FEATURE STORY
THE PATH OF EMPATHY
WINDS THROUGH THE SIGHTS, SMELLS OF THE PAST

BUILDING COMMUNITY
A FIESTA OF BOOKS

INSIDER VIEW
OPENING THE WORLD TO BARRETT HONORS STUDENTS

GET INSPIRED
THROUGH THE EYES OF ASU ATHLETES
VIRTUAL REALITY, LITERAL EMPATHY
How the sights, sounds, and smells of late-medieval times help us feel empathetic today.

Scholarship support, and hard work, put Breanna on a different path. Today, she is immersed in honors courses at Arizona State University and on her way to a degree in social work. Petra Fromme does too.

Petra turned down job offers in her native Germany to come to ASU. As the Paul V. Galvin Professor of Science and Engineering, Petra pursued research that many of her scientific peers said couldn’t be done. Through her endowed position, ASU gave her the elbowroom to chart unmapped territory.

Her research was named a “Top 10 Breakthrough” by Science magazine and may lead to such remarkable advancements as medication without side effects.

Stories like Breanna’s and Petra’s drive Campaign ASU 2020, ASU’s first all-out, all-campus fundraising campaign in more than twenty years.

Announced in January, Campaign ASU 2020, through your generosity, is on its way to raising at least $1.5 billion as part of the resources necessary to support students, faculty, educational programs, community enrichment, and Sun Devil student-athletes. All gifts to ASU contribute to the success of Campaign ASU 2020. I invite you to learn more about the impact you’re having through the campaign in this, our fourth issue of Impact magazine.

R. F. “Rick” Shangraw Jr.
Chief Executive Officer
ASU Enterprise Partners

What are your hopes and dreams? Do you have a path to reach them? Breanna Carpenter does.

A few years ago, Breanna “aged out” of Arizona’s foster care system. That stage in a foster child’s life is usually fraught with peril, leaving many without a support system or a way forward.

TOGETHER, OUR POTENTIAL IS LIMITLESS

Campaign ASU 2020 publicly launched in January 2017. Learn more about this comprehensive effort to advance ASU at GiveTo.ASU.edu.

10 FEATURE IMPACT
VIRTUAL REALITY, LITERAL EMPATHY
How the sights, sounds, and smells of late-medieval times help us feel empathetic today.

2 STUDENT IMPACT
The making of scholar-athletes, in their words and pictures.

4 FACULTY IMPACT
Private support equips faculty to cultivate the “maker” spirit, open young minds, and share cultural experiences.

6 RECENT IMPACT
Student-team cultivates community; supernova super-lab makes waves; donors connect with scholars.

8 BEHIND THE SCENES
Private support opens up the world for some of ASU’s brightest minds.

14 STORIES OF IMPACT
Connecting children with favorite authors; new partnerships advocate for special education rights.

16 DONOR IMPACT
Jeremy Meek ’09 champions green building, the outdoors, and ASU.
FIELD OF DREAMS

SCHOLAR-ATHLETES SHARE THEIR INNER SELFFIES

1

KEYASIA TIBBS
ART STUDIES, BA '17
HOMETOWN: ATLANTA, GEORGIA
SPORT: TRACK AND FIELD

“I’m standing in the Sun Angel Track and Field Stadium in front of my triple jump school record banner. This is my favorite spot on campus. I first broke the triple jump school record my first year at Arizona State University, my sophomore year. Seeing the banner every day at practice is a visual motivation to continue working hard.

“The thing that makes the picture so special to me is I remember the exact feelings and thoughts that were running through my head at the NCAA Division One Nationals. I knew I had to give it my all and literally jump for success. I’ve made tremendous improvement in the triple jump at ASU and I’m looking forward to breaking the record this upcoming season!”

2

VILIAMI “LAIU” MOEAKIOLA
EDUCATIONAL STUDIES, BAE '16; SPORTS LAW AND BUSINESS, MSLB '18
HOMETOWN: EULESS, TEXAS
SPORT: FOOTBALL

“I chose to take my photo in front of ASU’s Biodesign Institute because it’s home to some of the most innovative work on campus, and it symbolizes the way I plan on helping solve social issues in my hometown of Euless, Texas.

