January marked the end of the drought here in Northern California. Thanks to multiple atmospheric rivers carrying the equivalent of many Mississippi each, says Hari Mix, an assistant professor of environmental studies and sciences who studies this phenomenon. Near-empty reservoirs were filled to overflowing, principal streams transformed to torrents. Witness this scene on the South Yuba River. Some communities were flooded, and mudslides occurred. Snowpack is well over 100 percent normal. On the whole, the news is good, right? Yes, says water expert Ed Maurer, “but it will take several years of above-average rainfall to replenish groundwater reservoirs.” Maurer is a professor of civil engineering whose recent work has focused on assessing the impact of climate change on water resources. During five years of drought, “we make up for shortages, people pumped groundwater, especially in the Central Valley and the San Joaquin Valley.” Another Bay Area authority on water suggests a page from John Steinbeck’s novel East of Eden: “And it never failed that during the dry years the people forget about the rich years, and during the wet years they use all money of the dry years. It was always that way.”
STATE OF THE UNIVERSITY
President Michael Engh, S.J., M.Div. ’92 recap a year of successes, challenges, and results from the Blue Ribbon Commission for Diversity and Inclusion.

Big Win for a Tiny House
Turning heads and changing the housing game. By Matt Morgan

$100 Million Gift to Build
John A. ’60 and Susan Sobrato make the largest gift in SCU history. Now see the Sobrato Campus for Discovery and Innovation that will take shape—and redefine the University. Illustration by Taris Cubrera

Cut & Paste Conservation
We can alter wild species to save them. So should we? By Ewone Morris. Illustrations by Susan Helley

Info Officer in Chief
From his office overlooking the White House, Tony Scott J.D. ’92 set out to bring the federal government into the digital age. By Steven Boyd Saum

For the Record

Where There’s Smoke
…there might just be mirrors. On “fake news,” the Internet, and everyday ethics. By Irisn Reis. Illustrations by Linnette Agnew

DIGITAL EXCLUSIVES
Timely features, interviews, videos, slidehows, make-ahead dentist offices, unannounced LinkedIn requests, microscope water bears, and the quest for sustainable computing. Here’s some of the latest.

Things to Come
Before we proceed, dear reader, indulge in a moment from our back pages: last spring, a conversation with John A. Sobrato ’60 that wrapped up with enthusiasm over the new law school building that would soon rise, and the new STEM campus. Perhaps that perked up your ears: New STEM campus? “Wait till you see what’s coming,” Sobrato said. “It’s gonna be terrific.”

So now, see the future unfold. (And since this is a magazine, we mean that literally.) What you’ll see is made possible by the biggest gift in the history of Santa Clara University: From John A. and Susan Sobrato, $100 million to build the Sobrato Campus for Discovery and Innovation.

And since we’re talking superlatives, the gatefold of the artist’s vision in this mag is the biggest thing we’ve ever done, too. Rendered by artist Taris Cubrera, it hints at the radiant future imagined on his cover illustration: a world we might build, and soon—of hypersonic jet packs and flying cars, rockets that blast into the sky, then land and blast off again.

Celestial dreams? In January, this world lost the last man to walk on the Moon. That was back in 1972. His mother was Slovak and his father was Czech, and he said that coming back into the Earth’s atmosphere was “like being immersed in a sheet of fire, a comet, a shooting star.”

That was us, people: We sent him there. But what about back on the ground? That’s why you build something big and bold: to do the work that needs to be done. Call it a Moonshot. Ax John A. Sobrato puts it: “The world today faces some really immense problems. We’re talking about climate change, global health, poverty, energy sustainability.”

This building will be a meeting place for work on science and tech and engineering at an institution where fundamental questions of ethics—what is the right thing to do?—are at the heart of the matter. And where work is sparked by imagination and creativity and beauty and truth, and the shape of spanning whole periods of many stripes and sizes. There will be lots more to come as relates to this tale. And yeah, it’s gonna be terrific.
The oral history of the meningitis crisis that Horace Gutman captured helped earn this magazine an award for staff writing, presented by the western region of the Council for Advancement and Support of Education (CASE) in March. The award recognized five articles, including “Believe in Darwin’s collaboration with Jeff Glore on retelling the story of the 1993 NCAA basketball playoffs, Glore’s story “Silence Broken,” about the making of the Oscar-winning film Spotlight, “An American Story,” a profile of Francisco Jiménez ’66 by Steve Rule Galán Sauvageau, and “Sweet Word” by Matt Morgan – the story of the new Bronco basketball coach, which earns some praise below. –Ed.

MISSION CRITICAL

I read with particular interest the article in the summer edition of Santa Clara Magazine about how courageously and almost seamlessly President Michael Engh, S.J. and his leadership team in various departments handled the meningitis episode. Even more intriguing, Super Bowl 50 and many of the planned parties were scheduled on campus during that time. Kudos to the leadership!

It has been more than 27 years since the Bay Area was rocked by the Loma Prieta earthquake, which destroyed many homes and some of our highways. I was just elevated to a cabinet position in my school district and assigned to develop an earthquake disaster plan for the district and its schools.

Lu Jenkins ’57
Santa Clara

STARING INTO THE FUTURE

The photograph “Student Working in Art Department Computer Room,” that appeared in the Art Warehouse digital exclusive once ran as a section front in The Washington Post. It was in the early days of digital photography, and that photo was shot on film!

WILLLOW TREE OASIS

The women of the Catala Club thank you for the last page by Grace Ogihara ’60 in the summer issue. We are so proud to have a spot of land on this beautiful campus and to have been able to provide financial support to under-graduate students for so many years.

Betty Ford
Catala Club member since 1974
Simone

I was asked by the head of University communications, Paul Hemnesy, to shoot a photo of one of our art students working on a digital photograph in the department’s computer lab. The newspaper needed the photo by the next day. Susan Felter was the art professor who was working on computers with digital photography, and this was one of her students, Carolyn Hamilton ’92. At that time, I still didn’t even have a computer on my desk, nor had I worked with one at all. I met with the student and shot the photo on film. I had to turn out the lights in the lab, expose for the screen, and use a strobe to light the student.

After that, I went to my darkroom in the basement of Daly Science. I processed the film, dried it with a hair dryer, printed one frame, and took it to FedEx to send to the Post.

Charles Barry
SCU Photographer, 1986–2015

THE $100 MILLION GIFT

The news came Jan. 21 at the Golden Circle Theatre Party: John A. Sobrato and Susan Sobrato were giving $100 million to build the Sobrato Campus for Discovery and Innovation. Some early reactions via Facebook:

What incredible generosity and passion for SCU! Thank you to the Sobratos!
Carol Rickerts O’Malley
Thank you, John and Susan: amazing generosity.
Frederick Fereber ’80

Thank you for supporting science and technology.
Jennifer Garibaldi ’83
Wow! What a wonderful and generous gift. God bless.
Melinda Kenney

Blessings, love, and gratitude to the Sobrato family!
Heidi Levine Leupp ’84

The Sobrato Family are amazing people! Many thanks! Your family over the years have demonstrated compassion in many ways and have been an inspiration to all of us. All of my kids graduated from SCU. Thanks again for making Santa Clara an awesome University a better place!
Karen Luther

AWARD SEASON

Recent awards for the mag brought in some “notes of well done!” including this one:

Just a note to congratulate you all on this well-deserved recognition. I spent time with Paul Locatelli, S.J. ’60 and some of his pals 15 years ago while doing graduate work in the Bay Area. He became one of my heroes, along with some other Jesuits at SCU, my own alma mater, Boston College. I thumbed through some old issues of Santa Clara Magazine while visiting the library on campus. It is one of the few college magazines with a strong journalistic bent. Which is why my way of saying, it always published great stories. So, well done you all. Keep up the good work.
Gino Boman
Freelance reporter, New York Daily News

More good news: A pair of national awards for your mag were presented in New York in October—an EDDIE for editorial excellence, naming us best college magazine published by any nonprofit or association (beating Harvard’s and Columbia’s mags, we’ll note), and an OZZIE for design, for illustrations by Emiliano Ponzi for “Change the Game” cover art of The Alameda. It was selected, presented by Folio Magazine for more than 20 years, the EDDIES and OZZIES honor the best in magazine publishing. Others winners this year included Foreign Affairs, Scientific American, and Travel + Leisure. In the Bay Area, SCU picked up a little hardware from the San Francisco Peninsula Press Club Bed Paga Design (‘Silicon Valley Story,’ by Michael S. Malone ’75, MBA ’77, Summer 2014), Best Feature Design (“Change the Game,” John Farnsworth’s essay, Fall 2015), and second place for best sports feature (“42: Wild Genius,” Bryan Doyle’s tribute to Steve Nash ’96, Fall 2015). We also received second place for Overall Excellence. Awards were judged by journalists from around the country.—Ed.
**Legal Grounds**

The new facility is designed to serve up to 650 J.D. and 100 non-J.D. students. It is open and flexible, a modern, eco-friendly interpretation of the University’s signature Mission-style architecture. Charney Hall will offer collaborative spaces for integrated learning and research including a digital Knowledge Center, the Panelli Courtroom, and Distinguished Interview Rooms for students to meet with employers.

“At the local economy and the world economy have evolved to high tech, so has Santa Clara Law,” President Michael Engh, S.J., says. “Charney Hall will raise its visibility. It’s going to strengthen its competitiveness, and it’s going to help Santa Clara Law lead at the intersection of law, technology, business, justice, and ethics.”

With mindful architecture and green technology, the building will actually reduce operating costs, Charney points out, but it’s an investment all the same. The law school’s vision—embodied in its new home—is a commitment to what thrives at Santa Clara: expertise in the complexities of the digital age, the expanding reach of bioengineering, and the unfolding possibilities of nanotechnology.

“We’re focusing on areas that we believe the law school can be without peer in the United States, if not the world,” Charney says. “We believe in our heart of hearts that they will serve us well as we go forward.”

Its physical footprint puts Charney Hall in good company. It brushes shoulders with the Leavey School of Business and Varri Hall, home of the Markkula Center for Applied Ethics and the political science department. And it’s in the same location as the third site of Mission Santa Clara in the 1760s.

“It’s on a spot that’s historic and looks to the future in terms of the advance of legal thought, education, technology, and greater collaboration,” President Engh says. “This new professional district will encourage interdisciplinary collaboration and innovation as well as greater opportunity for engagement with the community.”

**Where Do You Stand?**

Together. On Nov. 30, 2016, President Michael Engh, S.J., and the presidents of 26 Jesuit colleges in the United States raised a collective voice of support for undocumented students. They published an open letter pledging legal protection of students on campus, promotion of the Deferred Action for Childhood Arrivals program, and support for students of all faiths.

For students at Santa Clara—and at many universities across the country—the fear in admitting undocumented status is real. It can result in the stripping of what you’ve grown to love: your friends, your home, your school, your country. In a contentious election season, that fear is resonant.

“We believe that it will be a new 21st-century home for a law school in Silicon Valley,” Charney said at the groundbreaking.

Members of the campus community showed support for undocumented students at a walk-out demonstration Nov. 17, holding signs and chanting “Who do we stand with?” as they marched together.

**For students at Santa Clara—and at many universities across the country—the fear in admitting undocumented status is real. It can result in the stripping of what you’ve grown to love: your friends, your home, your school, your country. In a contentious election season, that fear is resonant.**
“We’re Absolutely Back.” Eleven years since its last Elite Eight, Santa Clara roared deep into the playoffs this year. The Broncos rode a disciplined offense and gritty defense. Wunderkind goalie Melissa Lowder ’19 blocked the shots needed to upset top-seeded Stanford and N.C. State. In the end, the Broncos fell a game short of the national semifinals. But they’re dreaming of more rings.

“Leave the world a little better than you found it. Good advice for life and soccer,” Jordan Jesolva ’17 thinks. Playing at Santa Clara comes with the weight of a national title perched on your shoulders. Carrying that legacy forward is a thrilling and awesome responsibility.

Sitting at 6–4–1 at regular season’s end, the Broncos were in danger of missing the NCAA tournament this season. But they weren’t done.

SCU made the tournament—though unseeded—and found it pretty well with nothing to lose. Goalie Melissa Lowder shut out three straight opponents, including top-seeded Stanford—a favorite to win the title—before losing to Georgetown 1–0 in the national quarterfinals. “People didn’t really expect anything from us,” Jesolva says. “It definitely was just [us] trying to do everyone wrong.”

This late-season run was about redemption in a way. At least making things right. After tearing her ACL as a sophomore, Jesolva effectively lost the majority of two seasons to injury—going scoreless each year, for the first time in her life. As a senior, she found new life via a midseason position change, landing in goal. “Pretty cool.”

SCU’s women’s basketball had momentum rolling into the 2017–18 season for SCU volleyball. Following a school-best 9–0 start—including two top-25 wins and a No. 17 national ranking—setter Kristen Meal ’18 was sidelined with an ankle injury in September, missing 14 matches. Despite a first-team, all-conference effort by outside hitter Nikki Hesa ’17, the Broncos dropped seven straight, finishing 16–16 and missing the NCAA tournament for the first time since 2013. The good news? Six key contributors return next fall. And a dynamic recruiting class should help, too.

ATHLETICS
Coach Herb Sendek with the game ball after he scored his 200th career point. Bronco Bench Foundation website for tickets.

CALL IT JB2K

GUIDE JARED BROWNRIDGE ’97 pulled off something even Kurt Ramble ’00 and Steve Nash ’96 didn’t: He scored 2,000 points at SCU. Brownridge reached that milestone Jan. 5, in a 70–42 win over Portland. The communication major from Aurora, Illinois, is one of only four active players in the country—and the second in school history—to hit that mark. Brownridge crossed the finish line in style, converting a fast break reverse layup around Alex Wintering for the landmark basket. “It feels great to get the win,” Brownridge said. “That’s the only thing that mattered. Individual-ly, it feels great to reach a milestone. I’ve put in a lot of work at Santa Clara to get there.” The first season under accomplished head coach Herb Sendek hasn’t been as smooth as the team hoped, mixing impressive wins (Jan. 26 over BYU) with disappointing losses (Gonzaga, twice). But the Broncos are getting better: SCU has improved its monthly record each month this season, with January serving as its best split at 5–3.

TWIST OF FATE One burn ankle changed the path of a promising season for SCU volleyball. Following a school-best 9–0 start—including two top-25 wins and a No. 17 national ranking—setter Kristen Meal ’18 was sidelined with an ankle injury in September, missing 14 matches. Despite a first-team, all-conference effort by outside hitter Nikki Hesa ’17, the Broncos dropped seven straight, finishing 16–16 and missing the NCAA tournament for the first time since 2013. The good news? Six key contributors return next fall. And a dynamic recruiting class should help, too.

NASH BASH Two-time WCC Player of the Year. First at Santa Clara in assists. And two NBA MVP’s, Steve Nash ’95 will someday be enshrined in Springfield, but first he’ll take his place in the SCU Hall of Fame. Nash will be inducted at the Red & White Hall of Fame Celebration at the Leavey Center on May 13. Want to be there? Check the Broncos Bench Foundation website for tickets.

GAINING STEAM Coming off its first postseason appearance in 10 years, SCU women’s basketball had momentum rolling into 2016. The Broncos started slow but won conference’s first-ever post-season opener against UC San Diego. To get the program momentum, Steve Nash ’96 has both the education and the family to back him up. His father, Robert, notched eight seasons in the NBA. Nash has been playing with the Broncos since 2014 season. He earned his psychology degree in three years and will complete a master’s in 2019. He plans to go into sports psychology or marriage and family therapy. And coursework has helped him on the court, where he leads the Broncos in rebounding and is third in scoring. Here’s one thing he taught me: “Not to be so hard on myself if I do make a mistake,” Nate says. “That’s part of why I get into psych, to improve as a person and as a basketball player.”

Santa Clara even some of its final 16 games of the season, before falling to Georgetown 2–0.

Family Business
Chancellor Emeritus

This summer turned a page for William Rewak, S.J. He stepped down as Chancellor of SCU, a post he had held since 2011. We’re blessed to have him as part of our community as Chancellor Emeritus—and we’re glad that he has more time to write poetry. Fr. Rewak came to Santa Clara University in 1970 to teach English. He served as President of the University for a dozen years (1976–88) and as president of Spring Hill College in Mobile, Alabama. He founded this magazine, charting the course so: “We are here for that human interchange where wisdom is born, to serve intellect and to touch the human heart.” He has a new collection of verse, Harmony: New and Selected Poems—which draws from the collections The Right Tax and The Orphan Bear. In an interview a couple years ago, he spoke of how “the creation of a poem is its own doing, an acknowledgment and praise of something, or someone, lying at the heart of our experience.” In his honor, the Jesuit community has named an endowed chair for him. His first recipient: Professor Shannon Valer of the Department of Philosophy.

MEET MATT

In August we welcomed Matthew G. Dewey as associate vice president for marketing and communications. He comes via the University of Illinois at Urbana-Champaign, where he was senior director of marketing and communications and led an 11-person team that supported a planned $2.5 billion capital campaign. Note that UIUC ranked No. 11 among public universities by U.S. News & World Report. Dewey hauls from the Land of Lincoln originally and is an alumnus of the University of Notre Dame Mendoza College of Business. He also captained the track and field team for the Fighting Irish and competed in shot put, discus, and hammer throw. At SCU, he helms work in media relations, social media, creative services, and digital properties. We at Santa Clara Magazine are part of his crew, too.

