BOOK ONE

JAKE HICKS
PHOTOGRAPHY

UNDERSTANDING LIGHT
–Book 1

Book 1 - Understanding Light

My aim is to release a series of these books that are designed to dig a little deeper into the world of modern photography. In an era of 10 minute online video tutorials and prohibitive further education fees, many of us are self taught and that can have its limitations. Namely, a very slow path to progression.

Some of these books will focus on the more analytical side of photography and some on the more practical. So although I plan to publish one of these books with many of my favourite tried and tested lighting setups, this first one aims to help us walk before we try and run.

There are certainly many ways of learning photography today, and while no one way is better than another, it's my belief that many of us are skipping the understanding of why we choose to do what we do.

Why do we like one photograph over another? What gives us that jolt of excitement when we know we've captured a great image? What truly defines a *'great'* photo?

Every artist asks these questions, but we rarely act upon them. This first book hopes to peel back one of those layers of understanding as we force ourselves to truly look at the lighting in our images and acknowledge why we like or dislike it.

This is not only a very useful exercise, but it also enables us to take that knowledge and apply it to our next shoot. It's by employing this very deliberate and cognitive process that we can dramatically improve our photography from shoot to shoot, compared to the rather ineffective 'spray-and-pray' approach we may be relying on instead.
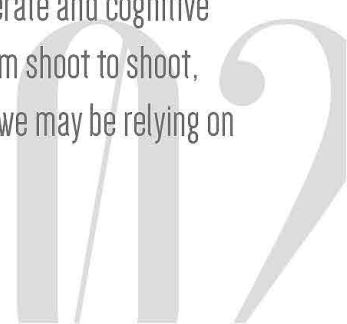
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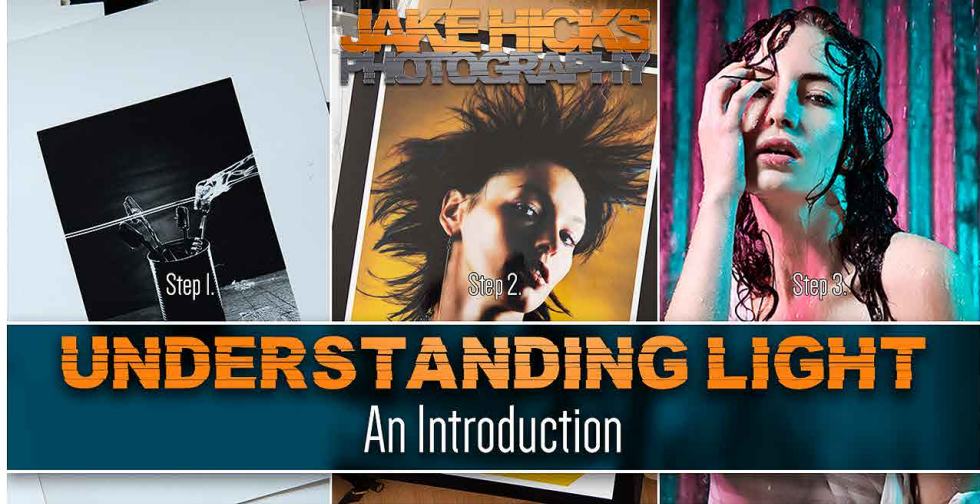
This article aims to look at how we as photographers *'understand'* light. It may seem obvious to many of you, but to a vast majority of us, it's simply not quite that easy. But what does it truly mean to understand light? Do we really need to understand light to take great photos? The simple answer is no.... but I guarantee it will help.

A self-taught generation

Many of us have opted to be very heavily invested in our passion for photography. Some of us want to make our passion a full time career and some of us are simply more than happy to derive great pleasure from creating beautiful photographs. Whatever our intentions or aspirations may be, we as photographers are very fortunate to have that choice. After all, there are very few hobbyist surgeons or lawyers. They have to undergo many years of training from the previous generation before they can even think about making a living from it.

But we as photographers don't need to do that. In fact there are a huge number of very successful professional photographers working today that were never directly taught by their more experienced peers.

JHP Circa 1997

Sadly I couldn't find any actual prints from my landscape glory days.... but this inverted sheet of negatives against a window will have to suffice as proof for now. Trust me, I have boxes of these negs!

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JHP Circa 1999

A look at when lighting was easy. I remember it being nice to light small objects that never moved.

Those professional photographers never pursued further education in photography and instead they opted to teach themselves the craft. But again, we're very lucky that it's even possible to do this.

Like I said, it's probably a lot harder to learn to be a surgeon from YouTube.

I also think this self-taught approach is becoming more and more popular now, given that further education is becoming so prohibitively expensive. But what does being 'self taught' look like? Where do you begin?

What does a self-taught art education look like?

I'll just add that although I received a formal education in the form of BA Hons Degree in photography, I'll be using myself in the following steps because since I graduated back in 2001, I've been learning and therefore..... teaching myself.

Step 1. Spray & Pray

As soon as we get our hands on our first camera, our first step often sees us photographing anything and everything that crosses our path.

Look at any new photographers portfolio and you'll see that it contains photos of landscapes, portraits, flower pictures, still life, animals… the list goes on.

For example; 25 years ago I started out shooting black and white landscapes in Canada, before graduating up to exploring black and white 'artistic' still-life. View my portfolio today by comparison and you'll see that it takes a very long time to find out what any of us really want to photograph.

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Step 2. Focus Up

So after we've photographed everything that was foolish enough to get in front of our lens, we'll gradually begin to be drawn to one particular aspect that excites us. That could be portraits, landscapes, really anything at all. The point is that we will slowly begin to see more focus in our work.

For me, I was continually drawn to photographing people as I enjoyed the interaction and spontaneity of working with subjects. Plus, I nearly always preferred to take control of the light via studio lighting.

Back in the early 2000's, and as a camera for hire, I shot everything from corporate head-shots, portraits, hair competitions and campaigns and even the occasional wedding early on.
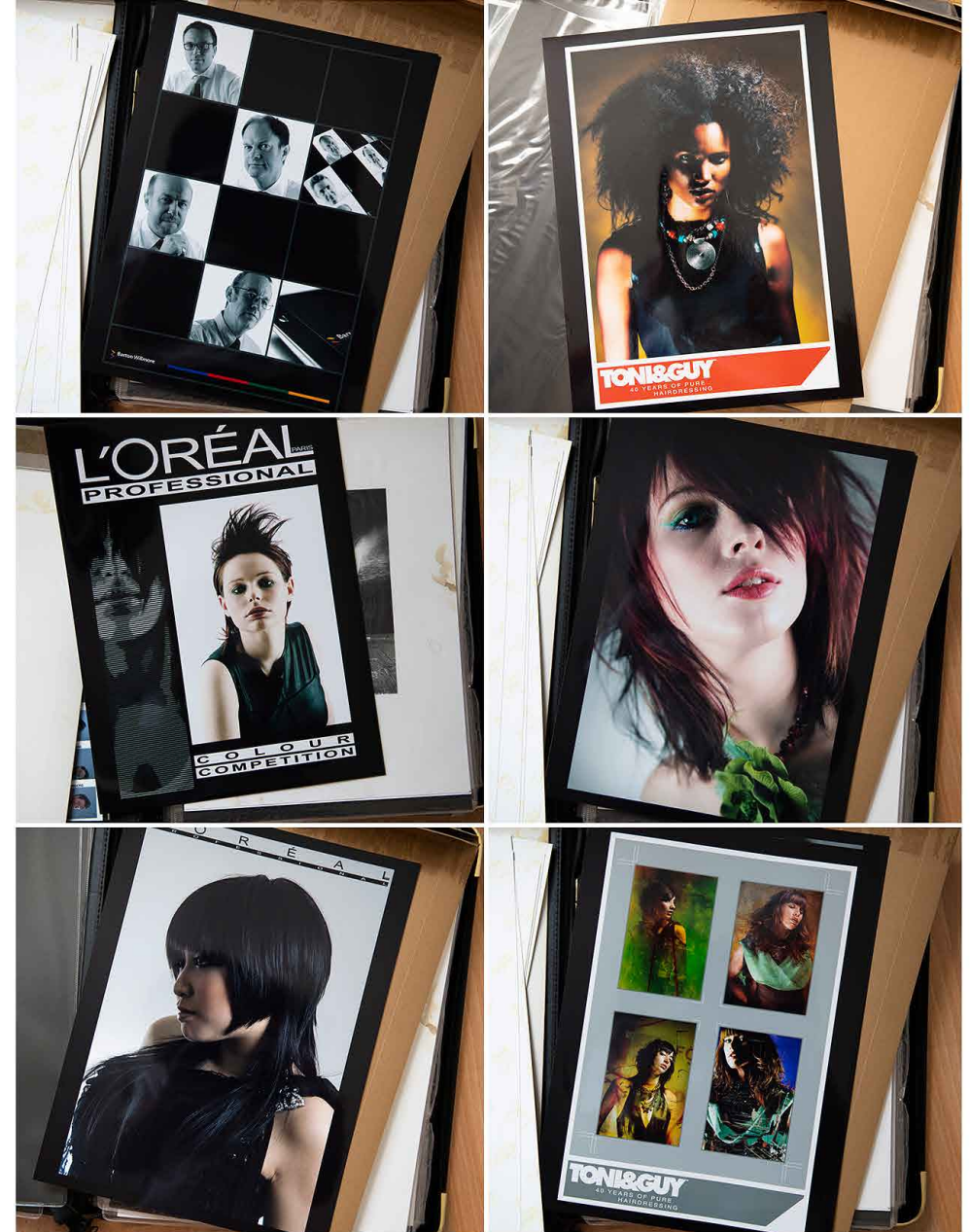
JHP Circa 2001-2003

I've spared you the wedding shots, but way back at the start of my career I pretty much exclusively shot studio based photos of people.

Step 3. Getting Inspired

After we've become fairly confident with our current craft, we very often begin to look at other artists work within our field for more inspiration.

We look at their work and we know that we like it. Perhaps we'll follow them on social media and occasionally we may see an image of theirs that we absolute love and wished we'd taken.

At this stage, we really don't know how they shot that image because as a self taught photographer, we don't yet have the skills to completely understand it, but we wish we could recreate it.

Images above are from photographers Bruno Dayan, Nick Knight and Nadav Kander.

As I mentioned above, I personally stepped back from photography for a couple of years to pursue some outdoor activities. But as I started to realise that mountaineering was likely to get me killed before too long, I started to get drawn back into the world of photography, and although I recalled photography being tricky to make money from, it had to be easier than trying to get paid to climb really big hills.

Back then, (and to this day), the work of photographers like Bruno Dayan, Nick Knight and Nadav Kander were truly inspiring to me. Their passion for creating breathtaking and visually arresting images is what ultimately made me want to start shooting again, regardless of whether I made a successful career out of it or not. I saw their images and I wanted to take photos like that. The colour and interest they were creating at the time was incredible and certainly a very far cry from the stagnant high-key fashion imagery that had reigned supreme for so long as part of the 90's heroine chic era..

-It's probably worth pointing out here that I personally did not want to 'copy' their work, but instead I wanted to take what I saw and loved about their work and inject it into my own.

Step 4. Evolving Inspiration

One great way to learn how an image was shot, is to simply copy it.

But stop for a moment and think 'why are you copying it?'

One reason may be because you simply want that shot in your portfolio. Another reason (and the more likely reason), is because you want to know **how** that image was shot.

If you look at a photo and you don't know how that image was created, you often jump in with both feet and try to recreate the basic elements. You might think, *'I could get a model to stand like that and I could use some coloured lights to light her'*.... and off you go to recreate/copy the image.

Now, I think you all know how that turns out. At this stage you have no idea what modifiers were used, you may not even be sure how many lights were used and that's not to mention that you have no clue on the post-production treatment and colouring used.

As a result, you will most likely be sorely disappointed by the results.

So instead, how about you focus on what you really love about the image and try and use those elements into your own work.

For example; I loved those colourful shots from Bruno Dayan, Nick Knight and Nadav Kander, but I didn't try to copy their images directly, so instead I took the elements of crazy colours that made no sense and brought that into my own work.

JHP Circa 2009

My first forays into crazy colours opened up a new world of ideas to me.

This inspirational process was a fundamental turning point for me and my work. No longer did I have to light something 'correctly'.

If I wanted to bathe a portrait in yellows and blues, then I could do.

If I wanted to wash a dining room in neon pink then I could do.

The inspiration I took from others was the kick I needed to be truly creative again and from here things snowballed as my veracious appetite to continually create something new took hold.

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Step 5. Understanding & Crafting

This is ultimately the final step in our creative journey. We now know what we want to shoot, we also know what we love, so now all we need to do is get good at shooting what we know and love. *Simple right?*

This is by far and away the hardest part of course. You're now a fully fledged creative and so now the burden of being truly creative sits upon your shoulders.
But how do you become truly creative?
How do you create what has not been created before?
What is it that truly defines you as an artist and do you really posses a unique vision and style?

Of course, many non-creatives will tell you 'it's all been done before', 'nothing is truly unique' and 'everybody is really just copying each another'. This is certainly one school of thought, but I honestly think you have far more to gain from believing you can create something unique over choosing to belive you can't.

You may know nothing about art, but I bet most of you know who the three artists are who created the work above. Being creative is rarely about being 'better', but more often it's about having the vision to create something unique.

How many generations of artists like Van Gogh, Picasso, Warhol, (insert any artist that is a household name) believed it had all been done before. It's always impossible to create something utterly unique... *until it isn't.*

So how do we get here? Well first and foremost you need to start believing you can create something unique….like, NOW! The sooner you believe you can do that then the easier it'll be.
Next up, we're going to need to look at what we love and then we're going to have to look at how we can incorporate that into our own images….*without strictly copying them.*

Look at some photos that you truly love, and think about what the individual elements are that is making you love that shot so much. From here we can begin to take those elements and use them in our own shots.

This is where we begin to truly create, not by copying, but by learning to understand what we love about other art and incorporating it into our own and with our own voice and vision.

Learning to understand what we love and why is one of the hardest things we as an artist can do, but to move forward and craft something new and unique we have to master it.

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Where being self-taught falls short

Unfortunately, having the ability to read an image is hard and this is often a stumbling point for many self-taught artists. Up until now, many of them will have simply copied others work and so understanding elements that they love is actually tricky.

When I say 'copy', I mean that they have watched YouTube videos, seen the modifiers used and the lighting angles and then copied that verbatim into their own work.

To be clear; there is nothing wrong with this style of learning. But it will only get you so far.

I was taught what light did, how it reacted and why, long before I ever switched on a strobe. This is not necessarily a better way of learning, but it did equip me with the ability to read and understand light, something that I see many newer, self-taught photographers struggling with.


All above images are copyright of Chris Nicholls

How do you think the images above were lit?

