

SEM History

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Joseph Marin **SESA President 1954-1955**

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Dr. Joseph Marin was the twelfth president of the SESA. He was well known as an educator, as a practicing engineer, and as a consultant. His research results and his textbooks on materials and on mechanics were widely used by engineers. The following article about Joe Marin was written shortly after his death:

Dr. Joseph Marin 1905-1966

Joseph Marin, distinguished visiting professor at the United States Naval Postgraduate School and a past president of the Society for Experimental Stress Analysis, died in Monterey, Calif. on August 21 following a brief illness.

Dr. Marin was born in New York City on June 7, 1905. He received BA and BSc degrees from the University of British Columbia, and an MS degree from the University of Illinois. In 1936, he earned his doctorate in engineering mechanics at the University of Michigan.

After teaching at Rutgers from 1930 to 1939, Dr. Marin went to the Illinois Institute of Technology where he taught from 1939 through 1942. In 1942 he joined The Pennsylvania State University and served as professor of engineering Mechanics and research professor of engineering materials until 1953. It was in 1953 that he was made head of the department of engineering mechanics, a position he held until going to the U.S. Naval Postgraduate School last year.

Dr. Marin was not only an educator. He had served as part-time consultant on stress analysis and materials for many organizations, including Westinghouse Manufacturing Corp. and the Curtiss Wright Corp.

His work on over fifty projects sponsored by various government agencies led to the publication of six books and over 150 technical papers.

The recipient of many awards and honors, Dr. Marin, in 1949, was given the George Westinghouse Award by the Society for Engineering Education for excellence in teaching. In 1952 and 1953, he was a Fullbright Professor at the Norwegian Institute of Technology. In 1956, Dr. Marin received a Guggenheim award for research. Acting on an invitation from the Academy of Science of the USSR, he went to Russia in 1962 to lecture. In 1964, he was made a Fellow in the American Society of Mechanical Engineers.

Dr. Marin was also an honorary editor of the *International Journal of Mechanical Science* and the *International Journal on Mechanical Engineering Education*.

In addition to the SESA, ASEE and ASME, he was a member of a number of other professional and honorary societies. At the time of his death he was on the SESA's Silver Anniversary Committee which is planning the commemorative activities for 1968.

Dr. Marin is survived by his wife and two sisters.

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The preceding article was written thirty-five years ago by people who knew Joe Marin well and I am reluctant to change even one word of it. However, in the SEM History series we endeavor to go beyond the mere reporting of the places of employment, lists of honors, and numbers of publications for the people responsible for our proud SESA/SEM legacy. Toward that end, I will add that Joe was a tall handsome, impressive man who was very congenial and yet quite serious, and I will include two of my favorite memories of Joe Marin. The first one goes back to the mid 1950s when Joe and I were on the SESA Executive Committee. In those years Bill Murray was the Secretary-Treasurer and had only one secretary to help him in his office at MIT. Almost all of the Society's business was conducted by the Executive Committee at its semiannual meetings. We had very full agendas with new business, old business, reports from every committee chairman, etc. Typically, the meetings started after dinner and lasted all night. I am sure we made many earth shaking decisions during those meetings, but the only thing that I remember is that Joe and I always went straight from the meeting to breakfast. Even after those long grueling sessions, Joe still had a good sense of humor. But my favorite Joe Marin memory resulted from a time when we were both attending a Pressure Vessel Research Committee meeting in New York. We had one afternoon free so Joe invited me to come as his guest to Yankee Stadium to see a baseball game. (I was not at all affluent then and couldn't have afforded it otherwise). The Yankees had a new kid in center field that showed a lot of potential. His name was Mickey Mantle. Whenever I think of Joe Marin, my thoughts go back to Yankee Stadium and Joe's generosity.

Realizing that my own personal memories of Joe Marin are inadequate, I contacted my longtime good friend Richard (Rich) McNitt at Penn State University. Rich is the Head of the Department of Engineering Science and Mechanics now, but was a graduate student in that department when Joe Marin was the head back in the 1950s. Rich sent me a 154 page book written by Dr. Norman Davids, entitled, 'Growing and Changing with the Times 1905 - 1995' and published by Penn State. Predictably many pages in that book are devoted to Dr. Marin, and several long quotes follow:

From Chapter 3 Growth under Dr. Marin 1953-1965 (Imprint of Dr. Marin, a dominant figure) "While transitions usually occur gradually, we might point to 1953 as a milestone in the history of the department. We are referring specifically to the accession of Dr. Joseph Marin as department head, after Dr. Sauer left the department, first to take a

sabbatical in Cambridge, and then to become head of the Physics Department in the School of Chemistry and Physics. The field of mechanics was rapidly expanding its interests and shaping its identity, becoming aware of its distinction from the more established engineering disciplines. Its formative period since the stimulus given to the field since World War II might be said to have stabilized, sorely needed at this time, and buttressed by influxes of new faculty.