MAJOR CHANGES

A historic and overdue change came in fall 2016: Students can major in women and gender studies and ethnic studies as standalone subjects. Both were formerly comparison majors and required a second field of study. “I can’t overestimate the importance of the symbolism,” women’s and gender studies chair Linda Gerber says. “It is an important institutional acknowledgment that the study of diversity and systems of power and prejudice and oppression are real academic pursuits.” This is a fitting time for this change.

Anna Sampaio ’92, chair of the Department of Ethnic Studies, says she views her classes as continuations of conversations she’s already having. Santa Clara’s ethnic studies program is one of a handful culminating in a bachelor of science, approaching the field from a social science perspective. Sampaio says ethnic studies helps students find the right critical lens for important issues. “You take ethnic studies to be a better citizen of the world, to be a better version of yourself,” Sampaio says.

BRAIN SCIENCE

A major in neuroscience became available to students starting fall 2017. Offering training in a variety of fields, such as psychology, biology, chemistry, and neuroethics, the major addresses cognitive issues like aging, Alzheimer’s, and autism. “Our understanding of the brain is still in its infancy,” chair Patti Simone says. “But the problems to be worked on have the potential to impact us all.”

ADIEU, KENNEDY COMMONS

As we look back at a decade of experiment and inspiration, Built in 2005 to pilot new academic elements—some featuring green roof—the commons was one of the first buildings in the United States to be “living.” As part of renovations for Dunn Hall in summer 2016, the commons was torn down. But design elements it tested live on: as part of the Josefa E. Harrington Learning Commons, Sobrato Family Technology Center, and Orwaski Library. The Paul J. Lecanis, S.J. Student Activity Center; Lucas Hall, home to the Leavey School of Business; Croghan Hall; and the Schott Admissions and Enrollment Services Building.

Accompany Me.

Casa de la Solidaridad in El Salvador was founded by SCU in 1999 to reimagine what study abroad could be. International students learn alongside Salvadorans and work in local communities. But in spring 2016, the program was suspended over safety concerns in the country. Great news came in November: The Casa is back—and accepting applications for fall 2017.

The CASA study abroad program engages students in the culture, economy, and existence of the Salvadoran people. Along with classes held at the Universidad Centroamericana (UCA), students spend time in service placements throughout the region: with medical clinics, adult education programs, English and art classes, even local farming initiatives.

One such CASA placement: Centro Hogar, or home center. In December 2007, the child development center lost its funding and could no longer financially support its 33 preschoolers, children who were growing up exposed to extreme poverty—gangs, drugs, human trafficking, and sexual exploitation.

Juan Velasco, an associate professor of English who teaches in the CASA program, decided to create a grassroots campaign to raise funds for these children. Serendipitously, enough donations from around the world arrived to ensure the children could stay. Soon after, the center re-established itself as Programa Velasco, a nonprofit so named by the parents to honor the man whose program to date has helped 134 children receive scholarships to continue their education.

Organizations like this illuminate why halting CASA enrollment in support of student safety was such a difficult decision, considering that the program and the University already have homestay relationships with the U.S. Embassy and the Peace Corps, the Salvadoran government, and Catholic Relief Services.

But as students of the country’s history know, violence in El Salvador didn’t end with the civil war. Recent surge in murder rates led to a state department travel advisory. Yet in March, several CASA alumni created a Change.org petition, urging SCU to relaunch the study abroad program. Protests Dennis Jacobs responded to by arranging for an independent security assessment team to travel to El Salvador and evaluate whether the program could again run. Following the review, CASA got the green light to resume. It was a week of other cheerful news about El Salvador for SCU, as well: Thomas Smolich, S.J., M.Div ’86, international director of Jesuit Refugee Service (JRS), received the Christians for Peace in El Salvador (CRIPAS) Award for his work serving the poor and exposing the Salvadoran theology of social justice and peace.
Faith & Fiesta, community and culture, religion and retelling—all converge in celebration of La Virgen del Tepeyac (Our Lady of Guadalupe), a tradition at Santa Clara for two decades. The patron saint of Mexico and a cultural icon throughout the Americas, La Virgen represents a spiritual blending of Spanish and Aztec heritage, owing to her miraculous apparition to the indigenous peasant Juan Diego in 1531.

GOOD LISTEN is there a common good in our common home? That’s a question explored in INTEGRAL, a new series of podcasts launched by SCU’s Ignatian Center for Jesuit Education. Each season highlights a different theme, with season one discussing new issues of racial and ethnic justice intersecting with the concept of the common good. Featuring Santa Clara scholars from across disciplines, episodes use faculty research to explore urgent ethical dilemmas: immigration and national identity, race and mass incarceration—and inspire listeners to act in the best interest of humanity. Hear it: scu.edu/integral

MISSION MATTERS

SPRING 2017

SCU celebrated key moments in Sandra Schneiders’ scholarship with an exhibit paired with images from the Illuminated St. John’s Bible.
The Integrity Thing

One issue that college environments still a sense of the importance of integrity—especially academically. Here at Santa Clara, to underscore that point, in 2015 the University inaugurated the Spirituality and Health Institute at SCU, and wife Lori was a clinical College Students in the university environment. Their goal: “Provide a model for imparts the skills of ethical decision-making to college students during a time of great transition, temptation, and unprecedented freedom.”

TOTAL SUPREMACY
Next time you’re in Washington, stop by the National Archives and take a look. There, in Article VI, the Constitution specifies that treaties are “the supreme Law of the Land;” and the judges in every state shall be bound thereby; anything in the Constitution or laws of any state to the contrary notwithstanding.” The supremacy of international treaties over state laws was bedrock.

principle for 150 years, observes David L. Sloss, a professor of law at SCU. But as he notes, something happened: The Death of Treaty Supremacy: An Invisible Constitutional Change (Oxford University Press) traces the trouble in 1945 and the signing of the UN Charter, which includes the requirement to uphold “human rights . . . for all without distinction as to race.” Five years later, a California state court used that charter and the supremacy clause to overturn a law discriminating against Japanese nationals. Implications for Jan Crawford Greenberg was, in 2005, the first woman to be seated on the U.S. Supreme Court, and she and Thomas G. Plante, in Last of the Land, and the judges in every state shall be bound thereby; anything in the Constitution or laws of any state to the contrary notwithstanding.” The supremacy of international treaties over state laws was bedrock.

When We Were Governor.
Recognize her? In 1931, this woman’s death at the age of 72 was front-page news. She was memorialized as one of the greatest women in U.S. history. Today? Very few people have heard of Belle Case La Follette. Nancy C. Unger, professor of history at SCU, can sympathize—though she would also like to change that.
Symmetry Reflects Us. It brings us “face-to-face with the grand structure of mathematics,” as mathematician Frank Farris puts it. Years ago Farris, an associate professor of mathematics and computer science, bridged mathematical realms and photographic material with what he calls a “domain-coloring algorithm.” His resulting work wedds waveforms to nature photography, and it has been exhibited in galleries and at universities across the country. The book Creating Symmetry: The Artful Mathematics of Wallpaper Patterns (Princeton University Press) collects scores of his images: beginning in the familiar plane of Euclidean geometry, employing complex equations to generate rosettes, friezes, and wallpaper patterns (any pattern with translational symmetry in two independent directions). To follow the mathematical threads requires understanding calculus. The big story unfolding is the beauty of the Earth.
Twenty-sided figures gird the globe in “Icosahedral Lamplight.” Also at play: ray-tracing, a technique for simulating the path of light as it bounces through the world.

“A pumpkin pie surprisingly turns into carousel horses using a trick created by Farris’s wave approach.”

“They Arrive” as balls painted with polyhedral patterns level by moonlight on Upper Twin Lake in the Sierra Nevada.

“When the Butterfly Gates Open” shows color-reversing wallpaper symmetry on the gates and icosahedral symmetry on the floating globe.

“Starry Night of Fire” captures a spiral of stars mirrored in a lake. The floating globe reflects the same pattern, but in reverse.

“When the Butterfly Gates Open” shows color-reversing wallpaper symmetry on the gates and icosahedral symmetry on the floating globe.

“Temple of the Peach” uses a pattern representing non-Euclidean geometry around the inside of a cylinder.
LIKE CHORDS IN A SONG is how Bay Area sculptor Bruce Beasley sees the individual shapes in his work. "Take Rondo, I have a series of shiny, nearly interwoven rings that invite interactions within the sculpture and with the natural environment surrounding it. Since fall 2016, the sculpture's permanent home has been the Mission Campus, next to the entrance of the de Saisset Museum. (That's the sculptor and sculpture on campus, below.) Beasley finds inspiration in what he calls "the building blocks of nature" that is, the various forces that shape and sustain the universe. His work is internationally known and featured in major museum collections, including New York’s Museum of Modern Art, the Fine Arts Museums of San Francisco, the Solomon R. Guggenheim Museum, and dozens of others. Thanks go to the artist himself and the de Saisset Museum for bringing this lovely piece here—part of the University's vision to develop a prominent and robust public art collection for the enjoyment of the campus and wider community.

Monument Marks the Spot

INSPIRED BY ANCIENT art and architecture of Mexico, Pancho Jiménez '93 works with big shapes—such as a series inspired by enormous Olmec heads—covered with details cast in ceramic molds: baby doll faces, theatre masks, teddy bears, typewriters, ballet slippers, pumpkins, chariot wheels. He had his first solo show at the Triton Museum in the city of Santa Clara last fall. And curators from a number of California museums took note and purchased some pieces for their collections: You'll now find his work in the Crocker Museum in the city of Sacramento, the Autry Museum of the American West in Los Angeles, as well as the Triton Museum itself. Jiménez is a senior lecturer in studio art at SCU. Explore his work in the Triton Museum itself. Jiménez is a senior lecturer in studio art at SCU. Explore his work in the Triton Museum itself. Jiménez is a senior lecturer in studio art at SCU. Explore his work in the Triton Museum itself.

WOW, WHAT A LINEUP! This winter the College of Arts and Sciences has hosted a dynamic series of artists to campus: Bozeman-born painter Aneri Koboalski, award-winning actress Anna Deavere Smith, and global music project The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble. As Frank Sinatra Artists in Residence, Smith and the ensemble will also oversee and co-direct The Silk Road Ensemble.

One Voice is the title of a symposium SCU hosted Nov. 18 about sexual assault on campuses. D.A. Jeff Rosen led the conference for law enforcement and campus leaders. Congresswoman Jackie Speier shared gut-wrenching cases of sexual assault from around the country. Actress and activist Sharon Stone read from the victim statement by Emily Doe in the Stanford sexual assault case.
The Brock Turner case put campus sexual assault in the headlines.

Alaleh Kianerci J.D. ’07 let its victims be heard.

BY MATT MORGAN

Alaleh Kianerci calls the Brock Turner case a perfect storm: a white, privileged student-athlete accused of sexually assaulting an unconscious woman behind a dumpster. There was little question as to guilt, in a traditional sense. Turner, then a swimmer at Stanford, was caught in the act. He ran and was tackled. The question was how far the American judicial system had come in addressing its issues with sexual assault. Kianerci, the deputy district attorney assigned to the case, thought it would bring privilege, consent, and rape into the spotlight. But even she couldn’t have predicted the media storm that followed Turner’s conviction and surprisingly lenient six-month sentence.

“It was such an important case for a lot of different reasons,” Kianerci says. “With the sentencing, it’s just taken a whole new life form—but for good.”

It was a big story from the start, but local big. That changed when BuzzFeed posted victim Emily Doe’s impact letter. Originally, the letter was a response to the probation report that Doe believed misrepresented her wishes for Turner’s punishment. Kianerci encouraged Doe to write the letter, hoping that the probation officer would change her recommendation for sentencing. “You don’t know me,” the letter begins, addressing Turner, “but you’ve been inside me, and that’s why we’re here today.”

When Kianerci saw the letter, she knew others needed to read it as well. In addition to submitting the letter to the probation office, Kianerci posted it on the Santa Clara County District Attorney’s website. BuzzFeed republished it. CNN’s Ashleigh Banfield read it on the air. Within days it reached millions. Letters of support poured in.

“There are victims of sexual assault daily, and there are victims who write eloquent impact statements,” Kianerci says. “This one was just different.”

Turner was sentenced in June and released after serving three months. The judge in the case, Aaron Persky, became the de facto voice for Doe, appearing on local and national news outlets. “I was really protective of her,” Kianerci says.

Kianerci points to one part of the trial that troubles her. Kim Fromme, a clinical psychology professor at the University of Texas at Austin, is an expert witness who testified on behalf of Turner. Fromme conducted research that she believes shows intoxicated people aren’t consent-impaired but memory impaired. It was an unfortunate reminder of the obstacles victims face when they attempt to bring their attackers to justice. “She’s an educator,” Kianerci says of Fromme. “She was a professor at a university that has young adults who are greatly affected by these types of cases.”

A daughter of Iranian immigrants (her first name, Alaleh, means “tulip” in Farsi), Kianerci grew up in Santa Cruz. Her parents own a restaurant in San Jose, where she managed the bar her first semester at SCU law. She has a skill for connecting with people and witnesses. “It made it easier to stay here as late as I could to make sure that when I cross-examined [Fromme], it really poked holes in her testimony,” Kianerci says. “If I wasn’t able to do that, the outcome could’ve been different.”

BRINGING REAL CHANGE

After sentencing in the Brock Turner case, Alaleh Kianerci J.D. testified in a legislative hearing to close a loophole in sentencing for sexual assault perpetrators.

As for Turner’s light sentence, Kianerci doesn’t blame the judge exclusively. He was acting within the law. “There are many judges in the state of California that would’ve done the same thing,” she says.

Kianerci and Santa Clara District Attorney Jeff Rosen used public support as an opportunity to make long-term change. Two weeks after the trial, they testified in a legislative hearing for California AB-2888, a bill that closed a loophole allowing perpetrators who assaulted unconscious victims to avoid jail time. The bill passed unanimously. Gov. Jerry Brown ’59 issued a signing statement along with the law, and that letter explaining the rationale behind the law now hangs in Kianerci’s office. Legislation that makes jail time mandatory can be problematic, as it often disproportionately affects people of color. In fact, in his letter, Brown mentions his general opposition to mandatory minimum sentences. Kianerci says that isn’t the case here.

“I believe this is going to bring parity in the special treatment non-minorities [get],” Kianerci says. She likes the bill to what Mothers Against Drunk Driving has done for DUI laws. “Hopefully this case will have the same impact.”
The rEvolve House won a state-wide competition in Sacramento. Now it’s a home to help veterans with PTSD.

BY MATT MORGAN

When the rEvolve House project started two years ago, JJ Galvin ’17 was a quiet college sophomore. He wasn’t ready to lead a major construction project, he says, but he knew he wanted to learn.

At the award ceremony for the Sacramento Municipal Utility District (SMUD) 2016 Tiny House Competition, at Cosumnes River College on Oct. 15, Galvin was different: a vocal, confident senior, a leader, a champion. Galvin and his rEvolve House teammates took first place in the inaugural competition. The contest was patterned after the U.S. Department of Energy’s Solar Decathlon and featured nine houses judged on four categories: Architecture, Energy Efficiency, Communications, and Home Life. Their 238-square-foot house, which features a revolving base that allows solar panels to follow the sun, was named the overall winner and took honors for energy efficiency and communications. They bested entries from U.C. Berkeley, three Cal State schools, and four more colleges.

“I’m on cloud nine,” Galvin said at the ceremony. “It’s unreal that I’m blessed enough to be here and have this team around us and have the support that we’ve had.”

During the award ceremony, Galvin, who volunteered as student team leader in fall 2015, was chosen by his teammates to hold the trophy in photos. “Half the reason I came to Santa Clara was to work on projects like this,” he admitted. “So I said, ‘You know what, if no one else [is able] do it, I’m going to step up.’”

Galvin’s transformation wasn’t unique. Working on a house for half their college career forced all the students to become leaders, at various points. With Galvin, the final roster included 14 names—Anna Harris ’17, Gabriel Christ ’17, Jack Dinkelspiel ’17, James LeClercq ’17, Jonathan Borst ’19, Jun Chang ’18, Marcus Grassi ’17, Martin Prado ’16, M.S. ’18, Nico Metais ’16, M.S. ’16, Samantha Morehead ’18, Taylor Mau ’18, Thomas Chung ’18, and George Giannos ’18—but other students cycled in and out of the project during the two-year commitment.

“I think this whole team can conquer the world now,” said Tim Hight, the faculty advisor on the project and an associate professor of engineering. “They set themselves a huge target, and they probably exceeded it.”

The day of the ceremony, Giannos, who served as student construction lead, was amazed at what his team had accomplished, sharing hugs with teammates and friends. They built something significant, something that would last.

“It’s very difficult to do well on a project like this if you don’t love each other,” Giannos said. “That’s the biggest part of this project. We’ve learned so much from each other.”
“MAKE SOMEONE’S LIFE BETTER.” Though small in stature, the rEvolve House is a fully functioning home. It has heat, air-conditioning, running water, a kitchen, a shower, a spiral staircase leading to a rooftop deck, a self-watering vertical garden, and a porch that doubles as the revolving mechanism, helping increase solar energy reserves by about 30 percent.