A little while ago I shared the above images of another photographers work on my Facebook Page and asked the community to explain the lighting that was used. The lighting itself was fairly simple, but even still, we saw a whole host of varied responses. I've included some of them on the following page. *Note: I've also blurred any names as there is simply no need to include them.*

If you didn't take part in this on my page originally, then I highly recommend you try and analyse the light in the above images yourself before turning the page.
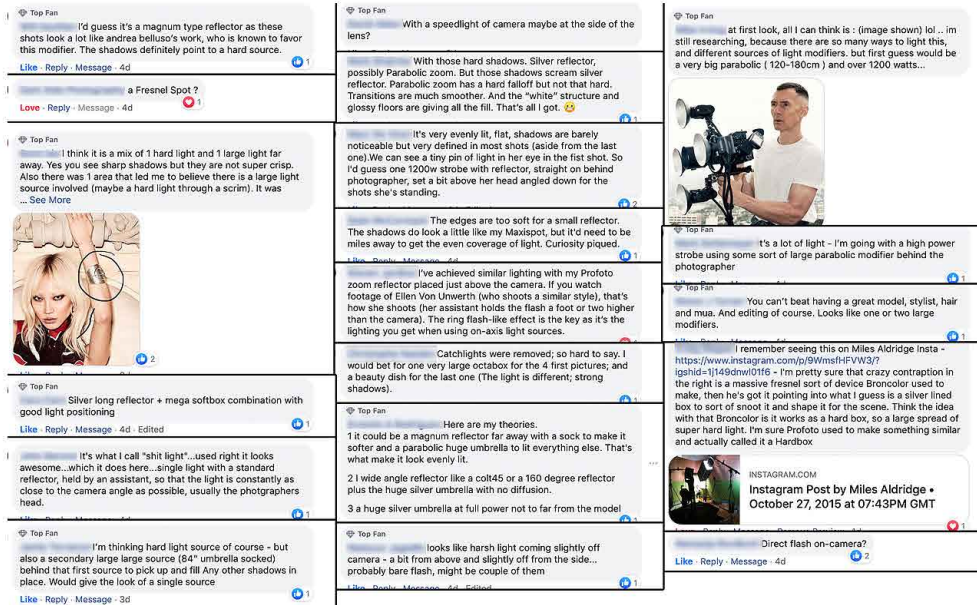
Like I mentioned, what each individual thought isn't relevant. Some people nailed it, others were a little ways off. But either way, I think this was an interesting exercise as it shows that even with very simplistic lighting like this, there are many, many ways to seemingly read it.

Also, please go check out more incredible work by the photographer Chris Nicholls

How do we get better at understanding light?

So how can we improve? Like I said, this is not designed as a snobby jibe at self-taught photographers, quite the opposite in fact. As I mentioned at the start, it's very rare to come across a photographer that isn't self-taught today so this exercise is squarely aimed at the vast majority of photographers.

My goal here is to formulate a criteria for us all to use so that we may better understand the things we love in other images by extracting how each image was crafted.

Light is thankfully constrained and controlled by the very understandable laws of physics. It travels in the same straight line and at the same speed it always has. It reacts and responds in exactly the same way it always has and this makes it very predictable and understandable.

It is my aim to clearly outline these characteristics so that we may better understand them when we see them in other images and I would urge you to look at lighting in the same way.

Elements that affect the light in our images like:

- Shadow density *(how dark the shadow is)*
- Highlight size *(this will be relative to the object it's on)*
- Shadow edge transition *(how a shadow transitions into mid-tone or highlight)*
- Highlight brightness *(how bright is the highlight relevant to the object it's on)*
- Angle of shadow *(where exactly is the light in relation to subject)*
- Distance from subject *(how far is the light from the subject)*
- Height in relation to subject *(how high is the light in relation to the subject)*

With these and likely more elements in mind, I believe any lighting is understandable and therefore open to us being able to implement a similar look within our own work and style. But don't forget, it's not simply about 'copying' a lighting setup, we also need to look at the things we like about that setup and understand why we like it. When I look at a gelled lighting that shot I love, I don't try to copy it, but I do try to understand why I love it and incorporate that same feeling into my own image.

OBJECTIVE AND SUBJECTIVE LIGHTING
How I Teach Portrait Lighting
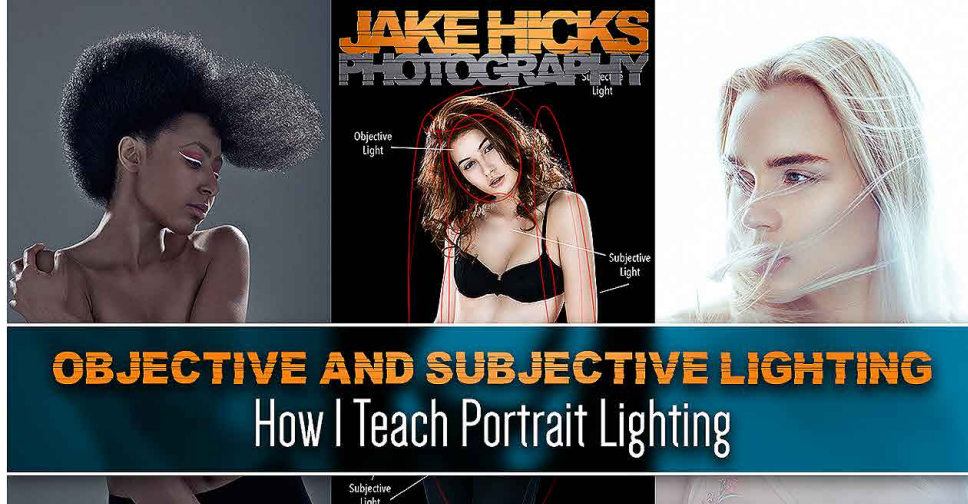
Like many things in life, there's no right or wrong way to learn photographic lighting... but I do believe there are easy ways and hard ways to not only understand it, but more importantly get better at it.

I think every creative discipline evolves, but photography sees more significant jumps in its evolution due to it being so uniquely tied to technology. Every frame we capture is taken with a camera and that camera technology is evolving on a daily basis. Every frame we then have to develop is primarily produced through software and that too evolves on a daily basis. The tools that we use to create our work are constantly changing, but I feel that the way we learn some of the techniques associated with these tools do not.

For example take the term *'lighting ratios'.* I'm just going to come out and say this, but what an utterly redundant term in modern image making. It's a term that only people who want to 'sound clever' use and I've NEVER once heard a professional working photographer use it since the turn of the century. Lighting ratios is simply a term that speaks to the relationship between more than one light, and in my opinion ratios only have value when teaching mindless robots, and here's why.

I firmly believe that we should always have a goal when we pick up our camera, and for argument sake let's keep it focused on portraits. When we take a portrait of somebody the goal is to be able to portray them in a certain way. Sure we may want to make them look more beautiful or menacing for example, but to keep it simple we'll say this is a professional portrait and the subject wants to look their best.

Most of the time, it's our responsibility to ensure their picture is correctly exposed, but that's like saying it's a chefs responsibility is to make sure something is edible. -It's a fundamental baseline, not a bonus.

Beyond it being correctly exposed though, it's up to us as to how we want to craft that shot.

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This is a 6 light setup shot, but there is still only one **'objective'** light, the light that lights the face. The other 5 lights here are all **'subjective'** lights because their power is dictated by what looks 'good' for the subject.

For example, if the subject had been wearing a black faux-fur coat, I would have increased the power of the edge lights, not because I'd be right or wrong but because I personally think it would look better.

Subjective Light

Objective Light

Subjective Light

Subjective Light

Objective Lighting

Like I said, as a bare minimum to take a portrait, we need to correctly exposure the subjects face. It's this light that I refer to as our **'Objective Light'** because it has one goal; to correctly expose the subject. Everything else in the shot is open to your interpretation.

In portrait lighting we would refer to this objective light as our key light or our master light that everything else revolves around. It's this key light that I would always setup first, and I would ensure I am 100% happy with the exposure of this light via a light meter or image review before I move on to setting up additional lights.

-As a general guide, if you're photographing one subject, there is really only ever one objective light.

Underexposed
- Incorrect -

Overexposed
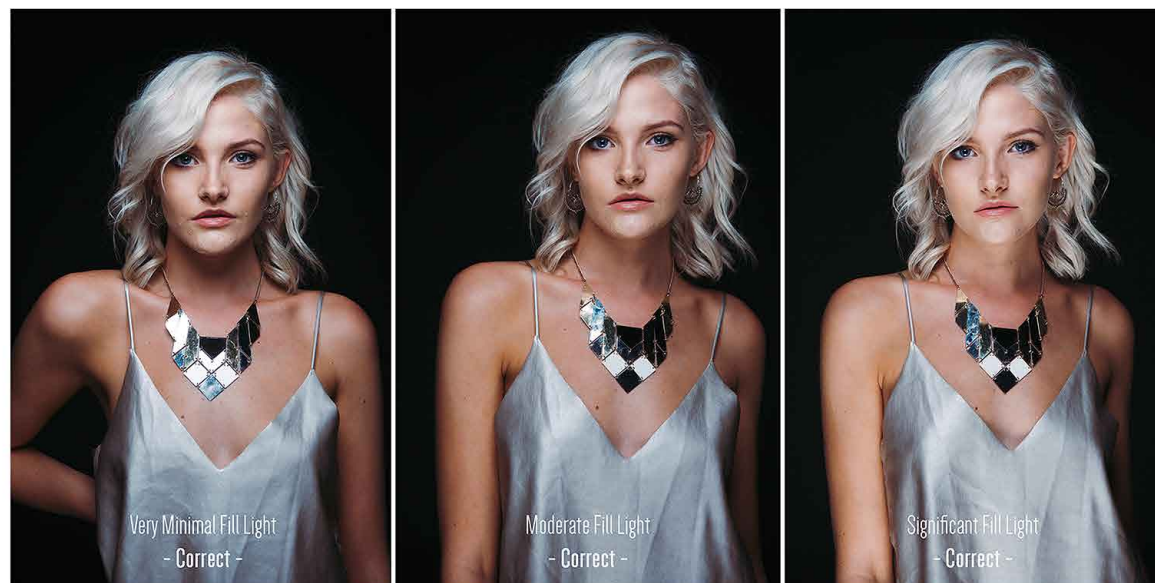- Incorrect -

Accurately Exposed
- Correct -

The above images show an example of 'objective lighting'. When you have an objective in mind like lighting a person in a portrait, there are right and wrong exposures. This objective light must be correctly exposed for you to fulfil your goal of lighting a portrait.

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Subjective Lighting

This is where the portrait can get a little more creative, because once we have our objective light set up, we can now consider adding additional lighting like fill lights and hair lights. It's these additional lights that I refer to as **'Subjective Lights'** because their goal is more open to interpretation based on your personal aesthetic.

For example; we may want to add a fill light beneath the subject to fill in some of the shadows under the chin. Maybe we want a lot of fill light to create a more beautifying appearance but maybe we only want a tiny amount instead. This is subjective lighting because that creative decision is up to you, there is no right or wrong answer here.

Another example might be a hair light placed behind the subject to add a little shine to the hair. Maybe we want that hair light to be quite bright to give us spectral highlights, maybe we want that hair light to be a lot more subtle, that lighting decision is up to you. These are all subjective lights.

Very Minimal Fill Light
– Correct –

Moderate Fill Light
– Correct –

Significant Fill Light
– Correct –

In the images above we can see an example of 'subjective lighting'. Here we can see varying powers of light being applied to the fill light below our model. It's important to point out that there is no incorrect value with subjective lighting as having a lot of fill light is just as acceptable as not much fill light. It's your creative decision on how much light you want in the shot, and therefore it's purely subjective.

Very Minimal Hair Light
– Correct –

Moderate Hair Light
– Correct –

Significant Hair Light
– Correct –
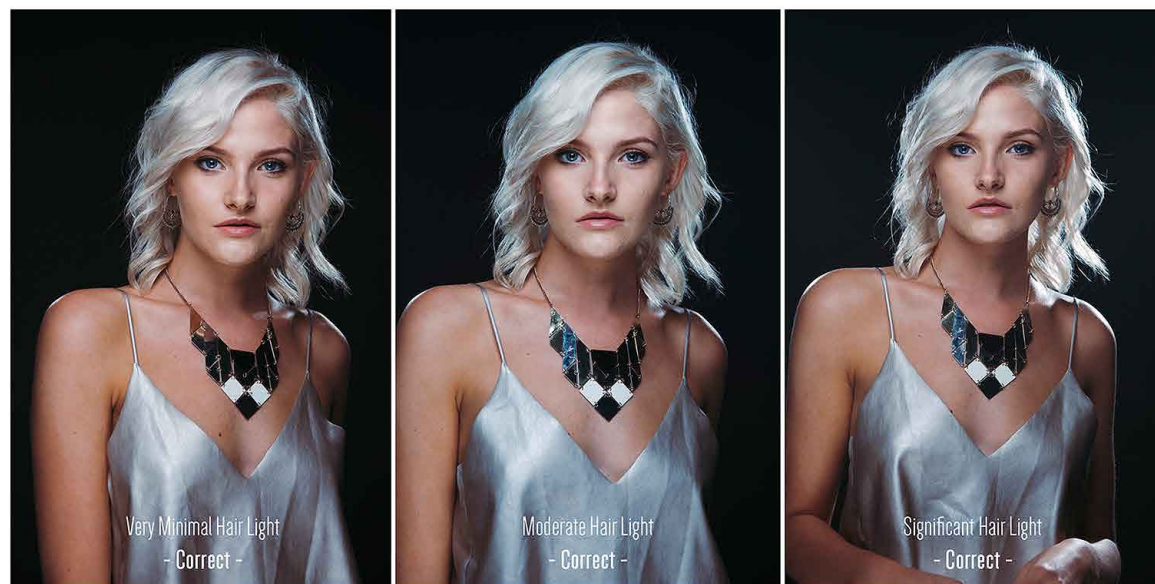
Here is another set of examples of 'subjective lighting'. In each of these shots we can see varying powers of light being used on our hair lights. None of them are either right or wrong as they are all viable options based on the look you're going for. This is subjective lighting.

Not all Ratios were created equal

After looking at the examples on the previous page, you might think that ratios would be a perfect way to explain the difference in exposure between a fill light and key light, or the variation in power from the key light to the hair light. And although you'd be technically correct, ratios overlook one fundamental point. The subject.

If our subject was a little older, maybe we'd want more power on the fill light to fill-in and soften some wrinkles. Maybe our subject had a very dark and dense afro hairstyle compared to a platinum blonde subject and as a result the afro hair would need a lot more light to give a similar effect to our blonde.

Simply setting up a 2:1 lighting ratio shot will not take any of this into account and so we fall into a trap of laziness where we are not reading the scene in front of us, but most importantly we're not making creative decisions on how we might improve that shot based on the subject.

Hair is always a good way of explaining subjective lighting as its variants in texture and colour can fundamentally change the power of lighting you use. Incredibly fine platinum blond hair will clearly require less light to accentuate it than thick black afro hair.

But ultimately that is your choice.

Objective and subjective lighting enables us to consider our goals a little more and to think about what we want to achieve. Yes the objective light has to be correctly exposed, but beyond that, we need to make creative decisions with the rest of the lights based on what we want to achieve, not on what we're told is a 'correctly' lit image.

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Closing Comments

I know this may have sounded like I'm bashing on the lighting ratios, but I felt it required a harsher tone to get across just how dated certain ways of learning photographic lighting actually are. Yes there are certainly valuable insights to be gleaned from understanding concepts like lighting ratios, but ultimately this is not teaching you how to read light, only how copy it, and this is a very dangerous way of learning anything.

Being able to look at a scene and understand what you 'want' to achieve and 'why' you want to achieve it is far more useful as you learn how to interpret light in your own way for your own vision.

As photographers we need to be able to adapt to the subjects in front of us and that means we can't be bogged down by what we 'should' do, but more by what we think will look best for each and every case. First understand what your 'objective' light is (usually your key light), once you have that correctly exposed it really is up to you as to how you light the rest of the shot.

During this process of adjusting the subjective lights, try to get into the habit of trying drastic adjustments in power. By doing this you may come across a look that you like and that you hadn't thought of. Never be afraid to experiment.

A little confidence in your own ability can go a long way and with digital images being practically free, never be afraid to test and play with exposures, no matter how wrong you think they might be.

–If it looks good, nobody cares what the lighting ratio is.

