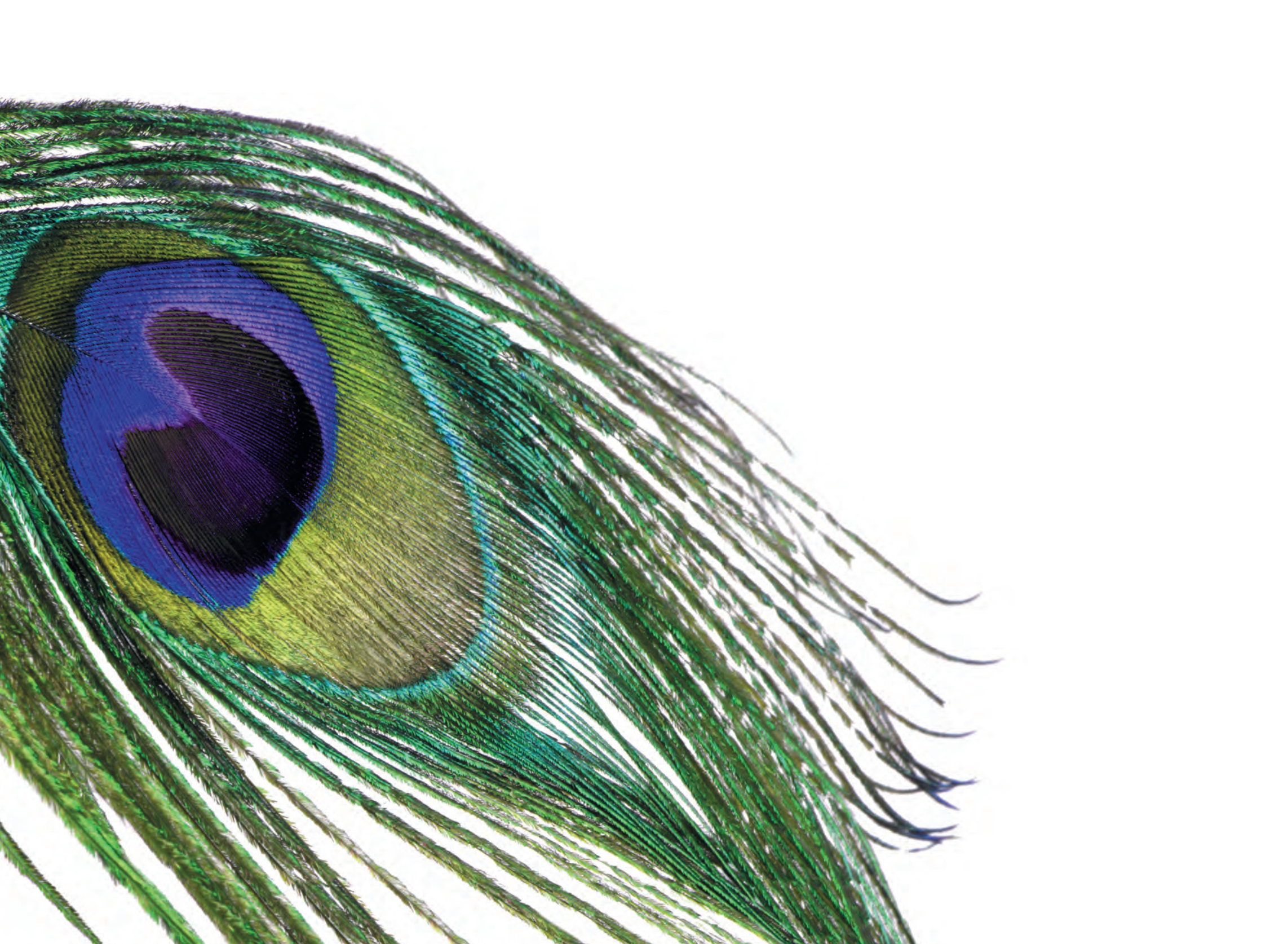


# LIT

BY MIGUEL A. ORTIZ, DMD

The Simple Protocol for  
Dental Photography in the  
Age of Social Media

LIT: The Simple Protocol for Dental Photography in the Age of Social Media



# LIT

## The Simple Protocol for Dental Photography in the Age of Social Media

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I love you, Colleen.