“Dr. Marin earned a PhD from the University of Michigan, where he studied applied mechanic and especially stress analysis under Professor Timoshenko (as did SESA luminaries, Max Frocht and Miklos Hetenyi). ... An unusual feature of Marin’s education was that he also earned a bachelor of arts from British Columbia in 1958, thirty years after his B.Sc. In connection with this, he was one of two in the Engineering School to receive the Liberal Arts award of Phi Beta Kappa (N. Davids was the other). When the headship became open again in 1952, he accepted reluctantly and defensively, in preference to having someone take over with policies he felt would be undesirable.

“He very quickly learned the ropes, however, and took charge in a very forthright manner. He would give a task to his secretary with assurances that it would not have to be done with any degree of urgency. But within a short time he would ask with perhaps a tone of impatience, ‘... is that report ready?’.....

“Dr. Marin, in addition to being a hard worker himself, made sure his students toed the mark and produced the required output. Undoubtedly this influenced their characters as well. Most of his graduate student went on to become very competent engineers, or professors in our own department. One of them, Rich McNitt, became head of the department in 1981.

“Rich, in his reminiscences, tells how he occupied Professor Vierck’s large corner office in Engineering A facing the president’s residence and shared it with Ted Thomas and Ben Sparks (who are now deceased) and Alan Terrill. He remembers how on Saturdays, a required working day, Dr. Marin used to call up to check on their presence in the office. On learning who answered the phone (he knew all the voices), he would ask for someone else, and if that unfortunate individual was not in, he would ask for yet another person. In this way he effectively ‘took attendance.’

“Dr. Marin was noted for being a very genial host, and his parties in Boalburg were famous and remembered to this day by those who were here at the time. His international pot luck dinner on November 8, 1958, to which all faculty and graduate students were invited, marked a high point in sumptuousness. It turned out there was considerable expertise among the group on native dishes from their country of origin or background, including paella, samosas, pecan pie, and Latvian meat pastries. Oriental dishes outnumbered the rest. Even the subsequent write-up of the recipes had a mechanics slant in that drawings were shown in the style of a textbook in statics of how to prepare egg-rolls with cylindrical and axial displacements (stresses?). Marin would always serve his famous “Boalburg orange juice” which got its name from the pitcher of orange juice he once prepared - or so he thought. Asking Sam Zamrik’s assistance in

its preparation, Sam took it into the kitchen and poured a bottle of vodka into it (accidentally?). The results were such a success that the recipe became established for all future parties.

“Dr. Marin retired with emeritus rank from the University on November 1, 1965, taking a position at the Naval Postgraduate School in Monterey, California. Unfortunately, he did not enjoy his new position very long as he died there on August 21 of the following year. His accomplishments were many and noteworthy. He had been a member of the Penn State faculty for twenty-three years and head of the Mechanics Department for twelve. During his years here he had trained over 170 students qualified for degrees in mechanics, more than half of them developing their theses under him. He had wide experience in teaching and research, and in engineering practice. He conducted research projects in the fields of materials and stress analysis for numerous government and industrial organizations, and published 162 papers and six books in mechanics. He had been consultant for numerous industrial organizations on stress analysis and material properties. He was a member of various technical committees and of national engineering societies and served as president of the Society for Experimental Stress Analysis.

“Dr. Marin had a great impact on the department by serving as a catalyst. He could get his students, his faculty, and others to work hard, partially through cajolery, through some pressure, but notably through example. He was so closely involved with the department that even on His Russian trip he would call in from far-away places to check that all was going properly. He realized the importance of publications in the academic world as a mean of disseminating new information as a stimulus to research. His own output of papers was enormous; although not all of it could be considered of major significance, he and his fellow researchers extracted every nuggets of interest in their productions. Dr. Marin was a shaper and a shaker. As a dominant figure in this formative period of developing science within mechanics. Dr. Marin, though personally on the side of practicality, was able to appreciate and encourage in his faculty the theoretical and analytical side as well. He would exert his influence to keep theorizers from straying too far from the practical (something which is often needed).

“Dr. Marin led a life-long campaign for the introduction of the term ‘mechanics of the solid state’ as a worthy companion to ‘physics of the solid state.’ In fulfillment of his wish and in honor of his memory, a volume was published with this title by two of his former students, F. P. J. Rimrott and J. Schwaighofer, containing nineteen contributed papers from his colleagues and students. This volume was supposed to be dedicated to Professor Marin on the occasion of his sixtieth birthday in 1965, but his death occurred during its preparation. It was a fitting memorial to his approach, which is presented in its fully-matured form....

“The ‘Joseph Marin Memorial Scholarship Fund’, established at Penn State to honor and perpetuate his memory, is awarded annually to a worthy and qualified undergraduate majoring in his department.”

Those familiar with SESA/SEM history may remember that after Ben Lazan (SESA President 1959-60) was first diagnosed with a brain tumor in the summer of 1965, he took sabbatical leave and spent the 1965-66 academic year with Joe Marin at the Naval Postgraduate School in Monterey. Sadly they both died in the summer of 1966, and so did Irwin Vigness (SESA President 1961-62). It was indeed a bad year for the SESA. Now, thirty-five years later, we still treasure their memories and are thankful for their many contributions.