Reminiscences of Arthur C. Hardy

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Arthur C. Hardy (1895-1977) is well known among students of optics as a co-author of a standard text: "*The Principles of Optics*," which he wrote with Fred H. Perrin. Optical engineers recognize him for his development of recording spectrophotometers and color analyzers.

Arthur Hardy joined the Optical Society in 1920. He served on various committees and was elected as OSA vice president from 1933 to 1935 and president from 1935 to 1937. In 1939, he agreed to serve as OSA secretary—a post he held for more than 17 years. He was selected as Frederick Ives Medalist in 1957. He would have received the award much earlier, except that the selecting committees were reluctant to make such an award to an incumbent officer of the society. When he gave his Ives Lecture, Hardy opted to reminisce about his years in the Optical Society rather than give a technical talk. His comments were published in a 1958 issue of the Journal of the Optical Society of America *(**48**, 77). Here is an excerpt adapted from that talk.*

Shortly after World War I, I was employed as a physicist at the Research Laboratories of the Eastman Kodak Company. The head of the physics section was Loyd A. Jones, and his enthusiasm for optics bent my own interests in that direction. He was one of the charter members of OSA. At the time he laid a membership application blank on my desk, the Society had only 171 members. It had never occurred to me to apply for membership in so select an organization, which included so many of the big names in optics. Frankly, I was flattered by Dr. Jones' invitation, and shortly thereafter I became OSA Serial Number 172.

I had been a member for only a short time when I was asked to take part in the planning and conduct of a meeting scheduled to be held in Rochester in October 1921. This was the beginning of a sort of chain reaction; as everyone should know, acceptance of one assignment makes one more vulnerable to others thereafter. By 1931, I had become so enthusiastic over the aims and purposes of the Society that I agreed to stand for election as a member-at-large of what is now called the Board of Directors. I was on that Board for 25 years.

Some of you may not know that OSA was originally a rebel organization; its 30 charter members can be regarded as the signers of a sort of Declaration of Independence. The fact is, prior to the founding of OSA in 1916, a physicist who happened to be interested in optics was not happy with the treatment he or she often received at the hands of the American Physical Society (APS).

If a physicist prepared a paper for presentation at a meeting of APS, for example, and that paper was "contaminated" by chemistry, physiology, psychology or any other body of knowledge not derived from the classical principles of physics, it was not ordinarily included on the program. If the article was submitted in manuscript form to the editor of *The Physical Review*, it was usually returned to the author. As a consequence, optical progress in this country was gravely impeded, and the relatively few papers that did appear in print were widely scattered throughout the scientific literature.

These remarks should not be construed as criticism of APS because it was relatively young in those days and undoubtedly had the kinds of problems that beset any young organization. In retrospect, it appears that APS should receive credit for the part that it played in creating in the minds of OSA's founders the vision of an organization to which anyone with an interest in optics might belong, regardless of his or her professional background.

The young OSA experienced a healthy growth during the 1920s. By about the middle of that decade, the rebellion of 1916 had been either forgiven or forgotten, and the Society began holding one of its two meetings each year jointly with the APS—a custom that was continued until the further growth of both organizations

made joint meetings less feasible. In 1930, Paul Foote, the editor of the *Journal of the Optical Society of America* (JOSA), and Karl Compton of the APS suggested that the five fragmented societies in pure and applied physics should form a joint organization to carry out those functions which could be accomplished better—in terms of economy or effectiveness—in cooperation than separately.

An ad hoc committee studied this suggestion, and in 1931 the American Institute of Physics (AIP) was founded. [**Editor's Note**: At the time of its formal incorporation in 1932, AIP comprised five societies with a total membership of some 4,000 individuals: The American Physical Society, the Optical Society of America, the Acoustical Society of America, The Society of Rheology and the American Association of Physics Teachers.] For OSA, the AIP principally performed the editorial mechanics of printing and distributing JOSA.

During the early part of 1922, when OSA had about 300 members, JOSA was slightly expanded to include a section on scientific instruments—a venture made possible through the cooperation of the Association of Apparatus Makers of America. This section expanded, and, by 1930, it became feasible for OSA to publish it as a separate journal called *The Review of Scientific Instruments* (RSI).

Later, after the AIP had been organized, it was recognized that some sort of "house organ" was needed to bind the five societies together. It seemed that the RSI would be of interest to the largest possible cross-section of the combined memberships, and OSA allowed AIP to assume responsibility for RSI. The original plan of mailing RSI gratis to every member of the AIP family had to be abandoned after one year because of the depressed economic conditions of the early 1930s. However, the RSI on a subscription basis has continued to serve a need that OSA was the first to recognize.

When OSA met for the first time on the West Coast, in Los Angeles in 1954, many of the East Coast and Midwest members of the OSA Board took the (Union Pacific) Golden State Limited train from Chicago to Los Angeles. We had a quorum present for an all-day intercontinental board meeting. (Wallace Brode joined us at Des Moines, Iowa.) After the OSA meeting, many of us went on to an interesting visit to Mount Wilson and to Mt. Palomar—the site for the proposed 200-inch telescope. [**Editor's note**: This 1954 meeting was the first West Coast meeting of OSA, and the Board Meeting on the train was probably arranged because Arthur Hardy disliked flying. On the other hand, Wallace Brode, who was then a professor of chemistry at Ohio State, disliked train travel, but he compromised by flying from Columbus to Des Moines and then joining the others on the train for the rest of the trip.]

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