



Santa Clara
University

Santa Clara Magazine

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NASA maverick who
saved Hubble. *Page 20*

Like no place on
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are about to get very
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SANTA CLARA MAGAZINE SPRING 2016

STARS

STARS

02/07/16

HEAR THE ROAR of the crowd, the thunder of Panthers and Broncos clashing. Santa Clara was the place for Super Bowl 50, with the big game played at Levi's Stadium—the colosseum constructed by a joint venture led by a herd of Broncos (our kind). Yeah, we built this. And on Super Saturday, the Mission Campus hosted a Super Community Celebration. *See a slideshow and read the story of the stadium and how football returned to Santa Clara: santaclaramagazine.com*



SUPER BOWL 50
AND THE HOME OF THE LEAGUE
EPA / TONY AVELAR

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DIGITAL EXCLUSIVES

Features, interviews, videos, slide-shows, invaders from Earth, NFL super agent **Bob LaMonte '68**, and former baseball All-Star **Randy Winn '96**. New stuff:



BRINGING BACK A CLASSIC Bronco Athletics recently announced that it would be revamping logos and uniforms for a classic look. Plus, a new partnership with Nike. Our recap of Bronco logos through the years.



STATE OF THE UNIVERSITY In his February address, President **Michael Engh, S.J., M.Div. '82** reflects on the year just past—and what lies ahead for SCU in 2016: welcoming new deans, new majors, and more.



WHAT'S THE DIFFERENCE? A Silicon Valley CEO tells why he likes hiring Santa Clara grads over Stanford grads. Psychology professor **Thomas G. Plante** (who also teaches at Stanford) writes about it in a blog post for SCU Illuminate.

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MISSION PHOTO BY JOANNE LEE. GRADUATION PHOTO BY JIM GENSHEIMER. ILLUSTRATION BY DAVID PLUNKERT

Seeing Stars

WE WRITE STORIES in the stars: draw the lines between burning, disparate celestial orbs—this one we call the foot, that one we call the tail, and there are the camels quenching their thirst—and connect the dots. Once upon a time I learned the constellations as characters who populated the marvelous tales of crabs and charioteers, bears and bow-wielding hunters, altars and eagles, harps and hares, fishes and scorpions.

So here's a question: Where do you go to see the stars now? When I was a boy, the best view of the night sky that I knew was on the shore of a lake in Michigan's little finger. My father would take us out to the water's edge and we would gaze up at the starshower, watching for hours while the constellations wheeled overhead. What rained down weren't really stars, we knew. But those blazing streaks of light, which I swore I could hear race across the heavens with a *whoosh*—they came from stars once upon a time, didn't they? As did we: made of starstuff, as an observer of the cosmos once assessed.

Which is to say: We read our story in the stars. Gaze back across space, time, and there's the history of the whole shebang—life, the universe, everything. Quasars and supernovas. Seething cauldrons of stars being born. Ancient stars collapsing, going cold. Galaxies devouring one another, a long time ago, far away.

And yet, look up; there remain those shimmering points of light that can serve as guides in a journey. In the pages ahead, star traveler, we've got galaxies of real stars. We also reveal a fondness for metaphoric stars. Some are rising, some are folks of the first magnitude. Some took years of study to understand.

So, another question: Who are your stars? In the rapidly expanding universe, story still unfolding, where should we look next?



Letters



The Fall 2015 edition was the biggest mag we've published. Here are some of your comments. Read more, discuss: santaclaramagazine.com.

Write us: scmagazine@scu.edu

GAME CHANGERS

Great issue. I thought the articles were superb, and I appreciated the write-ups on my brother Jesuits who have gone to our Lord in recent months.

Paul J. Goda, S.J.

Professor Emeritus of Law, Santa Clara

Men of letters: After the Broncos upset Arizona in the 1993 NCAA tourney, friends of Ron Pereira '93 high-tailed it to Salt Lake City for Round 2.



Let's take a moment to note this: Fr. Paul has resided here at Santa Clara since 1969 and taught here for 40 years. —Eds.

I think including the president's image on the back page of a publication whose theme is "Game Changers" implies he shares a vision with the pope on making change. Yes, President Obama is a game changer with his statement that the USA is not a Christian nation. It does not take a history Ph.D. to know this country is

far and away made up of Christians, starting with the founders and the Constitution and Bill of Rights. Is this the kind of person Santa Clara wants to associate with the Catholic/Christian faith community? If so, then, frankly, you have lost your way either in liberal quagmire or ideology.

George A. Eifler

Phoenix, Arizona

Even though he's the darling of many in the Silicon Valley, your back-cover picture of President Obama was apropos in its placement. While Pope Francis has earned all the worldly acclaim he justly deserves, our current chief executive merits the criticism bestowed on him.

John Shean '64

San Diego, California

A WILD GENEROSITY

I just read Brian Doyle's **Steve Nash '96** piece in *Santa Clara Magazine* (we get it because my wife, **Meagan Tuhy '92**, is a proud Bronco). I ended up reading most of it out loud to the entire family.

One of the best pieces on any athlete I've ever read, and I have read plenty.

Some friends and I used to go to the WCC tournament every year when it was in the Bay Area. We saw Nash lead that SCU team to the championship the year they went on to beat Arizona. He had a magical weekend, one of the best stretches of basketball by one person I've ever seen, and I wasn't even surprised when they beat Arizona. But I would never, ever, ever have imagined that he could be the MVP of the NBA. There was a strange alchemy to his game that I tried to understand but never really did. I read once that when he realized he was slowing down he ratcheted his entire game

down *even slower*, so he could still control other players' reactions to his speed. Remarkable little Canadian dude.

Dennie Wendt

Portland, Oregon

EDUCATED ADMISSIONS

Sandra Hayes has been an inspiration and mentor in the world of admissions that many institutions wish to imitate. I can say from personal experience that our SCU core values have always been part of her leadership and guidance. Thank you, Sandra, for all you did for SCU and its staff.

Lorenzo Gamboa '03

Senior Associate Director, Undergraduate Admission, SCU

BELIEVE IN US

I enjoyed reading the article dealing with the 1993 NCAA tournament. However, it should be noted that in 1952 the Broncos made it to the Final Four in the NCAA tournament. The team won the Western Regionals in Corvallis, Oregon, and went on to Seattle for the Final Four. We finished fourth at the tournament with a team that had not received much recognition during that basketball season but had the traditional Bronco grit.

Edward Panelli '53, J.D. '55

Saratoga, California

Ed Panelli is a former justice of the California Supreme Court and former chair of the SCU Board of Trustees. As for setting straight basketball history, he was there: He was student-manager of the team. —Eds.

I can say that I have few regrets from my days at SCU. I do regret not dropping everything and taking the Road Trip of all Road Trips to Salt Lake City after SCU upset Arizona. My roommates and friends were there for the game vs. Temple: **Emmet Malloy '94, Zach Fisher '93, Buck Cobb '93, John Corrigan '93, Rod Burns '93, Scott Kelley '93, and Dave McKenney '93**. Lots of stories came back from that trip, especially how they didn't get seats together and never actually spelled Broncos inside the game. Gotta love the Rambis glasses!

Ron Pereira '93

Oakland, California

IRREPRESSIBLE BUD

Class Notes featured news (and a Sports Illustrated cover) to mark the induction of a basketball star into the West Coast Conference Hall of Honor.

"The Cover" has a life of its own! I would not have been featured on the cover of *Sports Illustrated* were it not for our teammates and coaches, a gritty, like-minded group of competitors. **Dick Garibaldi '55** and **Carroll Williams** prepared us well and created a culture of togetherness that carried us beyond our wildest dreams.

Although **Dennis Awtrey '70**, my brother **Ralph '70, Kevin Eagleson '70, Terry O'Brien '69**, and I were the primary starters, **Joe Difley '68, Chris Dempsey '68, Bob Tobin '70, Keith Paulson '69, Tom Scherer '70, Jim Kohles '71, Mitch Champi '71, Gary Graves '71, and Pat Kelly '71** made us better every day, and they epitomized the meaning of team.

P.S. *Santa Clara Magazine* is a thing of beauty and represents the University well.

Bud Ogden '68

Gilroy, California

REST IN PEACE, FR. WRIGHT

I had just transferred to Santa Clara my junior year, 1966. A nun from summer school recommended that I take a theology class with Fr. **Tennant Wright**. Registration was in a huge room where you signed up for classes and bought books. As I approached the theology department's table, I dropped all my books and papers on the floor. Picking them up, I looked up to see a priest chuckling—kindly but definitely amused—laughing at the absurdity of the situation.

I gathered my things and went to his table. The conversation went like this:

"I want to register for Fr. Tennant Wright's theology class."

"No, you don't!"

"Yes, I want to register for Fr. Wright's class."

"No, he's awful!"

By this time, I was confused but adamant: "I want to register for his class!"

"Don't do it! He's a bear!"

"I like bears!"

At that, he laughed and gave me the registration papers. Back at the dorm, I told my roommate about this strange encounter. She asked me to describe the priest. Then she laughed. "That's Father Wright!" It was the beginning

of a 50-year friendship.

Joan E. Casey '68

Vancouver, Washington

In the fall of 1957 I had the good fortune to take freshman English Composition from Fr. Wright. We wrote and wrote and wrote. I wondered how he could find time to correct all those papers—which he did, with detailed critical notes and suggestions. It became something of a joke that the course should not be called "English 1A" but "Write Right with Wright."

One memorable class discussion and writing assignment was related to the Gerard Manley Hopkins poem "Spring and Fall (to a young child)." I realize, as I write this letter, that I can still recite that poem from memory.

So, Fr. Wright has come up against the blight that man was born for. Mourning is in order. But it doesn't all end here. Godspeed, Fr. Wright. And thank you.

William F. Cahill '61

Long Beach, California

THE GREEN KNIGHT

The poignant remembrance of Theodore Rynes, S.J., by Christine Long Brunkhorst '83, posted at santaclaramagazine.com, drew these replies:

Your tribute to Fr. Rynes is so beautiful. He was my advisor, and our meetings about classes and schedules often turned into engaging chats and a few good laughs.

Years later, Fr. Rynes baptized my oldest son in the Mission Church. I'm going to forward this piece to my son and tell him that this is a story about the priest who baptized him. Reading your words will make my son feel like he knew our dear Fr. Rynes, too.

Maryann Kelly McGee '83

Los Gatos, California

I took four classes from Father Rynes—a true friend and mentor. You are spot on about his iambic baritone voice.

Cici Sinohui '11

San Jose

You moved me deeply with your remembrance of Fr. Rynes and your distillation of the core of Jesuit education: It is enough, and indeed a full flowering, if we can live our lives as "just one word in the middle of a lyrical sentence in the ever-evolving essay entitled 'Working Toward the Kingdom

of God." Fr. Rynes really did it.

Greg Galati '83

Hayward, California

This article demonstrates the greatest reason to attend Santa Clara—to find the professors who love you.

Chris Bruno '84

Burlingame, California

THE CRANKY JUBILARIAN

JMcK (my nickname for **Fr. Gerald McKevitt**) was not only a professor I admired, he was a friend during two periods of personal crisis in my life. His calm and quiet voice reassured me. His razor-sharp focus on the issue steadied me. His wisdom and patience guided me. Most important was the sacrament of listening he provided that allowed me to discern what to learn and how to proceed from the crisis.

My first thought upon learning of his death was an image of Jesus welcoming him with the words, "Well done, good and faithful servant!" He certainly was that for me.

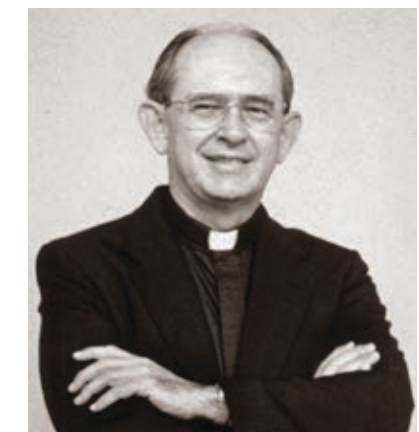
Kathryn Joseph '92

Seattle, Washington

A wonderful teacher and mentor—he taught from his heart, and his office door was always open for his students.

Mabel Kwan '83

Mill Creek, Washington



Gerald McKevitt, S.J., was a historian who earned a historian's reward. Like fellow Jesuits whose passing prompted friends to write, he will be remembered, and fondly.

Fr. McKevitt proved useful beyond measure when I wrote the history of St. Ignatius College Preparatory. His knowledge of Jesuits in the West and, more important, his perspective and understanding of that history, was unequalled. He could not have been more generous, more loving, and more patient. I will miss him dearly.

Paul Totah '79

Pacifica, California

Mission Matters

NEWS FROM SANTA CLARA



won or tied six in a row and shared the West Coast Conference title. And the conference recognized team captain **Kendall McIntosh '16** as Co-Goalie of the Year and **Cameron Rast '92** as Coach of the Year—his fifth.

In the NCAA tourney, the men bested Cal State Fullerton 3-0 in Round 1. Round 2 brought postseason play to an end for both Bronco teams; the men fell to eventual national champ Stanford.

"We play to play for championships," Coach Rast said. "This is just a starting point for us, with a lot of young guys at key positions coming back."

EYES ON THE PROS

One of the Broncos who will return is center forward **Carlos Delgadillo '18**, a goal-scoring star from San Jose. He missed the first three conference games with a high ankle sprain. While he was out, the Broncos went 1-1-1 in conference play. Back from his injury, Delgadillo racked up a team-leading 10 goals and 24 points, including five game-winners.

Delgadillo's teammates tease him for his ultra-focused pregame routine—which includes setting his phone to airplane mode and visualizing the game for about two hours alone in the locker room. But they like how that ritual seems to make him—and the team—more dangerous as soon as he steps onto the field. The first in his family to attend college, Delgadillo is studying psychology and international

business. Eyes set on the pros, Delgadillo plans to play as an amateur for semipro club FC Tucson this summer.

COUNTING EVERY MINUTE

Kendall McIntosh played every minute of the season in the net for the Broncos. During his college career, the finance major also played with the U.S. Under-20 National team. Last August, he was the only player in the conference invited to try out for the U.S. Under-23 team—a scouting opportunity for a team that hopes to go to the Olympics.

Broncos earning postseason honors also included **Luis Urias '19**—named WCC Freshman of the Year. Which is one more reason to look forward to what this team does when it takes to the pitch next fall.



Goal! One more for **Carlos Delgadillo '18**, above. Inset: shot-stopper **Kendall McIntosh '16**, a WCC Goalie of the Year.

THAT'S WHY WE PLAY

HERE'S A CLAIM that few colleges can make for their soccer teams: Both men and women earned spots in the NCAA tournament. Fewer still can say, for both teams in round one: Victory was ours.

National championships may have eluded Broncos on the pitch this year. But equipped with talented senior goalies and budding youngsters, both teams ended their regular seasons on hot streaks. The men



A Superlative Season for the Bronco women started with the toughest preseason regimen that Coach **Jerry Smith** had ever demanded. It paid off in four thrilling double-overtime victories, a historic win over then-No. 6-ranked Stanford, a seven-game unbeaten streak, and the program's 25th trip to the NCAA tournament in 27 years. Six Broncos earned all-conference recognition.



All that in a year when the WCC was the most competitive it's ever been. Three teams made it to the second round of the NCAA tourney. Santa Clara bested rival Long Beach State at home in the first round but fell to Arizona in the second. The Broncos finished the season 14-6-2. Here are some of the women who made it happen:

Call co-captain **Andi Tostanoski '16** a force in the net. "She is a coach's dream," Smith said, "plays big in big moments, does all the right things when no one is looking." She ranked No. 12 in the country for save percentage and led the league with 10 shutouts. After she graduates in March, Tostanoski includes on her to-do list: play professional soccer abroad for

a few years, work with a nonprofit for young girls, earn a master's degree in strength and conditioning, and volunteer coach in Central or South America.

Co-captain **Dani Weatherholt '16** is headed for Florida to play pro soccer: She was picked by the Orlando Pride in the National Women's Soccer League draft in January. "Dani is about as driven, focused, tough, and hard working a student-athlete as you're going to find," said Smith. She bookended her Santa Clara career with goals against Stanford. The ball she deflected into the goal this season—on a corner kick by **Megan Crosson '16**—was the game-winner and sole goal of the game.

Julie Vass '16 posted a few team

bests—including eight goals and five game-winners. That earned the economics major a special place in fans' hearts and a spot on the All-WCC First Team.

Along with those four seniors, take note of the big roles some younger stars played: **Kellie Peay '18** and **Jazmin Jackmon '19** started every game.

Jackmon joined **Janae Gonzalez '19** as All-WCC Freshman Team honorees. And forwards **Mariana Galvan '17** and **Grace Cutler '19** scored crucial game-winning goals throughout the year. Galvan scored three clutch double-overtime game-winners. And Cutler scored the sole goal against Long Beach State in the first round of the NCAA tournament. Call that a big one.

Senior **Dani Weatherholt** deflected a corner kick into the goal to beat Stanford 1-0. In January she was drafted by the Orlando Pride.

PHOTOGRAPHY BY DENIS CONCORDELL, WORDS BY ERYN OLSON '16

PHOTOGRAPHY BY DENIS CONCORDELL, WORDS BY ERYN OLSON '16

HOOP HOPES



Jared Brownridge '17 in action. This season brought a career high: 44 points against Arizona.

SET, HIT, BLOCK: Santa Clara's volleyball season began with a sweep of the tourney it hosted. The women were relentless right into the postseason and earned a spot in the NCAA tournament for the third time in four years. They took the first set against Michigan but fell 3-1 in front of a crowd at UCLA. A 22-9 overall record gave the team its best winning percentage since 2006. In conference play, the Broncos went 13-5, the best since 2007.



GO-TO DIGGER for the team was **Danielle Rottman '16**, whose 4.96 dig/set mark led the league and was best for a season in Bronco history. The communication major played libero—a roaming defensive position on the court. Without a doubt, she says, this year's team was "the hardest working and the most committed" of which she's been a part.

DOUBLE-DIGIT KILLS in 28 matches earned **Nikki Hess '17** All-America recognition from the American Volleyball Coaches Association. She led the team with 450 kills. Her honorable mention award from the AVCA came along with conference awards from the WCC for the third year in a row; this year she made First Team All-WCC. "Nikki has an explosive game that is fun to watch, but what sets her apart is her competitive spirit every day in the gym," said coach **Jon Wallace**. Joining Hess as First Team All-WCC was **Kirsten Mead '18**. Mead racked up a team-high 1,228 assists, with a per-set average that ranked second in the conference and 28th in the NCAA. **Jensen Cunningham '18** spearheaded the team's blocking game. Her finest match: 16 block assists and 17 total blocks against San Diego.

Score and rebound: Lori Parkinson '16 racked up 13 rebounds and three 3-pointers against Portland.

IN A SEASON that featured eight different starting lineups, consistency was a bit hard to come by. The men's basketball team capped its season at xx-xx overall and xx-xx in WCC action—which included a tough 2-point loss to Gonzaga at home on New Year's Eve. Mainstays included seasoned veterans **Jared Brownridge '17** and **Nate Kratch '15**. Brownridge, who missed most of preseason practice, passed **Steve Nash '96** for second spot on the SCU career 3-pointers-made list. One especially thrilling moment in January: With less than

two seconds on the clock, Pepperdine leads SCU 60-59. Brownridge steps back and sinks a 3-pointer. Boom! Final: 62-60 Santa Clara. ¶ Kratch is a fourth-year junior forward from Minnesota who earned a bachelor's in psychology last year. Now he balances basketball, grad school, and community service; he was nominated for a 2016 Allstate Good Works award. **KJ Feagin '19** emerged as the star first-year point guard and distributor. Says Coach **Kerry Keating**: "He's a proven winner. He has it in him." Here's hoping for next year.

That Winning Streak

THE BRONCO WOMEN started the season with a dozen consecutive wins, tying a team record for best start to a season, en route to the 10th 20-win season in program history. Beating Stanford on its home court was pretty sweet, too; the 61-58 upset in November took down the team ranked No. 10 in the nation. You'd have to go back to 1984—a decade before most of today's Santa Clara players were even born—for our last Palo Alto win. Forward **Lori Parkinson**, a redshirt junior transfer, led the team in scoring and rebounding. Junior forward **Marie Bertholdt** was another beast on the glass and in the paint, racking up three double-doubles and being named to the WCC All-Academic team. Sophomore **Taylor Berry** was a defensive mainstay for the team, which was tops in the nation for forced turnovers and steals. Coach **JR Payne** said after the team's conference-opener victory over Saint Mary's, "If you want to be a Santa Clara Bronco, you have to do the dirty work." The Broncos finished with a record of xx-x and xx-x in conference.



PHOTOGRAPHY BY DON JEDLOVEC; WORDS BY ERIN OLSON '16



Hacking for Humanity. You may not know it, but about half of the homeless people in the San Francisco Bay Area have cell phones. They use them, in part, to apply for jobs or services, or to reserve a bed in a shelter. For the past three years the University has hosted a student competition to develop apps geared to homeless people's phones and needs.



The 24-hour coding marathon, originally called Hack for the Homeless, attracts scores of participants, mostly from SCU with some from other Northern California schools. It has also garnered attention from *The New York Times*, Reuters, Yahoo! Finance, and the Voice of America, in addition to local media.

In 2015, the \$1,000 first-place prize went to three SCU students—**Nathan Kerr '18**, **Alex Seto '18**, and **Kelly Wesley '18**—for OpenDoor, a location-based community app that identifies nearby services. Other projects included an app for tracking a lost cellphone without an email address and computer, and one for broadcasting severe weather warnings and shelter openings. An app called Love, Eat, Thrive was designed to connect homeless people with donors who can provide food, shelter, and other necessities.

The code produced at the hackathon is essentially a prototype. Participants in the SCU event donate their code to the University. After further refinement by students, the code is made available to any nonprofit interested in deploying it. One app from 2015, called Simply, is about to be added to phones distributed to area homeless people. The app boosts the display size of the most important buttons on a smartphone screen.

How do homeless people get smartphones? One way has been through the Community Technology Alliance, a nonprofit in San Jose that uses technology to help address poverty and homelessness. Hack for the Homeless worked with the alliance's program that has provided low-income people with a smartphone, a tailored data plan, and specialized customer support.

The 2016 hackathon, held Feb. 27-28, was renamed Hack for Humanity because of an added challenge: Entrants were asked to develop new applications for a portable computer and projector box called Looma. It's designed for use in schools in developing nations.

The hackathons have been organized entirely by an SCU student group, the Association for Computing Machinery. Former ACM President **Vincente Ciancio '16**, a computer science and engineering major, organized the first two. This year, President **Robbie Aldrich '16**, a computer science major, was in charge.

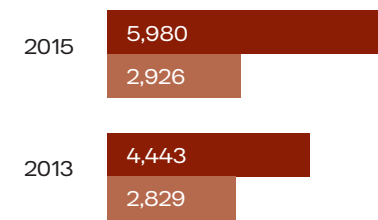
This year's hackathon was sponsored by the ACM, the School of Engineering and its Frugal Innovation Lab, and the consulting firm Accenture.



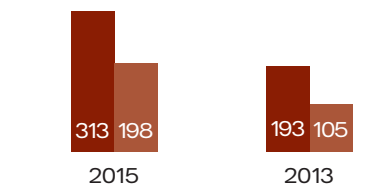
New admissions dean Eva Blanco Masias M.A. '11. A record number of students want to go to SCU.

THE EARLY BIRD catches the acceptance letter. More and more applicants to SCU are using the Early Action and Early Decision programs. Why? Their advance interest and commitment to the University means a greater chance of admission. Early Action allows prospective students to get an admission decision before the end of December. The program has been available since 2004. Early Decision is binding; applicants must enroll if admitted. The program is now in its fourth year.

Early Action



Early Decision



■ Applied ■ Accepted

\$5,000 PITCH SCU students with great business ideas can now pocket significant money. Last spring the Leavey School of Business's Center for Innovation and Entrepreneurship launched a Business Plan Pitch Competition (this year's finals will be May 12). The grand prize, \$5,000, went to Spree - Student Marketplace, a free iPhone app that lets members of the campus community buy, sell, or trade things. Just snap a photo and post. Spree can create a hyperlocal marketplace for any community with a common email address domain (in SCU's case, that's "@scu.edu"). Spree is the brainchild of business major **Marco Ciccone '16** and engineering major **Riley Steele Parsons '16**. After its win, Spree went on to the business school's California Program for Entrepreneurship (CAPE), which provides free education and mentoring to promising businesses.

