TECHNIQUES

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Mary Ann Cloyd

at Caltech's

Gene Pool

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"It Feels Good to Give"

Building on her 25-year connection with Caltech, Mary Ann Cloyd, a former partner at PricewaterhouseCoopers, chose to include the Institute in her will. Planned gifts such as hers are helping propel Caltech's *Break Through* campaign. She talked with *Techniques* about what inspires her.



How did you first become involved with Caltech?

About 25 years ago, I participated in a geology excursion around Los Angeles led by a Caltech scientist. I loved it, and one of my partners suggested, "Mary Ann, you ought to check out the Associates."

There's something about the Caltech Associates—they're the most welcoming group. I love being around smart people, and I've found my fellow members to be incredibly bright, with interests that I share. The travel opportunities are just unbelievable. I admit, I am a nerd and I like nerd trips!

Caltech satisfies my intense interest in science.



Cloyd with Caltech Associates executive director Catherine Reeves in Chile

Why did you decide to include Caltech in your estate plans?

I have no children, and when it came time to redo my will, I wanted everything to go to charity, with a significant portion to Caltech. I know this is an institution that does good. It feels good to give. I think most of us want to believe we have made a difference. It's important for people to understand that every gift matters, whatever the size.

The gift comes out of my lifelong interest in science and technology and a strong desire to support education.

Caltech made it so easy, and to me that was a big deal. Jim [Ehlers, senior director of gift planning] shared language I could give to my attorney. Everybody at Caltech made me feel so appreciated.

You directed your gift to endow a scholarship and a fund for the Center for Teaching, Learning, and Outreach, both in recognition of Caltech astronomer Mike Brown, staff member Diane Binney, and their daughter. Why give in honor of others?

Mike, Diane, and their daughter are like family, and I wanted them to know how much they mean to me. And Caltech is important to them, too.

John Dienes on Good Ideas

When John Dienes (MS '58, PhD '61) planned his philanthropic legacy, just one place came to mind. "I only thought about Caltech," he says.

ith a gift to Caltech and its *Break Through* campaign, Dienes has established a charitable remainder unitrust to support early-stage research and multiyear projects in the Division of Engineering and Applied Science.

His Caltech education helped Dienes build a career in science. While studying for his master's, he took a one-on-one class on nonlinear mechanics with Thomas Caughey (PhD '54). Professor Caughey was gruff but kind, Dienes recalls, and encouraged him to pursue a doctoral degree.

"The PhD enabled me to continue in research," Dienes says. First at General Atomics and then for 35 years at Los Alamos National Laboratory, he applied nonlinear theory to problems involving extreme stresses and strain rates. This included both ductile and brittle failure as well as explosive safety.

These days, Dienes enjoys meeting with scienceminded friends to discuss the latest advances.

"I am really interested in Caltech's work on gravitational waves," Dienes says. "So many good ideas come out of Caltech."

His generosity will give Caltech scientists and engineers greater freedom to pursue good ideas, wherever they lead.



Torchbearers

HONOR ROLL

In recent months, the following people have joined Caltech's Torchbearers Legacy Society.

Noel and Emily Corngold David Drake (BS '74) Stuart Goodgold (BS '68) Robert Huskey (PhD '68) Barry Lieberman (BS '68) William Pegram (MS '85, PhD '89) Ronald Remmel (BS '65) Frank Spaid (MS '61, PhD '64) Peter Szolovits (BS '70, PhD '75) Joseph Tajnai (BS '64, MS '66, PhD '70) Hal Wyman (BS '62)

ESTATE GIFTS

From the estate of **William** (BS '50) **and Joan Haefliger**, Caltech received \$10,000 in unrestricted support.

From the estate of **Robert and Florence Minto**, Caltech received \$100,000 in unrestricted support.

From the estate of **Fred Wood** (BS '51), Caltech received more than \$700,000 in unrestricted support.



A Gift with a Long View

Allan Markowitz (right) with astrophysics professor Phil Hopkins

As a young boy in El Sereno, a neighborhood in northeast Los Angeles, Allan Markowitz was fascinated with astronomy.

earby Caltech helped fan and fuel Markowitz's lifelong interest in the cosmos. So it made sense to reach out to the Institute when he arranged his estate plans.

