

# PHOTOGRAPHY CHEAT SHEET

## Make Sense of Shooting Modes



### Auto Mode

The camera will automatically try and choose the best possible settings. In auto mode, there's no need to mess with any of the settings. Just point and shoot.



### Portrait Mode

Keeps your subject sharp while creating a beautifully blurred background



### Landscape Mode

Designed for capturing sweeping vistas or huge crowds. In this mode, your camera increases the Aperture f-stop number in order to maximize depth of field. Objects both near and far will be in sharp focus



### Child Mode

In this mode, clothing and backgrounds are colorful while keeping skin tones soft and natural looking. Shutter speed is also increased to capture kids who are a bit more wiggly



### Sports Mode

The camera uses a faster shutter speed to capture fast-moving objects. Essentially allowing you to 'freeze' action scenes.



### Close Up Mode

The camera uses a smaller aperture to improve depth of field. Perfect for macro shots, close-ups of flowers, insects, and other objects



### Night Portrait Mode

The camera uses a slower shutter speed and flash to capture more light. Useful in low light situations. But use a tripod to avoid camera shake



### Manual Mode

This is designed for experts who want complete control over their camera settings. In this mode, you choose the shutter speed, aperture, and ISO



### Aperture Priority

This is a semi-automatic mode that allows you to choose the aperture yourself. The camera will automatically set the shutter speed that will produce the proper exposure. The semi-automatic modes are a great place to start when you're first venturing out from full automatic



### Shutter Priority

Allows you to choose the shutter speed yourself. The camera will automatically select the aperture (f-stop) that will produce a proper exposure



### Program AE Mode

The camera sets the shutter speed and aperture but you control flash, white balance, ISO, etc...



### No Flash

Same as full auto mode, but with flash disabled



### Creative Auto

Same as full auto mode, but with a little more control over focus, exposure and color



### Movie

Allows you to record video



# 10 Can't-Miss Photos TO TAKE EACH MONTH

USE THIS HANDY CHECKLIST TO HELP YOU TAKE THE  
TOP-10 PHOTOS FROM EVERY MONTH OF THE YEAR.

## JANUARY

Snowmen  
Indoor play  
People sledding  
Stacks of sweaters  
Firsts for the New Year

- First snow
- First new outfit
- First family dinner
- First book you read

Icicles along the roof  
Kids bundled up to go outside in the cold  
A couple snuggling by a glowing fire  
Bowls of soup or cups of hot chocolate  
Family members taking down holiday decorations

## FEBRUARY

Kids in pajamas  
Favorite gadgets  
Your loved ones  
A romantic night out  
Valentines you receive  
Super Bowl party, food and decor  
Mardi Gras decorations and parades  
Children creating valentines for school  
Valentine's Day cookies, candy or cupcakes  
High-school sporting events, like a basketball game or gymnastics meet

## MARCH

Your car  
Kites flying  
Your pet on a walk  
Your exercise routine  
March Madness events

- People filling in brackets
- Friends watching games
- Fans wearing favorite teams' jerseys

Favorite Dr. Seuss books  
The first signs of spring

- Flowers sprouting
- Tree blossoms blooming
- Baby animals playing

Children playing in the yard  
Loved ones playing in puddles after a rainstorm  
St. Patrick's Day festivities featuring green  
Flowers peeking through dirt or snow  
Your toes with a fresh pedicure and nail polish  
The yard after its first mow of the year  
Family members working in the garden  
Outdoor sports, such as soccer, softball and tennis

## APRIL

Rainbows  
Friends hiking  
Easter celebrations

- Religious activities
- Family dressed in "Sunday best" to attend an Easter service
- Egg hunting
- Egg decorating
- Easter dinner
- New Easter dress

Umbrellas and rain boots  
Flats of flowers

## MAY

Barbeques  
Grandma's hands  
Prom happenings  
Photos with Mom  
Flowers in the garden  
Mother's Day presents  
Cinco de Mayo celebrations  
Students moving out of the college dorm  
Cemeteries decorated for Memorial Day  
People drinking mint juleps or wearing hats for Derby Day

## JUNE

Baseball games  
Photos with Dad  
Animals at the zoo  
Outdoor activities

- Badminton
- Picnics
- Evening walks
- Backyard movies

Father's Day events  
Feet wearing flip-flops  
Strawberries on the vine  
Graduates dressed in caps and gowns  
Children on the last day of school  
Brides getting ready for the big day

## JULY

Farm fields  
Family reunions  
Camping activities  
Fun in the sun

- Water fights
- Sunbathing
- Pool time
- People boating
- Swimming lessons

A concert in the park  
Girls playing Hula-hoop  
Ice-cream or snow cones  
Watermelon ready to serve  
Fourth of July celebrations

- Firework displays large and small
- Parades
- People wearing red, white and blue
- Flags flying
- Military personnel in full regalia

A boy holding a worm, frog or bug

## AUGUST

Sprinkler fun  
Corn on the cob  
Summer sunsets  
People on bike rides  
Vacations and travels  
A pitcher of lemonade  
NFL preseason parties  
A couple holding hands  
Back-to-school shopping  
County, town or state fairs