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READING THE LIGHT
How shooting with gels can improve your white-light photography

Whether you like coloured gel photography or not, there's certainly a huge amount that can be learned from using coloured lights and that knowledge can be applied to other areas of your photography to great effect, including white-light photography.

In my opinion, gels are one of the most unforgiving disciplines to master in lighting. They don't abide by the same rule book as white light, and they can often create puzzling results that leave you confused.

Most of our entire photographic journey revolves around shooting with white light, so to suddenly change that can be a big stumbling block for many.

For a start, gels have no *'correct'* exposure; they laugh in the very face of light meters as their resulting appearance is based purely on your preference rather than right and wrong. On top of that, things get exponentially weird when they gang up and you use multiple gels on top of one another.

Mixing two or more gels together can create an almighty ruckus of confusing colour combos that again, disregard the rule book on what we already know about colour mixing. For example if you mix red, blue, and green gels together, you get white light... *Wait what?!*

"Oh, So I gotta master white light photography before I play with gels?!".

Not true - gelled lighting is an addition to creative lighting sure, but you can also simply use gelled lighting to see what's **wrong** with your images.

So is jumping on the gelled lighting struggle-bus worth it?
Sure you get some pretty pictures, but it's not for everybody. What can you learn from gelled lighting that can be applied to your regular white lighting?

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Reading the Light

In this section I aim to briefly touch on *'reading the light'.* I don't have a better term for it, but what I'm getting at is that I see so many badly lit white-light portraits out there, and the photographer clearly can't see the error with the lighting.

When I say **'bad lighting'** I am not simply referring to my opinion of good and bad lighting, I'm referring to universally accepted sloppy lighting traits like:
-Crossed shadows
-Lit from below
-Dark eyes
-No catch-lights

Yes these rules can be broken for artistic merit, but not when you're taking classic head shots or corporate portraits - that is the time for clean flattering lighting, and not the aforementioned spaghetti junction of nose shadows and overexposed fill lights.

But if however, they'd lit these badly lit portraits with gels, the shocking reality of how funky their lighting is would be all too apparent to them.
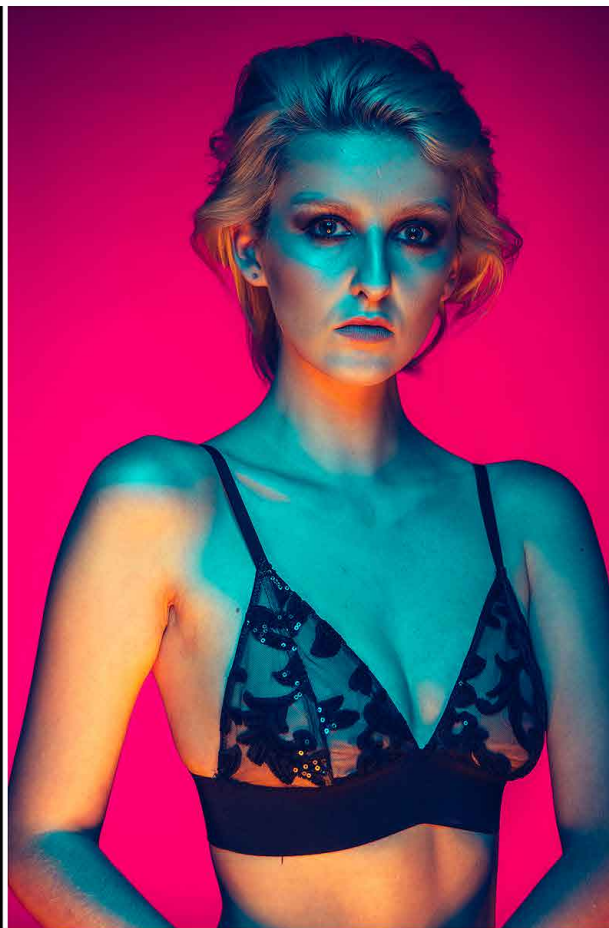
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Goldilocks Lighting

Here we have three raw files of simple head shots. I've seen all three styles being used commercially and although there is nothing technically 'wrong' with any of them, when they're put side-by-side like this, it should be pretty easy to see which one looks a lot worse than the others.

On the left we have a single key light, in the middle we have a key and fill light and on the right we have the same again but with too much power on the fill.

If somebody had taken this right hand shot at my studio, it's my opinion that they would need to be spoken to about some much needed re-training, as I feel this level of bad and unflattering lighting is unacceptable in any situation.

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A synergy of light and pose

Let's take a classic simple head-shot: one key light above and a fill light below. Both lights are white light so it's almost impossible to see where the lighting from the key light falls on the face and where the fill light falls. Add some gels in there and all of a sudden, the reality of where each of those lights is falling is all too apparent.

At this stage I'm not even referring to exposure and how powerful your key light should be, I'm simply talking about where the light is falling.
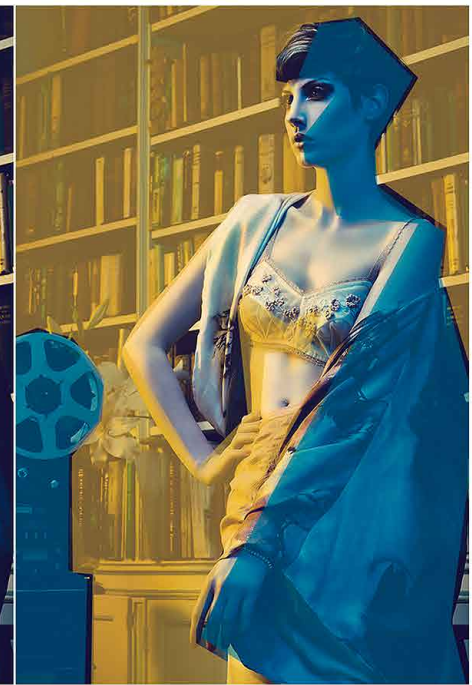
So what exactly are we looking for?
How do we know when the lighting is falling in the right place?

First and foremost, you need to remember that I'm referring to lighting people and portraits -

lighting is a synergy between light and pose.

The best lighting in the world will look crap if the model is looking the wrong way so you have to correctly manage both light and pose, but the one thing that all of this has in common, is you as a photographer being able to 'read the light'.

Now let's add some gels...

Let's take another look at that same poor lighting scenario, but this time we'll take a shot with a coloured gel on the key light and a coloured gel on the fill light.

It now becomes a **lot** more apparent as to where each of those two lights are falling on our subject's face. We can clearly see that our orange fill light is catching some unflattering sections of the face that weren't readily apparent before we added the gels.

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Planes of Light

If you've followed my work for a while, or attended any of my workshops, you'll no doubt know that I am constantly looking for *'planes of light'*.

When I say this, I am referring to having as large a section of colour and tone as possible whilst still having engaging lighting. What I am trying to avoid are lots of tiny broken sections of light and colour that are busy and visually confusing to the human eye, which in turn detracts from the overall image.

If you look at some of my work, even the most visually complicated lighting is still very 'clean'. I always try to keep my colours clearly separated and as you can see in the images on this page, all of the lighting in my shots is simply separated planes of light.

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Your Turn...

So we've established we're looking for large planes of light and not smaller broken sections of intersecting light and shadow, now let's put that knowledge into practice. On this page we'll review some of the raw files from one of my gelled lighting workshops and see what I am looking for when I am choosing my 'favourite' shots.

Remember: I said that I am looking for **large planes of colour** and I am really trying to **avoid small overlapping sections of light.**

Give it a go yourself. Below is a small group of images, can you choose the best shots in terms of clean lighting?

Exercise 1

Here we have a selection of raw files from one of my shoots.

I'd like you to go through them all and mentally select the shots that show the best synergy between lighting and pose.

-Answers will be on the following page.

How did you do?

This is a small selection of images, so it should be relatively easy for you to work out which ones are better than the others now that you know what you're looking for. Plus, this process is always far easier to do when we're comparing images side by side like this. For example, it's far harder to just analyse a single image on its own, but when compared to others, you'll always have a favourite.

But if you're still not sure, lets take a look below to see which ones I kept and which ones I discarded based on the lighting synergising with the pose.

Answers

Now that I've marked the images, you can see which ones I kept and which ones I didn't.

Did you get them all right?

To be fair, a lot of the selected ones I've already retouched and published, so you might have recognised some of them subconsciously anyway. If you didn't get them all right or you're still curious as to why I kept certain shots in and not others, let's now take a look below and see how I visually describe what I am looking for with those **'planes of light'**.


The Good

Here are my favourites and I've outlined on the images what I'm looking for with those **'planes of light'**. You can see how the lighting is clearly separated by my model in these shots. She's positioned herself in such a way to literally separate the key light and the fill light with parts of her body. This results in that synergy between pose and light.

The Bad

Here I've outlined what just wasn't working lighting-wise on the model's body. This isn't the model's fault; she can't see how the light is falling on her so it's going to be up to you to firstly know what you're looking for, then translate that to her.

You should now start to see what I mean when I say **'busy lighting'**. In these shots the key and the fill light are mixing in awkward ways on the body which in turn creates patches and pools of light that are visually distracting from the shots as a whole.

25
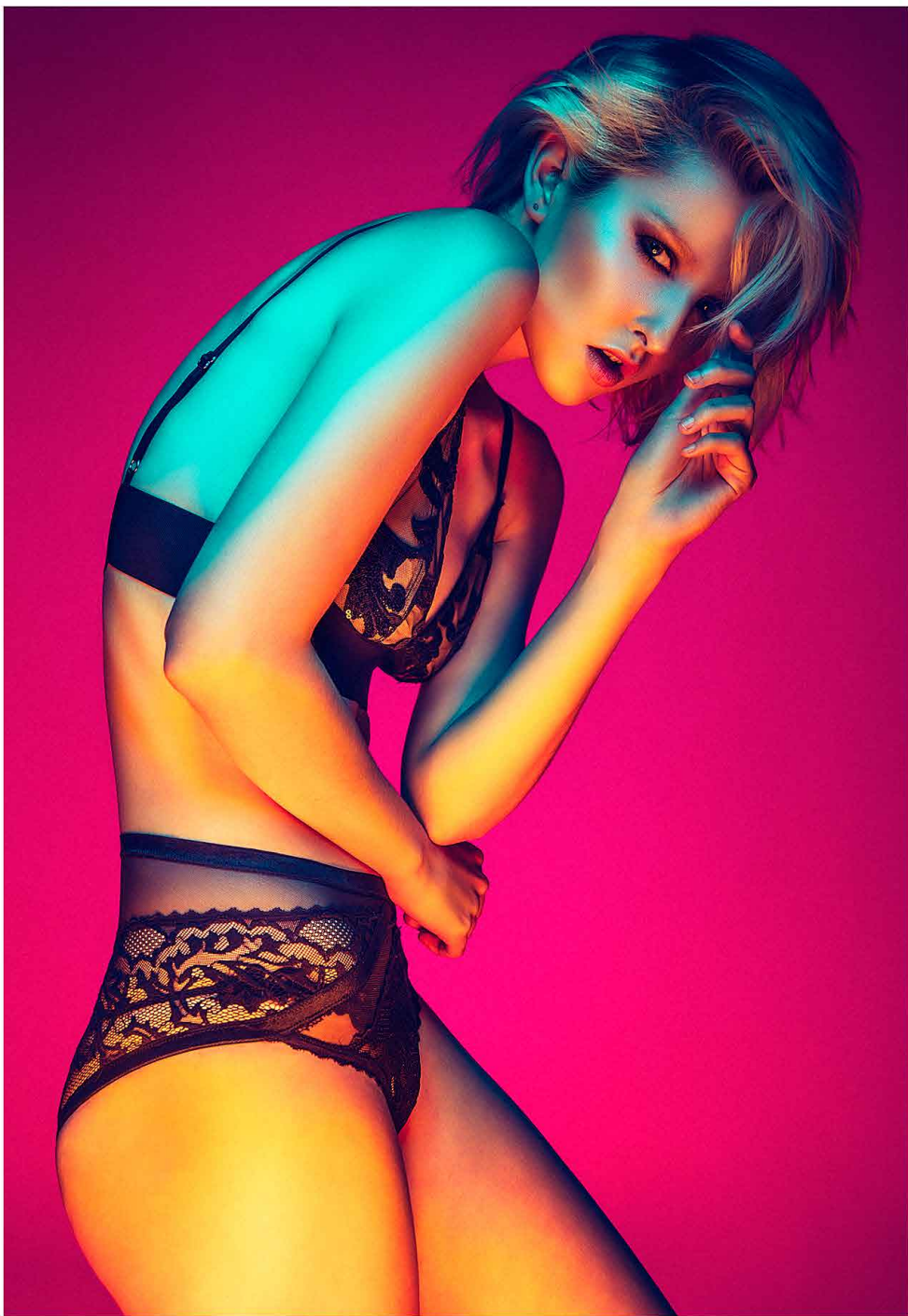
I hope you now have a better understanding of the term *'clean lighting'* and some of things to look for when you're trying to *'read the light'*. Granted this is only touching the surface of what great lighting looks like, but I feel it is an important lesson in learning to see the light, and gelled lighting helps make that more obvious to the eye.

Bad lighting is something that is made all too apparent when using gels.

Another important point here is that it's not just about the lighting. Remember we said it's a crucial synergy between lighting and pose. All of the shots in these examples are taken with the same setup, but it's just how the pose interacts with that light that can make or break a shot.

So how does this apply to your regular white lighting portraits? It's simply an exercise in seeing how the light falls on the model. Remember this crazy coloured lighting is still just a classic key and fill clamshell lighting setup, but it goes a long way to show you what that light is doing, even if you can't see it with regular white light. Like everybody else, I spent many years shooting with my favourite 'go-to' white lighting setups. It wasn't until years later that I applied gels to those setups and saw for the first time what the light was actually doing. If you hate gelled lighting, then fine, but do not underestimate the power it has to improve your skills as a photographer with regular lighting.

If you get even remotely good with gelled lighting and then decide to never touch it again, I guarantee your white lighting skills will go through the roof.

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FIVE CLASSIC
PORTRAIT LIGHTING MISTAKES

In this section I am going to highlight 5 key things that I see portrait photographers doing that I consider to be 'in need of improvement' and although there are no hard-and-fast rules to photography, try to think of it as being similar to an instrument being slightly out of tune or a meal that's perhaps a little too salty.

These are 5 glaringly obvious errors to the well informed, but they may not be so obvious to those who are just starting out.

Subjectivity

I'll also just say that photography is a subjective field, and just like any other art-form, there is going to be people who agree and disagree with what I class as *'mistakes'.* Conversely, history lecturers, will teach us that the Berlin wall fell in 1989, mathematicians will tell us that $2 + 2 = 4$. These are what we refer to as 'facts' but in our world of the arts, we aren't quite so strictly governed and it isn't quite as simple.

Commerciality

There will certainly be occasions to bend these 5 'rules' for artistic reasons, but if you want to attach commercial merit to what I'll be discussing here, it's worth pointing out that I was responsible for training all of the new portrait photographers in a large and very busy studio for many years.

When I started to enforce these 5 areas of improvement in the photographers I was training at that studio, they all saw significant increases in their clients average spend per shoot.

