The Southwestern Division of the AAAS

Frank E. E. Germann
Permanent Executive Secretary-Treasurer

SCIENTIFIC ACTIVITY IN THE UNITED STATES prior to 1920 reached an all-time high during World War I. Prior to that time, one could count the American industrial laboratories doing truly fundamental research on the fingers of one hand. Basic research carried on in our universities was in a much more healthy state, but even here, work leading to the Ph.D. was restricted to a very few of our large and more prosperous private and state institutions. In order to get the best in education before 1914 it was deemed almost essential to do either doctorate or, at least, postdoctorate work in the better European universities. As evidence of this fact one need only survey the academic training record of the distinguished American professors of that period. During the war, research programs were initiated in a large number of industrial laboratories, where, prior to that time, the only scientific work that had been attempted was that in the nature of routine control tests. This increase in activity was almost exclusively in the field of chemistry, although in a few isolated cases physical and biological research studies were started. This development on the part of industry was due to the cutting-off of the supply of chemicals and physical apparatus formerly obtained largely from Germany. As a case in point, one need only be reminded of the fact that there was great rejoicing in this country when a German submarine "ran" the blockade and delivered a cargo of dyes on the eastern coast some months prior to our entering the war against Germany.

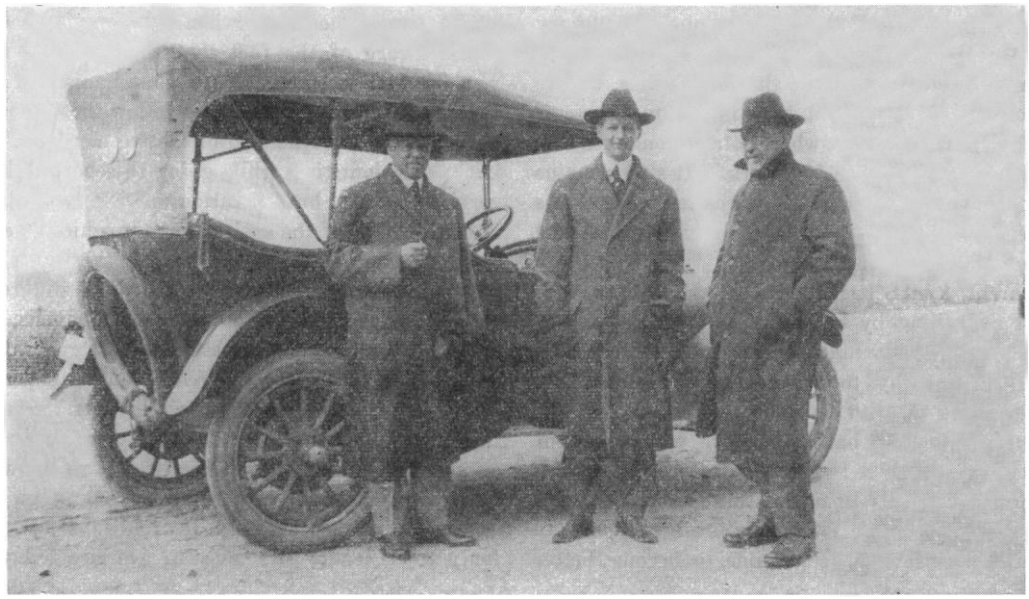
Closely paralleling the increased interest in research in the industries, more and more universities began seriously the development of their graduate schools and the accompanying research programs. Since our students could no longer go abroad, more and more of them started their advanced studies at home in order to qualify for the greatly increased number of positions which had become available. When the war was over, industrial employment of the research worker came to a rather abrupt end, especially with those warborn concerns which could reap handsome profits as long as war-inflated prices were being paid for their product, but which had not had sufficient experience to make a go of it in a highly competitive market. The picture on the academic side was fortunately quite different, and research and graduate study steadily increased. Colleges whose professors had formerly had little interest in doing any more than impart the knowledge they possessed to others now were being manned with young men eager to advance the field of their specialty. These same men also craved the companionship of fellow workers in order to talk over their mutual problems. In the more densely populated East and Middle West such contacts were easily made, either through direct visits or on the occasion of scientific meetings. The situation was not so simple in the sparsely populated states, which also had their institutions of higher learning, and where the desire for progress had been born.

It was in March 1920 that Andrew Elicott Douglass, director of the Steward Observatory and professor of astronomy at the University of Arizona, and Daniel Trembley MacDougal, director of the Desert Laboratory at Tucson, Arizona, started out on a tour of the Southwest in an antique automobile in an attempt to organize the scientists of the region. In the accompanying photograph, taken on March 11, 1920, on the campus of the New Mexico State College of Agriculture and Mechanic Arts in Mesilla Park, New Mexico, Dr. Douglass is shown on the left and Dr. MacDougal on the right, with Dean Barnes, of the College, in the center. As a result of this tour there came into being the Southwestern Division of the American Association for the Advancement of Science.

The first meeting was held in El Paso, Texas, from December 2 to 4, 1920. The affiliated societies participating in this meeting were the American Association of Engineers (Southwestern District), Medical and Surgical Association of the Southwest, New Mexico Archaeological Society, Santa Fe Society of the American Archaeological Institute, New Mexico Medical Society, and El Paso County Medical Society. The president for the first year was Edgar L. Hewett, director of the School of American Research at Santa Fe, while E. C. Prentiss and A. E. Douglass served as vice-president anl secretary-treasurer, respectively. Sections for the first meeting were Human Science, Biological Science, and Physical Science. Twenty-seven scientific papers were presented, in addition to about a dozen special addresses and general talks. Of special interest was a symposium on the subject, "What Are the Problems on Which the Southwestern Division Should Concentrate?," which was presided over by Dr. Hewett.

