18EYES · 9LENSES

At Reid Park:
A Wild Kingdom
in the Old Pueblo

Biosphere 2:
Under the Dome

PREMIER Issue





18Eyes, 9Lenses

e are a network of nine students at the University of Arizona School of Journalism, seeing and recording the world around us for your enjoyment and ours. Collectively and individually, we speak six languages and have visited more than 10 countries. In this magazine photography project, we share our diverse points of view—18 eyes looking through nine camera lenses.

Join us in our journey as we explore the University of Arizona's Biosphere 2, the Reid Park Zoo and the everyday lives of Tucson's citizens.

From architecture to nature, from the bizarre to the sublime, we can't wait to share our visions and vistas with you.

"You never really understand a person until you consider things from his point of view." —Harper Lee, To Kill a Mockingbird

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nitially designed to be a self-contained ecological system independent of any exchange with the outside world, the original Biosphere 2 complex was built between 1987 and 1991 in Oracle, Ariz. Today, the Biosphere's five biomes represent climatically distinct areas characterized by their dominant forms of animal and plant life.

The five biomes include a rain forest, an ocean with a coral reef, mangrove wetlands, savannah grasslands and a fog desert. Vestiges of a habitat capable of supporting human life remain at the facility, along with below-ground technical infrastructure and passive solar input.

The current mission of Biosphere 2, now owned by the University of Arizona, is "to serve as a center for research, outreach, teaching and life-long learning about Earth, its living systems and its place in the universe."

On May 20, 2012, the Network 9 photojournalists visited Biosphere 2 for a photo shoot. Guided by Biosphere 2 science journalist Paul Ingram, our shutters clicked as we explored the Biosphere's inner workings and remarkable climate-controlled biomes.



Under the Dome





Photograph by Abdulmohsen Alreesh



PHOTOGRAPH BY REBECCA SASNETT

Top: Seed pods hang from a tree in the ocean area of Biosphere 2. Above: Science journalist Paul Ingram photographs trees and plants in the Biosphere's rain forest. Right: The Madagascar ocotillo is a succulent that drops its leaves. Below: Cactuses and other arid-adapted plants thrive in the Biosphere's desert biome. Below right: A spider sits on its web in the rain forest, which encompasses several tropical habitats. Opposite: About 15 species of fish, 10 types of algae and numerous invertebrates inhabit the Biosphere's ocean biome.





PHOTOGRAPH BY REBECCA SASNETT











SUSAN SWANBERG, PHOTOGRAPH BY NOELLE R. HARO-GOMEZ

n a bright, sunny Tuesday morning in May 2012, the Network 9 photojournalists took a trip to see the new elephant enclosure at the Reid Park Zoo's "Expedition Tanzania" exhibit. After a pep talk by Dr. Cecil Schwalbe about photographing wildlife, we were off—cameras in hand—to see what surprises our lenses would reveal.

A small, intimate zoo, Reid Park offered a variety of animal photo opportunities. (Robert Alcaraz especially enjoyed the giraffe exhibit.) Lions, tigers, polar bears, birds of many species and other zoo regulars cooperated with the nine photojournalists. View the results in our zoo gallery, then wander down to the Reid Park Zoo for your own trip to the Old Pueblo's wild kingdom.



