

Burton W. Marsh Award

BY WALTER H. KRAFT

I am truly honored to be named the recipient of this year's Burton W. Marsh Award. At times like this, we tend to look back and reflect on the people who influenced and shaped our careers. One person I think of is Guy Kelcey, a founder of Edwards and Kelcey. He was a pioneer and a leader in traffic engineering and a founder of ITE. He also was recognized by his peers in the Institute by receiving the Burton W. Marsh Award for Distinguished Service.

In 1966, Guy Kelcey received the Theodore M. Matson Memorial Award and presented a paper titled "Up Periscope." In it he suggested that, "We should all regularly rise above our absorbing daily concerns, look around, appraise what we see and adjust our course appropriately." His speech was an inspiration to me and has influenced the way in which I try to function professionally. It has also affected the way in which we manage our business at Edwards and Kelcey, since we have incorporated his thoughts and observations into our current strategic plan.

When I graduated from college, I was like the rest of the students, going on several interviews, examining various career choices. When I joined Edwards and Kelcey, I was told they had openings in the highways, structures, and traffic departments. I ruled out highways because I did not want to spend the next several years drawing cross sections. Structures did not interest me, because I had heard that new structural engineers



Walter H. Kraft addresses attendants of ITE's 62d Annual Meeting after being honored with the Burton W. Marsh award.

spent years preparing structural details. So I opted for traffic engineering.

In truth, I really did not know what a traffic engineer did, but I assumed it was better than drawing cross sections or structural details. It is a decision I have never regretted. My career in transportation engineering has been interesting, challenging, rewarding, and satisfying.

I did not receive much formal training in traffic engineering during my undergraduate years. In fact, my only exposure to the field was in a highway design course where I learned about traffic counts at control stations and received

limited information on highway capacity. My real education in traffic engineering was on-the-job training and a one-week short course at Georgia Tech. These were supplemented by involvement with ITE, which included short courses, committee activities, meetings, conferences, and ITE literature.

Having a family and limited resources, I was not able to attend the Yale Bureau or obtain a master's degree in transportation. Therefore, my ITE activities were the only practical way to obtain advanced education and training in transportation engineering. I am sure this is also the case for many others in our profession.

My point is that ITE has played and continues to play an enormously critical role. It also has shaped and influenced my career and many others. Although engineering schools now treat traffic engineering in a much more comprehensive manner than when I was in college, ITE's importance has not diminished. Given the challenges we face, I would say the Institute's mission is even more crucial than ever before.

What are some of these challenges? How can we as individuals and as an organization rise up to meet them in the coming years? I would like to concentrate on five basic areas:

- Staying current
- Ethics and integrity
- Broadening the role of ITE
- Giving back to the profession
- Embracing the future

Staying Current

One of the greatest challenges we face is the need to keep pace with today's rapidly changing technology and to shape new technologies to meet our transportation needs. Our profession is in a state of constant change. As an organization, we must continually reexamine how we can help our members to come to grips with new technological realities.

A good example is the emergence of intelligent vehicle-highway systems (IVHS). Most transportation professionals within ITE, myself included, have a civil engineering background. The pioneers in our profession were civil engineers, electrical engineers, safety experts, and police. As traffic engineering became a recognized science, civil engineers became the largest membership group within the Institute of Traffic Engineers. In the 1960s and 1970s, a broadening took place as planners, economists, and transit operators joined, and the name was changed to the Institute of Transportation Engineers.

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The new wave in transportation engineering is clearly intelligent vehicle-highway systems. IVHS requires us to broaden our education and training to include electrical engineering, communications, computer science, behavioral sciences, and public relations. We will need to gain considerable know-how in these areas in order to be a part of the rush to IVHS now taking place. We will need to stay current.

ITE as an organization must help. The options for gaining the knowledge needed include short courses, conferences, tours, technical council activities, and the ITE IVHS Council. We are already moving in the right direction, although more needs to be accomplished.

In the future, four groups will need to become better educated about IVHS

and other emerging approaches to transportation management. These include students, teachers, young practitioners, and seasoned professionals. Practicing engineers, young and more experienced alike, will require a quick infusion of knowledge. One way is to attend short courses at colleges and universities. Another is to attend the ITE Traffic Engineering Academy and to get involved with ITE technical committees.

To help teachers, centers of learning must also be supported and strengthened with sufficient funds to carry out essential research and development. By providing educational institutions with the resources they need, we will see our new crops of graduates coming out of college with the background and training necessary to make an immediate impact. They will certainly emerge from their schooling with better skills in transportation engineering than most of us acquired during our undergraduate years.

As the trend toward IVHS demonstrates, staying current is critical for young professionals, students, teachers, and seasoned practitioners. One cautionary note: Don't forget the basics. In chasing new technological breakthroughs, we have a tendency to ignore, or deemphasize the building blocks that brought us to where we are today. The new "bells and whistles" of transportation engineering can be effectively applied only by remembering such basics as the three Es—engineering, education, and enforcement.

Ethics and Integrity

The saying, "A person's word is his or her bond," has been with us for quite some time. I like to believe it still means something—that ethics and integrity are still imperative in business and in life. But, in our litigious society, it often seems such concepts take a back seat to opportunity for gain.

I would hope that as a profession, transportation engineers can remain on a high ethical plane and discuss issues dealing with ethics and integrity. ITE is again in the forefront by forming a committee to foster a dialogue and to provide materials to help us face these issues.

