CAL POLY IS GOLD

FALL 2008
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>04</td>
<td>UNIVERSITY NEWS</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>ALUMNI NEWS</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>HOT SHOTS – MUSTANG GLADIATORS</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>COVER STORY</td>
<td>BEIJING GOLD                              Cal Poly Olympians bring the medals home</td>
</tr>
<tr>
<td>08</td>
<td>FEATURES</td>
<td>TOP 10 REASONS FOR JOINING POLYLINK</td>
</tr>
<tr>
<td>09</td>
<td></td>
<td>INCREDIBLE, EDIBLE WALLS                   Cal Poly cultivates affordable fresh produce for congested urban areas</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>LIGHTS, LAUGHTER AND FAITH                  Danny Gans has a solid career hit</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>DECIPHERING DNA                            Michelle Halsing is on the case</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>LIVING ABOVE THE SKY                       Greg Chamitoff calls the space station home</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>LEADING THE WAY TO SUSTAINABILITY          Cal Poly transforms campus planning and architecture</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>VICTORY AND GLORY                          Cal Poly Club Sports wins more than championships</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>GENEROSITY UNDER THE RADAR                  Supporters leave legacies with anonymous gifts</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>A GLASS ACT                                 Shayna Leib turns ordinary glass into extraordinary art</td>
</tr>
</tbody>
</table>
CONSTRUCTION
MANAGEMENT BUILDING
TO BE DEDICATED

ONE OF THE MOST IMPORTANT changes ever to impact Cal Poly’s nationally recognized Construction Management Department is the completion of its new building – the Construction Innovations Center.

The state-of-the-art facility opened this summer. “This landmark building is the culmination of 12 years of planning, design and construction dedicated to the modern education of professionals in our field,” said Construction Management Department Chair Al Hauck.

To celebrate, everyone is invited to a building dedication and open house, scheduled Saturday, Oct. 4, at 2:30 p.m. The dedication ceremony will include the official groundbreaking for the new Simpson Strong-Tie Materials Demonstration Lab, scheduled to begin construction this fall.

For more information, contact the Construction Management Department at 805-756-1323.

CAL POLY
RANKED IN NATIONAL
COMPENSATION STUDY

CAL POLY HAS RANKED THIRD NATIONALLY among public universities in a Forbes.com ranking of college campuses, based on a recent study that looks at earnings of alumni at colleges around the country.

Forbes.com says it bases its ratings on the salaries of college degree holders who have 10 to 20 years of work experience.

Cal Poly followed only Berkeley and University of Virginia in the public rankings, tying for the third spot with UCLA and UC San Diego.

According to the study, compiled by PayScale.com, Cal Poly alumni with 10 to 20 years of experience earn a median salary of $101,000, with 10 percent of the graduates at this experience level making more than $178,000.

“Cal Poly’s standing in this study tracks with what we are hearing from our alumni,” said President Warren J. Baker. “Many of them are commanding top salaries across a broad spectrum of industries, which demonstrates the value of our learn-by-doing educational approach.”

Cal Poly’s own placement studies show that over the past few years 92 to 96 percent of new alumni have become employed full time or have attended graduate school within one year of graduation, according to Provost William W. Durgin.

“Cal Poly’s fees are considerably less than those charged by the University of California campuses, making it an outstanding value for a superb technological education,” he said.
KENNEDY LIBRARY LAUNCHES DIGITAL ARCHIVE

The Kennedy Library has launched the DigitalCommons@Cal Poly, an online initiative that provides a centralized place to preserve and provide unlimited access to the rich variety of intellectual and scholarly work produced at Cal Poly.

The DigitalCommons@Cal Poly contains research from a variety of disciplines, including agriculture, architecture, business, education, engineering, liberal arts, science and mathematics.

It also serves as the digital archive for campus-hosted events, including the UC/CSU/CCC Sustainability Conference 2008, and campus journals, such as Moebius (College of Liberal Arts) and Focus (Department of City and Regional Planning).

By collecting scholarship in one central online location, Cal Poly brings faculty research to new audiences, including potential students, fellow faculty, funding agencies and other universities. Every item is assigned a unique, persistent URL so users can cite work freely without worry or inconvenience of broken links. Authors receive auto-generated monthly download statistics of their work, allowing them to quantify the use of their research.

And because DigitalCommons@Cal Poly is optimized for fast and accurate indexing by Google and other Internet search engines, more people will find and download content.

For authors who don't have time to contribute digital copies of their research, the Kennedy Library is prepared to scan documents and create PDFs, contact publishers for copyright permissions, prepare data to enhance search and retrieval, and upload and create entries.

Individuals representing any Cal Poly college, department, center or other campus unit may contribute content that they have authored. Examples of eligible materials include journal articles, conference proceedings, presentations, white papers, essays, technical reports and campus publications.

Visit the digital archive online at http://digitalcommons.calpoly.edu. For additional information or to contribute content, contact Marisa Ramirez, digital repository librarian at mramir14@calpoly.edu.

COLLEGE OF ENGINEERING HOSTS HIGH SCHOOL STUDENTS

THE SECOND ANNUAL 2008 Engineering Days program for high school students was a huge success. The weeklong program was tailored for underrepresented students to increase diversity on campus and in the workplace, encouraging more students to pursue an engineering career.

During the week, students participated in hands-on engineering labs taught by Cal Poly professors. Projects included various engineering applications such as building solid-fuel rockets, solar water heaters, water filtration systems, printed circuit boards and tissue engineering bio-reactors. At the end of the week, students showcased their projects to friends and family.

Students also had tours of the College of Engineering, Diablo Canyon power plant and local companies, and interacted with a collegiate panel, providing them an opportunity to ask questions about college life and engineering.

Of the 93 students who attended, 63 percent were from underrepresented groups, including 28 females. Students were primarily from local counties but the program also included 11 students from non-local counties and three students from out of state.

The program received $75,000 in donations, including a platinum sponsorship from Cisco, Edwards Air Force Base and Fluor. More than $9,000 was used to provide scholarships directly to the attending high school students.
RICK STURCKOW TO PILOT ANOTHER SHUTTLE MISSION

THE SIGHT OF THE International Space Station out of a cockpit window is starting to become a familiar one for Frederick W. “Rick” Sturckow (ME ’84). He is scheduled to command Space Shuttle Atlantis on the STS-128 mission, targeted for launch July 30, 2009.