African lion cub. Photograph by Melissa Guz



Mallard, Photograph by Hannah McLeod







Robert Alcaraz. Photograph by Susan E. Swanberg

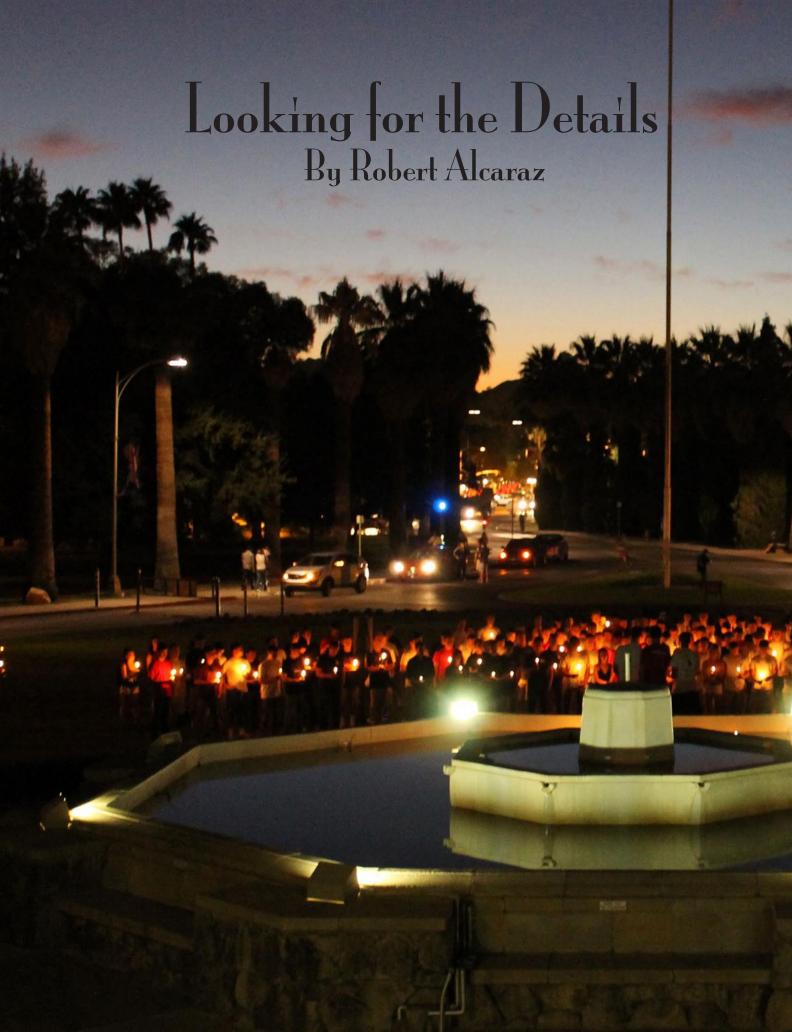
RETICULATED GIRAFFE. PHOTOGRAPH BY HANNAH MCLEOD



PHOTOGRAPH BY ABDULMOHSEN ALREESH









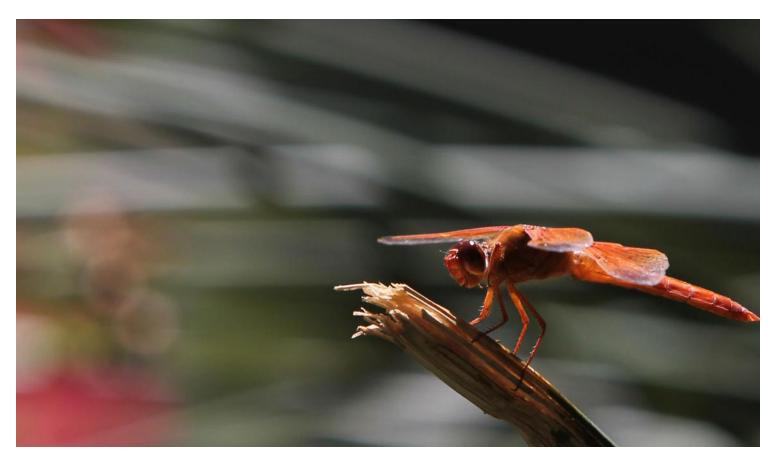




Top: An orange decomposes on the ground near its tree outside the Arizona State Museum in Tucson. Many oranges fell with the change of season from spring to summer. Above: Jacob Nino consumes a Sonoran hot dog. Nino has had a food addiction since he was 10 years old.



Above: A tiger sleeps in its enclosed habitat at the Reid Park Zoo in Tucson, Ariz. The zoo was founded in 1965 and hosts 500,000 visitors a year. Opposite top: A dragonfly sits on a plant in the flamingo exhibit at the Reid Park Zoo. Many insects and birds roam free at the zoo. Right: The ukulele is a traditional Hawaiian instrument. Lanikai started producing high-quality instruments in 2000.



