

SEM History

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HISTORY OF THE SEM HONORS AND AWARDS PROGRAM

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This article will discuss in chronological order the various SESA/SEM honors and awards.

Honorary Membership

Early versions of the SESA Constitution said in part, "An Honorary Member shall be an individual of widely recognized eminence in some field in which the Society has interest, who is elected for life by unanimous secret ballot of the Executive Committee". It further provided that, "The number of Honorary Members at any given time shall not exceed the larger of ten or one half of one percent of the Individual Membership".

In 1953, when the Society was nearly ten years old, Frank Tatnall was made its first Honorary Member. Three years later Miklos Hetenyi was elected as the second Honorary Member. In another three years Max Frocht was made the third Honorary Member in 1959. Nine years later, in 1968, Hans Meier and Bill Murray were elected as Honorary Members. (Someone pointed out that Bill had been the Honorary President since 1961, but had not officially been made an Honorary Member, a situation that was quickly remedied.) In 1969, Dan Drucker and Milt Leven were elected to Honorary Membership, bringing the total up to seven. After the deaths of two and the election of five more, the SESA/SEM first reached its quota of ten Honorary Members in 1984, thirty-one years after the honor was established. Since 1984 the SEM has quickly elected a new member as soon as one of the Honorary Members dies.

The William M. Murray Lectureship

In 1952 a proposal was made to create a prestige lecture and to name it the William M. Murray Lecture. The idea was so appropriate and timely that it was enthusiastically implemented by the Executive Committee. After all, Bill Murray had been one of the four founding members, was the Society's first president, and served as Secretary Treasurer for seventeen years. He was a modest, gracious, and friendly person who had guided the new Society through its infant years. Next to Honorary Membership, the William M. Murray Lectureship would be considered to be the Society's highest honor.

Appropriately, Bill Murray was the first Murray Lecturer. He was followed by Stephen Timoshenko, Miklos Hetenyi, Arthur Ruge, an impressive list of distinguished engineers and scientists. The Murray Lecture continues to be the highlight of each annual meeting.

The Beginning of the SESA Awards Program

In 1967, as the Society started looking forward to its 25th Anniversary, the time seemed right for it to expand its Honors program. A committee consisting of Clyde Work (chairman), Dan Drucker, and Milt Leven (at that time, one future president and two past presidents) was appointed and charged with the responsibility of designing a comprehensive Awards Program.

The committee quickly responded and recommended that four new awards be created. Their report appeared in 1968 SESA President Fred Bailey's feature, "*the president's corner*" and appeared in *Experimental Mechanics*, February 1968, pp. 34N and 35N. It is reproduced in the following:

"As a part of the Silver Anniversary celebration to be held during 1968 in connection with the Albany and San Francisco meetings, several new honors and awards will be initiated. The new awards, announced at the Chicago meeting, will feature a Founder Award to the four individuals primarily responsible for establishment of SESA - M. Hetenyi, C. Lipson, R. D. Mindlin and W. M. Murray - and a number of other awards for services to the Society and for distinguished contributions in the field of experimental mechanics. These awards will be presented for the first time in 1968 and, except for the Founder Award, will be awarded annually in the future.

"One of the important new awards will be to the local section chosen to be the 'Section of the Year.' An appropriate banner for display at local section meetings will be awarded at the banquet held annually in connection with the Spring Meeting of the Society. The winner will be chosen from two sections nominated by the Local Sections Committee on the basis of information supplied by the section officers. Judging will be based on factors which show evidence of section vitality, such as section programs, special projects, participation in section activities, members contributing to the Society through papers and services as national officers and on committees. The banner will serve as a traveling trophy and move each May to the new winning section. It will carry the names and dates of winners of preceding years.

"Three of the new awards will be distinguished by bearing the names of three eminent members of the Society - M. Hetenyi, M. M. Frocht and F. G. Tatnall.

"**The Hetenyi Award** - the paper of the year award - will be for the outstanding paper presented at the two national meetings of the Society or accepted for publication during a given year. Nominations will be made by the Papers and applications Committees based on manuscripts received during the twelve months prior to June 30 each year. The manuscript of the Murray Lecture will not be eligible for consideration.

"**The M. M. Frocht Award** will be for achievements in education in experimental mechanics. Nominations from the membership should emphasize achievements through writings, such as books and papers, and other educational endeavors. The record of students of the nominees who have distinguished themselves in the field of experimental mechanics will also be an important consideration.