Where are the ethical dangers to be found? We all know quite well that a written contract is only as good as the

actions of the parties involved. Yet, pressures associated with litigation have moved us away from the word is bond commitment inherent in a contract.

Should practitioners serve as expert witnesses and move outside the bounds of professional judgments to meet client demands? Is it ethically proper to tell a client, "We will minimize your settlement costs, or we will maximize your settlement costs" for the same situation, depending on who engages our services? Is our profession to become better known (some might say notorious) for its advocacy in court than for its technical achievements? I would hope not.

Broadening ITE

One thing on which we can agree is that the world is changing. As an organization we must continue to evolve and grow if we are to meet the needs of our members and society at large. To accomplish this goal, we must broaden the scope of our activities and the base of our membership.

The IVHS revolution is, again, a good example of the need to foster change. I believe ITE is meeting the challenge IVHS presents head on. Other concerns are critical as well. ITE should have as members those who need to work together to solve transportation problems—people who plan, design, build, operate, and maintain transportation facilities. Perhaps we need an organization of transportation professionals rather than just transportation engineers. After all, we certainly do not work in a vacuum.

Such a proposition was originally proposed by Burton Marsh, a founder and past president of ITE, in the 1930s. The wisdom of creating such an association is even more valid today. The interdependence that exists between those involved with transportation requires us to work together to foster better, more cost-effective solutions to today's problems. It is not something anyone can accomplish alone.

Giving Back to the Profession

The next generation of transportation engineers is already making its presence felt. These younger members and future members represent the future. We owe

it to them to give more of ourselves, to ensure the continued strength and vitality of our profession and ITE.

What does such an effort require? The answer is simple: time, money, and commitment. Time is something we rarely have enough of these days, yet it is imperative we devote time to help train and motivate young engineers. How can this time allotment be accomplished? Get to know a young member at each ITE meeting; be a mentor to young engineers in your organization; encourage their active participation in ITE.

Which then brings us to money. Without the support of our employers, none of us could actively participate in ITE.

The key is to embrace the future and harness the tremendous opportunities that lie ahead.

We have gained a great deal from our involvement and our companies have been paid back in terms of added technical expertise and professional prestige. Yet times are tough. Money is tight. All too often technical organization activities, especially for younger members, tend to be seen as a luxury instead of a necessity. This situation is also true of people in government who are frequently unable to participate in the technical give and take ITE fosters. We must find a way to involve these people in more of our activities. They have valuable contributions to make and can provide a perspective that is vital to an effective technical dialogue.

As senior members of our various organizations, we must promote the need for a continued commitment to organizations like ITE. By failing to encourage young engineers to become involved, we ultimately weaken our organizations and the technical strength of the profession as well.

In what ways can we give something back to the profession? By not ending Institute activities when finishing a term as an officer or even upon retirement.

Find a way to interact with the young engineers who can benefit from this vast pool of experience. Stay involved. Take some time to talk to youngsters to get them excited about transportation engineering. Help bring into our profession the new blood it needs.

The Future

Perhaps my most important message concerns the future and what we can do to determine our destiny. The future is not something to fear, rather it is ours to shape. We can set the course and take the steps necessary to ensure we get where we want to go.

The world is certainly a different place than when I was finishing college and embarking on a career. Change is more rapid because of communications and technology. In the past, technology was a vehicle for product development. Its impact in my early professional life was gradual. Now, technology is available for us to apply to a multitude of problems. New developments that offer more profound approaches to what we do are emerging all the time.

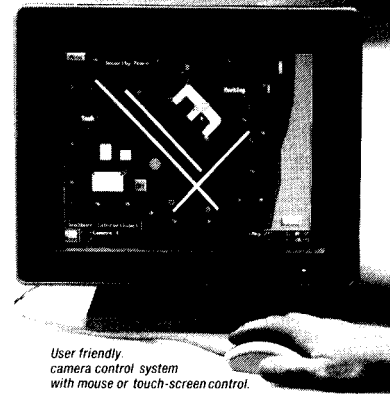
The future will continue to bring us such advancements as space travel and cures for diseases. It will also bring about new methods of transportation that we will plan, design, implement, operate, and maintain.

The key is to embrace the future and harness the tremendous opportunities that lie ahead. To do this we will need to stay current; maintain the highest degree of ethics and integrity, and broaden our base of professional knowledge, both as individuals and as an organization. We will also need to give something back so that our successors are able to embrace the future with the tools necessary to carry forth the mantle that we pass on.

I would like to end by once again paying homage to Guy Kelcey and leave you with a quote that he often used, which I feel expresses his business and life philosophy: "You learn about life looking back, but you live life looking forward."

Walter H. Kraft, D.Eng.Sc., is senior vice-president of Edwards and Kelcey, Inc. He is a Fellow of ITE.

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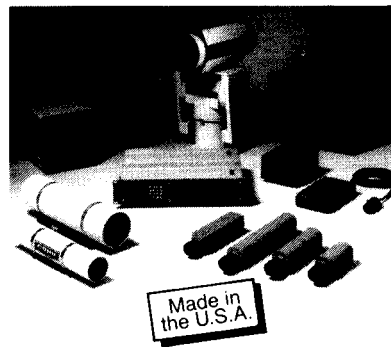
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