So although this section of 'rules' seems out of place in a world of art and subjectivity, these 5 guidelines are all visually aesthetic improvements to portraits that we are all hard-wired to appreciate.
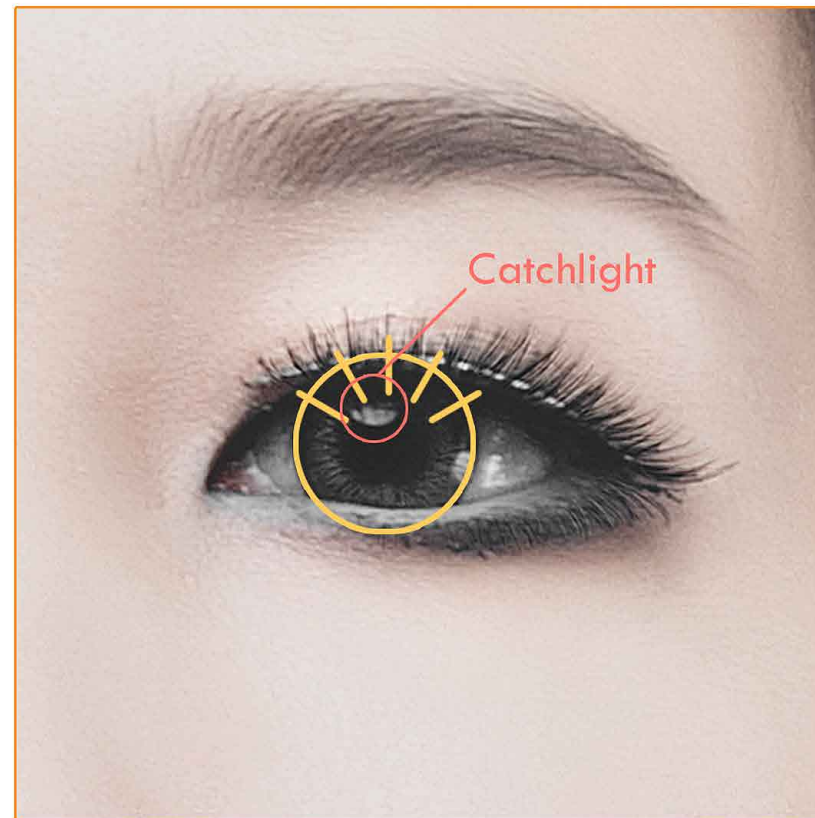
So whether your subject or client is a photographer or not, they will thank you for improving their images in these 5 simple ways.

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Catchlight

Catchlights should appear at 10 o'clock , 11, 12, 1 and 2.
If they appear any lower at 9 and 3 o'clock then we start to get un-
der-lighting which is another big lighting mistake.

1. Catchlights

The first one is nice and simple to avoid once you know what you're looking for and thankfully it's super easy to know when you've done it or not.

It is of course, catchlights in the subjects eyes. Catchlights are the spectral high-lights in eyes created by the direct reflection of the key-light. Having these high-lights present in the eyes means that you're giving the eyes shape and without them eyes can often look dead and lifeless.

To further cement my point, I've seen filmmakers simply digitally remove catchlights to signify the death of a character on screen. Catchlights are certainly a powerful subconscious signifier of life and vitality, so correctly positioning the key light just above the models head and slightly in front will ensure the face is lit properly and that the eyes are receiving light to give them that tell-tale sparkle.

Minimal Catchlights

The eyes in this shot look very dark and dead without any significant light entering them. As a result, little to no catchlight are present.

With Catchlights

In contrast, this shot has strong, visible catchlights in the eyes and the subject aesthetically looks a lot more approachable and less menacing.

Minimal Catchlights

There are many ways that the light can be placed to avoid catchlights, but usually it's too high or the subject is looking down.

With Catchlights

By lowering the height of the light so it's just above the camera, you can get a lot of light to enter the subjects eyes and thereby strong catchlights as a result.

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2. Under-lighting

Under-lighting is simply lighting that is coming from below the subject in relation to the camera. Think of those 1960 horror movies that needed to make monsters and creatures more scary. They'd simply light them from below.

The reason this under-lighting looks so bad is because we're used to seeing one another when we're lit from above. We go outside and the sun is lighting us from above, when we're indoors the lights are lighting us from above. In fact this is so present in our visual recognition of the world, that lighting faces from anywhere apart from above simply tells our brains that something is wrong.

So although it should be painfully obvious to many us that under-lighting is bad and very few of us would make the mistake of lighting our subject solely from below, I still see the same effect happening when photographers decide to introduce their fill lights.

The under-lighting effect happens when the fill-light is actually casting more light on the subjects face than the key-light. I see this done all the time and often by apparent professionals. In fact, not too long ago a corporate head of one of the worlds leading camera manufacturers released a head-shot with horrendous under-lighting, so it's not just beginners that fall foul to this one.

How to avoid it

Thankfully it's easy to fix. You just simply turn down your fill-light.
Yup that's it, simply turn the power down. In fact take some test shots at varying powers of fill-light if you're not sure and then choose the favoured image and corresponding power to be extra safe.
It's very easy to see which you prefer when images are side-by-side in this way so it's definitely worth doing.


Pro Tip:

*If you're photographing a series of people (like a group of corporate head shots for example), **pay attention** to each individual you photograph. If you're photographing a 6' 5" inch man and then a 5' 3" inch lady afterwards, adjust and move your key and fill lights accordingly. Failing to do so will mean that the young lady is going to be a lot closer to the fill-light than the key-light. And guess what?! You'll have created under-lighting by simply not changing a single thing.*
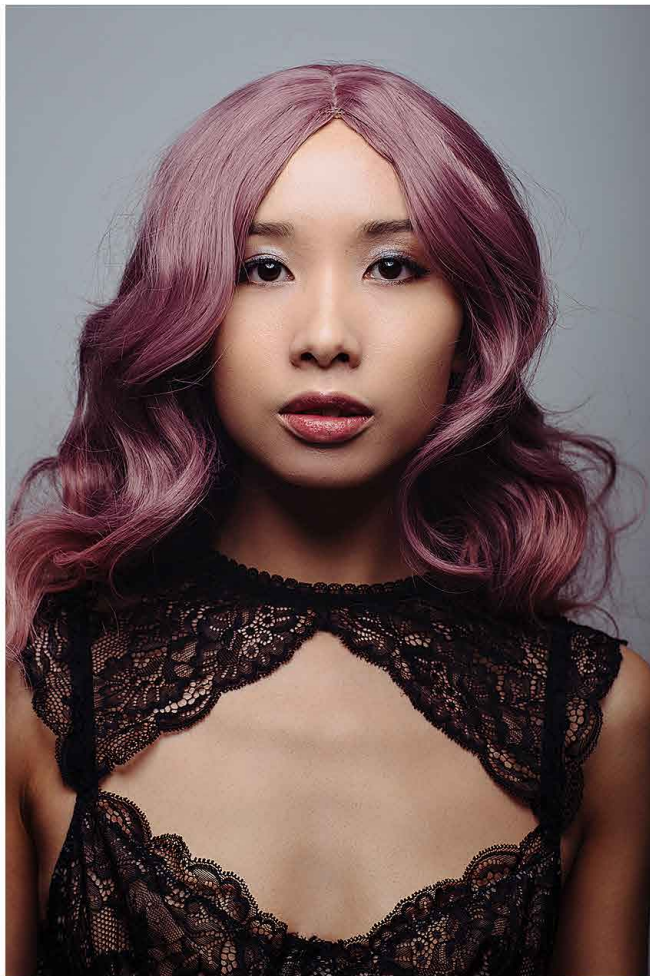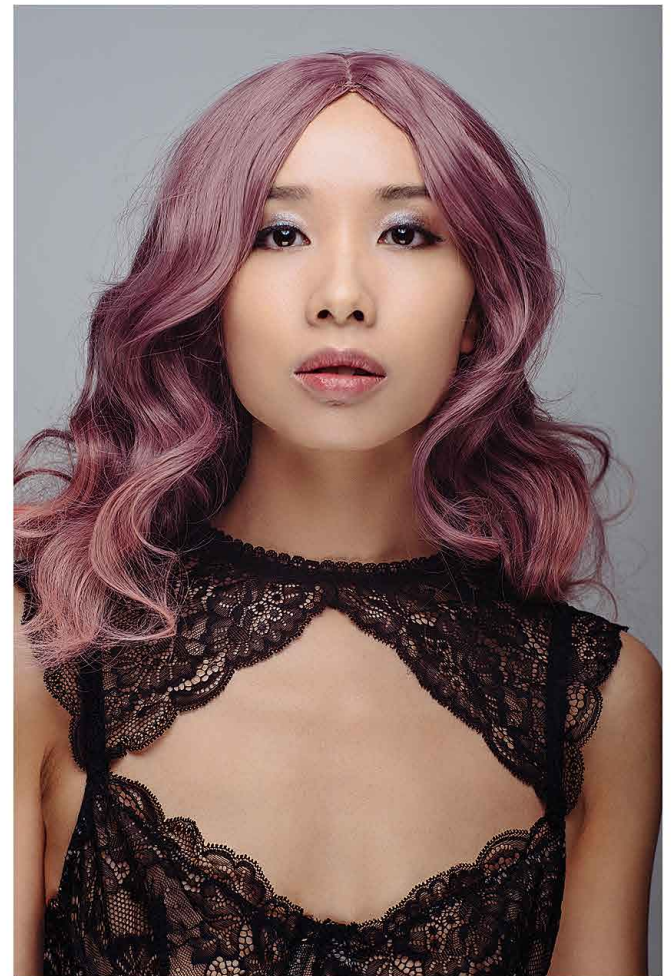
No Fill-Light

In this image we have no fill-light. It's not a bad thing and no fill-light is far better than too much fill-light.
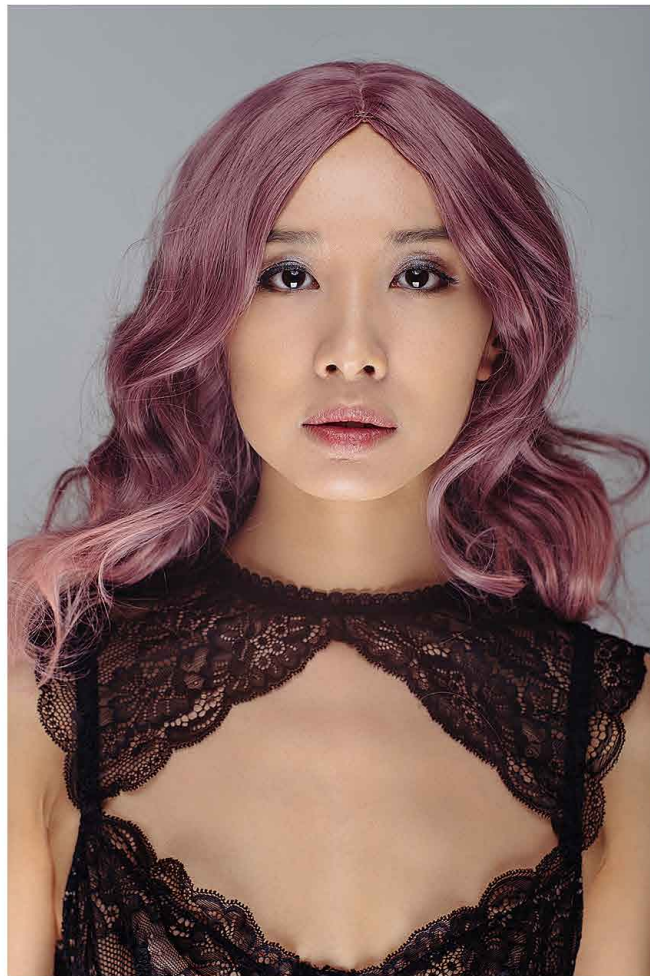
Too Much Fill

In this image, I've added a fill-light below the subject. When these images are side-by-side like this, it should be painfully obvious how bad this looks, but it's easily done if you're not careful.

Effective, Yet Subtle Fill

In this last image, I've turned the fill-light down a lot. In fact, had you not seen the original shot with no fill-light, you might not have realised I'd used an additional light at all. This is the look you're aiming for.
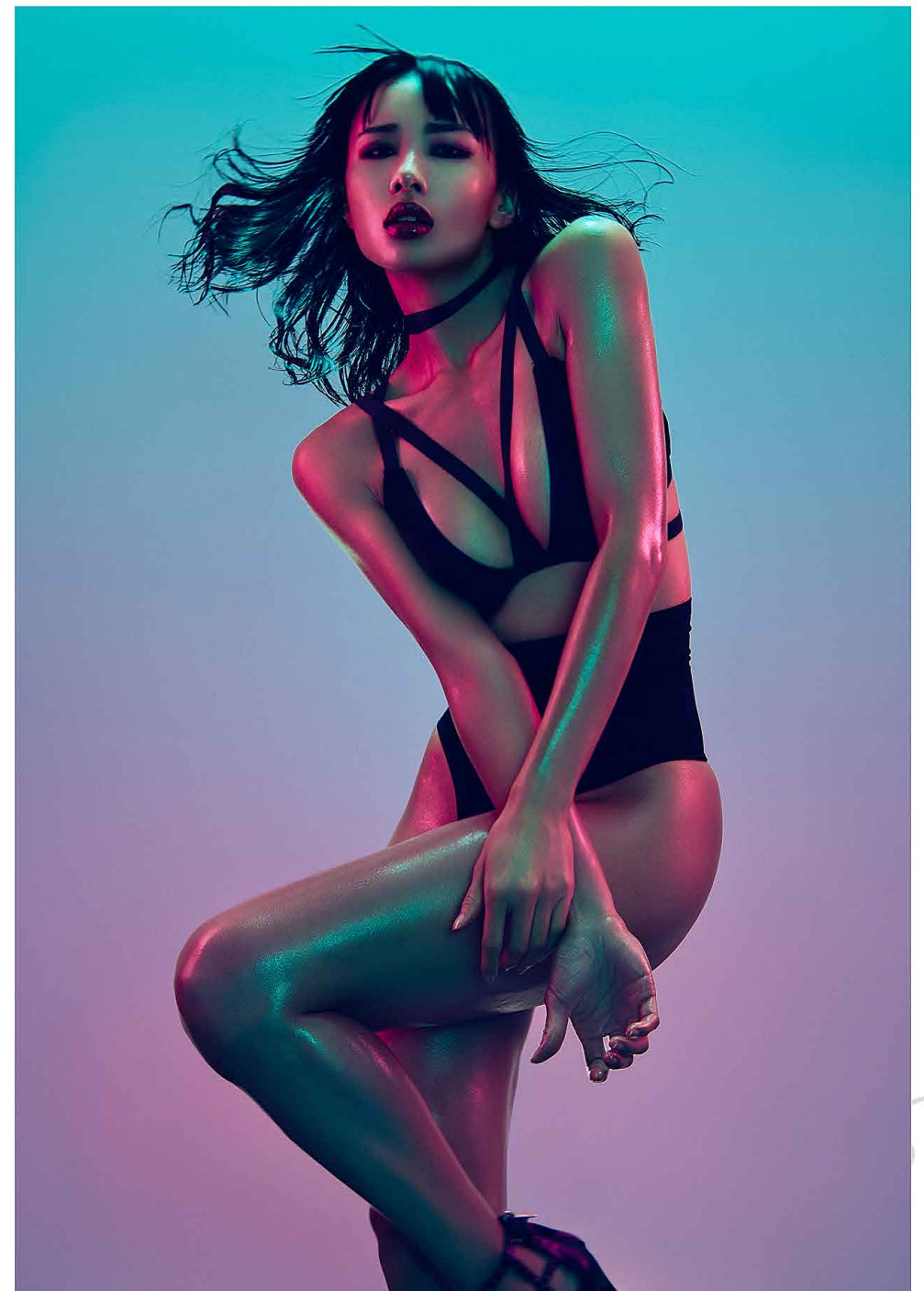
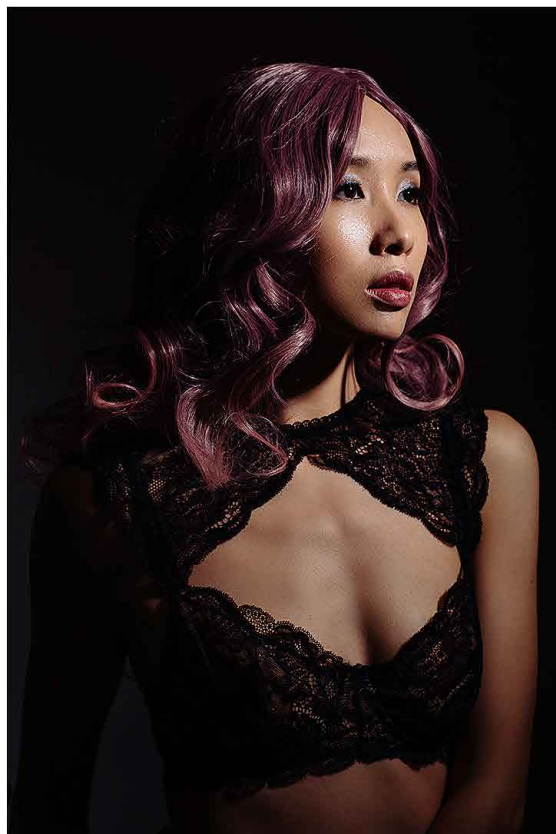### 3. Subject to Background Separation

This one could be argued as a little more based on preference, as I've seen it done well for effect in both instances, but as a rule, if you're starting out with lighting, try to ensure you have a strong visual separation between your subject and background.