## SEPTEMBER

Football games  
Tailgating parties  
Fishing excitement  
Family in sweaters  
Apple-picking events  
Freshly baked cookies  
Leaves changing color  
Visits with grandparents  
Happenings on the first day of school

- Catching the bus
- Wearing the first-day-of-school outfit
- Packing the first lunch
- Meeting the teacher
- Stacking the kids' schoolbooks
- Seeing or walking into the new classroom
- Reading the school schedule
- Buying new backpacks and shoes

Car rides through the canyons or mountains

## OCTOBER

Hayrides  
Bare trees  
Scarecrows  
Corn mazes  
Haunted houses  
Pumpkins at night  
World Series parties  
Kids jumping in piles of fallen leaves  
A train rolling across the golden landscape  
Homecoming celebrations at school

## NOVEMBER

Baked pies  
Geese flying south  
Family gatherings  
Thanksgiving dinner

- Loved ones preparing the food
- People setting the table
- Home decor
- The family at the table
- People watching a game after dinner

Black Friday madness  
The first snowfall  
Family photo shoot for holiday cards  
Dogs or kids playing in the first snow  
Thanksgiving leftovers in the refrigerator  
Family members turning on Christmas lights

## DECEMBER

Hockey games  
Snowball fights  
Canned-food drives  
Community service  
Friends sharing a laugh  
Menorah being lit  
New Year's Eve parties  
Family gathered around the fireplace  
Slipped feet lined up in a row or in a circle  
Christmas activities

- Gifts being wrapped
- Holiday shopping
- Cookie plate placed out for Santa
- Children writing letters to Santa
- Loved ones visiting Santa at the mall
- Home decor
- Nativity scenes
- Carolers
- Trimmed trees
- Mantle with your hung stockings
- Outdoor decor
- The holiday table
- Shopping bags filled from mall outings

Learn How to:

# Shoot in Manual Mode

PhotographyElement.com

## 1 Set the ISO:

|      |                    |
|------|--------------------|
| 100  | Sunny              |
| 200  | Partly Cloudy      |
| 400  | Overcast           |
| 800  | Indoor/Sports      |
| 1600 | Very Dark Lighting |
| 3200 | Dark/Night         |

## 2 Set the Aperture:

|         |                                       |
|---------|---------------------------------------|
| 1.2-3.5 | Very blurry background<br>(portraits) |
| 3.5-6.3 | Slightly blurry background            |
| 6.3-32  | Wide depth-of-field<br>(landscapes)   |

## 3 Set the Shutter Speed:

\*Use a tripod if the shutter speed is below 1/the focal length of the lens (ex 85mm lens and 1/80")

\*Slow shutter speeds blur motion

\*Fast shutter speeds freeze action

|               |                      |
|---------------|----------------------|
| 1/2-1/8       | Blur water           |
| 1/60          | Portraits            |
| 1/250         | Freeze slow subjects |
| 1/500         | Kids                 |
| 1/500-1/1000  | Sports               |
| 1/2000-1/4000 | Very fast subjects   |

## 4 Check the Exposure:

\*Watch the meter in the bottom of the viewfinder

\*Adjust exposure settings to keep meter at 0

\*Use exposure compensation +/- for minor adjustments

\* Review the image on the LCD and check the histogram to see that the tones are evenly distributed across the graph



# PHOTOGRAPHY CHEAT SHEET

RELOADED!

## CAMERA MODES

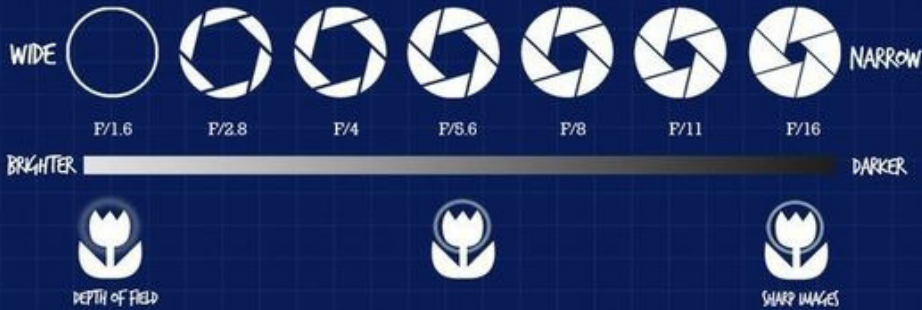
|           |                   |          |
|-----------|-------------------|----------|
| <b>M</b>  | MANUAL            | <b>M</b> |
| <b>Av</b> | APERTURE PRIORITY | <b>A</b> |
| <b>Tv</b> | SHUTTER PRIORITY  | <b>S</b> |
| <b>P</b>  | PROGRAM           | <b>P</b> |
|           | AUTOMATIC         |          |

## WHITE BALANCE

|  |            |             |
|--|------------|-------------|
|  | <b>AWB</b> | AUTO        |
|  |            | DAYLIGHT    |
|  |            | CLOUDY      |
|  |            | SHADE       |
|  |            | TUNGSTEN    |
|  |            | FLUORESCENT |
|  |            | FLASH       |
|  |            | CUSTOM      |

## APERTURE

↑ REGULATES THE FILM'S OR IMAGE SENSOR'S DEGREE OF EXPOSURE TO LIGHT



## SHUTTER SPEED

↑ THE EFFECTIVE LENGTH OF TIME A CAMERA'S SHUTTER IS OPEN



## ISO

↑ FILM SPEED/MEASURE OF SENSITIVITY TO LIGHT



MIGUELGANTIOQUI 2012.

