TECHNIQUES

A publication of Caltech's Office of Gift Planning

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Millions of football fans who tuned in to watch the 1961 Rose Bowl game between the Washington Huskies and the Minnesota Golden Gophers were treated to a special halftime show, today known as the Rose Bowl Hoax (see page 5, 26 across). Photo courtesy of photographer Bruce Whitehead, then a research fellow at Caltech, and prankster Lee Molho (BS '63).

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Lynn Heronen

Space in Her Heart

Lynn Heronen's reverence for space predestined two major life decisions: whom she would marry and whom she would include in her will.

R ecalling her early scrutiny of the man who became her first husband, Heronen says, "When he told me his thoughts about the ending of *2001: A Space Odyssey*, that was when I knew he was a keeper."

FROM THE BEGINNING

Heronen's captivation with outer space dates to childhood and a passion she shared with her father. It was a fascination, Heronen points out, that didn't require any formal education. "My father was a machinist and never went to college," she says. "He left to fight in World War II and didn't even finish high school."

Although Heronen graduated from high school with high marks, she never set her sights on college. "You could say I was unencumbered by ambition," she jokes.

Even so, Heronen had great, albeit nonacademic, ambition to live a life of adventure. She and her first husband were world travelers who navigated rivers, seas, and oceans in a sailboat. In 1985, as they planned their first big excursion down the Pacific Coast to Central America, traveling through the Panama Canal into the Caribbean and up the East Coast of the United States via the Intracoastal Waterway, Heronen considered the risks involved and decided that this would be a fine time to draw up her will.

SPACE-AND MORE

Heronen told her lawyer she wanted to leave her money to the first agency or institution to send a colony of humans into space. When he balked at the likelihood of such a thing happening, they discussed how to account for an unforeseeable future. The resulting document stipulated that if an organization were to accomplish this feat during Heronen's lifetime, it would be the beneficiary of her estate. Otherwise, the money would go to Caltech. "But," she points out, "that was only because my lawyer told me that my bequest could not go directly to JPL."

Over the years, Heronen's affinity for Caltech has grown, and she no longer thinks of the Institute as a middleman for funding JPL research. Additionally, like Caltech itself, her interests now span many disciplines, including environmental, medical, and earthquake science.

Earlier this year, Heronen augmented her support for Caltech through a charitable gift annuity, which offers a payout that exceeds the return she would get from investing in CDs. She is gratified to know that this guaranteed source of income for herself is also an investment in scientific breakthroughs.

POINT OF PRIDE

"I didn't attend Caltech, so can I call it pride?" Heronen wonders. "Because when I read the weekly newsletters to keep up with all of Caltech's essential research and important discoveries, I experience something that feels a lot like pride."

Caltech's Torchbearers Legacy Society has helped propel decades of discovery and myriad science and engineering breakthroughs. So, to answer Heronen's question: Yes, what she's feeling is Torchbearer pride!

Easy Decisions



altech parent Paul Robinson called Caltech's Office of Gift Planning with a plan of his own: He wanted to establish a deferred annuity. "I had already set up this kind of investment plan with my own alma maters, so I know how they work," he says. "And I know they work for me."

He goes on to explain: "Right now, I don't need additional income. What I was interested in was an immediate income tax deduction."

Just as the giving vehicle was a clear choice, so, too, was choosing Caltech. Robinson remembers receiving a call from his daughter, Connie Robinson (BS '17), soon after she left home for college. "It was so nice to hear her say, 'I've found my tribe."

"Joining Dabney House in my freshman year was a formative experience in my life," Connie shares. "I was welcomed in a way that just doesn't happen elsewhere. I absolutely loved the intellectual environment in Dabney, where we critically analyzed any aspect of life—from economics to space travel to ducks."

Connie's decision to study chemistry at Caltech was not a forgone conclusion, but it came as no surprise to her family. She had always loved math and science, and it was fitting that she would follow in the footsteps of three grandparents who were chemists. What's more, her maternal grandmother, Ann T. Nicol (PhD '79), is a Caltech alumna.

