

President's Memo

Prelude

Assuming the presidency of the American Concrete Institute is very heady business — especially for me. Somehow, ACI always seems to have been an important and necessary part of my professional life, beginning with engineering school. References to the *ACI Proceedings* abounded in my materials textbooks. I was in awe of the work of the early researchers and pioneers in the field of concrete technology such as Duff Abrams, P. H. Bates, A. T. Goldbeck, H. F. Gonnerman, Stanton Walker, and others. It should be noted that all of these men eventually became presidents of ACI. Upon graduation and as a young engineer involved in concrete and shotcrete construction, I found every working day offered multiple opportunities to deal with the intricacies and convolutions of the 318 Building Code, the 301 Specifications for Concrete, and the 506 Recommended Practice for Shotcrete.

If you were a contractor, it was — and still is — hard to avoid the impact and importance of ACI documents on your daily work, especially on the bottom line. As in that old cliché, I soon found that if I couldn't beat them I had better join them. So I did, and consequently became deeply involved with the technical committee structure of the Institute. This undertaking has been a gratifying learning experience, one that has opened many doors, enhancing the professional side of my career. Yes, being president of ACI is very heady business indeed, and I am pleased, privileged, and honored to accept the challenges that the coming year will bring.

Each of my recent predecessors has come to the presidency of ACI with a unique background, style, and approach. None has tried to initiate major changes in the direction the Institute is taking — which is as it should be. Instead, they have planted seeds that as mature trees will bear fruit in the form of important programs, expanding horizons, motivating members, and adding new areas of service. I, too, will follow in their footsteps, bringing the views and perspective of the small concrete contractor to the ACI leadership process. Hopefully, some of the seedlings planted in my presidential year will develop deep roots and become a meaningful part of the Institute. The process that was started many years ago and continues today is a proven

benefit to our society, and is patterned after our stated purpose to “promote improved technology, technical competence, design and construction.”

Just after the turn of the century, our Institute will celebrate its 100th year as a self-funded organization of volunteers dedicated to public service. To date, we have successfully adapted to a world whose society and technology is in a constant state of flux. We can not rest on our laurels. Yesterday's methods and means may not be sufficiently effective to maintain ACI's position of leadership for the next 100 years. So, we must adapt and emphasize certain basic concepts:

- Initiation and improvement of programs that motivate our membership and future leaders.
- Acquisition and adaptation of the latest communication technologies for information dissemination.
- Development of innovative strategies to market ACI's products and services to insure financial viability.
- Promotion of outreach and cooperation with all segments of the concrete industry, here and abroad.

It is certain that with time these concepts will change and require reorientation but, for the present, many aspects are already in varying stages of development and use, a true indication of the vitality of our Institute.

Our Institute is doing well technically and is sound financially. We are growing in size, membership, and influence, not only in the United States and Canada but all over the world. This steady growth will bring problems, but such problems can become opportunities if handled in an effective and timely manner. Progress in the future will take vision, vigilance, and planning. With the help of a dedicated membership and staff, I believe the challenges of the 1990s will lay the groundwork for a greater ACI in the 21st Century.



President's Memo

Year of the Contractor II

As far as I can tell, Charlie Pankow used it first — in print — in the May 1980 issue of *Concrete International*. His first President's Memo was entitled "The Year of the Contractor" to underline his professional roots and describe the focus of his year as ACI president. While other presidents have occasionally touched on constructibility, craftsmen, contractors, and other aspects of concrete construction in their memos, nine out of ten of Charlie's messages during his presidential term were construction or contractor oriented. With an endless number of topics to choose from, all of which are important to ACI members, this appears to be somewhat obsessive. But Charlie knew, and I have learned, that as important as contractors are to the construction process, only a few ever assume the presidency of ACI. And when they do, their "day in the sun" is short; too short to accomplish everything they plan. The result is that the high visibility and prestige of the Institute presidency is only occasionally available to publicize the views and perspective of the contractor.

Our Institute is an engineer-driven organization. The success that ACI has experienced over the past 80 plus years is a result of the intense and talented involvement of its engineers, academicians, and researchers who represent about 50 percent of its membership. The codes, standards, and other documents these members have produced are responsible to a great extent for the authority and respect ACI has generated worldwide. Contractors have helped, but it is the voice of the engineer and not the contractor that is heard most regularly in the corridors of power within the Institute. Just as change is occurring in society and change is transforming ACI, so the nature of the contractor and contracting is constantly evolving. No longer are contractors, in the words of Henry C. Turner during his ACI presidential address in 1921, just "men of practical experience and knowledge." They are also engineers, both men and women; consummate professionals who bring to life the creations of the designers — they will have to be heard!