# JPEG VS RAW

www.christinagreve.com

| Jpeg Format   | RAW Format   |
|---|--|
| <ul style="list-style-type: none"><li>Standard format</li><li>Processed by the camera</li><li>Fairly small in size</li><li>Higher in contrast</li><li>Sharper straight out of the camera</li><li>Immediately suitable for printing and web posting</li><li>Takes up less space on your hard drive</li><li>Is like a print</li><li>Takes up less space on your memory card</li></ul> | <ul style="list-style-type: none"><li>Uncompressed format</li><li>Waiting to be processed by software like Photoshop or Lightroom</li><li>Large in size</li><li>Not as sharp. You get to fine-tune sharpen in Photoshop</li><li>Gives you great control over exposure, highlights, contrast, colors, etc.</li><li>Not suitable for printing directly from the camera</li><li>Is like having a negative</li><li>Takes up a lot of space on your memory card</li></ul> |
| Shoot in Jpeg when you  | Shoot in Raw when you  |
| <ul style="list-style-type: none"><li>Photograph in perfect daylight conditions</li><li>Want a quick workflow</li><li>Don't need to do much post-processing</li><li>Want to save space on your hard drive</li><li>Take everyday snapshots</li></ul>   | <ul style="list-style-type: none"><li>Photograph in not-so-perfect light conditions</li><li>Want a perfect white balance</li><li>Want quality photos for your portfolio and clients</li><li>Want full control over the final look of your image</li><li>Print large photos and posters</li></ul>   |

# HOW TO PROPERLY HOLD A CAMERA



## How to hold a camera

It's worth taking a few minutes to practise holding your camera before you start shooting – you'll get sharper shots



### FINGER

The camera body is designed to be gripped with your right hand and your index finger over the shutter release. You should be able to press the button without having to reposition your grip.

### ELBOWS

Tuck your elbows into your body to keep your camera sturdy. The further out your elbows are, the more unstable you will be.

### HAND

Rest your lens in your left hand. You should be able to twist the barrel of the lens to zoom or focus with this hand, leaving your right hand to grip the camera body.

### EYEBROW CONTACT

Lift the camera up to your eye and rest the viewfinder against your eyebrow. This makes another point of contact on the body for more stability.



### PORTRAIT

If you need to switch your camera to a portrait orientation then turn it over so the shutter release sits at the top. If you do it the other way around your arms will become all twisted up!



### LEGS

Place your legs a little apart so you're balanced. If you're leaning in to take a shot then move one foot forward to create a sturdier body shape.

### TAKE A MAT

When kneeling to take shots outdoors, you might get a wet or dirty knee. Take a mat or a plastic bag to place under your knee for comfort and to avoid ruining your clothes.



### BACK PANEL CONTROL

With your hands in the correct position, your thumb is well placed to access the controls on the back of the camera to alter the shooting settings.



### BRING ONE LEG UP

By coming down into a crouching position and bringing your leg up you can turn your body into a human tripod. Place your elbow on your knee to connect your leg and arm together, creating a braced position so you don't wobble around.



### REST ELBOWS

If you have a surface area in front of you, lean your elbows onto it to steady yourself. Look for level surfaces, such as a table or wall.



### CONTROL YOUR BREATHING

Breathe out when you take a shot. If you hold your breath or breathe in, you'll find you move around a lot more. It's amazing how much of a difference controlling your breathing can make.