THE DEAN SAYS

THE NEW DEAN of undergraduate admission at SCU is being greeted with a record number of applicants—more than 16,000 for fall 2016. But while **Eva Blanco Masias M.A. '11** is new to her post, she's no stranger to campus and the avalanche of applicants. Since 2003, Masias has helped guide the work of the enrollment management team and shape incoming classes. Trending: More students are applying "early action" and "early decision." What's that mean? "Certainly early decision, because it's a binding decision, signals to us that there are more students both interested and decisive," says the dean. "They're 100 percent certain they want to be here."

Too Much Money

WHEN THE FEDERAL Reserve nudged up interest rates a quarter percent last December—its first hike since 2008—**Patrick Yam MBA '75** shrugged. "I think it's about two years too late," he said. Yam, a member of the SCU Board of Regents and former economic analyst for the Fed, is among those worried about long-term consequences of actions the world's central banks took in trying to revive economic activity after the financial crisis of 2008. A finance and technology executive, as well as founder and former manager of a hedge fund, Yam organized a conference on campus last year on quantitative easing. That's the term for the emergency monetary policy the Fed pursued after the crash, purchasing trillions of dollars in long-term securities from banks. The idea was to pump more cash into the lenders in hopes of forcing down longer-term interest rates (short-term rates were already near zero) and stimulating borrowing and economic activity. But Yam and others think quantitative easing went on too long and distorted markets. One of those sharing his concern was the headliner at the SCU conference, Stanford University economist John Taylor, a frequent advisor to presidents and Congress.



PHOTO OF EVA BLANCO MASIAS BY JOANNE LEE. MONEY PHOTO BY GETTY IMAGES. WORDS BY HAROLD GUTMANN AND ED COHEN



How Could They Disappear? The 43 students were under police custody in September 2014. Students at a teachers college in Ayotzinapa, Mexico, they were likely handed over to a drug gang for execution. The atrocity led to protests that rocked Mexico. It is a tragedy to mourn—and sear one's conscience. That awareness is at the heart of *XLIII: A Modern Requiem*.



The crime appears to be a collusion between corrupt police and politicians—including the mayor of the city of Iguala—as well as a drug cartel.

The students had commandeered buses and were on their way to organize a protest; they do this annually—in honor of students massacred by the military in Mexico City in 1968. In 2014, they were attacked by uniformed police and three unidentified gunmen; six were killed right away, 20 were wounded, and 43 disappeared. More than 100 people have been arrested. But the whereabouts of the 43 remain unknown.

The requiem was commissioned by Montalvo Arts Center and the Santa Clara University Center for the Arts and Humanities. Created as a site-specific performance in Mission Santa Clara de Asís, the requiem is a work of sound woven of electronic music, chorale, and the Mission pipe organ. And it is a work of

dance that speaks to nightmare and hope alike, punctuated by stones and candles of remembrance—*lest we forget*. Which is all by way of saying that the premiere on the fifteenth of January was, at least for the editor of this magazine, startling and heartbreaking and beautiful like few performances I've seen in my life.

The requiem was an international as well as local artistic collaboration. Sandra Milena Gómez, choreographer, who hails from Colombia and Mexico City, led a quartet of dancers, including **Lauren Baines '08**. Andres Solis, a composer and sound artist also based in Mexico City, worked with organist **James Welch** and **Scot Hanna-Weir**, director of the SCU Chamber Singers, to create a sonic soundscape within the Mission Church: meditative rhythms and soaring polyphony and spare silence.

On campus, the requiem was the centerpiece of a series of January events

produced by Associate Dean of Arts and Sciences **Stephen Lee** to honor the 43 and the plight of their families. An art installation consisting of life-size silhouettes lined the pathway along the Alviso Mall. Each bore a photograph and a story. Among them was that of Israel, a 19-year-old from Atoyac: "Israel's brother Ricardo was on the phone with Israel during the police attack on September 26, 2014. Israel could be heard yelling 'Don't shoot, don't shoot, we are not armed!' His last words to his brother were, 'We're OK.'"

Israel's father, Israel Galindo, lives in East San Jose; he and another student's grandfather came to a vigil held in the Mission Church.

The requiem also inaugurated the Center for the Arts and Humanities Salon 2016, "(in)humanity," which examines how the arts can combat a world besieged by violence and misunderstanding.

Lest we forget: Choreographer Sandra Milena Gómez dances as part of the Requiem in the Mission Church.



STOPPING TRAFFIC

DOES TRAFFICKING IN child sex slavery increase when a city hosts a Super Bowl? That's the conventional wisdom, and it was the subject of anxiety again when the NFL's championship game came to Santa Clara for the first time in February. But SCU's legal experts on human trafficking point out that slave labor of many varieties is a year-round phenomenon in the Bay Area, "and the problem won't go away when the Super Bowl is over." That's what **Lynette Parker** and **Ruth Silver Taube** of the Alexander Community Law Center wrote in an op-ed published by the *San Jose Mercury News* a few weeks before the Super Bowl. Last year the FBI's San Francisco Field Office honored Parker for her work advocating for human trafficking victims. She helped establish the South Bay Coalition to End Human Trafficking, which has identified and assisted more than 300 victims since 2006.

Factually Innocent



THE GEARS OF justice can grind slowly. In this case, for 15 years. One individual who spent that long incarcerated—after being wrongfully convicted of child molestation—walked out of a California prison a free man last fall, thanks to efforts of the School of Law's Northern California Innocence Project. Larry Pohlschneider, 49, of Red Bluff, between Redding and Chico, had been convicted of molesting the

three children of his partner at the time. **Maitreya Badami**, assistant legal director of the Innocence Project, enlisted an expert on child abuse and neglect who examined the evidence and was appalled that Pohlschneider's attorney hadn't challenged a medical report that was key to his conviction. The district attorney's office agreed that the charges should be dismissed, due to ineffective assistance of Pohlschneider's trial counsel. Weeks after Pohlschneider's release, a judge ruled that the man was "factually innocent" and therefore due \$140 for each day he spent in prison, which totaled more than \$750,500. Since its inception in 2001, the Innocence Project has helped exonerate 18 people who had collectively served more than 230 years.

Shannon Vallor has been recognized as a world leader in technology ethics.



LAWYERING FOR THE HOMELESS

This year's Katharine and George Alexander Law Prize from the School of Law honors the primary architect of a federal law that permits public buildings to be used to assist homeless people. Maria Foscarinis also founded the National Law Center on Homelessness & Poverty and has been an advocate for homeless rights since 1985. "This work started for me when I was a child, hearing stories of how my family suffered during the German occupation of Greece," she said. "It created a drive inside me to ensure no one should suffer homelessness or such extreme vulnerability." The Alexander Law Prize recognizes top legal advocates who have used their careers to help alleviate injustice and inequity.

WORLD CHAMP Philosophy professor **Shannon Vallor** has joined the ranks of Craig Newmark (Craigslist) and Creative Commons founder and net neutrality maven Lawrence Lessig. They have all won World Technology Awards from the World Technology Network. Honorees are judged by their own peers working in the same field of expertise. Vallor won for her work in technology ethics and became the 11th person to win in the ethics category since 2000. The awards are made in association with *Time*, *NASDAQ*, *Fortune*, the American Association for the Advancement of Science, *Science*, the New York Academy of Sciences, and *MIT Technology Review*. Vallor's research interests include how the human character is being transformed by rapid advances in robotics, new social media, surveillance, and biomedical technologies. She has a book forthcoming from Oxford University Press, *21st Century Virtue: Technology and the Future of Human Flourishing*. The 2015 World Technology Summit & Awards Ceremony took place last November at the Time & Life Building in New York City.

PHOTO OF LYNETTE PARKER BY JOANNE LEE. ILLUSTRATION OF SHANNON VALLOR BY KYLIE HILTON. BASED ON PHOTO BY MICHAEL ERRELENS '12. PHOTO OF LARRY POHLSCHNEIDER © HECTOR AMEZCUA/SACRAMENTO BEE VIA ZUMA WIRE

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Horse Sense serves an economist well—as does the ability to crunch numbers and see the big picture. **Mario Belotti** has offered all that to Santa Clara students since 1959. His annual economic forecast began drawing rapt audiences a decade later. Now this revered expert in macroeconomic theory, monetary theory and policy, and economic development tells his personal story.



Behind the wheel: Today, **Mario Belotti** is *W.M. Keck Foundation Professor of Economics in the Leavey School of Business*. In 1954, the young professor was a proud owner of a 1946 Pontiac.

It Was All for the Love of a Horse (*Liber Apertus Press*) is the title Belotti gives his autobiography. There is the journey from poverty in rural Italy—where grape harvests were a time of great labor but great joy: "They all started to forget how hard they had to work for a meager return." There is his arrival in America: "My first meal at Ellis Island was a total disaster." (*Bread—white sandwich stuff; coffee—undrinkable.*) There is the inaugural dinner party *Rose and Mario Belotti* organized for graduating economics majors—"lasagna, chicken teriyaki, bean salad..." It's a ritual that generations have now savored. And there are stints as pizza maker and cowboy. Why the title? Here's an excerpt that explains it:

Like almost every family in the town, my family worked the land on a sharecropping contract. We also raised silkworms, and we killed the family pig, rabbits, chickens, and geese in the courtyard. Our farmhouse, like all the others in town, did not have drinking water, nor electricity, nor a heating system. The way I escaped the sharecropping trap was all due to a horse. The town where my mother brought me to light offered only a third-grade education. At that time, the government required children to finish the third grade or be eight years of age. After that it was almost impossible for children in the town to continue their education, and so they helped the family take care of the court-

yard animals or found a job helping other families who needed an extra hand. I was very lucky. While I was in the third grade, my grandfather sold our horse. My father really loved that horse, and so he moved us out of the farmhouse to another small town that had a fourth grade. A year later, my father found a job in a steel plant, and we moved to another town that had a fifth grade. We were now close to a big city where I could attend junior high and high school. My father did not leave the town where I was born in order to give me a higher level of education; he himself had only a second-grade education. He moved because of his love for a horse. From then on, all my education was due to that horse.

PHOTO COURTESY MARIO BELOTTI. WORDS BY GRACE OOHARA '16



The Light in Nepal that illuminates a page for a girl to read and learn also burns bright half a world away. The lamp is powered by the sun—and, indirectly, through a network of a hundred or so successful Silicon Valley business executives who, for kicks or karma, in words and deeds, put some energy into saving the world. They mentor social venturists.



This little light of hers is sold by women entrepreneurs in remote villages in Nepal. Mentors with SCU's Miller Center helped the social enterprise that started the program, Empower Generation.

Juli Betwee is a mentor and consultant on strategic-growth planning for midsize companies. She is also one of the volunteer mentors with the Global Social Benefit Institute, part of SCU's Miller Center for Social Entrepreneurship. The GSBI provides free business training to social entrepreneurs developing innovative solutions to problems like access to clean drinking water. The enterprises—for-profits, nonprofits, and hybrids—promise a sustainable path out of poverty for people in the developing world.

Since its launch in 2003, the institute has helped more than 560 social ventures in 67 countries; 90 percent are still operating. The entrepreneurs value the work with their mentors. For the mentors, *work* doesn't seem like quite the right word to describe it.

"That's become a joke among us," says Betwee, "because we're thinking, 'This is

a gift from heaven. This just makes my heart sing."

She's talking about helping people like GSBI alumna **Anya Cherneff**, a women's-rights advocate who in 2011 started a business in Nepal called Empower Generation. Less than 40 percent of people in the mountainous country (home of Mount Everest) have electricity, and where they do it's often out for up to 12 hours a day, even in the president's home.

With Empower Generation, women serve as CEOs of their own energy businesses and also recruit women salespeople. Both go door to door in remote villages offering solar-powered lights and electrical systems and a few other items. The business is focused on solving two problems: energy access and providing women a means to self-sufficiency.

Cherneff's mentors, Betwee and **Bill Scull**, a marketing consultant with 30

years of experience helping tech companies grow, talked with her weekly during her 10 months in the GSBI Accelerator program ending in 2015. Their advice included helping fine-tune forecasts of future revenues. She was asked, for instance, how long it usually took for new participants to begin generating sales after training, and what percentage drop out. Such data helps build more believable forecasts. "Investors don't like numbers coming out of the air," Scull says.

Scull found his work with the Miller Center so rewarding that he's made what he calls a career pivot. This spring he heads to India to train entrepreneurs as part of an award the Miller Center received to bring clean power and off-grid electricity to a million Indians during the next three years. From there he plans to travel to Thailand to train Seagate Technology employees to be mentors like him.

PHOTOGRAPHY COURTESY EMPOWER GENERATION. WORDS BY ED COHEN

STAR FIXES, sun lines, and dead reckoning are what guided **Cordelia Franklin '16** on the final leg of her journey last fall from Pago Pago in American Samoa to New Zealand. She was on a semester-long learning voyage aboard a 134-foot sailboat with 22 other students. Students and crew navigated the South Pacific waters with tools no more sophisticated than those of early



European and Polynesian explorers. (The boat was equipped with GPS and radar, just in case.) They calculated their position based on "star frenzies" twice a day—once at dawn, once at dusk, when students on deck used half a dozen sextants to shoot the stars using the horizon. Scribes recorded angles and time to the second. ("Stand by to mark Cordelia on Betelgeuse! Mark!") There aren't many people who make their way by celestial navigation today, Franklin acknowledges. But note that the U.S. Naval Academy recently reinstated lessons in using sextants—recognizing that in the age of cyberattacks or possible GPS failure, you need a backup. Franklin, a Seattle native majoring in public health, isn't sure how often she'll need the sextant; but now that she knows the stars better, she looks at them a little differently. And, she says, it was pretty cool to be on lookout at the top of the mast and spy a pod of 40 dolphins playing alongside their boat.

It figures that figure skater Tiffany Iskandar '16 would be majoring in figures—accounting and economics.

ISKANDAR PHOTO BY DENIS CONCORDELL. COMPUTER RENDERING COURTESY JJ GALVIN '17. SEXTANT PHOTO FROM ISTOCK. WORDS BY ERYN OLSON '16, TAD MALONE '17, AND GRACE OGHARA '16



A computer rendering of the planned Tiny House. Inside will be all the comforts of home, including appliances and a full-size bed.

Let's Get Small

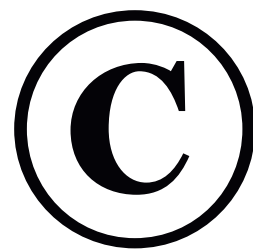
ONE CREW OF Santa Clara students is proud to say they have small ambitions. They're building a 238-square-foot solar-powered home—complete with a kitchen, bedroom, and bathroom—for the first ever Tiny House Competition. Modeled after the Energy Department's Solar Decathlon, the competition is directed by the Sacramento Municipal Utility District and wraps up in October 2016. SCU's team is led by mechanical engineering major **JJ Galvin '17**. The team calls the home they are building the Revolve House. Sustainability is one measure of success; the house has to survive three days on its own power, but its designers say it will be able to go on indefinitely. Some of the team members are pretty tall—which is also a factor. "We opted for a longer trailer and higher ceilings, so it's not so claustrophobic," says **Stephen Hight '15**. Amenities they're packing into the single-wide space include a dry-flush toilet system and a student-designed solar-thermal water heater. After the competition, the students plan to donate the house to Operation Freedom Paws, a nonprofit in San Martin, California, that trains service dogs for veterans suffering from post-traumatic stress, as well as for other people with disabilities.

ICE STAGE

THEATRE ON ICE is where you'll find **Tiffany Iskandar '16** performing as part of Team USA—in a form of competitive figure skating that combines technical prowess with elements of theatre and dance to tell a story. Programs are judged by U.S. Figure Skating judges. Iskandar is a founding member of San Francisco Ice Theatre, which has won three national titles. Last year

the group competed in the world championships in France and came in sixth. Her skating training regimen includes waking up at 3:45 a.m. on Saturdays. Add that to majors in accounting and economics. Off the ice, time management is key. On it, her favorite part is when the team is in synch for the block step: "Twenty-five skaters on the ice doing the same exact thing at the same exact time. I always get chills."





Fly Me To the Moon and let me play among the stars. For fifty years, SCU's Board of Fellows has hosted a gala that brings entertainers of the first magnitude—from Ol' Blue Eyes to the King of the Blues. The Golden Circle Theatre Party is the signature celebration of a group that has raised friends by the scores and scholarship funds by the millions for SCU. The brainchild of **Walter Schmidt, S.J.**, and actor **Fess Parker** (who

emceed the event for many years), the party was directed for more than a decade by late showbiz producer **Marty Pasetta '54**. We lost Marty last year. ¶ In January 2016, topping the bill for the golden anniversary of the Golden Circle: Tony Bennett, who at 89 charms young and old with a voice rich and mellow. When he took the crowd on a journey of song to see what life is like on Jupiter and Mars, he set aside the mic. Entirely under his own power, the hall echoed with song. Here are some stars we've seen in the Golden Circle.



"How I got started in show business? Well, it's been a regular Cinderella story since I'm five years old. Except I've had to work like a horse, you understand."

Ethel Merman
1983

"I guess you could call me a 'synthetic' alumnus of Santa Clara ... I've been following the teams since the days of Buck Shaw."

Bing Crosby
1977

Liberace
1982

Rosemary Clooney
1967

"When people are caught in a place in which they can find no way out, does art give them enough instruction, enough of the proper nuances, to make them feel they can extricate themselves?"

Sammy Davis Jr.
1978

"That was the greatest show I ever did," Sinatra said after playing the Golden Circle in 1974. "Can I do anything for you? Can I give you anything?" So we brought him back.

Harry Belafonte
1996

Frank Sinatra
1974, 1980

Fess Parker
1967+

Milton Berle
1970

"Those Golden Circle shows were a lot of fun, weren't they?" Fess Parker said, looking back over the years.

Ray Charles
1987

"That's where my love is, that's where my heart goes, strictly to the public. When you have people who've stood by you for 50 years ... that's the only way you can feel."

Smokey Robinson
2002

"Thanks a million for inviting me to entertain at the first annual Golden Circle Theatre Party. ... It's only the beginnin', folks!"

Jimmy Durante
1967

Robert Goulet
1984



Marty Pasetta
1971+

"Who could say 'No' to Fr. Schmidt?" ... after being asked to secure talent and produce the Golden Circle.

"The future of America will depend on brain power. And it will be just as good as the colleges we provide. If you have a favorite college ... give to it. If you don't have a favorite ... pick one! Pick Santa Clara, I have. ... I, Hope, hope that I'll see you there."

Bob Hope
1968, 1991

The Pointer Sisters
2010

Beach Blanket Babylon
1993

"I love singing 'Midnight Train to Georgia.' It's a beautiful song, and to be associated with it is always a pleasure for me. ... Every chance I get to uplift people, I will take full advantage of that opportunity."

Gladys Knight
2009

Bob Newhart
1972, 1998

"I'm Irish-Catholic, three-quarters Irish, one-quarter German, and I'm pretty sure the humor comes from the Irish side, since the Germans have never been known as one of the great fun races of all time."

"I've had a million hit songs over the years. If I may, I'd like to sing a few of them for you tonight."

Tony Bennett
2016

B.B. King
1999

"When people give me all these great compliments, I thank them, but still go back to my room and practice."

Huey Lewis
2013

Jason Alexander
2006

PHOTOGRAPHY COURTESY SCU ARCHIVES AND SPECIAL COLLECTIONS, CORBIS, AND GETTY IMAGES



LET THERE BE LIGHT

The NASA maverick who saved Hubble

BY ROBERT ZIMMERMAN

FOR FRANK CEPOLLINA '59, it was probably the most terrifying moment in his entire career. On April 9, 1984, astronauts from the space shuttle *Challenger* were attempting to capture and repair the failed solar research satellite Solar Max. Cepollina had championed the mission—and the untested notion of repairing spacecraft in orbit—despite the significant skepticism of his bosses. Many in NASA as well as in the private sector doubted that such repairs could be done effectively or were worth the cost. On that day, the skeptics appeared to be right.

Not only was Solar Max spinning too fast for the shuttle's robot arm to grab it, the spin was preventing the spacecraft's solar panels from catching sunlight. Solar Max's batteries were steadily draining, and within a dozen hours the spacecraft would be dead. Worse, the first effort by Cepollina's engineers to use Solar Max's torquer bars, designed to create a small electrical field that could interact with Earth's magnetic field and slowly ease the spacecraft's spin, failed because of an error in the software. New software had to be uploaded, which would take hours. Then it would take hours more for the torquer bars to neutralize the spacecraft's spin.

As far as Cepollina could tell, the future of in-space servicing—an idea that *he* had been promoting for years—was about to die. Along with it would go his career.

Engineers managed to upload the software, however. And the spacecraft drifted into daylight long enough—a mere 10 minutes—for its solar panels to draw sufficient power to re-energize its batteries.

The next day, Shuttle Commander Robert Crippen flew the shuttle in formation with the satellite so that crew member Terry Hart could grab the satellite with the robot arm. Two astronauts went out into the shuttle cargo bay and successfully repaired Solar Max, installing a new attitude control module as well as new electronics.

Frank Cepollina's official title is associate director of the NASA Satellite Servicing Capabilities Office. Some call him Mr. Fix It. Plenty have called him crazy.

As far as Cepollina could tell, the future of in-space servicing—an idea that *he* had been promoting for years—was about to die. And with it would go his career.

"They had to do two EVA days' worth of stuff in one day, and they finished it all," remembers Barbara Scott, the Hubble Flight Software manager at the Goddard Space Flight Center in Maryland. "Everything got done!"

Cepollina and his team at Goddard would go on to lead a number of satellite rescue missions. Perhaps Cepollina's most enduring legacy is this: He organized and in many ways conceived the spectacular repair missions that made the Hubble Space Telescope the most successful scientific instrument ever launched into space.

He is known as "Cepi" by practically everyone in the aerospace industry. He has led five repair missions of Hubble. By the time of the last shuttle Hubble repair mission, in 2009, Cepollina's ideas of repairing and reusing

spacecraft were no longer considered radical or impossible. In fact, today those ideas are about to become routine.

"Cepi is a visionary. He could always see the future better than his peers," says Elmer Travis, who has been an engineering branch chief at Goddard during most of Cepollina's career there. However, "Sometimes he created trouble for himself. He would do something that would turn out better in the end, but his supervisors didn't see it as soon as he did."

TRASH AND TECH

A cheerful and overpoweringly enthusiastic man, Cepi was born in 1936 at the tail end of the Depression. He was raised on his grandparents' farm in Alameda, California. His grandfather, Giobatte Cepollina, had come to America from Italy in 1900. Starting out as a farmer, Giobatte soon discovered that when he sold his produce door to door he could make additional money hauling his customers' garbage back to his farm to bury it. So Giobatte went to A.P. Giannini, who had founded Bank of Italy, a small bank catering primarily to local Italian immigrants, and borrowed money to buy three wagons and three teams of horses to get his garbage business started.

When the 1906 San Francisco earthquake hit, the banker Giannini found himself in a ravaged city with about \$2 million in cash that he had salvaged from the wreckage. Giannini arranged for Cepollina's grandfather to bring his garbage wagons into the city. They secretly loaded the cash onto the wagons and hid it under the garbage, then brought it safely out. That favor made it possible for Giannini's bank to reopen immediately—when other banks couldn't. That favor also got Frank Cepollina's father a job at what became Bank of America.

As a child growing up on the farm, Cepi was tasked with maintaining the tractors. "I used to have fun, taking things apart and seeing how they worked," he says. That didn't always turn out well. "The mechanics would sometimes look at me and just shake their heads."

By the time Cepi was in high school, engineering seemed to be the ideal career for him. He continued to take things apart to see how they worked—and wanted to make a living at it. His grandparents encouraged that notion. "My grandfather always used to tell me, 'You never want to work with your hands.' And my grandmother added, 'You want to go to college, learn a profession!'"

His mother and father were more doubtful. "My parents told me, 'You will never be an engineer. You're not smart enough. You won't work hard enough.'"