"**The F. G. Tatnall Award** will recognize extended, noteworthy service to the Society. The recipient will be selected from nominees submitted by members of the Executive Committee on the basis of length and quality of service through Committee activities both in and out of official elective and appointive positions in the SESA, at the local and national levels.

The Distinguished Contribution Award

In 1973 this was renamed the **B. J. Lazan Award**

“Another award to be initiated during the Silver Anniversary celebration will be the Distinguished Contribution Award. It will be for original contributions to the technology of experimental mechanics. It will honor the inventor, discoverer or developer of a new device or method which represents a significant advance in experimental mechanics. For example, Sir David Brewster would have been a logical candidate for this award about a century and a half ago for his discovery of the photoelastic effect. Unfortunately, the Committee will have to bypass several important early contributions, such as Brewster’s, in an effort to recognize current developments. There is some question whether Sir David could be present at the San Francisco meeting to receive the award, anyway. Nominations for the Distinguished Contribution Award will be received from the general membership of the Society following a form printed in the Journal (see page 35N).

“In the case of the latter three awards, although announced as being given annually, it is intended that the standards for selection of the recipients will be very high. Therefore, it is expected that, some years, the award may be deferred rather than make an award for contribution which might not receive universal acclaim.

“Two other categories of continuing honors will be initiated in 1968. Silver Certificates in recognition of 25 years’ membership in the Society will be awarded to about fifty individuals. Past presidents of the Society will be honored in recognition of their service to the SESA. Both of these awards will be continued in subsequent years to honor those who complete their 25 years of individual membership or their service as presidents.

“The William M. Murray Lectureship, initiated in 1952 will, of course, be continued as a high point in each year’s program.

“The Honorary Membership established in the constitution will remain the highest honor of SESA. Plans for the new awards were developed by an Ad Hoc Committee made up of two past presidents- D.C. Drucker and M.M. Leven with one Executive Committee member, C.E. Work - serving as chairman, as an outgrowth of suggestions and prior studies by the Silver Anniversary Committee, Executive Committee, earlier awards committees, and other interested individuals.

“To administer the program, the Ad Hoc Committee has recommended a Standing Committee on Honors to be appointed, with the rotating membership consisting of two past presidents at least five years out of office, one or two members of the current Executive Committee, and one or two other appropriate members. Appointments to the Honors Committee will be made by the president of the Society, with the approval of the Executive Committee.

“Plans for the Silver Anniversary celebration include presentation of the Founder Award, the Section of the Year Award, and the Past President Award at the Spring Meeting to be held in Albany, May 7-10, 1968.

“The M. Hetenyi Award, the M. M. Frocht Award, the F. G. Tatnall Award and the Distinguished Contribution Award will be presented, along with the Silver Certificates and W. M. Murray Lectureship for 1968, at the Silver Anniversary finale in San Francisco, October 29 - November 1.”

CLYDE E. WORK, Chairman, Committee on Honors and Awards.

Since the awards program came into existence “during my watch”, I will add some comments to reflect the rationale behind the awards and the Executive Committee discussions that took place prior to its adoption. In particular, the F.G. Tatnall Award is given “on the basis of length and quality of service through Committee activities both in and out of official elective and appointive positions in the SESA, at the local and national levels.” Those few words don’t adequately reflect the intent of the Committee on Honors and Awards and of the 1967 SESA Executive Committee. The Tatnall Award was created to honor people who had served the Society long and well, but for one reason or another would not be likely to receive one of the other newly created awards, including the Past President Award. In the discussions of the Executive Committee the names of Frank Tatnall, Clarence Smith, and Ferdi Stern were frequent examples of people who’s work should be recognized. By 1967 those people were no longer writing papers for the *Experimental Mechanics* (Hetenyi Award), were not professors (Frocht Award), or conducting basic research (Outstanding Contribution/Lazan Award), yet their contributions and service to the Society were valuable beyond measure.

Many of us who have had the privilege of serving as SESA/SEM President consider that a very high SEM honor indeed, perhaps the highest. Normally one becomes President after many years of activity as a committee member, committee chairperson, Executive Board member, etc. Service leading up to and during the presidency is properly recognized by the Past President Award. It was not intended that Tatnall Award be given for the same service.

