

California: A dream becomes nightmarish

Wherever it occurs, environmental destruction is painful to behold—at least for those who can see it. But in California the pain may go deepest, for a short 20 years ago that state was still one of the most beautiful places in the world. From the northern rain forests in the Cascade Mountains to the lushly vegetated High Sierra, from the rocky seacoasts between Monterey and Big Sur to the golden deserts of the south, California's scenic beauty was (and still is in some places, such as Big Sur) rarely surpassed. Add the felicitous climate, and the appeal to an affluent and mobile population becomes irresistible. So the people came. And now there are too many people, and they have too many things, especially cars.

The California Environmental Quality Council, created by the legislature in 1968, warned in 1970 and again in 1971 that the people and their artifacts were posing a severe challenge to the environment's carrying capacity. Now, in its 1972 report, issued in April, the council says, "The over-all situation has not improved significantly.

"While progress has been made in certain individual areas of pollution control, there is little action to report with regard to the underlying issues of land use and population or to organizational changes necessary to deal with environmental problems in a comprehensive way." It recommends adoption by the state and its subdivisions of long-term environmental strategies in four key areas: government organization, land use and population, balanced transportation, and energy use.

Population problems, says the report, are as much problems of distribution as of excess numbers. "Some 80 percent of Californians live in the San Francisco Bay area and the Los Angeles basin. Over 90 percent of the people live in metropolitan areas." The report quotes a legislative study on urban growth: "The . . . pattern . . . occurred largely through the interplay of economic forces, and not through conscious public policies." Recommended is the adoption of "explicit" policies whereby state and local governments would use their economic power to control population growth and distribution. Another proposal is for joint state-Federal action to encourage people to move to thinly populated states instead of to California.

In transportation, the report says motor vehicle usage "will have to be substantially reduced" in critical air basins. But air pollution is not the only vehicle-caused problem. In the state's urban corridors, projections show that present trends soon will result in the

need for as many as 14 to 22 freeway lanes. ". . . Alternative means of moving people must be developed or we face a choking off of our cities." The report calls for a transportation master plan—with the emphasis on mass transit.

In land use, the need for comprehensive control is "immediate." For instance, "The state loses 375 acres of farmland a day to urbanization. If this rate were to remain constant, half of the state's farmland [California's largest industry is still agriculture] would be destroyed in 30 years, and if it continues to accelerate as in the past years 80 percent would be gone." Drastic changes in assessment policies for property taxes, policies which now view urbanization as the "highest and best use," are desperately needed.

More generally, the report calls for a State Environmental Quality Board and eight regional sub-boards. These would secure comprehensive planning through such expedients as vetoing projects of other state agencies, if necessary, and encouraging clean energy production. "Bold measures" are called for, says the report. This is not just hyperbole. The blight is spreading fast.

APS: Conservatives are reluctant dragons

According to the charter of the American Physical Society the purpose of the society is "the advancement and diffusion of the knowledge of physics." It is not a professional association and its leaders do not consider it such.

Now there is a move afoot to turn it into something more broadly activist and to make it concern itself with such questions as the effects of physics on society, the financing of physics and the employment status of its members. Several years of discontent, worry and political activism have come to a head in two specific proposals that tend in this direction. Some 275 members petitioned for an amendment to the society's constitution that would add to the words above: ". . . in order to increase man's understanding of nature and to contribute to the enhancement of the quality of life for all people. The society shall assist its members in the pursuit of these humane goals, and it shall shun those activities which are judged to contribute harmfully to the welfare of mankind." The second move is a proposal initiated by William Silvert of the University of Kansas to limit the future numbers of physicists by accrediting graduate schools.

The establishment that runs the APS is opposed to attempts to move toward a professional society, but they are very reluctant dragons when it comes to joining the battle. A debate on the con-

stitutional amendment was scheduled for the society's meeting in Washington this week. Robert March of the University of Wisconsin was to argue the affirmative, but the old guard had a difficult time finding an opponent. Finally Earl Callen of American University, chairman of the society's Forum on Physics and Society, agreed to argue the negative.

Callen and members of the audience who spoke in opposition seemed more concerned with the wording of the amendment than the spirit behind it. The amendment's language regarding members shunning certain activities seemed to a number of speakers, including Callen, to be an invitation to set up enforcement machinery that would cut off discussion of certain topics and even expel members who worked on certain projects. The wording, March agreed, was unfortunate; the only intention as March understands it is to open the society to discussion of any issues involving the relation of physics and physicists to social concerns.

Callen replied that the society already had such an opportunity in the Forum on Physics and Society. March maintained that the forum was still hamstrung by the language of the constitution, and cited as evidence that abstracts of four papers scheduled for the current meeting had been refused publication in the BULLETIN OF THE AMERICAN PHYSICAL SOCIETY on the grounds they were not germane to the diffusion of the knowledge of physics. Callen said he was also angry over the exclusion and was fighting it in the society's council.

All in all there seemed to be few in the room willing to speak in opposition to the spirit of the amendment. The conservative leaders of the society were conspicuous by their absence. The amendment will be the subject of a mail-ballot referendum of the society's members sometime in the fall.

Silvert's graduate school accreditation proposal stems from a desire to limit the number of physicists graduated so it is more in line with the number of available positions. In spite of dim employment prospects, he contends that graduate faculties, funded according to the number of students they have, continue to strive to keep enrollments up. To keep quality high and numbers low, Silvert proposes an accreditation system that would maintain high admission standards and limit numbers of graduate students.

Discussion of the Silvert proposal has so far revealed mostly negative reaction, but Silvert had expected that. As he said, he was asking the very people who would be hurt, the graduate-school teachers, to adopt the very policy that would hurt them. □