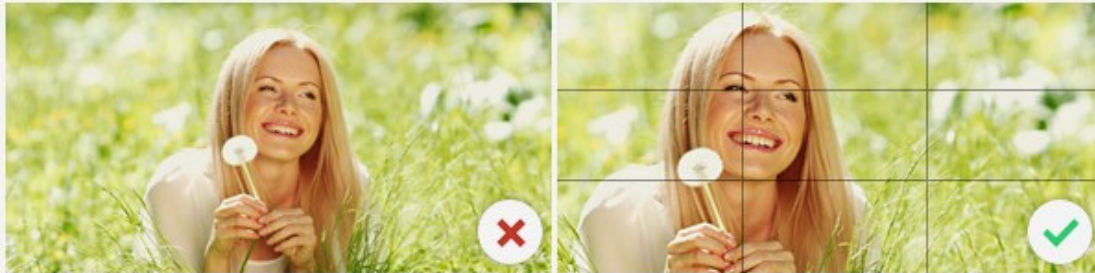


### LEAN IN

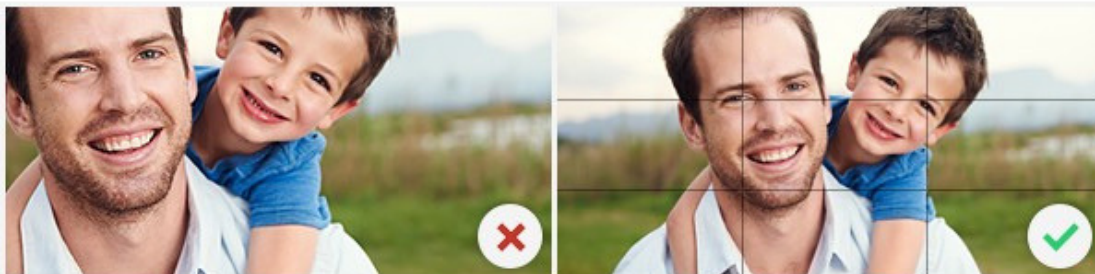
Leaning against a wall creates instant support for your camera. This can be useful when shooting at slow shutter speeds without a tripod.

# • HOW TO USE • THE RULE OF THIRDS

## PORTRAITS

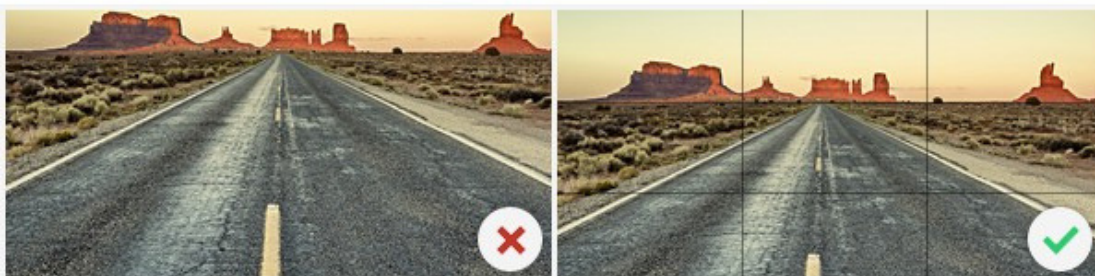


Portrait photos work best when the person's eyes overlap with the intersections on a 3x3 grid. Since those intersections are key focal points, this creates a better sense of eye contact and engagement than placing them dead-center.



If you have more than one subject, try to position them all so that they're near an intersection on the rule of thirds grid.

## LANDSCAPES

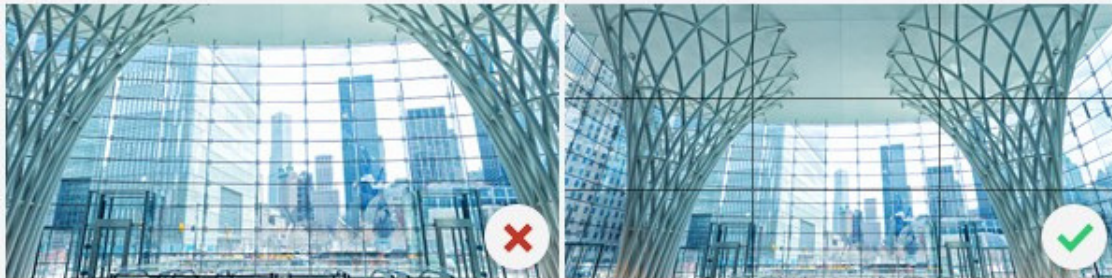


For landscapes, try to align the horizon with one of the two horizontal lines near the center of the grid (preferably the top one if the land is more visually interesting than the sky).



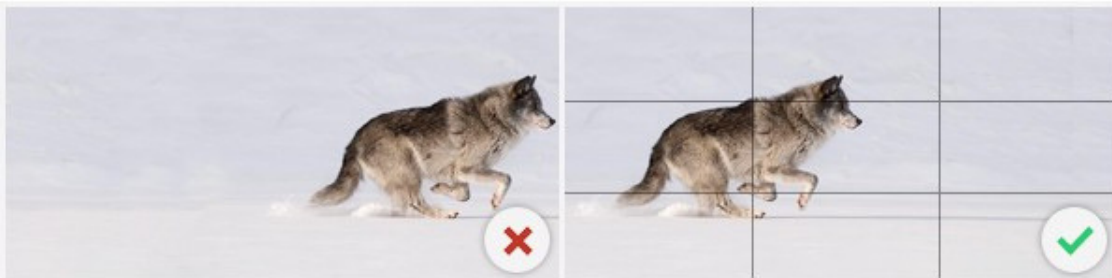
# CONTINUED...

## ARCHITECTURE



Perfect symmetry can sometimes be advantageous when photographing architecture. Still, the rule of thirds is useful for drawing attention to a structure's most important focal points.

## ACTION



Be careful not to cramp your subject, especially when you want to create a sense of motion. Try placing the subject at one end of the grid and leaving space for their destination at the other.

