

## The End of the Oak

Long before the Institute was ever envisioned, an Engelmann oak sprouted on what would become Caltech's campus. More than 400 years later, it has become one of the Institute's most well-known landmarks, treasured by generations of students, faculty, and staff. Recently, however, the oak officially succumbed to disease and old age despite numerous attempts to revive the sprawling and ancient tree.

Stressed by drought, windstorms, and a systemic fungal infection, the oak—located between Dabney Hall and the Parsons-Gates Hall of Administration—had been in declining health for more than a decade despite repeated efforts by campus arborists and outside consultants to prolong its life, says Delmy Emerson, director of buildings and grounds.

"People are shocked and sad," she says. "People are so attached to that tree. It's seen the growth of this Institute."

Based on estimates of its age, it is likely the tree had stood sentinel—on land first inhabited by the Tongva,

then claimed by the Spanish and later becoming part of the United States—for three centuries before sharing its space with Caltech. When Caltech trustee Arthur Fleming gave the original 22-acre tract to the Institute in 1908, the Engelmann oak stood almost at the exact center of the plot, and it would soon stand just west of the first building constructed on campus: Pasadena Hall, later renamed Throop Hall. The oak survived longer than the building, which was demolished after suffering damage in the 1971 San Fernando quake.

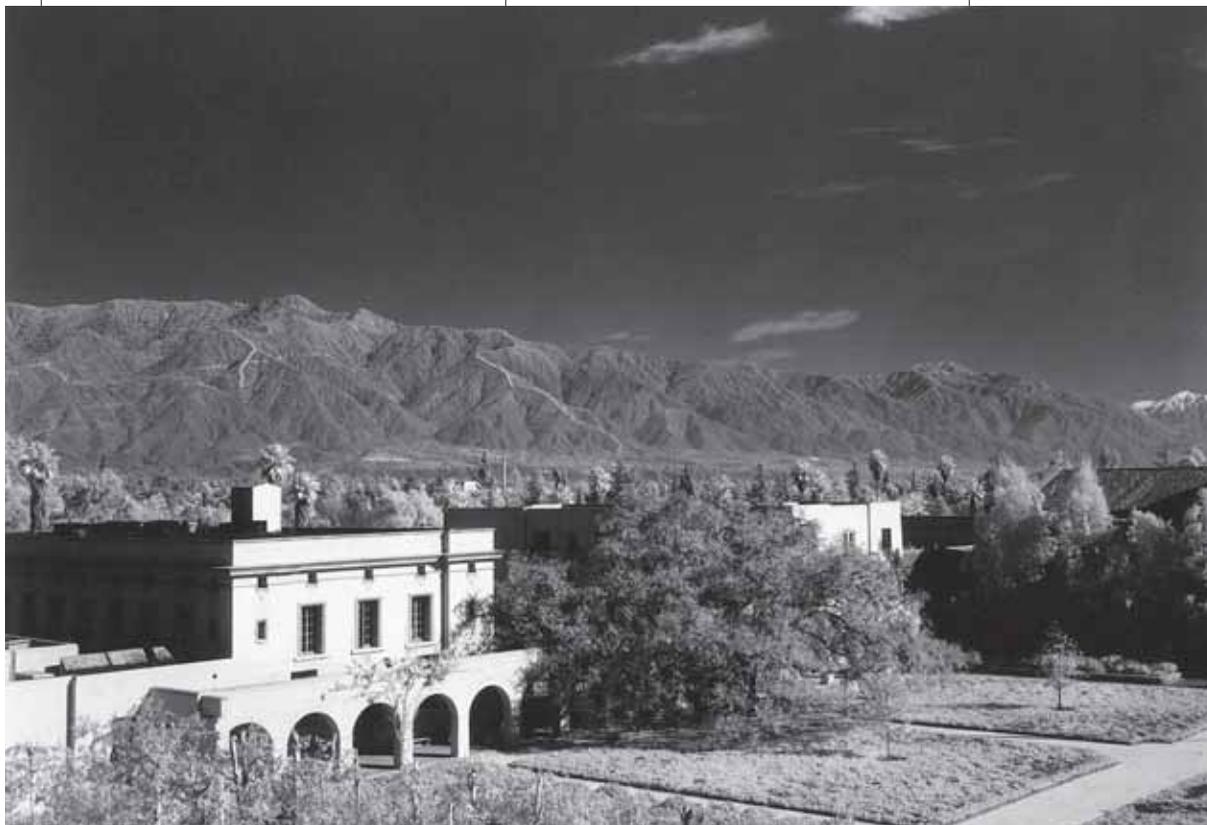
In the Institute's early years, the oak provided shade to students and spectators at graduation ceremonies in front of Throop Hall. In more recent years it has served as a backdrop for countless wedding photos and also served as a subject of portraits drawn by students from the nearby ArtCenter College of Design.

The tree, which once stood as high as 80 feet and spread its branches as wide as 75 feet, will need to be removed. It had already exceeded the usual lifespan of

an Engelmann oak—about 350 years—and had lost several large branches in the 1990s, necessitating the addition of three structural supports. Soon after, it began to require regular delivery of fungicides to its roots to stave off an infection by an incurable soil fungus. Emerson says the loss of another major branch in 2006 eliminated much of the tree's canopy, leaving it vulnerable to additional stress from the sun's heat; to help keep it cool, campus workers painted parts of the tree white.

Early 2016 brought rainstorms followed by heat—conditions that favored rapid fungal growth. Tree samples taken soon after showed widespread necrosis of its bark and roots, and a last-ditch effort to save the tree using 23 injections of fungicide failed.

Emerson says most arborists would have given up on the oak in 2006, "but we decided to let it live as long as it could. We take our trees seriously and we only remove one when there's nothing left we can do."



### A Campus Fixture

Caltech's Engelmann oak tree in its prime, circa 1930.