The leadership of ACI has recognized these realities and over the years has provided various contractor di-

rected programs and activities, enlisting contractor involvement and interest. The concrete contractor, more than the academician, designer, consultant, and researcher, should learn and be aware that he will most certainly be impacted by ACI committee deliberations somewhere down the road. The ACI consensus process allows for all viewpoints, all concerns to be represented and debated — but if the contractor is not present, his input cannot be heard or considered.

The rate of Institute growth has slowed since the upsurge to over 19,000 members in the early 1980s. Currently, only about 1 percent of its 20,000 plus members are contractors. Of more than 3000 committee members of ACI, less than 120 are contractor members. This does not speak well for the contractors or their input to the process. About one-half of the 112 Institute technical committees have direct contractor interest and average about two contractor members per committee. Actually, this means that some contractor oriented committees may not have any contractor members. Such statistics are not encouraging and it appears to me that if the Institute is to enjoy strong, steady growth and maintain representative balance, it will need to devise ways to tap the contractor reservoir.

The Construction Liaison Committee has been assessing this problem for some years, trying to increase contractor participation in ACI. Surveys have been undertaken, solutions sought, but answers aren't coming easily. Two basic questions arise — again Charlie asked it first — what does ACI have to offer the contractor to make it worth his while to join us? And what does the contractor have to offer the Institute? These questions have plagued ACI for years. We need answers — the sooner, the better!

(To be continued)



A handwritten signature in black ink, appearing to read "Stan Fungell". The signature is fluid and cursive, written in a dark ink on a light background.

President's Memo

The Future Beckons

As I prepare this memo, a short but significant six weeks of my presidency have passed. These have been very busy weeks, weeks in which I have been learning to balance the demands of my own work with the obligations of the ACI presidency. Crisscrossing the country on behalf of ACI seemed like a glamorous and exciting pursuit before the fact, but frequent familiarity with airports, planes, and hotels soon breeds antipathy to high pressure travel. Fortunately, there is a bright side to this necessary exercise, one that more than compensates for the negatives. It is the interaction with the interesting and committed people I've met during my peregrinations — engineers, contractors, suppliers, and researchers, all types in both the public and private sectors. They are all involved with some aspect of concrete construction or technology and have related with ACI and its representatives in a most positive manner. There has been open and direct dialogue and communication resulting in an exchange of information, generation of new ideas, reduction in barriers, and promise of future cooperation. So, in spite of the extensive travel involved, I look forward with anticipation to the coming months of continuing and constructive outreach.

Previous assumptions, beliefs and judgments, no matter how compelling, have either fallen by the wayside or been strengthened. Some of yesterday's possibilities have become today's imperatives. This process of outreach will, of necessity, force us to review and reevaluate the focus and timing of ACI initiatives which, in turn, could and probably will result in a re-ordering of our priorities.

Some areas of concern are as follows:

- The coming standards crunch brought on by the European Community in its effort to unify and harmonize its codes and standards. The process could impact negatively on our construction interests and our volunteer standards-writing bodies.

- The General Agreement on Tariff and Trade (GATT) Treaty which contains language that could seriously affect codes and regulations in use in our country. The treaty is dormant at this time but renewal of

international discussions and a "fast track" approach by Congress could run counter to our interests.

- The increased need to improve communication between ACI and 1) its members and chapters, 2) government agencies — municipal, state, federal, 3) university communities, and 4) associated organizations worldwide. This will help to utilize and coordinate our collective assets and talents to improve concrete technology.

- More direct and active participation in key international standards-writing organizations. Much of our current involvement is on an "observer" basis which is important but usually does not allow for input into the process.

- Enhancement of ACI's image in the construction industry by developing a public relations program geared to owners, designers, and contractors to show that ACI not only creates codes and standards for concrete construction but is the best source and leading edge in education and information dissemination in the concrete field.

- Development of ways and means to more rapidly transfer worthwhile ideas, techniques, and processes from the R&D state to field use. This would necessitate technology transfer not only to the designer but, most importantly, to the contractor.

The three "C's" central to the Institute's future health and growth are cooperation, communication, coordination. We can expand our horizons while maintaining the structure and focus that has made ACI successful in the past. This effort will probably require both staff and funds not yet available. The question is not whether we can afford to move in new directions, but whether we can afford not to.