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# SHUTTER SPEED CHEAT SHEET

| FULL STOP | 1/2 STOP | 1/3 STOP | SAFE SHUTTER SPEED  | LIGHT   | TYPES OF SHOOTING   |
|-----------|----------|----------|---|---|---|
| 1/2000    | 1/2000   | 1/2000   |   |    | <br>BIRDS IN FLIGHT 1/2000       |
|           | 1/1500   | 1/1600   |   |   |   |
|           |          | 1/1250   |   |   |   |
| 1/1000    | 1/1000   | 1/1000   |    |   |   |
|           | 1/750    | 1/800    |   |   |   |
|           |          | 1/640    |   |   |   |
| 1/500     | 1/500    | 1/500    |   |   | <br>ACTION SPORTS 1/500 - 1/1000 |
|           | 1/350    | 1/400    |   |   |   |
|           |          | 1/320    |   |   |   |
| 1/250     | 1/250    | 1/250    |    |    |   |
|           | 1/180    | 1/200    |   |   |   |
|           |          | 1/160    |   |   |   |
| 1/125     | 1/125    | 1/125    |   |   | <br>STREET PHOTOS 1/250 - 1/500  |
|           | 1/90     | 1/100    |   |   |   |
|           |          | 1/80     |   |   |   |
| 1/60      | 1/60     | 1/60     |    |   | <br>LANDSCAPES 1/125 - 1/4       |
|           | 1/45     | 1/50     |   |   |   |
|           |          | 1/40     |   |   |   |
| 1/30      | 1/30     | 1/30     |   |    |   |
|           | 1/20     | 1/25     |   |   |   |
|           |          | 1/20     |   |   |   |
| 1/15      | 1/15     | 1/15     |   |   | <br>PANNING CARS 1/15 - 1/60    |
|           | 1/10     | 1/13     |   |   |   |
|           |          | 1/10     |   |   |   |
| 1/8       | 1/8      | 1/8      |   |   | <br>WATERFALLS 1/8 - 2 sec     |
|           | 1/6      | 1/6      |  |  |   |
|           |          | 1/5      |   |   |   |
| 1/4       | 1/4      | 1/4      |   |   | <br>BLURRING WATER 0.5 - 5 sec |
|           | 1/3000   | 0.3      |   |   |   |
|           |          | 0.4      |   |   |   |
| 0.5       | 0.5      | 0.5      |  |   |   |
|           | 0.3      | 0.6      |   |   |   |
|           |          | 0.8      |   |   |   |
| 1         | 1        | 1        |   |   | <br>FIREWORKS 2-8 sec          |
|           | 1.5      | 1.3      |   |  |   |
|           |          | 1.6      |   |   |   |
| 2         | 2        | 2        |   |   | <br>STARS 15 - 25 sec          |
|           | 3        | 2.5      |   |   |   |
|           |          | 3.2      |   |   |   |
| 4         | 4        | 4        |   |   | <br>STAR TRAILS 15 min and up  |
|           | 6        | 5        |   |  |   |
|           |          | 6        |   |   |   |
| 8         | 8        | 8        |   |   |   |
|           | 10       | 10       |   |   |   |
|           |          | 13       |   |   |   |
| 15        | 15       | 15       |   |   |   |
|           | 20       | 20       |   |   |   |
|           |          | 25       |   |   |   |
| 30        | 30       | 30       |   |   |   |