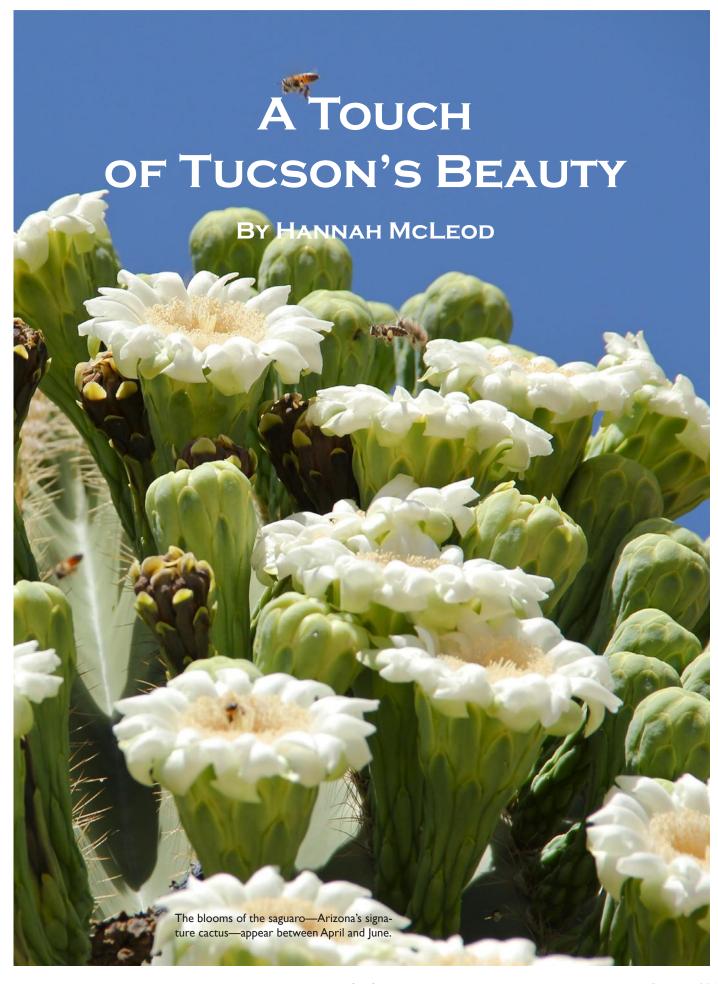
MY PERSPECTIVE

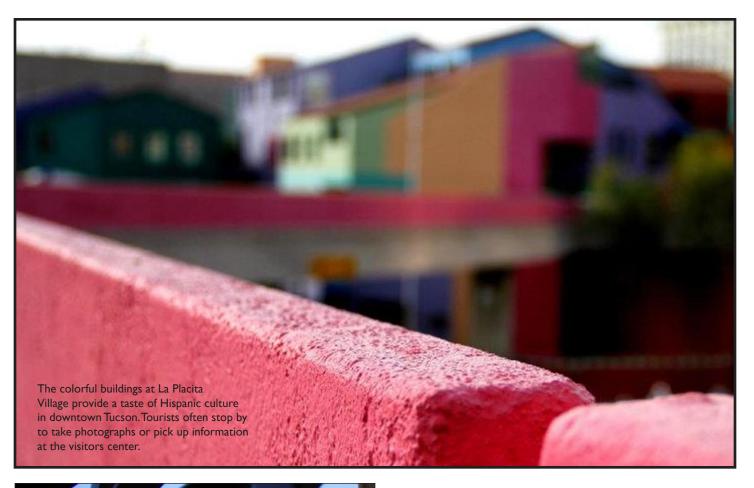
here are no secrets to shooting good photographs; there are just secret approaches. I have always been the kind of photographer who takes as many shots as I possibly can. In that way, there will always be a few that turn out well. Along with shooting away, a technique that is essential when doing indepth pieces is to get to know your subject. If you spend the time and observe your subject in his natural environment, you as a photographer will understand what makes him tick.

Most of my work is the outcome of simply putting in the time to be where I need to be. This isn't mystical or secretive. I approach an assignment in a loving manner and understand what I must do to illustrate my subject in an organic way.

With photography, you have the power to portray the whole world through your lens. You wouldn't want to see a world that was out of focus or washed out with no subject. You would want to see the details and emotion that come with everything the world encompasses. Make the world a good and fun thing for others to look at, because you wouldn't want it any other way.

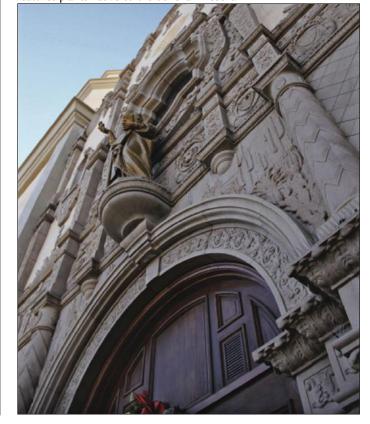
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Left: Mexican baroque architecture distinguishes St. Augustine Cathedral in downtown Tucson. Below: The elaborate stone exterior features plants native to the Sonoran Desert.







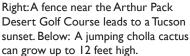
Above: A turtle swims in the pond near Park Avenue on the University of Arizona campus. Left: A leaf wraps around a bird feather lying on the ground at the University of Arizona.



hotography is capturing a moment that no one else might have seen. It's having the patience to experience and photograph a moment that gives color and beauty to a story that has never been told. For me, photography is a journey into another person's life or place. By spending time with my subjects, I learn who they are, and I can capture a more truthful storytelling photograph that reveals their unique character. Being a photographer gives me the opportunity to walk with them through their lives. It's not something everyone gets to do.

I believe that patience is the key to a spectacular photograph. Another aspect is being prepared for the unexpected. When photographing people's lives, you might find another aspect that would make a more interesting story. Seek that out. Don't stick to a rigid plan. Be flexible. Let your hand start snapping photos, and worry later about which ones you'll use.

When I shoot, I block out all the distractions around me and get inside my camera. I try to see everything through the lens and not be distracted by my subject or the people watching me. It's confidence, fearlessness and composure that allow me to disappear as a photographer and let my subjects relax and guide the story. I focus on capturing the beautiful and small elements to create a bigger and more widely seen picture of a person's life or place.









Prickly pear cactuses (*Opuntia* species) bloom in the Sonoran Desert from late spring to early summer.



My Perspective By Susan E. Swanberg

xceptional scenes appear before our eyes every day—a red bird in a yellow tree, the soft curve of a green-and-pink agave leaf, the graceful hands of a young woman cradling a baby tarantula.

Scientists and photographers share the desire to understand the remarkable events around them, examining both the macro and the micro worlds with their lenses. A scientist's lenses examine individual attributes, while a photographer's lenses assemble a complete and aesthetic whole.

My desire as a scientist/photographer is to meld the two worlds, weaving images with a scientist's insight and a photographer's skill, enhancing our understanding of the natural world. I seek out the exceptions that please the eye and intrigue the mind. I know I have achieved my goal when a photograph appeals to both the eye and the mind.

I learn best in the company of accomplished photographers. Following the trajectories of their lenses helps me see into their mind's eyes and visualize what to strive for. What subjects, quality of light and equipment do they favor?

Without exception, my colleagues have been generous with their time and their art. They inspire me to reach goals I never would have considered achievable back when I worked at a laboratory bench. These artists are exceptional people, and I value every minute I spend in their company.

To paraphrase the geneticist William Bateson: Let your camera treasure those exceptions whenever and wherever you find them.





