place the camera almost anywhere.









