



# Cell Phone Photography

USING THE CAMERA YOU HAVE IN YOUR HAND TO MAKE CREATIVE  
PHOTOS

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# What's on the agenda?

- ▶ History of the cell phone camera?
- ▶ Can I take “good photos” with a cell phone camera?
- ▶ What is a good photograph?
- ▶ How is a cell phone camera different from a real digital camera?

# What's on the agenda?

- ▶ What is all the hoopla about AI with cell phone cameras?

# History of cell phone cameras

- ▶ Post WWII – first consumer wireless phones
- ▶ 1991 – Global System for Mobile communications (GSM) developed, allowing internet access, text messaging, etc.
- ▶ 2000 – Sharp introduces first camera in a cell phone available in Japan only.
- ▶ 2002 – Sanyo and Sprint introduced 1<sup>st</sup> camera phone available in USA with a .3 megapixel camera at \$400

# History of cell phone cameras

- ▶ 2007 – Apple introduces i-Phone



- ▶ 2008 – Android phone introduced

# Can I take “good photos” with a cell phone camera?

- ▶ Yes, creating a “good photo” is independent of the type of camera used to create it.
- ▶ A “good photo” is made by the photographer’s (1) **creativity**, (2) **artistic approach** and (3) attention to **composition**.

# What is creativity?

- ▶ Creativity – the ability to transcend traditional ideas, rules, patterns, relationships, or the like, and to create meaningful new ideas, forms, methods, interpretations, etc.: originality, progressiveness or imagination. -

***Dictionary.com***

# What if I'm not creative?

- ▶ “Each one of us is unique and has a distinctive view of the world around us and, therefore has creative potential and often the need to define those differences artistically. Believing in one’s own creative potential is vital to making fresh images.” – ***William Neil, photographer***
- ▶ **“Well, what happened to me?????????????”**  
you were educated out of your creativity,  
according to Ken Robinson, creativity expert.



# How do I develop creativity?

- ▶ **Creativity can't be learned.**
  - ▶ Consider that we were all born creative.
  - ▶ Education and socialization have been designed to teach us how to think, what to think, how not to make mistakes, how the world is and how to fit in.
  - ▶ Ken Robinson says that as a result of education, many talented, brilliant and creative people think they are not.

# How do I develop my creativity?

- ▶ Unlearn habits and ways we've been taught to work
- ▶ Unlearn ways we have been taught to think
- ▶ Constantly practice your art
- ▶ Draw inspiration from a variety of sources

# How do I develop my creativity?

- ▶ Creativity is about vision, remove the lens through which we have been taught to view the world
- ▶ Cultivate curiosity, an interest and willingness to experiment
- ▶ Break the rules
- ▶ Photograph your passions

# What are the elements of art?



Elements of art are ingredients, apart from the objects, that make up a work of art

- ▶ Color – hues with their various values and intensities
- ▶ Tone – shading used to emphasize form
- ▶ Line – paths that enable visually moving through the image
- ▶ Shape – areas defined by edges within the image

# What are the elements of art?

- ▶ Form – representation of length, width or depth
- ▶ Space – the area taken up by objects (positive) or in between objects (negative)
- ▶ Texture – qualities which give the illusion of being perceptible to the sense of touch
- ▶ Depth – perceived distance from observer: fore, middle and background