After the competition, the house was donated to Operation Freedom Paws—a nonprofit dedicated to teaching veterans suffering from PTSD, as well as others with disabilities, how to train their own service dogs. From Sacramento, the house came to Santa Clara for a short celebration on campus before heading to Gilroy for the town’s holiday parade. Finally, the house was inspected and prepped for Operation Freedom Paws, which hopes to start using it in early 2017.

The rEvolve House was designed with the veterans who would use it in mind. The doorways, showers, and appliances are all accessible from a wheelchair. When not in use, the bed folds into the wall, providing plenty of additional living space. Surfers in the house are tough enough to withstand the claws of a dog while remaining easy to clean. There is even a vacuum built into the wall to collect dog hair and a drawer with dog bowls that emerges from the wall.

The cost of a service dog normally runs $10,000 to $15,000, but Operation Freedom Paws offers the dogs to clients at no cost. In the past, clients stayed in hotels paid for by Operation Freedom Paws. With the rEvolve House, the organization can reduce costs and help more people.

“THAT’S THE COOLEST PART,” Giannos said. “Our house has meaning, and it’s going to make someone’s life better.”

Tiny houses require care—emphasis on the details of design. Placing them in communities requires bigger changes in laws and building codes.

EVI LUTION/REVOLUTION. Unusually small from foreign countries promising deals too good to be true in span folders. But about two years before the SMUD competition, faculty advisor James Reites, S.J., M.S.T ’71, received an email from Colossun, a company in Spain, that changed the path of the project—eventually.

Colossun claimed they could equip the tiny house with solar panels that would revolve to follow the sun. The email sat in Reites’ inbox for about a year before he and Hight decided to respond. They knew the rEvolve House was too small for the revolving panels to sit on the roof, but there was a way that Colossun could help.

“We asked if we could rotate the house,” Hight said. They could. In Barcelona, Colossun worked on a design to revolve the house. Oddly, the development of a rotating base actually had nothing to do with the naming of the house, which came much earlier. “It was more ‘evolve’ and a revolution in that sense,” Hight said.

While Colossun figured out the logistics of the rotating platform and how to get it halfway around the world, the rEvolve House team was busy working on the rest of the structure. Building a tiny house for competitions like SMUD is a multyear endeavor. Students, mostly from the engineering program but not exclusively, joined and left the project, with some staying on the team throughout. The students spent half their college careers building the house. And putting their sweat (and a little blood) into it is more than a metaphor.

As the competition drew near and the house started to take shape, the company that produced the revolving platform ran into a roadblock of international proportions. The team had scheduled Hanjin Shipping to transport the crate containing the material for the house across the ocean, departing Barcelona on Sept. 1, 2016. But the day before the platform was set to sail, Hanjin declared bankruptcy. Globally, around 90 of Hanjin’s vessels were stranded at sea, anyone in queue for shipping with the company was out of luck.

“We scrumable, scrumable, scrumable.” Hight said. “We’ve had this sponsor, Pasha, a transportation company. They worked with us in the past and the founder, George W. Pasha IV ’94, is an alum. They’ve been extremely good to us and generous and solve our problems. He said, ‘We’ll take care of this. Don’t stress. We’ll figure it out.’”

They did. Strapped for time, the team ditched the plan to ship the crate through the Panama Canal to Oakland, instead sending it to New York and then having it delivered by truck to California in time for the competition.

Gregorio Garcia Portuondo, an engineer from Colossun, flew to Santa Clara to help put the giant revator set together. A few days after his arrival, the house revolved for the first time. Two weeks later, it was in Sacramento collecting first prize at the SMUD competition.

CRACK THE CODE

To put it in Silicon Valley terms, small units think differently. They don’t waste space—appliances are stacked, storage is built in, everything has multiple uses—and they put a premium on design. But will tiny houses hit the mainstream? Hight is uncertain for a variety of reasons, starting with building codes. While tiny houses are popular among engineers and amateur construction enthusiasts, the governing bodies for building codes on local, state, national, and international levels haven’t caught up yet.

“If you build or remodel a house, there are permits, there are inspections, there are fees. There’s a way to do it that’s well established,” Hight said. “What is needed is a way to modify those [processes] so a tiny house can be permitted, can be inspected, and so forth.”

Since tiny houses are under the minimum square footage for a dwelling in most municipalities, they won’t pass inspection. Further, many tiny houses have wheels, which obscures whether to categorize them as a permanent or temporary residence. These ordinances were even a bit of an obstacle for Operation Freedom Paws. To sidestep the inspection issue, the house was able to get the house inspected as a temporary dwelling, since clients would cycle out.

At a statewide level, some progress is being made. On Sept. 27, just a couple weeks before the Tiny House Competition, Gov. Jerry Brown ‘59 signed Assembly Bill 2176, which suspends building, safety, and health codes for unconventional housing structures. Former Assemblywoman Nora Campos, D-San Jose, authored the law with the intent of creating a short-term structure for tiny houses for homeless people over the next five years, after which the law will expire.

While Hight agrees tiny houses can provide shelter for homeless people, seasonal workers, and victims of natural disasters, he says the structures are unlikely to go mainstream, as they simply don’t fit the lifestyles of families. But for single people, tiny houses could provide a good bridge before they can afford a full-size house, especially in the Bay Area. Hight envisions tiny house communities with shared resources like laundry and areas to entertain.

“That’s a matter of being more efficient with space and energy and resources,” Hight said. “So people have proposed that would make for more community, more interaction—and it encourages living small in terms of your carbon footprint, your energy use.”

The team worries about the same amount of electricity as small apartments. But with solar panels—which are common—a tiny house uses less energy from the grid. Plus, apartment buildings present problems that tiny houses don’t: They are not typically built by the operator, so energy and resource efficiencies often aren’t at the top of the priority list. In tiny homes, both are.

Perhaps, that’s the greatest impact of the tiny house revolution. Influencing how traditional units are designed. Not that every new unit will be a tiny house, but tiny house design techniques can make buildings more efficient in both their physical and carbon footprints.

CHIEF INSPIRATION OFFICER

One person missing from the celebration in October was Fr. Reites. Papa Reites, as students knew him, served as faculty advisor and unofficial chief inspiration officer until he passed away in April 2016. The team remembered him by placing his green hard hat on the top shelf of the rEvolve House kitchen and embroidering the message “In Loving Memory of Papa Reites” on every sweatshirt.

Reites was a fixture on solar decathlon teams in recent years, and his fingerprints were all over the rEvolve House. “The smiles are really where you see [him]—and the work ethic, too,” Galvin said. “How hard each of these people worked for this project, that’s where you see him.”

For the SMUD competition, the rEvolve House kitchen and porch were dubbed “In Loving Memory of Papa Reites” on every sweatshirt. “If you build or remodel a house, there are permits, there are inspections, there are fees. There’s a way to do it that’s well established,” Hight said. “What is needed is a way to modify those [processes] so a tiny house can be permitted, can be inspected, and so forth.”

Since tiny houses are under the minimum square footage for a dwelling in most municipalities, they won’t pass inspection. Further, many tiny houses have wheels, which obscures whether to categorize them as a permanent or temporary residence. These ordinances were even a bit of a problem for Operation Freedom Paws. To sidestep the inspection issue, the house was able to get the house inspected as a temporary dwelling, since clients would cycle out.

At a statewide level, some progress is being made. On Sept. 27, just a couple weeks before the Tiny House Competition, Gov. Jerry Brown ‘59 signed Assembly Bill 2176, which suspends building, safety, and health codes for unconventional housing structures. Former Assemblywoman Nora Campos, D-San Jose, authored the law with the intent of creating a short-term structure for tiny houses for homeless people over the next five years, after which the law will expire.

While Hight agrees tiny houses can provide shelter for homeless people, seasonal workers, and victims of natural disasters, he says the structures are unlikely to go mainstream, as they simply don’t fit the lifestyles of families. But for single people, tiny houses could provide a good bridge before they can afford a full-size house, especially in the Bay Area. Hight envisions tiny house communities with shared resources like laundry and areas to entertain.

“That’s a matter of being more efficient with space and energy and resources,” Hight said. “So people have proposed that would make for more community, more interaction—and it encourages living small in terms of your carbon footprint, your energy use.”

The team worries about the same amount of electricity as small apartments. But with solar panels—which are common—a tiny house uses less energy from the grid. Plus, apartment buildings present problems that tiny houses don’t: They are not typically built by the operator, so energy and resource efficiencies often aren’t at the top of the priority list. In tiny homes, both are.

Perhaps, that’s the greatest impact of the tiny house revolution. Influencing how traditional units are designed. Not that every new unit will be a tiny house, but tiny house design techniques can make buildings more efficient in both their physical and carbon footprints.

CHIEF INSPIRATION OFFICER

One person missing from the celebration in October was Fr. Reites. Papa Reites, as students knew him, served as faculty advisor and unofficial chief inspiration officer until he passed away in April 2016. The team remembered him by placing his green hard hat on the top shelf of the rEvolve House kitchen and embroidering the message “In Loving Memory of Papa Reites” on every sweatshirt.

Reites was a fixture on solar decathlon teams in recent years, and his fingerprints were all over the rEvolve House. “The smiles are really where you see [him]—and the work ethic, too,” Galvin said. “How hard each of these people worked for this project, that’s where you see him.”

The commitment, the dedication [is where I see him],” Hight said. “They didn’t let anything slow them down or get in their way. Every obstacle, they just seemed to find a way around it.”

“Papa Reites encouraged us to do better than our best,” Giannos said. “He was not OK with mediocrity, and that way around it.”

Giannos said Papa Reites would be proud of its win. “He’d be the first one on stage and he was the last one to leave every day,” Giannos said. “He was not OK with mediocrity, and that was clear in everything we did. He was the first one there and he was the last one to leave every day.”

Giannos said the team knew Reites would be proud of its win. “He’d love to be here right now,” Giannos said. “He’d be the first one on stage and he was the last one here hugging the house before we left.”

MATT MORGAN is the assistant editor of Santa Clara Magazine.
The largest gift in the history of Santa Clara University and one of the biggest in the history of Catholic higher education. Thanks to John A. ’60 and Susan Sobrato, we’ll begin to build a 300,000-square-foot state-of-the-art home for cross-disciplinary work in engineering, the hard sciences, and mathematics. It will be a place to develop skills and ways of thinking and solving problems that shape the next generation of leaders for Silicon Valley and beyond. ILLUSTRATION BY TAVIS COBURN. WORDS BY STEVEN BOYD SAUM

BUILDING BLOCKS
Here on campus, along with the counsel and care that the Sobratos have given generously over the years (John A. is a longtime member of the Board of Trustees), gifts from the family made possible the Sobrato Residential Learning Commons, Sobrato Technology Center, and Orradre Library. The $100 million gift that makes it possible is also an even greater Jesuit Catholic institution.”

NOW TRY THIS:
1. Turn the page to see the site of the new Sobrato Campus. 2. Unfold the futuristic vision of illustrator Tavis Coburn. 3. Read more about the Sobratos, their gift, and the new facility at scu.edu/STEM.

Work and Family
A walk through campus and a tour through Silicon Valley will show that, for decades, the Sobratos have been building and shaping both this University and the wider environs that have housed engines of economic growth and world-changing innovation. “What [John] has done in Silicon Valley has really been incredible,” says his classmate and former Secretary of Defense Leon Panetta ’60, J.D. ’63, “not only for the high-tech industry but also the construction that he’s done at Santa Clara University.”

John A. Sobrato has focused on commercial development for tech firms since 1974, developing and constructing more than 150 office and research and development facilities. He is the founder and principal of The Sobrato Organization, based in Cupertino, and he built the iconic Apple headquarters in Cupertino as well as campuses for Siebel, NVIDIA, Netflix, EMC, Versign, and Yahoo!

John A. and Sue Sobrato-wed 56 years ago, and Sue has been an active partner supporting the family’s business and philanthropic pursuits. Raising a family came first for Sue. Giving back to the community where they live mattered deeply, too. This gift comes from the both of them.

Their family includes three children—John Michael Sobrato ’83, Lisa Sobrato Sonnini, and Sheri Sobrato Brissom M.A. ’94—and seven grandchildren, including several more Santa Clara grads. Since 1997, John M. Sobrato has served as CEO of The Sobrato Organization. The year before that, the family created the Sobrato Family Foundation. In the past 20 years, that foundation has given cash and real estate to support education, health care, human services, and other endeavors—to the tune of $375 million.

NOW TRY THIS: 1. Turn the page to see the site of the new Sobrato Campus. 2. Unfold the futuristic vision of illustrator Tavis Coburn. 3. Read more about the Sobratos, their gift, and the new facility at scu.edu/STEM.
**A signature building. And a new way to learn.**

WHERE IS IT? The Sobrato Campus for Discovery and Innovation (SCDI) will be near the heart of campus, between the Harrington Learning Commons, Sobrato Technology Center, and Onondre Library, and the Patricia A. and Stephen C. Schott Admission and Enrollment Services Building. SCDI replaces two engineering buildings as well as Banman Hall, since law will have a new home.

**2018 construction begins**

300,000 square feet and 3 connected wings

**DESCRIBE IT.** Open and transparent, with lots of glass and natural light, with “some of the architectural details that everybody loves about Santa Clara,” John A. Sobrato says. “The same architectural vocabulary you recognize—but a modern version.”

**WHAT’S INSIDE?** Collaborative spaces in many flavors: from spaces designated for projects of all types—wet projects, dry projects, in the parlance of science and engineering. And also makerspaces in which students can pursue open-ended projects, plus flexible laboratory and classroom spaces. Transparent glass walls connect much of the building visually. Along with academic disciplines, you’ll find the Frugal Innovation Hub and Miller Center for Social Entrepreneurship.

The new Sobrato Campus for Discovery and Innovation is poised at last to finish its rapprochement to Silicon Valley and find its true role in the 21st century.

As often noted, SCU has always been in Silicon Valley—and, indeed, a college on this campus precedes the name Silicon Valley by a century—but it has never been truly part of it. It has played many roles over the years in relation to Silicon Valley—precursor, exemplar, contributor, educator, oasis, sanctuary—but few would claim that the University is an integral part of the surrounding technology community.

Sure, Santa Clara has provided the region with generations of computer scientists and electrical engineers, intellectual property attorneys and middle managers. But if it was still farmland and orchards on the far side of Berryman Street, and if canaries still stood tall beyond The Alameda—still Bronco life be that much different? Too often over the years, SCU has defined itself in contrast to the digital revolution beyond its gates, rather than as part of it.

That about to change.

The new Sobrato Campus for Discovery and Innovation, symbolically located near the heart of the University campus, is more than a new facility for science, technology, engineering, and mathematics (STEM). It represents something important and profound for SCU: an unprecedented commitment to the community in which it makes its home.

Santa Clara University has always made a major contribution to the technology revolution. But that contribution has always been piecemeal: inventions that emerged from the School of Engineering, a key role in the development of the law school, a C-level job filled by a business school MBA. You’d be hard-pressed to find a successful company or hot start-up in the Valley—let alone one that rewarded people who could integrate mathematics, applied science, mechanical engineering, and electronics.

In the parlance of science and engineering, you’ll find the well-rounded education expected from a University’s Board of Trustees and served as advisors. The new facility for STEM represents something very different: Context. Integration.

It’s there in the title. Santa Clara has always exhibited the well-rounded education expected from a great Jesuit institution. And that has been one of the University’s greatest strengths: Where other local institutions of higher learning have grown increasingly specialized and one-dimensional, Santa Clara has wisely chosen to continue to educate the whole person—and worry about the soul as much as the CV. In an era in which great entrepreneurs are as likely to hold humanities degrees as engineering degrees, it has proven to be a brilliant strategy.

But if SCU got right the beginning, it was still uncertain whether the University would successfully navigate the next step. As it has done so many times in the past, Silicon Valley is once again transforming itself. After having spent the opening years of this century devoted to software, code writing, and applications, the Valley is once again swinging back to a focus on hardware—or new platforms and devices.

Those new first year students arriving on campus each fall now come from a world of robotics teams, drones, and Maker Faires. They build things. As such, they harken back to a much older Valley, of semiconductors and minicomputers ... one that rewarded people who could integrate mathematics, applied science, mechanical engineering, and electronics.

That question has now been answered. With the Sobrato gift, SCU can leapfrog what promised to be a long and unpredictable process ... and get to work building and staffing the new facility. It is appropriate that the Sobratos, who played such a crucial role in building the Silicon Valley we know, should now be leading Santa Clara University out into the Silicon Valley that will soon be.

**Open and see:** The Sobrato Campus for Discovery and Innovation
We can now replace a gene in any organism for a hundred bucks a pop. We can alter wild species to save them. So should we?

BY EMMA MARRIS
ILLUSTRATIONS BY JASON HOLLEY
It is the year 2095, and everyone is celebrating the birth of the first black rhinoceros to be born with a horn for almost 70 years. It wasn’t a disease that kept the animals hornless for so long. It was an intentional modification introduced in the year 2025 using genetic engineering techniques discovered in 2012. Using these techniques, bioengineers were able to create genes that would delete the rhino’s horn and spread them through the entire rhino population, thus ending the killing of these endangered animals for wealthy horn collectors in China and Vietnam. Once all the old poachers had hung up their guns for good, a new gene that turned the horns back on was simply released into the population, along with a so-called “gene drive” to make sure it would spread throughout the entire population. And presto—change, the horns were back.

