President's Memo

The Business of ACI

I'd like to begin my presidential memos by expressing appreciation to the members of the Institute for electing me president. I view being president of ACI as more than an honor. I view it also as a responsibility to see that the work and programs of the Institute continue in accord with the desires of the membership.

Some very significant moves were made this past year. Land was purchased in suburban Detroit with the intent of constructing a new headquarters building. A nonprofit ACI Education and Research Foundation was established to expand activities in these areas. A for-profit subsidiary called Association Concepts was formed to utilize the expertise of ACI's staff in developing and managing technical meetings. Plans were started for the Institute's first international conference, to be held in December 1991, on "Evaluation and Rehabilitation of Concrete Structures and Innovations in Design." This conference is an outgrowth of Paul Zia's recommendation for increased collaboration with our international chapters. In November, the new Member Services Department became operational, providing a very tangible result to Burr Bennett's emphasis on a "user friendly" ACI. While all these moves were new, they were made only after much discussion and deliberation by the Board of Direction.

Important work was also accomplished in ACI's established programs in technical activities, publications, and education. And programs in certification and selling computer programs continue to be nurtured. ACI's 1989 conventions in Atlanta and San Diego were particularly successful.

I cite briefly the work and programs of ACI to make the point that the Institute's dimensions are substantial. With nearly 20,000 members and a projected 1990 operating income of about $7.6 million, ACI by comparison is a relatively large, not-for-profit association. Even though it is classified for tax purposes as not-for-profit, this does not diminish the need for our activities to be carried out in accord with good business practices.

Like most business organizations, the Institute has a Board of Direction that is elected by its membership. I doubt, though, that many members think of themselves as shareholders; yet in a sense they are. Being elected a director is an honor. However, the elected directors have a duty of loyalty and a duty of care to the members, that is the shareholders, as they perform the function of supervising the affairs of the Institute. As established by the Bylaws, an Executive Committee recommends action on ACI affairs to the Board, and acts for the Board between

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meetings. This Executive Committee consists of the President, the two Vice Presidents, the most recent Past President, and the Executive Vice President (without vote). The role of the President is to perform the usual duties of the office, to preside at conventions and at meetings of the Board, and to be an ex officio member of all committees. The role of the Executive Vice President is to manage and direct the activities of the Institute as prescribed by the Board. In association terminology, the President may be referred to as the CEO (chief elected officer, not chief executive officer) and the Executive Vice President as the CSO (chief staff officer). In my view, this structure has worked well for ACI. The supervision of the Board and the efforts of an excellent staff have, I believe, kept the business of the Institute in good order in the past.

Still, the need to be mindful of the future seems stronger than ever before. Unfortunately, this is a litigious time and ACI programs are not without risk. The publication of the 318-89 Building Code led to disputes with several segments of the construction industry. Even while the Institute seems to be pushed toward expanding programs because of the diminishing efforts of trade associations, there is increasing competition from allied organizations and other professional societies in traditional ACI activities. Finally, even though we have a very broad membership base, professionals are its biggest category of membership and they sometim have rather idealistic views of the construction indu try. Thus, it is important that our strengths are w founded.

As your president for one year, I do not have a p tent agenda. However, I would like to devote attentic to technical committee work. ACI's motto is "Progre Through Knowledge" and its strength is its public tions. However, as good as the publications are, I b lieve there is room for improvement. I would also lik to devote attention to the new Education and Researc Foundation. A specific purpose of the Institute is t further "scientific research." The Concrete Materia Research Council has made an excellent start in pr moting materials research, but emphasis on structur research will also be needed in conjunction with th new foundation.

I'm reminded of a saying I heard not long ago, tha "Life is like a bridge; you pass over it for a while." S for a while, through these President's Memos, I wi express my views on matters I think are important t ACI. I hope to hear from many of you in response.

John M. Hanson

President's Memo

Common Self-Interests

In my last memo, I spoke briefly about "The Business of ACI" and my desire to devote attention to technical committee work and to the Education and Research Foundation in this coming year. Even though the first of these — technical committee work — is as old as ACI itself and the second — the foundation — is new as of last year, I believe they are both at the core of our "common self-interests."