# Contents



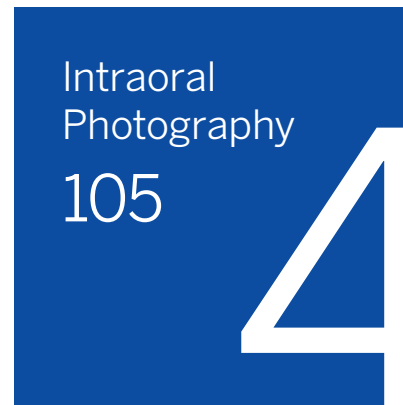
Fundamentals  
of Photography  
1



61  
Dental  
Photography  
Equipment



79  
Portrait Photography



Intraoral  
Photography  
105



5

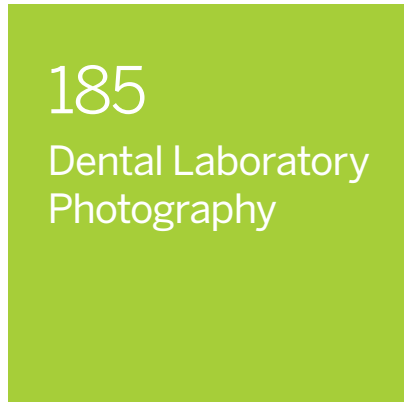
Artistic Dental  
Photography  
139



6

Dental  
Photography and  
Communication  
with the Dental  
Laboratory

167



185

Dental Laboratory  
Photography



7

Marketing and  
Social Media

213



8



# Foreword



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With the publication of this book, Dr Miguel A. Ortiz has made a significant contribution to the growing discourse on artistic dental photography. This outstanding book is a fusion of museum-quality photography, down-to-earth instruction taken from his experience in private practice, and savvy tips for social media marketing. Through his creative photographic lens Dr Ortiz tells a story of patient prosthodontic care that goes beyond the traditional mechanics of photographic documentation. He simplifies complex concepts so that private practitioners can understand how to effectively incorporate photographic documentation into modern dental care. The ideas that are presented here will enable you to artistically communicate your transformational patient stories.

Dr Ortiz's personal writing style makes readers feel as if he is talking directly to them. The content echoes his popular dental photography courses by

outlining the essentials of photography as well as the equipment that dentists need. He then devotes significant text to the most underestimated aspect of dental photography—lighting. The interaction between light sources, diffusers, working distances, and angulations—and their effect on exposure, shadows, depth of field, texture, and chromaticity—receives considerable emphasis, along with shade evaluation and intraoral and portrait photography. The final chapter of Dr Ortiz's book is an essential primer on how to get the best results from social media to link your practice with your target patient population and how to use Instagram's dynamic platform to interact with other professionals.

This magnificent book takes you on a journey of visual beauty that will enhance professional communication, documentation, and marketing for any practitioner who sets high standards and wants to optimize their dental practice.

# Preface

**LIT is a book in search of the perfect smile.** You might think that as a dental photographer I'm obsessed with every smile. But you'd be wrong. The smile that led to this work is the one I'll never get to photograph—your smile.

It took me over a year to create and deliver the best 1-day hands-on dental photography course in the world. But it took a decade of trial and error to acquire the knowledge and experience to make it even possible (lots of money too, as my photography budget can attest). My mission was to save my colleagues all that time and money and then gift wrap it into a sleek 1-day package.

Let me set the stage for you: any city in the world, 35 dental professionals, models, a makeup artist, lights, an interactive presentation, and me. We are all there, learning the fundamentals of photography, camera settings, accessories, intraoral protocols, lighting principles, laboratory photography, etc. Then the time comes when everyone splits into small groups with a model who is ready to smile for them. The students (you) try to remember and apply everything I just taught. They try to get that great shot, the one you've seen so many times on social media from people you believed to be especially talented—the Gods of Dental Photography. That. Perfect. Shot.

And there it is: The Smile. Not the one in the photos, not the one on the models, but the smile on my students' faces. My colleagues. Your smile. You get it—the shot—and look around to tell others. "Look! I got it!" Then it spreads, moving through the room like a wave. Everyone gets it. Along with the smile comes the realization that this isn't so hard after all, if you only know

the fundamentals, the lighting, and a few little tricks. It was always right there. You've had the tools all along. You just didn't know how to use them properly.

Let me tell you, when it comes to dental photography, I'm an atheist. There are no gods. It's just practice and understanding. This is usually when the questioning starts.

"But Miguel, that's it? I place the light here and position myself there and I'm done?"

"I don't need a fancy camera? Or 10 lenses, or a bulky lighting setup?"