“In my community, people struggle to find the necessary resources to better themselves, whether that be pursuing higher education or general government assistance. I want to be innovative in solving current issues in my community, similar to the way the Biodesign Institute uses new technology to solve modern problems.”

3

EDMOND BOATENG
ART STUDIES, BA '16; INDUSTRIAL DESIGN, MA '19
HOMETOWN: FAIRFAX, VIRGINIA
SPORT: FOOTBALL

“This location in front of the art and design buildings has meant a lot to me throughout my years here at Arizona State. To the unaware, all that is seen is another part of the ASU campus. Yet, to me, I see my transition between the Art School and the Design School.

“The community of the Herberger Institute has embraced me with open arms as I attained my bachelor’s degree in arts studies, and as I reach my goal of attaining a master’s in industrial design. This area not only represents a middle ground of my journey but also a physical milestone of my growth.”

4

ALEXANDRA OSBORNE
BUSINESS MANAGEMENT, BS '17
HOMETOWN: SYDNEY, AUSTRALIA
SPORT: TENNIS

“I’m standing in front of the Whiteman Tennis Centre … my home away from home and the epicenter of my journey at ASU. The tennis center is my ‘ground zero’ where my travels and experiences as a Sun Devil student-athlete stem from. It is from here that I have been able to leap into other amazing aspects of my life and experience opportunities beyond my wildest dreams!”

5

LUCY LARA
COMMUNICATION, BA '16; SPORTS LAW AND BUSINESS, MSLB '16
HOMETOWN: SULPHUR SPRINGS, TEXAS
SPORT: SOCCER

“It is here where I started, and it is here where I ended this chapter in my life. The ASU soccer stadium gave me the opportunity to become the woman I am today. I have sweat blood and tears with my best friends, and I would not have wanted my college experience any other way.

“Through soccer I was able to express myself, overcome poverty and violence, and start my life the way I want it. Through hard work, sacrifice, and faith, I was able to accomplish so many things on my own. I will forever be in debt to ASU and its soccer program, because it changed my life and family’s life forever. Even though I’ve played my last soccer game, I will always be a Sun Devil!”

Watch Lucy Lara at graduation at GiveToASU.edu/stories.

Sun Devil Athletics scholarships support more than 550 student athletes at ASU.

To learn more about supporting scholar-athletes, contact Scott Nelson, senior associate athletic director, at scott.d.nelson@asu.edu or 480-965-6972.
If Micah Lande had his way, you’d put this magazine down and go dig in some dirt.

Lande, an assistant professor of engineering in the Ira A. Fulton Schools of Engineering, would like you to heat your soil sample, weigh it, and report your findings to SciStarter, an Arizona State University research affiliate that relies on people like you and me to serve as foot soldiers on the front lines of science.

It’s called “citizen science,” a movement that equips the general public to collaborate with professional scientists on research projects. Measuring soil moisture levels is one of hundreds of projects found on SciStarter, co-founded by Lande collaborator Darlene Cavalier, a professor of practice in ASU’s new School of the Future of Innovation in Society.

Lande brings an engineer’s perspective to citizen science. Also an avid advocate for the “maker” movement, Lande’s academic focus is on equipping tinkerers, inventors, and ASU engineering students to design and build the tools they need to do science or solve problems that arise in our everyday lives.

He shared his populist passion for science and “making” last summer at the Citizen Science Maker Summit at the Chandler Innovation Center, where he and Cavalier ran sessions on producing low-cost data-gathering instruments that adhere to scientific protocols.

Lande’s creative energy landed him a prized Tooker Professorship in the Ira A. Fulton Schools of Engineering. Established by ASU engineering alum and former CEO of Motorola Gary Tooker and his wife, Diane, the professorship is a one- to two-year award for faculty with innovative ideas on how to increase engineering student retention, create a more rewarding learning experience, or give students a competitive edge in the job market.

Lande says the professorship has enabled him to incorporate his passion for design, prototyping, making, and entrepreneurship into his Fulton curricula and within the community.

