MISSION VALLEY
REIMAGINED
By the time you read these words, I will have just completed 100 days as the ninth permanent president of San Diego State University. I embarked on a listening tour from day one, and my weeks continue to be enlightened by dozens of group and one-on-one conversations with staff, faculty, students, alumni, donors, and community partners—here in San Diego, from across the border, and even in the country of Georgia where I spent a week learning about our international STEM programs.

From what I have seen and heard, I can say that I am excited about the future of San Diego State University. From where I am standing, I see endless opportunities to cross new borders that will lead us to higher levels of impact and distinction.

At the beginning of the semester, I shared with our faculty and staff the story of the first time I crossed the U.S.-Mexico border as a child. I was crossing from San Diego to Tijuana with my mother, eyes wide open, realizing for the first time that I belonged to two distinct, yet intricately connected worlds.

As I listened to the syncopated rhythm of my home language, the Spanish of my roots, its beauty and harmony reminded me that I was part of a narrative much richer than I had imagined. The wonderment is still with me today as I see the relevance of those memories to this new chapter for San Diego State University.

I believe that SDSU sits at a crossroads where we can build on our legacy, strengths, and capacity to serve the uniqueness of each student, staff, and faculty member. In the process, we will be known for graduating the global citizens, compassionate leaders, and ethical innovators who will impact the future of San Diego and the world.

As you read the stories in these pages, understand that each of them represents a powerful experience. These students, faculty and alumni are the brilliant minds that will solve the greatest challenges of our region and our world.

The stories of our exceptional faculty, each one devoted to research and teaching. The stories describing our Mission Valley Plan and the vision for an SDSU Innovation District. The story of collaboration between researchers and athletics staff to create strength and conditioning programs for SDSU athletes.

All of these stories revolve around one theme: SDSU is poised to impact San Diego and the world for the next 121 years and beyond.

As we aim to cross borders together in the next few months and years, we will encounter many obstacles. Yet, working together, as champions and advocates of the impressive work that originates at SDSU, we can change the world.

I’m thrilled that you are part of the SDSU family!

Adela de la Torre
MISSION VALLEY REIMAGINED
With an innovation-based SDSU campus as its hub, Mission Valley could become the heart of San Diego.

NOT ON OUR WATCH
Working with the Navy, researchers are modeling the partnerships envisioned at SDSU Mission Valley.

DRIVING A CITY FORWARD
An innovation-based SDSU campus in Mission Valley would breathe new life into the San Diego region.

RIVER ON THE REBOUND
SDSU’s vision for Mission Valley includes expansive open space that will revitalize the San Diego River.

SMALL STEPS TO A BIG GOAL
Move-in day is the beginning of the path to graduation for SDSU students.

DOORS ARE OPEN FOR THIS ALUMNA
Guadalupe X. Ayala’s public health research tackles issues that matter to San Diego.

DEPARTMENTS

COMPASS
News from campus

HORIZONS
The Academy Awards of Research

AZTECS IN MOTION
Ready Player Win

GIVING BACK
Stories of basketball and “S” Mountain

ALUMNI ANGLES
Heart of a Champion

MATTERS OF STATE
Our Own Link to the Triassic
Wrapped in pride

At San Diego State University, the hot new fashion statement is a cold-weather scarf bearing the slogan for a new marketing campaign: “I AM SDSU.”

The campaign underscores SDSU’s deepening commitment to and partnerships with San Diego over a period of more than 121 years.

Launched by SDSU President Adela de la Torre and Associated Students president Chris Thomas in a pep rally outside Hepner Hall, the blitz includes two commercials featuring a mix of familiar alumni and present-day faculty and students to illustrate the dynamic synergy between SDSU and the San Diego region. The spots are promoted on billboards around San Diego and in a stream of “I AM SDSU” selfies and videos—scarf included—posted to social media. (To see the results, go to iam.sdsu.edu.)

You can purchase an “I AM SDSU” scarf from the SDSU bookstore on campus or at aztecshops.com. Eighty percent of the $10 purchase price will go to the “I AM SDSU” scholarship fund.

“I Am SDSU” scarves are everywhere on campus. Proudly sporting theirs are (clockwise from left): Baxter, a licensed therapy dog and stress reliever for the SDSU community; the Aztec women’s water polo team; biochemist Christal Sohl and student researchers in her lab; Associated Students executives Christian Onwuka, Chris Thomas and Nick Wohlman.
Climate-smart planning

A state-funded research program awarded nearly $1.8 million to an SDSU team studying resilience to climate change. It was among the first 10 grants administered by the California Strategic Growth Council in the highly competitive Climate Change Research Program, created with revenues from California's cap-and-trade program.

SDSU biologist Rebecca Lewison and senior research scientist Megan Jennings lead the project, which will focus on integrating ecosystem and local community planning to build resilience to climate change. The work will build on their ongoing research on connected landscapes—places that allow wildlife to move and disperse—to develop tools to support climate-smart conservation and land-use planning.

Up the academic ladder

SDSU took impressive leaps in U.S. News & World Report's latest rankings of the nation's best colleges, rising to No. 60 from last year’s No. 68 among public universities, and to No. 127 from No. 140 among national universities overall.

These rankings maintain the momentum of a particularly steep rise over the past six years. On the public universities list, SDSU is up 30 spots from its position in 2012. Among national universities, the new ranking is up from No. 165 in 2012. The widely followed lists are based on 16 measures of academic quality in categories of outcomes, faculty resources, expert opinion, financial resources, student excellence and alumni giving.

Working in harmony

The SDSU School of Music and Dance and the San Diego Opera joined forces to appoint Alan E. Hicks as director of opera theatre—a new, shared position.

The unusual partnership of an academic institution and professional arts organization will promote the operatic art form in both settings. Hicks, who has two decades of experience in professional opera and theatre, will direct SDSU Opera's fall production, teach acting and stage movement for singers, and act as assistant director on San Diego Opera's mainstage productions in the spring.

Hicks' first production on Montezuma Mesa is the English opera, "Flight," by Jonathan Dove, with performances on Nov. 16, 17 and 18. The story is inspired in part by an Iranian refugee who spent several years living at Charles de Gaulle Airport in Paris.

Photo: Ken Jacques
Voices of veterans

Every veteran has a story. So do their families, as well as active service members.

To collect, document and preserve the dynamic experiences of the campus’ military-connected community, the Joan and Art Barron Veterans Center has developed the Veterans Oral History Program at SDSU. Creators of the program hope to generate a repository of veteran experiences for future generations to learn about the impacts of military service.

Veterans throughout the San Diego community are invited to schedule one-on-one oral history interviews through audio and video recordings on campus. To learn more, go to vohp.sdsu.edu, a developing website where the interviews will be posted, or contact the center by email at vohp@sdsu.edu.

Speaking of health

Critical relationships between communication and health are the focus of a new, innovative hub that brings together two dozen researchers and affiliate faculty members from units at SDSU and the University of California, San Diego.

The Center for Communication, Health, & the Public Good, directed by SDSU researcher Wayne Beach, will investigate the importance of human communication when managing wellness, illness, disease and disorders. A wide array of health challenges, including cancer, obesity, and diabetes, will be examined.