"What do you mean I don't need the ring flash anymore?"

"Are you telling me I can take this picture in my tiny office?"

Yes! Yes! Yes! That is exactly what I am saying. It's simple. It really is.

*LIT* was born because I got addicted to my colleagues' smiles. I have simplified and demystified the art of dental photography. I start with the fundamentals. I do not attempt to teach you only how to take pictures of pretty lips and glossy teeth. I teach you how to be a photographer, to take ALL pictures. Any picture.

Imagine you are learning to drive a car for the first time and your instructor only teaches you how to drive around your own block. Well I wouldn't want to

be there when you get to the highway for the first time. Or experience that first rain. I will teach you to drive under any conditions. Where, when, and how far you go is up to you.

First, the fundamentals of photography are displayed here using simple visual scenarios and analogies. Then, we will move into portrait photography. Why portrait? Because it is the best way to practice the fundamentals you've just learned. Portrait is about understanding your camera, the light, and the space around you. It's the perfect start when you learn to shoot in manual mode. Believe me, you don't want to practice that while someone is holding retractors in their mouth. Once you've mastered portrait photography—and trust me it's pretty straightforward—then we'll talk about the equipment you need: cameras, lenses, lighting, accessories, etc.

At this point you're now equipped with the knowledge to walk into dental photography heaven. "What's that?" you might ask. A full intraoral protocol that can be done in a small office, in 10 minutes, without you or your patient having to move. No moving the chair, no moving the light, no moving yourself. Yes, you read that right. *LIT* brings you "The Simple Protocol."

Historically, dental photography books have stopped right here. But I didn't. It's the 21st century after all, and who doesn't want to perfect the artsy dental photography that you now see all over social media—Facebook, Instagram, and whatever fancy new app comes along next. In this book, you'll learn all the

tricks and techniques to take those amazing artistic shots yourself, because guess what? It's not that hard to do. It really isn't.

As a dental technician myself, I have also dedicated a full chapter to my fellow technicians who want to showcase their work too. This book is for you as well. I give you all you need in order to photograph your craft, your art, and your passion in the laboratory.

Lastly, I close with something that has never been discussed at this level: how to use and understand the online marketplace and social media for your private practice. No, I am not talking about that silly weekly post that some company places for you on your clinic's Facebook page—the one that reminds your patients of the importance of flossing daily. Neither am I talking about how to get your page to rank higher on Google. Everyone is playing that game, and there's very little winning involved. I'm talking about a deeper understanding of how online marketing and social media really works: Google, Facebook, Instagram, AB testing, landing pages, building audiences, retargeting, the Pixel, etc—strategies that most of you have never even heard of are filling up the schedule in clinics near you.

I give you *LIT*. The first simplified but complete dental photography book. It will change the way you take photos, and you will use these skills forever. I know you'll love it, and that makes me smile too.



# The Big 5

*The Big 5* refers to the five main concepts that are most important in dental photography. These 5 concepts will empower you to have complete control over your photographic results. Learn the Big 5 and you will be the boss of Manual Mode. Drop Auto Mode forever. You paint your own picture, not the camera.

EXPOSURE

APERTURE

SHUTTER SPEED

DEPTH OF FIELD

WHITE BALANCE



1/5: Exposure

# EXPOSURE

The total amount of **light** that will reach the digital sensor inside your camera.

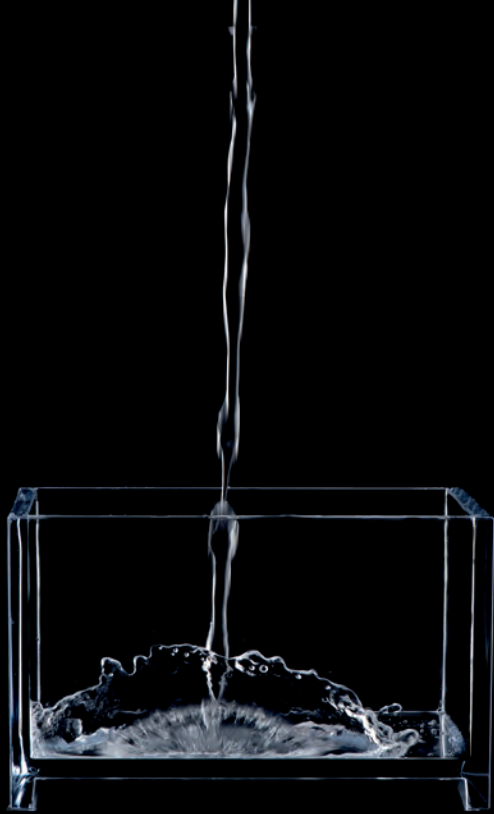
## Water in a bucket

The most important concept in dental photography is *exposure*, because every other concept in photography is based on the understanding of exposure. Luckily, it is not an extremely complicated idea, so let's tackle it.