President's Memo

Women, Minorities, and ACI

I have attended every ACI convention over the past 22 years, except for one, and have looked forward to meeting and greeting friends and acquaintances whom I don't see on a regular basis. Convention week, the opening reception, and the Concrete "Mixer," all provide warm, wonderful opportunities for renewal and for recharging batteries. Yet, for me, it wasn't that way all the time.

I recall the Buffalo convention which was my first — I knew no one, talked to no one, and wandered around like a lost soul. I felt ignored and out of place until I ran into a somewhat rotund, smiling individual who said, "I'm John McLaughlin, who are you?" A lively conversation followed. That brief encounter started a chain of events that today has me writing monthly presidential memos for *Concrete International*, among other things.

This early incident came to mind when I opened the June issue of *Concrete International* and read and digested Mary Hurd's letter on "Women and ACI." It was a thoughtful and seasoned response to Rachel Detwiler's letter in the August, 1990, issue of *CI* which described certain problems she experienced at a recent ACI convention. I think it is important to note the reply was written by a woman with a long history of dedicated, responsible service to ACI, highly regarded in her profession by her peers, both male and female. Anyone who knows Mary Hurd knows that she is her own woman, follows her own drummer, and tells it as she sees it.

As you may recall, Professor Detwiler described her discomfort at being mistaken for a member's wife, excluded from meaningful conversations, and generally ignored because she was a woman. Her remarks and their implications generated a certain amount of discussion among the membership of ACI. I too was somewhat troubled because in my memory ACI is **not** and **has not** been institutionally sexist. We probably have our share of chauvinists but they are few in number, are not vocal, and have little impact on ACI's

overall programs and activities. I feel Mary Hurd's opinion that Professor Detwiler's personal experience "probably had little to do with being a member of the disadvantaged sex" is entirely appropriate and right on target. It conforms with feedback I have received from our membership, that women are welcomed, do not feel ignored, and are made to feel part of the ACI family with exceptions being few and far between.

Aside from its direct implications, Professor Detwiler's letter does allude to a problem that encompasses overall society — the issue of women entering nontraditional, historically male dominated occupations and professions and the need to encourage and promote their involvement. To date the engineering profession has not been very successful in bringing women into the mainstream. The number of women in engineering has been static at 4 percent for several years, while the number of women enrolling in engineering schools remains at a disappointing 16 percent. This, in spite of the fact that a Cooper Union survey of women in engineering indicates that a high percentage find their jobs professionally, financially, and socially satisfying. This problem can impact negatively on the future growth of ACI. Only a strong influx of women and minorities into the engineering profession and the concrete industry can remedy the situation.

ACI by itself cannot generate dramatic social changes; however, we can and should support the overall effort by the engineering profession to enlist women and minorities. At the same time, we will continue to provide warm, friendly outreach and opportunity to anyone willing to make the effort to help improve the quality of concrete worldwide.



President's Memo

To Bid or Not to Bid

From its earliest beginnings, ACI International has been preparing and publishing standards (1907) and building codes (1910) to improve the quality of concrete in construction for the benefit of society. ACI documents are consensus generated and their success is indicated by the longevity of the Institute, its large publication sales, and the extensive use of the 318 Building Code to regulate design and construction and the referencing of other standards in project specifications. It should be noted that responsibility for standardization efforts in concrete construction is not ours alone; we share it with ASTM. ACI handles the design and practice side, while ASTM handles material specifications and test methods.

The *Technical Committee Manual (TCM)*, which our technical committee members receive, describes the basic types of documents on concrete design and construction which ACI produces through its consensus process — documents that require a special standardization process for approval and those that do not. Documents requiring the standardization process include codes and code cases, specifications, and standard practices. Those documents that do not require such a standardization process are handbooks, manuals, symposium volumes, bibliographies, guides, and reports. Aside from the 318 Building Code and 301-89, "Specifications for Structural Concrete for Buildings," the majority of documents published by ACI and included in the *Manual of Concrete Practice* are the "non-standard" guides and reports and the "standard" specifications.

And this is when a problem arises. When is a standard not a standard? The word "standard" appears to be subject to many interpretations depending on who does the interpreting. For instance, a respected engineer/author indicates that the "Guide to Residential Cast-in-Place Concrete Construction (ACI 332R)," "...provides a respected standard..." In other words, guide equals standard. Paraphrasing another specification: "...all work shall be done according to ACI 506R...wherever the words may or will appear substitute the word shall." This is a highly questionable procedure since only ACI 506.2 is a specification; all the other 506 documents are basically reports. It seems that the quality and success of ACI guides and reports are such that as long as they bear the ACI imprimatur, they become "the standard" in spite of the fact that many are not written in explicit mandatory language, subject

to only one possible interpretation. Our non-standard documents were not designed to be the specification part of construction contract documents and should not be used as such. If desired, provisions from non-standard documents may be rewritten into mandatory language and included in project specifications.