This story is no pipe dream. “We could do that in a totally seamless fashion, yes, absolutely,” says Kevin Esvelt, a geneticist at the Massachusetts Institute of Technology and an expert on the new technologies. Esvelt worked in one of the two labs that nearly simultaneously discovered a new, cheaper, and more precise way to genetically engineer plants and animals, called the CRISPR system. He went on to propose and test gene drives that would spread these engineered genes quickly throughout populations. These new tools are so cheap and effective that even those working with the paltry budgets of the average conservation project can suddenly consider using genetic engineering.

In a world where you can cut and paste any gene you want into any spot in an organism’s genome for about a hundred bucks a pop, a whole smorgasbord of possibilities is suddenly on the table. Invasive predators could be eliminated from islands by spreading sterility genes or genes that ensure that all offspring are male. Species that are threatened by disease could be altered to naturally express antibodies to those pathogens from birth. Trees threatened by fungal infections could be made to ooze fungicide from their cells. And perhaps someday, completely new species could be created that would flourish in a warmer, weirder world. But should we alter wild species to save them? Is it right?

These technologies won’t stay in the lab long—they are just too good to resist—so scientists, ethicists, and conservationists are scrambling to tackle the hard questions about the ethics of using advanced genetic engineering techniques. A flurry of papers, meetings, and conversations has begun among the the pipe-tte-wielding, deep-thinkers, and species-savers. Because ultimately, the question boils down to what conservation values. Is biodiversity the ultimate good, regardless of where it comes from or where it appears? Are conservationists saving individuals, species, or genes? Is “naturalness” so core to conservation that making organisms less natural to save them would also make them less valuable? The legacy of CRISPR on conservation may be as much about defining the values of the field as it is about expanding its methods.

Conservationists tend to be—well—conservative. So it is no surprise that there is a lot of skepticism about using CRISPR and gene drives in the field. Many reject the idea on its face. An open letter signed by such conservation legends as primatologist Jane Goodall and activist David Suzuki reads, “Given the obvious dangers of irretrievably releasing genocidal genes into the natural world, and the moral implications of taking such action, we call for a halt to all proposals for the use of gene drive technologies, but especially in conservation.”

But Esvelt also hears from the CRISPR-curious. “Many conservationists have been saying, ‘We have been doing this for decades and it is just not working. We should at least take a look,’” he says.

The CRISPR system is based on an immune response that evolved in unicellular organisms to help them identify and destroy invading viruses. Snippets of viral DNA are stored in special spots in the organism’s genome. These spots are marked by the “Clustered Regularly Interleaved Short Palindromic Repeats” of amino acids that give the technique its acronym. Enzymes are then loaded with RNA that matches those snippets of viral DNA. When the same kind of virus shows up again, the enzymes use that RNA to find the corresponding snippet in the live DNA and then mercilessly cut it out, crippling the virus.

This defensive system can be tweaked to become a kind of “cut and paste” for genes. Cas9 enzymes (short for CRISPR-associated protein 9) or similar enzymes are loaded with RNA corresponding to the sequence a researcher wants to change, and they do their thing and find the sequence and cut it out. The researcher also adds a “repair template”—the sequence of DNA that encodes the gene they want to insert. The cell’s own repair machinery will use this template as a guide, and voila: The genome has a new gene.

Ultimately, the question boils down to what conservation values. Is biodiversity the ultimate good, regardless of where it comes from or where it appears?

This system changes one organism. If the alteration is made in just one chromosome, then when the organism mates and reproduces, there is a 50 percent chance the new gene won’t be passed on to the offspring, since each parent contributes only half its chromosomes to its children. Over time, any new gene might get swamped in the population. That’s where the gene drive comes in. If instructions to make all the parts of the CRISPR enzyme system were added to the organism’s genome, then it would have the ability to alter the chromosome next to it—cutting out the gene of interest and inserting the new gene. When the organism reproduces, both of its chromosomes would have the altered gene and—crucially—the machinery to edit the gene from the un-engineered parent. So the offspring would also end up with two copies of the altered gene—and so on forever. In essence, the process of genetic engineering that particular gene would be encoded into the genome such that it would become a normal cellular function. Since the gene drive ensures that the altered gene rapidly spreads through any interbreeding population,
many find the prospect of unleashing it unnerving, to say the least. And no one is proposing doing so in the wild anytime soon. “Right now with CRISPR and gene drives, we have the power to do something, but we are not good enough to understand the effects in advance,” says Esvelt. “The system is just too complex. My model is: Start small, and small means no drive system at all, see what happens in the wild, and, if you are happy with those results, scale up a bit.”

CROSS THAT BRIDGE
If the thought of any genetic engineering of wild plants or animals makes you dubious, you are not alone. But the potential benefits could be enormous. Before any conservation projects get off the ground, the first applications are likely to be in the realm of human health.

Indeed, the U.S. Food and Drug Administration is considering an application by a company called Oxitox to test a genetic manipulation of mosquitoes in the Florida Keys after successful trials in the Cayman Islands, Panama, Brazil, and Malaysia. The company’s transgenic male AeDes aegypti mosquitoes mate with wild females; the offspring are programmed to die before adulthood.

The company claims up to 90 percent reduction in the test populations—reductions that could presumably also greatly reduce deaths and birth defects due to diseases like dengue, Zika, chikungunya, and yellow fever—diseases that kill tens of thousands of people every year. Since AeDes aegypti make up a small percentage of the diet of their predators—there are lots of kinds of mosquitoes and most predators eat other insects, too—the effort on the ecosystem is predicted to be minimal.

The first conservation applications may well be simi-
lar: helping wild animals and plants fight off diseases that threaten them with extinction, from bats battling white-nose fungus to black-footed ferrets perishing of plague.

These potential benefits to humans are part of the rea-
son why Margaret McLean, who serves as director of biostress and associate director overall at the Markkula Center for Applied Ethics at Santa Clara University, feels the technology should be explored—carefully.

Many who have opposed the use of genetic engineers have cited the “precautionary principle,” the idea that ac-
tions have to be shown to be largely harmless before they are undertaken, and that the burden of proof is on those wanting to take the potentially harmful action. This ap-
proach can lead to paralysis, McLean says. “It is a bit akin to my mother’s admonition when I was learning to drive: You cannot drive across the Golden Gate Bridge until you have driven across the Golden Gate Bridge.”

Instead, McLean likes the concept of “prudent vigi-
lance,” derived from the first report of the Presidential Commission for the Study of Bioethical Issues. For her, this means “acknowledging we don’t know everything we need to know, but we need to move ahead while paying a lot of attention to unintended risks of the path we have chosen.”

THE BIRDS AND THE TREES
Ronald Sandler, a philosopher at Northwestern Univer-
sity in Boston who has written a book on the ethics of emerging technologies, believes genetic engineering for conservation should be judged “on a case-by-case basis.”

Predicting what effects a changed organism may have in complex ecosystems is arguably more challenging than making the genetic changes in the first place, according to Owain Edwards, who leads a research team on environ-
mental biotechnology and genomics at Australia’s Com-
monwealth Scientific and Industrial Research Organisa-
tion (CSIRO). “We have learned from past mistakes to try to predict what could go wrong, but it’s equally hard to predict what happens if it goes right,” Edwards says. “The technology itself is not nearly so much an investment. Most of the investment is going to be in making sure it is going to be a safe and smart thing to do.”

Even a scientifically solid risk assessment may not be enough to convince everybody. Despite a long history—genetically modified organisms (GMOs) have been on our plates since the 1990s—the technology still seems frightening and unproven to many. It is fair to say that opposition to GMOs is fierce and even trendy in certain circles. And this opinion very well might automatically be transferred to any conservation projects employing gene modification.

If the thought of any genetic engineering of wild plants or animals makes you dubious, you are not alone. But the potential benefits could be enormous.

Where the genetic techniques are clearly effective, and where they are remediating the primary threat to the spe-
cies, he thinks they should perhaps be judged acceptable. “The model really is that you are undoing the primary, im-
mediate, human-introduced threat.”

Esvelt agrees, and his favorite example is the case of Rapid ‘Ohi’a Death, a fungal infection attacking one of the most common native trees in Hawaii. ‘Ohi’a (Metrosideros polymorpha) are small trees with stiff leaves in geometric rosettes and an exuberant red-pom-pom flower. They form the backbone of many Hawaiian ecosystems. Using bacteria as a messenger for the enzymes, RNA guide, and DNA template, the sapwood cells of these iconic trees could be altered to secrete a fungicde that could save whole ecosystems. The modification would not be inher-
ited by the tree’s offspring, so it would be akin to a vaccine.

“I think we should do it,” says Esvelt. “Yes, it is unnatu-
ral, but the fungus that is killing it is also unnatural. It is our responsibility.”

If the intervention works, ‘ohi’a will presumably also be resistant to other fungi, so the trees may survive in even higher numbers than normal. And this might have effects on the insect species that eat their leaves and even the predators of those insects, like the endangered ‘akake‘e bird (Loxops caeruleirostris)—of which fewer than 1,000 remain.

The company claims up to 90 percent reduction in the offspring are programmed to die before adulthood. Offspring are programmed to die before adulthood. Could this reduce deaths and birth defects from disease with minimal impact to the ecosystem? Could this reduce deaths and birth defects from disease with minimal impact to the ecosystem?
RETURN OF THE FOREST KING?

American Chestnuts were once the guardian of all trees in Eastern North America. They resembled huge buttressed cas- tles with tops that emerged from the canopy and produced a reliable crop of tasty nuts that supported forest creatures. Early farmers even fed the nuts to their pigs and goats. Then, in the first half of the 20th century, a fungus from China raced through the forest, killing virtually all of them. The forest had lost its king.

In 1983, the American Chestnut Foundation (ACF) set up shop with the ambitious and seemingly impossible goal of breeding a chestnut back. American chestnut trees were very resistant to the fungus that they had co-evolved with. Long before CRISPR was developed, the ACF set to work importing this resistance to American chestnuts using the “bad-crop method.” They hybridized American and Chinese chestnuts, and then they hybridized the offspring with American chestnuts in multiple generations. In each generation, they kept only the seedlings that retained resistance to the blight. To cover the whole forest, the project continues at the ACF orchard in Virginia and at 16 volunteer-led orchards that are breeding locally adapted chestnut-resistant trees from Alabama to Massachusetts.

The ACF is also working with a group at the State University of New York College of Environmental Science and Forestry to explore the possibilities of a chestnut that expresses a resistance gene derived from wheat. Cross-breeding these trees with the few surviving American chestnuts in the wild can “capture” the remaining genetic diversity before those old trees die. Eventually, slight-resistant trees will be planted in the for- est, and the king of the East can re-ignite its throne. This effort is perhaps the oldest and furthest-going of all conservation projects. “If it can be done with the chestnut tree, then it should be possible to restore ash, hickory, and other trees that are impaired,” says Jared Westbrook, Director of Science at the ACF. “This is a proof of concept for something bigger.”

TOXIC TOADS

While the early uses of CRISPR in conservation may be to heal or prevent disease, another promising application is to use the technology to kill—to eradicate non-native spe- cies that are threatening native species. Worldwide, more than 700 species are threatened or already extinct thanks to habitat loss, invasive species, and other factors. An altered biota could make these predators infertile. It could be a more humane way to remove the current arsenal of traps, guns, and poisons used in such projects. “There simply aren’t any more generations,” geneticist Kevin Esvelt says.

And in Australia, the exotic cane toad—a huge, lum- bering brown toad with a slightly toothy grin—has a plan. The toad is threatening such endangers and adorable creatures as the lightning snouted Northern spotted quoll, a carnivorous marsupial. “What if we could build a drive system that could knock out the toxin? A way to remove their fertility? A way to remove their toxin?” asks Esvelt. “If we can do that, there will be a nutritional advantage. It is a neat idea.”

It is a neat idea, but also a fraught one. If altered toads made it back to their native range in South Ameri- ca, the gene drive could remove the toad there, too, and make the toad vulnerable to natural predators. “You are going to have to talk to all the South American nations and get their permission,” says Esvelt. “You have to as- sume that there is some human threat that is going to de- liberately move them.” Esvelt also recommends reading a counterevangelistic gene drive that could override or block the first. Toads with this genetic machinery would have to be kept in captivity, ready for instant release if the gene drive makes the hop across the ocean. It sounds elaborate, but Esvelt thinks it might come to pass. “Auustralians re- ally hate cane toads. They would pay for the monitoring,” he says.

Interestingly, cane toads were brought to Australia in- tentionally. They were brought from Hawaii in 1935 to control two sugar cane pests: French’s cane beetle and the greyback cane beetle. No one predicted they would become a menace. But these species and at today as an allegory of the hubris of intervening in eco- logical systems when the consequences may be impossible to predict. Could introducing a gene to stop the cane toad also have unforeseen negative consequences?

Beyond this kind of job even more extreme poss- abilities—from temporarily removing the rhino’s horn to making species more resistant to heat and drought as the climate changes. Some have even proposed “cognitively enhancing” Australian species at risk due to predation from non-native cats and foxes—making them smarter, so they could outwit their evolutionary new predators. But Bill Adams, the Cambridge geographer, isn’t so sangenic about scientists wanting to tamper with the technol- ogies in the most careful and enlightened ways for the good of all. A self-confessed cynic when this is concerned, he says, “I look at high-tech centralized development with suspicion. I tend to assume that we will be myopic and self-interested and bought out.”

AU NATUREL

These kinds of projects begin to fundamentally alter the very species we are trying to save. And this prospect opens up a very perplexing question. What do we mean when we say we want to save the planet? What are we trying to save? Individuals? Species? Genes? Does it matter if you have to alter 5 percent of a species’ genome to keep it around?

Or, as Adams asks: “Is what you are really seeing a leaking bag of chemistry around in the wild?” Or do we want to save the organism we can see and name and the cultural values associated with it? But, we’ve been altering wild spe- cies for thousands of years.

“Just by putting selective forces on species, we are changing their genetics: by changing their habitat, warming the planet, using pesticides,” says Michelle Marvier, a biologist at UC Davis. “When I see the experiment, there were also dozens of comments from people who have written to the magazine, this is a slam dunk. A perfect solution to mosquito elimination, these are questions with long-term conse- quences, which ask us to peer into an uncertain future and make ethical choices for ourselves, for other species, and for generations yet unborn.”

While it is not always clear when or how to interrupt the rhino’s horn that a majority of Earth’s people won’t prefer a silvering horn to a glowing-in-the-dark horn? The values of future generations aren’t easy to predict.

As these conversations continue, I would hope that ethicists have a place at the table,” says McLean. “I think that the stakes are of immense proportions and the more multidisciplinary these conversations are, the better the outcome of the conversation.”

EMMA MARRISS is a freelance environmental writer. She lives in Klamath Falls, Oregon.

What do we mean when we say we want to save the planet? What are we trying to save? Individuals? Species? Genes? Does it matter if you have to alter 5 percent of a species’ genome to keep it around?
Trouble came to light the morning of tax day: April 15, 2015. At the federal government’s Office of Personnel Management, a security engineer decrypting some digital traffic to check what kind of data was flowing in and out of the system found something strange: a signal being sent from inside the system by security software that OPM didn’t use to a domain on the outside that OPM didn’t own. Investigation led to revelation: Hackers may have exfiltrated more than 20 million personnel records of current or former government employees—Social Security numbers, addresses, birthdays, race, job and pay histories, and more.

The agency announced the trouble in June. “Massive Data Breach” read headlines. Chinese hackers were suspected. Fallout from the theft may not be known for years. But the cybersecurity failure highlighted serious problems with government IT infrastructure—problems that Tony Scott J.D. ’92 had been working on at a top level for a couple of months. In February that year, he had been sworn in as the third Chief Information Officer of the United States.

One lesson Scott learned as a career IT man—holding high-level posts with GM, Disney, Microsoft, and cloud computing firm VMware—is: Don’t waste a good crisis. “You never want to have those things happen,” Scott told me. “But shame on you if you don’t leverage the learnings from that and scale it out to the larger enterprise.”

After the OPM hack, Scott testified before a congressional committee. He began by noting that well-financed, highly motivated, and persistent attempts to breach systems were not going away. “We have to be as nimble, as aggressive, and as well-resourced as those who are trying to break into our systems,” he said. “There were no night games. As for the World Series, that was pretty cool to see this year.”

While Scott was in college in Illinois, a visit to California in summer 2015, Scott and the White House rolled out the largest-ever transition to cloud computing at federal agencies, and on the way out somebody grabbed me on the sleeve and said “Tony, would you ever consider being a federal CIO?” Scott looked me in the eye and said, “I have no aspirations to be CIO at OPM. But if you think it could help the government, I will do it.”

One lesson Scott learned as a career IT man—holding high-level posts with GM, Disney, Microsoft, and cloud computing firm VMware—is: Don’t waste a good crisis. “You never want to have those things happen,” Scott told me. “But shame on you if you don’t leverage the learnings from that and scale it out to the larger enterprise.”

After the OPM hack, Scott testified before a congressional committee. He began by noting that well-financed, highly motivated, and persistent attempts to breach systems were not going away. “We have to be as nimble, as aggressive, and as well-resourced as those who are trying to break into our systems,” he said. “There were no night games. As for the World Series, that was pretty cool to see this year.”