Depending on the species, prickly pear cactuses bear flowers of translucent yellow, orange, pink, red or magenta.



The red bird of paradise (Caesalpinia pulcherrima) belongs to the pea family. This shrub blooms from March to October, sending forth deep red-orange flowers accented with yellow.

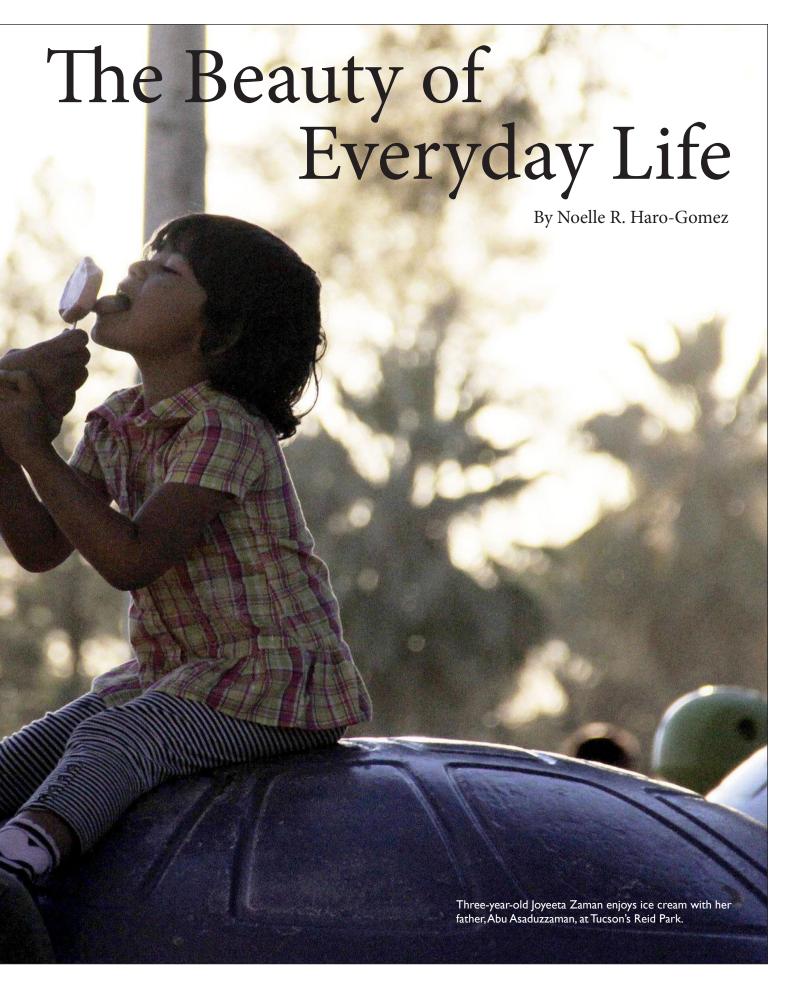


This green-and-mauve succulent is a delicious treat for young cottontail rabbits.



Hedgehog cactuses (*Echinocereus* species) bloom overnight in March and April, producing a riotous display of vivid magenta blossoms.



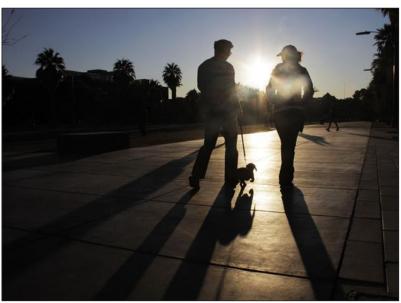


My Perspective

am fairly new at photography, but I have come to realize that I love taking photos of people. I strongly believe that everyone has a story, and photography allows me in some way to tell that story. I love photographing people of all ages and from all walks of life. It's amazing how so much feeling or beauty can come from a single image. With one shot, I can stop time and document history.

It takes me so much time to compose a photo. It's not an easy task for me. I try to take into account where I am, the time of day and where people are. Eventually, shooting will get easier. The most gratifying moment is when I take a picture and it works.

I still have much to learn. I hope that my photographs will one day evoke emotion in people, causing them to think twice about our world and to make a change.





Mayor Jonathan Rothschild presents Belinda Agan with the Public Safety Dispatcher of the Year award at a Tucson City Council meeting.

Top: Henry Yau (left) and Jemma Levey walk their dog, Dexter, on the University of Arizona mall. Dexter is a 5-month-old dachshund.



Volunteers Carol and Carl Harlan prepare soup at Casa Maria, a charity kitchen in Tucson, Ariz.

Below: UA student Jose Quiroz studies the effects of environmental toxins on obesity as part of a diabetes research program.









Left: The Kuwait Towers, designed by Swedish engineers Sune Lindström and Malene Björn, were dedicated in March 1979.

Below: About 55,000 painted steel plates cover the spheres on the Kuwait Towers. One of the spheres houses a viewing dock and revolving restaurant.