I believe the overall problem of inadequate or poorly written project specifications is one the contractor faces on a rather frequent basis; they can generate controversy, conflict, and, at times, litigation. Specification deficiencies include: mixing prescription with performance requirements, using out of date references and standards, failing to adapt ACI specifications to actual field conditions, describing an indeterminate scope of work, and employing imprecise language, unbalanced pay items, and confusing contingency items. The average contractor knows there are enough problems to cope with in the day to day prosecution of a project without knowingly entering into a flawed contract with an owner. In a litigious society, contractor and owner have to find ways and means to reduce risk and conflict and promote a relationship of mutual understanding and confidence.

One way is for the design professional to prepare "current, clear, concise, and correct" project specifications. ACI is trying to help in this endeavor through the Technical Activities Committee's Specifications Committee (TSC) which has developed a useful *Specifications Manual* with sections on format, style, and language with specific examples for guidance. TSC also sponsors specification workshops at conventions, with over 50 attendees at the Boston convention earlier this year. In addition, an informative article on preparing project specifications, written by Ronald L. Hollrah and Richard W. Williams, current and past chairmen of TSC, was published in the November 1990 issue of *Concrete International* and is well worth reading and studying. Specification writing is not the most exciting or glamorous task an engineer can undertake but, in my opinion, it is a most important process and one that requires more attention than it has received in the past.

President's Memo

ACI and Contractors — Again

In my President's Memo in June 1991, I commented briefly on the failure of more contractors to become involved in ACI activities, especially the consensus process for producing documents. Currently, approximately 11 percent of Institute members are contractor oriented, with only 5 percent of that number involved in committee work. The number of contractors who are active members of ACI is small, way out of proportion to their real numbers in construction. It is the contractor, better than anyone else in the construction process, who understands the concept of "constructibility," who knows what it takes to reduce cost without sacrificing quality, and who is willing to introduce innovations. ACI needs the practical, pragmatic input of the contractor, the ready mix supplier, and the precaster, all of whom will find that influencing technical decisions works best at the committee level.

During 1990-91, ACI's Construction Liaison Committee (CLC) undertook two surveys of Institute contractor members to probe their feelings about the association and its programs and to obtain information to help generate more contractor participation in ACI. A report on the results of the ACI contractor member survey can be found elsewhere in this issue of *Concrete International*. (See article starting on p. 12.) One conclusion from the survey that I found most gratifying was: "ACI contractor members strongly support what the Institute is currently doing."

As of late June, CLC had produced a report on "Preliminary Recommendations for Improving ACI Products and Services to Make ACI More Attractive to Contractors" which is primarily based on the aforementioned survey. This report generated the following tentative recommendations:

- Study the *Manual of Concrete Practice* to determine how it can be improved to make it more contractor friendly,
- Develop a series of construction oriented handbooks derived from the *Manual of Concrete Practice*,
- Develop a series of instructional flyers that can be used at job site "toolbox" meetings,
- Continue to develop theme issues and practical articles for *Concrete International* on subjects of value to contractors,

- Continue to hold a Contractors' Day at each ACI convention, presenting timely topics of interest to contractors,

- Encourage ACI committees sponsoring technical sessions at Institute conventions to include contractor oriented presentations,

- Promote technical sessions at ACI conventions as valuable and relatively inexpensive educational opportunities for the contractor's technical staff,

- Expand ACI's educational seminar program to cover more subjects of interest to contractors,

- Continue to encourage contractors to participate on committees so that ACI documents will receive the contractor input needed to ensure that they reflect the realities of the job site,

- Develop a marketing program for ACI products and services aimed specifically at contractors, and

- Involve our local chapters in recruiting and promoting contractor participation at all levels.

These concepts are still in the formative stage. Hopefully, CLC will have a well-rounded report for review at the Dallas convention in November. If CLC can develop an appealing and financially feasible program combined with effective promotion, it can serve a two-fold purpose:

- 1) Bring concrete contractors into the ACI process, utilizing their knowledge and expertise to produce broad-based documents.

- 2) Enhance the transfer of ACI technology and vision to contractors and their field people, thereby improving the quality and efficiency of concrete construction.

