

First Steel Sculpture in California Installed at California State University, Chico

It's called a steel sculpture, but is it art? "That's one of the most common questions we get. It's actually an educational display, showing the different ways that steel can be shaped and connected to create a structural system, such as a building or a bridge," said civil engineering professor Russell Mills, the coordinator of the installation.

Previously, engineering students had few opportunities to view the means of their profession, since structural components are usually hidden behind walls and cladding. "Short of knocking a hole in a wall, something the university discourages, it's usually impossible for students to see first-hand the internal workings of a building," said Mills.

Since its dedication at a campus engineer's day celebration in 2002, the eight-foot-tall sculpture has been a source of interest and discussion by engineering and non-engineering students alike. Due to the central location, between the Langdon engineering center and the O'Connell technology center, professors walking to and from classes are constantly bombarded with welcome questions. Of particular interest are portions of the sculpture demonstrating earthquake-resistant detailing (such as "dog-bones") developed following the 1994 Northridge earthquake.

The steel sculpture concept is promoted by the American Institute of Steel Construction (AISC). Although there are nearly 100 installations nationally, the sculpture at CSU, Chico was the first in California. This is surprising, since the high strength and resulting light weight of structural steel framing is of particular significance in earthquake-prone areas. AISC and its California-based affiliate, the Structural Steel Educational Council, are hoping that the Chico sculpture will be the first of many in California.

Despite the relatively compact size of the sculpture, the installation was nearly a two-year undertaking. As a "sculpture" the device was subjected to campus aesthetic reviews, as a "structure" it was necessary to acquire the usual engineering certifications, and as an "educational display" it was important to consider accessibility issues. The project was further complicated by the desire to include civil engineering students during the installation whenever possible. Approximately thirty students participated, including members of Mills' steel design course.

Many individuals and groups contributed to the undertaking. Financial support was provided by the California Iron Workers Administrative Trust and by the College of Engineering, Computer Science and Technology at CSU, Chico. The sculpture was fabricated by Eandi Metal Works, Oakland, and on site engineering services were donated by Roberts Consulting Engineering (R.C.E.) and Applied Testing Consultants, both of Chico. Dr. Joel Arthur supervised students during construction of the concrete footing and campus Facilities Management and Services provided campus oversight and trade services.

Two CSU, Chico alumni were instrumental in the undertaking. Jeffrey Eandi, Vice President of Eandi Metal Works, supervised fabrication of the sculpture and Mills provided the site design and coordinated the installation.