Topics of investigation include interactions between cancer patients, family members and medical professionals; communication and breast cancer; and inconsistent delivery of medical care among diverse and underserved populations.

“These programs will provide unique opportunities to create university-community collaborations advancing the public good,” said Beach.

What to tackle next?

With an undergraduate degree in psychology already under his belt and a master’s and doctorate yet to come, Ron Smith might be expected to safely watch SDSU football games from the stands. But that’s him, down on the field in his third season as a junior cornerback, contributing seven tackles in the Aztecs’ thrilling Sept. 15 upset over Arizona State.

Smith is the embodiment of the student-athlete: a two-time honoree in the Mountain West Fall All-Academic Team, a 2016 conference scholar-athlete and a 2017 recipient of SDSU’s Malik Award, a rare prize bestowed on athletes with a 4.0 GPA over the previous two semesters.

For Smith, there is life beyond football. He is learning Japanese and refining his chops on the saxophone. And there’s a whole world out there to explore. “For me, knowledge, just being able to learn as much as I can about anything, makes me a better person,” he said. “I’m always looking for different things that I can surround myself with.”
When psychologist Phillip Holcomb received a surprise call from the National Institutes of Health (NIH) congratulating him on receiving a MERIT Award, he immediately did a Google search. The grant is so rare, Holcomb had never heard of it.

He quickly learned that NIH MERIT (Method to Extend Research in Time) Awards are not only rare, but also highly prestigious grants given to researchers with well-established records of success in the lab. They allow for a broader range of investigation and a less intensive renewal process than standard NIH grants.

In the conventional world of research, MERIT Awards are unconventional. A researcher cannot apply for one. NIH chooses recipients based on their “distinctly superior” experience and productivity. Just one percent of all NIH grants are MERIT Awards, and San Diego State University has four of them—a number that’s competitive with some of the most active research universities in the nation.

The Academy Awards of Research
Four from SDSU achieve career gold.

By Kellie Woodhouse
“The NIH gives the award to people with proven track records and people who have contributed to their field, and SDSU has a lot of heavy hitters,” explained Holcomb, whose MERIT Award also named co-researcher Katherine Midgley. “At SDSU, the emphasis on research and funding is very high. SDSU is punching way above its weight class.”

Holcomb’s research looks at how the human brain processes language and the neurocognitive functions that give people the ability to read. Only in recent history has reading become a cornerstone of daily existence. The ability to read is so new, and it developed so quickly, that Holcomb and many of his colleagues don’t believe it evolved in the same way as other human abilities such as speech and fine motor skills.

Instead, he hypothesizes that the brain co-opts a different function—the ability to distinguish between objects—and combines this with the capacity to process language. Holcomb’s lab explores this further by studying how the brain’s different regions coordinate to support reading.

**Long-Term Impact**

Jennifer Thomas is SDSU’s most recent MERIT Award winner. She studies how the essential nutrient choline, plentiful in foods like eggs and liver, may improve the cognitive and behavioral function of a fetus or infant exposed to alcohol prenatally.

Her research considers how choline affects areas of the brain responsible for learning and memory and holds out the possibility of postnatal treatment for these children, many of whom have Fetal Alcohol Spectrum Disorder.

“We’ve known since the 1970s that prenatal alcohol exposure can be damaging to the fetus,” Thomas explained. “But intervention may not be possible during alcohol exposure time. What’s exciting is that we may be able to intervene after the baby is born.”

Mark Sussman and Sanford Bernstein are also SDSU MERIT Award recipients and distinguished professors of biology. Both have been named Albert W. Johnson University Research Lecturer, SDSU’s ultimate recognition of outstanding research and scholarship.

Sussman studies the molecular and cellular basis of heart failure. His research considers the molecular signaling pathways involved in the maintenance, aging, and regeneration of heart muscle, with the goal of developing therapeutic strategies to regenerate damaged heart tissue.

Sussman’s 2008 MERIT award came at a time when research in myocardial regeneration was a relatively new concept. It allowed his Heart Institute to pursue long-term studies to understand the molecular regulation of stem cell activity in the damaged heart.

**Intellectual Exploration**

Bernstein investigates how myosin, a protein that helps muscles contract, malfunctions in those who suffer from heart and skeletal muscle diseases.

His MERIT Award enables him to explore research questions that may not have received funding through other grant application processes. For example, he hopes to study how myosin-altering genetic treatments or drugs can improve the aging process for organisms with heart and skeletal muscle diseases.

“Given the additional time and freedom the award allows, we might be able to conduct that deeper long-term research,” Bernstein said. “It is more risky, but it might have a positive outcome, and that is the sort of research the MERIT Award wants to support.”

Initially, MERIT Awards include five years of funding. Researchers can apply for another five years by submitting a progress report that sidesteps the lengthy peer-review process. If the researcher can show progress toward his or her objective, the additional funding is generally awarded.

Holcomb calls this progress report a “mini-proposal” because it’s less onerous than typical renewal applications and has a good chance of approval. Under normal circumstances, the NIH awards less than 20 percent of funding applications.

John Crockett, senior director of research advancement, said MERIT Awards are structured to be highly effective funding mechanisms for researchers trying to solve complicated problems.

“The MERIT Award is long-term funding that allows recognized researchers to engage in more risky, challenging intellectual exploration that can’t be done under programs requiring near-term outcomes,” he explained. “Our MERIT awardees are engaging in the process of fundamental discovery that will drive clinical interventions for the next century.”
MISSION VALLEY REIMAGINED

WITH A NEW, INNOVATION-BASED SDSU CAMPUS AS ITS HUB, MISSION VALLEY COULD BECOME THE HEART OF SAN DIEGO.
**ICONIC CAMPANILE**

An iconic campanile would mark the intersection of activity, academics and athletics in SDSU Mission Valley. From that central point, pedestrians could access the SDSU campus, the river park, the multiuse stadium and retail services.

**SDSU INNOVATION DISTRICT**

In the heart of SDSU Mission Valley, the SDSU Innovation District would support collaborative partnerships with leading local and national companies as well as new commercial enterprises, further strengthening the San Diego economy.

**THE HUB**

As a gateway to campus, stadium, office and residential resources, the pedestrian-scaled roundabout would provide wayfinding for visitors and students alike.
"The university’s plan has the potential to serve more students, increase SDSU’s economic impact on San Diego and breathe new life into the heart of our city."
“We look forward to working with the community to ensure the SDSU Mission Valley plan reflects the values of all San Diegans.”

**RESOURCES FOR SAN DIEGO**

The central, transit-oriented site of SDSU Mission Valley would include sports fields, playgrounds and open space to support the needs of the university, the neighborhood and the larger San Diego community, while resolving challenges associated with seasonal flooding.

**MULTIUSE STADIUM**

Located in the northwest corner of the site, the stadium would be available to host collegiate football, professional and collegiate soccer, NCAA championships, concerts and other events. Plans include the option to expand to 55,000 seats to accommodate professional football.

**NEWFOUND DYNAMISM**

The north-south campus mall would organize circulation through the heart of the SDSU Mission Valley campus, connecting the dynamism of the SDSU Innovation District with the energy of the new stadium.
Today’s threat adversaries work at hundreds of gigabytes per second, crawling the digital space and sending malicious email missives in search of open doors, inadequate locks and windows left ajar.