ACI is serious about involving the contractor in Institute programs and activities. If you have any helpful ideas or suggestions, please pass them along to Robert I. Pearson, director of Construction Development, at ACI headquarters.

We need all the help you can give!



President's Memo

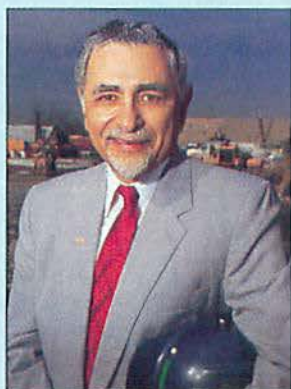
Giving is Receiving

A long, long time ago, before there were automobiles and concrete roads, a lonely wayfarer came upon a very, very old man bent on his knees, by the side of the road. The old man was busy, carefully planting a sprig of a fruit tree. The traveler wondered aloud, "Old man, why do you plant this sapling in the middle of nowhere when you probably will not be here to enjoy its shade, or partake of its fruit?" The old man looked up, and gently responded, "As a young man, I frequently traveled these dusty roads and, many times when tired and weary, my body was refreshed, my spirit revived in the shade of a tree planted by a stranger, someone unknown to me." Smiling, he continued: "So, if I do not live long enough to enjoy the fruit of my labor, my effort will not have been in vain and I will know that, as someone did for me, so I, too, will have done for someone who follows after me."

I was reminded of this ancient parable, its underlying truth, and the lesson it teaches when the fund raising effort for a new headquarters building was initiated by the Executive Committee this past summer. It is a major and necessary undertaking for our organization whose primary function is education and the exchange of information. In my May 1991 President's Memo, I mention briefly that ACI is growing in size, membership, influence, and that the challenges of the 1990s will lay the groundwork for a greater ACI in the 21st Century. One of the challenges that we have to address very quickly is how to provide a new and enlarged international headquarters for our Institute.

Our first headquarters building was built in 1958 when our membership was half of what it is today. By 1970 we had outgrown this original structure and built an addition. In 1987 a nearby storage facility was purchased which helped somewhat, but today we are bursting at the seams. The patchwork nature of our buildings, their age, condition, location, the outmoded internal flow patterns, and personnel safety all highlight the need for a new facility. In addition, if we are to continue our primacy as the world's largest and most important source of information on concrete and meet the challenges of an ever-changing world, we will need

to reorder our priorities and objectives. In order to adapt to these pressing new requirements, there is a need to increase and restructure staff while reorienting their many tasks and functions; this, of course, would permit more management flexibility. Summing up, we have simply outgrown our present headquarters facility which can no longer accommodate our present and future needs. Hence, the need for a new home.



The Board of Direction over many years devoted considerable attention to this need. The result was the 1989 purchase of a building site of nearly five acres in the northwestern suburbs of Detroit. The time has come for the next step which is to raise the necessary funds, something over \$3 million of the \$5 million total estimated cost, so that by the fall of 1995 we will have completed construction and can move to our new international headquarters. An accompanying article on page 20 of this issue of *Concrete International* provides more information on our future plans and the fund raising campaign.

This brings me to the point of this Presidential Memo — an appeal to ACI members of all classifications to help our Capital Campaign raise the necessary funds for a new headquarters building. In the past, ACI members and their employers who are the heart, mind, and soul of the concrete industry have voluntarily contributed unstintingly of their time, energy, talent, and assets to promote the goals and objectives of ACI. Your Institute is now asking for additional help to assure the future of ACI. When the time comes, and you are approached, give to the very best of your ability. You will only be asked to give your fair share. Remember: "...as someone did for me, so I, too, will have done for someone who follows after me."

President's Memo

Computers and ACI — An Update

The world seems to be spinning on its axis faster and faster as we approach the 21st Century. Yesterday's maximum is today's minimum. Space and time are being condensed on a daily basis and we measure time in terms of minutes, seconds, and even nanoseconds. Information and answers are needed today; tomorrow is not soon enough. In addition, the overwhelming volume of available data and information requires quick search and retrieval capabilities. We are in the midst of an electronic age with the computer at its heart.

I recall the early days of the computer in the 1940s when I was a CE undergraduate at the University of Pennsylvania. On the top floor of the Moore School of Electrical Engineering, taking up a very large part of the available space, was this gigantic mysterious, experimental device full of bells, whistles, and vacuum tubes — the EDVAC which could do an almost impossible number of mathematical calculations in a very brief period of time. Soon the mainframe appeared followed by the advent of the PC a decade ago, a powerful desktop computer. A revolution had started.