While Scott was in college in Illinois, a visit to California in summer 2015, Scott and the White House rolled out the largest-ever transition to cloud computing at federal agencies, and on the way out somebody grabbed me on the sleeve and said “Tony, would you ever consider being a federal CIO?” Scott looked me in the eye and said, “I have no aspirations to be CIO at OPM. But if you think it could help the government, I will do it.”
Scott was no stranger to that process in the private sector. “These are hard journeys,” he said. “They’re bumpy and they’re messy and they’re divisive.” And, while he was new to federal budgeting and governance, he could see that something was broken. He had also been spending more and more time on cybersecurity issues in the private sector. He knew that was a problem for the federal government.

**LANDING THE PLANE**

We met on a cold day in December in Scott’s office in the Eisenhower Executive Building, with a window overlooking the White House’s West Wing. He took this post in the Office of Management and Budget in February 2015. So what did he find was the problem with IT budgets? Everything the federal government does comes from a funding process that is static. The fix for anything—rigidly locked into a model following the organizational chart. “In a digital world, that doesn’t work,” Scott said. “especially if systems haven’t been engineered to work together.”

Take email. It has occasionally been in the news. Now 65 percent of the government has moved to cloud email systems. But often each agency (or subagency) implemented cloud email in such a unique way as to make simple collaboration difficult. And 35 percent haven’t modernized at all. That means no instant messaging or simple collaboration on documents across silos.

“That’s a horrible way to work,” Scott said. “But if we modernize that, allowing anybody across government to easily collaborate with others that they need to in furtherance of the mission, that’s a huge productivity gain. It’s also a speed and response issue. We have agencies that show up to fight forest fires together that can’t easily collaborate.”

But five years from now, Scott has said in hopeful moments, we’re going to be talking about forswearing and obvious in government—but rather responsiveness and flexibility. So how do we get there?

**IT’s a bigger challenge than Y2K was. But there’s no midnight moment.**

In 2006, Scott advocated for passage of the Modernizing Government Technology Act to enable agencies to reprogram funds to upgrade tech. He stumped for it. The IT Modernization Fund set out to allocate $3.1 billion toward modernizing government IT. Agencies would pitch proposals to a board and compete for funding—then pay back the money. Scott estimated that the fund would result in $15 billion in improvements.

“You guarantee there you have enough money in that inefficient, ineffective infrastructure and application space that we’re ponying up to be the problem,” he said.

With bipartisan support—and strong backing from Rep. Will Hurd (R-Texas), a former CIA agent and chair of the House Committee on IT—both bills cleared the House. The modernizing technology act passed on unanimous consent; the second bill ran out in the Senate and neither bill got a hearing. Both bills may be back in 2017.

One testament to the bipartisan support for Scott is this: Last summer, a petition began circulating among govern-
For the Record


Blockbuster cases, yes. But they’re only part of the story for John C. Cruden J.D. ’74, a civil servant for decades and defender of the environment.

BY JUSTIN GERDES. PHOTOGRAPHY BY ROBERT CLARK

On December 15, 2016, Assistant Attorney General John C. Cruden J.D. ’74 joined Virginia Governor Terry McAuliffe in Richmond, Virginia, to announce terms of a proposed settlement with DuPont. Under the deal, DuPont agreed to pay $8.1 billion to settle claims stemming from the release of mercury by a DuPont rayon plant in the 1930s and 40s, which polluted more than 100 miles of river and floodplain in the South Fork Rhenishouse River watershed. Mercury persists in the watershed to this day, harming fish, migratory songbirds, reptiles, amphibians, and mammals—and limiting recreational fishing. The deal is the largest natural resource damage settlement in Virginia’s history. The case demonstrates the power of environmental law to redress even decades-old pollution. But it also reminds us that the arc of history, if it does bend toward justice, justice can take a long time indeed.

America’s 3.7 million civilian federal employees serve the country, largely with distinction and noble purpose, and, regrettably, often in relative obscurity. Among those most deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

For the Record


Blockbuster cases, yes. But they’re only part of the story for John C. Cruden J.D. ’74, a civil servant for decades and defender of the environment.

BY JUSTIN GERDES. PHOTOGRAPHY BY ROBERT CLARK

On December 15, 2016, Assistant Attorney General John C. Cruden J.D. ’74 joined Virginia Governor Terry McAuliffe in Richmond, Virginia, to announce terms of a proposed settlement with DuPont. Under the deal, DuPont agreed to pay $8.1 billion to settle claims stemming from the release of mercury by a DuPont rayon plant in the 1930s and 40s, which polluted more than 100 miles of river and floodplain in the South Fork Rhenishouse River watershed. Mercury persists in the watershed to this day, harming fish, migratory songbirds, reptiles, amphibians, and mammals—and limiting recreational fishing. The deal is the largest natural resource damage settlement in Virginia’s history. The case demonstrates the power of environmental law to redress even decades-old pollution. But it also reminds us that the arc of history, if it does bend toward justice, justice can take a long time indeed.

America’s 3.7 million civilian federal employees serve the country, largely with distinction and noble purpose, and, regrettably, often in relative obscurity. Among those most deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

For the Record


Blockbuster cases, yes. But they’re only part of the story for John C. Cruden J.D. ’74, a civil servant for decades and defender of the environment.

BY JUSTIN GERDES. PHOTOGRAPHY BY ROBERT CLARK

On December 15, 2016, Assistant Attorney General John C. Cruden J.D. ’74 joined Virginia Governor Terry McAuliffe in Richmond, Virginia, to announce terms of a proposed settlement with DuPont. Under the deal, DuPont agreed to pay $8.1 billion to settle claims stemming from the release of mercury by a DuPont rayon plant in the 1930s and 40s, which polluted more than 100 miles of river and floodplain in the South Fork Rhenishouse River watershed. Mercury persists in the watershed to this day, harming fish, migratory songbirds, reptiles, amphibians, and mammals—and limiting recreational fishing. The deal is the largest natural resource damage settlement in Virginia’s history. The case demonstrates the power of environmental law to redress even decades-old pollution. But it also reminds us that the arc of history, if it does bend toward justice, justice can take a long time indeed.

America’s 3.7 million civilian federal employees serve the country, largely with distinction and noble purpose, and, regrettably, often in relative obscurity. Among those most deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.

Cruden’s career has overlapped with the emergence of environmental law in the United States, decades during which this new area of the law became an increasingly effective enforcement tool. Indeed, some of the most important environmental cases ever litigated in this country are deserving of wider recognition for this public service was the lawyer representing the United States in Richmond that day, John Cruden. Cruden worked first as a career attorney in the U.S. Army and, later, for nearly 25 years, served in senior positions at the Department of Justice’s Environment and Natural Resources Division (ENRD), leading attorneys engaged in offense and defense, charged both with bringing cases against pollutants and defending the federal government against lawsuits brought by companies or individuals. The division is, in practice, the largest environmental law firm in the United States.
CAPTAIN OF AN AIRCRAFT CARRIER

In his book, "The Air Robber: Inside the Exxon Valdez Disaster," John Cruden described the two tracks of work undertaken by his division: Attorneys follow the evidence and bring cases under America’s bedrock environmental laws—the National Environmental Policy Act, the Clean Water Act, or they defend client federal agencies against private citizens. By the end of his tenure, Cruden had handled cases related to the Exxon Valdez oil spill, the Deepwater Horizon oil spill, and the Deepwater Horizon oil catastrophe.

RUNNING THROUGH THE TAPE

The image contains a timeline of events involving Exxon Valdez and Deepwater Horizon oil spills, which are not directly related to the main text of the article. These events can be used as context for understanding the environmental litigation mentioned in the article.

If the DOJ changes what it says about a law from one administration to the next, somebody is going to file a brief and say, “We are the first time you filed the brief or the second time you filed the brief?”

When he and the other would-be lawyers finished, a helicopter landed. That was the end of the application process. Cruden had handled some environmental cases as an Army lawyer. He had also lectured on environmental law and authored part of a textbook on the topic. In 1991, senior officials at the Department of Justice, connections Cruden made during his posting to the department during the Reagan administration, one of whom was in the Environmental Enforcement Section in the Environment Protection Agency, offered to handle some of the environmental litigation. “I signed up,” he said. “I thought it was interesting and I thought I could make a difference.”

By 1988, Cruden was the Army’s chief legislative counsel. The job involved extensive interaction with Congress and an immersion in Capitol Hill politics, which proved valuable in the second act of Cruden’s government career. The job also made him part of an unusual and dangerous legal milieu. In the late 1980s and early 1990s, the assistant attorney general of the Civil Division, Cruden met and briefed President Reagan on drug testing protocols.

In 1992, Cruden was an assistant to the chief of the Environmental Enforcement Section in the Environmental Protection Agency. According to Cruden, the job also made him part of an unusual and dangerous legal milieu. In the late 1980s and early 1990s, the assistant attorney general of the Civil Division, Cruden met and briefed President Reagan on drug testing protocols.

Cruden described the two tracks of work undertaken by his division: Attorneys follow the evidence and bring cases under America’s bedrock environmental laws—the National Environmental Policy Act, the Clean Water Act, or they defend client federal agencies against private citizens. By the end of his tenure, Cruden had handled cases related to the Exxon Valdez oil spill, the Deepwater Horizon oil spill, and the Deepwater Horizon oil catastrophe.
Recent analysis shows that the most common offenses committed by corporations, partnerships, and trusts are environmental crimes.

end, right to your last day, be doing good things for the American people. I like that analogy, and I passed it on to all of my staff. "That's what we're going to do, we're going to run through the tape."

Cruden did as promised. He ran through the tape until January 20 and scored big wins for public health and the environment until his final day on the job. Cruden, at 70 years old, still very much the vigorous bauble of a man who decades before had completed 30 parachute jumps in an airborne battalion in Germany and a Ranger unit in Vietnam, wasn’t sure of his long-term plans. As we concluded our interview at his office, Cruden said he was preparing for a weeklong Road Scholar educational trip to Costa Rica with the entire family. He’d been promised he’d be zip-lining in the jungle on Christmas Day. In the days immediately after Trump’s inauguration a long-planned, monthlong vacation with his wife and more time with his two grandchildren.

Cruden was recently selected as president-elect of the American College of Environmental Lawyers. As this issue went to press, the Trump administration had not named Cruden’s permanent successor at DOJ. On Inauguration Day, Jeffrey H. Wood was named the acting assistant attorney general for environmental crimes. Wood, who, until a week before the appointment, was advising on environmental litigation at Cruden’s office, said he was preparing for a weeklong Road Scholar educational trip to Costa Rica with the entire family.

"We are a nation of laws, not of men," John Adams is to have said. The guardrails of the law, imperfect but perfectible, restrain human vices and market failures alike. Public-minded lawyers like John Cruden, and hundreds more still serving at ENRD today, are the bulwark against these excesses, holding even the largest polluters accountable. Justice may take decades, but, more often than not, the guardrails remain fixed, the law prevails, and even multinationals like BP and VW are compelled to atone for their crimes. With fewer lawyers on the job, hard-won, long-standing environmental and public health gains are at risk.

I checked in with Cruden via email in late January, after press accounts had appeared about rumored budget cuts at ENRD and the appointment of Jeffrey Wood to lead the division on acting basis. Cruden said it was too early to comment on the prospective tenure of Wood, but he was adamant that funding for ENRD should be preserved.

"I feel strongly that the Environment and Natural Resources Division I led should receive more, not less, funding," he said. "Our air, water, and land resources are invaluable, and are the cornerstone of a healthy and economically prosperous nation. Our environmental laws were passed by overwhelmingly bipartisan votes, and those laws should be vigorously enforced. I am confident that is exactly what the American public expects from the Department of Justice."
WHERE THERE’S SMOKE

... there might just be mirrors. On “fake news,” the Internet, and everyday ethics.

BY IRINA RAICU

ILLUSTRATIONS BY LINCOLN AGNEW

An armed man walks into a pizzeria. Terrified customers gather their children and rush out. But the man is there hoping to protect children.

That is a true story. However, the armed man was in the pizzeria place, in early December, because of a fake news story—or, to put it more accurately, because of misinformation about a supposed child slavery ring: a story that was widely spread on the Internet—easily, quickly, and with little or no cost.

Analyses of the proliferation of misinformation and its impact on the presidential election and democracy itself are now widespread on the Internet, as well. As such stories show, there are multiple ingredients in this noxious concoction—this stew of intentional deceit, profit-driven indifference, and individual biases or carelessness.

FOLLOW THE MONEY

One ingredient consists of individuals who generate and publish absolutely false stories, posting their creations on websites that try to mimic as closely as possible those of the traditional media that still strive for accuracy. Those creators of fake news fully intend to make their lies hard to distinguish from truthful stories. Some simply do it for money: Fake news draws views, which draw advertising dollars.

Another ingredient is the growing number of people who carelessly post falsehoods on their public social media accounts and then express surprise when their posts spread and are amplified through other media channels. For example, in a case study titled “How Fake News Goes Viral,” The New York Times quotes a man whose tweet about outside protesters supposedly being bused into Austin, Texas, became the basis of a widely spread fake news story: “I don’t have time to fact-check everything that I put out there, especially when I don’t think it’s going out there for wide consumption.” He only had a handful of followers. But the media report tweets now. For wide consumption.

There are also those media organizations whose business models rely on monetizing exaggerations and conspiracy mongering. Then there are social media platforms whose algorithms are designed to give people what they want, thus separating users into echo chambers in which they only hear their own views, constantly reinforced by a stream of sometimes inaccurate information.

Over the past several years, governments have also taken a hand in the creation and amplification of misinformation. Back in 2015, in an article called “The Agency,” Adrian Chen detailed his extensive investigation of “paid trolls” working in Russia: “By working every day to spread Kremlin propaganda,” he wrote, they “made it impossible for the normal Internet user to separate truth from fiction.”

As early as 2014, the workers of the St. Petersburg-based “Internet Research Agency” appeared to be connected to hoaxes set in the United States, as well. As Chen put it, “Russia’s information war might be thought of as the biggest trolling operation in history, and its target is nothing less than the utility of the Internet as a democratic space.”

In the last press conference of his tenure, in December 2016, President Obama spoke of lessons learned “about how Internet propaganda from foreign countries can be released into the political bloodstream.”

And what lessons might we draw, all of us, the consumers of news, who sometimes share links to stories—often in anger or dismay—without doing even a simple check on what we distribute to our network of friends, amplifying and magnifying the reach of falsehoods?

FOLLOW THE COMPASS

To journalists, the story of fake news is one of professional ethics. To media organizations and social media platforms (and primarily Facebook, on which, according to the Pew Research Trust, 44 percent of Americans access news—far more than on any other social network), fake news is a business ethics issue. To some politicians, fake news is
A question of campaign ethics. To most of us who share links online, it’s an “everyday ethics” issue. As explained by the former executive director of the Markkula Center for Applied Ethics, Thomas Shanks, S.J., “Despite our many differences, we share [commonplace moral] everyday questions: Is this the common ‘stuff’ of human living and interacting?” These days, one such commonplace question is, “What can I do to combat the spread of fake information?”

The satire website The Onion recently ran an article titled “Facebook User Verifies Truth of Article By Carefully Checking It Against Own Preconceived Opinions.” Don’t be that user.

We need “extreme vetting” for news stories—and in recent weeks, plenty of experts have offered excellent suggestions on how to spot fake news. Realistically, though, especially in the lazy-river-ride feel of scrolling through the Facebook News Feed, most of us won’t take the time to look closely at bylines, the “About” sections of various sites, or URLs that hint at something other than legitimate news sources. But the truth is—at least for now—that even a modest level of effort will help reduce the proliferation of misinformation:

- Don’t share news stories based on the headline alone (without actually reading the linked article).
- Don’t share in anger. The few seconds you take to vet a story will also serve as a cooling-off period.
- Before sharing a link, especially if it comes from a source you don’t recognize, go to Snopes.com, Factcheck.org, or Politifact, and use those services to check on the accuracy of the linked story.
- If those sites don’t address the story, Google the headline (or use your favorite other search engine instead). If the story is fake, it’s likely that other debunkers or questioning it will appear in the search for it, too.
- If, after those steps (which shouldn’t take very long), you’re still not sure whether a story is true or not, don’t share it. Your family and friends aren’t likely to be permanently deprived of key information by your choice, but the ecosystem may well be improved. This is especially true in light of the phenomenon of “availability cascades,” which, as Wikipedia notes, is a “self-reinforcing process in which a collective belief gains more and more plausibility through its increasing repetition in public discourse.” Even false stories start to gain an aura of credibility if repeated or shared often enough (“I think I heard that before, didn’t I? There must be something to it…”) But, on the Internet, the presence of smoke doesn’t always signal the presence of fire. Sometimes, it’s just smoke and mirrors.

Will your actions have an effect on the misinformation maestros? Our individual decisions impact the common good. Consider your effort to combat the spread of misinformation as akin to participation in beach clean-ups: part of a great communal effort to remove some of the trash from the ocean ecosystem.

And, of course, to amplify its impact, please share this on your favorite social media.

Another way to think of smoke and mirrors is this: James Martin, S.J., editorial director for America magazine and occasional contributor to these pages: “Lying and propaganda, or just poorly reported news.”