A primary target is the U.S. Department of Defense, a guardian of national security. Every day, the agency successfully prevents about 36 million cybersecurity attacks arriving in the form of email alone. All told, the federal government expects to spend $65 billion on cybersecurity contracts during the five-year period ending in 2020.

Prevention is expensive, but data breaches can cost millions. The Ponemon Institute reports that, globally, the average cost to an organization for a stolen record containing sensitive and confidential is now about $3.9 million.

The U.S. Navy faces particular peril when naval ships set out to sea, where software updates are difficult to make. A cyberattack on a naval ship could result in any number of disasters—a steering failure, malfunctions in navigational equipment, loss of electricity, a pressure release or a hatch opening unexpectedly.

“A Navy ship is a floating enterprise network of immense complexity with weapons and communications systems attached, with classified and unclassified information, with systems that are open source and others that are secured,” said Aaron Elkins, professor of management information systems in the Fowler College of Business. “You can’t just put something like that on a system that scans only for threats.”

VISIONARY THINKING

To better equip the Navy against security breaches, a team of San Diego State University cybersecurity experts, including Elkins, Bongsik Shin and Lance Larson, has launched a three-year, $310,000 project funded through the Naval Engineering Education Consortium, an alliance of research universities.

What they intend to do is unprecedented—design a customized cybersecurity threat intelligence platform robust enough to simultaneously evaluate assets, discover vulnerabilities and uncover threats in a real-time, information sharing environment.

WORKING WITH THE U.S. NAVY TO COMBAT CYBERSECURITY THREATS, RESEARCHERS ARE MODELING THE KIND OF PARTNERSHIPS ENVISIONED AT SDSU MISSION VALLEY.

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“Some organizations just focus on their assets. Some organizations just focus on threats,” said Elkins. “There is not a relational key that addresses these two along with vulnerabilities.”

The SDSU team’s Cyber Threat Intelligence (CTI) System would use big data and artificial intelligence tools to search external threat intelligence sources for actionable intelligence. Long-term, the team’s vision is to build a threat information exchange system that could be employed universally, and by multiple agencies at once.

Elkins and colleagues are involving SDSU undergraduate and graduate students in project development. After all, they are future professionals in the growing field of information security.

This partnership-based model, which also offers training and employment opportunities for students, is an example of how SDSU intends to structure research and student learning in the future, particularly at the potential Mission Valley campus.

TIMELY INTELLIGENCE

Designing advanced threat intelligence systems requires intimate knowledge of the motives and methods employed by threat adversaries, nation states, criminal groups or hacker hobbyists. To counter these predators, companies, organizations and agencies rely on default measures, such as updating software to strengthen enterprise systems, regularly changing passwords and training employees to spot scams. These are important measures, but not always effective against sophisticated actors.

“In cyber, you have two forms of defense: safeguards and countermeasures. But we found one thing missing from many cyberthreat management systems: the use of timely intelligence,” said Larson, who worked in law enforcement and spent years as a government consultant and contractor before joining SDSU. Larson now co-directs the graduate program in homeland security within the College of Sciences.

The SDSU team’s novel triangulation model is a departure from earlier prevention and reaction methods to prevent unauthorized access to military systems, particularly naval ships. Having moved beyond the conceptual, the team is fast-tracking toward a prototype.

Larson compared the threat to a rapidly approaching train. “You need to feel the vibration of the train tracks even if you cannot see the train. That’s what our system will do, and that’s why it may be able to reduce vulnerabilities in the double digits,” Larson said.

What they intend to do is unprecedented—design a customized cybersecurity threat intelligence platform robust enough to simultaneously evaluate assets, discover vulnerabilities and uncover threats in a real-time, information sharing environment.

BUILDING A PIPELINE

Eric Monette, one of the students working with Elkins, Larson and Shin, has presented his research to senior leaders within NAVSEA (Naval Sea Systems Command) and has passed the CompTIA Security+ exam, an internationally recognized certification for professionals in the cybersecurity field. He hopes to pursue a doctorate and become an information security officer.

That future is already materializing. Monette, a veteran of the U.S. Air Force and graduate student at Fowler College, received an offer to work with NAVSEA, beginning in January, as an information technology specialist, supporting the nation’s sailors.

He is one of five SDSU students to be offered permanent positions with divisions of the Navy since the project launched in 2017. Another five students have internships.

“It is important that our students are taking an active role in research,” Elkins said. “It is not that easy to find people who are experts in the technology field moving into this work, so part of what we are doing is cultivating that connection and a pipeline to secure our nation’s future safety.”
IN 1931, SAN DIEGO STATE MOVED FROM ITS PARK AVENUE LOCATION TO WHAT BECAME KNOWN AS MONTEZUMA MESA, JUST EAST OF MISSION VALLEY. DURING ALMOST NINE DECADES IN THIS LOCATION, SDSU HAS GROWN FROM A CAMPUS OF 125 ACRES, SERVING 1,200 STUDENTS, TO 288 ACRES WITH A STUDENT POPULATION OF APPROXIMATELY 36,000.

Today, the university generates some $5.67 billion in annual economic impact throughout the San Diego region, and more than 60 percent of graduates put their degrees to work in the community.

SDSU is looking ahead to the next 100 years with the intent of increasing the university’s local impact through an expansion in Mission Valley. The goal: to build an innovation district at the current site of SDCCU Stadium. There, SDSU would create collaborative partnerships with leading local and national companies; launch new commercial enterprises through business incubators, and expand SDSU’s economic impact in the region.

The Mission Valley expansion would also add much-needed affordable and market rate housing to the area, restore and enhance the San Diego River and create nearly 90 acres of park and open space.

“This is a blueprint for the university’s community engagement efforts and long-term growth, which will have tremendous benefits for the entire San Diego community,” said SDSU President Adela de la Torre.

“Our plan would generate additional tax revenue for the city and county and enhance the university’s overall economic impact in the region.”

RIPPLE EFFECT

As the site is developed, SDSU will have the space and facilities to accommodate additional students, generating an economic ripple effect across the entire state and region, but especially in San Diego. For every 10,000 additional graduates, the university estimates an additional $200 million in annual economic output, 1,265 more jobs and $68.7 million in annual labor income for the regional economy, based on the university’s 2017 economic impact study.

“SDSU Mission Valley is critical to how we want to grow as a region,” said Jerry Sanders, president and CEO of the San Diego Regional Chamber of Commerce. “The university’s plan has the potential to serve more students, increase SDSU’s economic impact on San Diego and breathe new life into the heart of our city.”
The central, transit-oriented location of Mission Valley would become a live-work-play community, anchored by SDSU, where startups and leading-edge businesses come together with faculty and students to grow San Diego’s innovation ecosystem. Residential units would coexist alongside a regional river park with neighborhood-serving retail to facilitate a unique work-life balance and reduce the community’s dependency on cars, protecting the environment.

SDSU anticipates its initial investment to be approximately $300 million, one-tenth of the estimated $3 billion development cost. This up-front investment would include land acquisition at fair market value, site improvements, off-site mitigation, river park construction and demolition of the existing SDCCU Stadium.