Paul Robinson is gratified to make a gift that will provide him with extra income later, when he might need it, and to support the institution that provided his daughter with an exceptional education. "I think my dad sees the impact Caltech had on my life," Connie says. Paul Robinson (center) with his children, Connie (BS '17) and Bucky

Torchbearers

HONOR ROLL

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

Uri Bernstein (MS '69) and Paula Bernstein (PhD '71) Dora Camp Michael Fredman (BS '69) John Hosack (BS '63) Tyler Housel (MS '86) and Robin Housel Alan Poisner, MD (BS '56) Ronald Remmel (BS '65) Paul Robinson (parent '17)

Robert Tait (BS '62, MS '66) Daniel Wulff (BS '58, PhD '62) Hal Wyman (BS '62) Jean I. Zaik

ESTATE GIFTS

From the estate of **Lucy Hyde**, Caltech received a partial distribution of \$1,150,000 in unrestricted support.

From the estate of **Frederick Martin** (BS '55), Caltech received \$10,000 in unrestricted support.

From the estate of **George Oetzel** (BS '58), Caltech received \$5,000 in unrestricted support.

From the estate of **Donald Webb** (PhD '65), Caltech received over \$25,000 in unrestricted support.



Top: Don Crewell

Bottom: Former Caltech registrar Mary Morley (right) presents the check from Crewell's estate to Joe Shepherd. She says, "Don was a kind and gracious person who was committed to his friends and to the Caltech community."

CONTINUED FROM PAGE 2

Easy Decisions

"I learned and grew as a person to an immense degree because of the students I was with. I hope that my dad's gift will ultimately facilitate the independence that lets Techers make each other great."



A Heartfelt Gift

A s director of financial aid from 2007 to 2019, Don Crewell helped keep Caltech's financial aid program competitive with those of peer institutions. But his dedication extended beyond his professional duties. More than 1,000 students and families received financial assistance during his tenure, and the care he showed them came from the heart.

Crewell, who passed away on March 17, 2020, is warmly remembered by the Caltech community. Joe Shepherd, the C. L. "Kelly" Johnson Professor of Aeronautics and Mechanical Engineering and former vice president for student affairs, recalls with fondness, "He was compassionate and thoughtful, and provided that personal touch that we believe characterizes our work with students and families."

Thus, to those who knew Crewell, it would come as no surprise to learn of his bequest to Caltech. What some might find unexpected is that his gift was not directed to scholarships. Instead, he created an endowment that Caltech's president and provost can use to address the Institute's highest priorities.

Greg Timberlake, executor to Crewell's estate, provides some insight into his dear friend's intentions. "Don was motivated by a personal concern that each student leave Caltech without the heavy burden of debt," Timberlake says. "Creating an unrestricted fund is an expression of his trust in Caltech's commitment to students."

Both of Crewell's parents were teachers, so, from an early age, institutions of learning featured prominently in his life. Before he joined Caltech, he administered student services and financial aid at other schools, but Timberlake notes that Crewell was especially honored to work at Caltech. He viewed every student who graduated as full of promise to make the world a better place.

Connie Robinson (BS '17) with her maternal grandmother, Ann T. Nicol (PhD '79)

Masakazu (Mark) Konishi

For the Love of Birds—and Caltech

asakazu (Mark) Konishi translated his childhood love of animals into pathbreaking discoveries about the behaviors of songbirds and owls. His investigations led to the use of birds as models for understanding how other animals acquire language and motor skills.

When he died in July 2020, Konishi left a generous unrestricted bequest that will enable Caltech scientists and engineers to push the boundaries of knowledge for decades to come.

Born the only child of silk weavers in Kyoto, Japan, Konishi dreamed early on of becoming a rancher. "I loved American cowboy movies mainly because of the animals that appeared on the screen," he wrote in his autobiography for the Society for Neuroscience.

He parlayed that aspiration into agricultural studies at Hokkaido University in Sapporo, Japan, where he supported himself by working as a day laborer and tutor and subsisted on a diet of potatoes and herring, the cheapest foods he could find. Eventually, he changed his major to zoology and began to study birds.

