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Arthur Leissa—a biographical sketch

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Arthur Leissa grew up in Cleveland, Ohio, and went to Ohio State University, where he received BME and MS degrees in mechanical engineering in 1954. After spending 1 year at Sperry Gyroscope helping in the development of a radar system, he returned to Ohio State to pursue PhD study and research in engineering mechanics, receiving the degree in 1958. During this period, he also spent one summer in the advanced stress analysis group of Boeing Airplane Company.

Staying at Ohio State as Assistant Professor (1958), he quickly became Associate Professor (1961) and full Professor (1964). At the age of 32, he was the youngest full Professor at Ohio State. His early research was primarily in elasticity, plates and shells, and in approximate methods for solving boundary value and eigenvalue problems. During this time, he also did extensive consulting (~ 700 h/year) for 6 years with North American Aviation, Inc. in Columbus, Ohio.

In 1965, a momentous change in his research career took place, for he began a 7 year effort to collect, digest and summarize the published literature of the world in plate and shell vibrations. This comprehensive work was sponsored by NASA, and resulted in two monographs (Vibration of Plates, 1969, and Vibration of Shells, 1973) which are recognized as the definitive works on these topics, and are each cited typically dozens of times every year in published literature. Because the 5000 copies of each printed by the US Government Printing Office were sold quickly, The Acoustical Society of America reprinted both volumes as classics in 1993 to make them available to researchers.

Following this extensive research effort on vibrations of plates and shells, Professor Leissa during the subsequent decades has used his expertise to direct graduate students on further research into these areas. He also applied it extensively to turbo machinery blade vibration problems, to problems of buckling (a special case of vibration), and to plates and shells made of laminated composite material. His research career of $4\frac{1}{2}$ decades has resulted in approximately 230 publications and major reports, of which more than half are refereed journals. He advised 40 PhD students and 20 MS students on their dissertation or thesis research.

Professor Leissa was a Visiting Professor for academic years at the Swiss Federal Institute of Technology in Zurich (1972–73) and also at the US Air Force Academy in Colorado Springs

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(1985–86), teaching and doing research at both places, and also for 3 months during 1996–97 at the University of Canterbury, Christchurch, New Zealand. In 1986, he conceived the idea of the Pan American Congress of Applied Mechanics, and organized the first one for Rio de Janeiro, Brazil which had 200 attendees in January 1989. This Congress, sponsored by the American Academy of Mechanics, was held every 2 years subsequently in other Latin American locations. In 1995, he implemented a long-standing dream by initiating an International Symposium on Vibration of Continuous Systems, for 50 of the top experts in the field worldwide. The first one, held in Colorado in 1997 was a success, which led to subsequent ones in Switzerland (1999), Wyoming (2001) and England (2003), for which he has been General Chairman.

In 1985, Applied Mechanics Reviews was moved from Southwest Research Institute in San Antonio to ASME, and a strong effort began to obtain review articles for it. He was asked to be an Associate Editor at the beginning. After being very successful in obtaining good review articles, he was asked to become Editor-in-Chief in 1993. In this position, he has devoted considerable time to obtaining good quality review articles over the broad scope of mechanics throughout the world and initiating the concept of Retrospective articles written by eminent, senior researchers, which has been well received.

Honors and recognition of Professor Leissa include being elected Fellow of the American Academy of Mechanics in 1979, and subsequently becoming Secretary to the Fellows in 1981 and President in 1987 of the organization. He became an ASME Fellow in 1983 and serves on the editorial boards of five journals. During late June 2002, a special three-day symposium in his honor took place at the US National Congress on Theoretical and Applied Mechanics in Blacksburg, Virginia.

In his leisure time, he likes to hike, climb mountains, ski and sing. During the 1970s, he sang in fourteen operas in Columbus, Ohio. His mountain climbs include the Matterhorn (solo), Mt McKinley (Muldrow Glacier route), and all the 54 peaks in Colorado exceeding 14,000 feet.