Visions of a Sustainable California

by Norman H. Brooks

California—what is our vision of a sustainable world close to home?

This is the second special issue of E&S on the centennial symposium Visions of a Sustainable World held October 27-30, 1991 at the Beckman Auditorium. In the June issue, we focused on the world view, which was covered in the opening lecture and the sessions on the first two days. This issue contains summaries of the “California Day” at the symposium.

In devoting the third day of the symposium to California, the organizing committee (James Bonner, PhD ’34, professor of biology, emeritus; Sunney Chan, the Hoag Professor of Biophysical Chemistry; Murray Gell-Mann, the Millikan Professor of Theoretical Physics and Nobel laureate; Paul MacCready, MS ’48, PhD ’52, president of AeroVironment, Inc.; Bruce Murray, professor of planetary science; and myself) wanted to see if our large, diverse state was behaving in a sustainable way or, at least, whether we could say that the problems were not getting any worse, and no crises were looming. If California, known for its strong environmental interests and supposedly enlightened state and local governments, cannot be a sustainable piece of the world, how could we expect the world, particularly the developing world, to heed our warnings? As Provost Paul Jennings put it in his introduction to the day’s sessions: “We’re looking at it from the point of view that the solution of local and regional problems is an essential ingredient to the solution of global problems. And California is closer to the future than many other places.

California has, in many ways, led the country and the world in running up against problems of importance to this conference and in trying to solve them.”

With just one day to be devoted to California’s prospects for sustainability, the committee had difficult choices about what issues to cover. California has a long agenda of short- and long-term economic, social, and environmental issues. The organizers decided to discuss only a few of these problems at the symposium in order to treat them in some reasonable detail. The focus was on growth and environmental quality, the latter being an area in which Caltech’s Environmental Engineering Science program and the Environmental Quality Laboratory have been very active in teaching and research, contributing to the solution of some regional problems.

The first session considered population, economic growth, and urban sprawl: California’s economy ranks seventh or eighth in the world among nations; can we have economic growth and job growth (the longer view as a prescription for prosperity) and still manage the environment in a sustainable way? The next session concerned energy, transportation, and air quality: Is urban sprawl so increasing our need for transportation that the prospect for generally clear air has become very hazy? The third session was about water—California’s white gold: Is there not enough for agriculture and urban and environmental uses, or are the problems all institutional (such as impediments to value pricing and water markets)? The final session, “Realities for a Sustainable California,” convened a panel of some of
The sessions demonstrated that California is facing some of its environmental problems—air quality and water management—with significant decade-by-decade progress...