The importance of an association's activities being in the circle of common self-interests was emphasized in my mind when I recently attended a symposium for CEOs and CSOs. (In my initial memo, I noted that these initials stand for Chief Elected Officer and Chief Staff Officer, respectively.) The definition of an association as given at this meeting was: "A group of people who voluntarily come together to solve common problems, meet common needs and accomplish common goals." In the same vein, an association's success can be measured by the extent to which it recognizes and focuses on the common self-interests of its members. An association that is not effective in recognizing and focusing on self-interests will probably experience conflict and paralysis and also suffer from spreading its resources too thin.

Without doubt, our Institute deserves high marks for success as measured on this scorecard. Our spirited discussion on many issues is not conflict. Our steady production of reports and publications is not paralysis. Rather, these are signs of healthy programs.

Another point made at the symposium was that there are typically eight stages in the life of an association. Without belaboring you with a listing of all of these stages, it was clear to me that ACI is in a healthy state of adulthood, which by definition is when "the organization is mastering its environment and serving the needs of its members." Unlike you and me, ACI can guard against ever entering into the stage of old age by seeing to it that its programs remain healthy.

What is in the ACI circle of programs? As I thought about depicting them in the accompanying sketch, I realized that the number of programs is surprisingly large, and perhaps a little confusing. In general, the function of Board committees is to oversee activities that represent a program. Other Board committees besides the Technical Activities Committee (TAC) and the Educational Activities Committee (EAC) include: Awards, Chapter Activities, Construction Liaison, Conventions, Fellows, Financial Advisory, Honorary Membership, International Activities, Membership, Phil M. Ferguson Lecture, Planning, Publications, Responsibility in Concrete Construction, and Standards Board. EAC and particularly TAC have a

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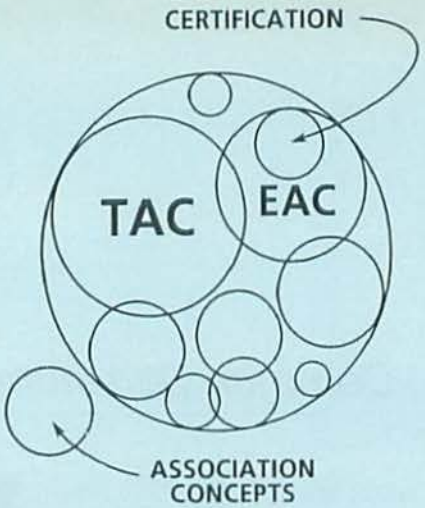
large number of committees which operate under their direction and which could perhaps be shown as circles within circles. One of these that is quite prominent is, of course, certification, shown on the diagram as within EAC.

ACI's budget shows nine operating programs: advertising, awards and scholarships, certification, chapter support, convention services, member services, nonperiodical publications, periodical publications, and seminars. Add to this those programs embodied in ACI's departments but which do not, on the surface, seem to be directly included in any of the above categories: construction development, engineering, marketing, electronic information and sale of computer software programs. Also, the Institute has recently created two subsidiaries — the Education and Research Foundation and Association Concepts — both of which have been discussed in recent President's Memos. As a for-profit subsidiary, Association Concepts should be regarded as outside the circle and therefore one which should stand and function on its own.



ACI's Circle of Common Self-Interests

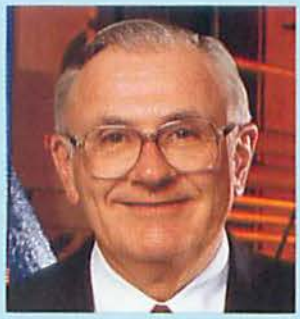
All of these programs are certainly important. But in total they may be too many. As the Institute continues to pass over its bridge, I believe some streamlining and realignment may be desirable.

The certification program deserves special mention. Its activities are under the direct oversight of EAC but it operates as an ACI department. Part of the program has been well received, but the outlook for other parts is unclear. Regardless, the total number of people who have been certified now exceeds 20,000. A few references have been made to certification in our technical literature. However, the outlook would be enhanced by greater recognition. In the future, when the success of ACI's certification program is assured, it should possibly be reorganized as a for-profit subsidiary.