The debt-financed investment would be paid back with revenue generated by lease payments from the university’s private partners. And because the space will be shared with private entities and the general community, it will generate property taxes on taxable possessory interests with revenue benefiting the city, county, the San Diego Unified School District and other public agencies. SDSU Mission Valley would also generate sales and transient occupancy tax revenue for the city from the retail establishments and hotels that are expected to be developed.

As the California State University (CSU) regularly issues debt to construct revenue-generating projects such as this, the financing would not rely on the use of student tuition, fees or taxpayer funds, and no student fee increases would be required for any part of the development. Construction of the new stadium would be financed separately, through naming rights, ticket sales, philanthropy and other revenue generated by the stadium itself.

“By partnering with private entities to build out the project site, not only are we able to accommodate the university’s current needs and future growth, but we can also generate a direct economic benefit for the City of San Diego,” said Tom McCarron, vice president of Business and Financial Affairs and SDSU’s chief financial officer.

“A significant university presence in Mission Valley is something that will benefit the entire San Diego region,” McCarron added. “We look forward to working with the community to ensure the SDSU Mission Valley plan reflects the values of all San Diegans who want this public asset to provide value to the region for generations to come.”

**Benefits of SDSU Mission Valley**

- Positive economic impact for the San Diego region
- Large community river park
- SDSU Innovation District
- Affordable and student housing
- Multiuse stadium for football and soccer
- Miles of hiking and biking trails
- Public/private partnerships
- No student tuition/fees
- No reliance on taxpayer dollars
YOU WOULDN’T KNOW IT FROM ITS BONE-DRY STATE THROUGHOUT MOST OF THE YEAR, BUT SAN DIEGO’S MISSION VALLEY IS A FLOODPLAIN.

Flooding is a perennial problem for SDCCU Stadium, previously known as Qualcomm Stadium, which was built in 1967 at the convergence of the San Diego River and Murphy Canyon Creek. Thanks to improper planning and rerouting of existing waterways, when big storms roll through, the San Diego River jumps its banks and the stadium’s enormous parking lot becomes a blacktop lake surrounding an inundated playing field.

While occasional floods are a natural part of the valley ecosystem, they need not be so disruptive, said Gordon Carrier of the architecture firm Carrier Johnson+Culture, principal architect for San Diego State University’s Mission Valley campus plan.
When builders broke ground for the stadium in 1965, they used concrete channels to divert the natural flow of Murphy Canyon Creek away from the stadium site. Unfortunately, the artificial channel intersects with the San Diego River in an unnatural T-junction, meaning that water careens down the creek and sloshes violently into the river during storms, causing backups and flooding.

The SDSU Mission Valley river park plan would accommodate Murphy Canyon Creek’s overflow by allowing its waters to run into the river with less potential for flooding. Per its design, the flood basin will accept large surges of storm waters during seasonal storm events. If the river does swell beyond its banks, strategically located recreational space will provide a buffer to prevent widespread flooding. That’s intentional, Carrier said.

The river park is part of nearly 90 acres of open space designated in the SDSU Mission Valley plan. In response to feedback by environmental interest groups like the Sierra Club, the park will incorporate retention areas known as bioswales that use natural vegetation to filter pollution and trash out of rainwater before it runs off into the river. These bioswales pull double-duty as important habitats for native plants.

“Through strong interdisciplinary collaborations, SDSU is already leading a number of exciting research projects at the San Diego River. We are well positioned to take advantage of a more central location on the river in Mission Valley and use it as a living-learning lab for our students.”

COMMUNITY CONNECTION

The potential of the San Diego River was also at the heart of Carrier Johnson + Culture’s plan for SDSU Mission Valley. Architects looked at the site’s hydrology and floodplain dynamics before every other consideration, and let those factors guide decisions about land use and design.

“There are few, if any, opportunities to influence a region like this plan can influence San Diego. Mission Valley is really the epicenter of the entire community, and it’s immensely important to get it right,” Carrier said.

By incorporating a new, thoughtfully designed and implemented river park at the heart of the proposed campus, the university could better manage flooding, provide critical habitat space for wildlife, and connect the San Diego community to an underutilized resource with tremendous potential for both recreation and research.

RIVER DOCTOR

Monitoring the health of the river as it runs through San Diego’s heavily populated urban corridor requires the skills of experts. Natalie Mladenov, who holds the William E. Leonhard Jr. Chair in Civil and Environmental Engineering at SDSU, has her hands in several projects aimed at measuring and restoring the river’s health. She and her colleagues are figuring out how restoration efforts can help mitigate the river’s sporadic flooding. Ideally, the river could one day be a point of pride for the city.

“The San Diego River is already an amenity in some places,” Mladenov said. “By restoring its beauty, we can bring the community back to the river and make it a landmark that people will want to visit.”

SDSU researchers have received support from the San Diego River Conservancy and the San Diego Regional Water Quality Control Board to study the human sources of contamination leading to elevated bacteria levels in the river, particularly during storm seasons.

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“I fell in love,” Racelis recalled. “It was so beautiful and clean and modern.”

Not far from Tenochca, staff in the offices of Housing Administration and Residential Education had worked hard to plan a seamless move-in for Racelis and her 4,225 new freshman classmates. They oversaw the 22-month renovation of Tenochca, which modernized common areas, student rooms and restrooms; added a smart class/study room; refreshed the outdoor pool area; and added a sand volleyball court and putting green on the premises.

Throughout the renovation, the graduation of Racelis and her peers was foremost in their minds.
The connection between a great campus living experience and student success may not be apparent, but it is strong. Data show that graduation rates improve by more than 10 percent when students live on campus—especially in freshman and sophomore years—because they are more inclined to get involved in the cornucopia of leadership and learning activities that college life offers.

“The best universities make residential space a priority and provide amenities for memorable campus living experiences,” said Eric Hansen, director of Housing Administration. “Living on campus creates a stronger affinity between students and their university. We know that higher residency rates equal higher graduation rates.”

Leveraging that knowledge, SDSU created Sophomore QUEST, as part of the Sophomore Success program. It combines support and independence so that sophomores living in campus housing have access to academic advising; financial literacy and healthy eating workshops; plus one-to-one and group sessions with peer and professional mentors, who help students develop a clearer vision of their academic and career plans.

At the same time, SDSU has invested in the success of local students. A Commuter Resource Center, purposefully housed in the Conrad Prebys Aztec Student Union where student organizations meet, offers peer mentoring, leadership training and service learning opportunities.

Having renovated Tenochca and Zura Halls, SDSU is currently sprucing up Maya and Olmeca Halls. Next year, the university will add a brand new 800-bed residence hall exclusively for freshmen on the west side of campus, near Chapultepec.

Meanwhile, Racelis has joined the Tenochca Hall Council in an effort to meet others students and claim a stake in planning events for the residents.

“I'm so grateful that I was accepted and chose to come to SDSU,” she said.
At colleges and universities across the United States, federal Pell Grants help economically disadvantaged students finance their undergraduate education. Students become eligible for the program when their estimated family contribution to annual college expenses falls below $5,486.