He was able to expand his annual Art of Invention summer camp, which draws 120 middle and high school students for design thinking, creative problem solving, and, maybe, dirt digging. “We give them some ideas and tell them you can dive in and get your hands dirty,” Lande says. “It’s remarkable in a short amount of time how middle and high school students can innovate and create!”

Lande says his professorship has matured in its sense of responsibility. His work was aided by donors like Discount Tire and PetSmart sponsor times when the public, including ASU students, get in for free.

She tells Lande’s work “is broader than what course I took that will help me do a particular job.”

Thinking skills sharpen. Students are taught to closely observe artwork, pose and answer questions, and draw on historical knowledge to assess it. “They get to think, to write, and to articulate more clearly.”

It fuels his passion for teaching. “The effort you put in and your earnest devotion to teaching them things that matter and how they connect to the world at large… that sticks.”

“I returned from this program this past summer having realized that not only did student perspectives change; they matured in their sense of responsibility. Their minds opened in terms of what it means to be a global citizen, what it means to analyze personal benefits and perspectives, and in recognizing the essential role of cultural competence in their professional and personal lives.”

To contribute to CONHI scholarships, contact Eric Spicer at Eric.Spicer@ASU.EDU.

FOLLOW MICAH LANDE ON TWITTER @MICAHLANDE.
RECENT IMPACT

BY MARVIN GONZALEZ

THE POWER
OF TEAMWORK

These recent gifts show how together, our potential is limitless.

A COMMUNITY HUB

A blighted neighborhood is transforming into a community hub, complete with a vegetable garden tended by refugee families, thanks in part to a $2,500 gift from Mortenson Construction to ASU’s School of Sustainability.

SUPERNOVA SUPERHEROES

A team led by Patrick Young, an astrophysicist in ASU’s School of Earth and Space Exploration, is making shock waves with its 3-D simulations of supernovas.

The team achieved preliminary results from its work by raising $2,000 through PitchFunder, ASU’s platform for crowdfunding. Those results led to a $300,000 grant from the National Science Foundation.

ANGELS ALL AROUND

Scholarship donor Pamela Hebrank, of Monkton, Maryland, is witnessing the impact of her generosity firsthand through the Sun Devil Family Association Angel Program, which provides opportunities for donors and recipients to stay in touch.

Hebrank’s $5,000 gift supports Ellie Kim, ’17, a first-generation student, who says the gift allows her to focus on her studies.

FOR MORE INFORMATION ON RECENT GIFTS, VISIT ASUFUNDATION.ORG/IMPACT.
Almost 6,050 high-achieving scholars enrolled in Barrett, The Honors College at Arizona State University, unleash their creativity at all four ASU campuses. Founded in 1988, the honors college was propelled by an endowment in 2000 from Barbara and Craig Barrett, former US Ambassador to Finland and former CEO of Intel, respectively.

This year, the Barretts established the Barrett Global Speakers program, which will bring international leaders to ASU to engage with Barrett students and provide learning opportunities that will enhance students’ global outlook.

Shelby Prestwich, a junior biology major, and Julio Buntan Jr., a sophomore studying aerospace engineering, spent a summer studying historical human migration patterns in Canada after receiving the Norman Barrett Travel Fund award, established to help honors students enrich their educational experience by taking part in global study opportunities.

Homero Sosa Mendoza, a senior in supply chain management, is examining a range of urban issues in Tempe and Phoenix, from traffic patterns to sustainability practices to supply chains, using a Bidstrup Foundation Undergraduate Fellowship. Bidstrup Fellows engage in research in many fields and locations under the guidance of an ASU faculty member.

Kristy Westgard, double-majoring in supply chain management and journalism, has received not only financial support but also career counseling and learning opportunities outside the classroom through the T. W. Lewis Scholarship, established to cultivate leadership qualities and career readiness in high-achieving honors students.

TO HELP FUEL GLOBAL LEARNING OPPORTUNITIES AT BARRETT, CONTACT MICHAEL MURPHY AT MIKEMURPHY@ASU.EDU.
When photographs appeared of three-year-old Aylan Kurdi’s body washed ashore on a Turkish beach, it “broke the heart of the world,” according to British television personality Jeremy Kyle. Internet searches for Syrian refugees spiked that day in September 2015 and have remained heightened since.