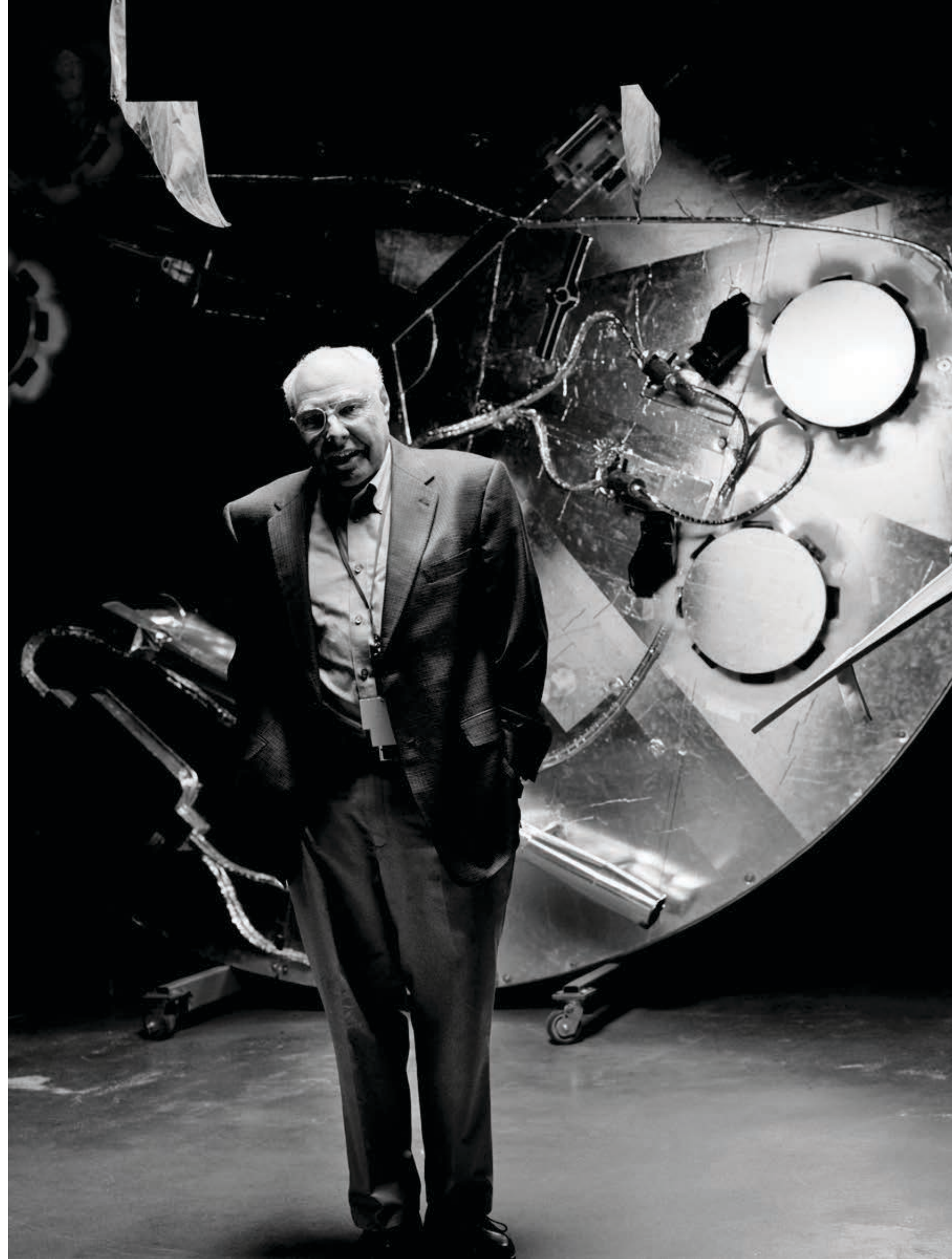
Cepi arrived at Santa Clara University in 1955 to study mechanical engineering. "I had to work my butt off," he says. "The first two years were really tough. I can remember a lot of times working four or five hours in the lab and coming back to the dorm to immediately write my report so I wouldn't forget, working until 10 p.m. on a Friday night."

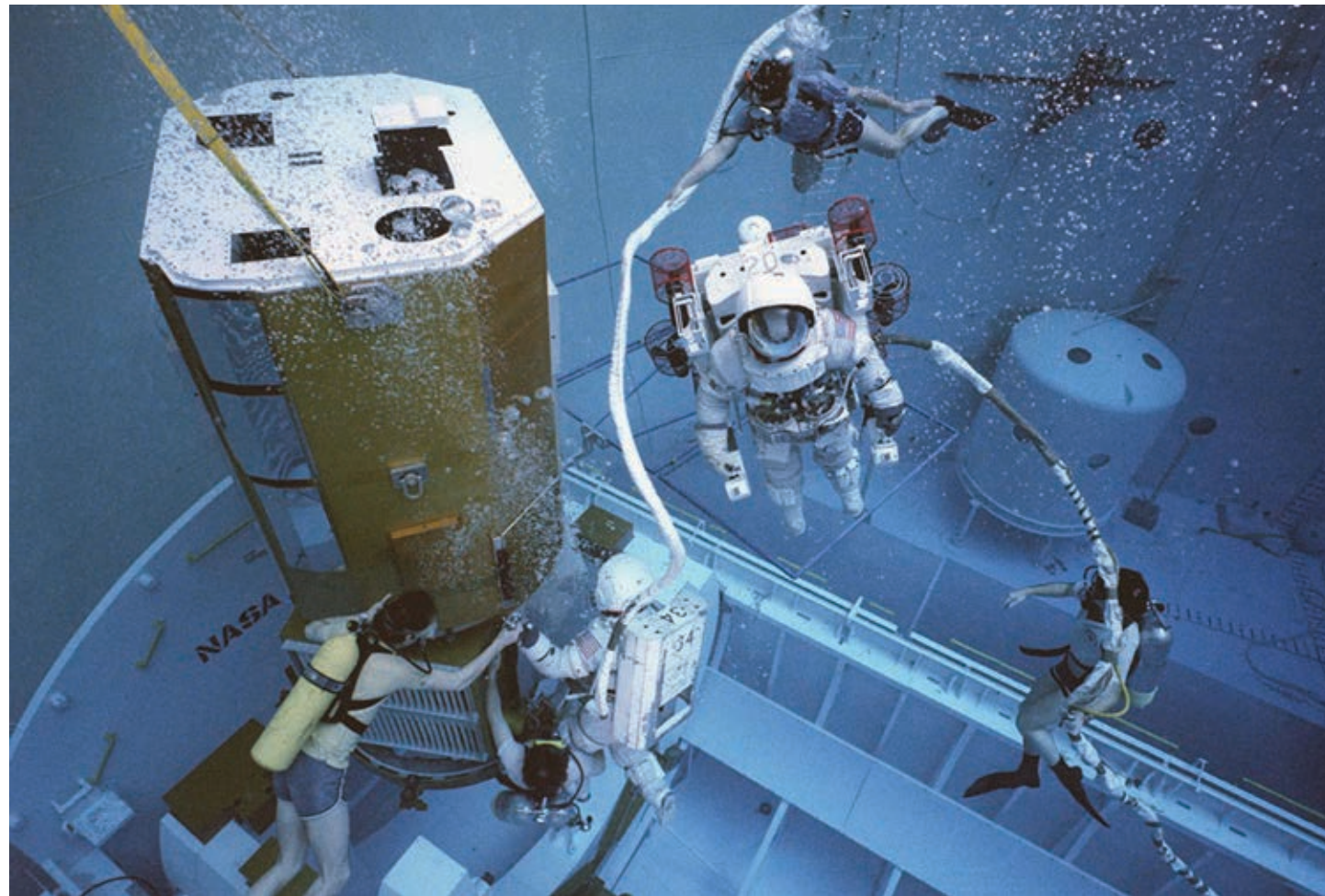
He also found help when he needed it. "If I had a problem or a question, I could go talk to the professor, and he would always take the time to go through it and explain. That was a great thing about going to a small university."

In gaining his degree in 1959, Cepollina learned one crucial lesson that he would apply for the rest of his life: "Never believe the word 'No!'"

It was also the time of Sputnik and the beginning of the Space Age. When Cepi was a sophomore, one professor

PREVIOUS PAGES PHOTOGRAPHY COURTESY NASA, ESA, AND THE HUBBLE HERITAGE TEAM (STSC/AURA). PORTRAIT OF CEPOLLINA BY MICHAEL SOLLER





Maiden voyage: Astronauts prep for the first attempted satellite-repair mission in history—fixing the failing Solar Max in 1984.

invited students to attend a science conference focused on aerospace engineering. Cepi was entranced. “We saw all these rockets blowing up on the launchpad,” he remembers. “Oh my God, I said, ‘that looks like fun!’”

Another way of looking at it is: “Your dreams take shape as you are going through college. I got caught up in that era, the great space adventure.”

Upon graduation Cepollina went to work for the Army Security Agency in Warrenton, Virginia. Working there put him in contact with people at Goddard, where the 1960s’ space race was going full tilt, with Goddard designing and building most of NASA’s unmanned science probes. “This struck me as being more exciting. I thought the people [at Goddard] weren’t afraid to try new things, weren’t afraid to push new technology.” So in 1963 Cepi went to NASA and joined the space race.

Initially, most of the projects he worked on were not successful. His first NASA effort was the Advanced Orbiting Solar Observatory, which got canceled before launch in 1965. Then he worked on the Orbiting Astronomical Observatory (OAO) program, a series of space telescopes that in the 1960s yielded fairly mixed results. The first OAO failed shortly after launch. The third never reached orbit when its rocket shroud—the cone that protected it during the climb into orbit—failed to jettison.

Nor was this disappointing track record unusual. During the 1960s, approximately 30 percent of NASA’s spacecraft failed within 10 days of launch. “Some would go in the drink, with others the boosters would blow up,” Cepollina remembers. “Some would go up, get turned on for a few hours, and *then* die.”

By the early 1970s, George Low, then deputy admin-

istrator of NASA, was pushing the agency to find a way to make spacecraft both more reliable and less expensive. Cepollina’s boss, Joseph Purcell, put together an ad hoc committee to look into the problem. They assessed that if spacecraft were standardized, NASA could save an enormous amount of time and money.

Cepollina, with Purcell’s enthusiastic support, took this idea and quickly expanded it, conceiving of putting various systems into modular units that could be easily replaced. Components like attitude control, power, data handling, and communications were required by all spacecraft. Built as standard modules with plug-and-play electrical connections, they could be designed and tested once and then be ready for installation into any satellite.

This concept eventually became the Multimission Modular Spacecraft program, headed by Cepollina, under which a number of satellites were built in the 1970s and 1980s, including Solar Max, Landsats 4 and 5, and the Extreme Ultraviolet Explorer.

GO FIX IT

It was because of modular design that the repair mission to Solar Max was even possible. In 1980, three fuses in Solar Max’s attitude control system module failed, followed by the electrical failure of the spacecraft’s one remaining useful instrument: the coronagraph-polarimeter, which allowed for the study of the relationship between the sun’s corona and flares. Cepollina saw this as an opportunity to prove the ability of in-space repair and maintenance.

Cepollina’s managers at NASA were not so enamored of the concept. Tom Young, the Goddard director, “thought it was an interesting idea, but he was somewhat skeptical

of being able to carry it off from an agency political perspective,” as Cepollina puts it. “You’re going to convince the agency to do *what* again?”

Young’s doubts were not entirely unfounded. A repair mission carried risk, something government managers like to avoid. It also carried cost, something that would come out of NASA’s science budget, which was already fully allocated to other projects.

With NASA brass, the position was clear. “NASA headquarters was totally against it,” says Joe Rothenberg, who at the time was working for Grumman but later became Cepi’s boss at Goddard. “They felt it was a high-risk, crazy idea.”

None of this mattered to Cepollina. To him, it made no sense to let Solar Max die. The cost of building a new satellite was far greater than getting Solar Max fixed while it was still in orbit.

“One of the things that’s driven me is this concept of stretching your capital assets for as long as you can to get every dollar of return you can possibly get from it,” he says. “The American taxpayers have paid for those assets. We should use them.”

Not only did Cepollina press his bosses to find the money to fly the mission, he made sure the press knew about it. “Cepi started to announce to the world that it would require a trivial effort to have the shuttle come up and repair Solar Max,” says Rothenberg. “It was in the papers before anybody in the NASA management chain even had a chance to approve—or more likely try to discourage—the idea.”

The publicity raised questions in Congress, where members started asking NASA management why they wanted money for new missions to replace Solar Max when they could get it fixed so much more easily. “In effect, Cepi applied external pressure on the agency,” Rothenberg says.

Or, as Cepollina puts it: “Keep your nose down, keep driving the frigging car, go as far as you can, as fast as you can, make sure you get it right and do a good job, and then your guardian angel will wake up and take you the rest of the way.”

After the mission’s success, many of the bureaucratic obstacles to Cepollina’s vision evaporated. When the Hubble Space Telescope was launched in 1990 and was found to have an out-of-focus primary mirror, Cepi’s team was already prepared to provide the equipment, tools, and training for astronauts to go fix it.

It helped that NASA had spent the six years following Solar Max doing more shuttle-repair missions, retrieving two satellites for refurbishment and relaunch, and repairing two more so that their engines could boost them to the correct orbits.

The first mission to repair Hubble, in 1993, topped all these previous rescues in complexity and difficulty. The mission included a marathon of five daylong spacewalks of alternating astronaut teams of two. The spacewalkers replaced the telescope’s main camera. They installed COSTAR, which provided corrective optics for Hubble’s other three instruments. Astronauts replaced both of the telescope’s solar panels, which, as originally designed, were too flimsy and were causing the telescope to shake. They replaced Hubble’s memory units and some insulation.

More weeks after this spectacular mission, astronomers were hailing a repaired and fully functional Hubble Space Telescope, able to see the universe in a way humanity had never seen it before.

Subsequent repair missions to Hubble in 1997, 1999, and 2002 were as stirring. On the 1997 mission, astronauts installed two new instruments, NICMOS and STIS, replacing two of the telescope’s original instruments with more-advanced designs. NICMOS, which stands for Near Infrared Camera and Multi-Object Spectrometer, gave Hubble its first ability to observe the heavens in the infrared. The astronauts also replaced two of Hubble’s gyros and one of its three fine-guidance sensors, and they installed a new solid-state data recorder.

The 1999 servicing mission had originally been scheduled for June 2000 and was to have included the installation of a new, even more sophisticated camera. However, when three of Hubble’s six gyroscopes failed in mid-1999, the mission was split in two so that new gyros could be installed sooner. This decision was fortuitous: A fourth gyro failed in November 1999, putting Hubble into safe mode and preventing scientific research.

Launched on Dec. 19, 1999, the emergency rescue mission had astronauts replacing all six of the telescope’s gyros plus a second fine-guidance sensor. Astronauts installed a new computer, a new voltage/temperature kit for the spacecraft’s batteries, a new transmitter, and a new

Not only did Cepollina press his bosses to find the money to fly the mission, he made sure the press knew about it. It was in the papers before NASA management had a chance to approve—or more likely discourage—the idea.

solid-state recorder. They also improvised the replacement of thermal insulation blankets when they noticed damage on the telescope’s outer layers. Cepollina’s ideas about doing repairs in space had been so embraced by everyone at NASA that they were making repairs that even Cepollina had never considered.

The second half of the split servicing mission was finally launched on March 1, 2002. Once again, astronauts replaced a host of equipment, including two gyros, the telescope’s main power unit, and the solar panels that had been installed in 1993. They also installed a new permanent cooling unit on NICMOS, which brought the instrument back to life after its original unit had failed.

The new refrigerator for NICMOS was another example of Cepi refusing to take no for an answer. In order for NICMOS to detect the faint infrared heat from stars, the instrument had to be cooled to -321 degrees Fahrenheit. The first NICMOS cooling system used nitrogen ice in a dewar—essentially, a thermos in space. But the system had a limited lifespan because the ice eventually evaporated. And because of a design flaw, that system lost its coolant even faster than expected.

The solution Cepollina’s team came up with: Use a different coolant that would not be lost, thus making the refrigerator unit permanent. To make it work, however, they

PHOTOGRAPHY THIS PAGE BY NASA/MSFC. PHOTOGRAPHY FOLLOWING PAGES BY NASA, NOAA, ESA, THE HUBBLE HERITAGE TEAM, TAMARA MENIKOFF, AND TIA RECTOR

had to build a system that could pump the new coolant; and they had to find a way for astronauts to splice this new system into the old cooling lines already on Hubble.

"You're crazy, it can't be done," Cepollina was told.

For a while, it couldn't. "Twelve times we failed," he says. "I used to get calls at 2 and 3 in the morning after three days of testing, telling me, 'It failed again.'"

The 13th test was the charm. With the technology proven, astronauts were able to install the first permanent cooling system on an infrared instrument in space.

After 2002, NASA planned one more shuttle-servicing mission to Hubble. When the shuttle *Columbia* was destroyed during its re-entry in 2003, however, NASA administrator Sean O'Keefe decided to cancel that mission. The risk of sending astronauts to Hubble didn't seem justified. Astronomers had already made it clear that they wanted to shift funding from Hubble to the James Webb Space Telescope, already under construction.

This decision did not sit well with many people, however, especially Cepollina. He had already begun design studies for robot servicing, since many scientific spacecraft were increasingly being placed at distant locations that humans couldn't access, even with the shuttle. Webb, for example, was going to be placed in solar orbit, about a million miles from Earth.

There was no reason to abandon Hubble, Cepi argued. If humans couldn't fix it, robots could! And as he had done with the Solar Max repair mission, he began a campaign to convince NASA, Congress, and the world to let him fly a robot mission to do exactly that.

"Our center director said, 'You're nuts, Cepollina!'" he says. "I know I'm onto something when they tell me I'm nuts." By the 2000s, it had become, as Cepi puts it, "almost a game. They say, 'This isn't going to work, you're never going to be able to do it.' I say, 'Thanks, now I know you want it.'"

Once again, rather than take no for an answer, Cepollina approached the NASA administrator directly with his ideas and convinced him to give the OK. Cepollina also approached the press, as he had in the 1980s with Solar Max. Story after story appeared describing how NASA could service Hubble with robots. Among the results of the crusade: "[His boss at headquarters] was getting calls from the administrator to put Cepi back in a cage," remembers Rothenberg.

Unlike Cepollina's previous campaigns, however, this one did not succeed. And it failed for a very ironic reason. The manned shuttle-servicing concepts Cepi had helped create and prove were now what everyone favored. While robot servicing was not rejected outright, the sense was that there wasn't enough time or money to get the mission launched. Better to fly astronauts to Hubble.

Sean O'Keefe resigned in 2006. The new administrator, Mike Griffin, quickly reinstated the manned shuttle-repair mission. For Cepollina, the loss of the robot mission was hardly a failure. He and his team were put in charge of assembling that last manned shuttle mission to Hubble. Rather than do a limited repair, which was what the robot mission would have done, they could now organize what became the most ambitious shuttle-repair mission ever attempted, fixing everything on the telescope as well as installing the latest state-of-the-art instruments.



Eye in the sky: That's a trillion-mile-long tunnel of gases—with a super-hot white dwarf at the center. Meet the Helix Nebula, courtesy of the Hubble Space Telescope.

The work was astonishing, including one repair job that required the removal of 111 screws to get at a failed circuit board. When the astronauts finished, Hubble was more capable than ever—with every single instrument that had been launched on the telescope in 1990 replaced with something newer. The telescope's initial lifespan of 15 years had been extended to 25, with the possibility (as now demonstrated) of many years beyond. And all this because Frank Cepollina wanted to maximize the government's capital assets for as long as possible.

LOOK INTO THE FUTURE

The retirement of the space shuttle in 2011 did little to dampen Cepollina's enthusiasm for fixing things in space. Even as he approaches his 80th birthday in December 2016, he is still driving that car, pushing new missions.

On the shuttle's final mission, in 2011, astronauts installed on the International Space Station a robot refueling demonstration package that Cepollina's team at Goddard had built. The package was designed to prove that

By the 2000s it had become almost a game. They say, "This isn't going to work, you're never going to be able to do it." I say, "Thanks, now I know you want it."

robots could refuel several already-orbiting science satellites that had not been designed for such refueling. From 2011 to 2015, the ISS Dextre robot successfully tested the ability to refuel satellite ports. Cepollina hopes that the success of these demonstration repairs will spur NASA's management to fund an actual robot refueling mission.

Meanwhile, the repair and reusability concepts that Cepollina has been championing for decades are finally finding their way into the private sector. In November and December 2015, two different American companies, SpaceX and Blue Origin, launched rockets and—rather than allowing the first stage to fall into the ocean as garbage—successfully landed the first stages vertically, making them available for reuse. Blue Origin then flew its used rocket again, in January 2016. Those triumphs bode well for the future of spaceflight. With costs lowered, more can be achieved with less.

Neither success nor age seem to have dimmed Frank Cepollina's vision. It's fair to say that his tough, ethical approach to his work has enabled him to teach NASA—and the entire space industry—that there are always better ways to do things. So what's next? He talks of humans colonizing the solar system. "I am still a fervent believer in humans in space," he says. "Planets and suns only have a finite lifespan, even if numbered in millions or billions of years. Humans have to be prepared to move elsewhere."

ROBERT ZIMMERMAN is a science journalist and space historian who has been covering space since the mid-1990s. He is the author of *Genesis: The Story of Apollo 8*.

Like no place on earth

Talking with John A. Sobrato '60 about building Silicon Valley—
literally—and shaping it for future generations

BY MICHAEL S. MALONE '75, MBA '77

Talk about Silicon Valley, and the conversation naturally covers tech companies that make this place famous. Among them: Apple, Yahoo!, NVIDIA, Netflix, VeriSign ... Not coincidentally, the campuses and buildings that house those iconic companies were all built by John A. Sobrato. Few have done more to literally build the Valley.

For that, and for the decades of leadership in philanthropy, John A. and Sue Sobrato were honored in 2015 with the Silicon Valley Leadership Group's Spirit of Silicon Valley-Lifetime Achievement Award. This seemed a fine time to ask John A. Sobrato to sit down for an interview with Michael S. Malone—whose writing chronicling the epicenter of innovation has earned him the nickname the "professor emeritus of Silicon Valley."



PHOTOGRAPHY BY JOANNE LEE

RIGHT PLACE, RIGHT TIME

While a student, Sobrato arranged his class schedule so he could start selling Eichler houses in Palo Alto three days a week. By the age of 22, he founded Midtown Realty and was the youngest member of the Million Dollar Club of the Palo Alto Real Estate Board. In 1972, he sold Midtown Realty to focus exclusively on high-tech commercial properties. He went on to found The Sobrato Organization, one of the largest commercial development firms in Silicon Valley.

Malone: What role do you see yourself playing in the Silicon Valley? It's obvious that you're a central figure in this story, but you're not in that cavalcade of electronics companies, chip companies, computer companies. You play a very distinct role in this town.

Sobrato: I started my career when I was attending Santa Clara as a sophomore. In about 1957 I got a real estate license and sold houses three days a week and went to school three days a week. That kind of shaped my career as a real estate developer. I guess I was at the right place at the right time.

Malone: But there were a lot of people in the right place at the right time and didn't accomplish what you did.

Sobrato: Well, I was fortunate. I'd say back in the early '60s my mother started buying a few properties. My father died when I was 12, and my mother took some proceeds from the sale of my father's restaurant in San Francisco...

Malone: He had a very famous restaurant, John's Rendezvous.

Sobrato: Yes, he did—but, actually, when she went to sell it, she sold it for \$75,000. The wine alone was worth that much. So she started buying a few properties. This wasn't Silicon Valley back then. It was still a lot of fruit orchards and the like.

WHY SANTA CLARA?

John and Susan Sobrato and the Sobrato Family Foundation have been prominent philanthropists in Silicon Valley for decades. They donated \$20 million to build the University's Joanne E. Harrington Learning Commons, Sobrato Family Technology Center, and Orradre Library, completed in 2008. Gifts from the Sobrato family have also supported other major capital projects on campus, including the John A. and Susan Sobrato Residential Learning Complex, Abby Sobrato Mall, and numerous other campus buildings. John A. Sobrato also serves on SCU's Board of Trustees.

Malone: SCU is your alma mater, but I can't help but feel there are a million things calling for your attention out there. Why this university?