This lighting technique is about showing shape and form with shadow, or the absence of light. If you're photographing a subject with only a single light for example and they're positioned too far away from the background, then that background will drop off into pure darkness just like the shadow side of your subject does. What happens now is that visually, the background and the shadow side of your subject is indiscernible from one another resulting in the viewers eye not being able to tell where the subject ends and the background begins.

More often than not, this leads to the subject appearing far larger in the shot than they might like. This is one of those lighting techniques where you're not necessarily doing anything wrong by not showing separation, but you could definitely be doing something better.

If you only have a single light then move your subject and setup closer to the background and allow your light to spill over onto the surroundings so that it now appears lit in the shot behind the model. This is a very simple technique and obvious once it's been pointed out, but incredibly effective at dramatically changing how a shot and your subject can look, especially if you only have a single light to work with.

No Model to Background Separation

There's nothing technically wrong with the lighting here, but you can see that it's almost impossible to tell where the model ends and where the background begins.
-*This is not very flattering.*

Clear Separation Between Model and Background

This image has a lot more going on visually and it's a lot more flattering for the subject. Here we can now see where the model ends and where the background begins to provide some context.

Single Light on Model

Here's the lighting setup for the far darker image above. The single light and model are a fair distance from the background and that results in a lack of detail in the scene due to no light falling behind them.
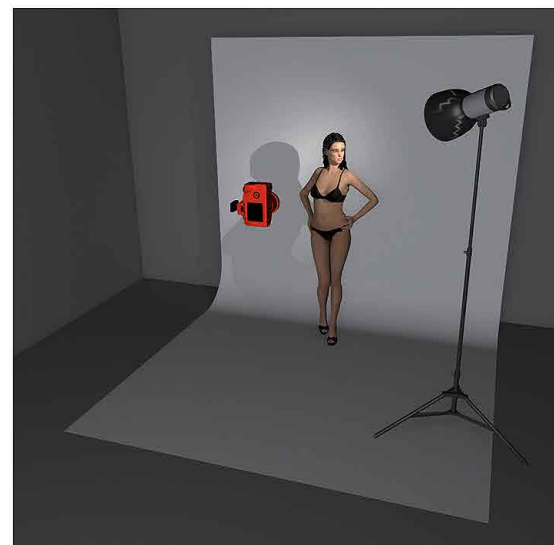
Single Light on Model and Background

With the exact same setup and lighting, you can create a completely different shot. Simply move the model and the lighting closer to the background and allow the light to spill into the scene which in turn provides context for the overall shot.

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4. Joined-up Shadows

Again, this is a mistake that is quite subtle and sometimes tricky to avoid, but it's always worth being aware of it. A basic rule of lighting for me is that you always want to create 'clean lighting'. Clean lighting is lighting that doesn't scream *"hey look at me, I'm using 6 lights in this setup"*, it's lighting that compliments the subject and nothing more.

> *Remember adding that fill-light earlier? It added a lot to the image without screaming that you're using an extra light. That's clean lighting.*

If you're looking for an example of the cleanest lighting around, it can often be found in the hands of car photographers. Good car photography is arguably one of the hardest disciplines in our filed to master. If they position a light in the wrong place when lighting a car, the ultra-shiny surface of the car will lose its clean lines and shape instantly.

Car photographers never use more lights than they have to, but each one is positioned with absolute precision. In fact I've even seen some car photographers place lights to solely generate hubcap catch-lights in the shot but not actually light the surface of the car in any way. They are a patient breed indeed!

For those of us that are photographing people, we often don't have the time or the need to be that precise, but it's still certainly worth knowing what looks good and why. One way to do this is to join-up your shadows.

Thankfully joining up the shadows is easier to do than you might think, you simply just have to watch out for it. In the example I'll share on the following page, I'm using one light to illustrate my point, but every light you add to a scene should undergo the same scrutiny. The one thing that we as portrait photographers have to contend with over car photographers though, is that our subject is often moving, but we can use it to our advantage if we're clever.

In the following example images, I am specifically looking at the shadow created by the nose. You should see that in one shot, the shadow ends and then some light cuts across the cheek before another shadow is created by the cheekbone itself. This is what I would refer to as *'messy lighting'* as it's creating more distracting elements to a shot than necessary.

I then asked the model to move her head to her right. Now we have no gap of light between the nose shadow and the cheekbone shadow. This now gives the impression of a single shadow area on the face and this is what I refer to as *'clean lighting'*

Alternatively, I could have asked her to move her head to the left and removed the nose shadow altogether. This again would be cleaner lighting than before.

It might not seem like much, but now imagine this happening with fill-lights, hair lights and background lights, the lighting would start to look very messy and untidy, very quickly.

Watch out for these additional shadows and where possible, adjust your lights to avoid them or better yet, get your subject to move and pose to avoid them as well.
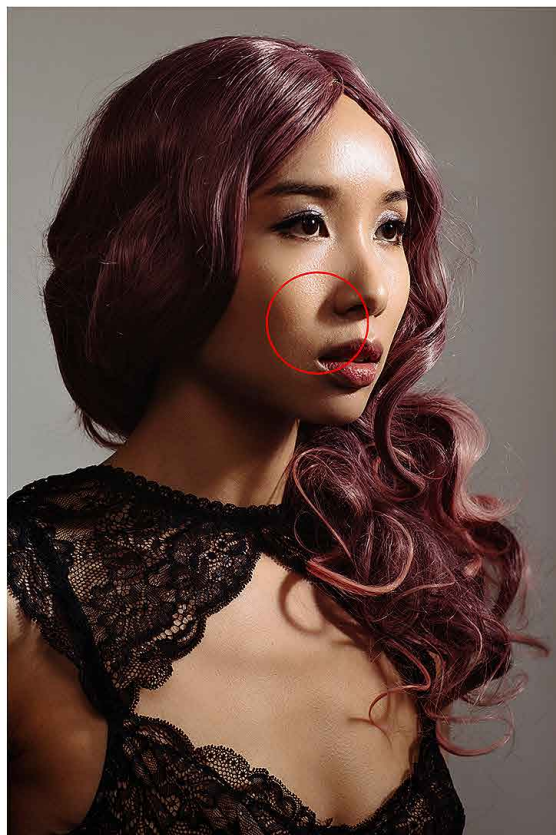
Messy Shadows

The idea of 'clean-lighting' takes a little more time to get good at because at first, it may not be apparent as to what you're looking for. As a general guide, joining up shadows on the subjects face is a good place to start. The image here has a nose shadow that doesn't join the cheek shadow, visually that can make the nose appear bigger than it actually is.

Joined-up Shadows

Sometimes it's not even about the lighting placement at all, but more about working with your subjects pose. Simply getting your subject to move their head a little can fix this and then you can join those shadows up and create a visually cleaner looking shot.

Be wary of Very Hard-Light Modifiers

This is a very simplistic setup to illustrate the point, but this problem is far more apparent when using very hard light sources like grids and snoots. It's less noticeable when using soft-light modifiers like softboxes.

Synergy Between Pose and Light

In this instance I've asked the model to turn further away from the light to join up the shadows, but I could just as easily of asked them to turn into the light to remove the offending shadow altogether.

5. Poor Hair-Light Placement

The placement of hair-lights is another example of how something looks fine, until you're shown how it could look better.

Firstly, you have to know why you're using hair-lights to begin with.
-Are you simply adding them to add a little shine to the hair?
-Are you trying to accentuate shape in the hair?
-Or are you just trying to create strong separation between your subject and background?

All of these are valid reasons and with a little care and attention your hair-light placement can achieve all of these. But for a lot of my portrait work (unless it's a specific hair shoot where I would have multiple hair-lights), my general aim is to simply show clear separation from model to background.
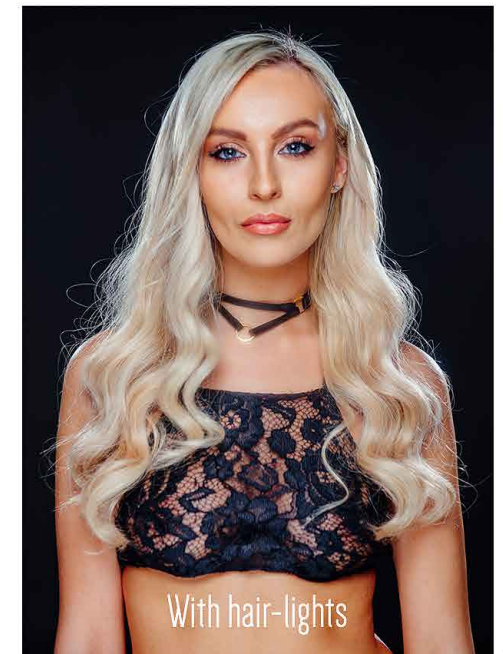Imagine you have a dark background and a subject with very dark hair, you'll quickly see that the two will begin to merge into one another, so placing some hair-lights can be a simple solution to avoid this.

Now that we know why we want to use the hair-lights, what's the best way of using them? First off, it's the placement of the lights. This is crucial as it won't be in the same place for every subject you photograph. As a guide though, the lights should be placed behind the subject pointing forward towards the edges of the subjects head. Next, they should be placed just far enough apart so that no light falls onto the front of the face and the tips of the nose and lips.

This may sound incredibly obvious, but keep an eye out for how many shots you see where the hair-lights are catching the front of the face and causing this incredibly confusing and distracting lighting on the subjects features. You have to ask yourself, *"Which shot looks better? The shot with or without multiple highlights falling on the subjects face?* "It should be plain to see when it's pointed out, but you'd be surprised how often you see professional portraits like this. The other key factor is the power of the hair lights and as a rule, I tend to stick to as little amount of light as I can get away with. Remember; flash photography is never about *"look at how many lights I'm using"* but it's about adding lights to compliment the subject and most of the time these additional lights in the setup will require less power than you think.
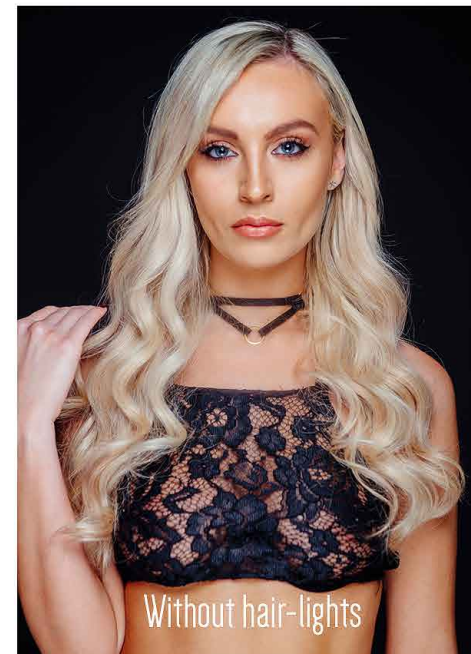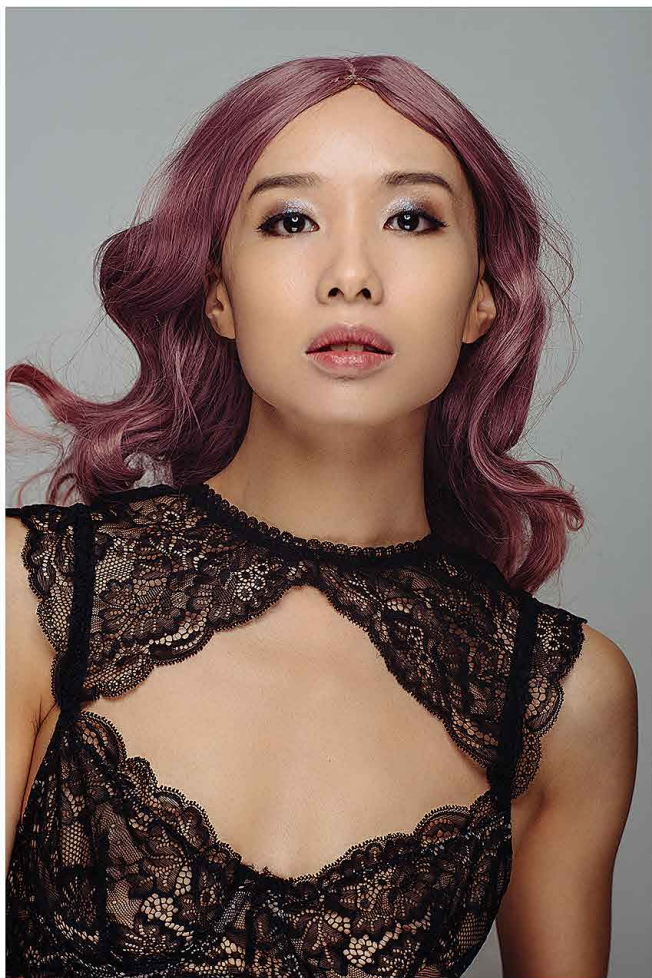

Without hair-lights   With hair-lights

Power and Placement are Crucial
Hair-lights can have a big impact to a portrait, but if you're not careful, overly bright hair-lights can start to dominate the shot. Their placement and power is crucial.
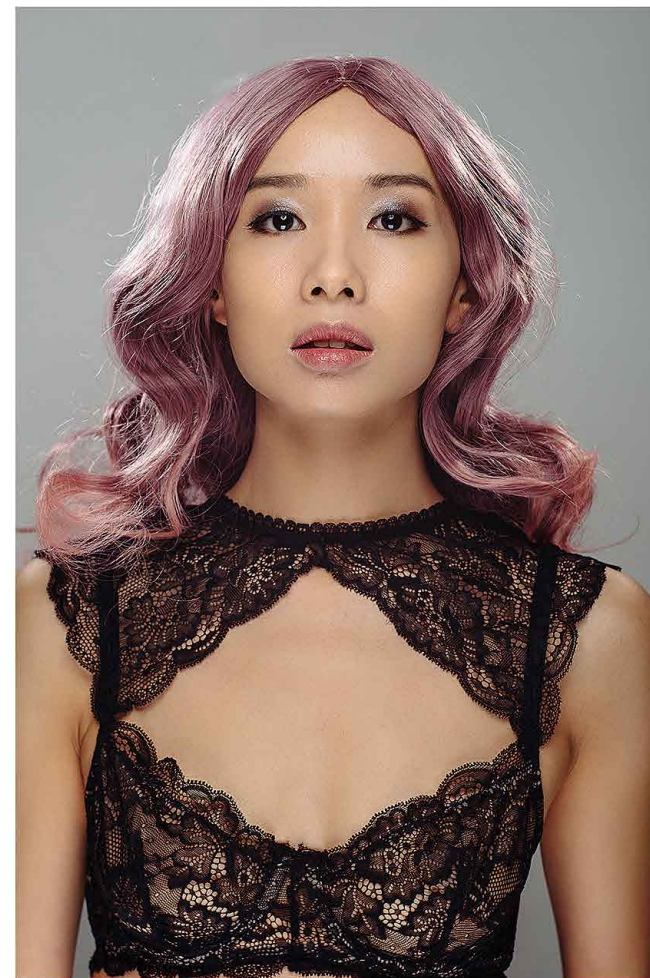
No Hair-Light