CROSS-CONTINENTAL RESEARCH

Fulfilling an ambition to study abroad, Konishi pursued his PhD at UC Berkeley. For his doctoral thesis, he made more than 3,000 recordings to study the relationship between vocalization and hearing in chickens and songbirds. After conducting postdoctoral research in Germany, he took an assistant professorship at Princeton University. There, he explored how songs introduced to young birds influence the songs they choose as adults. He also began to study owls.

Konishi's work caught the attention of colleagues at Caltech, and he was offered a full professorship, along with an impressively large, high-quality research space. He and 21 owls moved to Pasadena in 1975.

GROWING ROOSTS

At Caltech, Konishi found what he called "a very exciting new center of neurobiology." He joined a team that included Roger Sperry and Seymour Benzer and helped establish the Institute as an early neuroscience powerhouse.



Konishi was a pioneer of neuroethology, which studies the neural basis of animal behaviors. Among many other contributions, he demonstrated that owls create an auditory map to localize their prey. His findings opened up new areas of study with far-reaching impact across neuroscience.

Konishi also trained dozens of graduate students and postdoctoral scholars who became leaders in the field, including Ralph Adolphs (PhD '93), Caltech's Bren Professor of Psychology, Neuroscience, and Biology.

During nearly four decades on the Caltech faculty (he retired in 2013), Konishi encouraged his students to try things that had never been done before. By naming Caltech the beneficiary of his retirement accounts, he will ensure that future generations of scholars, too, can create new knowledge by pursuing the unknown.

Fueled by Philanthropy



DOWN

- 1 Name on a neuroscience institute
- 2 Subtle indication
- 3 Verification document (abbrev.)
- 4 Malicious look
- 6 Provide permanent resources
- 8 Noodles; mine in Berlin
- 9 Degree not conferred at Caltech
- 11 From a Samuel Rogers poem, "To know her ____ love her"
- 12 Between slashes, used by system admin.
- 13 Fibers from cocoon filaments
- 14 Not far

- 15 Caltech's was "10-foot"
- 16 JPL invention destined for hospitals
- 17 Fury
- 18 Global trading platform (abbrev.)
- 19 Not close
- 20 Consume or employ
- 21 Short for a type of logic, a.k.a. predicate or quantificational
- 23 Head maneuver, in the affirmative27 Sometimes grouped with B
- and G and called a community 28 What? (exclamation)
- 29 Paddle
- 30 Punctuation in an e-address

- 34 A nebulous one was found around our galaxy's supermassive black hole
- 35 ____ Major, a.k.a. the Big Dipper
- 36 Respiratory organ
- 37 Short jump
- 39 Gates wants to reinvent it
- 42 Type of compressed file
- 43 Travelers' lodging
- 44 Snake or stole
- 45 Atomic #13
- $46 \hspace{0.1in} \text{HBO epic fantasy, for short}$
- 51 Not of this planet (abbrev.)
- 52 Leave
- 53 Often follows log or add

ACROSS

- 1 Offspring
- 5 Profit or bag
 7 Conceal or pelt
- 8 To end a prayer, add A
- 10 Carver Mead fund
- TO Carver Mead Turid
- 14 Reason for leaving blank (abbrev.)
 17 A Caltech alum directed it and made its snow
- 22 With a slash, Rx shorthand for when required
- 24 Dispense a question
- 25 Not
- 26 Stadium prank
- 31 Petroleum byproduct
- 32 Comprising four, or the strongest human muscle
- 33 The Caltech Campaign
- 38 Without value
- 40 Group of three
- 41 Fine's philosophy of science (abbrev.)
- 42 Park in southwest Utah
- 44 "It" might be in it
- 47 Computer discovery protocol (abbrev.)
- 48 1.852 km/hr
- 49 Fashionable
- 50 Precedes PS
- 54 Type of semiconductor junction
- 55 Section instructor, for short
- 56 Worth 12% more in the U.K. than in the U.S.
- 57 Make unclear

Answers are posted on the *Techniques* newsletter webpage at bit.ly/caltech-fall-crossword-key.