John M. Hanson

President's Memo

Building Technical Literature



In my last President's Memo, I depicted ACI's "Circle of Common Self-Interests" by a large circle bounding smaller circles. The smaller circles represented Institute programs, such as the work of the Educational Activities Committee and ACI's certification program. I would now like to comment on what I believe is the biggest circle within that large circle: the Institute's technical activities or, more specifically, technical literature.

It would have been very interesting to have sat in on the meetings in 1906 when the original charter of ACI was developed. As stated in the Articles of Incorporation, the purpose of the Institute is "to further engineering education and scientific investigation and scientific research by..." While such wording could only come from a committee effort, the essence is clear. And it certainly is as relevant today as it was some 84 years ago.

The furtherance of technology in concrete comes mainly through ACI's technical activities. ACI is well known for the quality, if not the quantity, of its technical literature. Because of this, the leadership of the Institute in concrete technology, at least in North America, is virtually unchallenged. The foremost self-interest that we have is to maintain and even extend this leadership.

Recently, I concluded six years of service on ACI's Technical Activities Committee. Part of TAC's function is to review documents from the technical committees, now numbering 108. It was an enjoyable experience, of substantial benefit to me personally. But it had its frustrations as well, particularly with regard to the preparation and review of technical documents.

ACI's technical literature is prepared by volunteers serving on the Institute's committees. These volunteers are usually experts in their particular fields and the reports they develop are the reason for the Institute's success. Understandably, the amount of time for which these committee members can volunteer their skills, intelligence, and talents in the preparation and finalizing of a technical document is limited. As a result, the quality of organization and writing of a document at times suffers, and there may be delays. TAC must frequently return a document to the appropriate committee for further work. In the next few memos, I will address and express my views on several of the difficulties that are encountered in this process.

I have personally found it helpful to keep in mind that technical literature should be built like blocks, as illustrated in the accompanying figure. In any subject area, there should be a substantial base of relevant information, including published papers that have been open to discussion. From this base, a technical committee can produce reports on the state-of-the-art. As experience grows in the subject area, it

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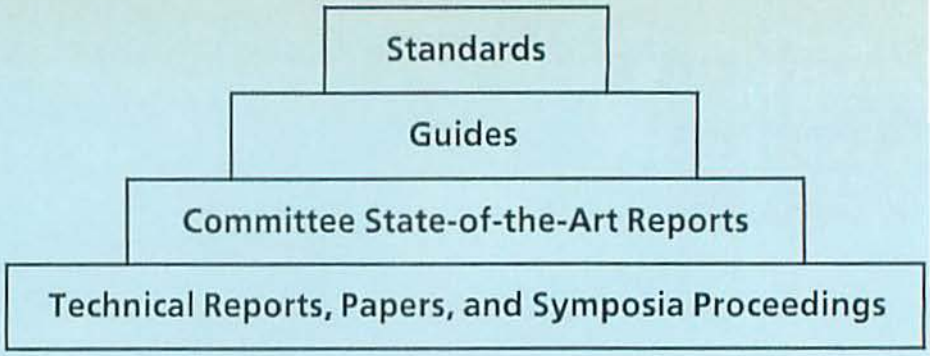

may be appropriate to develop a guide or recommended practice. As experience matures, it may also be desirable to produce a standard.

Unfortunately, the sense of urgency to produce a technical document sometimes leads to a committee trying to produce a state-of-the-art report, a guide, or even a standard when information on the subject is insufficient. In essence, the order of the blocks becomes reversed, and obviously precarious. A committee should seek to arrange symposia on a newly developing subject before producing a state-of-the-art report. Synthesis of the state-of-the-art into a guide provides opportunity for usage without constraint. When a standard is produced before the state-of-the-art is well established, the document, in my view, can be more harmful than beneficial because it may restrict those who seek to apply that information in innovative ways that will contribute to its further development.

As I said earlier, I intend to express in future memos some further views on building technical literature. It's ACI's most important effort!

John M. Hanson

President's Memo

What is a Standard?

In last month's President's Memo, I represented a standard as the top block of a stack of blocks, each representing a category of technical literature. This month I would like to express a few remarks about standards.