The Southwestern Division actually came into being

as the result of the approval of the Executive Committee of the Association on April 26, 1920, following a meeting of delegates held in Tucson, Arizona, on April 10, 1920. As originally constituted, the Division included members of the Association resident in Arizona, New Mexico, Texas (west of the Pecos River), as well as the states of Sonora and Chihuahua in Old Mexico. By action of the national Executive Committee on December 26, 1922, members in Colorado were included in the Division, and by a similar action on June 21, 1937, the Texas boundary was extended eastward from the Pecos River in order to include all members in Texas residing west of the 100th meridian.



In 1929 the Southwestern Division inaugurated the John Wesley Powell Memorial Lectures in honor of the distinguished geologist and leader of the first expedition that descended the Colorado River through the Grand Canyon. Each year a distinguished scientist, usually from beyond the bounds of the Division, is selected to deliver an address on a subject of his own choosing. The event has become traditional, and the address is usually the most important one delivered at the annual meeting. Although no definite regulations exist, the attempt has been made to choose the speakers in such a way as to represent as wide a diversity of scientific endeavor as possible. The Powell Lectures who have honored the Division in the past, together with their principal fields of interest, are: William Morris Davis, geology; Rodney H. True, botany; Max Pinner, medicine; Aldo Leopold, forestry; Otto Struve, astronomy; Edgar L. Hewett, archaeology; John C. Merriam, paleontology; A. E. Douglass, astronomy and tree rings; E. R. Hedrick, mathematics; A. H. Compton, physics; D. T. MacDougal, botany; Bernadotte E. Schmitt, modern history; Howard W. Blakeslee, general science; John H. Manley, nuclear physics; and Edwin F. Carpenter, astronomy.

The annual meetings have been held at the principal cities and educational institutions in the region. Following the first meeting in El Paso, host cities and institutions have been: the University of Arizona at Tucson; the Laboratory of Anthropology and the School of American Research at Santa Fe, New Mexico; the University of Colorado at Boulder; Phoenix, Arizona; the Northern Arizona Teachers College, the Lowell Observatory, and the Southwestern Forest Experiment Station in Flagstaff, Arizona; the University of New Mexico in Albuquerque; Denver University in Denver, Colorado; the New Mexico State College in Las Cruces; the Texas Technological College in Lubbock; the Sul Ross State Teachers College and the McDonald Observatory at Alpine, Texas; Colorado College at Colorado Springs; and the New Mexico Highlands University at Las Vegas.

It has been the policy from the beginning to encourage advanced undergraduate and graduate students to attend and actively participate in these meetings, as it serves both as an incentive to them to do something themselves and as a training school in the preparation and presentation of papers of their own. Once these embryo scientists have gained self-confidence in the smaller groups in attendance at these sessions, they are anxious to go to the more important national meetings of their chosen field of interest. When they see and hear one of their fellow students

or teachers telling of his investigational efforts of the past year, they get the urge to do something themselves so that they too may appear on the program at some future meeting. This catalytic effect has been very noticeable and is one of the most important reasons for the existence of the Division.

There is another feature of value in general scientific societies, often missed by those who say that they have no need of associating themselves with us since they already belong to the society representing their own field of specialization. This feature involves the often-overlooked value of being able to talk with specialists in fields beyond one's own, in order to gain a deeper insight into the things we ourselves are doing. This mingling of scientists had been one of the very greatest values of the AAAS, but the sectional meetings have now become so large that, in a sense, we are again isolated. This is not true in the meetings of the Southwestern Division, where total attendance still rarely ever has passed the 500 mark. It still remains possible to meet in general sessions cutting across large areas of interest and have the entire group take an active part in the discussions.

Our parent AAAS has recognized the fact that we have lost something by becoming as large a body as we are, and the Centennial meeting in Washington is exploring various ways to create new values out of our very size. The plan to have no sessions devoted to specific narrow fields, but to explore wide areas of common value, should prove a very interesting experiment, and it is hoped that out of this may come a new type of annual meeting, possibly even regional in character, where it will be possible to become better acquainted with the experts in all fields. So many of our very able young scientists are very familiar with the persons doing pioneer work in their given field, but entirely ignorant even of the names of Nobel Prize winners in other subjects. Although it is too much to hope that at some future date we may again develop men who will simultaneously do fundamental research in mathematics, physics, chemistry, astronomy, and biology, it is a recognized fact that the very breadth of understanding gained by a knowledge of a wide diversity of subjects made it easier for our scientific forefathers to do as much as they did. Never has this been more true than today, when the biologist is being asked to do work with natural or artificial radioactive elements, or when the organic chemist becomes aware of the fact that the best and quickest way for him to learn the exact mechanism of a given organic chemical reaction is to follow the various steps by means of isotopic or radioactive elements. There is not sufficient time while going to school to learn all we should know, but education must continue throughout life. One of the easiest ways in which to continue this education is to be thrown together both socially and in a business way with persons of a different educational background. In the final analysis, this is, therefore, one of the greatest values of general science associations such as the AAAS and its several divisions. It is this feature which we should ever be on the alert to advance. Now that America has most surely come of age scientifically, the world will look to us for guidance. It is the AAAS which may be expected to take the lead, as it always has, since it truly is the leader of science in America today.