Sobrato: I think, again, I was at the right place at the right time when I decided to come to Santa Clara. I was accepted at Berkeley, but then I went on a retreat when I was a senior at Bellarmine College Prep and was pretty well convinced that I'd go to hell if I didn't go to Santa Clara! Anyway, as I mentioned, it was fortuitous because it gave me the opportunity once I was a sophomore to arrange my classes so I could work in real estate three days a week, go to school three days a week.

At Santa Clara, in addition to a technical education, you have your education pretty well grounded in ethics. The Jesuits believe in educating the whole person. We have the three C's here at Santa Clara: competence, compassion, and conscience. Those are driven into students. My son **John Michael '83** and his deceased wife, **Abby '83**, both graduated from Santa Clara. I had two grandsons graduate from here three or four years ago. All of them were taught the same thing I was taught: that if you are successful in a particular business, you have an obligation to share some of that success with the communities where you were able to succeed—for us, we were able to construct buildings and make our business a success.

GIVE IT AWAY

Since its founding, the Sobrato Family Foundation has donated nearly \$315 million in cash and real estate to educational, health, human services, and other charities. Elsewhere in Silicon Valley, gifts from the Sobrato family have included \$20 million to Lucile Packard Children's Hospital, \$10 million to Bellarmine College Preparatory high school, and \$5 million each to Valley Medical Center and National Hispanic University. A \$1.25 million gift in 2012 helped build the Cristo Rey San Jose Jesuit High School, where John A. Sobrato currently serves as board co-chair.

Malone: You and your son John Michael signed the Warren Buffet pledge to give away your wealth.

Sobrato: Basically, yeah, the pledge requires you to promise that you're going to give half your net worth of your estate to charity when—as I call it—“your will matures.” In our case, we decided a long time ago—since we were able to set up the family so they all feel comfortable—that Sue and I, and also John Michael, would give 100 percent of our wealth to charity.

When Warren Buffet called me, I said, “You’re too late. We already decided to do that.” He said, “Well, I still want you on the list.”

Malone: So, before the pledge you'd already made that personal commitment.

Sobrato: When Warren Buffet called me, I said, “You're too late. We already decided to do that.” He said, “Well, I still want you on the list.” “OK,” I said.

Malone: You pioneered a trend by going into philanthropy. I think of you and I think of Bill Hewlett and Dave Packard

beginning all this. Thirty years ago the complaint was that Silicon Valley doesn't give any money to charity. “It's tightwads, new money”—and all that. Now Silicon Valley seems to lead the philanthropic role in some ways.

Sobrato: I think so. The Silicon Valley Community Foundation now is the largest in the United States. It has \$7 billion under management, all in donor-advised funds. A few enlightened folks, like the Zuckerbergs, have set aside \$150 million of their billion that they gave to the foundation to go into education in Silicon Valley. But I would say all the other major donors have an alma mater outside of California that they donate to—or they get involved with international causes. As a consequence, very little of that \$7 billion gets invested in Silicon Valley. So we as a foundation have decided that we need to primarily focus our giving on causes here in Silicon Valley. We hope that what we're doing will create a culture of philanthropy that gives back in our own neighborhood.

'WAIT TILL YOU SEE WHAT'S COMING'

The Sobrato Organization owns 8 million square feet of office space and R&D facilities in Silicon Valley and 8,000 apartments in California, Oregon, and Washington. Sobrato serves as board chair of the family firm and oversees the three Sobrato Centers for Nonprofits that provide rent-free office space to 56 nonprofit service providers totaling 350,000 square feet. Through the Sobrato House and Sobrato Center for Employment Training, grants, and other endeavors, the Sobrato Organization supports job programs, the Sobrato Early Academic Language program, and many others.

Malone: I spent some time with Malin Burnham down in San Diego. He's kind of you in San Diego, he transformed that city just as you've transformed Silicon Valley. Malin said to me that the smartest thing he ever did was retiring early and starting philanthropy early so he could actually learn the art of philanthropy. He's about 86, and he's had a 40-year run of being a philanthropist. He got good at it, as opposed to waiting until he was 70 years old and getting into it. Do you feel the same way? Because you started young, too.

Sobrato: Well, yes. Our foundation turns 20 years old this year. Prior to founding that, I did some individual giving. It was back in the early '80s when I got involved with Santa Clara, when Father **Bill Rewak** was president. I think the first major gift we made here was to endow the chair of engineering. Then we got involved with the reroute of the El Camino. I paid for part of that.

Malone: Thank you. The students thank you.

Sobrato: With Santa Clara it's been a great experience. I'm looking forward to seeing the Santa Clara 2020 plan fulfilled: the new law school, the new STEM campus. People feel that the new buildings that have been built here in the last three or four years have transformed the campus.

Malone: Absolutely.

Sobrato: Wait till you see what's coming. It's gonna be terrific.



1960s: John A. Sobrato's mother, Ann, scouts out a project site.



1970s: Four-Phase Systems in Cupertino. The nascent computer industry.



2000s: NVIDIA headquarters in Santa Clara. A computer graphics powerhouse.



PHOTOGRAPHY BY JOANNE LEE

Disruption in the House

Making the Google Analytics of Greenhouses

BY ED COHEN

ONCE UPON A time—we're talking prehistory—farmers controlled almost nothing. The smartest hunter-gatherers of their day pushed seeds under dirt, but it was up to capricious Mother Nature to provide sun and warmth and water at optimal times and in optimal amounts.

In agriculture, the vagaries of the elements still hold some sway to this day. But if **Allison Kopf '11** and her partners in a venture called Agrilyst are right, crop-control perfection may soon be attainable.

And they may soon be very wealthy.

It was little more than six years ago that Kopf stood onstage in Washington, D.C., accepting accolades at the Energy Department's Solar Decathlon. The junior physics major had spent a year leading construction of SCU's California-cool solar-powered house, which took third place out of 20 international student teams.

Fast-forward to last September, when she presented at TechCrunch Disrupt's Startup Battlefield competition for technology startups, the signature event at an annual conference in San Francisco. TechCrunch is a leading website for technology news.

Kopf and co-founder Jason Camp were there to pitch Agrilyst, which makes software to track and optimize production variables in greenhouses and other kinds of indoor farms. They had launched the company only five months before.

And they won.

This was a big deal, and not only because first prize was \$50,000. Past winners have included the personal finance website Mint.com and cloud-storage source Dropbox, which was recently valued at \$10 billion.

Overnight, Agrilyst went from unknown to hot commodity.

"I had about 10,000 emails in my inbox the next day," says Kopf, company CEO.

One of the Disrupt judges, Roelof Botha of Silicon Valley venture capital firm Sequoia Capital, told CNBC: "If you think about the need to feed people with hydroponics,

[building] greenhouses is going to be an increasing trend. It's already a large market, and they [Agrilyst] have very nice tailwinds."

Kopf says demographers predict that food production will need to increase by 70 percent between now and 2050 to meet global demand. "Which is insane. That's not a hundred years from now," says the 26-year-old. "It's something in our lifetime."

GETTING HER HANDS DIRTY

Kopf was raised just north of New York City—not exactly farm country. The idea for Agrilyst grew out of her first job out of college, with a New York City startup called BrightFarms. The company aims to build greenhouses in urban areas and create a more local, sustainable food system.

Working at the very first BrightFarms greenhouse, near Philadelphia, she discovered that growing conditions like temperature, humidity, and lighting were already being tightly controlled compared with outdoor fields. But records were still being kept by hand, so every time a problem happened it meant digging through notebooks.

"Growers were making suboptimal decisions and leaving revenue on the table," she says. "This just seemed like a broken system to me."

Enter Agrilyst. Together with co-founder Camp, the company's chief technical officer, Kopf wants to show growers that better use of technology will improve yields, quality, and profits. As of last fall they were working with six growers scattered across the country. Agrilyst is currently based out of a business incubator in Brooklyn and plans to hire about 10 employees in the next year, she says.

The headline on TechCrunch prior to the Disrupt finals declared, "Agrilyst Wants to be the Google Analytics for Greenhouses."

Its CEO says, "Our moon-shot mission is to change the way agriculture thinks."

Think and grow:
Demographers predict that food production will need to increase by 70 percent between now and 2050 to meet global demand.

An American Story

A few words from the remarkable life of **Francisco Jiménez '66**

BY STEVEN BOYD SAUM

LET'S START WITH THIS: a line from a letter, father to son, on the occasion of the birth of the son's firstborn: *Recuerda lo que te decía—que los hijos se quieren al par del ama y no hay cosa igual en este mundo como ellos.* Remember what I used to tell you—that we love our children like our own soul and there is nothing like them in the world.

The year is 1971. The new father is named Francisco, the same as his father. The new father is a few years out of college in California and is now in New York City, working on his Ph.D. at Columbia University. To him and his college sweetheart and love of his life, Laura, the boy Pancholín is born.

Francisco, the new father, soon embarks on his dissertation, though not on the subject of his first choice. "I wanted to explore and study works written by Mexicans and their descendants living or having lived in the United States who wrote about their experience in our country," he writes in the book *Taking Hold*. That story—their experience—is his, too; he was born in Tlaquepaque, Mexico, and came to California with his family when he was 4 years old. The family worked as migrant laborers, picking grapes in the San Joaquin Valley one season and lettuce and strawberries near Santa Maria another.

In graduate school, his preferred topic of Mexican-American literature is not yet deemed worthy of study. He will help change that assessment.

There are undergrads at Columbia College who come to his office asking if he can teach a course on Mexican-American literature and culture. Francisco pitches the idea to the administration, and it flies—sort of. Another letter, this from an administrator: "After consultation with my colleagues, I should like to inform you that the Spanish Department will allow you to teach on your own

Home, for a time: Francisco Jiménez at age 13 in Bonetti Ranch—a migrant camp near Santa Maria on California's Central Coast.



PHOTOGRAPHY COURTESY FRANCISCO JIMÉNEZ



Mamá and two of her sons: Roberto and Francisco, right. The boys worked the fields and as janitors in high school. Now there's a school named in their honor in Santa Maria.

time and without financial compensation a course on the literature of Mexican Americans.”

Hard work, no pay—but, Francisco feels, the rewards are many, and there will be more in the future.

A snatch of conversation, also from *Taking Hold*: Francisco with one of his professors who has seen a story Francisco wrote about a boy who desperately wants a red ball for Christmas. When he was in college, Francisco began jotting down memories of his childhood; they buoyed him when he felt like he was drowning. “I briefly told him about my family crossing the border illegally,” Francisco recounts, “all of us working in the fields, missing school, my father’s illness, and passing my janitorial job on to my younger sibling so that, with financial aid, I could attend the University of Santa Clara, where I took on a few part-time jobs to pay for personal expenses and to send money home.” The professor: “This is fascinating. You should write your story and publish it!” he said emphatically. He reached out and placed his hand on my shoulder and gave me an intense, caring look. “You must.”

Francisco takes the advice. He gathers his notes and writes a story in Spanish that begins as “*La Mudanza*”—The Move. It grows into a tale called “*Cajas de Cartón*,” Cardboard Boxes. He translates it into English under the title “The Circuit,” and it appears in the *Arizona Quarterly*. The year is 1973.

That same year, Francisco is offered a teaching post at his alma mater. He and wife **Laura Jiménez '67** are thrilled to return home. Francisco takes Laura and their two boys to Kennedy Airport to put them on a plane to fly out ahead of him. The scene in Terminal 7:

Pancholín kept tapping on the side of my face and pointing to things along the way and asking, “Wat’s

that? Wat’s that?” When we got to the gate, Laura sat down and I held Pancholín’s hand while he pressed his nose against the window and stared in awe at the airplanes taking off like large birds.

As I watched him, a flash of memory crossed my mind: I was twelve years old and picking strawberries alongside [my brother] Roberto and my father in Santa Maria. We would crouch down as crop-dusters flew above our heads and sprayed the fields with chemicals that caused our eyes to burn and water for days.

Clearly, there are more stories to be told.

Now the calendar pages fly past: one year, five years, ten, twenty. Francisco teaches and through his scholarship fosters the broader acceptance of Chicano literature. He serves as an administrator and directs the ethnic studies program at Santa Clara. He raises a family. Two decades on, during a sabbatical, he returns to writing part of his family’s history. The autobiographical stories form *The Circuit: Stories from the Life of a Migrant Child*. Written for young adults to kindle hope and chronicle an American dream, the book wins awards the length and breadth of the state and nation. The book makes its way into Spanish and then Chinese, Japanese, Korean, Italian. Other books for children and young adults follow. They sell a million copies. Young souls are inspired.

A few years later, the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education name Francisco Jiménez the Professor of the Year.

Francisco Jiménez is a quiet man, generous and humble. He was in the eighth grade—social studies, at El Camino Junior High School in Santa Maria—when he and his brother were pulled out of class by an immigration officer.

“I was getting ready to recite the preamble to the Declaration of Independence, which our class had to memorize,” he writes in his second autobiographical book, *Breaking Through*. “I had worked hard at memorizing it and felt confident. While I waited for class to start, I sat at my desk and recited it silently one last time: *We hold these truths to be self-evident: that all men are created equal; that they are endowed by their creator with certain unalienable rights; that among these are life, liberty, and the pursuit of happiness ...* I was ready.”

He was deported. But he and his family returned. At Santa Clara, a Jesuit helped him through the process of citizenship.

Last year, Francisco Jiménez published *Taking Hold*, his fourth autobiographical book. It carries his story from Santa Clara to Columbia for graduate school. It is a tale of a search for stability and purpose, as Francisco says. As so much of life is, yes?

Here is another thing Francisco did last year. He published a translation of eyewitness accounts from the Salvadoran civil war. *Stories Never to Be Forgotten* is the name. Five Santa Clara students assisted with the translation to bring to an English-reading audience tales of children separated from their families during the war, which lasted from 1980 to 1992. The book was published years ago in El Salvador, in Spanish; it was given to Francisco when he first traveled to El Salvador in 2003 with a group of faculty and staff from Santa Clara. From one haunting story,

Lucio’s: “My oldest memories give rise to a vague mix of smells: firewood, smoke, mud, and tortillas. My umbilical cord was buried at a set of adobe and tile houses that unfolded around the skirt of the Chichontepec volcano. I remember that there was a gorge close by and its hillsides had *jiote* trees. A colony of parrots lived there. ... I was still very small when the first deaths stained the floor at the foot of the volcano.”

The civil war was horrific. But El Salvador now has a murder rate the highest in the world, fueled by gangs and drugs. The level of violence is like war. There is no clear way out.

This also: Nearly half a century after Francisco Jiménez graduated from Santa Clara, after more than 40 years in the classroom, last year he retired from teaching. His final class, in Spanish literature, was interrupted when a crowd descended on the room in Kenna Hall: colleagues and former students, family members, and children studying his books in junior high. A quiet end to this man’s teaching would not do. There was song and laughter and tears.

In August 2015, Francisco and his family drove south to visit Santa Maria, a city they knew well. As Francisco writes in *Taking Hold*:

When my father could no longer work, my family stopped following seasonal crops. We settled in Bonetti Ranch, a migrant camp in Santa Maria, a small agricultural town in the central coast of California. To support our family, Roberto and I got janitorial jobs, each of us working thirty-five hours a week while going to school. My brother worked for the Santa Maria Elementary School District, and I was employed

by the Santa Maria Window Cleaners, cleaning commercial offices. All during high school I worked in the mornings before school, in the evenings, and on weekends, sweeping and dusting offices, cleaning windows and toilets, and washing and waxing floors.

His brother Roberto worked four decades for the school district. The brothers were close. Roberto died in December 2014 at the age of 75.

Last year, on the western outskirts of town, where fields meet the sidewalks and edifices of new houses, Santa Maria built a new school for its children: Roberto and Dr. Francisco Jiménez Elementary School. It is the first school in the district to introduce a dual-language immersion classroom. Up the road in San Luis Obispo, a better-funded school district, they have had such programs for years.

For the school dedication ceremony, there were children and parents who first began learning English through stories in *The Circuit*. There were books for the taking, and there were memories shared of working the fields with the back-breaking, short-handled hoe.

For years, Francisco Jiménez was the Fay Boyle Professor of Modern Languages. Now he is professor emeritus, and a scholarship has been named in his honor at Santa Clara. He continues to speak to promote education and literacy, since that was so profoundly a part of his journey from the fields to a life of teaching and scholarship. Francisco has long felt at home talking to children as well as teaching university students; he has visited scores of schools over the years and hosted hundreds of schoolkids from families with meager means as they visit the Mission Campus. He has spurred their little hearts and growing brains to think: *Reach for the stars.*

The books Francisco Jiménez has written have inspired community reading groups across the country—and in Mexico.



PHOTOGRAPHY BY CHARLES BARRY

PHOTOGRAPHY COURTESY FRANCISCO JIMÉNEZ

DR. JEROME

He was a man of action, and he was far better at being a doctor than a father. Some lessons here: in golf and swimming, fear and love, doing and dying.

ESSAY BY DAVID E. DECOSSE

ILLUSTRATIONS BY ANNA+ELENA=BALBUSSO

MY FATHER WAS BORN in Valley City, North Dakota, in April 1928. I imagine a beautiful spring day then: the onset of green in the soft hills swaddling Valley City; the Sheyenne River running brown and thick with winter runoff and spring rain; the northern plains' first wildflowers greeting my father's entrance into the new world naked. Valley City sits hidden and poised, a gully in the infinite grasslands, even now a faraway town in a faraway place. My father was always proud of having come from there. To the end of his life, he had the sweetest spot for North Dakota jokes, the formula for which was usually one part cow, one part farmer, one part earnest, laconic humor of disarming innocence. He would helplessly guffaw at these little tales, like a kid mischievously remembering the best-ever secret of his youth. I came to know him as he must have been as a boy—playful, frightened, vulnerable—when we spent time together as he was dying and my long-dormant love for him came to life.

His family didn't stay in Valley City long. His father's furniture store went out of business, victim of hard times hitting farmers in the area. So the family—Dad, his father and mother, his three brothers—moved through North Dakota in the late 1920s and early 1930s until finally landing in St. Paul, Minnesota. I try to imagine my taciturn father, never very revealing of his youth, as a child of such twists and turns in that time and place: the dislocation of repeated moves; two houses burnt down; the vast blackness of bitter winter nights on the northern plains; summertime dust lying over field and furniture; his father away for long stretches of time, seeking business opportunities or selling medical products in the wide-open country from Wisconsin to Montana. We are not talking Dorothea Lange and Dustbowl Okie poverty here. But we are speaking of a time when my father, disguised as a child, had to contend, along with millions of others, with the vast, punitive forces

of the Great Depression. How much fear would all of that leave in any little boy! Even if my father had wanted to forget all of that, he couldn't. You could see that fear in how he was possessive of things. You could also see that fear in how he loved. When he was under anesthesia for surgery later in his life, the nurses said that he kept enumerating the things that needed to be done to ensure my mother would never face such economic hardship in case he died.

My grandfather was the son of Catholic Quebecois immigrants who homesteaded in western Wisconsin in the 1880s. I remember him for his big laugh under circular, wire-rim glasses and for his unselfconsciously protruding stomach sitting tight beneath a bright red vest and spindly, Western-style tie. I think he was the kind of man whose good cheer warmed and drained a room at the same time. You were happy because he was happy. But his laughter came too easily, as if it hadn't been bought at full price. In the 1930s, he liked to listen on the radio to Father Charles Coughlin denounce Roosevelt, the New Deal, and Jews. My grandmother was Swedish pioneer tough and pushed her sons hard. She also had numinous warmth, her yearly visits to our home a happy memory of her soulful laugh and the kitchen running over with baked goods. I think my father loved my grandmother, but his heart for her was in conflict with itself. She had always been there for him but had pushed him and his brothers hard because their life was hard, and because her pride for them rested heavily in their accomplishments. She was the only person who called him "Jerome" instead of Jerry, and when she did, my high-achieving father bristled to be brought back within her maternal fold. After she died, he went to her funeral but skipped her burial.

By the late 1940s, my grandparents had settled in Bozeman, Montana, the hard years behind them. They were the kind of people against whom Sinclair Lewis set

Throughout my life, his power had been inscrutable, close, and overwhelming.





©ATE=BALBUSSO

his sights in *Main Street*: self-conscious about their recititude; bourgeois in their values; fearful of what was different. But they were much more than that, too: driven, tough, kind, warm, zealous for family. My father was never the kind of American who had to flee the confinement of the small town for the openness of the big city. He carried many of his parents' Valley City virtues with him throughout his life. But he did have to go, not so much to get away from the small town as to pursue his dream of being a doctor.

I knew my father more as a doctor than as a father. He went to St. Thomas College in St. Paul and then to the University of Minnesota Medical School. Afterward, he was a resident at St. Luke's Hospital in New York City; served as a surgeon in the Army in the burn unit at Fort Sam Houston in San Antonio; and then began advancing from one highly desirable surgical and teaching position to the next. He was at Memorial Hospital in New York; then moved to the State University of New York at Syracuse; to University Hospitals and Case Western Reserve in Cleveland; to County General Hospital and the Medical College of Wisconsin in Milwaukee; to chief of surgery at Memorial Sloan-Kettering Cancer Center in New York City and a position on the faculty of Weill Medical College of Cornell University; to, at the time of his death, the Lewis Thomas University Professorship at Cornell and a well-earned reputation as one of the world's leading surgical experts on colon cancer. A photo shows him at the height of his career during his years at Memorial Sloan-Kettering: supremely self-assured brown eyes staring into the camera and owning it; strong forearms folded in surgical scrubs; a near-smirk on his aquiline face, looking for all the world amid the lights and instruments of the operating room as if he had really figured out a way to surmount death. Here was hard-earned pride tilting toward cockiness. I hated him for that hubris.

Throughout my childhood, he worked long hours. Out the door by 7 and not back until 7 or later at night. He worked Saturdays and parts of Sundays and was often away at medical conferences. My father was comfortable being a doctor, sure of what to do and of how to progress. He read medical journals at home and responded quickly to residents calling for advice about a patient on the surgical floor. He was respected and admired by his peers. But he never had the same ease—or success—as the father of the five of us (three boys and two girls). He wouldn't make time to attend parent-teacher conferences or swimming meets (all five of us swam), much less family dinners or birthday celebrations during the week. He might marshal all of our sibling forces to clean up the spacious yard of our suburban Milwaukee home on a Saturday morning, but he didn't know how to have fun with us. The effort would inevitably prove a certifiable job, with him as grim task master. I think he loved us, but there was an awkward, fearful distance between that affection and its expression in words and gestures. Often enough, the expression would go unstated until it would erupt as a blunt, uncompromising command. Occasionally, on a weekend afternoon, he'd take one of the boys to play golf. When it was my turn, as we walked from green to tee and couldn't avoid conversation, I learned out of fear not to say anything much. On what budding aspiration of mine would his inscrutable force come crashing down? Even now, the smell of a cigar—my father would smoke one as we went around the course—evokes the memory of anxious, beautiful fall

afternoons when I was happier to hunt alone for my ball in some grove of trees than to expose myself to too much talk with my father.

For my father, only the results counted. He'd want to know our times in competitive swimming and our grades in school. On his desk, he kept a small, framed picture of a hand extending upward and the Robert Browning quotation: "A man's reach must exceed his grasp." This phrase captured a crucial part of his philosophy of life. He admired hard work and excellence and left all of us siblings with a powerful inner drive and an intolerance for shoddy work. I came to appreciate my father's love of the Browning phrase, but I also came to find the phrase, as it existed in his mind, tyrannical. The way that he understood the phrase was all reach and no grasp—all some objective, impersonal goal called *excellence* and little sense of the subjective challenges along the way. During our weekly Sunday dinner, the one meal of the week we shared with him, conversation nervously walked the fault line of saying

He kept a framed picture of a hand extending upward and the Robert Browning quotation: "A man's reach must exceed his grasp."

what you had or had not accomplished during the preceding week. A dutiful if half-hearted effort by the competitive swimming siblings at an off-season competition failed his Robert Browning test. His incredulous, angry criticism—how could we swim in a meet, *any* meet, and not do our best?—hung over the dining room table and ruined the meal. I wanted such dinners to end as soon as possible.