# What are the principles of art?

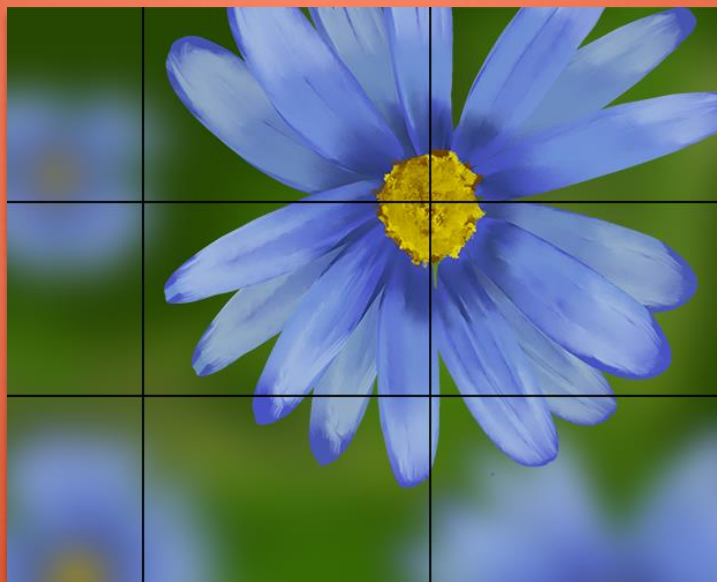
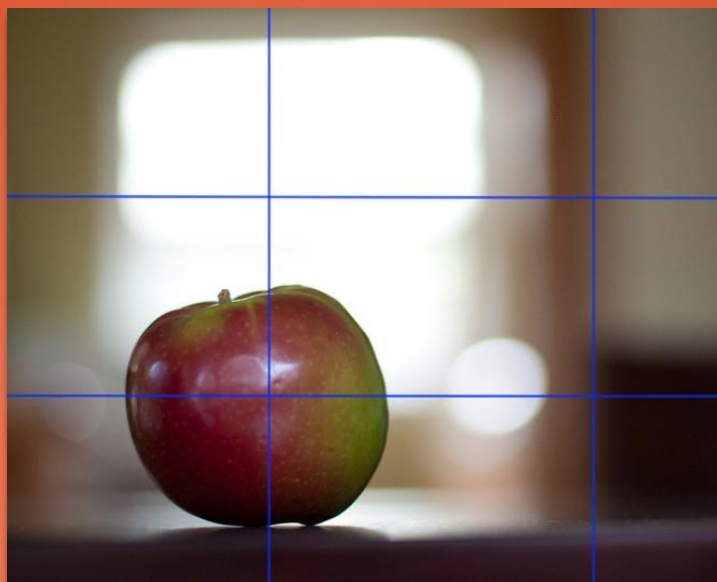
- ▶ Principles of art are the factors used in arranging the elements into a harmonious whole that produces the desired statement, i.e., to create unity.

Contrast	Proportion/scale
Movement/rhythm	Position/orientation
Balance/harmony	Geometry
Repetition	Emphasis
Perspective/viewpoint	Pattern

# What are compositional techniques?

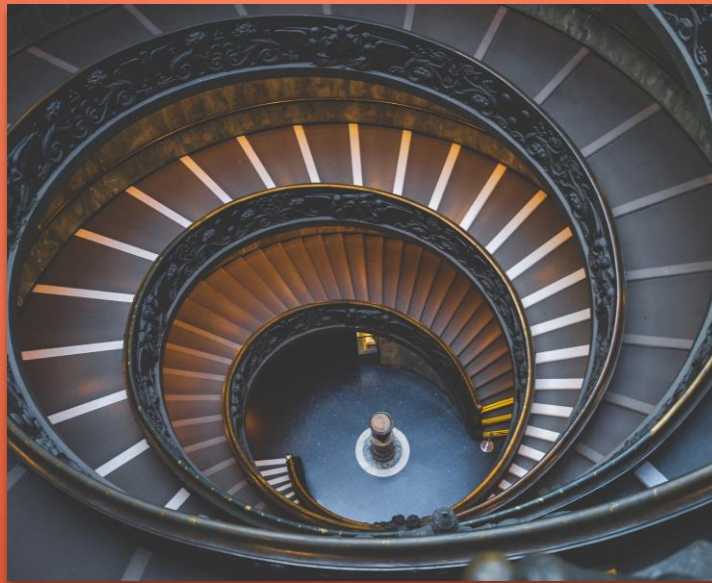
- ▶ Compositional techniques are “rules” that allow the application of principles in an aesthetically pleasing way. The goal is to create beauty and generate interest and evoke an emotional response.

Rule of thirds – anchor points	Limiting focus – depth of field
Rule of odds – odd # of objects	Leading lines
Rule of space – positive/negative	Depth – bottom band, frame
Rule of sevens – strong angles	

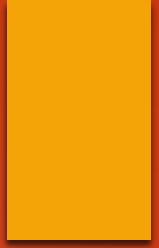


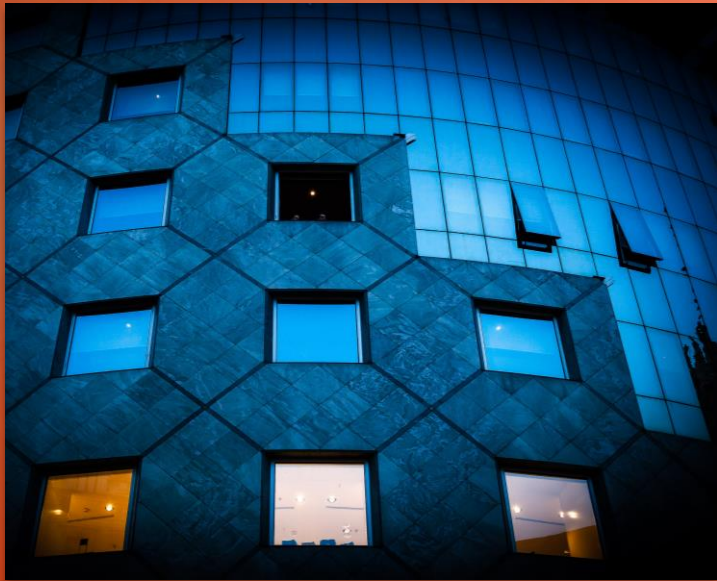
**RULE OF THIRDS**  
Place visually important objects near an anchor point, where vertical and horizontal lines intersect.