The Pell Grant program has a 46-year history, but critics are now questioning its effectiveness. Only half of recipients graduate in six years, the national average time to undergraduate degree completion.
The six-year graduation rate for SDSU’s full-time freshman Pell Grant recipients was 71 percent in 2017, the most recent year for which data are available. That rate is nearly identical to a six-year graduation rate of 75 percent for all SDSU full-time freshmen, placing SDSU within an exclusive group of universities that has narrowed the “achievement gap” between white students and students of color.

There is no single explanation for SDSU’s success. It’s built on a host of advising, mentoring, tutoring and wellness programs tailored specifically for economically disadvantaged students, most of whom are the first in their families to attend college. Beyond these targeted initiatives is a university-wide philosophy of raising expectations across campus.

“Administrators from universities across the country ask for our ‘magic solution,’” said Eric Rivera, vice president for Student Affairs at SDSU. “There is no one program. Our success is the result of years of effort to change the university culture and years of investment in programs that benefit all students. Graduation rates have increased for every racial, ethnic and economic group at San Diego State, so it’s not surprising that Pell Grant students benefit in kind.”

Good Directions

Pell Grant recipient Eric Chavez sees the university experience as a journey. Reaching your destination is lot easier with good directions. Chavez transferred to SDSU in fall 2017 and enrolled in the Educational Opportunity Program (EOP), designed to improve academic outcomes for low-income and educationally disadvantaged students.

“Students like me are resilient; otherwise we wouldn’t be here be here at SDSU,” said Chavez, a social work major. “Some of us grew up in poverty or in foster homes. How would we know the road to a degree if no one has ever showed us? SDSU lays it all out. With the resources you’re given, you have to try hard to fail.”

Most Pell Grant recipients are commuter students, who are the likeliest to run into academic trouble as freshmen. In 2010, SDSU began “taking the temperature” of these students periodically as their academic careers progressed. In-depth surveys revealed that many commuter students felt alone and unable to find a place of belonging on campus.

To support them, SDSU created a Commuter Resource Center and a comprehensive Commuter Life program that emphasizes building relationships with faculty, staff and other students; choosing a mentor; and taking part in leadership and service-learning activities. The center is strategically located within the space reserved for student organizations, increasing the odds that commuter students will join one of them.

Additionally, SDSU promotes opportunities such as internships and study abroad, which also boost graduation rates.

“It has made a big difference,” said Randy Timm, dean of students and director of Student Life and Leadership. “Looking at the numbers alone, you notice that our Pell Grant recipients graduate at nearly the same rate as our overall student population. That appears unremarkable, but in fact Pell Grant students start out on an unequal footing, and they finish neck-and-neck.”

Paying the Bills

In addition to academic and emotional assistance, Pell Grant students also receive financial support from SDSU. The Office of Financial Aid and Scholarships revised its award policies in 2014-15 to reinforce SDSU’s goal of helping students graduate in less than six years—the national average.

Nearly 65 percent of students holding federal work study positions on campus are commuters. Not only do these jobs pay the bills, they also help students build relationships and strengthen their connections to SDSU.

Tara Block is on track to graduate in four years. The public administration major, a Pell Grant student, received internships with JusticeCorps and the San Diego County Probation Office and served as vice president and president of the EOP Student Advisory Board.

Block said resources such as the Black Resource Center, the Undocumented Resource Area and other spaces designed for diverse communities signal SDSU’s commitment to underrepresented students, who may have Pell Grants.

“Students (like me) come in and know that our culture...is appreciated and acknowledged and that people feel it’s important for us to have spaces to dialogue about the issues that affect our communities,” she said. “Beyond the symbolic, there is programming that relates to the issues diverse communities face. And there is a staff that really wants to see students thrive and...go all the way to graduation.”
Six exceptional San Diego State University faculty members received contributions to the university and their respective fields. The honors were presented by

**College of Professional Studies and Fine Arts**

**Bey-Ling Sha**

Bey-Ling Sha is a professor and director of the School of Journalism and Media Studies in the College of Professional Studies and Fine Arts. She is co-author of the 11th edition of “Cutlip & Center’s Effective Public Relations,” an internationally recognized reference book. She developed a strategic plan and a comprehensive diversity plan for the school, as well as a bilingual media offering in the curriculum. Her awards include a national 2012 Outstanding Educator Award from the Public Relations Society of America and the 2016 Provost’s Innovation for Excellence Award at SDSU.

**College of Arts and Letters**

**Piotr Jankowski**

Piotr Jankowski is a professor and chair of the Department of Geography in the College of Arts and Letters. He is internationally recognized for his scholarship in the field of geographic information science (GIScience), with research that spans the subfields of geography, computer science and planning. He has been instrumental in training a new generation of doctoral and master’s students, who have gone on to prominent positions in higher education and the public and private sectors. He has received a prestigious Fulbright Scholar Award for 2019.

**College of Sciences**

**Thomas Rockwell**

Thomas Rockwell is a professor in the Department of Geological Sciences in the College of Sciences, where he has been teaching since 1983. Rockwell is a widely quoted expert on earthquakes and tectonic activity in Southern California and has developed an internationally recognized research program. He is a member of the board of directors of the Southern California Earthquake Center and serves as an expert for local and global consulting companies on earthquake issues related to specific construction or modernization sites. He has drawn more than $4 million in research funding to SDSU.
Nancy Frey is a professor of educational leadership in the College of Education. She is a prolific researcher and scholar and is co-author of a book for teachers, “Checking for Understanding: Formative Assessment Techniques for Your Classroom,” now in its second edition. She applied her work locally as a co-founder of Health Sciences High and Middle College, a high-performing charter school located in San Diego’s City Heights community, where she continues to serve as a teacher leader. She has mentored many doctoral students in educational leadership and has secured more than $1 million in grants to support the study of educational issues.

Murray Jennex is a professor of management information systems in the Fowler College of Business. He and a former student, Jessica Whitney, were recognized this year as “mission heroes” by Soroptimists Together Against Trafficking (STAT!) for work that determined how human traffickers used emojis as code in online classified ads. He has developed and taught several classes to prepare students for careers in cybersecurity, while creating a link between the college and the professional business community, locally and nationally.

Hala Madanat is a professor and director of the School of Public Health in the College of Health and Human Services. She has strengthened critical relationships between SDSU and local government/private partners in the health fields, while working with a leading Tijuana-based research university, UABC, to develop “Obesity on the Border.” The new course will be taught jointly by SDSU and UABC faculty at both universities. As a participant in the School of Public Health’s national reaccreditation process, she improved its data systems and updated its mission statement, resulting in high ratings and reaccreditation for a maximum term.
Student-athletes are accustomed to being in the spotlight, but to play the lead in a video for the Rehabilitation Biomechanics Lab—that’s an entirely different kind of starring role. Though some students are reluctant, most, like Tom Hanks in “Big,” are eager to play with all the toys. While cameras roll, they hop around, laugh and do the floss dance.

“We get some athletes who think it’s the coolest thing ever that they get to participate in this,” said Sara Gombatto, a professor of physical therapy at San Diego State University and director of the lab. “They take pictures and do these fun movements and watch the videos to see how they’re moving.”