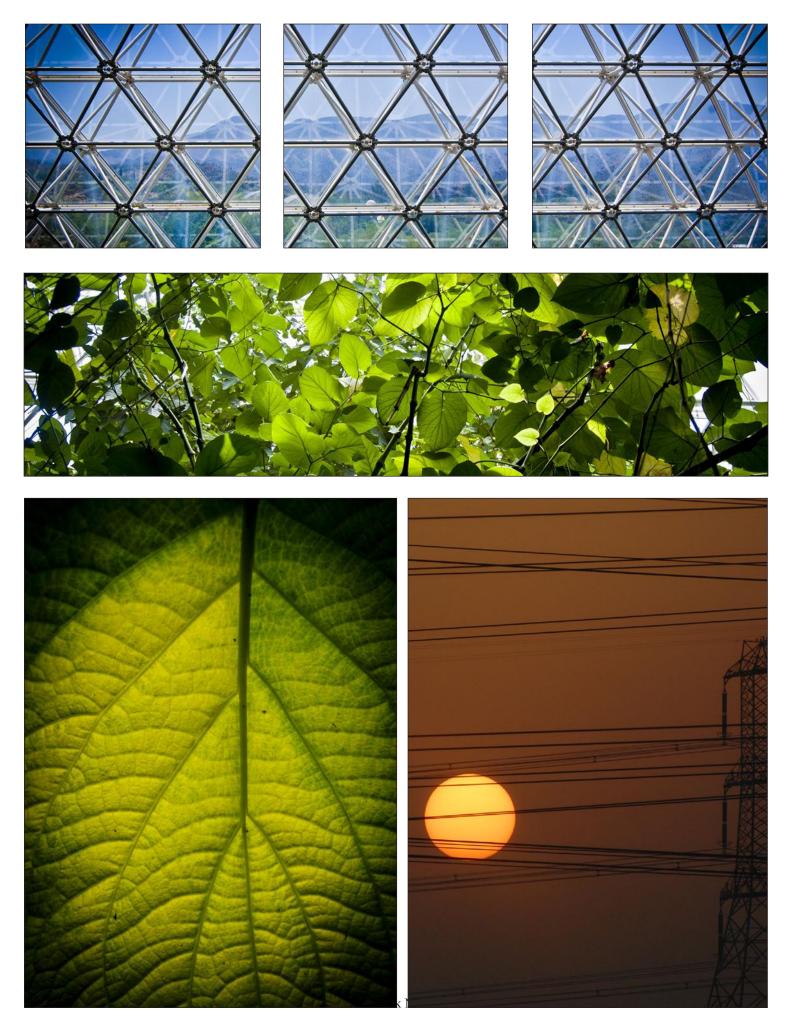
Opposite top: Biosphere 2, located north of Tucson, Ariz., was built in the 1980s to study space colonization technology. Today, scientists research the complex interactions of life in five biomes within the gigantic research facility.

Opposite middle: Because there is no wind in the Biosphere's enclosed rain forest, trees are generally weaker than they would be in the wild. When trimming the trees, workers have to climb the overhead glass-and-frame structure.

Opposite bottom left: Large leaves in the Biosphere's rain forest shade the walkways, producing soft light.

Opposite bottom right: During a dust storm in Kuwait City, the sun is not as harsh in the late afternoon as it normally is in the desert, when temperatures soar into the 100s. A cool afternoon is always welcome in Kuwait.





Stepping out of your 2015

By Rebecca Sasnett

The only way to really tell a story, whether with words or pictures, is to live a story. You have to be willing to do something you've never done before. This might include going scuba diving, traveling or talking to a stranger. These adventures allow you to explore and learn. If you want to wear an Indian Jones hat, do it! Maybe you can get Shia LaBeouf to go with you.

I must admit, this is not easy. All through high school I was pretty shy. I never went to parties or took part in Student Council. I was in yearbook, which prompted me to talk to strangers and even take pictures. Yearbook became my excuse for a conversation.

It wasn't until I went to Australia that I stepped out of my box. I snorkeled the Great Barrier Reef and ate kangaroo and crocodile meat. I never thought I would do any of these things. I had created a story.

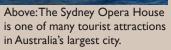
There's a quote by an unknown author: "Replace fear of the unknown with curiosity." In college, I'm still shy, but I'm not allowing

my fear to get in the way of trying something new. This summer I decided to take a 400-level class, Magazine Photography, at the University of Arizona. I knew nothing about magazine photography or even cameras. I had a fear of the unknown world of photography, but instead of running in the other direction, I stepped out of my box and replaced fear with curiosity. Again, I tried something new and added to my story. How else are you going to learn? Seeing something and doing something are two completely different things.

"Rosy" the rosy boa slithers around a tree at the University of Arizona while trying to understand her new environment.







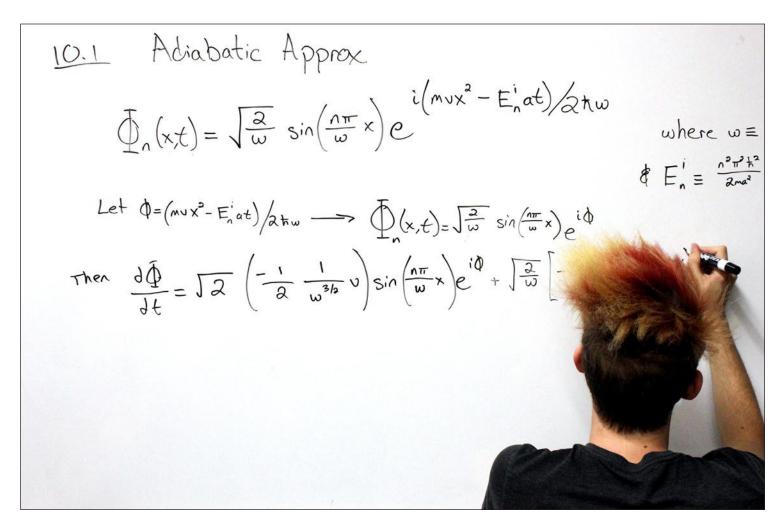
Right: The 277-mile-long Grand Canyon is one of the seven natural wonders of the world.