This will be the fourth shuttle mission for Sturckow, who flew as commander of STS-117 in 2007 and pilot of STS-105 in 2001. His first flight was STS-88 in 1998, when he piloted the Shuttle Endeavour, carrying the first two modules of the International Space Station into orbit.

Sturckow’s upcoming flight will carry science projects and storage racks to the space station. It also will deliver a new station crew member, Nicole Stott, to the complex and return Tim Kopra to Earth.

A former marine pilot, Sturckow was selected as an astronaut in 1994.

ERLING SMITH WELCOMED AS VICE PROVOST

CAL POLY HAS STRENGTHENED its leadership team once again, naming Erling Smith as vice provost for strategic initiatives and planning.

Smith comes to Cal Poly from the University of Connecticut, bringing 12 years of leadership and administration experience and more than 30 years of teaching experience to the vice provost position.

According to Cal Poly Provost and Vice President for Academic Affairs William W. Durgin, Smith will be a welcome addition as Cal Poly builds on its work in support of the CSU strategic plan, Access to Excellence, to create its strategic plan and update its master plan. “Erling Smith will provide leadership to strengthen data-driven decision making as we identify and pursue the major initiatives that we will focus on during the next 10 years. I am delighted to have such an accomplished academic leader join our team” said Durgin.

As vice provost, Smith will be responsible for providing leadership in supporting major academic initiatives, coordinating strategic planning and related activities, and implementing the university’s master plan. He will supervise the office of institutional planning and analysis and report directly to the provost and vice president for academic affairs.

While at the University of Connecticut, Smith served as interim dean for the School of Engineering and as the head of the Department of Civil and Environmental Engineering. He also served on the University Senate and the Graduate Faculty Council Executive Committee.

Smith has also held accreditation coordinator and associate dean positions with the University of Connecticut.

He earned his Ph.D. in engineering science from the University of Durham and his B.Sc. in civil engineering from the University of Leeds, both in the United Kingdom.
PARENTS’ WEEKEND SCHEDULED OCT. 25-26

CAL POLY’S ANNUAL PARENTS’ WEEKEND event is scheduled for Saturday and Sunday, Oct. 25-26. It’s the perfect time to return to the Central Coast, visit your student and enjoy college life.

The weekend begins with tours of Cal Poly’s newest residential community – Poly Canyon Village. On Saturday afternoon, families are welcome to join fellow Mustang fans for the traditional Santa Maria style tri-tip barbecue followed by the Cal Poly football game at the Spanos Stadium.

A performing arts event featuring the work of Lar Lubovitch, one of the nation’s premier choreographers, is scheduled Saturday evening.

On Sunday, the Parent Program will provide transportation downtown to Cal Poly’s 11th annual Culturefest, where more than 25 Cal Poly student and local cultural organizations will showcase their rich heritages with displays, music, entertainment, hands-on activities and food. The event is a short walk from downtown shopping and restaurants.

The event is hosted by the Parent Program and planned in conjunction with Cal Poly Athletics, University Housing, the MultiCultural Center, Cal Poly Arts and San Luis Obispo Chamber of Commerce.

For more information, go to www.parent.calpoly.edu/parentsweekend.asp. Advance registration is required.

BILL SWANSON APPOINTED VICE CHAIRMAN OF BUSINESS-HIGHER EDUCATION FORUM

COLLEGE OF ENGINEERING ALUMNUS William H. “Bill” Swanson (IE ’73), chairman and CEO of Raytheon Co., has been named vice chairman of the Washington-based Business-Higher Education Forum (BHEF).

BHEF is a national organization of Fortune 500 CEOs and senior executives, prominent college and university presidents, and foundation leaders seeking innovative solutions to education challenges in the United States.

Swanson joins David J. Skorton, president of Cornell University, who will lead the organization as its new chairman, and Cal Poly President Warren J. Baker, who serves on the executive committee.
TOP 10 REASONS FOR JOINING POLYLINK

10. IT’S FREE
9. More than 8,400 alumni from the Class of 2008 to the Class of 1948 already have
8. More than 1,100 have volunteered to be career mentors
7. More than 500 have posted resumes online
6. It’s free
5. No weirdos or web riff-raff: only Cal Poly alumni, faculty and staff allowed (with plans to add students in the near future)
4. It’s great for safe social networking (see above)
3. Chance to win cool Cal Poly Alumni window decal if one of your uploaded photo album pics is chosen ‘PolyLink Photo of the Month’ (see previous cool winners at www.calpolylink.com/photogalleries)
2. Ability to find old roommates, college friends, and flames to see if they are now a) rich and famous or b) bald (see above)
1. Because it’s there

All you need to log in to PolyLink today is your first-time log-in code. If you are an alumnus and you have not yet logged in to PolyLink, you will find your personalized, first time login code next to your name on the back of this Cal Poly Magazine. Visit www.calpolylink.com today and log in!

PolyLinkers: be sure to watch for an e-mail in October asking you to vote for the PolyLink Photo of the Year winner. Only PolyLink members will be allowed to vote, once the ballot is online.

But everyone can enjoy the PolyLink Photo of the Month winners’ gallery, and other university photos online anytime – no password required. Visit now at www.calpolylink.com/photogalleries.

PolyLink member Mark Walz (EE ’80) and daughter Hannah enjoyed picking pumpkins last October at the Avila Barn. Mark and his wife Julie Walz (IE ’96) have taken “the little Mustang-in-training” to Cal Poly football games since the day she was born.
OVER THE SUMMER, Cal Poly joined forces with Urban Farming to create an ongoing, sustainable resource that helps inner city residents produce locally grown, wholesome fare for their own consumption and the community around them.

More than 4,000 plants – including cucumbers, tomatoes, spinach, peppers, strawberries, herbs and even edible nasturtiums – were cultivated at Cal Poly for installation at four inner city locations, including L.A.’s infamous Skid Row.

There was one problem – the inner city of Los Angeles is a veritable concrete vortex with little unused land. Undaunted, the growers decided to go vertical.