# LIGHTING GUIDE

MASTER PRO PORTRAIT LIGHTING WITH THESE 24 ESSENTIAL STUDIO SET-UPS

|   |   |  |  |
|---|---|--|--|
| <p><b>REMRANDT WITH A SOFTBOX</b></p>   <p><b>RT1</b> One strobe, one lightstand, one 20-inch softbox. Position the light high and to the side to create a triangle on the subject's cheek. The rest of the face should be lit from the edge of the box. The softbox creates a soft directional effect.</p>                     | <p><b>REMRANDT THROUGH A BROLLY</b></p>   <p><b>RT2</b> One strobe, one lightstand, one white sheet through broolly. Position the light high and to the side to create a triangle on the subject's cheek. The rest of the face should be lit through the edge of the sheet. Broollys through an umbrella produce a similar effect to a softbox.</p> | <p><b>REMRANDT WITH A HONEYCOMB</b></p>   <p><b>RT3</b> One strobe, one lightstand, one honeycomb grid attachment. Position the light high and to the side to create a triangle on the subject's cheek. The rest of the face should be lit through the edge of the box. The honeycomb grid light is a great way to create a ring.</p>     | <p><b>REMRANDT WITH A SILVER BROLLY</b></p>   <p><b>RT4</b> One strobe, one lightstand, one silver broolly used as a reflector. Position the light high and to the side to create a triangle on the subject's cheek. The rest of the face should be lit through the edge of the box. The reflection from the light is spread to create a fill.</p> |
| <p><b>REMRANDT SHORT</b></p>   <p><b>RT5</b> One strobe, one lightstand, one 20-inch softbox. Use the principle of Rembrandt lighting to create the triangle of light on the face. Position the subject at an angle so that only the right (or left) side, to the side of the face, shows to the camera fully or partially.</p> | <p><b>REMRANDT BROAD</b></p>   <p><b>RT6</b> One strobe, one lightstand, one 20-inch softbox. Use the principle of Rembrandt lighting to create the triangle of light on the face. Position the subject head on at an angle, and light from the opposite side, to the side of the face, close to the camera's field of view.</p>                    | <p><b>SPLIT</b></p>   <p><b>RT7</b> One strobe, one lightstand, one 20-inch softbox. Position light to one side of the model to create a line down the face with a shadow on the other side of the face. Place a reflector on the opposite side to create a soft fill. Add any of the modifiers on top.</p>                               | <p><b>SPLIT WITH FILL</b></p>   <p><b>RT8</b> One strobe, one lightstand, one 20-inch softbox. Position light to one side of the model to create a line down the face with a shadow on the other side of the face. Use a reflector on the opposite side to create a soft fill. Add any of the modifiers on top.</p>                                |
| <p><b>SPLIT/SHORT</b></p>   <p><b>RT9</b> One strobe, one lightstand, one 20-inch softbox. Use the split lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>  | <p><b>SPLIT/BROAD</b></p>   <p><b>RT10</b> One strobe, one lightstand, one 20-inch softbox. Use the split lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>   | <p><b>KEY WITH A CLOSE SOFTBOX</b></p>   <p><b>RT11</b> One strobe, one lightstand, one 20-inch softbox. Position the light close to the side of the model for a close, soft, directional effect. Place the softbox close to the subject. Look at the softbox from the nose.</p>  | <p><b>KEY WITH A FAR AWAY SOFTBOX</b></p>   <p><b>RT12</b> One strobe, one lightstand, one 20-inch softbox. Position the light far away from the side of the model for a close, soft, directional effect. Place the softbox far away from the subject. Look at the shadow on the nose.</p>   |
| <p><b>LOOP</b></p>   <p><b>RT13</b> One strobe, one lightstand, one 20-inch softbox. Use the loop lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>   | <p><b>BUTTERFLY</b></p>   <p><b>RT14</b> One strobe, one lightstand, one 20-inch softbox. Position the light directly in front of the subject's face. Place the light stand in front of the subject, about the height of the subject's head, to the side of the face, close to the camera's field of view.</p>                                  | <p><b>FLAT LIGHT</b></p>   <p><b>RT15</b> Two strobes, two lightstands, two 20-inch softboxes. Use the flat lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>   | <p><b>BADGER</b></p>   <p><b>RT16</b> Two strobes, two lightstands, two 20-inch softboxes. Use the badger lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>  |
| <p><b>CLAMSHELL</b></p>   <p><b>RT17</b> Two strobes, two lightstands, two 20-inch softboxes. Use the clamshell lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>                                     | <p><b>LOOP WITH A BACKGROUND LIGHT</b></p>   <p><b>RT18</b> Two strobes, two lightstands, one 20-inch softbox. Use the loop lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>   | <p><b>LOOP WITH A RIM LIGHT</b></p>   <p><b>RT19</b> Two strobes, two lightstands, one 20-inch softbox, one honeycomb grid attachment. Use the loop lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>           | <p><b>HIGH KEY</b></p>   <p><b>RT20</b> Two strobes, two lightstands, one 20-inch softbox, one reflector. Use the high key lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>   |
| <p><b>KEY AND FILL</b></p>   <p><b>RT21</b> Two strobes, two lightstands, two 20-inch softboxes. Use the key and fill lighting principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>                               | <p><b>KEY, FILL AND HAIR LIGHT</b></p>   <p><b>RT22</b> Three strobes, three lightstands, two 20-inch softboxes, one honeycomb grid attachment. Use the key, fill and hair light principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p> | <p><b>HARD KEY WITH KICKERS</b></p>   <p><b>RT23</b> Three strobes, three lightstands, two 20-inch softboxes, one strobe with reflector. Use the hard key with kickers principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p> | <p><b>COLOURED GELS</b></p>   <p><b>RT24</b> Four strobes, four lightstands, one 20-inch softbox, one strobe with reflector, three sheets of gel. Use the colored gels principle, lighting one side of the face, and position the light stand to the opposite side, to the side of the face, close to the camera's field of view.</p>          |

|   |   |   |   |   |   |   |   |  |   |
|---|---|---|---|---|---|---|---|--|---|
|  |  |  |  |  |  |  |  |  |  |
| CAMERA  | MODEL   | GREY BACKGROUND   | STROBE WITH REFLECTOR   | STROBE WITH SECOND COLOR  | STROBE WITH SNOOT   | STROBE WITH FOOT BOX  | SILVER REFLECTOR  | SNOOT FOR BROOLLY WHITE BROOLLY  | SILVER BROOLLY  |

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# Landscapes

Your quick reference guide to key SLR settings you should use for stunning scenics

## Composition

Some shots work when the main subject is placed in the centre of the frame – a lone tree in the landscape, for instance. However, most pictures feel more balanced if you move the key elements a little off-centre.

The rule of thirds is always a good starting point: imagine a noughts and crosses grid across the frame and place the focal point where the lines intersect. Your camera may have a built-in grid overlay to help with this. If it



doesn't, use the off-centre autofocus points as a guide – that's why they're positioned where they are...