All of these currents in my father came together in a bitter, months-long argument with him over my decision to stop competitive swimming at the end of high school. I had been competing for 10 years, but it had become a grinding chore. I didn't have a sense of what, if anything, was to take swimming's place in my life, but I knew I wanted to stop. My father thought this was the wrong decision, and from April into August he demanded to speak with me almost every day to get me to change my mind. He thought I was talented as a swimmer and was giving up an opportunity to improve. He thought that I had gotten into Harvard on the basis of my swimming and that, therefore, I had an obligation to continue swimming there. I dreaded hearing him come home from work and then hearing the heavy step of his slippered feet as he came to the base of the stairway and called up, "David, come down. We need to talk." I hated myself for submitting for months to this demand and remember now the shame I felt as I walked, again and again, down the stairs to his home office. There I sank low in the couch while he sat high in a leather chair, trying to persuade me to change my mind. His list of

He was hard to love until we both became patients ourselves.

complaints grew: I was too emotional; the Jesuits at my high school had duped me; I was stuck in a cycle of self-indulgence; and so forth.

My father was right about one thing. The Jesuits had taught me something new. They never counseled me to stop swimming, but they took seriously the fact that I no longer wanted to do it. And, in itself, taking such a desire seriously opened up in me the possibility of a sense of self that stood rightfully on its own. In his *Spiritual Exercises*, St. Ignatius of Loyola counsels spiritual directors to refrain from being too directive with a person on a retreat. Suggest this or that. Let the retreatant determine the best course of action, and then let him or her try it out. The test of experience will tell all. The logic here is practical but spiritual, underscoring the immediacy and primacy of a relationship between the retreatant and the divine. As Ignatius, the founder of the Jesuits, puts it: “He who is giving the Exercises should not turn or incline to one side or the other, but standing in the center like a balance, leave the Creator to act immediately with the creature, and the creature with its Creator and Lord.” My father was not a close-minded Catholic for whom obedience to papal directives exhausted a person’s sense of responsibility. As a young man, he had read Cardinal Newman’s careful parsing of Catholic authority and personal conscience. In the early ’60s, he admired Xavier Rynne’s *New Yorker* dispatches from Rome as bishops at the Second Vatican Council created a new, more open church. But that intellectual openness did not translate into emotional attentiveness—especially toward the confounding obstacle of a son with a growing mind of his own. In any case, I did not think in elaborate Ignatian terms as I sat humiliated in my father’s office. But such ideas were taking root in me nonetheless. In college, I stopped swimming.

Telemachus set off on the wine-dark seas in search of his absent father. My father was missing but at home, sitting imperious on the leather chair in his study. It would take

He was left with his native, inalienable resolve tinged with a bewildered, childlike worry about what was happening to him.

time to realize that I was, nevertheless, on a journey to find him. The first landfall came 20 years after high school with my divorce. I came down from graduate school in Boston to spend weekends at my parents’ vacation home in East Hampton on Long Island. I was shocked by the divorce; paralyzed by dread of a loveless future; humiliated by shame (divorce, I had thought, was an affliction that only other people suffered); and oppressed by guilt for how I had contributed to the failure of the marriage. For the next year and a half, I feared lying down at night because I knew that at some point in the empty early-morning hours

I would be jolted awake by a current of anxiety that ran through my body. Days dragged on in hazy attention to work and people, while my heart seemed to be traveling some wild, frightening river. I was also deeply fearful at how my father would take the news of the divorce. The only times I had cried in front of him before were when he took his belt to me as a child or when I imploded in blustering rage during one of his don’t-stop-swimming inquiries. Now, though, I could not help it. “Don’t cry,” my father said, as we talked one evening in the living room. “Get a hold of yourself. Let’s look at this situation and see what you can do.” He made no move to leave his chair and embrace me. His voice wasn’t soothing so much as matter-of-fact. I thought: *I am the patient and he is the surgeon. We both know the terminal state of this marriage. I am not bearing the news well. He is speaking to me clinically and precisely and with complete conviction.* I realized then one of the things that made him an excellent cancer surgeon: His authority in the face of mortality, when sickness strips away every false hope, invited a like-minded, assertive response. My father wasn’t very interested in his own emotional life, much less mine. In that, he was the antithesis to the wisdom and excess of our therapeutic age. But he was very interested in action: in what, here and now, you can do. Faith without works, to him, was really dead. As we spoke in the living room, I straightened my back and began to imagine steps toward the future: finish the dissertation, marry again, move to California.

In the next months, my father started to falter. One afternoon we were playing golf when he turned to me—away from the group we were with—and confided with frightened bewilderment: “Dave, have you ever had one of those days when it seems like nothing at all matters?” He had never before shared such a thought with me. He had certainly never intimated that I help him understand his own troubled spirit. I still see him on that eighth tee box in the late afternoon light of a desultory round of golf at the country club on Long Island, his tall, strong frame enfeebled by the confused, faraway look in his eyes.

Then he began to falter in other ways, too. He fell several times while on vacation with my mother in Florida. A formerly agile man, he developed a pronounced limp, one leg lifting high at the knee as he walked. Other involuntary muscle movements and twitches began to appear. One night at dinner, he was close to anguish. “I’ve seen the best neurologists in the world,” he said, citing his office visits with colleagues in Manhattan, “and no one can give me a goddamned diagnosis.” By then I had moved to California, where I was working at a tiny Internet company and making steady progress on my dissertation. The geographical distance made me less fearful of him. And we had each awkwardly started to cross the line of speaking about things falling apart beyond our control. I started to call back East weekly. My father and I would laugh when he’d cut me off in midconversation to say that he’d be happy to hear about anything but the damn weather in California. He was characteristically to the point in his dating advice: “Just ask her out and don’t think too much about it. Whatever she says, keep moving.”

Finally, a diagnosis came through: my father had Lou Gehrig’s disease (ALS), the incurable and debilitating condition that steadily atrophies the muscles until it brings about death. After hearing the news, I felt a tremendous weight of sadness. Throughout my life, his power had been inscrutable, close, and overwhelming. But this disease, I



Dr. Jerome in his element: self-assured, at the height of his career.

knew, would strip that power and, in time, render him helpless. I was sad, too, that the inexorable wasting of ALS would be that much harder for him because, as a physician, he would know everything that was happening to his body. Whatever anger that lingered from the past was irrelevant in the face of his coming future. And that anger, anyhow, felt like an obstacle, a trap. So I thought: *I will walk with him through this to the end.* I started to make more frequent trips back to the East Coast. I marked time by seeing my father’s steady decline: the increasing difficulty walking; the need for a cane; the loss of mobility in his arms; his reliance on an electric scooter that he loved to drive too fast down the long hallway of his apartment building in New York. Once I helped lift his naked body into the shower, embarrassed as I did and shocked by the loss of muscle throughout his frame. Of course, he directed all aspects of this delicate maneuver in and out of the shower stall. And we laughed together as we got the job done. At the hospital he had been assigned a new, smaller office, many floors removed from his former perch on the power corridor of the surgery department. The disease had stripped away any lingering hubris from that photograph of 20 years before. He was left with his native, inalienable resolve tinged with a bewildered, childlike worry about what was happening to him and what was to come. It was as if all that he had learned about disease in his decades as a doctor could no longer help him. He had become a frightened boy again. The last time I saw him, we celebrated his 73rd birthday. I will never forget the eyes-bright boyishness of his then-gaunt face as he looked up from his wheelchair to see us walking toward him with cake and candles and singing “Happy Birthday.” Now I think that our voices were joined with the springtime birdsong that must have greeted his arrival in the world in Valley City—the one, inseparable song, an impromptu “In Paradisum” that recapitulated his life and lulled him into eternity.

PHOTOGRAPHY COURTESY DAVID DECOSSE

Days later, he passed away in his sleep, having gone to the office on the day he died.

My father’s funeral was at St. Catherine of Siena Church in Manhattan. The parish is surrounded by hospitals and medical research facilities where he had spent many fruitful years of his professional life. Across the street is Memorial Sloan-Kettering Cancer Center. A short walk away are New York Presbyterian Hospital, Cornell Medical School, and Rockefeller University. Doctors, nurses, and hospital administrators all crowded the funeral, far outnumbering our sizable family.

The Gospel reading for the service was the story of the Good Samaritan. In his life of faith, my father was certainly not a contemplative in action, in the formulation that Thomas Merton and others made popular in the 1960s. Nor was he even “in action a contemplative,” as St. Ignatius of Loyola more finely formulated the distinction. Instead, he was a man of action, pure and simple. And the magnificent, clustered verbs in the story that describe the actions of the Good Samaritan—he “saw” the man beside the road; he was “moved with compassion”; he “approached” the man and “poured oil and wine” into his wounds; “bandaged” him and “lifted him on his animal”; “took him” to an inn; “cared for him there”; and “gave” coins to the innkeeper to cover any additional costs—articulated the deepest intention and greatest fulfillment of my father’s life as a physician. At the funeral, I saw that life in a new light.

To be sure, I saw more clearly how much my father had achieved professionally in the way these things are commonly measured: to have traveled the long road of success from Valley City to the finest hospitals and medical schools in the world. I also saw more clearly, in a moral sense, how much good he had done as a doctor; how much responsibility for life and death he had constantly shouldered; how all of his achievements had provided us as a family with abundant opportunities for housing and education.

The parish priest who said the funeral Mass had not known my father; nor had my father known him. That lack of familiarity made it all the more surprising to hear Father Carmody, from start to finish at the funeral, refer to my father as “Dr. Jerome,” “Dr. Jerome,” “Dr. Jerome.” Before then, I had only heard his mother call him “Jerome.” Now hearing it, I saw him in a wider perspective. He was a father and a son and a boy once, too. The juxtaposition of those two words, “Dr. Jerome,” worked softly on me through the solemn pace of the Mass until I realized with a start: “Yes. Exactly. My father was knit in his mother’s womb to be Dr. Jerome; he was a better physician than he was a father; he was not the father I had always wanted, but he was a physician that many people had wanted; he was hard to love until we both became patients ourselves, compelled by divorce and disease to confront our limits.” In her short story “Babette’s Feast,” Isak Dinesen writes that in the infinite perspective of grace—a perspective we struggle to imagine—“that which we have chosen is given us, and that which we have refused is, also and at the same time, granted us.” After years of estrangement, I had chosen to love my father as he was dying, and my love was returned manifold. But I realized, too, that loving him meant I could no longer refuse to accept him as he was and will forever be: first, Dr. Jerome, and then my father.

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THEM'S THE RULES

Through FOX and CBS, Mike Pereira '72 and Mike Carey '71 have changed the way Americans watch football.

BY SAM FARMER

ILLUSTRATIONS BY SEAN MCCABE





LESS THAN TWO minutes into a game between the Carolina Panthers and Atlanta Falcons, and the spotlight swings to rules analyst **Mike Pereira '72** in the Fox NFL studios in Los Angeles. The play in question: Carolina tight end Greg Olsen makes a catch, then fumbles as he's being tackled. Atlanta recovers the loose ball. But questions linger: Was it a catch? And was Olsen down before he fumbled?

In the studio, Pereira tells 14 co-workers in his glassed-in room to turn to the Carolina game. He wants all eyes on the play. He twists the knob on the replay monitor in front of him, rolling back and forth through the play as he talks by headset to the production truck.

The broadcast comes out of commercial, and game officials have reversed the call, saying Olsen made the catch but was downed by contact. Back in L.A., Pereira rises from his swivel chair, turns around to face a fixed camera, places his feet on an X marked with tape on the floor, and in 20 seconds gives a lively explanation of why the referee was correct in his decision.

"You know, Mike," color analyst John Lynch says on air, "you should be on that committee that figures out what a catch is."

"John," Pereira says with a chuckle, "I don't think the NFL cares anymore what I have to say."

How wrong he is. Pereira, the NFL's former head of officiating, has carved out a spot as a highly influential and respected rules analyst in his six years at the network. It's his job to explain and interpret intricate and sometimes controversial calls in college and pro football. The job didn't exist before Pereira came along, yet it's now a standard part of sports broadcasts on several networks.

THE COOLEST JOB

Pereira has the coolest job in television, and not just because he gets to sit around and watch football every weekend. It's that his office on NFL Sundays feels as cold as a meat locker; the thermostat on the Fox Sports set is set at 50 degrees to offset the heat of the TV lights and keep the on-air talent awake and alert. So frigid is the room where Pereira sits, nicknamed the Ice Cube, that when he's not on the air, he uses a foot warmer and a blanket that a viewer gave him. In the truest sense, Pereira's job is no sweat—though few could pull it off with such ease.

"Mike has this unbelievable ability to teach," says David Hill, the former Fox executive who came up with the idea of adding an official to the broadcast team. Among Hill's other innovations are the Red Zone Channel, the virtual first-down marker, and the box that shows the score and

game time constantly in the corner of the screen.

Pereira is part-football, part-fashion plate, with his salt-and-pepper hair combed back, his rectangular hipster glasses, and his wide array of three-piece suits. Mostly, Hill sees him as a professor. "I can see Mike Pereira being the head of Harvard or Stanford," Hill says, "and taking complex and barely understandable premises and theses, and being able to explain them to the thickest freshman and have him excited about being able to study it."

Skeptics initially rolled their eyes at Hill's decision to shine a spotlight on the arcane rules of officiating. But the Pereira experiment was so successful that other networks followed suit. Before the 2014 season, CBS hired **Mike Carey '71**, a member of Santa Clara's Board of Trustees who spent 18 seasons as an NFL ref.

"I've got a job wherein I'm able to give the whys and the wheres, and for so long that hasn't been available from a direct source," Carey says. "To take complex information and then be able to translate that into something that's digestible for the fan is just a fun opportunity."

Pereira and Carey now help shape the way America understands the rules of the most successful sports league in history. "You see the pictures of the guys, the officials, but they're just faces out there," Pereira says.

MADE FOR THIS

Pereira, who lives in Sacramento with his wife, Gail, commutes to L.A. on fall weekends and is in the studio for college football on Saturdays and the NFL on Sundays. Carey, who lives in San Diego and runs a leading skiing/snowboarding apparel business, logs more frequent-flier miles, traveling to the Thursday night games and heading to CBS Studios in New York for NFL Sundays.

"They're both very smart and articulate," NFL Commissioner Roger Goodell says of Pereira and Carey. "They can explain it without getting really technical on the rules, and that's very beneficial to us as a league."

The networks have made significant investments in these jobs. Carey operates out of his own studio in New York; his team includes a producer, video operator, sound techni-

Mike Pereira '72, left, played baseball at Santa Clara, headed up officiating for the NFL, and now is the football rules analyst for Fox.

"Am I a voice box for the officials? Yeah, but sometimes they don't like the things that come out."

cians, and six college officials who work as spotters—each with two monitors, with one showing a game live and the other allowing for recording and playback.

Although Carey does not appear on camera as much as his Fox counterpart, CBS frequently asks him to clarify or give his opinions on calls during games, and his voice is used in the broadcast. Accordingly, he's gone from an officiating job where he was seen but seldom heard to a network job where he's heard but seldom seen.

"He has a unique way of talking about the rules, and he's

'HEY! MIKE CAREY!'

Mistaken identity, snow sports, and making Super Bowl history

BY SAM FARMER

Long before he wore stripes and a whistle, Mike Carey was a player. He was a talented running back for four years at Santa Clara. An ankle injury cut short his senior season, and to this day it limits his ability to run. Back then, he had a different view of officials.

"As a player, they're just in the way," he says. "Not physically, but it's almost like you want to play sandlot, and there's a guy saying you can't."

Carey began officiating after college, in 1972. A friend convinced him to work Pop Warner games in San Diego. He worked his way up to the college level and joined the Western Athletic Conference in 1985; he officiated three bowl games. In 1990, he was hired by the NFL as a side judge. Five years later, he was promoted to referee.

All the while, he and his wife, **Wendy Carey '73**, were building their company, Seirus Innovation, which now is a leading manufacturer of ski and snowboarding gloves, hats, face protection, and other cold-weather accessories. Headquartered in Poway, California, in a sleek, two-story building, Seirus Innovation is a family affair for the Careys. Mike is chief executive, Wendy is chief financial officer, and one of their two daughters, Danica, runs the marketing department. The atmosphere is relaxed, with employees occasionally pausing for an impromptu game of pingpong.

"My dad approaches every day with the vigor of a 5-year-old," Danica says. "We call him Benjamin Button, because look at him—he looks like my little brother. Seeing his zest for life, for business, for football, is really fun."

It wasn't always easy growing up as the daughter of an NFL official, though—particularly when the Carey family attended the games. They had to steel themselves to the criticism they heard from fans.

"I never go to Oakland games," Danica says with a laugh. "When you hear people in the stands, especially when they're so poorly informed, you kind of want to be that righteous: 'No! It was holding because ...' But they don't care. They just want to have a good time."

DO I KNOW YOU?

Carey is recognized by football fans in San Diego just about every day, although they aren't always sure how they know him.

"There are about three or four levels to it," he says. "The first level is: You're walking down the street and you get a double-take but they don't stop you. Then there are those who recognize you and just give you your space.



Then there are those who say, 'I must know you. Were we in the service together? Did we go to school together? Where did you grow up?' I like to let them go on."

From time to time, he's mistaken for comedian Keenen Ivory Wayans or retired baseball player Harold Reynolds. Others instantly recognize him from his days as an on-field official, in the broadcast booth, or both.

"It's amazing how respectful they are, because every one of them can probably remember a play that I had against their team," he says. "And at one time I probably wasn't as popular with them. ... The fans are really great. We've been driving in a car and someone rolls down their window: 'Hey! Mike Carey!'"

SUPER BOWL HISTORY

Throughout his career as an official, Carey aimed to be inconspicuous. But he couldn't help but be in frame on one of the greatest plays in Super Bowl history. He was nearly trampled by a stampede of New England Patriots defenders in Super Bowl XLII as they tried to drag down New York Giants quarterback Eli Manning.

The Giants, facing a 14-10 deficit with 1:15 left, had a third-and-five from their 44-yard line. The game was hanging in the balance, as was the unblemished record of the 18-0 Patriots. The Giants quarterback broke the huddle, and Carey was in his typical spot, about 10 yards behind him and to his right.

"I'm expecting a hard count, Eli trying to get a cheap first down," Carey says. "But he just

comes out and takes the snap. As soon as he drops back, the pocket gets crushed. My vision of him is obliterated."

Carey went into autopilot—"In those situations your body does all the work"—and wheeled away from the cluster of bodies. He wound up on Manning's left side.

"At that point they've got him and they're pulling him backward," Carey recalls. "His jersey is stretching. He pops out and almost comes right back toward me."

Then, the throw. "He just launches it, almost like, 'I'm going to throw it as far as I can down the field and just hope.'"

Carey couldn't see what was happening on the other end of that throw. But he heard the roar of the crowd.

Giants receiver David Tyree, who had caught only four balls all season, out-leaped Patriots safety Rodney Harrison and made a 32-yard catch, pinning the ball to the top of his helmet as he crashed to the ground. Four plays later, the Giants scored the winning touchdown.

"It was a miracle that ball didn't come loose," Carey says. "Both ends of that play were phenomenal. I didn't see the second half of it until later. Then, the rest of the game was history."

Actually, for Carey, the game was history before it started. He was the first African-American referee to officiate a Super Bowl.

"First, you're honored to get the call," he says. "And then you realize the enormity of the responsibility."

This year he was the rules analyst for Super Bowl 50.

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Mike Carey '71, officiating his final game, Browns vs. Steelers, Dec. 29, 2013, in Pittsburgh. The following year CBS hired him to be the network's rules expert.

gotten a lot more comfortable with the mechanics of television," says CBS analyst Rich Gannon, a former NFL Most Valuable Player. "He's used to being the guy in charge and being able to take as long as he wants to make a call on the field. Now, all of a sudden, he's got 15 seconds."

On a typical NFL Sunday, Pereira is flanked by a small army of people charting every play and penalty. A producer to his right and an assistant producer to his left can call up any game for frame-by-frame review. Everyone is dressed casually, in jeans and black Fox sweatshirts, except for Pereira, who now wears exclusively the line of JCPenney suits in the collection of his Fox co-host Michael Strahan.

The setup allows for Pereira to weigh in on specific plays when summoned by a broadcast team, either with his voice alone or with an appearance on camera. In Week 2, for instance, he was on air 17 times. He's quick and concise when he weighs in with an opinion. That's a skill he honed in 14 seasons as a college football official and two more as an NFL line judge—on a crew headed by Carey, no less.

"Mike Pereira was born for what he does now," says Fox analyst Howie Long, a Hall of Fame defensive lineman. "The NFL rulebook is a lot like our tax laws. Really, really complicated, and a lot of gray areas and subtlety. To be able to lean on Mike, not only in studio but for our game crews to tap into his understanding and ability to communicate to the audience in a way that's user friendly, is remarkable."

"It's like he was computer generated for this."

Rick Jaffe, senior vice president of news at Fox Sports, works weekends as Pereira's personal producer and is co-writing his autobiography, *After Further Review*. The book chronicles Pereira's life, from surviving cancer at 25 to his rise through the officiating ranks on his way to reaching the pinnacle of his profession—NFL vice president of officiating—and all of the pressure that went with it.

Pereira was a rules pioneer, getting 76 rules changed during his nine years at the league, including one that has had an impact on the game like no other: instant replay.

Still, there's an easygoing, sports-bar feel to watching games with Pereira. "I work Monday through Friday, but on Saturdays and Sundays it's not like it's even work," Jaffe

says. "We're hanging out watching football together. And, 'Oh, by the way, Mike's got to go on live television and talk about this play.'"

BLINDSIDED

Being a former official does not guarantee Pereira always agrees with the decisions made on the field. For instance, in a Week 2 game between Dallas and Philadelphia, there was a controversial fourth-down play in the third quarter.

The Cowboys blocked an Eagles punt, and the ball was recovered by Dallas' Kyle Wilber, who returned it for a touchdown. Philadelphia punter Donnie Jones was blindsided while trying to make a tackle on the play. A flag was thrown. Then, after the officials conversed, it was picked up and no foul was called.

Pereira weighed in for the 27 million viewers, saying he didn't agree with the decision to pick up the flag. The foul should have been called, he said, because the punter is a defenseless player who, according to the rules, cannot be hit in the head or neck area. Regardless, the call stood.

"Am I a voice box for the officials? Yeah, but sometimes they don't like the things that come out. ... They never like to admit they're wrong," Pereira says. "There was always the question of, What's going to be the relationship between the officials and me? How are they going to feel about me being *the guy*?"

"Generally, I do very little criticism of them. I told them right off the bat that when I came here I would never use a word any stronger than 'incorrect' when I disagreed with a call on the field. I would never use 'bad' or 'blown' or 'horrible.' I would just say 'incorrect' and then explain why. I found that they felt better about that criticism coming from me than they did Troy Aikman or Joe Buck or John Lynch, who had never officiated. It was more credible coming from somebody like me or Mike Carey."

Like Carey, Pereira started as a Pop Warner official. Although he played baseball at Santa Clara, during his junior year he worked youth football games in East Palo Alto to earn spending money.

"The first day I put on the uniform, I looked at myself in the mirror and I laughed because I looked so silly," he says. "Then, when I got out there and was on the field with these kids, trying to adjudicate fairness with parents yelling at me ... all of a sudden that uniform that looked so silly felt like a tuxedo. It was a feeling that overcame me and never left me. To this day, that's still how much officiating is part of my very existence."

Carey feels the same way. Officiating is in his blood. Even though they no longer wear the uniform, the cap, the whistle, there's no mistaking: Under the TV lights, with tens of millions of viewers listening intently to their explanations, they are unquestionably stars in stripes.

SAM FARMER writes for the *Los Angeles Times* and has covered the NFL for more than 20 seasons. He is the California Sportswriter of the Year.

PHOTOGRAPHY BY GETTY IMAGES

CAN WE SEE THE REPLAY?

Seven great NFL moments (and a cookie) with Mike Carey

BY SAM FARMER



BARRY SANDERS:

"He was unbelievable. He defied physics. I've been around some great backs, the whole history. I don't mean to demean any of them, but nobody's close. For one thing, Barry's thighs were about the size of two of mine. On one play, three guys jumped on top of him. He just spins out of it, pushes off, and bang! One step, he's going full speed. Gone."