ACI has kept abreast of the computer revolution. ACI Committee 118, Use of Computers, was organized in 1963; a 118 User's Group was formed in 1986 and now has more than 900 members and an online electronic bulletin board. The primary purpose of the 118UG is to aid members sort through the computer era by exchanging programs and ideas. Headquarters has been using computers in its daily operation for about 30 years and recently organized an electronic information department whose head reports directly to our Executive Vice President. In early 1992, ACI's first electronic information product will be released on CD-ROM. CA QuickSearch, an electronic version of the Institute's *Concrete Abstracts*, will offer instant access to 10 years of international literature reporting on concrete and concrete technology. Development of a CD-ROM version of the *Manual of Concrete Practice* is also underway.

Norm Scott in his September 1983 President's Memo started the ball rolling toward the marketing of computer software programs when he wrote: "...it is time to rethink our relationship with computers and decide how we can better serve our members who are using these machines." In 1987, ACI's Board of Direction

established a new Institute service, the marketing of computer programs which Gene Northup announced in his President's Memo of that October. He enunciated several basic principles governing ACI's marketing of proprietary computer programs:

"This marketing service is in line with ACI objectives; ACI can be effective in serving as liaison between the producers and users of these programs,

"As is the case with any technical aid, computer programs must be used with engineering judgment, and "Since these programs are produced by outside vendors, ACI can make no independent representation of the software being offered for sale."

At that time, we only had two concrete related software programs available; today ACI markets a growing list of 43 programs. Some of our programs address the needs of contractors and suppliers such as estimating, shoring, concrete mix design, and management and analysis of test results. Programs of interest to designers include reinforced and prestressed concrete elements and structures, cast-in-place or precast. It is anticipated that ACI will eventually market programs for computer aided drafting (CAD) in the concrete field.

The marketing of computer programs has become an activity of major importance to ACI. Demand for these programs has been strong and it does not appear that the market is saturated. Just as ACI publications have become the source for providing information on quality concrete construction, so the marketing of software provides direct practical service to the concrete industry from research and design through construction. The program user receives great benefit from being at the leading edge of concrete technology, thereby deriving increased technical proficiency and efficiency. At the same time, the developer benefits from the monetary return and the added gratification of knowing that his program is being used to improve the quality and expand the use of concrete construction. We need more software programs to broaden our marketing effort. Won't you consider being a program developer?

ACI can use your help!



President's Memo

ACI and Shotcrete

As a contractor specializing in shotcrete construction, I believe that one of the most important publications ACI ever published is the best-selling "Shotcreting," (SP-14), now in its sixth printing. It appeared in 1966 and for the past 25 years it, and SP-14A, "Engineering Properties of Shotcrete," by William R. Lorman have been my "bible" on shotcrete. Some of the material and ideas have become dated and the standard, "Recommended Practice for Shotcreting," has been replaced by the "Guide to Shotcreting," published in 1985.

In addition, care must be exercised in evaluating some of the data and information in light of today's technology. Nevertheless, "Shotcreting" freezes in time the state of the art that existed in the mid-1960s when there was a great upsurge in the use of shotcrete, and when shotcreting was rapidly being accepted as an important technological process and tool in concrete construction. SP-14 also contains the seminal "Laboratory Study of Shotcrete" (1985) by Al Litvin and Joe Shideler which, from my viewpoint, eliminated most of the confusion and uncertainty about many properties of both wet and dry mix shotcrete. It alone is worth the price of the publication and gives it the historical significance which is its due.

In the preface to "Shotcreting," Tom Reading, the knowledgeable chairman of ACI Committee 506 on shotcreting, wrote at the time: "The committee quickly found that there were widely different opinions and a scarcity of reliable engineering data on shotcrete — its properties and performance — and on equipment and methods of application." Things haven't changed much in the ensuing years. For example, a week does not pass in our office that we do not receive one or more inquiries on shotcrete from somewhere in our country, and from every walk of construction life. The engineer/designer calls about specifying feasibility, constructibility, design, and/or cost. The shotcrete contractor primarily calls about conflicting and confusing non-mandatory specifications, entraining air in dry mix shotcrete, use of admixtures, and finishing requirements. Owners usually don't call, but when they do, they question feasibility, alternatives, and cost. We frequently get calls about shotcrete swimming pools from homeowners. "Which shotcrete is better, dry mix

or wet?" It seems that the dry mix contractor has told the owner that wet isn't any good and the wet mix contractor has said the same for dry mix. Who is the owner to believe? In spite of all the information available, there seems to be a mystery or mystique about shotcrete.