### DON'T FORGET TO...

**Maximise sharpness**  
Focus around a third of the way into the scene and select a small aperture. Use your SLR's depth of field preview button to check the focus depth.

## Aperture

The higher the *f*-stop you select (*f*/16 or *f*/22, for example) the greater the depth of apparent sharpness in the picture. Avoid using your lens's smallest aperture setting

as this can lead to soft shots. Use lower *f*-stops in combination with long focal lengths (100mm or more) to produce out of focus areas in front of and behind a subject.



## Shutter speed

Your SLR will need to use longer exposure times to compensate for smaller apertures, so use a tripod to ensure sharpness. At slow shutter speeds (1/30 sec or slower), movement

in the landscape will be rendered as a blur. Fit a strong Neutral Density filter to enhance this effect – great for creating misty waves and glass-like expanses of water.



## ISO settings

Stick to your camera's lower ISO (sensitivity) settings (ISO100-200) to ensure you get noise-free, detail-rich pictures. Higher ISO settings (ISO 800+) will enable you to

use shorter exposure times, but cause digital noise. Shoot in RAW quality mode so you can tweak the white balance and exposure in RAW-editing software later.



## Don't go without...



● **Sturdy tripod**  
Make sure it reaches eye level without raising the centre column.



● **Wide-angle zoom**  
Ultra-wide-angles like the Sigma 10-20mm zoom are popular.



● **Telephoto zoom**  
For 'compressing' a scene and isolating detail in your shots.



● **Creative filters**  
Carry a polariser, an ND (Neutral Density) grad and a strong solid ND filter in your kit bag.



● **Remote release**  
Ensure you get pin-sharp shots by firing the shutter remotely.

SEE OVER FOR MORE TIPS >>>

# Landscapes

Use these essential tips to ensure success, whatever scene you're shooting

## ► Get it right... Rolling hills



**1** There really are no shortcuts when it comes to landscape photography – you need to be there when the land's looking its best at dawn and dusk. Mist can give countryside a magical quality, but be prepared to dial in a little exposure compensation to

brighten it up. **2** Use a graduated Neutral Density (ND) filter to retain detail in a bright sky. **3** Ensure there's a focal point so that the viewer's eyes have somewhere to settle. **4** Check the edges of the frame for any distractions you may have missed.

## ► Get it right... Rivers and waterfalls



**1** Stormy weather makes for dramatic seascapes, but weatherproof your camera when shooting near the coast and don't get caught out by incoming tides! **2** Use a slow shutter speed to capture the grace and power of waterfalls, waves and river currents.

**3** Low, raking sidelighting is perfect for revealing the texture of water-worn rocks. **4** If the drama is in the water, not the sky, give it more room – a 1/3 sky to 2/3 water split. If the water is still and you're focusing on reflections, try to split the frame evenly.

## ► Get it right... Trees and forests



**1** Shooting in a wood or forest? Consider framing trees so that they appear to stretch out of the frame and give the impression of an endless forest. **2** Do be conscious of patches of bright sky – a viewer's eye will immediately be drawn to them, so try to change shooting position so that

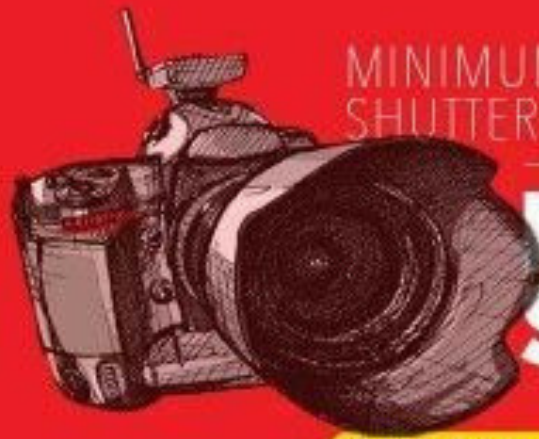
they're hidden from view or cropped out. **3** There it is again – the rule of thirds in action, with the main tree placed in the prime spot. **4** Place a grey card in the frame and take a test shot. You can use this as a reference to correct white balance at the RAW processing stage.

## ► Get it right... Mountain ranges



**1** If you're photographing hills and mountains, it's best to time your visit so that it coincides with the sun rising. This way you can add depth the scene, with background bathed in light and foreground in shadow, or vice versa. **2** Lakes and reservoirs can bring instant light and

colour to a foreground and help to make a scene feel more balanced. **3** Look out for roads and rivers that you can include in the frame to lead the viewer from the foreground to the background. **4** Once you've got the wide shot, use a telephoto lens to compress the hills into 'layers'.



