

Thoughts About Ivan

Chris D. Powell, Contributing Editor, (University of Cincinnati, BSME 1972, MSME 1973)

I arrived at the University of Cincinnati in fall 1967 and, as a new student, immediately became fascinated with mechanical vibrations. The Department of Mechanical Engineering had a long history with things that shake and break. Staying at the cutting edge, the department was a prime developer in the new area of FFT technology and applications.

It was not until my junior year that I had my first real vibrations course. The course used the ubiquitous text book commonly referred to, and simply known, by the co-author's names – names like “Tse, Morse and Hinkle.”

As I walked down the hallway every day, it was so cool that Dr. Morse's office was right there. He wrote the book! In addition to being my professor for several undergraduate and graduate-level courses in vibrations, dynamics, and acoustics, he was my senior project faculty advisor who unselfishly urged our team of three to write a paper for presentation at an ASME conference.

I say unselfishly because the project used the ground-breaking technique of hammer pulse excitation to acquire frequency response functions through FFT analysis. Such advancement was certainly worthy of faculty presentation. (For those interested, ASME Paper No. 73-DET-29, titled “Dynamic Characteristics of Rotating and Nonrotating Machine Tool Spindles,” interestingly the paper's orator was S&V's own contributing editor and current UC professor Dr. R. J. Allemang.)

Dr. Morse was also my thesis advisor. Unlike most thesis topics that replicated existing work, he suggested an original project of determining acoustical material

properties using transient sound pulses for comparison to traditional impedance tube results. Again, unselfishly guiding the student to what potentially could become a marketable product while making no claim for himself.

Among themselves outside the classroom, students typically refer to their professors by last name, except for a select few, one being Dr. Morse, who was commonly referred to as “Ivan.”

“Hey, have you seen Ivan?”

Why was he Ivan to his students and not Morse? I think because students respected him as a friend and he respected them. He related to his students. He was a real person. He was not aloof, nor was he pretentious. He always had time to talk and always had



Dr. Ivan E. Morse, 1925-2014


time to advise. He had a great library in his office, from which he did not hesitate to pull a book to explain a point or help a student answer a question. And of greatest import, he always had a smile. He was just a really, really nice guy.

The only time I recall his smile to dissipate was during the above-mentioned senior project, when the team made a very bad assumption, rather than doing a calculation as we should, about how many times a high-speed spindle would go around during a hammer pulse.

Well, the correct answer was three, which meant the team listened to approximately 100 inches of soft tip screeching. While almost launching the hammer and charge amp as a missile, we all but totally destroyed the first, and probably world's only, impulse hammer cobbled together in the machine shop from pieces-parts and adapters (see Jan 2007 S&V, 40th Anniversary Issue, pages 18, 23 & 24, Figures 1 & 14, www.sandv.com/downloads/0701alle.pdf)

It is an understatement that the lab manager was beyond livid. But we had to face Dr. Morse, who sans smile, merely asked what we had learned and what would we do differently. It was all about learning. A truly teachable moment. The smile returned.

Our paths continued to cross through the years at courses, or conferences, or a visit to UC or the occasional phone call. He always asked what interesting projects I had done and what I had learned. Dr. Morse is forever the professor, I'm still the student.

His smile will be missed. 

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It's All About Family

Randall J. Allemang, Contributing Editor, (University of Cincinnati, BSME 1972, MSME 1973, Ph.D. 1980)

The following is a portion of the eulogy given by Dr. Allemang at memorial services held for Dr. Morse on Saturday, March 29, 2014.

I am part of Ivan Morse's “academic family.”

I want to talk about the relationships that Ivan and I had over 40 years since I first met him. I imagine my interactions mirror those of many others. It begins with his role as a teacher at several levels at the university, moved to a role of mentor and colleague and dissertation advisor when I became an instructor, as the person who hired me into a professor track as my department head, as the person who mentored me through the process of moving through the ranks of the

university and continuously as a professional cheer leader both during his time at the University and since.