I'm not certain that SP-14 alone has accomplished all Tom Reading hoped it would, or that it can solve all the problems outlined above, but SP-14 was the first in a series of important committee documents on shotcrete that have been generated by Committee 506 over the past 25 years. As a matter of fact, the Institute has published papers on shotcrete from the earliest days when the material was known as gunite and ACI was the National Association of Cement Users (NACU). An article published in 1911 in the seventh NACU proceedings and authored by G. L. Prentiss was titled "The Use of Compressed Air in Handling Mortars and Concretes," and described the early growing pains of the gunite process. That was the same year Carl Akeley received his patents for both the cement gun and what became the gunite (shotcrete) method for applying mortar using compressed air. This early ACI paper was one of the first, if not the first, published article on the subject of dry mix shotcrete and was to be followed by many more over the years.

ACI has had a long history of association with the shotcrete industry and is probably the major source of consensus information on the subject worldwide. But, this information must be applied to actual practice. It behooves the engineer/designer and the shotcrete contractor to develop a working knowledge and understanding of the contents of all ACI 506 committee documents before undertaking any shotcrete project.

By the way — on the subject of shotcrete swimming pools — we advise our inquirers that both dry and wet mix shotcrete are acceptable provided the pool is properly designed and the contractor has demonstrated past competence in his respective field.



President's Memo

Report from Hong Kong

Rudyard Kipling wrote "The Ballad of East and West" in 1889 which included these memorable lines: "Oh, East is East and West is West and never the twain shall meet, Till Earth and Sky stand presently at God's great Judgment Seat."

One hundred years ago, Kipling's words were most apropos, but the world as he knew it has disappeared into the mist of the past. The world we know is smaller, and drawing much closer every day, a fact that has not gone unnoticed at ACI. Through its cosponsorship of conferences and formation of international chapters, ACI has for many years sought to maximize information exchange, outreach, and cooperation worldwide in the area of concrete technology. Our latest effort occurred the week of December 2, 1991, in Hong Kong when ACI sponsored its very first international conference, titled "Evaluation and Rehabilitation of Concrete Structures and Innovation in Design." To close out the conference week, another first occurred — an International Chapter Roundtable was held involving Near and Far East Chapters. This roundtable program was modeled after the chapter roundtables which are held twice each year in various locations throughout the United States.

These new activities were designed to generate goodwill and develop mutual understanding. The conference in Hong Kong was the brainchild of Past President Paul Zia and Past Chapter Activities Committee Chairman H. S. Lew. It was on the long flight home from their visit to several Pacific Rim chapters in 1989 that Paul and H. S. conceived this new perspective. Paul elaborated on the rationale for such a regional international conference in his President's Memo of June 1989 and laid the groundwork for this meeting in Hong Kong. If this initial effort were to succeed, it would provide the incentive for future regional conferences on a periodic basis outside of North America. The Board of Directors readily approved the overall concept and authorized seed money. The Hong Kong conference was about 2½ years in the making under the watchful eye of conference chairman, Dr. V. Mohan Malhotra. Unfortunately, Mohan was unable to attend because he was recuperating from a serious automobile accident. He was missed, but his untiring efforts in planning and organizing the conference were in a large measure responsible for its success. We owe Mohan a deep debt of gratitude.

About 90 papers were given at the conference in two concurrent sessions over a period of 3½ days. The papers had been prepublished as a two volume proceed-

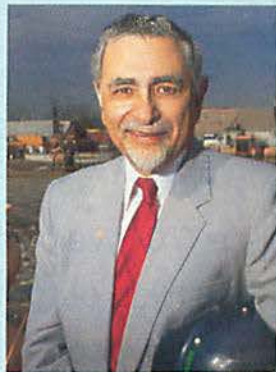
ings (SP-128, now available for purchase from the Institute) and were distributed to registered attendees. The attendance numbered close to 250 from over 30 nations, this in spite of the recession affecting many countries of the world. The daily sessions were well attended, as was the Awards Banquet honoring Professor Hajima Okamura of Japan, Jae Kyung Moon of Korea, Zacharia George of India, and E. Barry Butler of Australia. To add some local color, the banquet was opened with a lion dance and closed with a ribbon dance, both beautifully performed by a local Chinese troupe of dancers and musicians. Everyone enjoyed the evening and there was sentiment, goodwill, and camaraderie to spare.