FIRST PLAYOFF GAME, WHEN THE LOS ANGELES RAIDERS PLAYED KANSAS CITY IN A FIRST-ROUND GAME:

"I remember walking into the Raiders' locker room, and I said, 'This is different.' It was like a big fog of energy, and you could just feel the desperation in the air. It wasn't that it was so tense—there were probably guys joking around—but the energy was just palpable. From college to pros, then pros to the playoffs—there's a quantum leap. I felt like somebody got a big syringe of adrenaline and stuck it in my arm. I said, 'I gotta have this all the time.' That's what the playoffs feel like."



WILD-CARD GAME BETWEEN HOUSTON AND BUFFALO, WHEN THE BILLS OVERCAME A 32-POINT DEFICIT TO WIN IN OVERTIME, 41-38, THE LARGEST COMEBACK IN NFL HISTORY:

"Houston comes in and Warren Moon could not miss. It was like the Oilers were playing eighth-graders—touchdown, touchdown. At halftime Houston's up 28-3. They come out in the third quarter and go up, 35-3. Then,

ILLUSTRATIONS BY SEAN MCCABE

Houston turns its engines off. I remember it to this day, [Buffalo quarterback] Frank Reich. It wasn't this big 'Yeah, we're going to go!' from the Bills. They were just systematic, just like it was 0-0. No panic, no nothing. Houston acted like they were scrimmaging. Buffalo scores—eh, no big deal. They score again and again. Then it starts getting close, and you can feel that Houston's like, 'OK, time to put them away.' They never got that engine fired back up again."

PEYTON MANNING AND RYAN LEAF:

"I saw those guys in back-to-back weeks during their rookie seasons. Actually, Leaf had outperformed Manning in their preseason games. One of the differences between them was Leaf was a soft body. He was not a firm athlete. I remember Peyton had great poise, and he had focus. Leaf had kind of a huge air of confidence, which was important, but he was loose, almost like he'd been there before. Manning was just intense, very focused, really a student of the game. Just two completely different guys."



RUSSELL WILSON:

"I was working a Seattle game in Wilson's rookie season. [Seahawks Coach] Pete [Carroll] comes out and says to me, 'This guy is really special.' I go, 'Yeah, yeah, everybody says that.' What I like to do in huddles, between snaps, is watch guys. I get right up there, almost in the middle of the huddle, just listening to what they're saying. I like to see if I can pick up what the play is. More important, I just like to hear the dynamic of the huddle. This kid, he's a rookie, but he sounds like he's been in there for 50 years. Wilson's coming up to me in his rookie year, talking about what his two-minute strategy is. Not asking, 'Can I do this in two minutes?' It was, 'This is what the two-minute drill is going to be. If we do this, we're going to call a timeout. If we do this ...' Unprompted. No worries in the world."

TROY AIKMAN:

"Probably one of the most accurate guys you would ever want to see, but he never talked. He was almost like Robocop. (Brett Favre was just as loose as can be. Between snaps, he was just jawing with players. Gets hit: 'Is that all you got?' Or, 'Great hit!') One time, Aikman got hit so hard, he was literally kind of crying. No air, no nothing. I said, 'Are you OK?' He could hardly talk. I said, 'If you don't get up, I'm going to have to call somebody out here.' He gets up, didn't miss a snap. He handed it off after that, but still."



BRETT FAVRE ... AND THE COOKIE:

"The quarterback takes so much heat in this league for being overprotected. But if he's not your toughest guy on the team, you're in trouble. They get blindsided, hit unprotected. There's nobody tougher than Favre. He had a thumb injury once, maybe a dislocation or something. I go to shake his hand, 'Hi, how you doing, Brett?' He says, 'Hey, Mike.' He put his hand out and said, 'Don't squeeze it!' It was so puffy, I was amazed that he could even hold the ball, much less throw it. Didn't miss a snap the whole game."

And the cookie? "Brett Favre runs out one time after halftime and brings me an oatmeal raisin cookie. Who does that? 'You want a cookie, Mike?' Then he goes, 'God, you've been around a while, Mike. How old are you?' I say, '62.' He says, 'Who me? I'm not 62!' I say, 'No, I'm 62.' He goes, 'No way! You're not 62!' I say, 'Why would I lie about being old?'"



Bronco News

SCU ALUMNI NEAR AND FAR



Further Disruption

The Nailbot, marketed by a partnership that includes Casey Kute Schulz '08, is an inkjet printer for fingernail art. The device made the finals at the TechCrunch Disrupt Startup Battlefield last fall in San Francisco. Brian Pokorny '02 (right) was one of the judges.

FOR A TIME, the stage at the closely watched TechCrunch Disrupt Startup Battlefield competition in San Francisco last fall felt like Grand Reunion.

The six finalists included Allison Kopf '11, pitching her indoor-farming control system ("Disruption in the House," p. 32), and Casey Kute Schulz '08, singing the prospects of Nailbot, a fingernail-painting device. The six judges at the competition, which in past years has helped launch tech giants such as Dropbox, included angel investment firm partner and tech startup superscout Brian Pokorny '02.

NAILING IT

At first blush, the Nailbot is an inkjet printer that applies fingernail art. But its creators also hope the beauty machine will make tech careers look good to girls.

Robotics engineer Schulz, a veteran of the National Ignition Facility at Lawrence Livermore National Lab, is one of the co-founders and the technology lead of Preemadonna, the startup that makes the device.

The Nailbot works with a smartphone app and can print any digitized image, including photos, onto a nail with a pass or two of the printer head. Getting nail art

done professionally at a salon costs about \$5 a nail, she says. The Nailbot costs \$199 and comes with enough ink to do 5,000 manicures.

Schulz says the initial target market for the device is teen and tween girls.

"Ninety-two percent of teens decorate their nails regularly, with 14 percent decorating daily," she says.

But the company also has a social aim: encouraging girls to consider careers in technology, like its founders, Schulz, a mechanical engineering grad, and Pree Walia, inventor and CEO. Preemadonna's Indiegogo crowd-funding appeal offered supporters a Maker Kit (an early prototype of the Nailbot) that girls can use to learn programming.

The Nailbot itself won't be available until this fall, but you can get on the wait list and see videos of how it works at Preemadonna.com.

JUDGE AND ANGEL

Pokorny, managing partner at seed-stage angel-investment firm SV Angel, has become a regular among judges the past few years at the TechCrunch Disrupts, which are held annually in San Francisco and New York.

Pokorny earned his bachelor's in operations and management information systems and has proven a keen judge of startup promise. The former Google employee has made personal angel investments in Square, TweetDeck (acquired by Twitter), Milo (acquired by eBay), and Chomp (acquired by Apple). Among the more famous startups SV Angel has backed are Dropbox, Snapchat, and Pinterest.

Pokorny says he didn't have to recuse himself from judging his fellow alumni's entries at Disrupt. Only when the judge has a financial interest in a contestant is recusing or disclosure required.

Other alumni at SV Angel include partner Kevin Carter '09, who made *Forbes Magazine's* 30 under 30 list for finance in 2012 and 2013; and a principal of the firm, Abram Dawson '12, who is on the 30 under 30 list for venture capital in 2016.



PHOTO OF POKORNY BY BRIAN ACHIGETTY IMAGES; FINGERNAIL ART PHOTO COURTESY PREEMADONNA. WORDS BY ED COHEN



Heart and Soul. Sometimes it's better to give in to temptation: the smoky voice, the beguiling melody, the lure of rhythm toward something that you know well but is nevertheless enchanting and new. What you hear, in the arc of songs: ghosts of torch singers past—and the groove of a new jazz thang. What you hear is *Siren Songs*, debut album of **Jackie Gage '13**.



Perhaps you're there in the storied jazz club Yoshi's, in Oakland (album release party, March 15), hearing the siren in person, as she sings a song of first love: the crush that ever lingers in your heart—and the ache when you discover that you weren't the only fire in that other's heart. There's a spooky marimba whose *oh, oh, oh* knocking gives shape and percussion to the memory. The song is called "It's Your Love." It brushes up against "That Old Black Magic"—and, before the album and night are through, they will weave in the soul colors of "Afro Blue." (How could a song from 1959 sound so *now*? And how cool is that?)

Jackie Gage's voice and songs are no stranger to us. Beginning in her student days she sang with bands here and about the Bay, from Berkeley to the Fillmore Jazz Fest—and one of our favorites, the San Jose Jazz Summer Fest. She curated a stellar showcase of women singers (and a few men) for The Blackbird Tavern and called it "Fatale." The year she graduated from SCU she and dancer **Lauren Baines '08** were recognized with the inaugural Leigh Weimers Emerging Artist Award, presented by the San Jose Rotary. Music has taken her to the East Coast, at least for now. What does she hope you hear in this new album?

"I've been straddling all these musical worlds. I grew up listening to Billie Holiday and Ella and Louis Armstrong but then heard Erykah Badu, Sade, and Dionne Warwick, soul, Motown..."

For the golden anniversary of the Golden Circle Theatre Party, after 89-year-old Tony Bennett charmed the crowd and took us halfway to the stars, you could find 24-year-old Jackie Gage singing in an intimate jazz lounge at the Fairmont, where the party continued. She was there with Med's Mood Swings, a trio of fellas (with SCU political scientist **Peter Minowitz** tickling the ivories) taking us deeper into the night with jazz standards. They gave a slightly different take on a tune you know well. Where did you leave your heart? An answer—sing with me: "I left my heart ... in Santa Clara ..."

"I did," Jackie Gage said. "I really did."

Hear a track from Siren Songs, the debut album by Jackie Gage '13 at santaclara.com

PHOTOGRAPHY COURTESY JACKIE GAGE. WORDS BY STEVEN BOYD SAUM

Lawyer linker



UpCOUNSEL HAS BEEN called a cross between eHarmony and Uber. Its co-founder and CEO, **Matt Faustman J.D. '09, MBA '09**, is a kind of matchmaker for lawyers and clients. He's also one of the 150 "Next Wave Top Professionals 35 & Under," as selected last fall by the career-oriented social networking site LinkedIn. UpCounsel makes matches between vetted independent lawyers and businesses pining for quality, affordable legal services. The lawyers who register with the site (more than 10,000 so far) are like Uber drivers in that they bid on individual jobs. Cutting out law-firm overhead and the profit margins needed to put money in partners' pockets results in businesses paying about two-thirds of what they would with a traditional law firm, the company says. If UpCounsel proves disruptive to the legal services industry, that will be nothing new for Faustman. In law school he founded a company to help make student notes more widely accessible and reduce reliance on expensive hardbound textbooks.

*LinkedIn selected two SCU alums for its first-ever list of "Next Wave Top Professionals 35 and Under": **Matt Faustman J.D./MBA '09** of UpCounsel and **Rachel Saunders '11** of Yahoo.*



iHURRA! The Hispanic Foundation of Silicon Valley awarded its La Familia Award for deep-rooted commitment and involvement in the community to the Jose Luis and Ofelia Guerrero family of San Jose. The Guerrero *familia* includes **Martha Guerrero-Soto '85, Veronica Guerrero-Wildanger '88, MBA '96,** and **Ignacio J. Guerrero '95.** Martha is principal of Mount Pleasant High School, Veronica homeschools and volunteers in the arts, and Ignacio is director of Child Support Services for the county of Santa Clara. Family patriarch Jose Luis Guerrero Jr. is a retired battalion chief for the San Jose Fire Department. Juan Carlos Guerrero is a reporter for ABC 7 News.

HARDLY ORDINARY KPIX, the CBS affiliate in the Bay Area, recognized **Charles Schmuck '69** with a local Jefferson Award, given to "ordinary people who do extraordinary things without expectation of recognition." After 30 years in advertising, Schmuck decided to go back to teaching. But after several years he realized that many minority students didn't have money for college, and even when they did, very few finished. So in 2005 he launched the Peninsula College Fund to help first-generation college students. Working with nine peninsula high schools, the fund provides a qualifying student with a \$3,000-a-year scholarship, summer job placement, internships, and mentoring. During its first year the fund supported three students. Today 74 participants are enrolled at colleges across the country, and 51 have graduated.

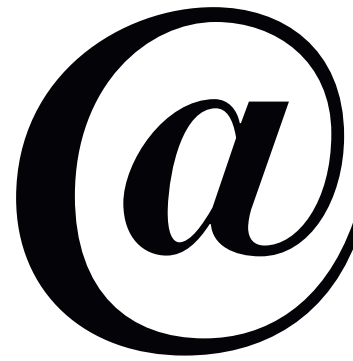
SUPER RECRUITER

MAKING LINKEDIN'S LIST of 150 "Next Wave Top Professionals 35 & Under" almost seems like faint praise for a recruiter renowned for locating and landing people with "superpowers." No, **Rachel Saunders '11** doesn't work in HR at the Hall of Justice (home office of Superman, Batman, Wonder Woman, et al.). She's a recruiter for Yahoo. "Superpowers" is the term Yahoo uses to refer to people seen as having the ability to exceed expectations in a role. What makes Saunders famous (in tech-recruiting circles

anyway) is how she personalizes her head hunting. Instead of emailing dozens of potential candidates, she'll customize her approach to a select few. That sometimes means spending hours scrutinizing social media and other public sources for clues about a target's hobbies and passions. "When I send a mildly tailored email, I usually get a 25 percent response rate. However, when I really customize the email and show the candidate I've done my homework, the response rate jumps to 60 to 70 percent."



MATT FAUSTMAN IMAGE SUPPLIED BY UPCOUNSEL. GUERRERO FAMILY PHOTO BY J. MARIE PHOTOGRAPHY. PORTRAIT ILLUSTRATION BY KYLE HILTON BASED ON PHOTO BY ALI ALBANI



Three Days' Work in the arid hills of Baja, California, southeast of Tijuana, on the way to Tecate, along a dirt road on a little piece of land: Mix the concrete, pour the slab. Frame the walls and raise the roof. Use only hand tools: picks, saws, hammers. Help a family build a simple home. The labor will leave muscles aching. Expect nicks and bruises.



*Measure twice. And when it comes time to paint the house trim, says **Jenny Nicholson '12**, it will be Santa Clara red.*

But the days will fill the hearts of the builders with joy. And the chance to build has brought **James Reites, S.J., MST '71** and more than 1,000 students and alumni on trips to build houses in Mexico in the past dozen years or so. "We're getting to be old pros at it now," he says.

The trips serve as an annual reunion for some young alumni—including veterans of the three SCU Solar Decathlon Teams. Avowedly non-engineers **Katherine Nicholson '10** and younger sister **Jenny Nicholson '12** first pounded nails and sawed two-by-fours with the project during their first year of college. They've come back again and again. In fact, Katherine—who works at Facebook as part of the academic relations team—has taken on organizational duties for much of the trip for several years. She credits

the eldest sister in the family, **Andrea Nicholson McCandless '07**, for getting her involved initially.

Reites organized the inaugural trip for students when he was faculty director-in-residence in Xavier Residential Learning Community, in SCU's McLaughlin Hall, which drew students interested in the theme of global solidarity. Reites figured, *What better way to understand solidarity than through an immersion trip?* So, at Christmastime, he led a group of students to Baja to build, with house plans and materials provided by the nonprofit organization Amor Ministries.

Last year, just before Thanksgiving, a crew of a dozen Santa Clara grads and staff went on the trip. It was a first for two of them: engineer **Amanda Laufer '15** and photographer **Chuck Barry**, who served

as University photographer for more than a quarter century. When he wasn't taking photos for us, he set aside his camera and joined the crew. Observation: Using a handsaw to cut a two-by-four that hasn't been kiln dried ain't easy; the wood is heavy, dense, and wet. "I've done hard work," he says. "I grew up doing hard work. This was some seriously hard work."

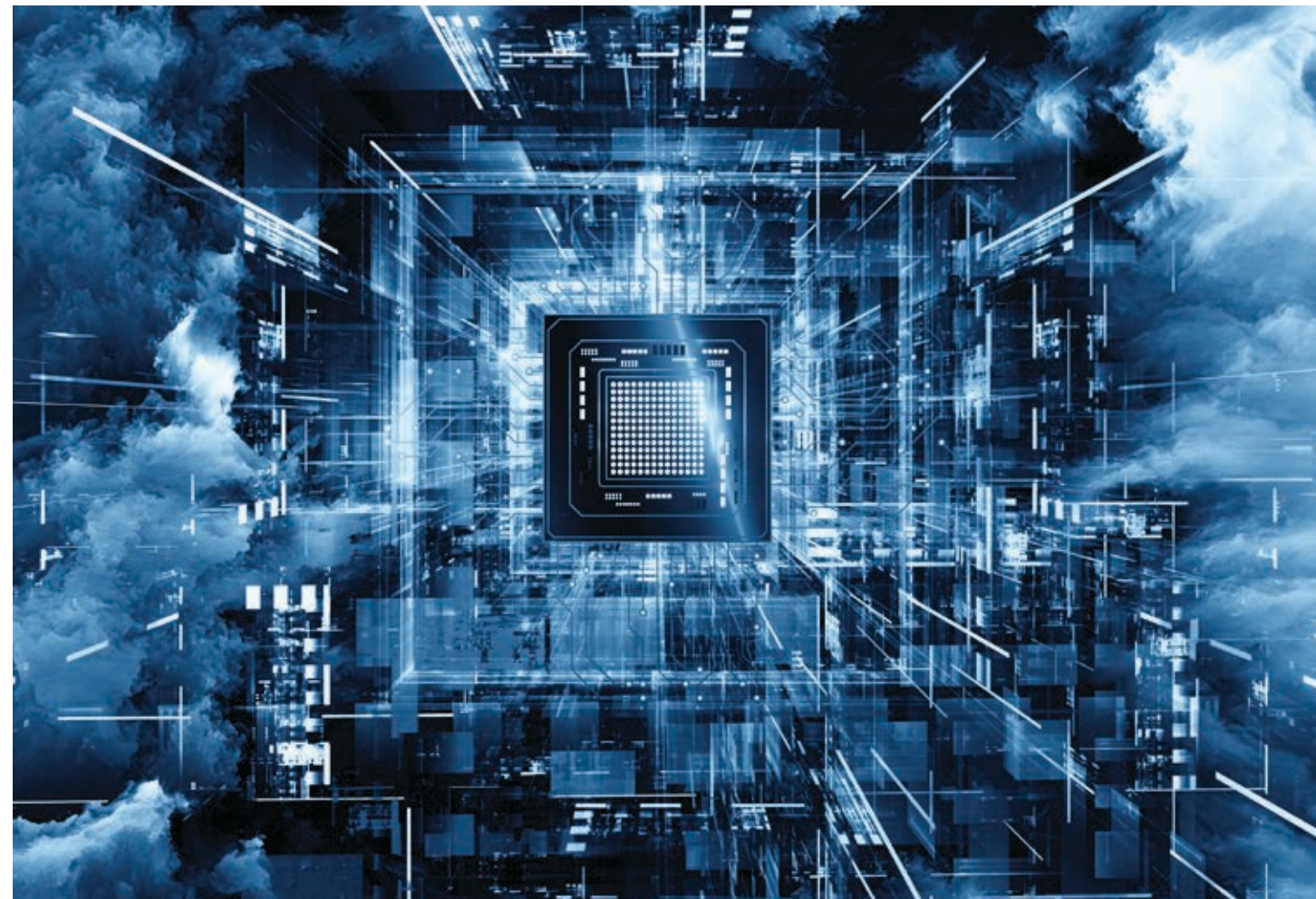
Comes the time when the house is nearly complete. In a ceremony in which the keys are turned over to the owner, the builders present hopes and prayers they have written on little pieces of paper, to be stuccoed into the wall. Such as: "May this home be filled with nothing but good will and joy and no strife."

Photo essay: building a house, at santaclaramagazine.com

PHOTOGRAPHY BY CHARLES BARRY. WORDS BY STEVEN BOYD SAUM



What's the Most Revered Rule in Silicon Valley? Moore's Law. It predicted, in essence, that computing speed and power would double every two years as transistor density on integrated circuits doubled. **William M. Holt M.S. '78** didn't write Moore's Law. Intel co-founder Gordon E. Moore did, decades ago. But Holt has been called "one of the people who keeps Moore's Law going."



Intel introduced the first commercial microprocessor in 1971. Bill Holt M.S. '78 joined the company in 1974 and now heads manufacturing.

Holt has done that so well that last December the Semiconductor Industry Association awarded him the industry's highest honor, the Robert N. Noyce Award, named for Intel's other co-founder. One of the analogies used to illustrate the multiplier effect of Moore's Law is that if fuel efficiency had improved at the same rate as Moore's Law, you could easily drive a car for your entire life on a single tank of gas. Wouldn't that be nice? Bill Holt has been with Intel since the 1970s and for the last 11 years has headed the company's technology development and worldwide manufacturing operations. As an executive vice president, he ranks behind only the president, CEO, and board chairman of the \$55 billion company.

It's a career, however, he easily could have missed out on. As a senior electrical engineering major at the University of Illinois in 1974 he hoped to interview with Digital Equipment Corporation, one of the leading computer manufacturers. But a friend and fellow EE major mentioned that a professor of his had brought some sample parts to class from an electronics manufacturer. Neither of them had heard of the company, but the friend suggested they sign up for an interview with its campus recruiter. "If that professor had not gotten those samples from Intel, neither one of us would have known anything about the company," Holt recalls. He and his friend, **Carl Simonsen M.S. '79**, both ended up accepting offers from Intel (then just six years old) and

moving to California. And both pursued a master's in electrical engineering from Santa Clara through a part-time program. They took classes one or two days a week from 7 to 9 a.m. and then drove five minutes to Intel. Holt says the knowledge he gained from the program definitely benefited him professionally. Today an advanced degree is almost required to work as an engineer in the semiconductor industry. As for Holt's dream of joining Digital Equipment, he landed a campus interview but no offer. Many years later, Intel acquired some of the assets of what had been Digital Equipment, including a fabrication facility. So instead of Bill Holt working for Digital Equipment, at least a part of Digital Equipment ended up working for him.

ILLUSTRATION FROM ADOBE STOCK, WORDS BY ED COHEN

UNDER STEEL AND STARS

Have you ever danced at the foot of the Golden Gate Bridge? If you graduated between 2006 and 2015, here's your chance. The second Young Alumni Soiree will be held Friday, April 1 (no fooling), at the Observation Post in San Francisco's Presidio. Tickets are \$80, and proceeds benefit the Santa Clara Fund and the Alumni Family Scholarship Fund. Beer, wine, and champagne will be served along with light appetizers and dessert.



GARDEN PARTY This year's President's Dinner honoring the 2016 Alumni Award recipients and thanking President's Club members will be held April 23 in the Mission Gardens. The event begins at 5 p.m. with Mass in the Mission Church followed by cocktails, dinner, and the program. The Alumni Awards honor individuals who have given distinguished service to the Alumni Association, the University, and their community. Tickets, available at the Alumni Association website, are \$75 per person, \$50 for Young Alumni (graduates from 2006 to 2015).



HELP WASHINGTON The annual Alumni Day of Service, part of the Alumni for Others program, takes place Saturday, April 30. The Alumni Office and Ignatian Center for Jesuit Education have organized a day of volunteer opportunities for students, faculty, staff, and alumni in San Jose's Greater Washington neighborhood, served by the Ignatian Center's Thriving Neighbors initiative. Volunteers spend the morning working at the community garden, sports camp, art workshops, and more. Afterward, the SCU community joins the parents and children of Washington Elementary for a meal together.

More info, tickets, and registration for all this good stuff: scu.edu/alumni

PHOTO OF NEW ORLEANS BY ADOBE STOCK, PHOTO OF GOLDEN GATE BRIDGE BY ISTOCK, PHOTO OF WASHINGTON ELEMENTARY BY MAX WESTERMAN '15, PHOTO OF CARROLL WILLIAMS COURTESY SCU ARCHIVES AND SPECIAL COLLECTIONS, WORDS BY ED COHEN AND HAROLD GUTMANN



Back to the Crescent City

"You get so much more than you give," says Cathy Horan-Walker '69 of participating in Alumni for Others projects. She's been to New Orleans with the alumni program five times to help rebuild after Hurricane Katrina.