The stirring image fell in line with other icons of photojournalism that opened hearts and catalyzed social change.

Now, researchers are studying how virtual reality—which evokes sensory experience beyond the visual—can better capture the present and the past to improve how we relate to one another.

“We need to be able to think into other people’s situations and feel with them,” said Corine Schleif, professor of art history at Arizona State University’s Herberger Institute for Design and the Arts. “Hopefully, we can get closer to those things with near total-immersion virtual reality so we can figure out what makes us tick, how we react to each other, how objects and other people are influential, and how we can live together within our environment.”

Schleif is leading a group of thirty international art historians, preservationists, theologians, musicologists, humanists, media designers, and acoustic engineers working to produce a multisensory reconstruction of a late-medieval Birgittine church.

The church, modeled after an original built in the fifteenth century at the Vadstena Abbey on Lake Vättern in Sweden, is the ideal object for virtual-reality study and experience, because it was conceived to stimulate the senses—it was filled with chants, layered textiles, arched spaces, and incense—and it played a central role in late-medieval life, says Schleif.

Immersing ourselves in what it was like to reside at the abbey and understanding why its inhabitants were a crucial part of the community and the roles they played in offering prayers and good works for those who lived outside its walls may open pathways to understanding how people relate in a universal sense.

The project, Extraordinary Sensescapes, is funded in part by ASU’s Institute for Humanities Research faculty fellows program, ASU President Michael M. Crow, and a grant from the Carnegie Humanities Investment Fund—private support on which it depends.

Now in the project’s early phases, scholars are collecting what’s left from the era to measure, study, and reproduce everything from the sound of songs reflecting from the church’s walls to the movement of people through its arched spaces.
architecture, wall hangings, and vestments to what choir members saw when they looked down at hand-illustrated books of music or across a damp chamber filled with altars, candles, and sacred vessels.

Because the Vadstena Abbey acted as a motherhouse for monasteries of the Birgittine Order across Europe, scholars are able to gather details from objects belonging to disparate collections but representative of those found in Vadstena.

To their surprise, during a trip to the cloistered Altomünster Abbey outside Munich, they discovered a collection of rare manuscripts unknown to experts. The team is now trying to preserve the materials so they can be studied, publicly accessed, and incorporated into Extraordinary Sensescapes.

“It’s an additive process that will be built up digitally,” Schleif said of the process. “Ultimately, we can capture the past and actually feel what people were confronted with: what they saw, how they reacted to each other, and how their different emotions came together. We can use that as a kind of laboratory to ask questions about empathy.”

She says students react to virtual reality with “oohs” and “ahhs” in a “less consciously analytical and rather experiential” way. Viewers are impressed with the degree of reality that can be generated and how it enables them to explore a place—and the technology is expected to become more vivid, portable, and widely available.

For Schleif, the most valuable aspect of Extraordinary Sensescapes won’t come until it’s in users’ hands to analyze what they feel and think while embodying spaces that don’t exist elsewhere.

She asks: In what ways can sensory experiences generate emotion? What is appropriate and respectful to present? Whom does it help? Whom does it hurt?

Perhaps most critical to the heartrending images we see in news today: What can it prevent?

“I really think that it’s all about here and now,” Schleif says. “It’s about what we can learn from those things in the past so we can make our world and our experiences better today—and not just better for a few people, but better for everybody.”

OUT OF THE CAVE AND ONTO THE SCREEN

Scholars found the earliest known art painted on a cavern wall—the same setting Plato used to liken the unlearned to prisoners chained in a cave, unable to turn their heads so they only saw “virtual reality”: shadows projected on the wall that they confused for real life.

As technology enables art to more closely imitate life, we look at a handful of examples showing the evolution of representation:

• **Drawings:** Sketches rose to commercial prominence when Renaissance artists, such as Michelangelo, included them in proposals to wealthy patrons to demonstrate—and help sell—yet-to-be-made paintings, sculptures, and buildings.