In Case You Missed It: Undergraduate Life at Caltech Today

An annual luncheon in the garden of the president's residence has been a Torchbearers highlight for years. In 2020, physical distancing required Caltech to take the event online. On October 15, President Thomas F. Rosenbaum welcomed Torchbearers to a special Zoom panel featuring three students who provided a glimpse into undergraduate life during this time of remote learning.

The panel was moderated by Vice President for Student Affairs Kevin Gilmartin, the William R. Kenan, Jr., Professor of English and Allen V. C. Davis and Lenabelle Davis Leadership Chair, Student Affairs, who said, "My commitment to the role of vice president is shaped by an awareness that Caltech's research and teaching mission has never been more critical to our shared responsibility as citizens." "A lot of what makes Caltech wonderful is the social-connected nature of everybody here, and it's become uniquely difficult to retain that sense of community," commented computer science major Logan Apple (class of 2021).



Kevin Gilmartin

He went on to say, "But the IHC [Interhouse Committee] put together a number of programs to reconnect everyone as much as possible."

The event was recorded, so you can visit https://giftplanning.caltech.edu/Torchbearer-Events to hear more about academics, athletics, and extracurricular activities at Caltech today. These remarkable students will remind you that the future is in capable hands!

Make a Breakthrough Bequest

Did you know that your bequest gift to Caltech can meet your philanthropic goals *and* help the Institute take its campaign to new heights?

If you have completed the process of including Caltech in your estate plan, the following information may allow us to count your future gift toward *Break Through: The Caltech Campaign* before it concludes on September 30, 2021.

- A conservative estimate of your legacy gift
- A copy of the pertinent page(s) of your bequest documentation that references Caltech
- Your signature on the bequest notification form, which you can obtain by contacting the Office of Gift Planning at (626) 395-2927 or giftplanning@caltech.edu

Your bequest creates a legacy that will advance worldchanging science at Caltech for generations to come.

Good News from Caltech

AI TAKES ON COVID-19

What began as a computer science class assignment may become a tool to help decision makers who are coordinating the country's response to the pandemic. When Yaser Abu-Mostafa (PhD '83) announced the COVID-19 predictive model project at the beginning of spring term, his class enrollment grew from 80 to more than 150. Caltech senior trustee Charles Trimble (BS '63, MS '64) helped fund the effort, and after the term ended, several students continued their work through the Summer Undergraduate Research Fellowships (SURF) program.

As 2020 draws to a close, the Caltech community has much to be grateful for.

ALUM GREETING FROM THE ISS

Although it was conducted remotely, Caltech's 2020 convocation was memorable as ever. President Thomas F. Rosenbaum and other speakers from the Caltech community were joined by guest alumnus and NASA astronaut Bob Behnken (MS '93, PhD '97). In a message he recorded aboard the International Space Station, 250 miles above Earth's surface, Behnken reminded new students and postdocs, "Caltech will teach you to solve problems, to invent solutions ... to embrace new strategies and perspectives, and, ultimately, to dare the impossible."

CALTECH'S NEWEST NOBELISTS

If you keep track of Caltech Nobelists, you already know the Institute's roster grew in 2020. UCLA astrophysicist Andrea Ghez (MS '89, PhD '92) won the Nobel Prize in Physics for research that helped reveal a supermassive black hole at the center of the Milky Way. Charles M. Rice (PhD '81), virologist at The Rockefeller University, won the Nobel Prize in Physiology or Medicine for the discovery of the hepatitis C virus. Both laureates were previously honored by the Caltech Alumni Association as Distinguished Alumni.



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Contact Us

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.

- PHONE: (626) 395-2927
- EMAIL: giftplanning@caltech.edu
- WEB: giftplanning.caltech.edu

Jim Ehlers Senior Director

Natalie Piega Deputy Director

Frank Bernal Senior Gift Planning Officer

Rick Robertson Senior Gift Planning Officer