# MINIMUM SHUTTER SPEEDS *for* MAXIMUM SHARPNESS

**General rule:** When handholding the camera, don't use a shutter speed slower than the focal length of your lens.

**For example:** If you're shooting with a 50mm lens, use a shutter speed of 1/50 or faster (1/80, 1/100, etcetera).

**However:** Crop factor, image stabilization, and extreme focal lengths break the rule. For that, use the chart below.

## HANDHELD - NO IMAGE STABILIZATION

| Full Frame | Crop Sensor | 1/10  | 1/20 | 1/25  | 1/60  | 1/80  | 1/100 | 1/200 | 1/400 | 1/640 | 1/1000 |
|------------|-------------|-------|------|-------|-------|-------|-------|-------|-------|-------|--------|
| 16mm       | 10mm        | FAIR  | GOOD | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 24mm       | 15mm        | POOR  | GOOD | GOOD  | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 50mm       | 32mm        | POOR  | POOR | FAIR  | GOOD  | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 70mm       | 43mm        | POOR  | POOR | POOR  | GOOD  | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 200mm      | 130mm       | POOR  | POOR | POOR  | POOR  | FAIR  | GOOD  | GREAT | GREAT | GREAT | GREAT  |
| 400mm      | 250mm       | POOR  | POOR | POOR  | POOR  | POOR  | FAIR  | GOOD  | GREAT | GREAT | GREAT  |
| 600mm      | 380mm       | POOR  | POOR | POOR  | POOR  | POOR  | FAIR  | GOOD  | GREAT | GREAT | GREAT  |
| 940mm      | 600mm       | DON'T | EVEN | THINK | ABOUT | IT    | BAD   | POOR  | FAIR  | GOOD  | GREAT  |

## HANDHELD - IMAGE STABILIZED

| Full Frame | Crop Sensor | 1/10 | 1/20  | 1/25  | 1/60  | 1/80  | 1/100 | 1/200 | 1/400 | 1/640 | 1/1000 |
|------------|-------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 16mm       | 10mm        | GOOD | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 24mm       | 15mm        | GOOD | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 50mm       | 32mm        | POOR | POOR  | GOOD  | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 70mm       | 43mm        | POOR | POOR  | FAIR  | GOOD  | GREAT | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 200mm      | 130mm       | POOR | POOR  | POOR  | FAIR  | GOOD  | GREAT | GREAT | GREAT | GREAT | GREAT  |
| 400mm      | 250mm       | POOR | POOR  | POOR  | FAIR  | GOOD  | GOOD  | GREAT | GREAT | GREAT | GREAT  |
| 600mm      | 380mm       | POOR | POOR  | POOR  | POOR  | FAIR  | GOOD  | GOOD  | GREAT | GREAT | GREAT  |
| 940mm      | 600mm       | ICK! | SICK! | STOP! | NO!!! | POOR  | FAIR  | FAIR  | GOOD  | GREAT | GREAT  |



# A Short History of PHOTOGRAPHIC CAMERA

by *Petrofuturismo-Hitsch*

|   |   |   |   |   |  |   |   |
|---|---|---|---|---|--|---|---|
|    |    |    |    |    |    |    |    |
| X Century a.c.<br>Camera Obscura  | 1835<br>Talbot's Mosaic   | 1839<br>Goussier Camera   | 1841<br>Vogelstein<br>Daguerriotype Camera  | 1853<br>Anker Camera  | 1856<br>Captain Fiske<br>Camera  | 1856<br>Dancer Binocular<br>Daguerriotype Camera                                      | 1860<br>Dublon  |
|    |    |    |    |    |    |    |    |
| 1862<br>Adison & Harrison<br>Parascopic Camera                                      | 1862<br>Thompson<br>Revolver Camera   | 1885<br>Stur<br>Vest Camera   | 1888<br>Kodak   | 1889<br>Lum   | 1889<br>Demon Detective  | 1889<br>L'Escopette   | 1890<br>Frens   |
|   |   |   |   |   |   |   |   |
| 1895<br>Camera pingable<br>pocket kodak   | 1900<br>Brownie   | 1904<br>Toka  | 1909<br>Soho Tropical Reflex  | 1912<br>Aptus   | 1912<br>Vest Pocket Kodak  | 1912<br>Speed Graphic   | 1924<br>Emmanox   |
|  |  |  |  |  |  |  |  |
| 1924<br>Jiu Pe  | 1925<br>Leica   | 1928<br>Beauz Brownie   | 1928<br>Quina   | 1929<br>Galefex   | 1933<br>Polaroid   | 1936<br>Kine Exakta   | 1937<br>Minox   |
|  |  |  |  |  |  |  |  |
| 1938<br>Super Kodak Six20   | 1942<br>Kodak Baby<br>Brownie   | 1947<br>Stereo Realist  | 1948<br>Polaroid Land 95  | 1949<br>Canon 11B   | 1959<br>Nikon F  | 1959<br>Olympus Pen   | 1962<br>Hasselblad<br>Lunar Surface   |
|  |  |  |  |  |  |  |  |
| 1963<br>Kodak Instamatic 95   | 1965<br>Graph-check<br>Sequence Camera  | 1966<br>Rollei 35   | 1972<br>Polaroid XS 75  | 1976<br>Minolta 110 Zoom<br>SLR   | 1978<br>Polaroid<br>Supracolor 600   | 1978<br>Kodak Colorburst 100<br>instant camera  | 1981<br>Sony Mavica   |

A photograph is the  
pause button of life