Eureka!

Harned Hall, the university’s new science building, is open for discovery
Where the study of science is tangible

A Puget Sound education is not something you receive, it’s something you do. And learning by doing just got a lot more interesting on campus. When the fall term opened, so did the doors to Harned Hall, where the study of science is integrated into the very walls. At every turn in the new building, visitors encounter exhibits, puzzles, and spaces that bring elements of the physical world to life. Each brick in the courtyard helps prove a mathematical theory. Each decorative mosaic demonstrates nature’s order.

Welcome to a facility made for the contemporary teaching of science, where there are fewer lectures and more hands-on learning, smaller classes, more complex equipment, and more opportunities for independent research.

Thompson Hall, the university’s main science facility, was state-of-the-art in 1966. But 40-year-old mechanical infrastructures no longer serve students adequately and do not meet modern code requirements. Now students of biology, chemistry, environmental science, geology, and physics will find common spaces where they can interact with other students, faculty, and staff, and a much improved environment technologically, including wireless Internet access.

To provide maximum flexibility and interaction, new laboratories minimize fixed barriers. They feature seating space for small, group discussion and informal meetings before and after laboratories and classes. Novel modular bench designs and ceiling access to utilities make it easy to rearrange labs. Ventilation hoods and reagent shelves are located along the perimeters to maximize visual contact between teachers and students.

Utilities such as electrical, plumbing, heating, cooling, and fire suppression are designed to exceed requirements. The science center has its own generator to support ventilation in the event of a power failure. Plus, the servers, software, and pipes that bring electronic and computing tools to classrooms and labs exceed current needs in order to meet future requirements. Harned Hall meets the U.S. Green Building Council’s LEED Silver Rating, using sustainable materials and thermal mass and ventilation strategies instead of air conditioning.

The building is named for H.C. “Joe” Harned ’51. More than 600 other individuals and foundations contributed to the project, including The Kresge Foundation and The M.J. Murdock Charitable Trust.

Harned Hall completes the first phase of the university’s science center project. The next phase includes renovations to Thompson Hall, including a new home for the Slater Museum of Natural History. Thompson renovations began in May and are scheduled to conclude in 2008.
The university’s electron microscope was old. So old that the manufacturer would soon stop servicing it—a bad thing for such a delicate instrument. But Professor of Biology Wayne Rickoll, who as we shall see is a lover of good deals and a man not afraid to tinker with machinery worth hundreds of thousands of dollars, had an idea. He’d heard that Cal State East Bay had a cream-puff transmission electron microscope they no longer needed and were selling dirt cheap.

“It was the deal of a lifetime,” said Rickoll, who flew down to California a year ago to kick the tires on the used scope. “Sold!” said the professor. He promptly hired a company that specializes in moving big, heavy, sensitive equipment, and arranged to have the microscope stored until Harned Hall was finished.

Spring of 2006 rolled around and Rickoll gathered up a little help to truck the scope, carefully, down to a still not-completely-finished Harned Hall, uncrated it and—panic!—in the previous moving someone had removed a few screws, bending the alignment of the massive stack of electromagnetic lenses, which focuses the electron beam. Plus, the scope’s lenses need to be cooled to a constant temperature with a stream of water, but the chiller apparatus in Harned Hall was not meant for cooling an electron microscope.

Enter some very accommodating guys from the university’s facilities staff—Jay Becker, Craig Benjamin, Robert Ebert, and Jack Young—who, Rickoll said with admiration and gratitude, figured out a way to adapt the building’s plumbing.

Now all that was left was to align the beam. This Rickoll attempted himself. “I’ve always been at a place where the scopes were up and running,” he said. “This was my first time setting one up. I just got up there and started turning knobs, a little each day and testing.” Danged if his patient experimentation didn’t work. In August an engineer from Zeiss of Germany fine-tuned the instrument.

Rickoll said the whole process was a terrific example of teamwork and also credits his student research assistant Pat Moyle ’06 and science support engineer Al Vallecorsa.

— Chuck Luce
The data

| Size: 51,000 square feet, joined with Thompson Hall on all three levels
| Bricks: 64,788
| Steel: 676,000 pounds
| Glass: 9,625 square feet of windows
| Cost: $25 million, part of the $63 million Science Center project.
| Occupants: Laboratory spaces and support areas for biology, chemistry, environmental science, geology, and physics.
| Architects: SRG Partnership of Portland and Seattle
| Contractors: Sellen Construction, Seattle

DEDICATING HARNED HALL
You’re invited to dedication activities, planned to take place during Homecoming weekend.

Among events:

Edward O. Wilson: “Future of Life/The Creation”
Tues., Sept. 26, 7:30 p.m., Schneebeck Concert Hall
Hailed as one of America’s most influential people by Time magazine, Wilson, a Pulitzer Prize-winning scientist and Harvard University professor emeritus, will lead off dedication events with a lecture and book signing. Wilson is the author of The Future of Life (2002), about saving the Earth’s biological heritage. A reception and signing of his newest book, The Creation: A Meeting of Science and Religion (2006), will follow in Wyatt Hall’s Pierce Atrium. The lecture is sponsored by the Swope Endowed Lectureship on Ethics, Religion, Faith and Values, and is free and open to the public.

Harned Hall Dedication Ceremony and Tours
Fri., Sept. 29, 2 p.m., Brown Family Courtyard
The building’s dedication will take place in the 10,000-square-foot, multilevel courtyard and include a formal presentation by President Thomas and Joe Harned ’51; the debut of an original musical composition for the occasion by Associate Professor Rob Hutchinson; tours of the building and scientific displays; presentations of student research; and the opportunity to view science laboratory classes in session. The event is free and open to the public.

More information:
www.ups.edu/sciencecenter