The subject of standards is receiving a great amount of attention these days. Part of the attention stems from the prospective unification of the European Community (EC) market in 1992. The EC is seeking to unify standards, regulations, certification procedures, and testing methods in order to facilitate the free flow of products and services among the participating countries. Understandably, there is concern over the use of standards as barriers to international trade. As a result, "international harmonization" is a new buzzword in standards-producing organizations. While harmonization is clearly important for products, I believe it is less important for services, at least in the area of design and construction. Differences in codes and specifications between countries should be expected, just as there are differences in building and bridge standards in this country. I would venture to say that early conversion in the United States to the metric system is more important than any other effort which might be undertaken.

Part of the attention also stems from the view that more standardization will help to improve the quality of design and construction. This may be true but I suspect it also depends on the quality of the standards in question.

According to a July 1989 report prepared by the Library of Congress for the Subcommittee on Science, Research, and Technology, for the Committee on Science, Space, and Technology, U. S. House of Representatives, worldwide there are an estimated 500,000 national standards, of which 89,000 are promulgated in the United States. The reason that there are so many standards, of course, is that they cover all aspects of technological practice in areas such as terminology, testing, products, processes, services, and interfacing. Standards may also be classified by the intended user group — industry or government, for example — or by the manner in which they specify requirements, i.e., performance or design. Another classification distinguishes between mandatory and voluntary (non-mandatory) standards.

According to the Library of Congress report, there is no commonly accepted definition of a standard. However, the report goes on to say that, in the broadest possible sense, standards can be seen as "a category of documents whose function is to control some aspect of human endeavor." ASTM's definition of a standard is "a document that has been developed and established within the consensus principles of the Society and that meets the approval requirements of ASTM procedures

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and regulations." ASCE's definition is "a prescribed set of rules, conditions, or requirements concerned with..."

In the Technical Committee Manual (TCM), ACI recognizes four categories of documents requiring standardization. Codes are intended to be adopted by governmental bodies as legal documents, setting forth minimum requirements. They "must" be worded in explicit, mandatory language. Code cases are a special category, intended to provide interim interpretation of codes. Specifications are intended to be referenced as part of a contract between an owner and a builder and "must" be worded in explicit, mandatory language subject to only one possible interpretation. Standard practices are intended to present the recommended and acceptable methods and materials to be used in design, planning, execution, or inspection of construction and in preparing specifications. They "should" be written in obligatory language except when alternative provisions are recommended.

When I asked Samuel J. "Sam" Henry, ACI's director of engineering, for a definition of an Institute standard, he facetiously said it was anything that has managed to get through the Institute's standards procedures. Then he went on to say that a standard is a document that is used for regulation so, besides being in reasonably clear language, it must also be in enforceable language. Sam thought ACI's Building Code and specifications were good examples of standards. In fact, according to a 1976 National Bureau of Standards report, ACI's 318 "Building Code Requirements for Reinforced Concrete" is the standard most often referenced in building codes adopted by states or cities. Sam also thought that ACI's standard practices were not enforceable and that to process them through the standardization procedure may be a waste of time and money. I wholeheartedly agree. I see no value in nonmandatory language standards. The benefit they are expected to provide could be achieved as well by a high quality committee report.

John M. Hanson

President's Memo

Getting Started

As I've said in previous memos, the most important common self-interest of ACI members is technical activity in the broad field of concrete. The result of this technical activity is usually technical literature. Yet the quantity and timeliness of the literature produced by ACI's 108 technical committees is not always what I would expect, or what I believe is needed by the concrete industry.

A technical committee is formed upon the recommendation of the Technical Activities Committee (TAC) and the approval of the Board of Direction. Usually, the formation of a committee is in response to the common and enthusiastic desire of several people to record and synthesize the state-of-the-art in a particular area. However, the enthusiasm can quickly give way to the reality of the difficulty of writing a document that achieves the mission of the committee.

The members of ACI's committees are volunteers, and thus their committee work usually must take a lower priority than the work for which they are employed. Still, I believe many committee members are willing to and do devote a substantial amount of personal time for such effort. For this, the members get the opportunity to meet with and learn from other people who are actually working in their field of interest. Time, while perhaps a limitation, is not the main difficulty.