• **Art criticism:** The invention of movable type, etching, and woodcuts meant images could be reproduced and shared. In the eighteenth century, this led scholars to compare artworks—and the reality they conveyed—across regions.

• **Photography:** The authenticity of photography dramatically changed observers’ capacity to empathize with the subjects depicted. In the late 1880s, magic lantern shows projected multiple images alongside live narration and music, one of the major precursors to movies.

• **Stereoscope:** This 1838 device paired side-by-side images that, when viewed through attached lenses, fused the pictures in a single, three-dimensional scene. The View-Master, a special-format stereoscope, was made popular in the 1940s as a children’s toy and is now sold as a virtual-reality headset.

OPENING THE GEESE BOOK

With support from the Samuel H. Kress Foundation, the National Endowment for the Humanities, and others, Schleif and Extraordinary Sensescapes research partner, ASU musicologist Volker Schier, co-directed an earlier multisensory project to digitize the Geese Book, a large-format, illuminated, liturgical manuscript completed in 1510 and originally used by the parish of St. Lorenz in Nuremberg. A facsimile of the book and recordings of its chants can be experienced at geesebook.asu.edu.
“Do you know that a regular, yellow, number two pencil is filled with enough lead to write about 40,000 words?” asked Arizona Poet Laureate and University Professor Alberto Rios. “That is a book. Every pencil is literally filled with a book.”

Rios was addressing middle and high school students gathered for Día de los Niños/Día de los Libros, or “Children’s Day/Book Day,” an event sponsored by Arizona State University’s Department of English, College of Liberal Arts and Sciences, the Phoenix Book Company, and Dunkin’ Donuts. The day-long celebration was started in 2011 by English education doctoral candidate Tracey Flores and English professor James Blasingame to bring students together with authors and performers whose experiences reflect those of the many Latina and Latino youth in attendance. Now, “Día,” as it’s often called, is expected to draw at least 650 attendees—more than twice as many participants as the program’s first year.

“At Día, we celebrate youth, cultures, languages, and literacies by encouraging youth to realize the power of their voices,” said Flores.

As writers Rene Saldana, Gary Soto, Matt DelaPena, Meg Medina, Tom Leveen, Rios, and others tell stories, attendees are inspired to share their own.

One year, a teacher was brought to tears when one of her most reticent students read aloud verses he wrote during a workshop with poet Tomas Stanton.

According to Flores, empowering silenced students to express themselves is at the heart of Día.

Rios’s encouragement did just that.

“What a great thing to be able to let out,” he concluded. “Just let your pencil start writing.”

For the little boy in Evan Malady’s adaptive-education swim class, letting go in the water was the easy part. Letting go after class was a different story.

“He would go home and talk nonstop about the swim class he was in,” says Malady, who worked with him while completing his undergraduate studies.

The boy wrote Malady a card on the last day of class; by then, Malady knew he wanted to continue helping children with disabilities.

Now in his third year at Arizona State University’s Sandra Day O’Connor College of Law, Malady has found a new way to serve those with special needs.

An extern for the Special Education Law Project, Malady advocates for families fighting to get special education services for their children. Funded with a $250,000 grant from the Arizona Community Foundation, the project serves families who are unable to afford or find the legal services needed to enforce their children’s education rights, says J. J. Rico, executive director of the Arizona Center for Disability Law (ACDL), which partners with ASU’s College of Law on the program.

Because 10 percent of Arizona’s K–12 population identifies as having one or more disabilities, this type of advocacy is greatly needed, Rico says. In the past, the ACDL advocated for 5 to 15 percent of those who sought their services, leaving many families in need of representation. Now, the project has begun to fill the gap.

“I think my work has helped kids receive the proper services they deserve,” says Malady. “The gratifying thing is seeing the parents’ comfort in sending their child to school.”

And that’s something he doesn’t want to let go.

To find out how the ACDL advocates for persons with disabilities to be free from abuse, neglect, and discrimination, visit www.azdisabilitylaw.org.