Below: Biosphere 2, located north of Tucson, Ariz., houses five different ecosystems that are used for scientific research.













James Romine focuses on quantum mechanics and physics in the University of Arizona's Physics and Atmospheric Sciences computer lab in Tucson, Ariz. Romine enjoys reading about quantum mechanics and physics.

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Introducing... Hailey Eisenbach

My Perspective

was a little girl. I had a hot pink camera (a hand-medown from my oldest sister, and no doubt a relic of the '80s) that never had any film in it. I would play with that thing for hours, pretending to take pictures of my pets and all my family members. I remember hearing my father call it my "magic camera" one day.

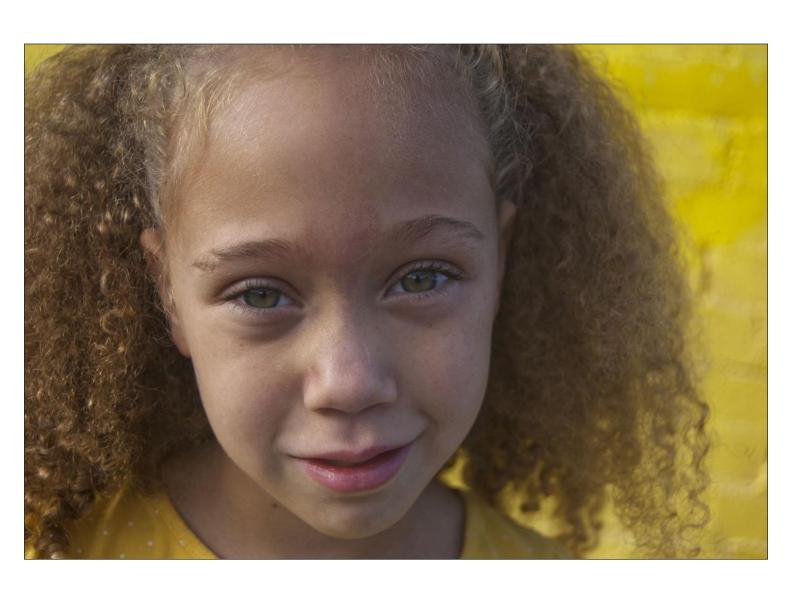
When I got older, I asked my mom for a new camera for Christmas. Santa delivered, and I had a new Olympus point-and-shoot film camera that I took everywhere with me.

The summer when I turned 16 and got my first job, I worked two weeks in a row to save up enough to buy an SLR. The Canon EOS Rebel I bought with my own money was my baby. I added a DSLR to the mix and began to shoot even more.

The thing I liked the most about photography was the ability to freeze my favorite moments so I could look back and experience them later. It was exhilarating. It allowed me to be quiet, curious and observant. It was a way to process the world around me.

As I began to really note photography's aesthetic value, my style and interest matured. I no longer used photography solely to document my friends and me hanging out. I began obsessively noticing subtle beauties and interesting compositions everywhere I looked.

I like that my experience with photography has been nothing but shifts in perspective. I am, and have been, evolving my perspective since the day I took my first photograph. I want to keep shifting my perspective. I want to keep trying new things, seeing in a different way and photographing more thoughtfully.



In Tucson's Barrio Viejo the cool colors of this small desert home grabbed my eye on my way home from work one afternoon. Paying attention to the way colors and shapes interact with spaces is one of my favorite subjects to photograph.



Fine Art Photography



An assignment on color and shapes took me to Barrio Viejo, just blocks from the Tucson Convention Center. This minimal approach, with interactions between shapes and lines, is part of my unique way of seeing the world.

Portraiture

Portraiture is one of my favorite aspects of photography. Capturing someone's unique expressions and distinct personality really resonates with me. I always end up making my friends model for me just to practice shooting head shots and to sharpen my portrait techniques.











Guests leave the Vatican Museum via the famous spiral staircase built by Giuseppe Momo in 1932.