DURING A TRIP to New Orleans to help rebuild neighborhoods devastated by Hurricane Katrina, **Cathy Horan-Walker '69** noticed the SCU students working alongside her regarding her with surprise. She says students don't realize they can continue to do service work through SCU after graduation. "They're like, 'I can still do this?' Oh, yeah, Santa Clara is just the beginning. This is lifetime work." It's been that way for Horan-Walker, a former president of the Alumni Association, and for many others who join in

the association's Alumni for Others programs. The financial advisor has made five trips to New Orleans since 2005. "The first time we went, the whole place was dark, absolutely dark, with trash piled in the middle of the street and not even a flushing toilet anywhere." She's met people on the projects who have become part of her life. She's acquired construction skills. She helped build a jungle gym and returned a year later to find it not only still standing (she had her doubts) but grateful families using it.

HIS DREAM 5

CARROLL WILLIAMS was named the 2016 Bronco Legend by the SCU Alumni Association. He brought his coaching talents to SCU basketball in 1963 and went on to serve as head coach and athletics director before retiring in 2000. So if he could pick his basketball dream team, who would it be? We asked.

Center: Bill Russell | "He did more to influence the game than anyone ever has. He changed so many rules because of his uniqueness and shot blocking. He not only blocked shots, he blocked them to his teammates."

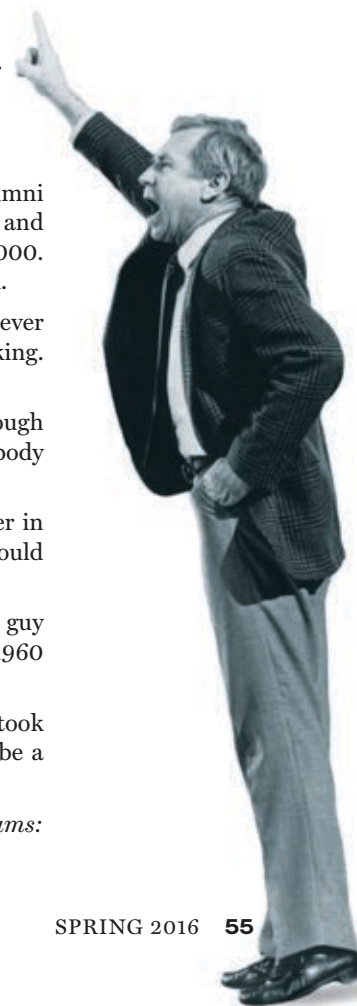
Power forward: Kurt Rambis '80 | "We have enough scorers. I need a tough guy and a rebounder. He would play his role beautifully—he'd guard anybody and give the ball up to anybody."

Small forward: Oscar Robertson | "Oscar was the most versatile player in pro basketball. He was a great scorer, he led the league in assists, and he could guard anybody."

Shooting guard: Jerry West | "A great defender and a great offensive guy and a tough, tough competitor. I played against Oscar and Jerry in the 1960 Olympic trials."

Point guard: Steve Nash '96 | "I recruited and signed Steve Nash, but I took the athletics director job and never got to coach him. Now this would be a chance to coach him."

What makes a legend? The five coaches who most influenced Coach Williams: santaclaramagazine.com



Class Notes

At santaclaramagazine.com/classnotes see the latest, post an update, share a photo—especially if it's your reunion year. For Broncos who've joined the Gianera Society—that's 50+ years since graduation—every year is reunion year!

1965 Rosette G. Dawson writes, "All is well and happy in retirement! Husband loves fishing; I volunteer with the American Association of University Women and am Anacortes Branch president. Special project: encouraging girls to pursue STEM careers. Our daughter Carolyn is married and working on her Ph.D. at the University of Washington, Seattle." ¶ **Robert "Bob" Dompe M.S. '67** retired two years ago from BAE Systems as a senior systems engineer. He reports having two children (one boy, one girl) and "five-plus" grandchildren (all boys). "I'm concentrating now on home/family life, photography, attending sports car races, and running."

1966 REUNION YEAR Pamela Madden writes, "I moved back to San Jose in 2011. Glad to be here!" ¶ **Thomas Bender** is retiring after 42 years on the faculty of New York University, where he was university professor of the humanities and professor of history. Last spring he was honored with the Roy Rosenzweig Distinguished Service Award from the Organization of American Historians. Last fall his former doctoral students organized a two-day conference on his work that dubbed him a "New York Intellectual, Global Historian." He has a book in progress, *An American History: Freedom and Unfreedom in the Making of the United States*.

1967 Fran Swanson writes, "I am living in the Washington, D.C., metro area and enjoying volunteering with the knights and dames of Malta for the wounded warriors at Walter Reed." ¶ **Barbara Kennedy-Dalder** writes, "I retired after 40 years with the U.S. Department of Labor."

1968 After spending five-plus years aboard their first sailboat, **Nan Bauman Englehardt** and her husband, Duey, found they were looking for another adventure. So they are now the proud owners of *S/V FLIGHT*, sailing the Pacific Coast of Mexico



City of the Sun: Margaret Simmons '69 is eschewing retirement in Naples, Italy.

six months of the year. The rest of the year they explore the Northwest from their new home on Camano Island, Washington.

1969 Margaret Simmons writes, "I am in Naples, Italy, the most beautiful city in the world, working with Save the Children. I have been teaching teachers as well as about 12 classes of young elementary- to middle-school kids. I can tell you that 'Head, Shoulders, Knees, and Toes' is a very big hit with my population! Retirement did not agree with me."

1970 James Tanner published *Tax Reform with the 20/20 Tax: The Quest for a Fair and Rational Tax System* (2015). He's a CPA who has specialized in the tax field for more than 40 years.

1971 REUNION YEAR Mary (McQuade) Schrey-Springer retired from her private practice as a licensed marriage and family therapist. She and husband Dean plan to divide their time between their home in Kailua Kona on the Big Island of Hawaii and visits to their combined nine grandchildren on the mainland. She facilitated a group of Grandparents Raising Their Grandchildren and hopes to continue to support and encourage members with her writings. ¶ **Jim Luke** is completing his 18th year teaching high school chemistry and physics. He plans to retire this coming July. It is now time, he says, to do some of the things he put off: singing, being in plays, traveling, and enjoying just plain fun.

1972 Judy Springer Bojórquez retired after

24 years teaching in the Oakland Unified School District. She continues to work part time as an interpreter in the Alameda County courts.

1973 Rick Hagan MBA '77 retired as director of housing after 35 years with the University of San Diego. He writes of being very appreciative of the opportunity **George Giacomini '56** provided him in 1974 when he made him supervisor of the residential life program at Santa Clara. "Who would ever have dreamed of the amazing career that would result from that opportunity?! I also want to thank **Frank Oliva '74, Mike Radford '74, and Tom House '74, J.D. '77** for the support each of them provided me that led to such a rewarding career." In retirement he says he plans to spend more quality time with wife Suzanne, who continues to teach third grade, and their three children, Ryan (28), Kelli (26), and Sean (24), who all live nearby in San Diego. ¶ **Mitch Finley** is the author of more than 30 books on Catholic topics. One of his most recent, *The Rosary Handbook: A Guide for Newcomers, Old-Timers, and Those In Between* (The Word Among Us Press), has sold more than 25,000 copies as we go to press. Mitch lives in Spokane, Washington.

1975 Barb (Burns) Frank MBA '81 retired at the end of 2005 after almost 30 years with Intel in a variety of positions, mostly in finance and information technology. She's currently president of the Intel Retiree Organization and treasurer for Community Bridges, the largest deliverer of family services in Santa Cruz County. In 2015 her first grandchild was born to daughter **Jessica Frank Brown '05**. So, Barb writes, "We are planning on moving to San Francisco sometime next year to be closer to our children and my stepson and family. Every year since we turned 50, I have been organizing us fourth-floor Dunne girls for an annual girls' weekend. Very fun!" ¶ **Mark Kelsey MBA '79** is senior vice president of Pacific Midwest Regional Banking at Wells Fargo as well as board chair of the Pathways Foundation, the fundraising arm of nonprofit Pathways Home Health & Hospice. He was honored with the Leadership in Healthcare Philanthropy Award at an annual fundraising event hosted by the Pathways Foundation. ¶ The mayor and city assembly of Ichiki-Kushikino, Japan, honored **Marc Del Piero J.D. '78** of Pebble Beach, California, for his decades-long sustained effort to provide funding and support for the Salinas-Kushikino

Sister City Association's student ambassador exchange program.

1976 REUNION YEAR After serving seven years in the California Legislature (51st Assembly District and 26th Senate District), **Curren D. Price Jr. J.D.** has returned to public service in Los Angeles. In June 2013, he was elected to the Los Angeles City Council, 9th District. He chairs the Economic Development Committee and serves on the ad hoc committee to oversee and coordinate the city's bid to host the 2024 Summer Olympics. He is married to businesswoman and social activist Del Richardson, and they have two grown children and three grandkids.

1979 Mark Bevilacqua has been promoted to Nevada operations manager of Alston Construction. He'll oversee operations for Reno and Las Vegas projects, including the 770,000-square-foot Petco distribution center in progress in northern Nevada. Some of the clients he has worked with during his career include FedEx Ground, Southwest Gas, Allied Health, US Micro Corporation, and the construction of the Clipper Magazine Stadium in Lancaster, Pennsylvania. ¶ For the third year in a row, local magazines in the North Idaho/Eastern Washington region recognized **Mark Hurtubise M.A.**, president and CEO of Inland Northwest Community Foundation, as among the "Power 50" affecting positive change in the region. In October 2014, Inland Northwest was named Philanthropic Organization of the Year.

1980 Thomas Deline says, "We are blessed to have our two oldest children graduate from SCU: **Elizabeth Deline '13** and **Thomas "Chris" Deline II '15**. Our two younger children, Brian and Carrie, both chose another Jesuit university so that all four kids wouldn't be at SCU at the same time—we tried. Remember every day AMDG." ¶ **Natalie (Eblacas) Murphy MBA '01** has relocated to Bremerton, Washington, and is looking to connect with SCU alumni in the area.

1981 REUNION YEAR Tom Templeman has joined Medivation Inc. as senior vice president of pharmaceutical operations. Medivation is a biopharmaceutical company focused on the development and commercialization of medically innovative therapies to treat serious diseases for

which there are limited treatment options. ¶ **Maria Evans** was named Principal of the Year and bestowed an Excellence in Education award at the Silicon Valley Chamber of Commerce's annual Legends and Leaders dinner. Maria is principal of Washington Elementary, part of the Thriving Neighbors Initiative of SCU's Ignatian Center for Jesuit Education. ¶ **P. Gregory Giordano J.D.** is a partner and vice chair of the Gaming Practice Group at the law firm of McDonald Carano Wilson in Las Vegas. ¶ **Timothy A. Provis J.D.** writes from Port Washington, Wisconsin: "Still breathing and also practicing law here in the Frozen North."

1982 Kathryn Kane J.D. '86 retired as deputy county counsel in Santa Clara County's Office of County Counsel. She writes, "I have been a hearing, trial, and appellate counsel in the Child Dependency Unit for more than 25 years. I will forever be grateful for this amazing career opportunity." ¶ **Kam Shadan M.S.**, vice president of Gannett Fleming, based in the San Francisco office, is updating two key national guidance handbooks of the Federal Transit Administration. Kam has provided national project management for FTA projects in Los Angeles, the Bay Area, Sacramento, Portland, Seattle, Salt Lake City, and Chicago. In addition, he serves as a program management advisor and forensic expert witness on public and private development projects.

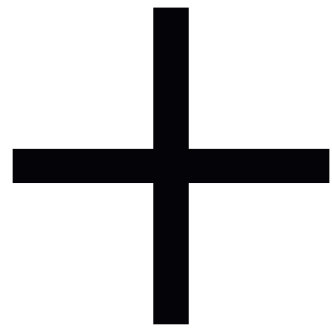
1983 Hugh Daly is vice president for sales and marketing at METZ CONNECT USA, a maker of electronic connector component based in Tinton Falls, New Jersey. ¶ **Kathie Lindemann** is the new chief operating officer of Flex Pharma. She previously served as COO at DavidsTea Inc. and spent 19 years with Starbucks, where she held several leadership roles including senior VP, Starbucks Foodservice, SVP US Business Operations, and SVP International Operations, Store Development, and Global Business Systems.

1984 Robert J. Reid MBA earned a Ph.D. in business at Oklahoma State University. In 2006 he earned the Owners, Presidents, and Managers certificate from Harvard Business School. For the past 21 years he has served as executive director of the J.F. Maddox Foundation in New Mexico. Previously, he writes, "I had a successful career in turning around and managing hospital companies."

SORRY TO SAY Mary Marsella '85 writes that while she has worked many years at LaSallian high schools, she ever maintained "the TRUTH that God is NOT a Gael! Can I get an amen?"

1985 Andrew Byrne M.S. '89 is married and currently living in Oregon, where he works for an engineering firm focusing on thermally efficient hexagonal structures. He avidly pursues outdoor activities and has climbed a number of the tallest 200 peaks in North and Central America. He also collects beach bottle glass from some of the lowest-elevation coastline in the Northern Pacific basin and hopes to retire to Humboldt County and open a marine bottle glass museum. ¶ **Mary Marsella** writes that after 11 years "teaching virtually every religious studies course that Catholic high schools have to offer," she is taking a break for several months at her home in Point Richmond to "chill out and determine next steps for how to best apply [my] nine years of graduate theological study to living this gift of life." ¶ **Kathy Ventry** is in her third career, now a licensed marriage and family therapist in Folsom, California. Doing business as Peace Within * Anxiety, Trauma & OCD Treatment, she sees children through older adults and also specializes in couples therapy. Kathy served 10 years in the Army followed by almost 18 years as a health care representative for Pfizer.

1986 REUNION YEAR Kelly (Schaller) Barnes, M.A. '12, is the director of Christian service at Jesuit High School in Sacramento. She and husband **Mike Barnes '85** will celebrate their 30th anniversary in July. ¶ **Barbara Small J.D.** is a partner at GCA Law Partners. She handles the firm's trusts and estates practice. ¶ **Jeanne-Marie (Bourcier) Carr** is in her second year as an independent-study teacher for high school students in Redding, California. She is active as a Girl Scouts troop leader for high school girls, and is a regional delegate for Girl Scouts Northern California. In July 2016 Jeanne-Marie will chaperone Girl Scouts traveling to Peru. With her husband, Jeff, and kids, Marie and Brendan, the family had been hosting students from France. Jeanne-Marie also serves on the Alumni Association board of directors. ¶ **Michael Pola** and his wife, Liz Karr-Pola, live in San Francisco with their three boys. Mike is a managing partner at HSS, a healthcare consulting firm. Mike recently joined the Alumni Association board and is looking forward to catching up with old friends at the Grand Reunion. ¶ Former Kansas City Royals catcher and ESPN baseball analyst **Mike Macfarlane** has been inducted into the Missouri Sports Hall of Fame. He and former Royals teammate Kevin Seitzer



Like a Big Pizza Pie. They met sophomore year, moving into Casa Italiana. (That's a residence hall that celebrates Italian heritage and culture.) They both minored in Italian. They both decided to study abroad in Rome. From all this you might conclude that **Adriana Asdourian '10** and **Justin Thomsen '10** are of Italian ancestry. If you did, you'd be half right. Almost.



Adriana Asdourian '10 and Justin Thomsen '10 studied abroad together in Rome. They married in San Francisco's North Beach District.

Adriana is half Italian and half Armenian. Justin is of Polish and Italian ancestry with some recent Danish influence (hence the Scandinavian surname). They wed two days after Christmas 2014 at Sts. Peter and Paul Church in San Francisco's North Beach—the part of town that's the epicenter for all things Italian.

At SCU Adriana majored in economics with minors in international business and Italian. An art lover, she worked in the de Saisset Museum all four years.

Justin majored in philosophy and minored in English and Italian. As a senior and for a year after graduation, he collabor-

ated with Professor **Lawrence J. Nelson** on a philosophy paper. After that he earned a master's in philosophy at U.C. Irvine.

Bride and groom met through a mutual friend on move-in day. They started hanging out in the same circle of friends and got together junior year just before studying abroad.

"Without ever speaking to each other about it, it turned out we'd chosen the same location, Rome," she says.

The groom now works as director of data, analytics, and infrastructure at ABUV Media in San Francisco. The company builds content-rich websites. The

bride is a talent-development manager for Sequoia Consulting Group, which advises growing tech companies on benefits, insurance, and HR matters.

Justin is now actually Justin Asdourian. Adriana says she has a strong connection to her family's heritage and never planned on changing her last name. Justin wanted everyone in the family to share the same family name—so he volunteered to take hers.

As for their Italian roots, she says she's been back to Italy once since they studied abroad, but he hasn't. They're planning to return together this summer.

PHOTOGRAPHY BY JACK HECKER PHOTOGRAPHY WORDS BY ED COHEN

Lives Joined

Juanita K. Williams '76 married **Dennis E. Hanson Jr.** on Aug. 29, 2015, in Honolulu, Hawaii, where they reside.

Matthew Barnette '06 married **Mattie Robertson** in October 2015. **Matthew Meyerhofer '06** served as an officiant.

Michael Amato '07, M.S. '11 and **Bianca Vallorz '07** tied the knot on Jan. 24, 2015. They live in San Jose. Bianca works at Family Supportive Housing and Michael at Apple.

Matt Skiba '07 and **Haley Jorgensborg** were married in April 2015 by **Sara Iino '06**. Groomsmen included **Daniel Rivera '07, Patrick Byrnes '07, Nick Lasater '07, Cannon Christian '07, Nate Bourque '07,** and **Drew Bolger '07**. The newlyweds welcomed **Griffin Charles Skiba** on July 30, 2015.

Cherie Motobu '09 and **Gregory Lambrecht '10** were married on Aug. 1, 2015. Cherie is a school psychologist and Greg is an English teacher and debate coach in Sunnyvale.

Lisa Brogan '10 married **Brian Brogan '10** on Oct. 24, 2014, in a ceremony held in Monterey, California.

Frances Coutermarsh '10 married **Anthony Pomposo M.A. '15** on Aug. 29, 2015.

Giselle Marie Estabrook '10 and **Carlo Giuliano Ammatuna '10** were wed on April 25, 2015. Included in the wedding party: maid of honor **Jenna Abeyta Duston '09**, bridesmaid **Julianne Tortolano '11**, and groomsman **Nick Calvitti '10**. The couple live in Roseville, California.

Gabriela Tunzi J.D. '12 and **Martin Behn J.D. '12** were united in marriage on May 30, 2015. **Crystal Roberts J.D. '12** was a bridesmaid and **Jake Smith J.D. '12** a groomsman. Gabriela works for San Mateo County; Martin works for a private law firm in Palo Alto.

Chloe (Wilson) Sommers '13 married **Ron Sommers III** on July 19, 2015. They reside in Chicago, where Ron attends the Loyola University Stritch School of Medicine. Chloe studies at Loyola University Chicago School of Law.

Births & Adoptions

Carlton K. Clarke II '91 and wife **Liana** welcomed the first family grandchild, **Andrew Dean**, in June 2015. The family lives in University Park, Texas. Liana is taking time off as comptroller for an oil company. Carlton is working as an obstetrician.

Kathleen Tonry '92 and husband **Brian Lynch** welcomed **Irene** on Dec. 27, 2014. Irene joins siblings **Mary (2007)** and **Tommy (2012)**. Kathleen is a tenured professor of English at the University of Connecticut, Storrs.

Amy Seidlinger '94 is a first-time mom via adoption. **Tate Jackson Seidlinger** was born July 14, 2015, in Galveston, Texas. Home is San Diego.

Michelle (Despres) Jaeger '96 and husband **Jens Jaeger** welcomed **Liam Jackson** on Jan. 29, 2015. He joins sisters **Sydney (2)** and **Madison (4)**. Michelle is a Realtor on the Peninsula and Jens is in marketing at Google.

Imelda (Wong) Kortens '98 and **Jediah** welcomed **Jessica Celine** to the world on Sept. 9, 2015. They live in San Jose with Jessica's brother, **Jackson**.

Angie Little '98 welcomed her first, **Bennett James**, on Jan. 1, 2015.

Brendan O'Brien '01 and **Lauren (Russell) O'Brien '02** welcomed their third child, **Dylan Francis**, on Nov 4, 2015. He joins **Liam (5)** and **Declan (2)**. The family lives in Burlingame.

Benton Gray '05 and **Carly (Syke) Gray '07** welcomed **Ainsley Royer** on March 15, 2015. The family lives in Seattle.

Cristina (Guzman) Fierro '05 and **Mark Fierro '05** welcomed their fourth, **Lorenzo Adrian Fierro**, on April 2, 2015. They reside in San Jose.

Jacquelyn (Alexander) Dormandy '06 and husband **Douglas** welcomed a baby girl, **Larissa Rose**, on Sept. 1, 2015. The family of three lives in Fremont.

Ryan Watkins J.D. '10 and wife **Sherry Watkins** welcomed their first, **Weston Watkins**, Oct. 23, 2015. Home is Toronto.

own **Mac-n-Seitz**, a baseball and softball training academy in Kansas City.

1987 Adriene Iverson is the new chief executive officer of Elder Care Alliance, a nonprofit integrated system of assisted-living and memory-care communities.

1988 Bruce Johnsen M.A. writes, "Continuing to enjoy my work saving family-owned businesses and partnerships."

1990 Carrie (Sticklin) Cameron has spent her career with Four Seasons Hotels and Resorts and currently runs the company's global sales office in San Francisco. She lives in Oakland with her husband, **Mike**, and three kids. ¶ **Steve Tradewell**, CFO of Napa Valley Vintners, was among 11 recipients of the CFO Recognition Award bestowed by the *North Bay Business Journal*. He has been with Napa Valley Vintners for 11 years after spending seven years as director of finance and operations for the California Film Institute. He lives in Napa with his wife, **Linda**, and four dogs.

LISTEN AND LEARN
Steve Tradewell '90 shares this counterintuitive advice for young, emerging financial leaders: "Avoid the temptation to try and be 'right' all of the time. A lot can be learned by listening and via thoughtful reflection."

1991 REUNION YEAR
Maureen (Wernert) Muscat MBA '94, Alumni Relations associate director for events, is on the class planning committee for Grand Reunion. She'd love to hear from classmates and looks forward to seeing old friends on reunion weekend, Oct. 6-9, 2016.

1992 Tony Scott J.D. is the new chief information officer of the United States and administrator of the OMB's Office of Electronic Government and Information Technology.

1993 Catie Costa published her first novel, *Love on the Rocks: A Positano Tale*. ¶ **Bryan Abboud** founded Synkt Games, a mobile app developer based in Miami. The startup recently launched letsRUMBL, a daily fantasy sports game.

1995 Jill Klees M.A. gives tips on overhauling a résumé in her recent post, "Take Your Résumé from Retro to Wow," on SCU's Illuminate blog. Jill is the director of Law Student Life and former assistant director of Alumni Career Counseling at the University. ¶ **Nicole Bugna-Doyle** is a Graham's Foundation Neonatal Intensive Care Unit ambassador for UCLA Santa Monica Hospital.

1996 REUNION YEAR

Ollie Mamaril was promoted to senior motion graphic designer for CBS' Decades TV Network. He, wife Sara, and cat Rolls live in Chicago. ¶ **Jimmy Panetta J.D.** is a candidate for the 20th Congressional District, which includes Monterey and San Benito counties and portions of Santa Cruz and Santa Clara counties. A prosecutor at the Monterey County District Attorney's Office and the son of former Secretary of Defense and White House Chief of Staff **Leon Panetta '60, J.D. '63**, Jimmy lives in his hometown of Carmel Valley. ¶ **Michelle Andre** has joined Virtual Incentives, a provider of Visa Rewards Cards, as VP of marketing. She was recently recognized with a Stevie Award for Female Executive of the Year as well as the Marketing Executive of the Year award from the Best in Biz awards. She and husband Sean Creane, son Niko, 9, daughter Nadia, 4, and cat Hooligan split their time between the mountains of Oregon and the Bay Area.

1998

Religious studies professor **Socorro Castañeda-Liles** shared her inspiring life story, from a grim childhood in Mexico to a career in academia, in *Visión* magazine. She's currently working on a book about the Catholic devotion of Latinas, to be published by Oxford University Press. Her husband is **Josef Castañeda-Liles**, development research director at SCU. They have a daughter.

2000

Jason Baker J.D. was selected by the Campbell City Council to serve as the San Jose suburb's mayor for the second time. Building a new library for the city is on his to-do list for 2016. ¶ **Amy Theberge M.A. '04** is the new co-principal at Harvest Park Middle School in Pleasanton.