Here we have our classic key and fill-light setup. This is exactly the same as we mentioned in our 'under-lighting' section and we have a little fill to soften the shadows under the models jaw, but the hair is looking a little flat.
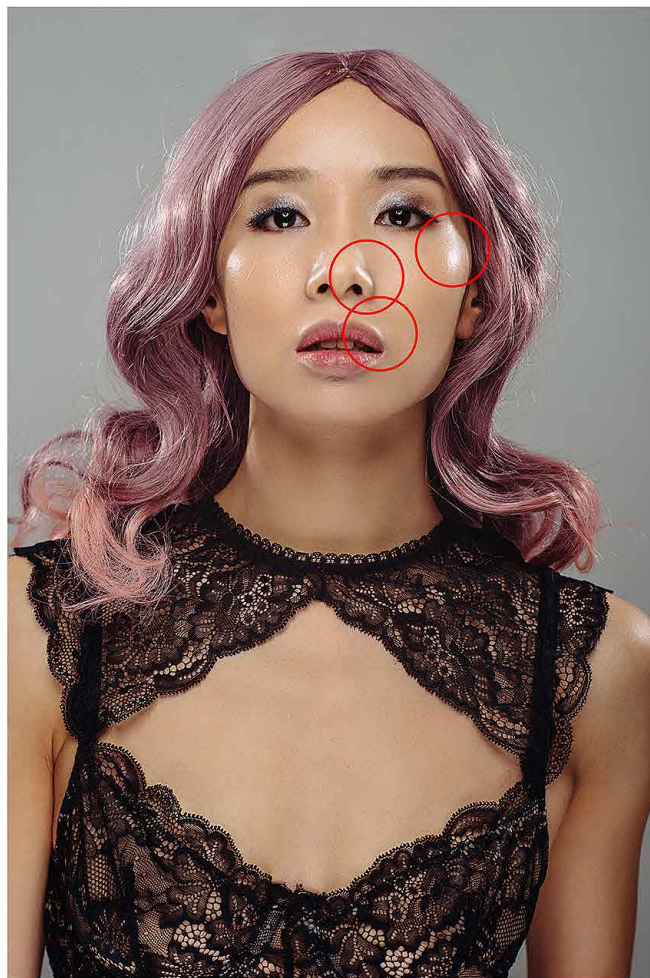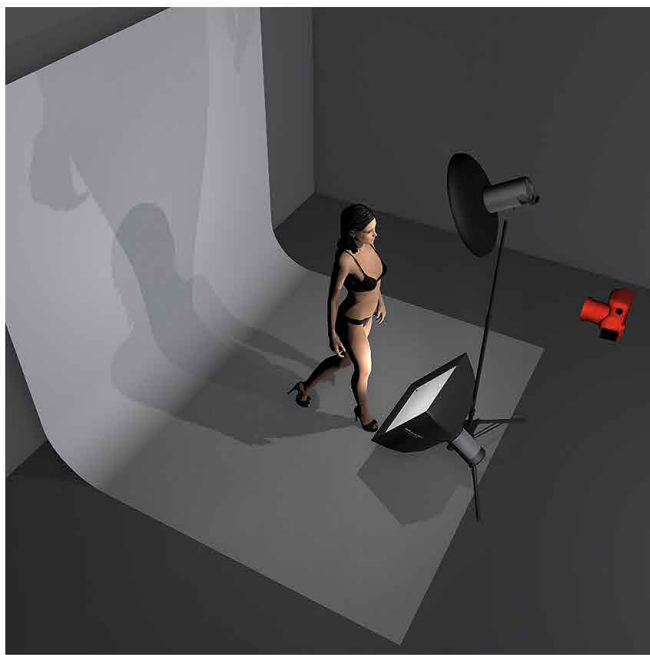
Distracting Hair-Lights

In this image I have now added my two hair-lights behind our model and they're pointing back to camera. At the moment we have an awful lot going on in this shot, yes we've lit the hair but we've also added a lot multiple highlights and visual distractions on the subjects face as well.

Controlled Hair-Lights

In this shot we've adjusted our hair-lights only. It should be pretty clear to see the difference here. We've now added a lot of shape and detail into the hair, but we've removed all of those unwanted and distracting highlights on our subjects face.
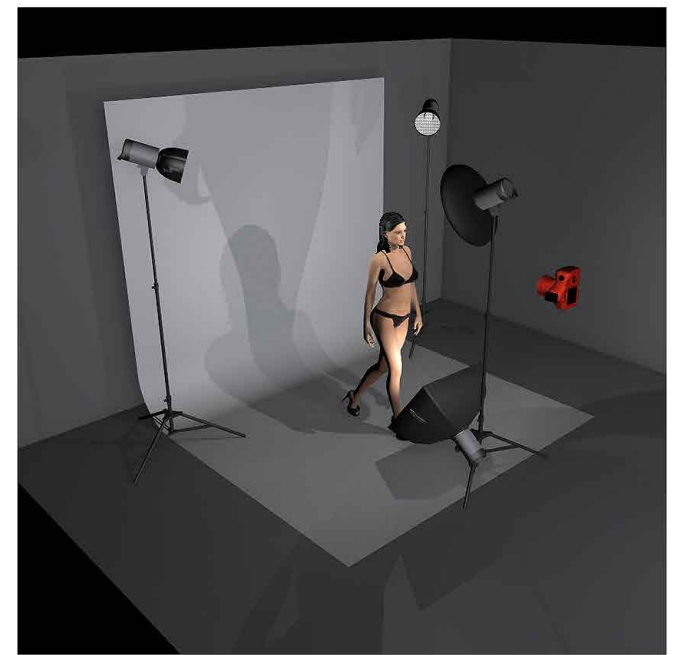
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No Hair-Light

This is the classically simple key and fill-light setup before we've added our hair-lights.

Distracting Hair-Lights

We want to add some detail and dimension into our subjects hair so we add a couple of hair-lights. Unfortunately, although we've lit the hair, we've also lit the side of our models face because we have our lights too far forward pointing in.

Controlled Hair-Lights

We can easily remove these distracting highlights on the models face by pulling our lights further behind our subject and pointing them back as seen here.

In Conclusion & Things to Remember

So there you have it, just a handful of the classic lighting mistakes that I personally think we can all avoid by being a little more careful with our light placement.

Like I mentioned at the start, these are subjective and there is always occasions to bend these 'rules' with lighting, but if you're starting out or just have this nagging feeling that your lighting needs improving, you may find that these 5 classic pointers will help.

I also attributed commercial value to these tips at the start of the chapter. I rarely do that because photography is predominantly an art form and art has very few rules. But seeing as these 5 rules were a significant part of the lighting-bible that I provided to new photographers who entered our busy studio, I felt I should mention it.

Everybody takes photographs for different reasons, but professional photographers rarely take photographs for other photographers and as such they need to keep the clients perception of 'great' photography in mind. Sure, if you want to impress your friends on Instagram then don't worry about the catchlights and nose shadows because you can write it off as 'artistic'.

However, if you're shooting for a client, you better make sure your lighting is locked down tight, because although your client may not be able to explain why the lack of catchlights in the models eyes looks lifeless, they wont be using your skills again.

Know your audience and shoot accordingly.

As a general guide, my lighting philosophy is;

Keep the lighting as visually engaging as possible, whilst simultaneously keeping it as clean as possible.

I achieve this by keeping the following questions in my mind whilst setting up,

'Does adding an additional light to this setup add an interesting element?' Or does that extra light highlight a distracting one?'

Keep these basic principles in mind when you're setting up each and every light and you'll be fine.
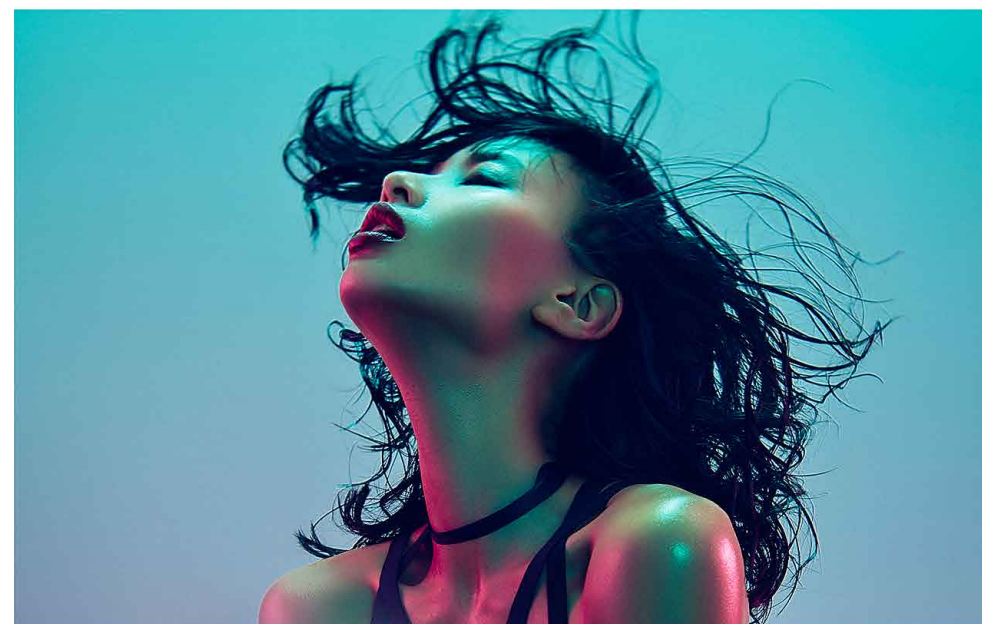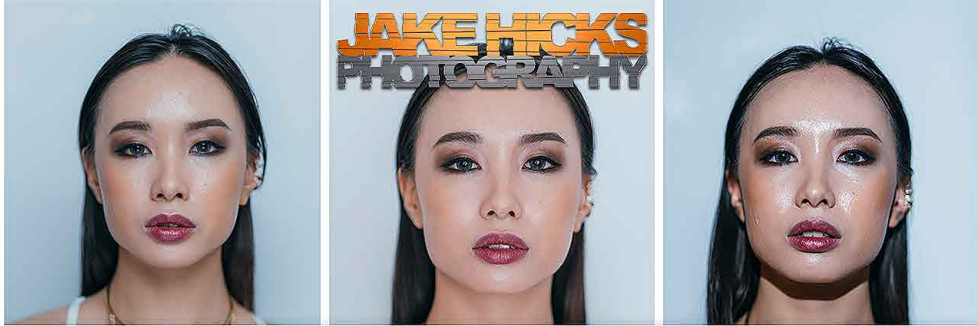
LIGHTING MODIFIERS
Learn How to Read Lighting Modifier Characteristics

There are a seemingly limitless amount of lighting modifiers available to us, but most of them fall into just a 3 categories.

Lighting modifiers, no matter how varied, all have defining qualities that determine the type of light they produce;

- Size of Modifier
- Colour of Modifier
- Surface Texture of Interior

Understanding Lighting Modifier Characteristics

Without looking, would you be able to describe the lighting characteristics of a small white umbrella compared to a white beauty dish?

This might sound ridiculous, but it's by having this knowledge that we can begin to build our own 'looks' and 'styles' with light.

Once you have enough experience, you'll be able to make informed and predetermined choices on how to light something over the somewhat frustrating trial-and-error process you may currently have.

"Will this umbrella cast shadows on the background behind the subject? Will the falloff of light from this ring-flash keep my background dark? Will this silver modifier give me a stronger colour saturation here or should I use a white modifier for this pastel gel?"

Imagine a chef preparing a complicated meal. They're not following a recipe, they are following their instinct and experience of what will work in a variety of situations. Lighting is the same, and not only do you need to know what something does, but you also need to know how it will react to the situation in front of you.

Take a look at the following shots and pay close attention to the shadows. Look at how dark they are, how they transition from light to dark, how harsh their edges are and so on. Now do the same with the highlights. Sometimes there wont even be any highlights, why is that and how can I control it?

Reflected Light Modifiers
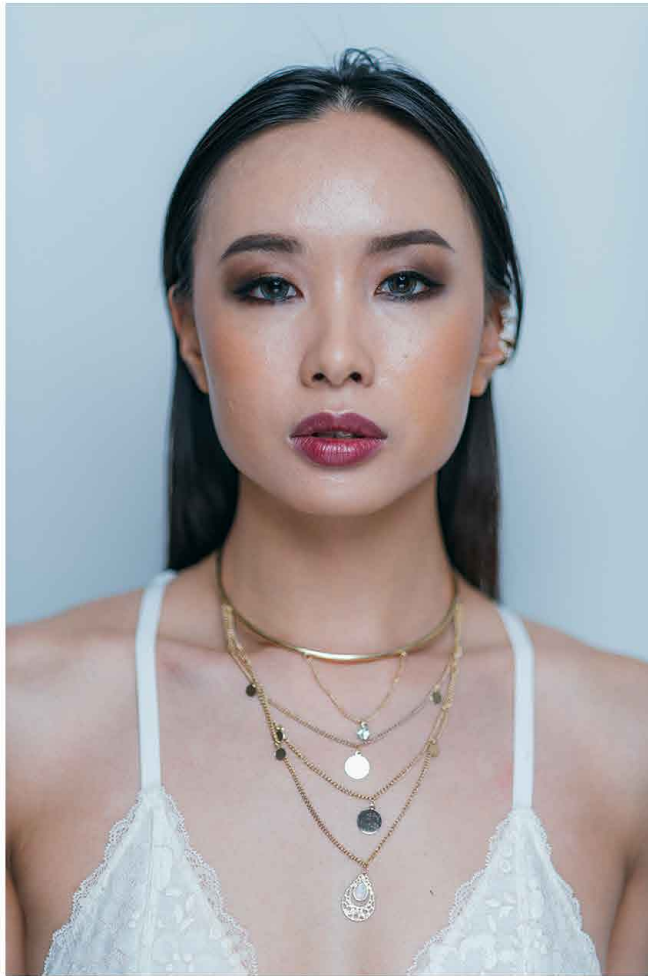
Small White Umbrella