"When I initiated the contact, I was thinking about where a bequest would do the most good," says Markowitz, who now lives in Pasadena, "and here in my neighborhood is Caltech, an institution I have admired my whole life."

EYES ON THE SKY

As a boy, Markowitz came to campus with his mother for astronomy talks in the Earnest C. Watson Lecture Series.

"Kids are always enthralled by the biggest, the best, the farthest," he says. "I was taken with the idea of stars being so far away. Learning about something I'd never be able to experience in person really fascinated me. It still does."

When Markowitz attended college, only a few dozen institutions nationwide allowed students to specialize in astronomy. He pursued the

subject as an undergraduate at Pasadena City College and UCLA before enrolling at Ohio State University, where he was a member of the astronomy PhD program's third graduating class.

ENTREPRENEUR AND EDUCATOR

After earning his doctorate, Markowitz returned to Southern California and founded a wholesale craft-supply business in the San Gabriel Valley. While he led the company for 24 years, he sustained his connection to astronomy by teaching two or three nights a week at Citrus College in Glendora, California.

"At five o'clock, I would take off one hat and put on the other," Markowitz says. "It kept me up on some of the latest advances. Astronomy is a very dynamic field."

Among the several thousand students he taught over almost two decades, some of those he remembers best, including priests, nuns, and medical doctors, had returned to higher education for their own enrichment. "The older students often were the most interesting," he says. "They asked the most questions. They had other careers and came to astronomy because it was of real interest to them, not because they had to take the course."

EXPLORING OTHER WORLDS, NOW AND FOREVER

Markowitz and his partner, Ellen Weinstein, joined the Caltech Associates in 2016. The two enjoy attending talks on topics ranging from autonomous robots to biomedical breakthroughs. They also like the access to the Athenaeum, the Institute's private membership club, that Associates membership confers.

After Markowitz provided for the astronomy program at Ohio State, establishing a bequest intention with Caltech seemed like a natural next step.

Markowitz sees his planned gift as proof that one does not have to be extremely wealthy to contribute to scientific progress.

"I'm not a rich person, and I want to make that plain," he says. "A lot of people think that those who give money to universities must be rich. The truth is, you can give at any level."

When he consulted with Caltech's fundraising team, Markowitz was happy to find that he could direct funds from his estate to endow support for exoplanet research, an area of great interest to him.

"For centuries, astronomers anticipated that there were planets around stars other than the sun, but we were never able to see them," he says. "Then, in 1995, scientists actually detected planets around another star. It was amazing."

Planetary science, including the study of exoplanets, is a funding priority for *Break Through: The Caltech Campaign*. Institute investigators aim to unravel some of humankind's most profound mysteries: Where do we come from? Are we alone?

On campus and at JPL, researchers are using data from Earth- and space-based telescopes to create new knowledge about distant worlds. This work runs the gamut from observations of planet-forming regions around other stars to the analysis of planetary atmospheres. Caltech also hosts the NASA Exoplanet Archive, an electronic catalog that supports research into extrasolar planets and their host stars.

More than six decades after Markowitz first set foot on Caltech's campus, he is helping to ensure that Institute astronomers and planetary scientists in the years ahead will have resources to follow their curiosity about worlds beyond our solar system.

"I've always known Caltech as the pinnacle of astronomical research," he says. "My gift is an investment in the future."



MEET Jacquie Lewis

A fter six years in the financial industry on the East Coast, Jacquie

Lewis moved to California. She chose a career at Caltech because it "feels like it's for the greater good and I am part of something bigger."

Lewis joined Caltech's Office of Gift Planning as a development assistant in May 2019. She manages the office's budget and staff travel, circulates and edits gift documents, and can field your calls.

Recognize This Alumnus?



his alumnus laced up his cleats for the Caltech football team as a freshman and competed throughout his college career in interhouse games, which tended to get "a little rough for touch football." When he was not patrolling the gridiron for Blacker House or tackling his mathheavy course load, he found respite in the Blacker student lounge, where watching housemates play bridge turned him on to a game that would become a lifelong passion.