2001 REUNION YEAR

Tania (Rodriguez) Alvarado writes that she and husband Gonzalo Alvarado bought their first house and moved to Austin, Texas.

2002

Rafael Zavala writes, "After eight years away from our native land (California), **Pearl Barros '05**, Violet Barros-Zavala (18 months), and I have finally returned from Boston, Massachusetts." ¶ **Nicholas J.C. Santos, S.J., Th.M.** has joined the board of trustees of Creighton University in Omaha, Nebraska. He's an assistant professor of marketing in the business college at Marquette University

in Milwaukee and co-director of Marquette's social innovation initiative. Prior to entering the Jesuits, the native of Pune, India, was an accountant for a chemical distributor and transportation company. He spent three years as a visiting scholar and postdoctoral fellow at SCU's Markkula Center for Applied Ethics and was also involved with the Global Social Benefit Incubator program of the Miller Center for Social Entrepreneurship.

2004

Kym Campbell is the founder of Smart Fertility Choices, a website for women facing infertility issues. She writes, "After four years of quietly struggling with infertility myself, I became motivated to be a voice for those dealing with this very common issue." ¶ "I love dentistry and especially orthodontics," writes **Krista Hirasuna**, who recently purchased Orthodontics of San Mateo. ¶ **Dan Winter** is a new partner in California-based accounting and consulting firm Burr Pilger Mayer Inc. Dan recently spent a month traveling in New Zealand with his wife, including hiking across active volcanoes and whitewater rafting.

2006 REUNION YEAR

Toriana S. Holmes is an associate at the law firm Severson & Werson, P.C. She also volunteers with the Bar Association of San Francisco's Lawyers in the Schools Program and is active with the San Mateo County Bar Association. ¶ **Eric Hutchins J.D.** was named a California Lawyer of the Year by *California Lawyer* magazine. He was honored in the intellectual property category for his work representing memory-cell maker Sidense Corp. in an infringement lawsuit.

Nice specs: After a visit to Cambodia last fall, photographer and designer Malu Veltze '15 (center) raised money to bring eye exams and glasses to villagers.

**2009**

Tanner Diggs joined Piedmont Heights Dental Associates in Duluth, Minnesota, as a general dentist.

2011 REUNION YEAR

Christopher Mosier J.D. '14 is an associate attorney specializing in complex business litigation and insurance coverage at Willoughby, Stuart, Bening & Cook in San Jose. Chris is a member of the board for the Institute of Sports Law and Ethics at SCU and co-chairs the '11 Grand Reunion Committee.

2012

Kamila Lambert founded Edible Urban Farm, a business that helps people grow their own organic food. She worked at the Forge Garden on campus and wondered what was stopping people from turning their lawns into vegetable gardens. Classmate **Brendan Ruiz** is part of the team at Edible Urban Farm, based in Los Altos.

2013

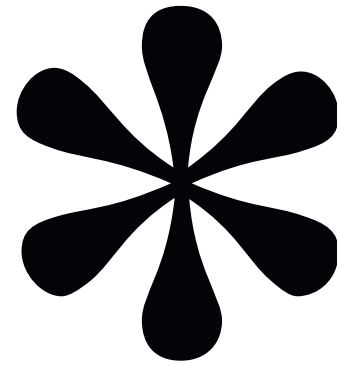
Amy Bernstein is a public relations and marketing associate at SurfMedia in Santa Barbara. Prior to joining the company in 2014, she interned with Special Olympics Santa Barbara, Direct Relief, and Breathe California.

2014

Andrew Azzarello writes, "Celebrating one year at Lockton Insurance Brokers!" ¶ Former Santa Clara tennis standout **John Lamble**, who ranks second all time on SCU's singles and doubles wins list, captured his first professional title in doubles last July. Partnering with Alan Kohlen from Argentina, he won the USA F23 Futures event in Edwardsville, Illinois. In October, playing with a different partner, he lost in the finals of a tournament in Israel. As of mid-December he was ranked No. 739 in the world in doubles. ¶ **Jose Javier Lujano** is now a policy analyst in the office of San Jose Mayor Sam Liccardo. ¶ **Christine Cate** is serving with San Diego Youth Services as a member of the Jesuit Volunteer Corps.

2015

Malu Veltze has been traveling throughout Southeast Asia for various humanitarian endeavors. Last October, working with a Canadian NGO in Nepal, she photographed earthquake-destroyed schools to promote awareness and raise funds to rebuild them. In November she traveled to Cambodia and launched a 24-hour Crowd-Rise fundraiser to bring eye exams and glasses to the local community.



Johnny Football. In Broncos football lore, few wins are more celebrated than Santa Clara's upset of legendary Coach Paul "Bear" Bryant's Kentucky Wildcats in the 1950 Orange Bowl. The upstarts from California were quarterbacked that day by a 19-year-old future judge from Chicago, **Johnny Pasco '52**, who ran for a touchdown in a 21-13 win. He passed away last Thanksgiving at age 84.



QB Johnny Pasco '52 (No. 21, fourth from left) and the Broncos brought home the Orange Bowl trophy in 1950 with a win over Kentucky.

The 1950 Orange Bowl was a contest of old and new. The Broncos wore leather helmets, and its starters played both ways. Kentucky sported the new plastic helmets and fielded separate offenses and defenses. Yet the old-fashion way won.

After a year of military service in Korea, Pasco earned a law degree from Loyola Law School in Los Angeles. He then began a private practice in criminal law in San Jose that lasted 29 years.

The University discontinued its football program two years after the Orange Bowl win. When it was revived on the modest level in 1959, coach **Pat Malley '53**, a close friend, asked Pasco to help as a volunteer assistant. He said yes. And kept at it for 19 years.

He was one of several alumni pillars of the community who, year after year, reported to campus every afternoon at 3:30

to work with the team. Monday nights the coaches studied film of their upcoming opponent. Pasco, who mentored the quarterbacks, was known for his ability to spot the football equivalent of the poker "tell"—subtle body language that tipped him off to what the defense had planned. Three quarterbacks he coached went on to play professionally, including NFL Pro Bowler **Dan Pastorini '71**.

Pasco sometimes told a story from his playing days of how he dealt with a defensive lineman who kept getting through the blocking. He told his linemen to let the player come straight through on the next play. As the defender galloped toward him, he fired a pass into the surprised player's face. This was before the advent of the facemask.

Smart, soft-spoken, and resolute, Pasco was widely loved and admired. A

member of the 1960 team recalled how Malley had a hard time finding opponents for the newly resurrected program. The coach also wanted to toughen up the players, many of whom were only 17 or 18 years old. So he scheduled a game against the inmates at San Quentin prison. When the team arrived, several prisoners recognized Pasco—he'd been their attorney. They began yelling out his name and saying hello, apparently not angry over the outcome of his representation.

The longtime defense attorney was appointed a municipal court judge in 1985 and served as a superior court judge from 1994 until his retirement in 1999.

He was one of the original members of the Bronco Bench Foundation, launched in 1962, which raises money for scholarships and other athletic needs at Santa Clara.

Obituaries

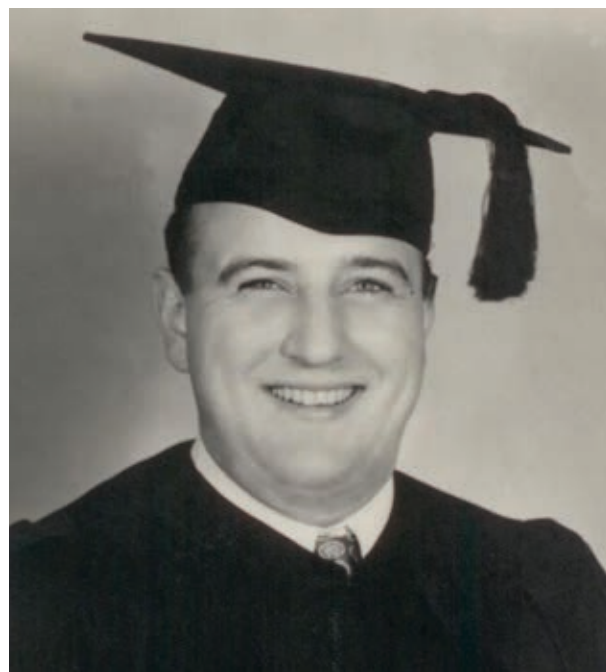
We publish news of the passing of Broncos as we learn of it. Find obituaries published in their entirety at santaclaramagazine.com/classnotes. Family members may also submit obituaries and photos for publication online and in print.

1943 An engineer and fourth-generation Californian since 1921, **Robert Ortiz Valentine** was part of the team that installed the lateral stabilizing system for the Golden Gate Bridge in 1955. He owned engineering and construction firm Valentine Corporation. He was a timekeeper for the 1960 Winter Olympics in Squaw Valley and amateur winemaker (his 2003 Valentine Vineyards Cab won Best of California), and he directed the Fort Mason Foundation. He was married to Madeleine "Lani" Stephens and raised two children: **Ellen Story Valentine Thompson '89** and **Robert O. Valentine Jr. '91**. Bob died on Aug. 13, 2015, in Belvedere, California, where he resided with his family for nearly 50 years.

1950 **Richard DiNapoli** had a zest for life and a desire not to miss out on anything, especially if it involved family. Dick also had a genuine interest in people and treated everyone he met with kindness and respect. He was blessed with a long and successful career managing Sun Garden Packing Company, which employed thousands of loyal and hardworking Santa Clara residents in canning peaches, apricots, and tomatoes in "The Valley of Heart's Delight" until its closure in 1994. He was born in San Jose and served in the Merchant Marine in World War II. He is remembered for his patience, loyalty, and gentle demeanor. Survivors include his wife of 61 years, Lynette; his three sons, among them **Richard "Rick" '77**; and two siblings, including **J. "Phil" DiNapoli J.D. '64**. On Aug. 22, 2015, at age 88, he exited this world exactly how he lived it—with grace and dignity.

San Francisco native and Los Gatos resident **Robert Finocchio Sr.** passed away on Aug. 31, 2015, at the age of 86. Bob had a long and successful career with Bank of America, where he started as a teller and, nearly 40 years later, retired as a senior executive. Bob's work at the bank served to finance the transition of the Santa Clara Valley from an agricultural economy to the Silicon Valley we know today. Bob was a dedicated alumnus of

DATE MAKER
In the 1950s and early 1960s, **Robert Ortiz Valentine '43** pursued the bachelor's life in San Francisco, which included serving as "Dean of Women" for the Tuesday Downtown Operators and Observers club. Its primary focus was inviting young single women to lunch with them on Tuesdays at the Canterbury Hotel.



Bob Finocchio Sr. '50 was a loyal alumnus. For his funeral, the family asked that donations be made to the University's Scholarship Fund in lieu of flowers.

Santa Clara, serving as a member of the Board of Fellows for many years. He loved hunting and golf and was an avid sports fan. Most of all, Bob was a devoted husband for 65 years to Virginia Arata and father to seven children, among them SCU trustee **Robert J. Finocchio Jr. '73**.

Timothy P. Murphy died Nov. 12, 2015. Born with his sister Patricia at O'Connor Hospital on Dec. 2, 1925, he was a World War II Army veteran and spent 50 years in the electronics industry. He is survived by wife Margaret, six children, eight grandchildren, and two great-grandchildren.

1954 SCU lost a Hall of Famer and member of the Bronco men's basketball team that made it to the Final Four with the passing of **Jim Young** on Aug. 28 at age 82. Jim led the Santa Clara Final Four team with 11.8 points per game and was a First Team All-WCC selection in 1954. He was also named NABC All-District Second Team the same year. His 1,016 point total is 32nd on the all-time Bronco list. Jim was a basketball coach and California history teacher at Feather River College for many years. He was married to Janice Young and had a daughter and two stepsons.

Richard R. Roderick passed away on Nov. 30, 2015, in Oakland after a long illness. He was 83. He was a member of the

Thomas I. Bergin Legacy Society, which builds SCU's endowment and ensures it will have the financial resources to provide educational opportunities for future generations.

1958 **John Philip Taglio** died Dec. 9, 2014.

A native of Modesto, California, John had a storied career in the building industry throughout the Golden State as president of Morrison Homes. In 1996 he was inducted into the Builder's Hall of Fame, a prestigious and honorable award for excellence and professionalism. In 1997 he and his wife, Carol, retired and shared their time between Sun Valley, Idaho, and Kauai, Hawaii. John was instrumental in building the Koloa Missionary Church and was recognized for his integrity and compassion for his fellow man. He leaves behind three children and four grandchildren.

1964 **Thomas David DeGregori** was a husband, father, CPA, Army veteran, Little League coach, investor, wine connoisseur, master card player, avid golfer, volunteer, and more. He was born and raised in Los Banos, California. After residing in San Jose for 33 years and working for Arthur Young & Co. and Pricewaterhouse Coopers, Tom and his wife of 46 years, Beverly, retired in Angels Camp, California, where he lived his dream of golfing, playing bridge, and enjoying good wines with friends and family. He died July 1, 2015, at age 73.

On Aug. 12, 2015, **Bob Mulcrevy** passed away at age 73. Bob was born and raised in San Francisco and was an avid basketballer throughout his youth. Bob and Gracie owned and operated Mulcrevy's Restaurant and Tavern, in San Francisco's Marina District, from 1975 to 1985. He then ran the family business, Millbrae Pancake House, until retirement. Bob was a historian, a storyteller with quick wit, a devoted fan of the SF Giants and 49ers, and a proud native who always managed to find a common San Francisco connection with anyone he met. Survivors include four daughters and 10 grandchildren.

1968 **Ed Niland J.D. '75** died on Aug. 4, 2015, due to complications associated with the treatment of esophageal cancer. Ed lived in Scotts Valley, California, and he practiced law from his office in Los Gatos. He is survived by his wife, Julia, and daughters Jessica and Danielle.

Remembered for her joy-filled countenance and loving spirit, **Christine Sorensen** passed into eternal life on May 27, 2015, after a 3 1/2-year battle with breast cancer. Chrissy was born in Oxnard, California, in 1946 and raised in Santa Barbara. Chrissy dealt with bipolar disorder until 1995, when improved medication—and perhaps a miracle—allowed her to resume a normal life. She brought the love and light of Jesus Christ

to all who knew her. Chrissy was living in Camarillo, California.

1971 **Kirk D. Cowan Jr.** MBA had John Deere green running through his veins, loved the land, and always wanted to farm. He was born in rural Leeds, North Dakota, in 1936. For 40 years he worked for General Electric while farming walnuts in Morgan Hill; and for the Washington Public Power Supply System while farming apples, cherries, and pears in Grandview, Washington. In retirement, he immersed himself in farming and restoring John Deere 30-series tractors. Kirk loved spending time with his family and friends, including his high school sweetheart and wife of 61 years, Carol, and two children. He passed away on Oct. 27, 2015.

1975 Born in 1930, **Katharine Antolch Gould** spent most of her young life in Hollywood, California. In the Bay Area, she became proficient in oil painting, graphic arts, and flower arranging. Always cheerful and ever helpful, she loved to travel and spoke fluent Russian. Kathy continued to ski on water and snow into her mid-70s. She was loved by her many friends and family for her loving and forgiving nature. Kathy was married to Roger and was an avid supporter of the Bronco Bench Foundation. She died on Sept. 3, 2011.

1980 Attorney-at-law **Michael Jay Jones J.D. '83** passed away on July 13, 2015, from thyroid cancer. He was 58. Mike was respected and admired by many, particularly as a faculty member at Santa Clara School of Law and DeAnza Community College. A former Bronco varsity football player, Mike loved coaching children so much that he continued to do so after his own two kids were grown, including with high school athletes. Football was his passion, but family was his everything. Wife Loretta, daughter **Lauren J.D. '13**, son Bryan, sister **Becky '83, J.D. '87**, and many other loved ones survive him.

1985 A pillar in her Knox, New York, community, **Jean Marie Adam Forti** filled her 52 years with love, laughter, adventure, and care for others. Jean was born in San Mateo and grew up in San Jose. In New York she worked with troubled children and then with Senior Services of Albany. Jean and her husband, Tony, spent the next 24 years raising three children, farm animals, and countless

TOO SOON
Former San Francisco 49ers CEO **Peter Harris** described his son **Michael Harris M.A. '15** as "sincere, a great listener, always interested, warm, and full of humor. He sincerely loved and prized family, had a broad group of friends he cared for greatly, and embraced with passion helping adolescents because it mattered."

NICE FIND
After college, **Jean Marie Adam Forti '85** crossed the country with two friends in a VW bug to start a new life in Albany, New York. She joined the Hudson Mohawk Sierra Club, only to get lost on a hike and meet her future husband, Tony.

gardens. Jean brought a feeling of excitement and adventure into everything. She died on Aug. 25, 2015.

1988 **Michelle Mullin** died Oct. 18, 2015, at age 49 after a lengthy illness. She was born in Sacramento, but Silicon Valley became her home when she began to work in sales and marketing for various technology firms, including HP. She thoroughly enjoyed traveling the world and soaking up different cultures. Other passions: volleyball, beaches, and anything to do with Santa Clara University; she was a past president of the Alumni Association (1999–2000). Survivors include nephew **Michael Lysaght '05**; her dad was **Harold Mullin '53**.

1989 A sharp and intelligent man, **Timothy Carey McShane** died on July 7, 2015, in Seattle. Tim was born in Lawrence, Kansas, in 1967 and grew up in Seattle. In his youth, Tim's favorite activities included team soccer, debate team, and hanging out with his buddies. Tim enjoyed golf, cooking, reading, and traveling. He had a career in advertising and media sales, and worked for many years at KZOK radio. He was a family man—fun loving and goofy as well as kind, caring, and gentle.

2006 **James Michael Millett Jr.** died on Aug. 12, 2015, from a fatal fall while hiking in Yosemite. He was 39. Michael grew up in San Carlos and lived in the Bay Area all of his life. He spent his career working in Silicon Valley. He will be remembered for his hilarious sense of humor, his dedication to his work, his passion for life, and his love for family and friends. The Broncos in his family include his mother, **Colleen Kelleher Millett '68**, sister **Molly Butler '92**, aunt **Maureen Millett '71**, and uncle **Joseph "Joe" Millett '63**.

2015 **Michael Harris M.A.**, son of former San Francisco 49ers CEO Peter Harris, died in a tragic boating accident on Sept. 6, 2015. He was 26. Among the injured was Michael's girlfriend, **Kelly Wells '11**. The couple lived in San Francisco and were planning to move in together. Michael's brothers, David and Richard, said Michael was supportive and provided strength during tough times, and the two were lucky to have had him as a sibling. He had just started working as a high school counselor at Menlo School in Atherton. The brothers said their sibling lived life to the fullest.

Faculty, Staff, and Friends

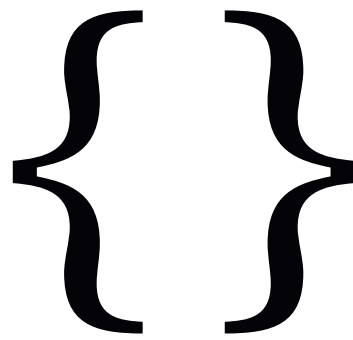
An internationally renowned expert on art and cultural property law as well as comparative law, **John Henry Merryman** dedicated his life to the study and teaching of law at Santa Clara (1948–56) and Stanford. His scholarship includes the groundbreaking book *Law, Ethics and the Visual Arts*. He died Aug. 3, 2015.

David R. Palmer was a treasured member of the SCU faculty for more than 30 years. He taught in both the undergraduate and MBA programs in the Leavey School of Business, specializing in management strategy and corporate social responsibility. He was instrumental in developing the Executive MBA program. David had a special love for Santa Clara and a warm fondness for those with whom he worked for so many years. He died on Sept. 18, 2015, after a chronic illness.

A member of SCU's Catala Club, **Donna Burdick** was born in 1929 in San Francisco and had lived in Santa Clara for the past 60 years. She had intelligence, a quick and sassy wit, and a deep passion for her family, friends, home, and community. She was appointed to the Agnew State Hospital Board by Gov. George Deukmejian, and she served on the City of Santa Clara's El Camino Real Task Force and Kaiser Hospital Task Force. She was married to **George Burdick** and raised five children, among them **Geordie Burdick '79**. Donna died on July 12, 2015.

A true gentlewoman, **Beverly Jane Honzel** passed away on Oct. 6, 2015, in Lake Oswego, Oregon. Bev was born in 1930. She was a selfless and devoted wife to **Andrew Honzel Jr. '53** and mother to **Mark '76, Drew '78**, and Karen. Bev was an exceptional cook and hostess, and delighted in friends becoming extended family. She was a kind and loyal friend. **Dana Angelos '10** is her granddaughter.

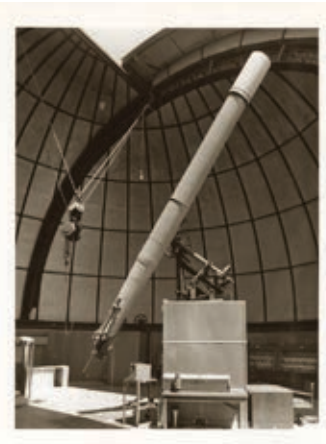
Grace Sautter kept herself busy with a variety of community projects, including serving as historian for SCU's Catala Club since 1980. Born in 1921 in San Jose, she devoted 21 years to banking before she left the profession in 1963. At age 65, following the 1986 death of her husband, Fred, she returned to work at Wells Fargo in Los Gatos. By the time she retired in 2003, her banking career had spanned 61 years. She passed away on Aug. 14, 2015.



The Ricard Memorial Observatory was completed in 1928 to be used for research by **Jerome Sixtus Ricard, S.J.**, a meteorologist known as Santa Clara's "Padre of the Rains." He studied flares on the surface of the sun—and he aspired to have the king of reflector telescopes. A smooth character from Vancouver promised to provide a 60-inch lens. He sent something else entirely.



PADRE OF THE RAINS Fr. Ricard began making long-range weather predictions in 1907, based on flares he observed on the surface of the sun. The sunspot theory proved a scientific dead end, but Fr. Ricard used to field calls from sports promoters and Hollywood moviemakers looking for the inside scoop on weather. He died in 1930.



HERE'S THE SCOPE In 1928, the package supposedly containing the long-awaited lens from Vancouver arrived. But inside was a 60-inch slab of concrete! The observatory eventually got its first telescope in 1930: an enormous 16-inch Clark refractor, above. And Fr. Ricard recovered the money sent to Vancouver.

Another turn? Director and physics professor Phil Kesten has been working with students to try to restore the observatory to its original use.



COMET SHOEMAKER-LEVY 9 broke into pieces and smashed into Jupiter in July 1994. SCU's telescope allowed a camera to capture unique moments in the series of collisions—including some pieces hitting that no other telescopes recorded.



SCOPE MAKER Alvan Clark (that's him) & Sons built the telescope in 1882. At the time, the 15-foot-long telescope was the fourth-largest in the world. It was originally destined for an observatory in Southern California that was destroyed by an earthquake.

The observatory has not been used as such since the early 2000s. Instead, it provides a home for SCU archaeological artifacts and labs—a site for preservation, study, and research.

DOMES, SWEET DOMES The 50-foot central dome of the observatory is flanked by a pair of smaller domes. Along with the big scope, astronomy equipment inside includes an 8-inch Fauth refractor telescope and an equatorial mount to hold a planetarium projector.



COLOR PHOTO OF OBSERVATORY BY MAJED; ARCHIVAL PHOTOGRAPHY COURTESY SCU ARCHIVES AND SPECIAL COLLECTIONS; WORDS BY GRACE OGHARA '16

BEAUTIFUL DAY

It was a gorgeous, sun-drenched Santa Clara day when **Olivia Bormann '16** was looking at colleges and visited the Mission Campus. She loved the place. Scholarships made it possible for her to come here. Philosophy is her major, entrepreneurship her minor, water her element. "If I could breathe underwater, I don't think I'd ever leave the pool," she says. She captains the water polo club. On land, she supervises other students in the SCU Call Center. She treasures small class sizes and how deeply professors care about students. On April 6, Olivia and many others will be asking you to make it a particularly beautiful day: All in for SCU. Make a gift to fund scholarships or your favorite thing about Santa Clara. What will that be? scu.edu/allin