A small white umbrella will create clean, more natural looking light due to its colour. It will also create some shadows due to its small size and the shadows will have soft edges of transition due to its diffused surface texture.
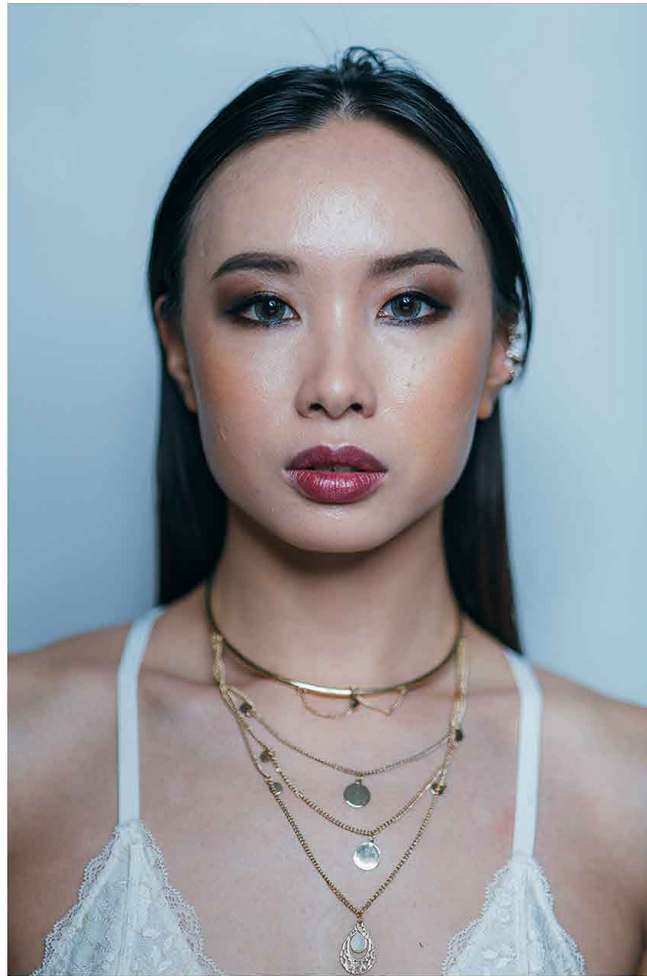
Small Silver Umbrella

Small silver umbrellas produce a slightly colder looking light due to its silver surface. The shadows it produces are strong due to its small size and also its silver, more reflective surface. This more reflective surface will also produce sharper shadow transitions.
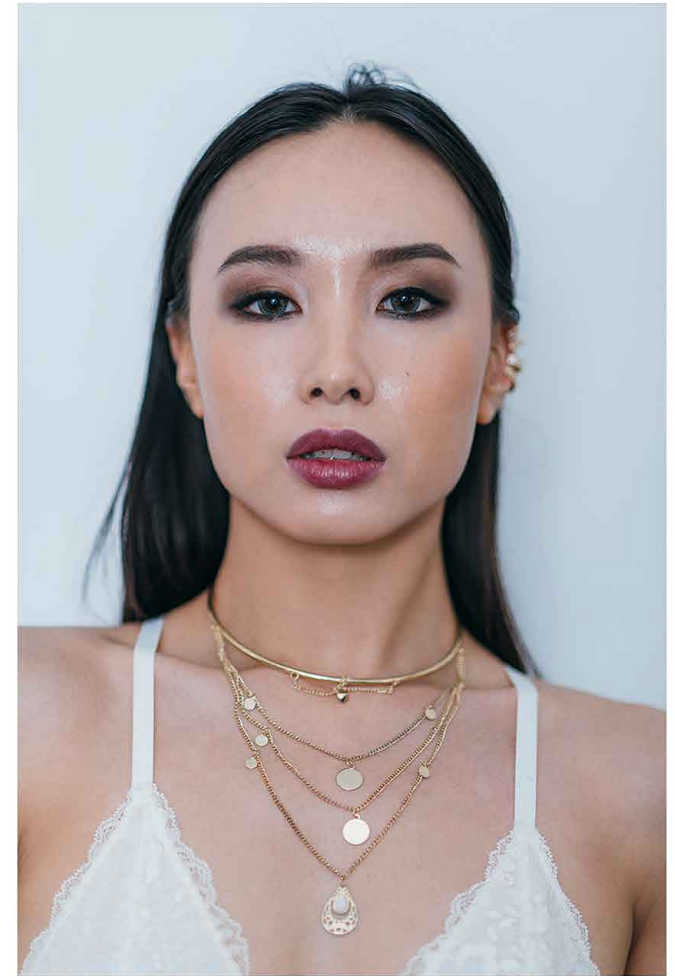
Large Silver Umbrella

Large silver umbrellas will display certain qualities from both the white and silver small umbrellas. The far larger surface will produce a softer light but its silver, shiny surface will create crisp, strong shadows that have a quick edge transition.

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Diffused Light Modifiers
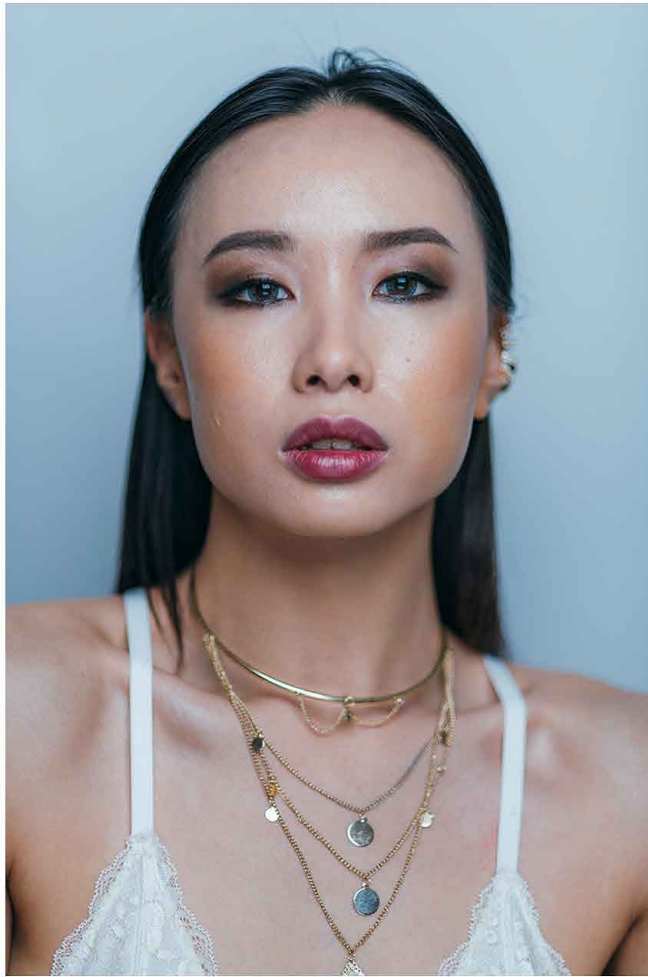
Small Softbox

A small softbox can create some shadows due to its smaller size. This smaller size allows for it to be close to the subject which in turn allows for a quick drop-off of light. Its heavy white diffusion cover also produces clean colours and very soft shadow edge transitions.
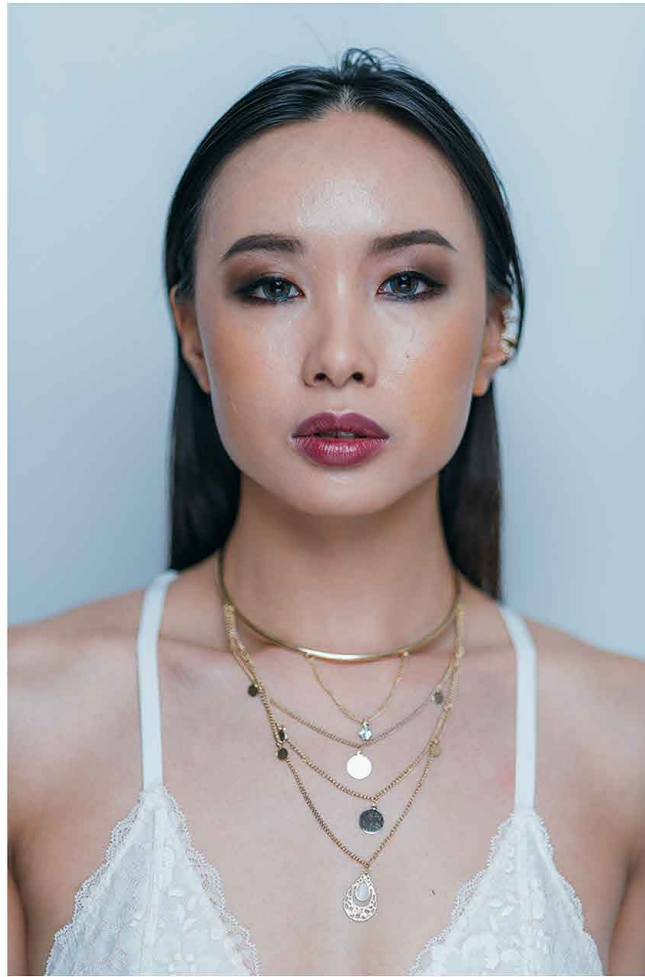
Diffused Beauty Dish

A beauty dish utilises its small size to get close to the subject and create a quicker drop-off of light. Its diffusion cap also softens the shadow edge transitions but its reflected light inside the modifier will create a cleaner and even looking light than a similar sized softbox.
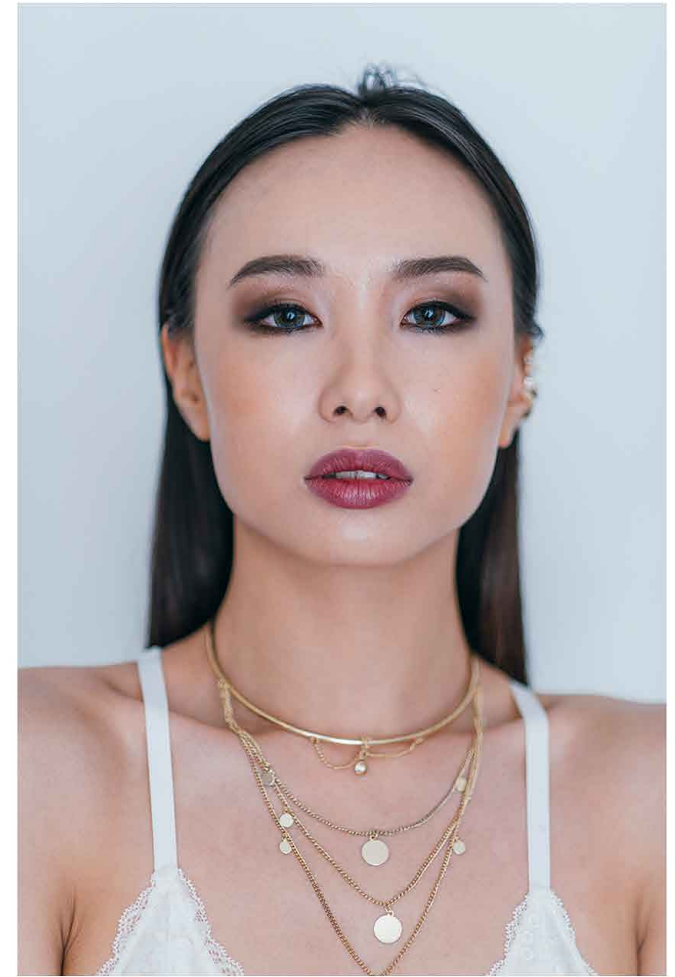
Bounced Light

By bouncing a light around a white room, the light loses its directionality as it appears to come from all around the subject. The resulting light is incredibly soft and produces almost no shadows. This is very flattering but also lacks an ability to create much depth and form.

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Hard Light Modifiers

Focused Light

This light is focused by a lens as it leaves the modifier. This light is the hardest form of light there is and because it 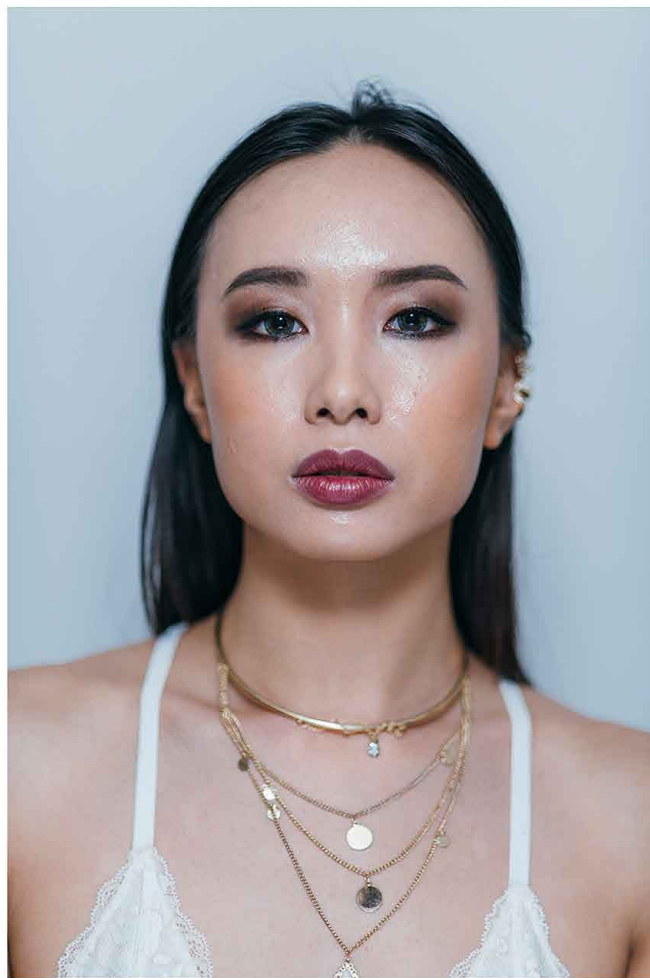comes from a focused point, it's very small and very directional resulting in extremely even light that has an almost immediate shadow edge transition.

Globe Light

Another less common modifier, but one that produces a unique look. It uses its small size to create strong shadows, it uses its diffused surface to soften the shadow edge transitions and its unique ability to also bounce light around the room allows the shadows to have light.
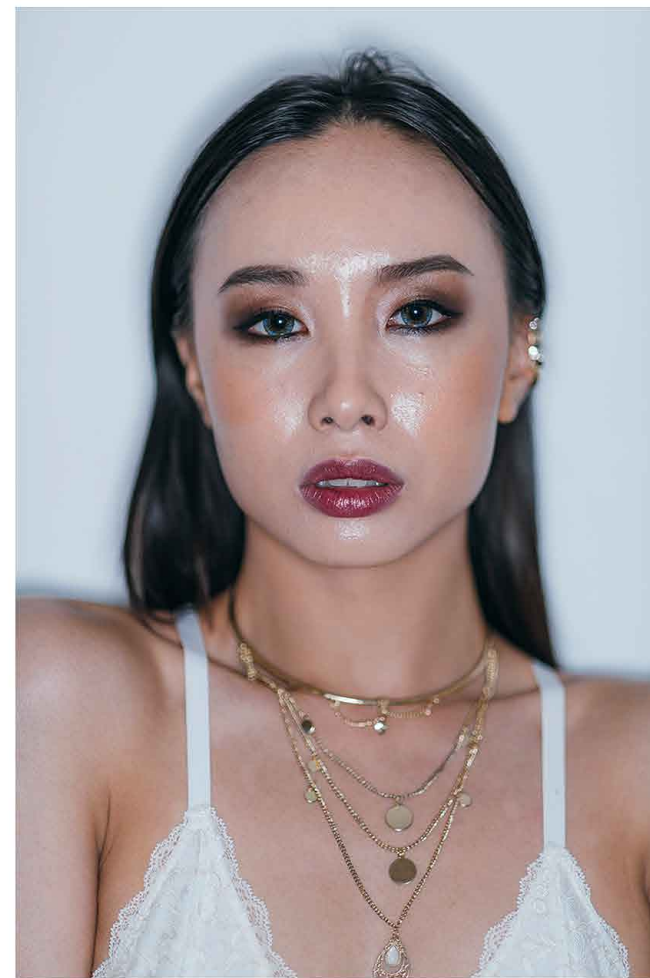
Ring Light

The ring light has a very distinctive look as it's the only light that appears to come directly from the lens itself. The ring light is often small so produces strong shadows, but because the light appears to come form the lens, the shadows are very small and lack directionality.