Exposure could be compared to the notion of water in a bucket. Imagine you have a bucket and you want to use a garden hose to fill it up with water. Your bucket is the digital sensor, the water is the light, and your hose is your lens. In this analogy, exposure is the AMOUNT of water that you put into the bucket.







Underexposed



Correctly exposed

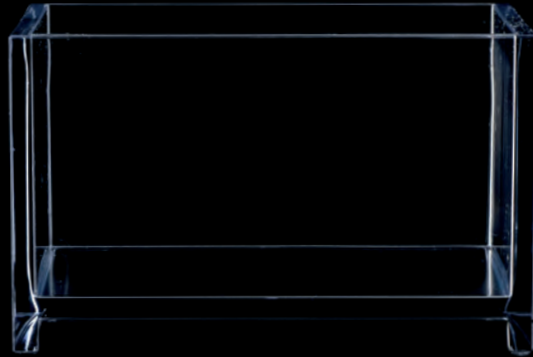


Overexposed

EXPOSURE = AMOUNT OF WATER IN THE BUCKET

(Light)

(Sensor)



Large bucket = Full-frame sensor




Small bucket = Cropped sensor

We can have large or small buckets (sensor sizes), minimally filled buckets (underexposure), buckets filled to the desired mark (correct exposure), or a bucket so full that it's spilling water out (overexposure). We can have pure water (temperature-calibrated light) or colored water (noncalibrated light). Your hose (lens) could be of different diameters (aperture). We might use a wide-diameter hose or a very narrow-diameter hose, allowing us to deliver more or less water (light) to the bucket (sensor). Alternatively, the water pressure (light intensity) could be high or low, delivering more or

less water (photons) in a given amount of time (exposure time). Lastly, opening and closing the water nozzle quickly (fast shutter speed)—allowing water to flow only at discrete intervals of time—is also an option. Or you can leave it open (long exposure), resulting in an endless amount of water being delivered to the bucket.

We will learn later that not all buckets (camera sensors) are the same size, and yes, size matters.



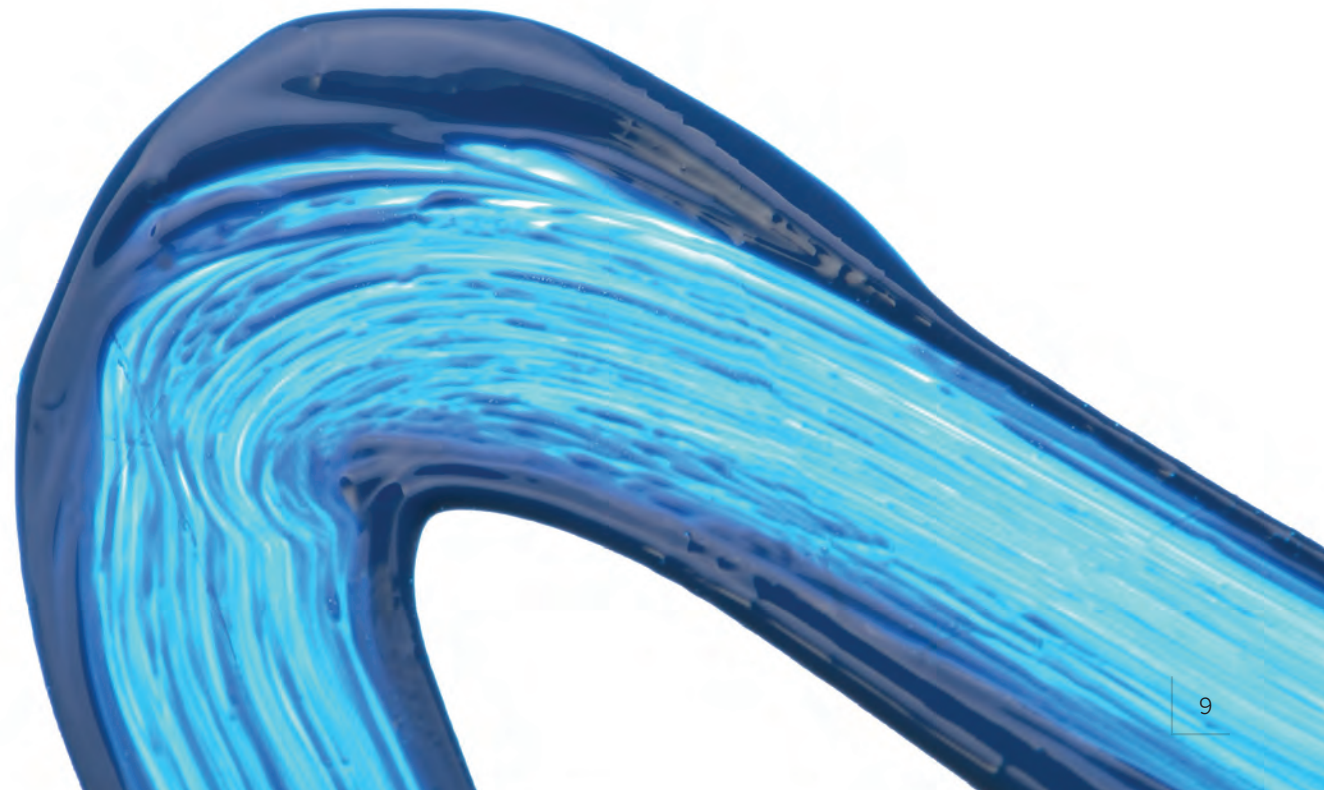
As you can see, the concept of filling up a bucket can be broken up into several components, all of which can be manipulated. One thing we know for sure is that, when it comes to filling up a bucket, you have full control over how you do it. You can control what kind of liquid you fill it with and how much and how fast that liquid pours into the bucket. When it comes to getting light to your camera sensor, you have the same control.