The few seconds you take to vet a story will also serve as a cooling-off period.

There’s a design element to this effort: creating a set of icons and function as “the immune system of democracy.” How’s it going? Not well—as far as health and reputation are concerned. In 2014, SCU’s Markkula Center for Applied Ethics launched The Trust Project. An international cooperative effort, the project aspires to harness Silicon Valley tech and imagination to bake the essence of trustworthy reporting—accuracy, transparency, and inclusion—plainly into news practices, tools, and platforms.

“Trust in journalism has been declining for several decades,” says veteran journalist Sally Lehrman, who founded the project. They started with some basic questions: “How can we think about ways to make technology a support for quality journalism instead of it being seen as a barrier? How can we flip this picture?”

Funding from philanthropist Craig Newmark got the project off the ground. Nearly 70 media organizations are involved. Google was there from the beginning. That was critical, Lehrman says, because now when people are looking for news, it’s often dis- vanced from the brand. “You don’t necessarily know where this piece of information is coming from—whether it’s a piece of news from a trusted news brand or it’s actually advertising or propaganda, or just poorly reported news.”

The Trust Project started by consulting with the public in one-on-one interviews. Through workshops to apply the resulting insights, news executives developed 36 “indicators of trust.” These show practices behind the story: the organization’s ethics and corrections policies, its commitment to diversity, and sources of funding, also author information, where a story’s facts came from, and where it was originally reported, among others. Late last year, international teams of news organizations participated in a hackathon in London—the “Trust Project Development Challenge”—to produce open-source technology that will display these to readers and create signals to help news platforms like Google and Facebook display factual, ethical news priority. A few results:

The Economist: a validator to automate indicator tags and to display a score.

Washington Post/BuzzFeed: a tool that scans news stories for author information, sources, and links, then makes these visible to readers and platforms.

Ex-BBC News Labs: checks the similarity of articles to see whether they are recycled “churnalism” or original reporting.

The Guardian: a tool to pop filter bubbles—allows users to suggest articles with an opposite view from the one they originally chose.

Le Stemp: an author database and tool that displays expertise based on previous coverage of a topic.

Mirror Group: a tool that displays an author profile and warns users when an organization is not following Trust Project guidelines, also suggesting stories with alternate viewpoints.

“The Trust Project started by consulting with the public in one-on-one interviews,” Lehrman says. “They can help us think about how a trust system would work within their particular environment. If you think about the platforms, they really are creating information environments.”

There’s a design element to this effort: creating a set of icons that news organizations use to vouch for the practices behind individual stories. And there’s an interesting dynamic at work in this phase of the project, using lessons from people who aggressively seek news and information from a broad array of sources. The project aims to use this knowledge to reach a middle ground—those people who are honestly looking for quality news but aren’t necessarily going to put a lot of effort into it.
In January, Congresswoman Zoe Lofgren and Representative Jimmy Panetta said they see no way to go to jail to defend the rights of immigration families. And there is something Lofgren learned about from her grandfather— who was locked up for four years for supporting Gandhi’s struggle for India’s independence.

ZOE KNOWS IMMIGRATION
Zoe Lofgren J.D. ’75 has represented Silicon Valley’s 19th District since 1995 and earned respect for her work on patent reform, copyright, and net neutrality. Unlike nearly every other member of Congress, Lofgren has in part practiced and taught immigration law—as well as legislation. One lesson she learned from Santa Clara Law is connected to immigration: “If you are going to give dignity to the individual, you actually have to meet with those individuals...see them personally, hear their stories—as it’s not just an intellectual exercise, it’s a visceral understanding of your obligation to help bring justice.” In 2015, she was declared a “Hero of the Internet” for her role in preventing the passage of the Stop Online Privacy Act.

FRESHMAN WITH A BRONZE STAR
Jimmy Panetta J.D. ’96 is a first-term representative from California’s 19th District on the Central Coast, a seat held until last year by Sam Farr, who attended SCU law and announced in 2015 that he would not be seeking re-election. Jimmy, age 47, is the son of Sylvia Panetta and Leon Panetta ’60, J.D. ’83, whose most recent government service included director of the CIA and secretary of defense for President Obama. Along with earning his stripes as a prosecutor and deputy D.A. in Alameda and Monterey counties, Jimmy Panetta served eight years in the U.S. Navy Reserve. In 2007, he volunteered for active duty and was deployed to Afghanistan, working with Special Forces units. For his service in a combat zone, Panetta was awarded the Bronze Star. He has been appointed to House committees on agriculture and natural resources.

A PHILADELPHIA STORY
Ro Khanna, another newcomer, represents California’s 17th District, which cuts a swath through Silicon Valley from Santa Clara (including the Mission Campus) up to Fremont (where Khanna lives). Proportionally, this is the highest Asian-majority district in the country. Khanna previously taught law at SCU as adjunct faculty. He’s no stranger to D.C.; he served 2009–11 as deputy assistant secretary at the U.S. Department of Commerce. Son of immigrants from India, he was born in the City of Brotherly Love in 1956, a practicing Hindu, he took his oath of office on a bimcentennial edition of the U.S. Constitution. His first speech in the House went after political action committees and lobbyists.

FATHER PAT
Jesuit School of Theology grad Pat Conroy, S.J., M.Div. ’83 returns to service as chaplain of the House of Representatives. He delivers the opening prayer of each day. In January, 2 prayer included: “May all they do be done in humility and charity, knowing that we are all earthen vessels through whom Your Spirit might shine forth.”

Represent!

STEM and Her. Tech firms invest billions in education but miss the mark helping minorities and women enter tech. Janice Zdankus MBA ’93, VP of Quality at Hewlett Packard Enterprises, has a solution. HPE, the YWCA, and Santa Clara jointly created Curated Pathways to Innovation (CPI), an app that incentivizes tech training, analyzes outcomes, and doubles down on methods that work.
Yesterday & Tomorrow. Broncos from across the years came together at Grand Reunion to honor their heroes and celebrate their passions. And with two $100,000 endowments, alumni ensured that the generosity of the lives of the Francisca '66 and Laura Jiménez '67, as well as Jim Reites, S.J., MST '71, would be felt by future generations of Santa Clara students.

Laura Jiménez '67 didn't need to read Francisco Jiménez's books to know his story. He lived it himself, immigrant parents, field work, college ambitions. But studying his writing and talking about his life and his work, Jiménez offered a blueprint: “To this day, I want to be a Francisco,” Gamboa says. “I want to open the opportunities for others to be him.”

Gamboa, now senior associate director of Undergraduate Admission and co-chair of the Latino initiative, has become a kind of incursion into the world of Jiménez’s stories. The spry Jesuit over life, sports, engineering projects like the solar decathlon and Tiny House—hands-on projects in McLaughlin-Walsh Residence Hall that would be felt by future generations of Broncos since its opening in the 1940s. It birthed some of SCU’s most beloved traditions: pinning signed $1 bills to the ceiling; Two for Tuesdays; and, on commencement day, Dads & Grad. The Hut was dark, dank, loud, and lovable with sticky floors and walls that could talk. It was a dive bar worthy of the title and the place to be for Grand Reunion (standing room only, fire code be damned). It unofficially hosted a handful of classes each semester. Do you have memories or photos you’d like to share? Check out the Alumni Association’s tribute page at scu.edu/alumni/Th Hut or email them to alumnievents@scu.edu.

PLUG IN Looking for a job? Have an extra ticket to a show or need a place to stay during a road trip? Switchboard (and your SCU family) has you covered. Switchboard is a place where Broncos ask for what they need and offer what they have. It’s like Craigslist, only better. Check it out: scu.switchboarding.com

SERVICES On April 20, the SCU Alumni Association, along with the Ignatian Center for Jesuit Education and the SCU Staff Senate, will host a Community Day of Service focused on the Thriving Neighborhood Initiative, which actively promotes strategic ties between SCU and the Greater Western Community of San Jose. From food at Sacred Heart Community Services, garden with BUG, need to children at Washington school, or work on beautification projects at the Alma Center. Questions? Email Mercy Mestizo Smoker '91 at mmsmoker@scu.edu.

DON’T MISS OUT The only way to keep up with alumni news, engagement and networking opportunities, and upcoming programs is to keep your address info up to date. It’s easy: keep up with alumni news, engage and networking opportunities, and keep your address info up to date. It’s easy: msmoker@scu.edu.

HERE’S TO THE HUT! Cheers to you, old friend. Students and grads came together to say goodbye to one of Santa Clara’s oldest unofficial institutions when just-off-campus landmark The Hut closed its doors mid-December. The news came after the bar’s owner decided not to renew his lease. More than a watering hole, The Hut linked generations of Broncos since its opening in the 1940s. It birthed some of SCU’s most beloved traditions: pinning signed $1 bills to the ceiling; Two for Tuesdays; and, on commencement day, Dads & Grads. The Hut was dark, dank, loud, and lovable with sticky floors and walls that could talk. It was a dive bar worthy of the title and the place to be for Grand Reunion (standing room only, fire code be damned). It unofficially hosted a handful of classes each semester. Do you have memories or photos you’d like to share? Check out the Alumni Association’s tribute page at scu.edu/alumni/Th Hut or email them to alumnievents@scu.edu. And watch for more in this mag. Rumor has it that the storied bar may reopen under new management this year. We’ll keep you posted.

A Grand Reunion silent auction supporting the Francisco and Laura Jiménez Breaking Through Scholarship featured a vintage SCU, Intercollegiate jacket, pin, and belt buckle.

Lorenzo Gamboa ’03 didn’t need to read Francisco Jiménez’s books to know his story. He lived it himself, immigrant parents, field work, college ambitions. But studying his writing and talking about his life and his work, Jiménez offered a blueprint: “To this day, I want to be a Francisco,” Gamboa says. “I want to open the opportunities for others to be him.”

Gamboa, now senior associate director of Undergraduate Admission and co-chair of the Latino initiative, has become a kind of incursion into the world of Jiménez’s stories. The spry Jesuit over life, sports, engineering projects like the solar decathlon and Tiny House—hands-on projects in McLaughlin-Walsh Residence Hall that would be felt by future generations of Broncos since its opening in the 1940s. It birthed some of SCU’s most beloved traditions: pinning signed $1 bills to the ceiling; Two for Tuesdays; and, on commencement day, Dads & Grad. The Hut was dark, dank, loud, and lovable with sticky floors and walls that could talk. It was a dive bar worthy of the title and the place to be for Grand Reunion (standing room only, fire code be damned). It unofficially hosted a handful of classes each semester. Do you have memories or photos you’d like to share? Check out the Alumni Association’s tribute page at scu.edu/alumni/Th Hut or email them to alumnievents@scu.edu. And watch for more in this mag. Rumor has it that the storied bar may reopen under new management this year. We’ll keep you posted.

A Tantalizing Trio

Three new bottles were introduced to the SCU Mission Wine Collection in fall 2016. Each wine hails from a different regional winery, each run by a different SCU graduate. First, the Mission Reserve: GiaDomenica Winer 2008 Cabernet Sauvignon, a full-bodied red known for great tannic structure. Next, the Perrucci Family Vineyard’s 2013 Red Blend featuring pronounced flavors of ripe plum and black cherry. The final entry was originally the Testarossa 2014 Chardonnay, but when it sold out, Guglielmo Winery’s 2012 Cabernet Sauvignon was added to the mix. (How many schools have that kind of winery depth?) This cab has dark fruit notes and baking spices, making it the perfect addition to the 2016 offerings. The collection has its rootsstock in one of SCU’s signature alumni events: Vintage Santa Clara. The annual food and wine festival celebrated its 33rd year in September 2016, raising $63,280 for the Alumni Family Scholarship Fund. Now that’s worth toasting. This year’s collection is available for order at vinoshripper.com/scu. But move quickly, these things sell fast.
1968

Duncan Fife

Duncan Fife Jr. left us in the spring due to a brain injury after 44 years. His dental practice had been a creative and active one before he took his leave for a Viking boat. His hobby, which he began while a student at Santa Clara, was to build and restore old wooden ships for three decades. He leaves behind his wife, Janice, of 60 years; two sons, Timothy and Mark; and six grandchildren.

Jim Sheehan

Jim Sheehan worked for more than 20 years as a public defender until 1999, when he founded the Law Firm of Sheehan & Lombardo, where he serves as a partner. He is also the director of the Center for Social Justice and the co-founder of the San Jose Community Foundation.

1969

Considered one of the most successful traders of the last 40 years, Blair Hall

Blair Hall was a creative director at Adobe and agency before he took his leave for a Viking boat. He and his wife have run a vintage tobacco business for three decades.

1970

Elizabeth Cara

Elizabeth Cara is a faculty member of the Department of Occupational Therapy at Stanford University. She is the director of the Occupational Therapy Program at Stanford University. She is also a member of the American Occupational Therapy Association and the American Physical Therapy Association. She has been involved in the field of occupational therapy for over 30 years.

1971

Lynda Morrison

Lynda Morrison was a professor of law at the University of California, Berkeley, where she taught constitutional law and civil procedure. She is the author of several books on constitutional law.

1972

Tony Esteves

Tony Esteves is a director of the District 6 board of the Santa Clara County Water District, where he started in 1996. He is also a director of the Legal Aid Society of Santa Clara County. He is the founder of the Silicon Valley Innovation Fund, which has invested in over 100 companies.

1973

Steve Laveroni

Steve Laveroni was a professor of law at the University of California, Berkeley, where he taught constitutional law and civil procedure. He is the author of several books on constitutional law.

1974

Charles D. Osborne

Charles D. Osborne is chairman of the Osborne Partners Capital Management LLC, which manages custom-tailored multiasset class portfolios for individuals and institutions. He has been involved in the field of investment management for over 30 years.

1975

Tony Caldwell

Tony Caldwell is the founder of the Santa Clara University Opera Institute and Opera Santa Clara. He is also the director of Opera Santa Clara and the founder of the Opera Institute at Santa Clara University.

Not every start-up succeeds. That’s true when it comes to social benefit start-ups as well. For the 2016 awards, the judging committee reviewed businesses since the Tech Awards’ founding—granting $350,000 to those most successful.

The awards are presented by the Tech Museum of Innovation in San Jose. Among the 2016 winners are three alumni of the Global Social Benefit Institute (GSBI), run by Miller Center for Social Entrepreneurship at SCU. They are: Equal Access International, AngaTech, and India-Entrepreneur Development Enterprises (IDE-India). These organizations have expanded their reach over the years by changing their original business model, and now serve a larger number of customers. They have been recognized by the United Nations and other international organizations for their innovative solutions.

Equal Access International was recognized with the Social Innovation Award for educating 10,400 farmers on empowerment and human development through the radio show “Chasing with My Best Friend”. This show, which airs in 1.3 million households in nine nations through its expanded news and educational programming, provides solar power within reach of poor villagers in sub-Saharan Africa, reaching 30% of the population. The standard of living has increased by 40% in some areas.

IDE-India was recognized with the Global Social Business Innovation Award for increasing farm yields by about $400 a year. They have expanded their reach over the years by changing their original business model, and now serve a larger number of customers. They have been recognized by the United Nations and other international organizations for their innovative solutions.

Keep walking. As part of the Tech Awards, IDE-India was recognized with the Innovator Organization Eco-Development Award, presented by John M. Sobrato III.
display industry. • Janet Portman J.D. has been executive editor for Nolo Press. She oversees editorial work on all Nolo books, articles, and websites.

1976
Paul Blasco was inspired by the cover of the 1975 film Fiddler on the Roof (featuring Mother Teresa) to share this story of his travels to Italy. “My religious pilgrimages began in Rome for the canonization of Mother Teresa. I then journeyed to Assisi (St. Francis and St. Clare), Siena (St. Catherine), Padua (St. Anthony). Accompanying me in spirit was my wife (my hero) and parish priest, Fr. Leo, J.S. my economics professor, mentor, and friend.” I had my picture taken holding a photo of Father Leo at the canonization. Also accompanying me was my two sons, twenty years old. Wendy. We revisited my summer vacation venue at St. Mark’s Basilica.” • Chris Hanley’s book Expert American Bidding System was published in an ebook format at iBooks. • Retired attorney Betty (Audrie) McKey is a member of the board of the American Classical Music Society.

1977
REUNION YEAR
“I recently launched my own photography business,” writes Thomas Osborne M.S., “which specialises in weddings and portraiture. I’ve always been involved in photography—since it was my engineering job, maybe in imaging optics.” See tomsonbahomeography.com.

1978
In San Leandro, Mike Kramer is an attorney at Cramer & Cramer, focusing on probate, estate planning, and family law. Mike has periodically served as judge pro tempore in Alameda County Superior Court.

1979
Nelson Ch. Chan MBA serves as an independent director on several public companies. • Mike Murphy is president of Check Mobile. • A dentist with his own practice in Gilroy since 2005, Nick Chistel- le says, “There is a trend among people seeing someone’s entire outlook change when their confidence is restored through facial rejuvenation techniques.” • Dr. W. Coe State Park. He has taught Princi- ples of Investments in the econ department for years, Mother Teresa.”

1981
Judith Maxwell-Greg M.A. has been appointed to the California Student Aid Commission. • Greg is professor at Notre Dame de Namur University, where she has been since 1986. • John P. Bianco is a partner at the Bianco Law Firm since 1994. • Jerry Brown ’59 is Qorvo’s corporate VP of business development and mergers and acquisitions. • Peter C. Califano J.D. has been appointed to the board of the California State University at Los Angeles.