It all started with Urban Farming, a grassroots nonprofit that teaches local volunteers to cultivate vegetable and fruit gardens on unused land in urban areas. Kathy Kelly of the Winery Music Festival connected Cal Poly to the company and the effort took root.

Alums James Rickert (AGB ’93) of Western Agricultural Services and Paul Hertel (AG ’82) of Greenheart Farms were critical to the venture, donating thousands of seedling plants. San Luis Obispo’s Farm Supply and Green Acres Lavender Farms soon followed suit with their own seedling donations. The Cal Poly team was led by Hunter Francis of the Sustainable Agriculture Resource Consortium. Horticulture and crop science students Efran Wong and Jennifer Webster assisted Francis with the effort.

The effort grew legs when Green Living Technologies donated 180 self-irrigating, lattice-like panels of recycled aluminum. The panels allow plants to grow up the walls of big city skyscrapers, literally adding life to soulless concrete surroundings.

But when vertically mounted on walls, the plants have to be more mature than previous garden installations – and that’s where Cal Poly came in. The fledging plants were cultivated on campus for months before being transported by Meyer Trucking down to their destination in Skid Row.

The project with Cal Poly is one of many for Urban Farming. In 2005 the group began with three gardens in Detroit. By 2007 that number mushroomed to 160 gardens in the United States and abroad, providing fresh produce to an estimated 50,000 people, with a percentage of the harvest donated to homeless shelters and food banks.

In addition to benefits of the leafy green variety, the collective farming efforts help cut down on crime and build relationships between gardeners of various racial and ethnic backgrounds.

Now that is sowing the seeds of change. ☐

Urban Farming: www.urbanfarming.org  •  Sustainable Agricultural Resource Consortium: www.sarc.calpoly.edu
LIGHTS, LAUGHTER & FAITH

DANNY GANS HAS A SOLID CAREER HIT
BASEBALL FIELDS ARE INTRIGUING PLACES. Dreams are born there. Dreams die there. Sometimes they are starting points for where you need to go. Just ask Danny Gans, who studied physical education at Cal Poly.

It’s hard to miss Gans’ name and image when driving through the neon collage of the Las Vegas Strip. It jumps from billboards and signs, especially the one in front of the Mirage Casino, where he plays nightly shows in a 1,265-seat theater that bears his name.

Gans is considered the No. 1 entertainer in one of the world’s most dynamic cities, playing to thousands of people in a show that includes music, comedy, acting and impressions.

He has been named Las Vegas Entertainer of the Year for 11 straight years. Critics rave about his show. Loyal fans snap up the $100 tickets whenever they are in town.

It’s a good thing, but not exactly what Gans originally had in mind.

The Southern California native was quickly hitting his way toward a career as a professional baseball player, leading the minor leagues in home runs before a devastating injury killed his dream.

Gans had just been drafted by the Chicago White Sox when he fielded a routine ground ball and the runner’s cleats ended up completely severing his achilles tendon. “It was like taking a hatchet to it,” said Gans, grimacing.

Months in a walking cast and rehabilitation followed. It was a dark time to say the least.

“I moved back in with my parents in San Diego,” Gans said. “My career in baseball was over. I didn’t know what I was going to do.”

One night Gans, in his walking cast, and a few friends went to the Comedy Store in San Diego, watching comics and not being very impressed. “My buddies were nudging me during this comic’s act, saying ‘you’re better than this guy,’” Gans recalled. The comic caught wind of the conversation and dared Gans to come up to the mic. As the old cliché goes, the rest was history.

“I got up there and started doing my voices,” Gans said. “It continued on next page…
went over big.

Gans, whose father was a stand-up comedian and mother was a big-band singer, always had a gift for impersonations. “In high school, it was ‘Danny do the voices’ – it was a party trick,” said Gans. “I never thought it would be any more than a way to entertain my fellow teammates in the locker room. That was it.”

In the San Diego audience that night was the daughter of Mitzi Shore, the owner of the Comedy Store in Los Angeles. Before long, still in his walking cast, Gans was doing his voices at comedy clubs in Los Angeles. He refers to the performances as a diversion at the time and was not taking them seriously.

One thing lead to another. Gans ended up in Reno, working at a club for $400 a week. It was 1979.

“My faith really kept me going – God had a plan for me,” said Gans. “Julie’s support was also vital,” Gans met Julie, his wife of 27 years, while at Cal Poly prior to the injury. Both were active in an organization called “Campus Crusade for Christ.” Gans played baseball and lived on campus at Jespersen Hall during that time.

Gans came to Cal Poly on a full athletic scholarship, after seeing what he thought was the ideal baseball field. “I visited Cal Poly with my father on an invitation from the baseball program,” he said. “I saw this field on campus and thought what a great, small field! I could really improve my home-run stats with this place.”

Little did he know that field was only the on-campus practice field. The game field was at nearby Sinsheimer Park, a much larger field that had a constant breeze blowing toward home plate. Gans didn’t realize this until after he signed on with Cal Poly. “It’s actually funny now,” he said.

Gans credits the post-Cal Poly injury for making him stronger for the cutthroat world of show business. His act has constantly been at the top of the Las Vegas entertainment scene, playing the Mirage for the last eight years. In November he will relocate to a new casino, Encore.

As anyone who has seen his show knows, Gans is a live wire on stage. He calls Sammy Davis Jr. his greatest inspiration because of the versatility of Davis’ live shows, which included singing, dancing and impressions.

Gans builds on that formula. One minute he is giving a dead-on impersonation of Stevie Wonder, the next, it’s Garth Brooks, complete with the 10-gallon hat. Al Pacino in “Scent of a Woman” and Tom Hanks in “Forrest Gump” are only a couple of his many characters. Another highlight is Gans impersonating George Burns while rapping MC Hammer’s “U Can’t Touch This.” It’s not surprising audiences keep coming back.

It’s been quite a journey for Gans, who will always remember his experience at Cal Poly. “It’s a beautiful place, a beautiful part of the country,” he said. “Ironically, if it wasn’t for that small baseball field at Cal Poly, I would never have met my wife, Julie. She is the one who supported me and kept me going after my injury. I am where I need to be.” □
THE BODY PARTS ARRIVE at the lab innocuously enough, carefully packed inside a special white box: bones, teeth, hair, brain tissue – human remains to be analyzed for DNA that could yield clues to a person’s identity.