Through My Looking Glass

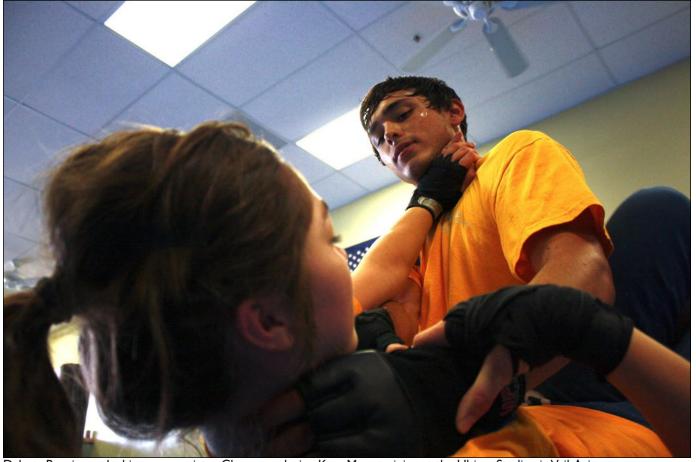
By Melissa Guz

"I'm not a photographer" is a saying I've heard on a regular basis from various people. I even admit that this saying has escaped my lips once or twice. Last year I would have believed it, seeing how I knew nothing about cameras and what it takes to be a photographer. But I realized that the only time I don't have a chance at being something is when I stop taking chances, and I don't want to stop.

I'm not going to lead you into thinking I'm an amazing photographer, because I'm not. I don't know all the buttons or functions on my basic DSLR,

nor do I know how much to expose a subject 6 feet in front of me. But I just want to stress that everybody starts out like me in this field—a beginner. You have to learn the skills before you can consider yourself above a mediocre level.

Personal experience has shown me that photography requires a creative eye, which is something I have luckily inherited from my dad's side of the family. But photojournalism also requires being able to find and tell a story with a single shot. Luckily, I've been trained to detect what the story is in a given situation. I try to combine the best of both worlds and improve my ability to make this saying a reality: "A picture is worth 1,000 words."



Dakota Bernier grabs his younger sister, Cheyanne, during Krav Maga training at the Ultima Studios in Vail, Ariz.

Fighting the Odds

Dakota Bernier, 17, is an avid Krav Maga student. He partakes in this form of self-defense not only to help him train for the Navy Seals but also to beat the odds of becoming a meth addict. He was born with meth in his system.



Bernier relaxes outside Ultima Studios after an intense Krav Maga workout. Bernier says the public is allowed to learn five levels of this self-defense system, which is used by Israel's armed forces.



Darryl March (left) and Brett Gibbons role-play at Phoenix ComiCon. They belong to a group called the Kingdom of Umbria.

The Essence of of Splay

A cosplayer shows the detail in his "bomb" at Phoenix ComiCon on May 26, 2012. Cosplayers share how they created their costumes.









to the Big Leagues

ballplayers before reaching their ultimate dreams

By Andrew Cockrum

Ballpark photography

hen I'm out in the world taking pictures, there's one idea that I strive to find:
Capturing the moment is snapping a shot that everyone can understand and see the story inside the photo.
A person can go back later and still comprehend the situation. I believe this is the most important aspect of photojournalism, because it is another method of storytelling. This even applies to photographing sporting events.

When I go to an Arizona Diamond-backs game at Chase Field in Phoenix, I take pictures throughout the game, because I want to capture the changing moments. By taking a picture of those moments, whether it's a game-winning home run, a stolen base or a costly error, others can see why the game changed. My favorite experience at the ballpark of

"capturing the moment" came when I photographed the 2011 Major League Baseball All-Star Home Run Derby in Phoenix. I took a picture of the derby winner, Robinson Cano, embracing his father after he had hit the winning home run. I thought it was a very strong photo that told the story of the emotions this ball payer was experiencing.

Lighting is another important quality I search for. Good lighting can greatly enhance a photo and even change its mood. The light at dusk and dawn is beautiful, but simple distilled lighting can also give a great feel. Finding light shining through trees is one method I use.

These two concepts have changed the way I take photos. My images have become more attention grabbing and capture the story behind the picture.





Below left: Kino Bambino, right, cheers on the Wienerschnitzel hot dog-eating contestants between innings at Kino Stadium in Tucson, Ariz., on May 23, 2012.

Below right: Tucson Padres' Cody Decker slides safely past Memphis Redbirds catcher Bryan Anderson to score the game's first run.

Bottom: Tucson Padres players and coaches congratulate each other after their victory over the Memphis Redbirds at Kino Stadium.







18**Eyes**



PHOTOGRAPHS BY JAMES PATRICK; PHOTOGRAPH OF NOELLE HARO-GOMEZ BY JOHN DE DIOS

9Lenses

Hailey Eisenbach

Ever since I was a little girl playing with my hot pink magical camera, I knew I wanted to take pictures. Playing photographer allowed me to investigate my own little world. Since I have always been somewhat shy, photography became my way of observing and absorbing the world around me. It allows me to capture precious snippets of life and enjoy them all over again. There is something special about that.

Andrew Cockrum

I love sports, especially baseball. I played at the collegiate level at Sul Ross State. I use my passion for baseball to help my photography by giving an athlete's perspective. Growing up in Sedona, Ariz., also allowed me to practice taking nature shots. With the unique landscape of the area, it was hard not to find a good picture. I look forward to enhancing my photography skills and continuing to tell stories.

Rebecca Sasnett

All throughout high school I was a boring, fat, lonely nerd who spent all her nights studying. You can imagine how shy I was. But I learned something during my shy years: You cannot tell a good story if you do not live a good story. You have to be willing to step out of your box and try something new. So, I dare you! Go try something you have never done before.

Susan E. Swanberg

I am a freelance science journalist and former research geneticist living in Tucson and studying at the University of Arizona. I live at the foot of the Santa Catalina Mountains, one of the picturesque mountain ranges surrounding Tucson. The region offers a multitude of topics for a science writer to choose from—the first-class scientific research at the UA as well as the creatures in my backyard.