The roundtable which was scheduled for three hours went in fact to four and the participants thought it should be at least a full day in length. The interchanges were friendly, informative, and constructive with everyone learning much about chapter operations and from each other. Cooperation and communication ruled the day. Several suggestions for improving cooperation between ACI and international chapters will be discussed at the March 14-20 convention in Washington, D. C.

I was pleased with what happened at the conference and roundtable. Both were positive upbeat experiences — wonderful confidence builders which indicate that only through the free exchange of ideas and information and the fostering of interpersonal relationships can we hope to progress and improve the quality of concrete worldwide.

Our Hong Kong conference was a first rate success — one that accomplished the goals set for it and more. On site comments from the attendees about the organization, the amenities, and the conference in general were very complimentary. A quote from a letter just received: "Congratulations once again. Please do not leave it too long before ACI comes back to the Pacific. There is an enormous wealth of ACI goodwill and support and interest from other parties which I am confident can be tapped in, say, two years time."

We have made a fine start. There are many parts of the world we have to visit — the foundation is there to build upon in the future.



President's Memo

Swan Song

It's hard to believe that in a few short weeks, I'll be joining the ranks of past presidents of ACI. The time has flown by so quickly — it seems as though it was only yesterday in Boston that John Hanson presented me with the gavel of the presidency. The past year has been a very busy one for me, at times exciting and never uninteresting. As a result of this singular and exceptional experience, I've gained deeper insight and appreciation of what ACI is all about, of the efforts being exerted in raising standards and improving safety in concrete construction, of the quality and commitment of our membership here and abroad, of the great esteem in which ACI is held throughout the many corners of the earth. I think each Institute and chapter member should be proud of his/her participation in, and support of, ACI International. We are all part of an unusual technical organization with a unique approach which I believe is without peer in the field of concrete technology.

As I look back at the many tasks assigned to ACI's president, I probably was most apprehensive and intimidated by the preparation of the President's Memo with its unyielding monthly deadline. Would I have enough to write about? Would the memos be interesting? Does anyone read them? Well, I can safely say that I'm not going to miss the tyranny of the deadlines after this issue of *Concrete International* is put to bed. The pleasures of many a beautiful Saturday or Sunday afternoon were lost preparing them but they are read. Personal letters and comments at conventions, chapter meetings, and elsewhere indicate that many members follow the President's Memos on a regular basis. All in all, I actually have enjoyed the monthly opportunity to communicate some of my thoughts and ideas to the 20,000 members of ACI.

Over the past year, two very important themes which are important to the Institute's well-being recurred periodically in my memos and also in my talks to the chapters I visited:

- The necessity for more contractor involvement in ACI activities at the chapter and Institute levels.
- The development of a safe and rapid means for technology transfer to both the designer and contractor.

There is no doubt in my mind that our Institute has to address these challenges and come to grips with them in a direct, forthright manner. They are high priority items that require attention and appropriate solution in the waning years of this century.

However, there is an additional theme I would like to highlight and briefly discuss. I have touched on it tangentially in previous memos but it is, I believe, of major importance to the viability and future success of ACI. My experience as president, visits to all manner of people and institutions, the development of a global economy, the lessening of political tensions, and a rapidly shrinking world, all indicate that ACI must review and reevaluate its primary goals and priorities. Can our organizational structure, which has served us so well at this point in time, carry us forward into the next century? There is no doubt that our current mode of operation has helped the Institute become preeminent in education and standards development in the concrete field. However, there are certain outside forces with their own agendas, whose activities and programs can place our long term viability and survival at risk. We need to respond to these new challenges with positive programs that will allow us to increase our strong influence on concrete worldwide. I think we can achieve these goals and still retain our basic methodology, committee structure, and consensus approach that have produced so many respected standards and documents. However, we will also need to add staff whose main task will be to focus on the world outside and help provide ACI with an overall strategic plan for the future. I believe now is the time to start this process. Strategic planning and its implementation will not be without expense, but as I have said before, it's not whether we can afford to move in new directions, but whether we can afford not to.

As organizations go, ACI has reached adulthood — creative thinking, new strategies, and redirection are a necessity, if not presently, in the very near future. There's a verse from the Scriptures (from the Book of Joel) which, for me, says it all:

"Your old men shall dream dreams
your young men shall see visions."

We need both the dreams and the visions — and the foresight and courage to act upon them.

I thank the members of the Institute for allowing me to lead them this past year.