Gombatto is the architect of SDSU’s Sports Biomechanics Program, entering its fourth year. The joint project between academics and athletics studies the physical movements of men’s basketball and women’s volleyball players in order to create specific strength and conditioning programs for each. If potential problems are discovered, corrective exercises are designed to prevent injuries. The information gathered can also help in rehabilitation after injury or surgery.

Video sessions take place in the “motion-capture” lab in a quiet courtyard adjacent to Peterson Gym. In a process similar to video game production, athletes are fitted with as many as 90 reflective markers on key areas, such as knees, hips, feet, shoulders, elbows and hands.

Sixteen infrared cameras around the room capture reflections from those markers as the athletes go through a variety of movements, such as jumping, squatting and balancing on one leg. While the cameras record images, special plates located under the athletes measure force and weight. The data are converted into a 3-D video on a computer screen, where the athletes look a bit like robots from a Transformers movie, made up of multicolored triangles and dots.

**Significantly fewer injuries**

Gombatto and a team of volunteers—including SDSU doctor of physical therapy students and a number of graduate and undergraduates—interpret the results. Does an athlete favor one leg over another? Does she lack proper balance? Sergio Ibarra, associate athletic trainer, then develops a plan for each athlete (in consultation with strength and conditioning coaches) that can address weaknesses or potentially harmful movements.

In the first year of screening, Gombatto said, many basketball players showed “an insufficient flexion pattern.” In other words, they weren’t bending enough at the ankles, knees and hips when landing. That stiffness can translate into knee injuries. Ibarra and Randy Shelton, men’s...
basketball strength and conditioning coach, developed corrective exercises to promote flexion and increase hip and gluteal strength.

“We went from having a large number of patellar tendinopathy cases in one season to two in the following season,” said Gombatto.

In fact, injuries decreased significantly from 2016-17 to the 2017-18 seasons. In 2016-17, Ibarra said, the participating players missed a combined 340 practices and 27 games to injury. The next year, the numbers were 89 and 16.

One player had missed nine games and more than 40 practices in 2016-17 due to a series of injuries. His testing in the lab was informative.

“We sat down, looked at the data and said, ‘OK, this is what his rehab should consist of,’ and we did it,” said Ibarra. First came a rest period followed by specific corrective exercises three to four times per week. The next season, the player missed no practices and just one game.

More prepared for game days

Gombatto, who has a master’s in physical therapy and doctorate in movement science, has long used 3-D movement analysis to study posture and low-back pain. Her original motivation for studying physical therapy was to work with athletes, so after coming to SDSU in 2013, she decided to approach head athletic trainer Tom Abdenour (now retired) about setting up a motion-study project with Aztecs athletes. By 2015-16, it was underway.

For now, the Sports Biomechanics Program involves only the two teams. Gombatto hopes it will eventually expand to other sports and include what she calls a “dynamic warm-up program” for all student-athletes and the monitoring of these Aztecs during practices and games. Though the program is young, the athletes and coaches are seeing its value and buying into it, Ibarra said.

Jalen McDaniels, a 6-foot-10 redshirt sophomore who didn’t miss a game last season, believes in the program’s value. Plus, it was fun. McDaniels enjoyed seeing himself all hooked up and looking like a skeleton on the lab’s computer screen.

“We play a lot of games and have a lot of practices,” he said. “So I feel it helps our bodies be more prepared.”

—Doug Williams
Giving Back

Moved by a Mountain

Some of Stuart Naliboff’s best SDSU memories are linked to the legendary “S” Mountain.

By Coleen L. Geraghty

The view of Cowles Mountain from Stuart Naliboff’s front porch reminds him of his student days at San Diego State University (then College).

Those were the post-war years, and Naliboff remembers helping to reclaim the mountain for San Diego State by restoring the giant “S” that had been camouflaged to protect San Diego from potential Japanese bombing. That “S” gave Cowles its adopted name, “S” Mountain, as it was known by Aztecs.

When Naliboff graduated with an accounting degree in 1951, San Diego State’s campus on Montezuma Mesa was a mere 20 years old, and the land surrounding “S” Mountain remained largely undeveloped. He left San Diego to join the Air Force, worked in the Bay Area, married Ellen, a speech pathologist, and had two boys. It would be nearly two decades before he returned “home.”

“I was amazed when I saw all the development between my house and the mountain,” he said.

Back in San Diego, Naliboff joined Ratner Clothing, which specialized in producing naval uniforms and officers’ caps during World War II. When the market for those items shrunk, Ratner developed the infamous leisure suit from synthetic polyester fabrics that were revolutionizing the clothing industry.

Naliboff eventually became company controller. His ties to SDSU grew stronger as his sons, Greg (’80) and Alec (’83), became students in the Fowler College of Business and the family regularly attended Aztec football games. The elder Naliboff joined SDSU Alumni as a lifetime member and made small but consistent donations over the years.

It wasn’t until a few years ago, when Naliboff became friends with alumnus Keith Behner, that the 1951 graduate began to consider making a larger gift to his alma mater. Naliboff learned that Behner (’71), together with his wife, Catherine Stiefel (’92), was a major supporter of SDSU. Four years ago, the couple created SDSU’s Program on Brazil, which has ambitions to become a national leader in Brazilian studies.

“Keith told me, ‘There are good things going on at State,’ and I signed up for a tour. I was impressed by the new buildings, the smart classrooms and the creative inventions coming out of Zahn” (the Zahn Innovation Platform, an entrepreneurial hub on campus).

Naliboff’s gift to the President’s Leadership Fund gives the SDSU president discretion to apply funds where they are needed most.

“Stuart truly is an Aztec for Life,” said Mary Ruth Carleton, vice president for University Relations and Development. “We appreciate his decades-long support for the university.”

Naliboff’s generosity is also an expression of gratitude to former San Diego State professors John Ackley and Paul Pfaff, whose mentoring increased the self-confidence of dozens of students. “If you had talent, they knew how to encourage it,” he said.

Today, when Naliboff looks at “S” Mountain from his front porch, he has the satisfaction of knowing that SDSU remains a big part of his life.
The Lure of SDSU Athletics

For Dan and Bobbie Plough, returning to campus for a hoops game was like coming home.

By Jeff Ristine

With two San Diego State University degrees apiece, Dan and Bobbie Plough already were committed Aztecs before their son’s encounter with one of the most hailed figures in SDSU sports history kicked it all up a notch. The Ramona couple already felt tied to SDSU for their successful careers in education, both rising from the classroom to public school administration.

One day Tim, a point guard for the freshman boys’ basketball team at Ramona High School, was at a preseason camp when Steve Fisher, then head coach of SDSU men’s basketball, paid a visit. Tim came home “just beaming about meeting Mr. Fisher,” said Dan Plough (’75, ’80). They decided to attend a game, were immediately hooked, and have been season ticket holders for the past 18 years.

Coming back to campus for basketball made the Ploughs realize how much they missed SDSU. “We both said we’re sorry we didn’t do this earlier,” said Bobbie Plough (’76, ’91, ’11), who also returned for a doctoral degree in education. “It’s like being home.” They have become generous donors as a result, with consistent gifts to the athletics program and the College of Education.

“Dan and Bobbie are the quintessential SDSU alumni—loyal, generous and committed to the university,” said Y. Barry Chung, dean of the College of Education. “They understand that San Diego’s future depends on SDSU’s ability to educate and serve the community with the help of our donors.”

