

SEM History

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Benjamin J. Lazan, SESA President 1959-1960

Ben Lazan was one of the most influential people in the Society's history. It seems politically correct (PC) in the late 1990s to rewrite history, but no one ever accused me of being PC. Instead, I am going to call your attention to some articles about (or by) Ben that have already appeared in SESA publications. Most of these were written from 33 to 43 years ago and are reproduced here without changes. No changes are needed. I am sure that the older SESA/SEM members remember Ben fondly and will appreciate reading about their friend. Newer SEM members **should** know who Ben Lazan was.

My earliest memory of Ben Lazan was when he gave his famous 1956 William Murray Lecture at the annual meeting of the SESA in Columbus, Ohio. In that lecture Ben quickly got our attention by quoting an excerpt from one of my favorite poems, "The Deacon's Masterpiece", by Oliver Wendell Holmes. (Every stress analyst should know that poem). Space limitation does not permit us to reprint Ben's Masterpiece in its entirety here, but we will include a small part of his introduction.

1. INTRODUCTION

By way of introduction, and before proceeding to the main theme of this lecture, I should like to restate a principal aim of this society and its membership as I see it. Starting with Dr. Murray's outstanding pioneering work in experimental stress analysis and reviewing the S.E.S.A. proceedings and former Murray lectures from Timoshenko in 1953 to Ruge last year, I believe that one common denominator presents itself. The generalized concept is well stated by one of Dr. Murray's fellow New Englanders of another generation, Oliver Wendell Holmes. I shall merely transmit his text.

I believe all of us in this society are trying to facilitate the design of a "wonderful one-hoss shay". In case some of you do not recall Holmes' wonderful poem, "The Deacon's Masterpiece" {1}*, appropriate excerpts are quoted below with some liberties and

underlining to bring out phrases which deal with the justification for experimental stress analysis.

“Have you heard of the wonderful one-hoss shay,
That was built in such a logical way
It ran a hundred years to a day,
And then, of a sudden, it – ah, but stay,
I’ll tell you what happened without delay.”

“Now in building of chaises, I tell you what,
There is always somewhere a weakest spot, - ”
“And that’s the reason, beyond a doubt,
That a chaise breaks down, but doesn’t wear out”

“Now” said the Deacon, “t’s mighty plain
Thut the weakes’ place mus’ stan’ the strain;
‘N the way t’ fix it, uz I maintain, is only jest
T’ make that place uz strong uz the rest”.

A hundred years later, on. “the Earthquake – day, -
There are traces of age in the one-hoss shay,
A general flavor of mild decay,
But nothing local, as one may say.
There couldn’t be, - for the Deacon’s art
Had made it so like in every part
That there wasn’t a chance for one to start.
For the wheels were just as strong as the thills,
And the floor was just as strong as the sills, -”
“And yet, as a whole it is past a doubt
In another hour it will be worn out!”

“Just the hour of the Earthquake shock!
What do you think the parson found,
When he got up and stared around?
The poor old chaise in a heap or mound,
As if it had been to the mill and ground!

You see, of course, if you’re not a dunce,
How it went to pieces all at once, -
All at once, and nothing first, -
Just as bubbles do when they burst.

End of the wonderful one-hoss shay.
Logic is logic. That’s all I say”.

The next two segments were editorials that first appeared in the January 1966 issue of Experimental Mechanics. They need no explanation.

LAZAN HONORED FOR HIS CONTRIBUTION TO E/M

Over a half decade ago, the SESA began implementing changes designed to provide additional service to its membership and to relieve the increasingly heavy burden then being shouldered by volunteers and, especially, by Honorary President W. M. Murray, one of the founders and, at that time, Secretary-Treasurer of the Society. As a direct result of these changes, a full-time staff was established and, in January 1961, the first issue of the Society's Journal, Experimental Mechanics, was published.

This month, on the occasion of the Fifth Anniversary of E M, the society has sought to honor those clairvoyant, perspicacious men who, by their labors, were the architects of a new maturity for the SESA. In particular, an Ad Hoc Committee consisting of several past presidents and present officers of the Society has selected one individual who "through his leadership, dedication and wisdom, is the man most responsible for the launching of the Journal of Experimental Mechanics – Past-President and Murray Lecturer Benjamin J. Lazan."

Dr. Lazan, or "Ben," as he is known to his many friends, was president of the Society during the 1959-60 term. Thus, it was under his direct guidance that the major realignments took place.

In reporting on its choice, the Committee has emphasized that "Past-President Lazan is a man to whom the SESA owes a debt of gratitude, a debt that will increase without bound as the Society continues to grow in size and stature. He saw with clear far-sightedness that the future of the SESA lay in expanding service to its membership, while, at the same time, adding to its sound, professional image in both the scientific and engineering communities. He has always, graciously and unhesitatingly, given of his time and good counsel."

