In the Community

A New Home for Caltech's Rock Stars

This spring, members of Caltech's Braun Athletic Center with lofty ambitions will have access to a brand new bouldering cave: a training ground for the surprisingly large number of rock climbers in the campus community.

The bouldering cave is a room lined floor-to-ceiling with climbing holds. Some of its walls are tilted in at overhanging angles, while the floors are lined with soft mats. A resource for rock climbers to train for strength and endurance, the new cave was designed by members of the Caltech Alpine Club, a student-run organization whose membership comprises hundreds of students, staff, and faculty.

"We wanted to make it a safer and more accessible space for the club and new prospective users," says Joe Jordan, assistant director for athletic facilities. "The old cave was put together a long time ago and contained narrow passages that were not up to current standards, so it wasn't as safe as it should have been."

Postdoctoral researcher Katha Urmann and her husband, research engineer Eitam Shafran, took the lead in redesigning and building out the new space. The pair had been responsible for the route setting and maintenance of the old cave. "So when they decided they needed to shut down the space last summer, we got together with a couple other members of the club and created a plan for a new structure oriented on the old layout," Urmann says. New additions include a board for building finger strength and steeper overhangs.

Built by the Caltech Carpenter Shop, the new cave replaces the original built by Rudy Hofmeister (BS '87, PhD '93). Hofmeister built that cave on the east side of Brown Gym over the course of a week in the summer of 1990, well before climbing gyms were commonplace.

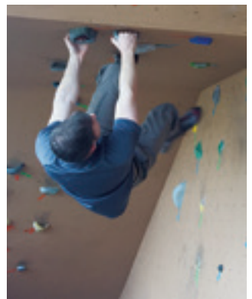
"There was a gym just opening up in Long Beach, and Hangar 18 [in Upland] was around, but other than that you either had to drive to a crag or know someone who had a homemade gym in their garage," Hofmeister says.

He used silica sand and epoxy climbing holds custom made by famed '70s-era climber Tony Yaniro, which would later inspire commercially sold production molds, according to Hofmeister. The new cave will reuse most of the old Yaniro-made holds, Urmann says; the only ones that were discarded were those that were broken from decades of wear and tear.

Other Alpine Club activities include weekly speakers (with pizza and beer, sometimes sponsored by the Southern California Mountaineers Association), group training courses with local guides, and a listserv where members can connect with one another for weekend jaunts to the mountains.

Graduate student Elle Chimiak, the Caltech Alpine Club's current president, credits the Institute's location as a big part of the success of climbing and mountaineering among the campus community. "Within a two-hour drive, you've got Tahquitz, Joshua Tree, Malibu Creek, and Stoney Point," she says, naming a few popular local crags. "Just look out your window on campus, and you've got the foothills right there, waiting to be hiked. It's hard not to be inspired to get outdoors."

—Robert Perkins



Read more about the Alpine Club and the history of the bouldering cave at **magazine.caltech.edu/post/bouldering**

Origins

A Cache of Chemistry Models

In the 1950s, Caltech's Robert Corey and Linus Pauling (PhD '25), along with UC Berkeley's Walter Koltun, led the design of a new type of three-dimensional molecular model. These space-filling (also known as CPK) models, which became standard issue not only in laboratories but in science classrooms the world over, are made up of individual balls that represent atoms; the size of each sphere is proportional to the size of the actual atom, and its color is linked to the type of atom.

A sizable collection of CPK model components can still be found on the Caltech campus, largely due to the efforts of Larry Henling, staff crystallographer in Caltech's X-Ray Crystallography Facility. Henling has preserved drawer upon drawer of the molded-plastic atoms and their connector links as well as design drawings, contemporary photos, and correspondence related to the models.

"The models and blueprints are historical reminders of the time and effort Caltech researchers, many of whom are now forgotten, put into developing an understanding of molecular structures," Henling says. "Today, scientists do the same with just a push of a computer button."

See more molecular models at **magazine.caltech.edu/post/chemmodels**