The previous material is probably of more historical interest than current importance

The Evolution of the SESA/SEM Awards Program

Having written the preceding sections which describe the details of the Honors Program as it was conceived by Clyde Work’s committee and approved by the 1967 Executive Committee, I now hasten to emphasize that members of the Committee on Honors and Awards, and especially those of us on the Executive Committee, did not have a good crystal ball with which to look into the future. Thus, it was desirable and necessary that the Honors Program should change and grow as the Society’s interests and activities change. Here are some of the changes and additions:

F. G. Tatnall Award Very predictably, the first three recipients of this award were Frank Tatnall, Clarence Smith and Ferdi Stern, the very type of people for whom the award was created. The problem is that people like Frank, Clarence and Ferdi don’t come along every year. In spite of the caveat that the awards not need to be given every year, it was generally believed that the Society has been blessed with many hard working members who should be rewarded. The primary candidates for the Tatnall Awards still remain those who have served the Society long and well and have not been otherwise recognized. Past Presidents have been viable candidates, but for them, service after their presidencies, is weighted much more heavily than service before their election (for which they have already been recognized).

R. E. Peterson Award At the 1962 Spring Meeting the Society first experimented with simultaneous sessions. In addition to the “Technical Papers Session” there was a “Practical Applications Session”. The experiment was an immediate success and simultaneous sessions became the normal mode at semiannual meetings. By the late 1960s the typical meeting format had two research sessions and one application session scheduled simultaneously during each time segment. Generally, written papers were not required for the applications session although they were strongly encouraged. Starting in May 1963 papers clearly labeled as “Practical Applications” (later just “Applications”) started to appear in *Experimental Mechanics*. These were very popular with the general Society membership, but were difficult to obtain. The experts who would readily agree to make a presentation at an Practical Applications Session were much less inclined to write a paper for publication. An Applications Committee was established to help generate more applications papers and to perform the same functions for applications papers that the Papers Committee performs for research papers. In 1970 an award was established for the best applications paper to occur in *Experimental Mechanics*. It was created to encourage and reward authors of applications papers. Since there were than less than half as many applications papers as there were research papers, it was to be given biannually. In 1973 the award was renamed the R. E. Peterson Award to honor Rudolph Earl Peterson who was the SESA President 1948-49. He was the former Manager of the Mechanics Department, Westinghouse Research Laboratories, and a very highly respected member of the international mechanics community. The selection system changed in 1983 when the monthly magazine *Experimental Techniques* was inaugurated. (In 1990 *Experimental Techniques* became bimonthly).

B.J. Lazan Award In 1973 the Distinguished Contribution Award was renamed to become the B. J. Lazan Award and the criteria remain unchanged. The name was changed to honor Dr. Benjamin J. Lazan who was the SESA President in 1959-60. Ben Lazan provided outstanding leadership during a formative time in the Society’s history when a paid Society Headquarters staff was established, and plans for the monthly magazine *Experimental Mechanics* were made. Dr. Lazan was a leader in the fields of dynamic testing, vibration, material damping and fatigue.

Creation of the SESA Fellows Grade of Membership

The next major addition to the honors program occurred in 1975 when SESA Executive Committee created the grade of **SESA Fellow** and the SESA Constitution was revised to include the following description of the new grade of membership: “...Section 3 (c) A fellow shall be an individual who is distinguished in some field in which the Society has interest, who has been a Regular or Life Member of the Society for at least ten years, and whose contributions to the Society and the technical community have justified this honor. Election to Fellow shall be by two-thirds majority vote of the Committee of Fellows and subsequent affirmation by majority vote of the Executive Board. Individual Members elected to Honorary Membership grade are automatically Fellows...”

To implement the program, Fellows shall be elected by a two-thirds vote of the Executive Committee from candidates recommended by the Honors Committee. After as many as 15 Fellows have been named, a Committee of Fellows shall be established who will screen all nominations submitted and, by two-thirds vote, elect future Fellows subject to confirmation by the Executive Committee.

The bylaws also state that no more than 0.1 percent of the full members of the Society as of January 1 that year shall be elected as Fellows in that year, except that Honorary Members shall be made Fellows upon establishment of the program. Ten Fellows, in addition to the Honorary Members, may be elected in each of the first two years.

