

cooperation, such as the elimination of waste in the duplication of effort. But the most important, of course, is that men who work together, whether in science or any other field, come to know each other and have respect for their fellows.

Citizens of a nation become citizens of much more when pursuing knowledge. Thus it could be among all men, regardless of the cause which unites them, if sense and reason could prevail.

We in this city, this state and this nation are honored by the convening here of the General Assembly of the International Astronomical Union.

(Signed) EDMUND G. BROWN

The Chairman then called upon Dr Donald H. Menzel to address the gathering on behalf of the National Academy of Sciences.

ADDRESS BY THE REPRESENTATIVE OF THE U.S. NATIONAL ACADEMY OF SCIENCES  
DR DONALD H. MENZEL

Professor Detlev Bronk, President of the National Academy of Sciences, joins me in extending the Academy's welcome to you—our friends and colleagues of many countries. We are grateful to you for having come so far to share with us your friendship and your knowledge.

Dr Bronk and I wish that we could adequately express the many special reasons why the friendly associations of international gatherings such as this give so much pleasure to American Scientists. It is in part because we Americans have so recently come from your native lands. The brothers of your fathers built our nation. Your ancestors are our ancestors too.

Another reason for a feeling of close association stems from the fact that our science has grown from seeds imported by our teachers who first studied in your lands. From the days of Franklin on, we have had a deep debt of gratitude for this friendly nurturing of our scientific education.

Every gathering such as this is a significant breach in the walls that separate people of good will. Such gatherings make statesmen aware that, through science, nations can peacefully gain those material benefits they have fruitlessly sought to acquire through war.

Scientists are uniquely fitted to persuade their fellow citizens that shared knowledge enriches the intellectual resources of all people. As you well know, the science of Copernicus and Galileo and Newton has extended the intellectual and spiritual horizons of people in every nation.

Fifty years ago, when Lord Bryce was the ambassador from Britain to this country, he expressed the international significance of science as follows: 'one of the most delightful things of science is that it knows no allegiance to nationality. Science is a republic in which there is no passport to greatness except service and genius. It is a republic of which everyone is a citizen and where everyone has equal rights in every part of the world'.

Your own National Academies and Royal Societies comprise this republic of science, wherein inquiring men continually engage in the great adventure of advancing the frontiers of human knowledge.

The U.S. National Committee of the IAU operates under our National Academy of Sciences. Many of you have received grants in support of your travel to this meeting. I should like to point out, however, that these funds came not from the Academy, but from many

sources: U.S. Government agencies, numerous industrial companies, charitable foundations, and scientific institutions. These donors join Professor Bronk and me, for the National Academy of Sciences, in a most hearty welcome and with best wishes for a successful and profitable meeting.

After thanking Dr Menzel for his address, Dr Goldberg then invited Dr D. H. McLaughlin, Regent of the University of California, to speak.

ADDRESS BY THE REPRESENTATIVE OF THE UNIVERSITY OF CALIFORNIA,  
DR D. H. MCLAUGHLIN

Dr Oort and Members of the International Astronomical Union:

On behalf of the President and the Regents of the University of California, I welcome you most cordially to our Berkeley campus. We are very pleased that you have elected to hold your second meeting in the United States after an interval of twenty-nine years. Your selection of this once remote site on the far western side of the North American continent is truly a gracious recognition on your part of the value of the contributions that the staff of the University of California has made to the advancement of astronomy and the sciences on which it depends to such an increasing degree.

The University of California is a relatively young institution. Less than a century ago, this plaza, in which we are gathered this morning, was an open field—a sunny spot on the long, grassy slope from the hills to the bay which was then unbroken except for scattered clusters of oaks and a few low buildings at the distant landing. Yet, in that short time, a University has been created that has won a respected place among institutions of learning in the world, and our setting has been transformed from its quiet emptiness to the extensive urban region that surrounds us.

In a century of growth such as this, when this pleasant land with its mild Mediterranean climate was being rapidly filled with energetic people who built cities, developed vast orchards, farms and ranches and created a host of industries, it might have been expected that emphasis on the practical needs of life would have completely diverted attention from scholarly or scientific interests. Fortunately, it did not, for even in its earliest days the University was generously supported not only by the people of the state through their legislature, but by individuals whose gifts made possible the prompt initiation of work in many fields that otherwise might have been cultivated much more slowly. Among them was the bequest of James Lick from which the first structures of the observatory that bears his name was built and which provided California with the first great refracting telescope that enabled the young institution to attract and hold astronomers of highest competence.

It is, I think, particularly significant that this early benefaction—in fact one of the very first the University received—was to support a science that could hardly be expected to pay its way in direct service to the needs of the growing state. Its appeal was solely intellectual and it is surely greatly to the credit of the spirit of the early pioneer days that men were stirred by such visions and that the people at large through their representative bodies provided the continued financial means necessary to carry on the work that the private donors had started.

Men tend to express their gratitude for material wealth—or perhaps their pride in it—in many different ways, some admirable, some otherwise. The Spanish conquerors and settlers, from California to Peru, were inclined to build churches and many a mining town is richly