For Dan, SDSU was “the only university that I had in mind” after graduating from tiny Mountain Empire High School in Pine Valley. For Bobbie, it was an abrupt change of plans—a departure from the disappointing lack of diversity at a private university in the Pacific Northwest.

Although they attended SDSU together as undergraduates, the Ploughs met off-campus at La Mesa’s Grossmont High as supervision aides—“narcs,” as they freely admit.

After graduating, “I felt confident in my ability to go into the classroom and be an effective teacher,” said Bobbie, whose career path took her from middle and high schools to administrative positions in K-12 education and superintendent jobs in Riverside, Sacramento and Santa Clara counties.

Dan, a math teacher after SDSU, went on to administrative positions in the Warner Unified School District, Grossmont Union High School District and Calexico, also serving on the Ramona Unified School District board for seven years. Both are retired from positions at CSU East Bay.

He joined the Aztec Mentor Program, which connects juniors, seniors and graduate students with alumni who share their expertise and strengthen the students’ career development. It’s not just a one-to-one benefit, Dan noted. “To me, there is a true connection between San Diego State and San Diego County.” Bobbie plans to become a mentor as well.

The Ploughs’ gifts to the university have been made with no specifications as to how they should be used, even in the College of Education. “We do it because we want to make sure that the program does the best that it can,” said Dan.
1970s

'74 Juanita Brooks (political science) is among Benchmark Litigation’s “Top 10 Female Litigators in the United States” for 2018. She is a principal with Fish & Richardson.

'78 Steven Raketich ★ (management) recently sold Backyard X-Scapes, the San Diego-based landscape retailer/wholesaler he co-founded in 2002.

1980s

'84 Frederick W. Pierce IV ★ (finance, ’88 MBA) is among the San Diego Daily Transcript’s “50 Influential Leaders in San Diego” and also among the San Diego Business Journal’s top 500 “Influential Business Leaders” for 2018. His company, Pierce Education Properties, made Inc. magazine’s 2018 list of the 5000 Fastest Growing Private Companies in America.

'87 Terri Funk Graham (marketing) was appointed to the board of directors for Lumber Liquidators to serve on the compensation and nominating/corporate governance committees.

'89 Owen Schmidt (public administration) is chief operating officer of Michael Dusi Logistics in Paso Robles, California.

1990s

'90 Jess Roper (MS ’97, finance), a certified public accountant and senior finance executive for Biolase, was appointed to the company’s board of directors.

'93 Corey Phelps (recreation administration; ’95 MBA) published “Cracked It! How to Solve Big Problems and Sell Solutions Like Top Strategy Consultants.” He is associate dean at McGill University’s Desautels Faculty of Management in Montreal, Canada.

'95 Alissa Ahlman (finance), chief merchandising officer for the home décor retailer, AtHome Group, received a 2018 Women in Business Award from the Dallas Business Journal.

'96 Catherine Tyberg Puckett (international business) is vice president and business development manager for Bank of Southern California in the San Diego region.

2000s

'05 Nicholas Nelson (cellular and molecular biology) is chief business officer for Caris Life Sciences, headquartered in Dallas, Texas.

2010s

'12 Zander Keig (master of social work) was named 2018 Social Worker of the Year by the National Association of Social Work’s California chapter and was featured in a recent Washington Post article about the lives of transsexual men.

'13 Ilima-Lei Macfarlane (anthropology; ’14 MALAS) defended her flyweight title in the main event of Bellator 201.

'14 Taylor Fuller (political science) joined the law office of Renee M. Fairbanks in Santa Barbara.
The adult heart is roughly the size of a fist, weighs about 11 ounces and pulses at 60-100 beats per minute. That's the average heart, but certain human hearts are different. Tammy Blackburn's is stronger than most and more resilient. She has the heart of a champion athlete and a cancer survivor.

Blackburn’s long and arduous battle with cancer lasted nearly a year. After the initial shock of the diagnosis, she asked—as most people do—“why me?” The eventual answer was no surprise to anyone who knows Blackburn. “I was meant to do something with this.” Immediately, her thoughts turned to the San Diego State University community.

Blackburn is director of Development Technology for SDSU Alumni, a double alumna (’94, ’01) and a long-time donor to SDSU. The university recruited her, and she became a standout guard for the women's basketball team in the 1990s. Her legendary positive attitude inspired SDSU to create the Tammy Blackburn Award, given annually to the student-athlete who epitomizes loyalty, effort, athletic prowess and team spirit.

As Blackburn underwent treatment, she began to wonder if there was an unmet need among SDSU students affected by cancer. When financial aid administrators confirmed her suspicions, she settled on a name for what she would create—the Wallace Shatsky Blackburn Courage Through Cancer Fund.

Surgeon Anne Wallace and oncologist Rebecca Shatsky treated Blackburn during chemotherapy, surgery and radiation. “They saved my life,” Blackburn said. “Working on this fund, named for them and directed to SDSU students, has been a giant healing step—psychologically and emotionally.”

Blackburn shifted the focus away from herself and toward affirmation and support for others.

Mark Mays ('69), a cornerstone donor to the Wallace Shatsky Blackburn Courage Through Cancer Fund, recalled Blackburn’s support of his late wife, Karen, during her battle with cancer.

“Tammy is a positive person, a doer,” Mays said. “Like Karen, she is an extraordinary girl put on this earth to...unconsciously spread goodness. How many people do that?”

**First recipient**

The Wallace Shatsky Blackburn Courage Through Cancer Fund is already spreading goodness on the SDSU campus. Blackburn worked with Rose Pasanelli, director of Financial Aid and Scholarships, to identify the first recipient—sophomore Cameron McCullough.

McCullough’s mom, his sole support, had been forced to quit her job as a clinical research associate after a stage 4 cancer diagnosis. His part-time work at Home Depot helped, but couldn’t cover tuition payments. McCullough thought he would have to leave SDSU.

That was before Blackburn visited him and his mom in August. She told them the new fund would pay his debts from last year plus a portion of his tuition, a meal plan and books for this fall. If McCullough maintains his strong academic performance, he’ll continue to be eligible for assistance.

Blackburn is already working with SDSU to identify other students who might qualify for aid through the Wallace Shatsky Blackburn Courage Through Cancer Fund.

—Coleen L. Geraghty

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**A tremendous attitude**

The cancer diagnosis was not Blackburn’s first match with adversity. As a basketball star at Brea Olinda High School, she underwent surgery to correct a curvature of the spine. Regaining her confidence was difficult, she said later, but she persevered, and the Wildcats went on to win the California State Championship. Mark Trakh, her high school coach, is now head coach of the women’s squad at the University of Southern California (USC).

“Everything I saw in Tammy as a player was there in her fight with cancer,” Trakh said. “She has a tremendous attitude and outlook on life, and I’m so proud of all she’s accomplished as an athlete and a person.”

Blackburn is something of a celebrity in the collegiate basketball world as a sports broadcaster for CBS Sports, ESPN, and the Pac-12 Network. Even after she lost her hair to the chemo, she went on television bald. That kind of courage inspired many Pac-12 teams to honor her during the 2017-18 season. At game after game,
One of the most memorable “aha” moments of Guadalupe X. Ayala’s career in health sciences—an insight that ultimately worked to the benefit of low-income families in San Diego and Imperial counties—came to her as a newly minted Ph.D.