To SESA Members and Friends

With this issue of Experimental Mechanics, we are celebrating the Fifth Anniversary of the first publication of our Journal. As we reach this milestone, it is fitting and proper that we pause momentarily to review the progress we have made and to pay tribute to those who worked so hard to make that progress possible. With the establishment of the Westport Headquarters and the initial publication of Experimental Mechanics in January of 1961, the Society entered a new era of increased growth and prestige. Over the past five years, the stature of the Society has increased to the point where the SESA is now regarded as the leading experimentally oriented society in the world. This enhanced stature is due primarily to the effectiveness of Experimental Mechanics in serving the engineering community and in providing a focal point for all Society affairs.

Many people have contributed greatly to the success of the Journal, and I would like to express the Society's appreciation to all of them. As I contemplate this long list, two names stand out especially strongly. Dr. B. J. Lazan was president of the Society during the period when the hard decisions were made which culminated in that historic first issue of *Experimental Mechanics*. To a considerable extent, it was his vision and determination which launched the Journal on its course. Ben was also a member of the group that was instrumental in bringing Bonney Rossi to the Society as editor and executive secretary. Bonney immediately grasped the essence of what was envisioned and turned it into reality through his extraordinary talents and untiring effort. As Ben was largely responsible for the birth of *Experimental Mechanics*, so Bonney brought it to successful maturity with the aid of his staff and all other contributors. On behalf of the Society, I salute Ben Lazan and Bonney Rossi, and I acknowledge the great debt of gratitude we owe them.

What is past is prologue. The future lies before us with all its opportunities for greater service and achievement. Following the lead of those who pointed the way, both the Society and *Experimental Mechanics* will reach new heights of which we only dream today.

Roscoe Guernsey
President SESA (1965-66)

Sadly, the next segment is Ben's obituary as it appeared in the *Experimental Mechanics* in September 1966.

Benjamin J. Lazan

On June 29 in Minneapolis, Minn., Benjamin J. Lazan, 49, SESA past-president and Murray Lecturer, died following a long illness. He is survived by his widow and two sons, Gilbert and Douglas.

Born in New York City, Dr. Lazan graduated with a BSME from Rutgers University in 1938. He continued his education at Harvard University where he obtained a MS degree in applied mechanics. Then, in 1939, he became an instructor in the department of engineering mechanics at the Pennsylvania State College. It was at Penn State, in 1942, that he earned his doctorate and was appointed to an assistant professorship of engineering. While at Penn State, he had been in charge of research projects in the dynamic testing of materials.

In 1942, Dr. Lazan became associated with the Sonntag Scientific Corp., a Baldwin-Lima-Hamilton affiliate, as a project engineer. He quickly rose to chief engineer and by 1944 was an executive vice-president. While with Sonntag, Dr. Lazan developed several types of machines now used for static and dynamic testing. He was also responsible for a government research project on jet-propulsion engines.

After joining Syracuse University in 1946 as an associate professor and director of the materials laboratory, he soon became head of the department of materials engineering. At Syracuse, he directed research projects for the Office of Naval Research, the U.S. Air Force and private industry.

In 1951, he went to the University of Minnesota as professor of materials engineering. Later, he became director of the engineering experimental station, head of the department of mechanics and materials, associate dean of the Institute of Technology and was, until last year, head of the department of aeronautics and engineering mechanics.

He authored over 60 papers and continued his writing endeavors until shortly before his death, completing a book which is to be published this year.

Dr. Lazan was the recipient of many medals and honors for his scientific achievements. In 1943, he was awarded the A. Noble Prize by the ASME. Six years later he received the Charles Dudley medal from the ASTM, and, in 1951, he was given the Henry Howe medal by the ASM. The SESA chose to honor Dr. Lazan by inviting him to be the 1956 Murray Lecturer. He accepted and then presented his much-acclaimed paper on "Fatigue under Resonant Vibrations Considering both Material and Slip Damping."

A long-time member and dedicated participant in the Society, Dr. Lazan served as SESA president during a time when broad changes were wrought in the Society's structure. He provided the leadership which led to the organization of a full-time staff and to the publication of the first issue of E M in January 1961. For this and for his many other contributions, Dr. Lazan was honored in E M's fifth anniversary issue, January 1966.

When his term as president expired, he continued to serve on the Executive Committee for two more years, and on the Journal Advisory Committee for another three. In the last few years, he had served as a session chairman at a number of national meetings, always giving generously of his counsel and time.