PHOTO BY PHILAMER BATANGAN

RIGHTS AND REMEDIES

A NEW PARTNERSHIP HELPS ASU STUDENTS ADVOCATE FOR SPECIAL EDUCATION RIGHTS

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To DISCOVER HOW ASU LAW IS COMMITTED TO PUBLIC SERVICE THROUGH LEGAL PRINCIPLE, VISIT WWW.LAW.ASU.EDU.
Jeremy Meek sets his sights high.

At one point in his life, 238,900 miles high. Meek ’09, a construction management graduate, once wrote a paper detailing how to construct a colony on the moon. While he has yet to break ground on those plans, Meek has helped develop dozens of projects on a more terrestrial terrain: the Arizona desert. As sustainability programs manager at Desert Star Construction, Meek integrates green building and renewable energy practices into the company’s portfolio of luxury homes.

A nature lover—he maintains a website on hiking in Arizona, BestOfZona.com—Meek brings an ethic of sustainability and long-term development to everything he does, including where he invests his time and money.

Meek is a member of the ASU President’s Club Young Leader program, in which business professionals 35 years and younger support innovative ideas and partnerships emerging from the office of ASU President Michael M. Crow. Their funding provides Crow and other ASU leaders the financial agility to capitalize on emerging initiatives—and helps ASU sustain its role as the most innovative university in the country.

Why did you choose to give to Arizona State University?

I believe ASU is a major life force in our community, and I want to do my part to help it thrive. ASU is a key to Phoenix’s and Arizona’s competitive advantage on many fronts and is a pillar upon which our community’s future rests. I am one of relatively few native Phoenicians; I love my city and state and believe ASU is a major driver in continuing development of Arizona’s vitality and leadership on the national and global stages.

I was the first man in my family to earn a college degree, and I am proud that my undergraduate work was completed at ASU.

What’s going on at ASU that excites you?

That is a difficult question, because there is so much going on that is exciting; I will settle for a few highlights:

I am involved with the ambassadors program at the Translational Genomics Research Institute (TGen). This has allowed an upfront view of the collaboration between ASU, TGen, and others on the genetic research on ASU’s football players as it relates to concussion diagnosis and treatment. I love how ASU will collaborate to get the job done.

Having grown up in the construction industry, I am particularly excited about all the new facilities at ASU—the new Beus Center for Law and Society, the College Avenue Commons, and ISTB 2 are favorites. I have served as adjunct faculty in the past and continue to periodically guest lecture; it is a lot of fun being able to use the various technologies deployed in the classroom for local and distance learning.

I have always had an interest in all things space exploration, and I am superexcited to follow ASU’s team that will be leading NASA’s Psyche Mission.

What is your passion outside work?

I love my work, although periodically I take an adventure break with family or friends to recharge and satisfy my passion for exploration and photography. Short adventures in Arizona are great, and I enjoy trips abroad when time allows.

“Favorite areas outside Arizona include the Canadian Rockies and the Columbia River Gorge. Whenever I travel, my camera goes with me; I love experiencing and capturing dramatic landscapes. Photography helps fuel my creative side, and the photos are something I can share with others, whether to help recount my journey or to inspire them to go on an adventure of their own.”

SEE MORE OF JEREMY’S PHOTOGRAPHS AT GIVETO.ASU.EDU/STORIES.
“Donors are everything to the Ceramics Research Center. We would not exist but for the collections of donors who came together to give most of the objects in this museum. We also rely on donor support: our exhibitions and our staffing can’t happen without it.

We see ourselves as a catalyst for the community. One of the amazing things is that any donation to this place is multiplied by its effect in the ecosystem of artists.”

—Garth Johnson
Curator of Ceramics, ASU Art Museum

The ASU Art Museum Ceramics Research Center is an international destination home to 4,500 objects on display for free and open to the public. It regularly hosts exhibitions, including this spring’s Flowing beyond Heaven and Earth, a look at the work and processes of 35 Chinese ceramists.

See ceramics in detail at GiveTo.ASU.edu/Stories.

Johnson describes the collection and why ceramic art is experiencing a renaissance within the fine arts world at GiveTo.ASU.edu.