1982
REUNION YEAR
Mary Baden H. Dowling served as a vice president of operations for the YMCA of Silicon Valley, has owned and operated North Bay Vegetables. • Mary also teaches child development courses at De Anza College. She is a community leader in Darien and is principal of Cabrillo Elementary in Fremont Unified School District. • He has been a teacher, trainer, and leader for 33 years. • Gayle M. Haworth MBA is a great smile!” • Gayle also volunteers to help non-English speakers improve their language skills and achieve academic success.

1983
Tom Murphy is VP of Customer Success at LiquidPlanner. He has spent the past 10 years in various customer-facing leadership roles at companies including Appito, Mercury Interactive, and Chef Software. • Vivian N. O’Neal J.D. is a member of the Personnel Board, a hearing officer for the Department of Planning and Development, and a commissioner on the Board of Housing Authority. • Denis is married, with one son and two grandchildren.

1984
Kevin Dowling started a new job in January 2007, when he joined Roger W. Coe State Park. He has taught Principles of Investments in the econ department for years, Mother Teresa.”

1985
Peter C. Califano J.D. has been appointed to the board of Phillips 66. • Dan Riley serves as an independent director on several public companies. • Bill Murphy is president of Check Mobile. • A dentist with his own practice in Gilroy since 2005, Nick Chistel- le says, “There is a trend among people seeing someone’s entire outlook change when their confidence is restored through facial rejuvenation techniques.” • Dr. W. Coe State Park. He has taught Princi- ples of Investments in the econ department for years, Mother Teresa.”

1986
John P. Bianco is a partner at the Bianco Law Firm since 1994. • Jerry Brown ’59 is Qorvo’s corporate VP of business development and mergers and acquisitions. • Peter C. Califano J.D. has been appointed to the board of the California State University at Los Angeles.

1987
REUNION YEAR
Bette has been president at St. Andrew’s Academy, a tuition-free, Montessori-meth- odology school. • She lives in Highline, California, with her two boys, ages 14 and 10. • Mary J. Novak J.D. is a Geor- getown Law Law’97 alumnus and member of the fellows is limited to 50 members and 50 years of age. • Carolyn B. Miller has served as an independent director on several public companies. • Bill Murphy is president of Check Mobile. • A dentist with his own practice in Gilroy since 2005, Nick Chistel- le says, “There is a trend among people seeing someone’s entire outlook change when their confidence is restored through facial rejuvenation techniques.” • Dr. W. Coe State Park. He has taught Princi- ples of Investments in the econ department for years, Mother Teresa.”
Lives Joined

Mark O’Brien ’94 and John Colbran were married in Kenwood, California, on May 3, 2016.

Francisca “Kika” Jonsson ’01 mar¬ ried Yevgeni Poberezny on Sept. 15, 2015, at the New York City Marriage Bureau in Manhattan. “We hosted a family in attendance,” included Erik Jonsson ’01. Kika is a fine artist and Brian works as a director of service experience at Blacklane, a transportation startup. The couple lives in Berlin, Germany.

Patricia Ball Alberts ’96, J.D. ’03 married Erik Alberts on Feb. 20, 2010, in Santa Monica, California. SCU Broncos who helped celebrate included “Shimul (Shmulik) Ben-Asher,” said Patricia. “Erik Johnson ’96, Steven Armetted ’98, Daniel Womac ’98, Nikki Womac ’00, Carolyn (Lee) Metnick J.D. ’03, and Amanda For¬ walt J.D. ’03. Patricia and Erik both practice law in Los Angeles and reside in Santa Monica.

Nicole (Adamski) Cuevas ’04 married Robert Cuevas at the Mission Church on July 10, 2016. The couple honeymooned in the Mediterranean and was honored to meet with Pope Francis and receive a mar¬riage blessing at the Vatican. Robert is an electrician foreman and staff sergeant in the U.S. Army Reserve, and Nicole works in finance. They reside in San Jose.

Natalie E. (Evans) Nonnally ’06 married Charles Nonnally on July 23, 2016, in Lake Tahoe, officiated by Michael Zampelli. Best man and brother of the groom was Jonathan Nonnally ’05, and classmate Carolina (Garita) Vog¬ ner ’06 was matron of honor.

Pat Byrnes J.D. ’99 married Allie (Feuer) Bryan on April 14, 2016, at the Mission Church. Santa Clara, preceded over by Marie Prieto ’85, Michael Prieto ’79, John Matt J.D. ’79, and Tony Sauer ’56, S.J. ’71. More than 40 Broncos were in attendance.

Patricia (McGlynn) Reardon ’07 got mar¬ ried at Cincinanni Winery on Aug. 21, 2016, to Eric Rees.

Taylor Thorn ’08, MBA ’15 and Kaitlyn (Bailey-Findley) Findley-Thorn ’00 wed in a public ceremony on Sept. 3, 2016, in Orange County, Califor¬nia, following a private ceremony at the Mission Church the week before.

Meredith Deckard ’10 married Ryan Truettner ’09 on Aug. 21, 2015, in Los Gatos. Wedding attendees included Natasha Koulovskii ’10, Allison Kern ’10, Sarah Cheney ’10, Mary Higgins ’10, Michael Truettner ’08, Will Bennett ’09, Brian Bradley ’09, Andrew Scanlan ’10, and Mi¬ chael Bonner ’09.

After spending her last semester at SCU as the only engaged student in her Thuis¬ day of Marriage class, Abby (Handli) Deetjen ’06 and Marc Deetjen tied the knot on July 30, 2016. Marc is pursuing his Ph.D. in mechanical engineering. After work, Abby returns to SCU to lead a small group with an on-campus minis¬try. They reside in Palo Alto.

Births & Adoptions

Abby (Faye) Hammel ’93 and Mike Hammel ’98 welcomed son Luke James on Jan. 16, 2016. Big sisters Aineyl and Kiley are thrilled to add a brother to the family.

Renee (Osborne) Benedict ’02 writes, “My son, Sean Matthew Miki, was born July 2016... the first grandchild for Connie Osborne ’75.”

Daniel Figoni ’03, MBA ’07 and Eliza¬beth Figoni ’06 welcomed their first, Rose Corinna Figoni, on July 11, 2016.

Kim (Lay) Troubly ’03 and Daniel Troubly ’04 greeted their first child, Lily, on May 22, 2016. The family lives in San Diego.

Michelle (Donecha) Duchesne ’05, M.A. ’06 and Chris Duchesne ’06 welcomed their first, Elizabeth ‘Bunny’ Dee Duchesne, on March 23, 2016.

Amy (Whelan) Green ’06 and Bryan Green welcomed Jackson Matthew Green on April 8, 2016.

Matthew Reardon ’06 and Katrina Welch-Reardon ’06 joyfully welcomed the birth of their first son, Liam Jack Reardon, on June 15, 2016.

and single plaintiff litigation. Mike Pyn M.A. was appointed director of development at The Abbey of Our Lady of New Clarens, in Vina, California, in August 2016.

1991

Jon Berthold is di¬ rector of admissions at Napier School in Andover, a pro¬ K-12 independent day school in south¬ west Louisiana. He will finish the fall in Youngsville, Louisiana, with their two chil¬ dren, Dominic and Isabella. Scott Mid¬ dleton is among the English department faculty at Brophy College Preparatory in Phoenix, Arizona. He has been a member of the Brophy faculty since 1994 and is a freshman football coach. Kathleen Rob¬ erts J.D. is a shareholder at Banner Bos¬ tone Thomas Kinsey. Prior to joining the firm, Roberts was associated with a suc¬ cessful Northern California defense firm, specializing in workers’ compensation, subrogation, and fraud. Mary Montana MBA is vice president and chief sales of¬ ficer of IDT. Montana has held several po¬ sitions during his more than 15 years with the company, including most recent as the vice president and general manager for the IDT Enterprise Computing Division.

1992

Reunion Year

Jon Berthold is a licensed mental health counselor and has been working with the state of Washington’s criminal justice training commission for several years, providing required crisis intervention training to law enforcement officers. SurveyGizmo, industry leader in online data col¬ lection services and survey software, has a new COO: Nicole Craine. Craine brings years of operations, startup, and leader¬ ship experience. Her main license will be speed, efficiency, and scalability. Craine is an active member of both Women in Technology International and Women in Wireless. Rob Downey is the assistant director of Clinical Laboratory Applica¬ tions at Sysmex America. He continues his volunteer work running medical clin¬ ics in southwestern Haiti and serving on the Seattle-King County Disaster Team board. He lives in San Diego with his husband, Karl, and their dog, Arf. As Bechtel’s treasurer, Kevin Leder MBA has global responsibility for all cash op¬erations, short-term investments, foreign currency, and relationships with banks and other financial institutions. Kevin also oversees the coordination of pro¬ ject-specific banking matters for Bechtel entities, operations, projects, and joint ventures around the world.

She was a theatre major by a theatre mi¬ nor. The proposal: When Kayla stopped in San Jose to celebrate the couple’s fourth anniversary together (she had recently moved to New York to pursue her MFA in acting from The New School), Mike sug¬ gested they stroll through campus, where he popped the question by the Sacred Heart statue in the Mission Gardens. “We knew instantly we really wanted to get married in the Mission,” Kayla said.

In attendance: Kayla’s parents, Eric Berghoff ’06 and Madeline Berghoff ’07; siblings Garrett Berghoff ’10 and Tessee Berghoff ’16; and Mike’s mother, Annette Naughton-Dessert ’98— in addi¬ tion to nearly 40 fellow Broncos. “Santa Clara has become a family place, which made our wedding so much more mean¬ ingful,” she says. “It’s truly a special place for both our families.”

Now living in Astoria, Queens, Mike is working as a physical therapist in Manhattan, and Kayla is in her final year of school. With 43 prime-time TV shows filming in the city—in addition to commercial work and theatrical produc¬ tions—he’s eager to pursue various acting opportunities upon graduation. Mike has kept busy playing rugby for a Scottish team—he played all four years at SCU, serving as team captain as a se¬ nior—recently representing the Broncos in the rugby severe tournament USA Touch Nationals.

When it came time for college, Kayla opted for SCU to “want something different from my parents, but that school felt too big, and I felt a little lost.” So she decided to check out Santa Clara, strolling a tour of the theatre and dance department from professor Alba Billinghurst.

“Everyone was so nice and person¬ al,” she recalls. “I knew right then, this is where I wanted to be.” Once back in Northern California, Kayla emailed Billinghurst, asking: “Do you ever take people in the spring of the year? I want to transfer now!” He said he’d see what he could do. Ultimately, SCU let me come winter quarter. It was the best thing to ever happen. Because I only missed one quarter, I like to say that for all four years I was still a Bronco.”
1993 Kate Hart is the land use and permitting counsel to Richmond Investments Inc., a real estate development company based in Irvine, California. Previously, she was a land use attorney in the Washington, D.C., office of Steptoe & Johnson. Hart is a graduate of Loyola Law. She is a member of the California State Bar and serves as a director of the American Planning Association—Southern California Section. 

1994 Robin Lathrop M.S.

Robin Lathrop is a new president of Pacifica Tanner, a technology law firm that specializes in intellectual property and Internet transactions. Lathrop and her associates recommend and implement policy and practice that defends the civil rights of Morgan Lopez J.D.

1996 Juan founded We the People, an organization that serves 10 years on the advisory board for Lathrop Engineering, a company that builds the thorniest public policy and environmental problems in their area. Juan has recently been appointed to the California Agricultural Workers Access Act Task Force. He is the new president of the Watsonville Law Center and serves on the governing boards of the Watsonville Law Center and The Kauffman Foundation.

2001 Former SCU ren-

2003 Former SCU ren-
is a dermatologist and dermatopathologist serving patients in Joliet and DeWitt, Illinois. She also specializes in medical, surgical, and cosmetic dermatology. Stofan and her husband are excited to be located in Chicago area with their daughters.

Aila Malik J.D. is a founder of Venture Leadership Institute in Beaumont, Oregon, where she advises social entrepreneurs. Previously, Malik had practiced law in the San Francisco area and worked as a sports agent for the San Francisco Giants. She received her Doctorate of Dental Surgery from the University of Michigan and her Bachelor of Science in Biology from the University of Maryland. She is also an active member of the American Heart Association and the American Cancer Society.

In July, Tessa Miller took part in an art and design exhibition at the University of Nevada, Reno, gallery tessa owns The Nod, a boutique hotel in Reno, for which she purchased, renovated, and manages. She also serves on the design and development committee on campus and was involved in the design and renovation of the new student center.

In Portland, Oregon, JohnRobertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.

In Portland, Oregon, John Robertson is a co-founder and managing director of travel guides, the y ensure a quality experience for clients with institutional-quality real estate services.
The John Muir Trail is a place of wonder but nothing to trifle with. Rita Beamish ’74 knew that when she began a 220-mile trek last August, from Yosemite to Mt. Whitney. “At age 64, I’d be carrying a fully-laden backpack, at altitude, unsupported, over some of the highest passes and the highest peak in the Lower 48. Would my back hold up, my vegetarian strength hold out?”

2012

The raindrops started abruptly, then turned into sheets, dropping faster and harder as I pushed past 11,200-foot Mather Pass. Completely exposed, I needed to get up and go. Wet, lying mud would blunt me at the top. I dropped my backpack to the pass in a few strides. I tool a fast walk to the Half Dome Trailhead: from where we’d come the pass in a few strides. I put on a rain jacket. I willed my aching legs up the pass. I could see every fish and pebble; miles of granite-sprinkled meadows; tiny pine forests that gave way to huckleberry slopes, sweetew edges etched against the blast of snow—this was the trail itself. But there was to be taken seriously, and carefully.

The daily routine of the trail offered a respite from the horror show that was the 2012 presidential campaign. The runovers擘um, late-hurling appeal from Donald Trump, while captivating more and more Americans, assailed my values and upended my journalistic assumptions—I’d covered past presidential campaigns—about people’s willingness to accept proven falsehoods and shrug off revelations and behavior that would have sunk any other candidate. Up on the JMT, those horrors couldn’t catch me.

We had nothing to do except pack up our tents each morning and take one step after another through a scenic wonderland. How fortuitous that politicians of the past had appreciated this place and protected it as wilderness and national park lands, and that a California governor, Ronald Reagan, fought hard for a highway that would have changed it forever.

As I dropped to the bottoms of Mother’s switchbacks, the sky cleared. The air warmed. A tenacious cold front moved in from the South, bringing the world leading commercial drone delivery service. Last year, Flirtey made the first drone delivery in United States history and is expanding operations with 7 Eleven in the U.S. and Domino’s in New Zealand.  Angelo Chey MBA is the co-founder and CEO of Flirtey, which enables affordable, high-quality, and personalized college admissions services. She loves entrepreneurship, startups, and women leadership. A mother of two, Angela has experience in both private and public sectors. She cultivated her e-commerce skills at the University of South Florida, and KQED News. She also holds an MBA from the University of California and Government Dom. Gary joined KQED as an intern in 2012. He grew up in New York. Sheldon P. McFarland MBA is VP of Portfolio Strategy & Research at Lending Tree, a company that serves and supports financial advisors in the United States. Briania Mitchell starred as Major Barbara, the title character in George Bernard Shaw’s Major Barbara at Mountain View’s Pear Theatre. Originally from Portland, Oregon, Mitchell now lives in Mountain View. After earning her master’s in English composition at San Francisco State University, Gabriela Estephane Soholsi ’18 accepted a two-year full scholarship to attend the University of Notre Dame’s Master of Sacred Music Program. Gabriela has performed throughout the Bay Area both as a soloist and with various groups. Dewey Then MBA is a partner at Archprime. He was named to Forbes 30 Under 30 list for 2016. She is the senior director of The Tech Museum of Innovation. Under 40 list for 2016. She is the senior director of The Tech Museum of Innovation.
Obituaries

We publish news of the passing of Broncos as we learn of it. Find obituaries published in their entirety at magazine.scu.edu/classnotes. Family members may also submit obituaries and photos for publication online and in print.

1938 John Filippi was born in Hanford, California, in 1917. He fell in love with Santa Clara University the first time he set foot on campus in 1933. After graduating from SCU, he attended Golden Gate Law School. He served in the United States Army 1944–46. After his discharge, he practiced law in Palo Alto. John is predeceased by his wife, Elsa, of 70 years, and he is survived by three children: Judy Bishop ’09, Dana Filippi ’72 (Sharon Kaiflin Filippi ’72), and Lynn Momboisse ’79. They are among his surviving grandchildren, three of whom are Santa Clara graduates. Ellie Bishop Descheneur ’77, Robin Momboisse ’75, and Richard Momboisse ’79 (Melissa Heinrich Momboisse ’81), and two great-grandchildren. John passed away Dec. 10, 2016, in Modesto at the age of 101. His 101st birthday was commemorated in the Summer 2016 issue of Santa Clara Magazine.