After graduate study at UCLA, this alumnus changed course from his original plan to become a mathematics professor. He joined IBM during the early days of the computing revolution. This was before Caltech offered a computer science major, but he says his Caltech experience prepared him for the challenge. "Being a math major, you're precise about how you formulate things," he says. "It's the same for computer science, except you're using a language instead of the mathematical notation."

In the 1970s, he initially worked in the company's Federal Systems division, where he focused on fault detection for sensors and countermeasures on nuclear submarines for the U.S. Navy. This entailed writing in Fortran by hand, submitting code to clerks who typed it into punch cards, waiting for time on the company mainframe, and getting results the next day. During 41 years

> Stuart Goodgold (BS '68) and his wife, Ruth Long

at "Big Blue," mostly in San Jose, California, he led efforts to develop and refine products related to sorting, backing up, and restoring data.

This alum was a chess devotee at Caltech. Early in his career, he played chess regularly in the private sector until the time demands conflicted with his programming work. Instead, he joined IBM's bridge club and eventually became a competitive player. Since he retired from IBM in 2005, he has helped govern the game across North America as a member of the American Contract Bridge League.

Torchbearer **Stuart Goodgold** (BS '68) chose to contribute to Caltech in the form of a planned gift. While it is gratifying to support the major initiatives and world-class research that define Caltech, Goodgold believes it is also essential for *Break Through* campaign donors to support students, who will be the future programmers and developers who change our lives. "I remember my undergraduate days even though they were 50 years ago," he says. "I think there should be a lot more support for undergraduates."



CGAs Offer You Reliable Income, Then Benefit Caltech

If you would like to support Caltech with a gift that also pays you income, consider creating a charitable gift annuity (CGA). This outright, permanent gift of cash or securities provides you with annual payments for the rest of your life. Then, any remaining funds benefit Caltech.

CGA advantages:

- Guaranteed income every year, for life
- A simple, brief contract
- Available to donors 60 and over
- A relatively low, \$25,000 minimum
- Significant potential tax benefits

To enable 2019 charitable deductions, CGA gifts must be made by December 31.

A CGA's fixed rate of return is based on the donor's age when the gift is made. The chart below illustrates sample rates suggested by the American Council on Gift Annuities for a gift of \$25,000.

AGE	RATE	ANNUAL PAYMENT
60	4.7%	\$1,175
65	5.1%	\$1,275
70	5.6%	\$1,400
75	6.2%	\$1,550
80	7.3%	\$1,825
85	8.3%	\$2,075

To discuss current rates and learn whether a CGA may work for you, call (626) 395-2927 or email giftplanning@caltech.edu.

What's New at Caltech

HISTORIC GIFT TO SUPPORT SUSTAINABILITY RESEARCH

Caltech has received an unprecedented \$750 million pledge from Lynda Resnick and trustee Stewart Resnick to pursue research in solar science, climate science, energy, biofuels, decomposable plastics, water and environmental resources, and ecology and biosphere engineering. It is the largest gift ever to environmental sustainability research, the second-largest to an American university, and the largest in Caltech's history.

STRONG START FOR New Heart Valve

A novel heart valve that lasts longer with fewer complications than other options was successfully implanted in a human as part of an FDA trial. The valve was designed by Mory Gharib (PhD '83), his laboratory team, and members of a startup he co-founded. Gharib, Caltech's Hans W. Liepmann Professor of Aeronautics and Bioinspired Engineering, said, "This is among my proudest moments." The patient has returned home.

EARTHQUAKE SCIENCE BREAKTHOUGHS

Recent Caltech research enables far more detailed analysis of earthquakes and their foreshocks and aftershocks. Assistant professor Zhongwen Zhan (PhD '13) has invented a way to use existing fiber-optic networks as seismic sensors, and another new professor, Zachary Ross, co-developed a computational method that increases detections of earthquakes tenfold. Now we know that SoCal experiences about 495 daily!



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Techniques is published by Caltech's Office of Gift Planning. For more information about the stories featured in this issue, or if you have questions about deferred or other planned gifts, please call or email us.

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