Ayala, now director of San Diego State University’s Institute for Behavioral and Community Health (IBACH) with two huge research awards under her belt, was at the time an assistant professor at an East Coast university. The work took her into predominantly Latino neighborhoods, developing interventions to improve conditions such as obesity and asthma.

Convinced she was making progress, Ayala was taken aback when community members and leaders suggested she begin working with a different community. They had lost patience, not with Ayala necessarily, but with the university, for seeing them primarily as research subjects.

The experience underscored for Ayala the notion that community engagement is critical in the research process. It figured prominently into her decision to return to SDSU, where she earned her Ph.D. in 2002, in a joint doctoral program. Now, she incorporates the lessons she learned into IBACH’s partnership approach to public health investigation into childhood obesity, oral health, teen pregnancy and a variety of other topics.

“I wanted to come back to San Diego State in part because of the reputation that the university has with the community, and because of the diversity of students,” said Ayala, known to friends as Suchi. “To do what I want to do, I need an institution that is welcomed by the community, and I need faculty and students who understand the culture.”
Ayala’s reputation in the community and on campus is such that she was appointed to a two-year term as SDSU’s Zahn Professor of Creativity and Innovation. In that role, she will drive research collaboration among students, encouraging those from different disciplines to tackle challenges none of them can accomplish on their own—public health students working with electrical engineers and computational scientists, for example, to crunch “big data.”

**A female mentor**

Ayala grew up in Calexico, where her father was a geography professor and her mother a library director at the SDSU Imperial Valley campus. In her senior year in high school, the family travelled by RV, bus and train to the southern tip of Argentina and back.

After high school and several quarters at the University of California, San Diego, Ayala left to become an administrative assistant at the University of San Diego. The private university’s free-tuition policy for employees gave her a chance to start over, and it was there, for the first time, that she met a female university science professor, cognitive psychologist Annette Taylor. “I just fell in love with research methods under her tutelage,” Ayala said.

Ayala’s next step was a master’s program at Cal State San Marcos, studying experimental social psychology. Eventually she realized her passion was doing applied work. In juvenile justice, being an agent of change meant working, not just with kids and families, but also within organizations and systems. That lesson has proved invaluable to her role at SDSU, seeking change through the influences that people like restaurant owners and childcare providers can bring to address health problems.

Childhood obesity is an example. During one research trip to Imperial County, Ayala was saddened to see kids lining up at restaurants for a basket of fries covered in cheese and a 32-ounce sugary soda, a day’s worth of calories they would consume in less time than it takes to watch the previews at a movie.

Ayala knew from experience that no one wanted to hear a lecture on eating habits. Instead, she and others in IBACH worked with restaurant owners to create healthier menus for children and make the healthy option an easy choice. With that accomplished, IBACH researchers realized they needed to consider a promotional game plan as well.

Through testing marketing strategies, they learned that kids and families will opt for the healthy menu option when it is available and promoted. Although most kids decide what they’re going to order before they even get to the restaurant, those decisions can be changed for the better.

**20 years of funding**

Under Ayala’s leadership, IBACH also is exploring sexual health issues. One investigator is designing interventions to reduce teen pregnancy through an approach that works with banks and other community organizations to help girls become more financially self-sufficient—so they can afford basic needs. The research team also works in Vista and Imperial County on issues of oral health and their connection to other health risks.

This kind of engagement with organizations and the community produces better results and allows investigators and their partners to build on their successes. San Diego State’s reputation in the region is such that “doors have been opening to us,” Ayala said.

John Elder, a former IBACH director and Ayala’s long-ago Ph.D. adviser, praises her research as responsible and forward-looking. “She knows the community incredibly well,” Elder said. “With Suchi, it’s always onward and upward. She never goes back to a smaller idea. It always gets bigger.”

Currently, Ayala is focused on a $10 million endowment she and others secured from an arm of the National Institutes of Health, structured to provide research funding for 20 years. It is bringing new information technology to researchers to help collect and crunch the mounds of data now available on individuals’ health and behaviors and keeping SDSU among the national leaders in public health.
As an archaeologist, I am often asked by visitors to my dig site: “Where are the dinosaurs?” It doesn’t seem to matter whether I’m at the Whaley House in Old Town or high up Palomar Mountain. For some reason, people staring at a big hole in the ground always want to hear about dinosaurs. Given my keen interest in the history of San Diego State University, people also frequently ask me: “What’s the oldest thing on campus?” My friend, the late professor Henry Janssen, used to tease me that he was the answer to both questions. In fact, San Diego State’s oldest object has a fascinating history, including campus traditions, legendary alumni, and unsolved criminal activity. Throngs of people walk past it every day, yet few know of its existence and even fewer, of its two-hundred-million-year history. This is the story of the dinosaur era footprints.

In fact, San Diego State’s oldest object has a fascinating history, including campus traditions, legendary alumni, and unsolved criminal activity. Throngs of people walk past it every day, yet few know of its existence and even fewer, of its two-hundred-million-year history. This is the story of the dinosaur era footprints.

Today’s Faculty Staff Club has a west-side walkway that was the original Hello Walk on Montezuma Mesa. This path took its name from the fact that starting in the 1930s, freshman students were obligated to line the walkway and greet upperclassmen at the start of each school year. To the west of the Hello Walk is the original Freshman Quad from the 1940s. At their intersection is a modest pink-hued slab of flagstone, set in concrete, an inch off the ground. A bronze plaque that adhered to the display was stolen decades ago and never replaced. The unassuming flagstone centerpiece contains about a dozen small fossilized footprints (each less than an inch in length) left by a reptile over 250,000,000 years ago. These Triassic Period tracks, first discovered by workers during the construction of the quad, were verified at the time as authentic by SDSU geology professor Baylor Brooks.

Famed SDSU alumna Marion Ross (’50) was on the freshman committee that approved the original brass plaque for the celebrated “dinosaur stone” in 1947. I recently met Ms. Ross, whose credits include working with Clark Gable, Lauren Bacall, and Cary Grant, as well as mastering the most diverse mothering roles in the history of television—from Mrs. Cunningham in “Happy Days” to the voice of Grandma SquarePants on “SpongeBob SquarePants.” When I asked her about the “dinosaur stone,” Marion said she remembered it, but then added, “Oh Seth dear, that was so long ago.” Any disappointment I might have felt at not learning more about these ancient footprints quickly evaporated in the joy of having this iconic mother figure call me “dear.”

San Diego State abounds with fascinating stories like this. Whether it is hidden WPA-era murals, our unrivaled history of live popular music, or an unassuming rock in the center of campus that was contemporaneous with Calornosaurus (yes, that’s a real dinosaur), our campus teems with intrigue from the past, excitement for the present, and promise for the future.

Seth Mallios is the University History Curator, professor of anthropology, and director of the South Coastal Information Center at SDSU. His 10th book, “Born Enslaved, Died a Pioneer: Nathan Harrison and the Historical Archaeology of Legend,” is due out in late 2019.