I first met Ivan as a faculty member teaching one of my undergraduate classes in 1968 or 1969. Little did I know the impact that he would have on my life. As a teacher, Ivan was patient and always had that positive, open attitude that encouraged you to interact. I had Ivan as an instructor for several classes over the next few years and always found him willing inside and outside of class to talk about all things.

He had that “father figure” characteristic that students can appreciate. It may have been the ever-present smile or the bald pate, but students are generally very good

judges of this sort of thing. At this point in time, Ivan had nearly 20 years of teaching experience from Michigan State and UC along with the experience of receiving his Ph.D. from Purdue. I would go on to have an educational, personal and professional relationship with Ivan for more than 40 years.

Ivan was involved in mentoring me during the 1970s as he encouraged me to consider an academic path. I became an Instructor at the University in 1975, and Ivan was a model and mentor to my early development as a faculty member. I was totally amazed that one day I was a graduate student and the next I was a faculty member and colleague to faculty I had looked up to for the previous eight years.

Ivan eventually served as my dissertation advisor as I finished my Ph.D. degree in 1980 while working as an instructor.

Here I think I need to explain the concept of being part of Ivan's "academic family." I think anyone who has been a teacher, from a Sunday school situation to a grade school or high school to the university thinks of the students in their class as theirs, as their kids in some way.

There is a personal relationship where time and contact creates a bond. At the university level, this relationship is often stated as a set of family relationships revolving around the bond that grows during graduate work. More formally, Ivan is my academic father, since he served as my dissertation advisor. Other students who had Ivan in a similar role are my brothers. Other faculty who had the same dissertation advisor as Ivan are my uncles. When I serve as the dissertation advisor for students, they become my children and, via this family concept, become Ivan's grandchildren. Some of my students now have dissertation students and are thus Ivan's great-grandchildren.

My professional development continued as I was hired as an assistant professor in 1981. Ivan was now my department head, and he mentored me through the process of receiving tenure and moving through the ranks over the next 10 years or so. Ivan always set an example as a teacher, researcher, and leader that made you want to achieve and make him proud, because you knew he

was expecting nothing less. For you are part of his academic family.

Since Ivan's retirement in 1993, our contact was less frequent with the passing years, but we still worked on the idea of moving the Tse, Morse and Hinkle Vibration's book to a modified and third edition. The book had been out of print for several years but the publisher wanted to delay the third edition, and with Frank Tse's failing eyesight, Frank and Ivan asked that the book's copyright be returned to the authors. We worked on moving the existing Second edition to electronic form so the book could be made available to students for the foreseeable future at no cost. Every student at the university now can use this book at no cost. Until Newton's Second Law is found insufficient to work vibration problems, we expect to continue to use the book.

In the last 15 to 20 years, when Ivan would stop by the university, he always had an article or two to drop off. Sometimes, it would be some sort of educational or research topic he had noticed and wanted to make sure I had noticed. Frequently, it would be an article about one of his academic children or grandchildren.


A total of 42 individuals sent sympathy notes to the University when notified of Dr. Morse's passing. Two of these are reprinted below:

John Hochstrasser, Ph.D., PE: I was a student in the first class that Dr. Morse taught at UC. His rapport with students changed

the ME department. He introduced us to a partner-mentor relationship, not just a teacher-student exchange of information. He wanted us to excel as human beings as well as engineers. His code of ethics was welcomed by most students and transformed others. He was a game changer and set the finest example of conduct, patience, guidance, instruction and leadership.

John Schultze: Great man, mentor, teacher and friend. Dr. Morse was one of the nicest men I have ever met. When I came to UC, he was always there to answer questions, help with technical issues and deal with all the things that come up in graduate school. He always had a twinkle in his eye and a ready laugh. He was always modest, listening and supportive. I got a chance to know him over my years there and visit his cabin with others while at the Michigan SAE conferences. He was a great man, and I always try to live up to his example.

In summary, I guess what I have been talking about is a piece of Ivan's legacy. As a person and as an academic, the most we can hope for is to positively influence those we are around. Ivan was a wonderful role model and his positive impact goes well beyond one or two individuals.

I am thankful to have known Ivan and his memory and legacy will live on . . . and on . . . and on . . . 

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