At the end of this book, you will be in full command of your camera settings and you will fill that sensor with light exactly how you want it.

*water in a bucket*

Once again, EXPOSURE is the AMOUNT of light that reaches the digital sensor in your camera. Without light there is no photography. Now that you fully understand what exposure is, we can begin learning how to fill that bucket.

The Big 5: 1 down, 4 to go....



# 2/5: Aperture



# APERTURE

An adjustable opening inside your lens that allows you to **control how much** light reaches the sensor.

NIKKOR



50mm

*Aperture* is the area of a spherical opening inside the camera lens that is designed to be adjustable. It can go from a very small round hole to an opening almost as large as the lens itself. This mechanical device inside your lens is used to control how much light can come through and reach the sensor. It is a way of controlling exposure, among other things.

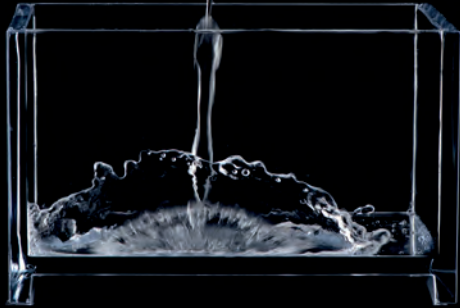
Early photographers in the 19th century quickly realized that they could not control the amount of light reaching the photographic plates. Back then, overflowing the bucket meant a lot of money lost on photographic plates. So they created the diaphragm. They did not need to look too far for inspiration on the design. It was right in front of their eyes, right in front of your eye. Think of your eyes—your pupils. Your pupils work in the exact same manner as the mechanism in the lens that is used to modify the aperture. That mechanism is called the *diaphragm*, by the way. Your pupils open and close to allow more or less light to reach the sensors in your eyes. Remember those cones and rods from anatomy class?

At night, when you are in your room and the lights are off, your brain tells your pupils to open up wide in order to allow more light to come in. It does that to help you avoid stepping on that Lego that was left on the floor by your 4-year-old child. I sure know how painful that is. On the other hand, as you are lying in bed contemplating that first patient of the upcoming morning, with your pupils wide open, your spouse walks in and turns on the lights. As you reach to cover your eyes, your pupils immediately contract to accommodate for the sudden burst of light, allowing less light to reach the retinal sensor, so you don't have to scream at your partner for the unnecessary torture that just occurred.

This is exactly the same in photography. The diaphragm in the lens is like the pupil. It can be opened wide or closed down to a small orifice in order to control how much light we allow to reach the sensor.



Small aperture



Medium aperture



Large aperture



APERTURE = SIZE OF THE HOSE

(diaphragm  
opening)