It’s definitely not a job for the faint at heart, but alumna Michelle Halsing (BIO ’01) is well suited to the demands of the job.

One of five senior criminalists at the California Department of Justice’s Missing Person’s DNA lab in Point Richmond, Halsing has worked on about 100 cases during her first year on the job. “Of those 100, I’ve been able to identify 16. It’s sad we can’t solve a higher percentage, but those 16 are worth all of the work."

The arduous three-day identification process requires patience and a highly scientific background. Once she receives a case from an outside agency, Halsing will sample everything, depending on its condition. “We look for the least damaged area of the bone and try to get DNA from there,” she explained. “Some remains have been out in the desert for 30 years or more or have been partially eaten by animals, so sampling the right area of the bone can be challenging.”

Using a basic tool much like a small sanding wheel, Halsing rids the specimen of dirt and other debris that can inhibit the process. “The sample is submerged into liquid nitrogen for approximately 10 minutes, and a machine pulverizes the bone or specimen into dust,” she said. “Chemicals are then added to the dust or specimen which releases the DNA.”

Finally, the DNA is washed and purified. Millions of DNA copies are made with a process called PCR that acts like a molecular Xerox machine. Once the copies are made, they are put onto another instrument and analyzed to reveal a person’s DNA profile.

But positive identification isn’t a given. The DNA lab has two databases. One database receives the DNA information gleaned from the analyzed remains. The other database holds DNA information sent to the lab from family members or loved ones of missing persons. “We get transients and homeless people from all over the country,” Halsing said. “If no one is looking for them, and we don’t have any DNA information in our database, they will likely remain Jane or John Doe forever. Definitely, the hardest part of my job is that I am not going to be able to identify every set of remains.”

Halsing’s job might provide enough drama for most couples, but not for her and her husband, Eric, who works for the Department of Justice also as a senior criminalist but for the criminal casework program.

Who has the tougher job? “My husband,” insisted Michelle. “Most of his victims are living and their perpetrators still at large.”

The couple, who live in Novato, have one son who turns 2 in September and another baby due in January. Because of their professions, the Halsings admit to being a bit more protective than your average parents. “The kids probably won’t like us for that – especially when they are in high school.”
IN THE OLYMPIC GAMES, there’s no getting around the magnitude of the moment, which arrives presenting two choices – seize the opportunity or shrink from it.

When that time came, the years of hard work, commitment and sacrifice building to a crescendo, Cal Poly graduates Stephanie Brown Trafton (IE ’04) and Gina Ostini Miles (CRSC ’97) delivered the performances of a lifetime.

Trafton, 28, entered the Beijing Games with the third-best discus throw in the world in 2008. She left with the gold medal after uncorking a 212-foot, 5-inch effort on her first throw, a mark that won by nearly four feet and gave the United States its first Olympic victory in the women’s discus since Lillian Copeland’s win in 1932.

Miles, 34, and her 14-year-old, 1,410-pound horse, McKinleigh, earned a silver medal in eventing, an equestrian competition that combines dressage, cross country and show jumping. They did it with a flawless final-day performance in Hong Kong, handling an eight-jump course cleanly to move onto the medal stand.

Both thrower and rider were inspired by the 1984 Olympics in Los Angeles. Trafton, then 4, watched gymnast Mary Lou Retton dazzle and wanted to be an Olympian. Miles, then 10, attended the Los Angeles Games and fell in love with eventing.

Making it to the Olympics is an accomplishment in itself. Also competing in the Beijing Games were former Cal Poly high jumper Sharon Day (KINE ’08) and former Mustang first baseman-outfielder Jimmy Van Ostrand (KINE), who played for Canada.

Cal Poly swimmer Mark Barr (NUTR) is scheduled to compete in the 2008 Beijing Paralympic games in September.

Trafton and Miles savored incredible outcomes. As she entered the discus ring for that fateful throw, Trafton tried to clear her mind and let her 6-foot 4-inch, 225-pound body do its job.

“That’s the point, being in the present, not worried about the future and not being held up by the past,” said Trafton, the first gold medalist in Cal Poly history. “You’re really in the moment and trying to do the best you can with whatever you have in that moment.”

“It was an awesome opportunity to get a medal for the United States and inspire the rest of the team.”

Trafton, who grew up in Oceano and graduated from Arroyo Grande High School, found herself in the spotlight after striking gold. When she arrived home in Galt, a town just south of Sacramento she and her husband Jerry moved to three years ago, the victory celebration drew more than 1,000 people.

Trafton said the time management skills she learned at Cal Poly while balancing being an industrial engineering major and competing in track and field helped her reach her potential. She’s still juggling, balancing training with a part-time job at an environmental consulting firm.

She’s also savoring the added attention a gold medal brings.

“It’s been really a great little ride,” she said.

Miles manages a ranch in Creston, where she lives with her husband, Morgan and their two children, Austin and Taylor. During a stopover in London on the way home from Hong Kong, she sounded ecstatic.

“It’s been a dream, just way more than I could have dreamed,” she said. “He (McKinleigh) delivered, certainly.”

Miles and McKinleigh finished with 56.1 penalty points, trailing only Germany’s Hinrich Romeike, who claimed gold with 54.2 penalty points. Miles began the last day in fourth place, but her clean ride moved her up to second place.

“By the time we turned around, the next rider had gotten a
penalty, so we moved up to medal position,” she said. “We were just over the moon. The next rider also dropped a rail … It just couldn’t get better.”

Miles started riding when she was 7 and living in Davis. Three years later, the Olympics gave her a goal. From there, hard work, dedication and finding a way to pay for the high cost of eventing - $50,000-$75,000 a year - proved challenging.

Miles said her Cal Poly days as a crop science major exposed her to a wider world and helped her develop contacts.

“When you’re standing on the podium and reflecting and watching the flags go up, you have a moment to check everything that went into it,” she said. “The ups and downs, the road is full of both.”
Greg Chamitoff calls the International Station home living above the Sky

(Above) The International Space Station  (Far right) Greg Chamitoff concentrates on a game of chess aboard the International Space Station. He plays remotely against the crew at Mission Control on the Earth’s surface.
FLOTTING IN A VOID, 250 miles above the vivid blue expanse of our world, Greg Chamitoff (EE ’84) starts his day like many other people on Earth. He wakes up, perhaps drinks a little coffee, and gets ready for work.