Thanks for Reading...

Thanks for diving into this new series of mine and I hope that you were able to extract some useful tips and strategies that you'll be able to employ into your workflow moving forward.

Keep your eyes open for Book 2 as in that edition I'll be going over some more practical tips with regards to shooting in the studio. I'll go over some 'must-have' items for your kit bag, discuss the best lens for portraits, how to contact and book professional models for your next shoot, plus I'll also provide you with an exercise that enables you to unlock your photographic style.

Don't miss Book 2 - Coming Soon.

Be among the first to hear about the release of Book 2 by signing up to my newsletter. Not only do I send you a months worth of my tips and techniques articles each month, but you'll also get exclusive deals and discounts on my latest workshops and products.

Head to *jakehicksphotography.com* and sign up via my **Newsletter** page.

GEL PACKS

This Pack Contains:
2 x 105 Orange
2 x 116 Teal
2 x 332 Pink
1 x 126 Purple
1 x 101 Yellow
1 x 120 Blue
1 x 139 Green
1 x 027 Red
1 x 135 Dark Orange

This Definitive Colour Pack contains one of ea... needed to get you shooting in any situation th... saturation in your images. This pack also con... most commonly used colours from Jake Hicks (...

The Definitive Colour Pack from Jake Hicks Photography... taking bright, bold portrait and fashion images that focus...

DEFINITIVE COLOUR PACK

JAKE HICKS PHOTOGRAPHY

INSPIRING PROFESSIONALS

This Pack Contains:
2 x 131 Mint Green
2 x 174 Powder Blue
2 x 344 Lilac
2 x 002 Rose Pink
1 x 157 Dusty Pink
1 x 108 Peach
1 x 088 Lime
1 x 100 Yellow

The Pastels Colour Pack of LEE Filters Ge... to the Definitive Colour Pack or as a stron... own right. The Pastels Pack offers a subtl...

The Pastels Colour Pack offers a subtler look over the... Definitive Colour Pack and Jake will often use these... ate the colours of fashion and environment already... colour look can be perfect for setting a tone or a mo...

PASTELS COLOUR PACK

JAKE HICKS PHOTOGRAPHY

This Pack Contains
2 x 210 Two Stop Neutral Density
2 x 209 One Stop Neutral Density
2 x 204 Full Colour Temperature Orange
2 x 201 Full Colour Temperature Blue
1 x 205 Half Colour Temperature Orange
1 x 202 Half Colour Temperature Blue
2 x 129 Heavy Frost - Strong Diffusion

This Utility Gel Pack contains everything you need to start taking more creative portraits and fashion shots. These gels can either be used on their own or combined with other gels for even more creative options.

The Utility Gel Pack from Jake Hicks Photography allows him to colour correct his flash and tungsten modelling bulbs to take long exposure images. Plus by using the neutral density gels it allows him to shoot at wide open apertures with more powerful flashes to open up a whole wealth of options with shallow depth of field photography.

UTILITY GEL PACK

JAKE HICKS PHOTOGRAPHY

INSPIRING PROFESSIONALS

Definitive Colour Pack
The Definitive Colour Pack contains all of the core colours needed to get you shooting in any situation that requires maximum saturation in your images. Each pack contains 12 gels including duplicates of the core gels that I use to achieve symmetrical lighting like the pinks, blues and oranges. Try combining the vivid orange & rich teal gels for a vibrant complimentary coloured look.

Pastels Colour Pack
The Pastels Colour Pack contains the subtler tones needed to achieve a softer coloured look. This pack is a perfect addition to the Definitive Colour Pack or as a strong set of colours in its own right. These gels have been chosen to work on their own as well as together to create strong visual synergy in line with colour theory. Try the 'Powder Blue', 'Rose Pink' and 'Peach gels for a Triadic colour look.

Utility Gel Pack
The Utility Gel Pack contains 'Neutral Density Gels' to reduce the power of your strobes and thereby enabling wider aperture shots with flash photography. 'Diffusion Gels' are also included to reduce the harshness of hard-light modifiers plus a variety of colour correction gels including 'Colour Temperature Blue' and 'Colour Temperature Orange' gels.

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jakehicksphotography.com/tutorial
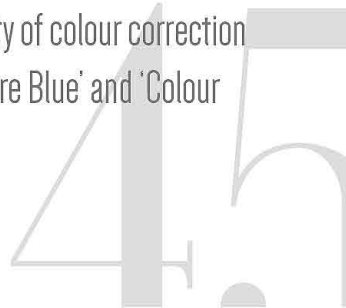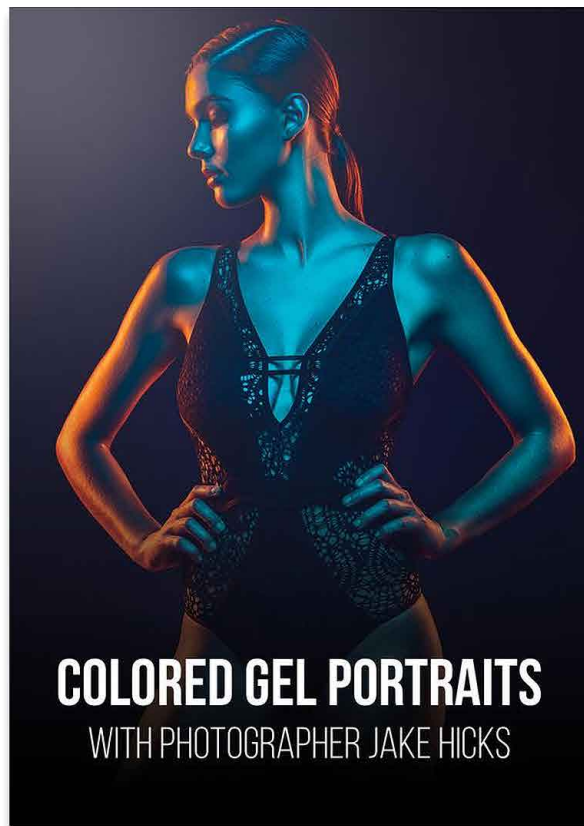
COLORED GEL PORTRAITS
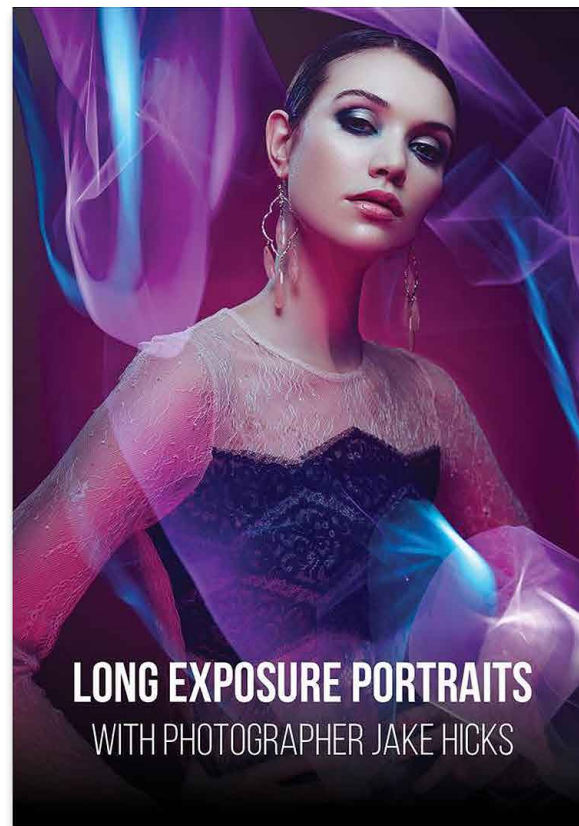WITH PHOTOGRAPHER JAKE HICKS

Coloured Gel Portraits

Colour gels are a great way to unlock the mysteries of white light. When you master lighting with colour gels you are actually mastering white light photography. This tutorial shows how to introduce colour gels to existing setups.

This colour gel tutorial covers everything from fundamental concepts to the most advanced lighting setups. You will learn how to rely more on technique and less on post-production.

What's included...

- 84 Videos - Over 20 hours
- Photoshoot Included
- Retouching Included
- Business Strategies
- Raw Files Included
- English Subtitles
- HD Quality

LONG EXPOSURE PORTRAITS
WITH PHOTOGRAPHER JAKE HICKS

Long Exposure Portraits

Combining ambient light with studio strobes, Jake introduces four unique methods of creating long exposure photography portraits while capturing unbelievable practical effects in-camera. This tutorial was designed to teach you not just the technical aspects of long exposure photography but how to be truly creative in the studio and experiment in ways that will set your portrait work apart from the rest.

What's included...

- 59 Videos
- Over 6 hours
- Photoshoot Included
- Retouching Included
- Raw Files Included
- English Subtitles
- HD Quality

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WORKSHOPS
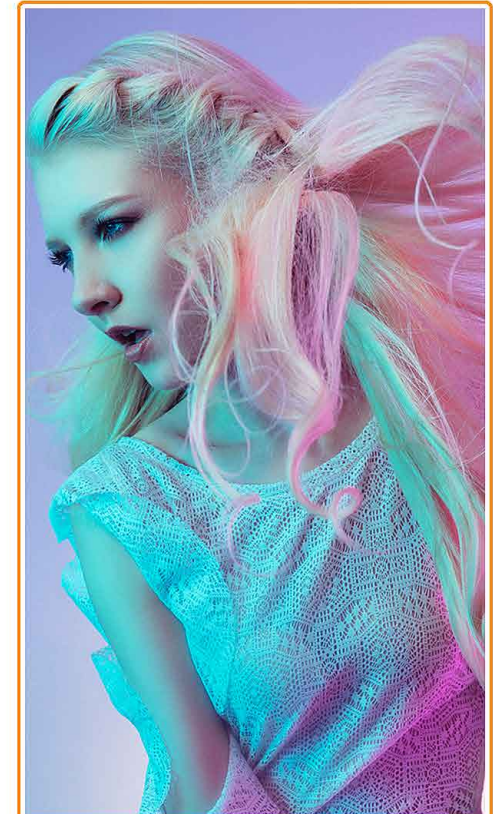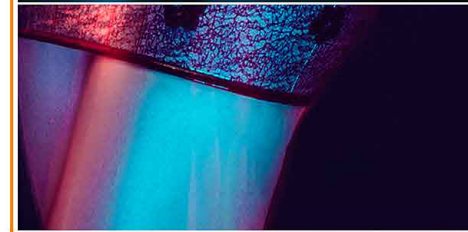

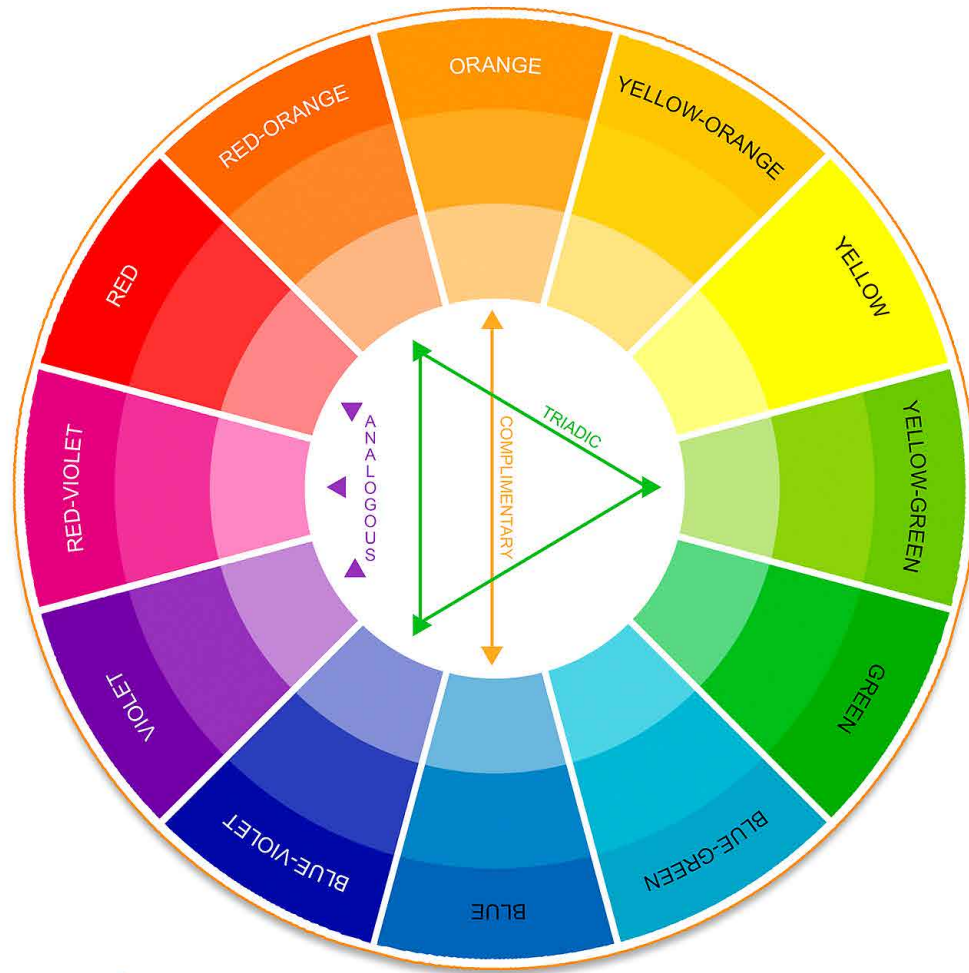**GELLED LIGHTING WORKSHOP**
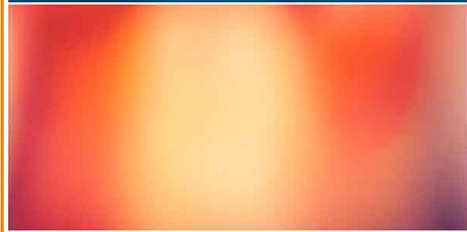
POST PRO WORKFLOW WORKSHOP

COLOUR AND EXPOSURE WORKSHOP

CREATIVELY SIMPLE LIGHTING WORKSHOP

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Complimentary Colours

These are the two colours that are opposite one another on the colour wheel. Popular colour combos to try are green and red, yellow and purple and my personal favourite, orange and blue.

Triadic Colours

This colour combination requires three colours that appear at the three corners of a triangle laid out on the colour wheel. The most obvious and most popular triadic colour combo is the three primary colours, red, blue and yellow. Other colour combos to try are green, orange and purple or one of my favourite variations blue/green, red/violet and orange/yellow.

Analogous Colours

Analogous colours requires three colours to achieve but it's relatively easy to do because the colours are side-by-side on the colour wheel. Here I'm using violet, blue/violet and blue, but you can use any three similar colours, for example sunset photos that use the reds, oranges and yellows.

The Humble Colour Wheel

The colour wheel has been around since Isaac Newton laid out colours in a natural progression around a disc in 1706 and its the universal standard for displaying colours which we now refer to as a colour wheel. A statement like that is usually followed by saying 'look at how far we've developed it since then', but that simply isn't true. In fact it literally hasn't changed at all, colour is a representation of lights wavelengths perceived by our eyes, it's physics and as such hasn't changed and nor is it likely to. Although colour and its relationship to one another hasn't changed over the years we still find it tricky to remember all of the combinations that work well together. The reasons for why certain colour combinations work is beyond the scope of this mini article but the purpose is to highlight the importance of a colour theorists best friend, the humble colour wheel.

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