1941 Guido A. Marengo Jr., age 90, a native of Stockton, passed away on Aug. 29, 2016, after a brief illness. He was the son of Gino Marengo Sr. and Beatrice Campodin- ci Marengo. Guido graduated from Stock- ton High School before attending Santa Clara. He entered the U.S. Marine Corps and served as a captain in the Fourth Ma- rine Division. Guido made four landings in the Pacific during World War II, and for action on June 6, 1944, he was awarded the Silver Star. Following the war, Guido married Patricia Yardley. He managed the departmental division of products, and the Credit Bureau of Stockton. Guido was very active in the community during his business career and a long-time contribu- tor to the Leavey School of Business and Bronco Boosters Foundation. He enjoyed tennis, swimming, gardening, and traveling. He was married to his wife, Patricia, for 69 years and was the loving father of Julie Boegli (George), Gina Di- mila (John H. Dimila ’83), and Barbare Boegli (Mathew Boegli ’75); and the proud grandfather of nine grand- children, including Gia M. Boegli ’93 and taught business skills. Cheers to Guido with an ice-cold Heinke!

Edward Hermann Hulbert 1948

1948 Born in 1923, Eu- gene S. Campi was a second-generation Oaklander. World War II veteran, home builder, and general contractor in the East Bay. Friends know him as Chuck. He laid the foundation for his family—heirloom groves—teaching by example: hard work, time for fun, and letting each family member discover his or her own path to happiness. On July 4, 2016, he joined wife Mary Lou. They raised eight children, among them Chris Taylor ’72 and Mike Campi ’79. Their 17 grandchildren include Adam Campi ’11.

1950 Daniel Gilbert Krane was born on Aug. 16, 1924, in San Lorenzo home at 93. Francis graduated from SCU and was a second lieutenant in the U.S. Navy in World War II and participated in the Battle of Iwo Jima. Following the war, he worked for Chevron Research in Richmond, California. His expertise was finding new oil fields. His was an active volunteer at senior housing centers and San Quentin State Prison, where he

1953

An avid home builder, talented home chef, and father of two, Frank Brandon Mann Jr. passed away on March 8, 2016, the day before his 60th birthday. Born in Petaluma, California, Frank worked on and designed first passenger airplanes, and later, the long Rising space shuttle carrier. He enjoyed traveling the world with his wife, Patricia. His cousin was Catherine A. Judd. The family holds a private Catholic Mass of Christian Burial on March 11, 2016.

1967

Donald Banham, 50-year resident of Carmel passed away on July 9, 2016, in Hanford, China, and attended SCU on an athletic scholarship. While teaching in the Philippines, he met his future wife, Dorothy. Commission- ed as a second lieutenant in the U.S. Army at graduation, he spent four years on active duty before starting a career in the semiconductor industry and opening business ventures in Asia and Europe. In retirement, the father of four was a substitute teacher, emergency response volun- teer, and a lector and Eucharistic minister. A Reddingite ’67, an alumni booster, car enthusiast, and family man, John C. Fitzpatrick died on July 10, 2016, four days short of his 90th birthday. He owned

1974

Francis L. Dettor passed away peacefully on Aug. 16, 2016, in his San Lorenzo home at 93. Francis attended SCU from Stanford in 1950. Francis command- ed a bomb firing gunboat in the U.S. Navy in World War II and participated in the Battle of Iwo Jima. Following the war, he worked for Chevron Research in Richmond, California. His expertise was finding new oil fields. His was an active volunteer at senior housing centers and San Quentin State Prison, where he taught business skills. Cheers to Francis with an ice-cold Heinke!

Edward Hermann Hulbert 1948

1948 Born in 1923, Eu- gene S. Campi was a second-generation Oaklander. World War II veteran, home builder, and general contractor in the East Bay. Friends know him as Chuck. He laid the foundation for his family—heirloom groves—teaching by example: hard work, time for fun, and letting each family member discover his or her own path to happiness. On July 4, 2016, he joined wife Mary Lou. They raised eight children, among them Chris Taylor ’72 and Mike Campi ’79. Their 17 grandchildren include Adam Campi ’11.

1950 Daniel Gilbert Krane was born on Aug. 16, 1924, in San Lorenzo home at 93. Francis graduated from SCU and was a second lieutenant in the U.S. Navy in World War II and participated in the Battle of Iwo Jima. Following the war, he worked for Chevron Research in Richmond, California. His expertise was finding new oil fields. His was an active volunteer at senior housing centers and San Quentin State Prison, where he

1953

An avid home builder, talented home chef, and father of two, Frank Brandon Mann Jr. passed away on March 8, 2016, the day before his 60th birthday. Born in Petaluma, California, Frank worked on and designed first passenger airplanes, and later, the long Rising space shuttle carrier. He enjoyed traveling the world with his wife, Patricia. His cousin was Catherine A. Judd. The family holds a private Catholic Mass of Christian Burial on March 11, 2016.

1967

Donald Banham, 50-year resident of Carmel passed away on July 9, 2016, in Hanford, China, and attended SCU on an athletic scholarship. While teaching in the Philippines, he met his future wife, Dorothy. Commission- ed as a second lieutenant in the U.S. Army at graduation, he spent four years on active duty before starting a career in the semiconductor industry and opening business ventures in Asia and Europe. In retirement, the father of four was a substitute teacher, emergency response volun- teer, and a lector and Eucharistic minister. A Reddingite ’67, an alumni booster, car enthusiast, and family man, John C. Fitzpatrick died on July 10, 2016, four days short of his 90th birthday. He owned

1974

Francis L. Dettor passed away peacefully on Aug. 16, 2016, in his San Lorenzo home at 93. Francis graduated from SCU and was a second lieutenant in the U.S. Navy in World War II and participated in the Battle of Iwo Jima. Following the war, he worked for Chevron Research in Richmond, California. His expertise was finding new oil fields. His was an active volunteer at senior housing centers and San Quentin State Prison, where he taught business skills. Cheers to Francis with an ice-cold Heinke!

Edward Hermann Hulbert 1948

1948 Born in 1923, Eu- gene S. Campi was a second-generation Oaklander. World War II veteran, home builder, and general contractor in the East Bay. Friends know him as Chuck. He laid the foundation for his family—heirloom groves—teaching by example: hard work, time for fun, and letting each family member discover his or her own path to happiness. On July 4, 2016, he joined wife Mary Lou. They raised eight children, among them Chris Taylor ’72 and Mike Campi ’79. Their 17 grandchildren include Adam Campi ’11.

1950 Daniel Gilbert Krane was born on Aug. 16, 1924, in San Lorenzo home at 93. Francis graduated from SCU and was a second lieutenant in the U.S. Navy in World War II and participated in the Battle of Iwo Jima. Following the war, he worked for Chevron Research in Richmond, California. His expertise was finding new oil fields. His was an active volunteer at senior housing centers and San Quentin State Prison, where he taught business skills. Cheers to Francis with an ice-cold Heinke!
He Built It Beautiful. For nearly two decades, Joseph P. Sugg served Santa Clara and was a champion of so much of what makes this place lovely and unique. When he retired in 2014 as associate vice president for University Operations, he had overseen unprecedented construction and renovation of the Mission Campus. He and his staff kept the campus lovely and made it more so.

Joe Sugg is the new owner of the off-the-wall library, California’s 15-year over-
nous collection he used at Santa Clara magazine at magazine.scu.edu.

Joe was an architecture major and graduated from Santa Clara and was a leader in the community. His legacy will continue to be felt for many years to come.

1958 Seventy-nine-year-old Harold John Knopp, of Harrison City, Pennsylvania, died at home surrounded by his family on Feb. 11, 2016. Hal was born in San Francisco in 1917. He was an Army veteran, a member of St. Barbara Catholic Church, and the loving father of four children, among them John Todd Knopp ’77. Hal also had 13 grandchildren.

1960 John Thomas Casey, a 25-year resident of Nevada City, California, died June 21, 2016, at 78 years old. Born in Burns, Ore., John developed juvenile rheumatoid arthritis, and although the effects of this disease changed his life dramatically, he didn’t let it define him. At SCU, John was active in the male chorus and served as vice president of the student body. This is also where he met, Marji, a San Jose State nursing student, after seeing a photograph of her on his roommate’s desk.

They married in 1959, and the rest is history.

He had a long career in the lumber business, first as an engineer, then as a project manager, and eventually a division president. He loved birthday gatherings, toasting at weddings, strong hugs, barbecues, coaching, and being active at church.

Whatever you worked on, he was married to the love of his life for 45 years, a daughter, two sons, and four grandchildren.

1962 Samuel Palmer Easton III passed away peacefully Sept. 24, 2016, at age 75, following a brief illness. Born in Woodside, California, Sam was known for his work ethic, sense of humor, sportsmanship, and commitment to excellence in all that he did. He was an expert “structures” engineer on the Edwards Air Force Base and served on the Business School Advisory Board and started the CEO Forum, a network of small-company CEOs who met monthly. Whether in long conversations over dinner, formal meetings, or phone calls in times of difficulties, Larry was there to listen. He was born in Roseburg, Oregon, and was married to Amelia M.A. ’74, M.BA 90. Larry died in Palo Alto on April 14, at age 65.

1966 Alan A. Parker J.D. ’64 had just received his law degree from UCLA and completed a full three-year legal course at Santa Clara.

With an asterisk: Alan A. Parker J.D. ’64 had just received his law degree from UCLA and completed a full three-year legal course at Santa Clara.

1964 Alan A. Parker J.D. ’64 practiced law from 1966 to 1985 in San Francisco. In high school, Parker preferred reading in the library to class and ultimately took advantage of a policy that allowed credit for life experience courses. Parker studied for a year at San Francisco College of Law and completed a full three-year legal course at Santa Clara.

He gave every spare moment to his family, community, friends, and beloved Fiddleback Ranch. Sam joined the California Radio Bureau Committee in 1934, serving as chair of the Santa Clara Athletic Committee, as chair of the Nomination Committee, director, and as a member of the Air Force Air Force flying F-46. He was an active duty for 13 years and spent another 12 years in the reserves. He traveled the world as an United Airlines captain. He retired in Washington state, July 13, 2016, at age 73. His wife, Ellen, and three children survive him.

1967 John McInerney passed away on Aug. 8, 2016, surrounded by his wife of 39 years, Cheryl McInerney, and their two children. Born in Los Angeles in 1945, John grew up in Willow Glen where he played baseball and basketball. He was an avid and loyal fan of the Santa Clara Athletic Hall of Fame, along with the rest of the initial crew, for the 50th reunion in 2016. Steve served in the Air Force flying F-46. He was an active duty for 13 years and spent another 12 years in the reserves. He traveled the world as an United Airlines captain. He retired in Washington state, July 13, 2016, at age 73. His wife, Ellen, and three children survive him.

1969 Former secretary of the California Senate and CEO of the California Senate Rules Committee for 16 years, Gregory Palmer Schmidt passed away Aug. 24, 2016, at age 68. He was a leader, a crusader, a class leader, a scholar, a diplomat, and a friend to many. He was always an advocate for others. His wit and kind-
ness were legendary. He was the family—among them daughter Katarina Tanner ’83 and grandson Jordan—his favorite. He was an expert “structures” engineer on the Edwards Air Force Base and served on the Business School Advisory Board and started the CEO Forum, a network of small-company CEOs who met monthly. Whether in long conversations over dinner, formal meetings, or phone calls in times of difficulties, Larry was there to listen. He was born in Roseburg, Oregon, and was married to Amelia M.A. ’74, M.BA 90. Larry died in Palo Alto on April 14, at age 65.

As president of the company, Lawrence Wiseman Smith Tropé (PPIO) from a business that started in his father's garage into an international powerhouse and one of the largest private companies in America. He also became a prominent restaurateur in the Midwest, advancing fine dining in the Detroit area. He had a deep love for athletics, photography, nature, cooking, his faith, and his family. Larry was born in Detroit and passed away in Florida on Sept. 19, 2016, at age 69. His daughter-in-law is Allison Wiseman M.A. ’88.

1975 Terry Kane joked that he spent more than 30 years practicing law in different offices in downtown San Jose, all within a 30-minute stroll of Almaden Blvd. and Santa Clara St. Terry was born and raised in Merced, California, and was an expert in trusts and estate law—he authored The Wills Planner—and later moved on to banking. The father of two was also a piano player, singer, and self-taught camera-bug. Sherpa for his wife, Judy. He died on May 2, 2016. Survivors include his brother, Thomas J. Kane III ’73.

1978 Rebecca Louise Vaeura Leeley died in Tucson, Arizona, on Aug. 8, 2006. Becky was born and raised in Fairbanks, Alaska, with nine siblings, among them Patty Vaeura Holland ’99 and John Vaeura. She was a teacher, with kindergarten being her favorite class, and was later named British Petroleum Teacher of Excellence. Becky’s ready smile, infectious laughter, generosity, and open door made everyone feel welcome and special. She leaves behind husband Mike, three children, and two grandchildren. She was 60 years old.

1986 Linda (Kaelre) Hanson of San Jose passed away at home on May 3, 2016, after a difficult struggle with pancreatic cancer. She was born in 1946 in Mountain View, California, and had fond memories of childhood summers cutting some of the last asparagus grown in Santa Clara County. She grew up trying numerous hobbies, including needlepoint, guitar, and gymnastics, but she found her true passion in cooking. She enjoyed hunting down classic recipes and hosting wine tasting and dinner parties, where she gladly and easily prepared the whole meal. After graduating college, Linda worked in the field of marketing at various technology companies, including Apple, Sky Pilot, Ethicon, and Intuit. In 2007, Linda married Brad Hanson, and they welcomed their daughter, Nistic, into their family just over six years ago. She was happiest spending time with her family making wine, enjoying family dinners, camping, and making the family’s traditional holiday Kallin cookies.

1989 Robert Pavel M.B.A. of Fremont passed away suddenly on June 18, 2016. He studied at U.C. Berkeley and earned an M.B.A. from Santa Clara University. He served as a businessman in the U.S. Navy and was an Eagle Scout. His passions were his family, flying his airplane, and spending time in Maui. Robert is survived by his wife Toni, four children, one granddaughter, and his brother.

2008 Phil Collins M.B.A. passed away on May 3, 2011. He was a senior consultant with Maner, a nonprofit NIST affiliate, helping small to midsize manufacturers to be more competitive. He had previously worked at the Lawrence Berkeley National Laboratory and at RadWrite Systems.

2018 Owain Broughton, an English major, died April 25, 2016, after an automobile accident. Owain’s home was Canterbury, England, and through parentage he was a proud Walmann. The 23-year-old was a skilled footballer with an awesome left foot and change of pace. He loved music and was an accomplished musician, teaching himself to play guitar and drums. Owain was sweet, loyal, and decent, the youngest of six children.
Here Comes the Sun. In the chapel of the Jesuit Residence on the corner of Franklin and Alviso streets, you’ll find six panes of stained glass. A view from outside only hints at the warmth and brilliance with which they bathe the interior. The glass has journeyed to a new home since it was first commissioned in 1975 by William Rewak, S.J., then President of Santa Clara.

The technique used is dalle de verre—French for “glass slab”—and involves laying thick and uneven glass in epoxy resin. This produces deeper colors—and very heavy windows, weighing about 50 pounds per square foot.

The Artist
Roger Hogan of Oregon’s Hogan Studios designed a sunrise to represent the “growing light of Christ.” Look, and you’ll see swirls from Hogan’s tools in the glass. The technique used is dalle de verre—French for “glass slab”—and involves laying thick and uneven glass in epoxy resin. This produces deeper colors—and very heavy windows, weighing about 50 pounds per square foot.

The Order
In Nobili, the six panes were afforded space to create a horizontal landscape across the back wall—like we’ve re-created here on the page. In the Jesuit Residence Oratory, the order has been shuffled a bit to fit the space.

The Angels
The old chapel in Nobili Hall is now home to Miller Center for Social Entrepreneurship—which fosters global, innovation-based entrepreneurship in service to humanity. While blinds have replaced the stained glass in the room, sculpted angels still keep watch, and a 10-foot-tall wooden cross anchors one wall.

The Chapels
For decades the Jesuits and their chapel resided in Nobili Hall, built in 1930 and named for the first president of Santa Clara. That’s groundbreaking, left. The new Jesuit Residence was constructed in 2006 to be “a place open to campus to develop relationships,” says Gerdenio “Sonny” Manuel, S.J., who previously served as rector of the Jesuit community.

The Artist
Roger Hogan of Oregon’s Hogan Studios designed a sunrise to represent the “growing light of Christ.” Look, and you’ll see swirls from Hogan’s tools in the glass. The technique used is dalle de verre—French for “glass slab”—and involves laying thick and uneven glass in epoxy resin. This produces deeper colors—and very heavy windows, weighing about 50 pounds per square foot.

The Order
In Nobili, the six panes were afforded space to create a horizontal landscape across the back wall—like we’ve re-created here on the page. In the Jesuit Residence Oratory, the order has been shuffled a bit to fit the space.

The Angels
The old chapel in Nobili Hall is now home to Miller Center for Social Entrepreneurship—which fosters global, innovation-based entrepreneurship in service to humanity. While blinds have replaced the stained glass in the room, sculpted angels still keep watch, and a 10-foot-tall wooden cross anchors one wall.

The Chapels
For decades the Jesuits and their chapel resided in Nobili Hall, built in 1930 and named for the first president of Santa Clara. That’s groundbreaking, left. The new Jesuit Residence was constructed in 2006 to be “a place open to campus to develop relationships,” says Gerdenio “Sonny” Manuel, S.J., who previously served as rector of the Jesuit community.