As you read these words, Chamitoff and fellow cosmonauts Sergei Volkov and Oleg Kononenko are living in the International Space Station, circling the world every 90 minutes, quietly soaring over every major continent, every ocean and countless major cities. They could be passing above you right now.

Chamitoff is scheduled to return to Earth in November, having lived and worked on the station since early June. But before coming home, Chamitoff and his Russian colleagues are performing groundbreaking research on the effects of long-term weightlessness to the human body, laying the foundation for future exploration missions to the moon and Mars.

Focus areas include cardiac activity, blood circulation, respiration and sleep patterns. Additional experiments examine how prolonged space travel affects the growth and development of plants, along with the cultivation of certain bacteria in zero gravity conditions.

To sustain space travelers during long journeys, Chamitoff and his colleagues are also working with equipment such as oxygen generators and machines that recycle air humidity. Another machine, scheduled for future delivery to the station, creates drinking water by recycling urine.

If that sounds unappealing, Chamitoff pointed out that a mission to Mars would take about three years round-trip. Self-sufficiency is critical. “The work on this station is just the beginning,” he said.

Also critical for space-travelers is physical exercise since muscles deteriorate in weightless environments due to lack of gravity. Chamitoff exercises two hours a day, a routine that includes a special treadmill equipped with an adjustable harness to hold him down and simulate gravity. It also provides a spectacular view out of a lower space station window.

“I was on the treadmill one day, looking down on an entire hurricane off the coast of Texas,” recalls Chamitoff.
"It was surreal."

Cheerfully describing weightlessness as “Disneyland every day,” Chamitoff said there was a definite adaptation period when he first arrived on the station and was awed by the size of the facility.

The International Space Station is comprised of six state-of-the-art laboratories, stretching the width of a football field and nearly that same distance in length. Nearly an acre of solar panels provide electrical power.

Sixteen countries have contributed resources to the station, including Russia, the United States and Japan. Chamitoff works primarily in the U.S. segment. One airlock away, Volkov and Kononenko do the same in the Russian segment. Despite being in different areas, all three often work, eat and even enjoy down time together.

“We do have movie nights,” said Chamitoff chuckling. “We saw ‘Indiana Jones’ the other day.”

In addition, the father of two children talks to his family as often as he can via a video phone. “That really has been the most challenging part of this experience, being away from home and family.”

As an undergraduate student at Cal Poly, Chamitoff taught lab courses in circuit design and worked summer internships at Atari Computers and IBM. From there, he went on to earn master’s degrees from the California Institute of Technology and University of Houston Clear Lake, and a Ph.D. in aeronautics and astronautics from the Massachusetts Institute of Technology.

While at MIT, Chamitoff worked on the Hubble Space Telescope, flight control upgrades for the Space Shuttle autopilot, and the altitude control system for the International Space Station.

The Montreal native was selected to become an astronaut in 1998 and qualified for his flight assignment as mission specialist in 2000. In July 2002, Chamitoff spent time in a different kind of weightless environment, serving as a crew-member for nine days on the Aquarius undersea research habitat in the Florida keys.

Once assigned as a space station crew member, Chamitoff’s in-depth training on space station systems took him all over the world, spending time in Russia, Japan and Canada. He was selected for this mission from the current astronaut corps of 100 individuals, based on mission objectives and needed skills.

Hovering weightlessly in the station’s U.S. laboratory, wearing a Cal Poly T-shirt, Chamitoff said the principles he puts into practice every day on the space station came from his alma mater. He fondly recalls Cal Poly Mathematics Professor James Mueller.

“Cal Poly’s approach to theory and application made all the difference for me,” he said. “It provided the foundation for everything I do up here. I can’t wait to come back on campus, see old mentors and friends, and even do a run up Poly Canyon. I look forward to that day.”

Editors note: You can submit inquiries to Chamitoff and get answers directly from space on NASA’s Web site. To submit a question, visit: http://www.nasa.gov/ask.
“WHAT COULD BE MORE polytechnic than sustainability?”

That’s not a question but a statement of fact in the minds of many at Cal Poly, including Dennis Elliot (ME ’93), the new campus sustainability manager. “Our students learn how things work and learn how to do it better. It’s not only about knowledge but the application of knowledge through problem solving, collaboration and innovation,” he said.

Cal Poly, with little fanfare, is assuming a prominent leadership role in sustainability. Its stature is apparent in the long string of best practices awards received from its higher-education peers – displayed modestly in the back halls of the antiquated Quonset-style building that houses Facility Planning and Services. More important, go outside, and there’s no missing how the sustainability movement is transforming campus planning and architecture, along with student life and curricula. A “next generation” of buildings, infrastructure, operations and mindsets is reflected everywhere.

That leadership was on display in August when Cal Poly hosted a sustainability conference for higher education institutions throughout the state. With more than 1,000 participants from the UC, CSU and state community college systems, including 250 students, the conference was the largest-ever network of colleges collaborating on sustainability solutions. Elliot conducted tours of Cal Poly’s array of 14 cutting-edge, new-technology demonstration projects implemented in partnership with the California Energy Commission’s Public Interest Energy Research Program.

Ranging from energy regeneration models, digital and wireless control technologies to a variety of lighting, heating, ventilation and air conditioning systems, the tour was a microcosm of Cal Poly’s larger sustainability accomplishments and ambitions. “Some campuses have a few of these demonstration projects, some one or two, and some none. Cal Poly was able to showcase virtually every major technology that is being explored right now,” noted Elliot.

Similarly, said R. Thomas Jones, dean of the College of Architecture and Environmental Design, Cal Poly students were instrumental in organizing a “Focus the Nation” telecast in January on global warming solutions, which engaged more than a million students, faculty and staff from educational institutions around the world. The students also win state, national and international green design prizes on a regular basis. And, through clubs, organizations and individual action, they are influencing campus and CSU sustainability policies “constructively, collaboratively, respectfully – and they are getting results.”