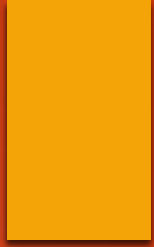


LEADING LINES  
Use lines, real  
or implied, to  
lead a viewer's  
vision where  
you want it to  
go





DEPTH  
Framing can  
create the  
feeling of  
depth and  
three  
dimensions



# Do phone cameras help me in applying a creative approach?

- ▶ Computational photo technology used in cell phones makes it hard to create an image that is technically poor
- ▶ However, photographers are tempted to rely on computational camera technology to create photos that “look” good, and they become creatively lazy
- ▶ Go to camera settings and turn off all the automation. Learn to use automation only when necessary

# What makes a good photograph?

## ► Five Senses of Photography

1. Sense of space – balance positive and negative space
2. Sense of contrast – light and dark; opaque and transparent; big and little; motion and stillness; focused and unfocused, etc.
3. Sense of depth – how are you representing a three dimensional world in two dimensions? Focal length, f/stop, perspective, relative positioning
4. Sense of place – capture the settings mood, emotions, character and ambience that define its uniqueness
5. Sense of life – capture a slice of the life of the objects in the image and/or a slice of your life

# What makes a good photograph?

## ▶ Three Degrees of Good Images

1. Pleasing to look at. The observer's reaction is general liking – “That's pretty”
2. The image possesses a quality that impresses it into the observer's consciousness – “Wow!”
3. Tells a story. The observer gets a sense of time and wonders what happened before and what happened after the captured moment – “Hmmm”

# The bottom line of creating art

- ▶ Focus on the aesthetics rather than the technical
- ▶ It's not what an image looks like, it's what it feels like that's important
- ▶ Don't take the easy photo, take photos that make people think
- ▶ Take photos that communicate a message or express feelings
- ▶ Master light. The manipulation of light can change the feel of a photograph

# How are phone cameras different from a regular digital camera?

Name	Full Frame	APS-C	Four Thirds	1/1.7"	1/2.3"	1/3.2"
<b>Area</b>						
<b>Size</b>	36 X 24 mm <sup>2</sup>	23.6 X 13.5 mm <sup>2</sup>	18 X 13.5 mm <sup>2</sup>	7.6 X 5.7 mm <sup>2</sup>	6.1 X 4.6 mm <sup>2</sup>	4.4 X 3.3 mm <sup>2</sup>
<b>Camera Type</b>	High End DSLRs	Midrange and Entry Level DSLRs	Olympus DSLRs	High End Compacts	Low-mid Compacts	Mobile Cameras
<b>Cameras</b>	 Nikon D810   Canon 5D MKIII	 Nikon D3300   Canon 1200D	 Olympus E-5   Panasonic Lumix DMC-L10	 Sony Cybershot DSC-HX300   Nikon Coolpix P610	 Sony Cybershot DSC-WX500/B   Canon Powershot SX610 HS	 Apple iPhone 5   HTC One

Sensor size has the most effect on optical quality.

# How are phone cameras different from a regular digital camera?

- ▶ Regular camera lenses have variable apertures that affect depth of field
- ▶ Regular cameras have a higher range of shutter speeds
- ▶ Regular cameras have wider range of ISO settings (sensor sensitivity to light)
- ▶ Regular lenses have real zoom capabilities



# What about AI?

- ▶ AI is the new buzz word and is often misused
- ▶ Phone cameras use computational photography to simulate those things that a regular digital camera can do but is limited by a phone camera's small size. (digital zoom vs. optical zoom, electronically simulated aperture range, simulated depth of field, etc.)

# Get Out There and Make Good Images

- ▶ The type of camera you are using may limit image quality to some degree or prevent you from doing some things photographically, but it won't limit your creativity.
- ▶ Avoid just raising the camera and taking a snapshot. Think about the image you want to make and the story you want to tell before taking the photo.
- ▶ It's what is in your head and your heart that will help you make a good photograph, more so than what's in your hands.
- ▶ If it's a phone camera you have in your hands, use it to take the best photo that you can.