In accordance with the Constitution and wishes of the Executive Committee the “Fellows Class of 1975” consisted of SESA members who had been elected as Honorary Members on or before 1975. The “Fellows Class of 1976” was elected by the Executive Committee. All subsequent Fellows were elected by the Committee of Fellows and confirmed by the Executive Committee. The date of election is the date at which the Fellows certificate are presented at an annual meeting. For example, the new fellows elected in 1994 by the Committee of Fellows, and later confirmed by the Executive Board, were presented their Fellows certificates at the annual meeting in June 1995 and become the “Class of 1995”.

D.R. Harting Award This award was originally called the E/T Outstanding Paper Award and dates back to 1981 when *Experimental Techniques* was first published on a regular basis. In 1983, it was renamed the D. R. Harting Award in recognition of Darrell’s considerable contributions to SEM as a member, as its 1977-78 President, as a Fellow, and as an early proponent of *Experimental Techniques*. Darrell passed away in 1996.

The award, consisting of a plaque, is presented at the SEM’s Annual Conference. Candidates are nominated by *Experimental Techniques* reviewers who cite papers they consider worthy of “Outstanding Paper” status, and the final selection of the winner is made by the Honors Committee.

Brewer Award The Brewer Teledyne Award (now called the Brewer Award) was established in 1989 in memory of Given A. Brewer by Teledyne Engineering Services, located in Waltham, Massachusetts. Given Brewer created the Brewer Engineering Laboratories and as its director, he carried out over 700 projects using experimental and theoretical techniques. Given Brewer was a valued member of SEM and was active in both leadership and technical activities.

The annual award will consist of an award plaque in the recipient’s name. The criteria for the award stipulates that it be given to “an outstanding practicing experimental stress analyst” and is chosen by the Honors Committee. The award is intended as recognition of skill in the application of experimental mechanics techniques. A person whose primary affiliation is with a university would be eligible if substantial amount of consulting work involved hands-on experimental analysis.

Felix Zandman Award In May 1989, the SEM Executive Board formally established the Felix Zandman Award. The award honors Dr. Zandman for his extensive work with photoelastic coatings and his support of SEM. The recipient receives an award plaque. Also, a donation is given in the recipient’s name to the SEM Educational Foundation.

The award honors individuals who have made significant contributions to the development of measurements or applications utilizing photoelastic coatings. The selection is based upon the best paper published by SEM or any other recognized journal which publishes photoelastic

coatings papers. Alternatively, a person who may not have published an outstanding paper, but has distinguished him or herself in other ways in the use of photoelastic coatings may be nominated.

Student Paper Competitions The Student Paper Competitions were originated to encourage excellence in technical communication in the experimental mechanics field. A regional paper competition was initiated in 1984 in a joint effort by Milwaukee's Local Section and SEM's Student Chapter of Michigan Technological University. Since that time students from the University of Wisconsin-Madison, University of Wisconsin-Milwaukee, and Michigan Technological University have participated in regional competition held each spring in Milwaukee at one of the regular local section meetings.

The first national competition was held during the 1991 SEM Annual Conference. The competition was sponsored by SEM's Milwaukee Local Section along with the SEM Local Sections Committee, Educational Committee. Twelve students from nine universities participated in that competition.

Students from universities across the nation, and abroad traditionally participate in the Student Competition at each SEM Annual Meeting. The competitions are now sponsored by the SEM Education Foundation.

The presentations are judged on the basis of technical content, organization of material, effectiveness of delivery, adherence to allotted time and response to questions.

D.J. DeMichele Award This award, established in 1990 in honor of Dominick J. DeMichele, recognizes an individual who has demonstrated "exemplary service and support of promoting the science and educational aspects of modal analysis technology." This award is presented at the annual International Modal Analysis Conference (IMAC).

Dick DeMichele was an Honorary Member of SEM. He was active on numerous SEM committees, including the Executive Board, and served as chair of two national meetings. Dick was also the past director of the International Modal Analysis Conference and served as director for 13 annual IMACs.

From 1940 to 1979, Dick DeMichele worked as a mechanical engineer at the General Electric Company in Schenectady, NY. He received the coveted Charles E. Coffin Award, the company's highest award to its employees, for his contribution in the field of solid mechanics (vibration, shock, stress-strain and acoustics). Dick DeMichele passed away in 2000, shortly after being elected as an Honorary Member of SEM.

C. E. Taylor Award This award was inaugurated in 2000 to be given biannually to a person who has made "contributions in optical stress analysis and for good citizenship in the SEM."