Such successes are the culmination of what Elliot calls the “grassroots groundswell” and day-to-day efforts of a growing cross-section of student and faculty groups, which are spurring the university’s aggressive adoption of conservation and renewable energy pursuits.

With more than 25 years of experience in Cal Poly’s evolving energy and utility operations, Elliot has been selected by Larry Kelley, vice president of administration and finance, to define, shape and lead one of the campus’ – and CSU’s – newest and most demanding posts. Among Elliot’s goals: “To not only modernize our building and lighting systems but to develop on-site renewable energy generation projects – solar, wind power, biomass plants – to significantly reduce our carbon footprint.”

And, throughout the process, involve and engage students.

“I am seeing a revolution take place in interdisciplinary and project-based learning,” said Elliot. “The issues of sustainability have become a catalyst for transforming the way we teach, the curriculum we offer, and the new standard for what makes a graduate literate. The language of sustainability is the language of the day.”

The challenges of climate change and sustainability are large, complex and time-sensitive.

“And all the horsepower needed to solve these problems is at Cal Poly,” said Elliot. □
VICTORY AND GLORY
CAL POLY CLUB SPORTS WINS MORE THAN CHAMPIONSHIPS

BY SCOTT ROARK
ADRENALINE, A LOT OF FUN, a little pain, and memories that will last a lifetime.

The Cal Poly Club Sports Program has these in abundance, with sports clubs that are hard-hitting, driven and dirty. Other clubs require more strategy and calculation, replacing teamwork with self-reliance.

But all clubs continue to make their mark on the state and national sports scenes, securing multiple championships, forging personal bonds, and providing a foundation for real-world leadership and management skills for students.

The Cal Poly Club Sports Program, founded nearly two decades ago, is completely separate from NCAA Athletics. It is comprised of 21 club teams with more than 850 students, competing hard in such sports as rugby, lacrosse, water polo, soccer, volleyball, surfing, sailing and fencing.

According to Club Sports Program Coordinator Everette Brooks, the program is primarily student-run, classified as other clubs on campus with minimal funding. The program operates like any business selling a product – each team tries to brand and promote itself as the best, even though their abilities are limited by a lack of resources. "Sponsorships and private support are critical," he said.

Each team elects their own officers who report directly to Brooks, who in turn coordinates general sports club activities. Coaches, many of them unpaid volunteers, are responsible for scheduling practices, travel, publicity and competitive events. Many teams pay their own travel expenses, relying on alumni support to make it through the season.

A prime example of this is the Cal Poly Rugby Program, started in 1966 by Cal Poly football players. A colorful history has been a fitting prelude to where the rugby program is today, having garnered national and international respect, and playing top contenders such as San Diego State and Arizona State.

Cal Poly Rugby has been ranked in the nation's top 10, and over the years has traveled to Fiji, Ireland and Wales. Domestically Cal Poly rugby has played Penn State and Ohio State, beating the latter on their home turf as underdogs in 1999.

Like many Club Sports Programs, alumni support has been critical according to current head coach and former Cal Poly rugby player Nick Massman (ET '93). The six-figure travel and operating budget is fully funded by the parents, supporters and alumni of the rugby club, which pays for its own trainers, facilities and medical staff. The program typically has more than 130 players at the season's start.

continued on next page…

(L) Grant Dismuke, (Below, L-R) Alex Pappas, Benjamin Cannon, Dismuke and Ryder "The Boss" Ross
“Our network of dedicated alumni is one of our greatest assets,” Massman said. “Many of these individuals played rugby here years ago – but are still active with the program, mentoring our current players and providing critical support as needed. Their dedication really speaks to the power of this program.” Alumni have also established an academic scholarship for rugby players, with the first award scheduled this academic year.

Team captain Benjamin Cannon (BRAE) calls rugby a “huge part” of his experience as a Cal Poly student. “It’s a great way to meet people, make great friends, travel, and make the college experience a lot better,” he said. “It helps students feel like they belong to something and gives everyone something in common.”

This sentiment is echoed by the members of the Cal Poly Women's Lacrosse Program, another successful sports club which had its beginning in 1991. The team has won seven national championships in the last eight years. Not bad for an organization that does its own fundraising and relies on donations from friends and family.

“We pay for own equipment, practice five days a week, and play games on the weekends with full class schedules,” said team captain Laura Hobson (REC). “The commitment level is phenomenal – you couldn’t meet a more determined group of women anywhere.”

Great memories abound for Hobson and her teammates. “I remember walking onto the field of Mile High Stadium in Denver to play in my first national championship,” recalls Sarina Madnick (BUS). “It started snowing in the second half. It was a beautiful sight.”

More than 40 women compete on two teams for the lacrosse program. The “B team” is a competitive training ground for the “A team,” which competes on a national scale.

Other notable club sports programs include men's and women's water polo, which both won national championships last year. The coaches with both programs, Matt Landre (BIO '01, MBA '03), Bobby Erzen and Dirk Camilli, were named national coaches of the year.

“These programs are great examples of what students and their supporters can do,” said Brooks. “They win the hearts and minds of students and prepare them for the teamwork skills needed in the professional world. The effort and sacrifice pay countless dividends in the end.”

Editor's note: More information about Cal Poly Club Sports can be found online at http://studentlife.calpoly.edu/spo/index.asp. Information about Cal Poly Rugby can be found at www.calpolyrugby.com.

A RECORD-BREAKING YEAR for fundraising at Cal Poly ended with yet another extraordinarily generous gift from anonymous donors.

The most recent gift, a $10-million bequest commitment, brings private support for the fiscal year ending June 30 to approximately $95 million, the highest committed total ever for annual fundraising at Cal Poly. According to the most recent report from the Council of Aid to Education regarding voluntary support of education out of 144 public master’s degree institutions that participated in the ranking, Cal Poly ranked third in gifts received and had the largest endowment.

The latest gift reflects the donors’ strong belief in the university as a whole, with half the funds designated for student support through scholarships and half for strategic initiatives at the direction of campus leadership. It was made by an alumnus and his wife who simply believe in the learn-by-doing educational approach of Cal Poly, as well as its polytechnic mission, according to President Warren J. Baker.

“A gift of this kind, wonderfully generous in and of itself, is especially helpful because it assists students with scholarship support and provides flexibility to fund new initiatives. It will
also certainly inspire others to act,” Baker said.