Robert Alcaraz

I tend to take photographs the way I eat meat—fast and in great amounts. My philosophy is that the more times you click the shutter, the better your chances are of getting a good photograph. Detail is something I also strive for when shooting. Like being kicked out of Home Town Buffet for eating far too much, I exhaust my camera to the point that I often run out of room on my SD card.

Noelle Haro-Gomez

I am a native Tucsonan. I am currently a double major in Spanish and journalism at the University of Arizona. I'm fairly new at photography, but I have come to realize that I love photographing people of all ages and all walks of life. It is amazing how so much emotion can come out of a single image. I still have a lot to learn, and with time I will get better.

Hannah McLeod

Photography is seeing through the eyes of other people. It's a way to step out of your shoes and walk in their footsteps. You can catch a glimpse into someone else's heart and mind. I see photography as a way for people to get to know more about me and learn more about another person. Seeing a story unfold through myriad pictures is a beautiful way to bring a person's story to life. This is what I do.

Abdulmohsen

Alreesh

So I see you are reading about me. Well, I didn't really prepare what to say, so, um, let me see. I'm from Kuwait. I have lived on three continents and experienced a war. I got into photography when living in Scotland, and I haven't stopped. I find myself looking for ways to finetune my photography and find new ways to break rules.

Melissa Guz

Call me modest, but I'll admit I don't live an interesting life. Instead, I live a rather mediocre one. From Vail, Ariz., I'm a 21-year-old graduate student studying journalism at the University of Arizona, hoping to become a radio journalist. I'm also the daughter of a retired Navy chief and the youngest of two children born to a couple together for 24 years. I'm also an avid Beatles fan.

Acknowledgments

Special thanks to all our guest speakers for sharing their time and experiences with us:

Matt Adamson program coordinator, Biosphere 2

Jimmy Boegle editor, *Tucson Weekly*

Carrie Dean education assistant. Reid Park Zoo

Thelma Grimes editor, *The Explorer*

Paul Ingram science journalist, Biosphere 2

James Patrick fitness photographer, James Patrick Photography

Akili Ramsess visual journalists, EyeofRamsess.com

Jay Rochlin retired professor, UA School of Journalism

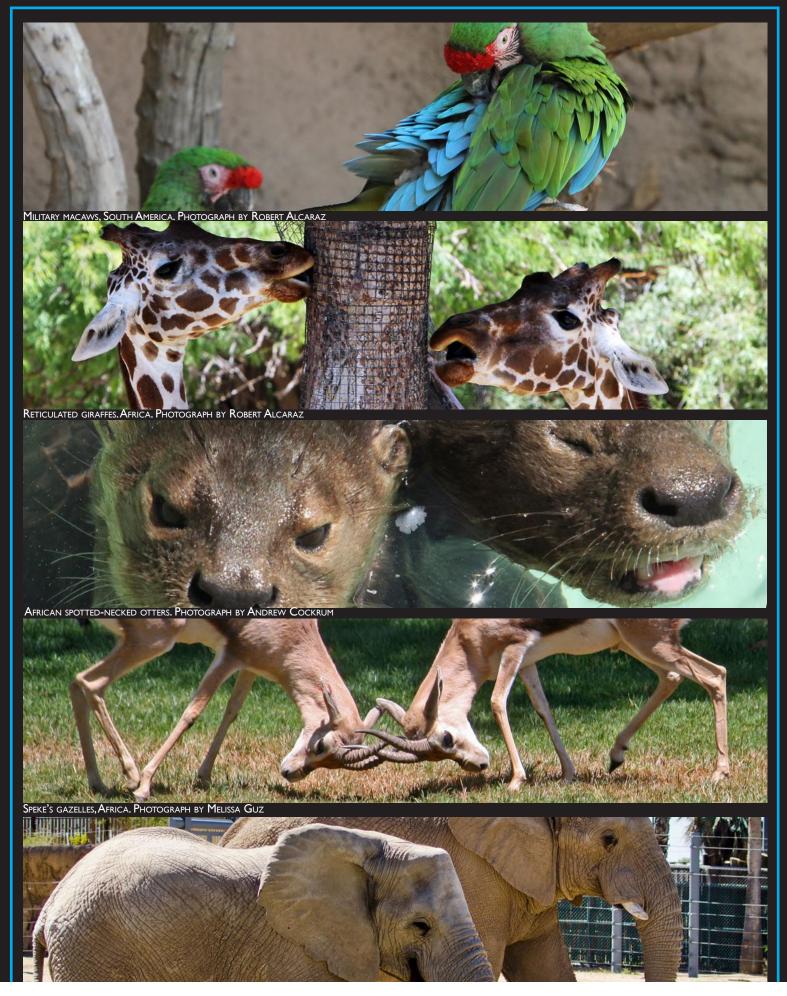
Michael Schennum photojournalist, *Arizona Republic*

Cecil Schwalbe herpetologist, U.S. Geological Survey

Dane Velasquez staff systems administrator, College of Fine Arts



Photograph by Melissa Guz



Prepared by MagCloud for John de Dios. Get more at johndedios.magcloud.com.