The alumnus explained his gift this way: “As you get older, you begin to think about what you’ve got to show for a lifetime of work. In the final analysis, it isn’t the ‘stuff’ that matters; it’s the people. As someone who struggled to make ends meet as a student at Cal Poly, I feel good about giving both the institution and its students a helping hand.”

BEQUESTS AND GIFTS… HAVE CREATED THE LARGEST ENDOWMENT IN THE CSU, WHICH IS NOW APPROXIMATELY $166 MILLION.

The most recent anonymous bequest commitment follows the largest bequest commitment ever made to Cal Poly or any California State University campus. In 2007, the Architecture Department with the College of Architecture and Environmental Design received a bequest commitment of $60 million.

Cal Poly’s experience with donors who wish to be unnamed wasn’t unique in the 2007 academic year, according to the Chronicle of Philanthropy.

The publication’s list of $1-million-plus gifts that were announced in 2007 from campuses around the county included 87 unnamed donors, with gifts totaling some $1.1 billion, far more than the totals of large anonymous gifts documented by the publication in recent years.

What is prompting this trend of donors choosing not to reveal their names? “Some may do it out of concern for family and privacy. And some simply want the gift to be the focus – not themselves – hoping that others be motivated to give,” Cal Poly Advancement Vice President Sandra Ogren said.

Bequests and gifts by many other Cal Poly alumni and supporters through the years have created the largest endowment in the CSU, which is now approximately $166 million. “The annual benefit to the campus from the endowment is approximately $6.5 million – the result of several generations of past gifts, many from the population group known as the ‘Greatest Generation.’ It is exciting now to see the next generation, the ‘Baby Boomers,’ leave their mark on the university through bequests and other gifts,” Baker said. □
A GLASS ACT
ALUMNA TURNS ORDINARY GLASS INTO EXTRAORDINARY ART
IF A PIECE OF GLASS breaks in an artist's studio and no one is there to hear it, does it make a sound?

That's the kind of philosophical question that Shayna Leib (PHIL '98) might have pondered during her undergraduate years at Cal Poly. She even considered taking it all the way to the doctorate level at SUNY Binghamton, when she made an about-face and decided to study glass instead, earning an MFA degree from the University of Wisconsin-Madison and garnering numerous awards and accolades along the way.

Why glass? “I was drawn to it the first time I saw glass blowing at a Poly Royal when I was a kid,” Leib said. “I have a love/hate relationship with fire. I was haunted by extreme nightmares about fire, yet it held an irresistible pull. I’m drawn to it divinely.”

Divine, indeed. Her exquisite work is now exhibited in some of the nation’s top galleries, including the world renowned Habatat Galleries Chicago. According to her mother, Sharon Reese, Shayna has never approached a gallery. They come to her – a sure sign that her art is much sought after.

In 2003, the same year she earned her MFA degree, Leib won the prestigious Horizon Emerging Artists Award from the New York Museum of Arts & Design and Hunter Douglas. The winning piece is a two-panel sculpture that, when seamlessly combined, measures 15-inches high and stretches four-feet across. The entire sculpture weighs nearly 100 pounds and consists of about 45,000 individual pieces of glass, referred to as “cane.”

Cane is created by layering colorants in between gathers of clear glass and stretching the molten glass into long rods, Leib explained. “Cane pulling is often compared to generating taffy candy.”

Her winning piece was also featured at the 2003 SOFA (Sculptural Objects Functional Art) exhibit in New York City, an annual exhibit in which she continues to show. Since those early days, she’s enjoyed a steady, if somewhat slow climb to the top.

The 33-year-old San Luis Obispo native insists her success didn’t come easy. “I lived on mac ‘n’ cheese and worked up to four jobs to provide for myself and my art,” she recalled.

“You have to be willing to endure that, to take calculated risks. When starting a business, you have to make a choice to live without the traditional ‘ornaments of life.’ It isn’t easy living without a safety net.”

Whatever the hardship, the resulting works of art are truly amazing. In Leib’s capable hands, the cold hard surface of glass takes on an almost surreal organic, fluid look. The pieces invite scrutiny. Colors are brilliantly displayed. The pieces appear to be illuminated from within. Light and sunlight play upon the sculptures’ uneven surface, remarkably changing their appearance.

Her art is about wind and water. “Things most people don’t stop to look at,” she says. She sees the beauty of movement – wind over grass, water over sea grass. “I lend my eyes to those who can’t see what I see. I notice the small things.”

The process is meticulously painstaking, physically exhausting and emotionally demanding. The most challenging aspect she says is the “copious amounts of time spent in solitude” assembling her pieces.” That, and standing for hours in front of 2400-degree equipment, lovingly referred to as the “hotshop.”

Although it’s hard work, glass is the only medium that holds her attention. “I can spend my whole life studying it, and I’ll never master it. The day I create the perfect landscape is the day I quit glass.”

While glassblowing is certainly a passion, Leib is a complicated woman with many passions. While majoring in philosophy, she also studied glass, literature and classical piano. “They all strive to say the same thing,” Leib insisted. “Philosophy says it esoterically, literature says it obscurely, music says it sublimely, and art says it abstractly.”

Her art says it perfectly.

To see more of Shayna Leib’s work, visit her Web site at http://www.shaynaleib.com/.

“I HAVE A LOVE/HATE RELATIONSHIP WITH FIRE. I WAS HAUNTED BY EXTREME NIGHTMARES ABOUT FIRE, YET IT HELD AN IRRESISTIBLE PULL. I’M DRAWN TO IT DIVINELY’
CHINA AND YANGTZE RIVER
April 29-May 11, 2009

CHINA, ONE OF THE WORLD’S most charismatic countries, is the destination for the Cal Poly Alumni Association spring travel program. The 13-day trip includes visits to the Great Wall, Peking’s Temple of Heaven, Xi’an’s Terra Cotta Warriors, and Shanghai’s 400-year old Yu Gardens. Enjoy a cruise down the world’s third-longest river with passage through the beautiful Three Gorges and Lesser Gorges. Also included is a special look at Chinese culture with a Hutong Pedicab Tour and a traditional Peking Opera performance.

TUSCANY-CORTONA
September 16-24, 2009

CELEBRATE AN ANNIVERSARY with us with a return trip to Cortona, where Cal Poly began its first travel program in 2004. The inspiration for Frances Mayes’ book, “Under the Tuscan Sun,” Cortona captures the charm of Italian country living. Visit Assisi, Siena, Florence and Perugia, and enjoy the local wines with a visit to Montalcino.

To find out more about traveling in 2009 or about future travel programs with the Cal Poly Alumni Association, contact Richard LeRoy at rleroy@calpoly.edu, 805-756-5747.
**JOHN SWEENEY TO LEAD CAL POLY ALUMNI ASSOCIATION**

**JOHN SWEENEY (CE ’89),** a Cal Poly engineering graduate and founder and CEO of Dairy Procurement Group LLC of California, is the new president of the Cal Poly Alumni Association, the voice of more than 140,000 university alumni.

Sweeney earned an MBA from Wharton and is a professional registered engineer in California. He currently serves on the College of Engineering’s Dean Advisory Council and is a former member of the Board of Trustees for the California State University system.

In addition to Sweeney, the following joined the CPAA Board of Directors for 2008-09:

- **Bassel Anber (CM ’94),** vice president for Northern California
- **Mike Cook (LA ’01),** vice president for Northern California
- **Erica Stewart (HE ’97),** vice president for Central Coast
- **Mary LaVenture (JOUR ’77),** vice president for special interest chapters
- **Patrick DeLong (BUS ’90),** director for Orfalea College of Business
- **Kayla DeMonte (BUS),** student director
- **Ricardo Echeverria (AGM ’90),** director at large
- **Tom Lebens (EE ’89),** director at large
- **Nancy Procu nier (HE ’86),** director at large
- **Andrew Miroglio (ME),** student rep

**HOMECOMING 2008**

MAKE SURE TO MARK your calendar and make your reservations for Homecoming 2008, set for Nov. 7-8. Homecoming is a great opportunity to revisit the Central Coast, see what’s new on campus, reconnect with classmates and meet other alumni, current students and Cal Poly families.

This year, the Mustangs will face North Carolina Central in Spanos Stadium. Before the game, sample Central Coast wines at the popular Cal Poly Alumni Association wine tasting, try delicious Cal Poly chocolates, and enjoy the tri-tip at the tailgate barbecue. Other 2008 Homecoming weekend activities include the Grand Reunion, which honors the Class of 1958 and all earlier graduates, and the Honored Alumni Banquet.

**FRIDAY, NOV 7 - CAMPUS HOMECOMING EVENTS**

**Grand Reunion Activities**

Honored Alumni and Grand Reunion Banquet

**SATURDAY, NOV 8 - HOMECOMING FOOTBALL**

CPAA Wine Tasting / Mustang Corral Tailgate BBQ

Cal Poly Football vs. North Carolina Central

Pre-game events sell out in advance, so tickets should be purchased early. Lodging reservations in the area book up quickly, as well. Check the Homecoming Web site for more details at www.homecoming.calpoly.edu.
Mustang Gladiators
Twin Alums Compete on National Show

By Scott Roark

The Battle Begins.

Lillian Thomasson (AGSC ’06) and her twin sister, Clinessa Burch (IT ’05), step into the enormous arena, the set of the hit television show “American Gladiators,” a world of lights, cameras, celebrity and extremely intimidating opponents.

The Los Osos residents fight hard against gladiators “Jet” and “Crush,” prevailing in such events as “The Wall” and “Snapback” with thousands of cheering fans on the set and at home. The sisters eventually went head to head in “Eliminator,” which Thomasson won. She was later eliminated in another episode during the semifinals.

The 5-foot-9-inch, 140-pound Burch said the whole thing started as something to do for the weekend. “They had an open call for the show. We thought it would be fun to tell our friends we tried out for ‘American Gladiators.’ Before we knew it, we were on.”

The twins were two of 40 people, chosen out of 22,000 applicants, to be on the show this season.

Adventure has always been a part of the twins’ lives. Both have traveled extensively. Thomasson spent a year in Costa Rica playing for its national basketball team.

The twins also own their business, Burch Concrete Solutions. The construction business specializes in decorative concrete for custom homes.

Both credit their experience at Cal Poly for giving them the confidence to try new things. “Professors like Larry Gay and Leslie Labhard in industrial technology were huge influences,” said Burch. “We like doing our own thing, since our current profession is dominated by men. I guess we like to be a little different.”

(L-R) Lillian Thomasson and Clinessa Burch
SCHOLARSHIPS
SUPPORTING STUDENTS AT CAL POLY

MANY YOUNG PEOPLE DREAM OF GOING TO COLLEGE — but numerous hopeful students would not be able to attend Cal Poly without the financial assistance they receive through scholarships.

Cal Poly has over 330 endowed scholarships supporting students universitywide. An endowed scholarship is a permanent fund in which the original assets are held in perpetuity, and only a portion of the earnings from the fund is distributed to students on an annual basis. In this way, an endowed scholarship supports students both now and in the future.

Scholarships can be named after you, your family, or in honor/memory of a loved one and can be designated to a particular college, department or major.

To learn more about how you can support Cal Poly students by establishing a scholarship or endowment, please visit us on the Web or contact us directly.

Web: www.giving.calpoly.edu/scholarships
E-mail: plannedgiving@calpoly.edu
Phone: (805) 756-7125
Toll Free: (800) 549-2666

PLANNED GIVING AND ENDOWMENTS
Heron Hall, Building 117
Cal Poly
San Luis Obispo, CA 93407-0444

IT’S YOUR LEGACY.
EXPLORE IT.
(Above) Everyone celebrated the opening of the first phase of Poly Canyon Village, Cal Poly's newest student housing complex, on Aug. 19. The on-campus facility is housing more than 1,500 students for the fall 2008 quarter.

When completed in 2009, the complex will boast 615 apartments with 2,661 beds, along with 1,926 parking spaces and 11,255 square feet of retail space. The LEED®-New Construction certified project will be the largest on-campus housing facility in the California State University system.

Change Service Requested
Parents, please note: If your son or daughter is no longer at this address, please send his or her current address to alumni-info@calpoly.edu.