In my view, committees should be sure that the background information needed for a report is available. If you recall the building blocks for technical literature that I described in the July issue of *Concrete International,* you will understand the importance that I attribute to having an established base upon which to prepare a committee report. In general, a committee should not be developing new material. A committee should be using previously published material, preferably subject to peer review and discussion, which the members put in the best context for use by the profession and the industry.

TAC's Technical Committee Manual is an excellent resource for new committees (and old committees as well). It points out many methods for a committee to use in developing the information on which a state-of-the-art report can be based. This includes sponsoring convention sessions and symposia, writing annotated bibliographies, encouraging individually authored papers, and cooperating with educational committees and ACI chapters in the development of seminars.

Another difficulty that committees encounter, at least in my opinion, is that they tend to embark on preparing too broad a document. It's as if their document must be the ultimate treatise, to cover all of the research and development in a subject area. It would be better to narrow the focus, such that a committee accomplishes its mission in stages. In fact, some of ACI's best committee reports have been very limited in scope.

Finally, there is no substitute for leadership exerted by the committee chairman. Leadership goes beyond organization and assignments — it means direct involvement in writing the document. People who are affected by written material will respond if there are disagreements.

In short, be sure that the information on which a report is to be based is well established, keep the focus narrow, and get started.

John M. Hanson

President's Memo

Moving Along

After getting started in the preparation of a technical document, it's important to keep moving along with the writing and to submit the document to the Technical Activities Committee for review in a reasonable period of time. Interest wanes and the content becomes outdated when the effort extends over many years.

The Technical Committee Manual (TCM) offers guidance in the preparation of committee documents. Section 3.3 points out that "a united effort by all committee members generally produces the best results." From my experience, that is an ideal and not the norm. A detailed outline is an essential prerequisite when many people participate in writing a document. Still, documents written by many people are inherently subject to inconsistencies in style and to repetition. In such cases, the Editorial Subcommittee that each committee is required to have by Section 1.3.2 of the TCM must diligently edit the document prior to ballot of a final draft. It's my impression that many documents come to TAC without an editorial review. In fact, I am aware of only one committee with an editorial subcommittee that was effective.

The 1990 edition of the TCM states that "where a committee or subcommittee chairman is qualified to prepare the document, sometimes the simplest, quickest, and most direct approach is for the chairman to prepare the first draft." The manual goes on to state: "Individuals can be called upon to add to the draft where needed. The draft is submitted to the entire committee for review, comment, and revision." Again, from my experience, that process produces a technical document in the shortest period of time. (Incidentially, the 1990 edition of the manual is now being finalized and members should receive their copies shortly.

While it is hard to write a draft, it is even harder to make revisions after it's written. Section 3.3 of the TCM points out that the "final draft shall represent the consensus of the committee." As I recently learned in relation to another matter, consensus means group solidarity in sentiment and belief, even unanimity. Thus, committees should, in my opinion, avoid voting on small pieces, such as paragraphs or sentences, within a document. Rather, comments should be accepted and addressed as succeeding drafts are developed with the aim of achieving unanimity in the final draft. Very difficult issues should be handled by balloting and resolving negative votes on what is believed to be the final draft. In the end, if in doubt, leave it out.

In my view, ACI should put more staff effort into the preparation of documents. The addition of a professional writer to work on drafts that are under preparation might be justified by increased sales of technical publications. However, reallocation of time from administration of documents, part of which is spent in chasing comments and revisions, to assisting committees in writing documents should also be considered.

One of the goals of the Institute's Long-Range Plan is to increase membership on technical committees. But many new members have little experience in writing documents. This is particularly true in committees with the more practical, construction-oriented missions. ACI needs to increase the help offered to committees in moving along a document.

John M. Hanson

President's Memo

Finishing the Technical Document

In two previous memos, I've expressed a few remarks about "getting started" and "moving along" in preparing a technical document. "Finishing," however, is frequently referred to as "getting it through TAC." Having been both a chairman of a technical committee that completed a document and a member of the Technical Activities Committee for six years, I'd like to express a few observations about getting a document published.

Perhaps most important is to keep in mind that the function of the Technical Activities Committee is to review and approve the document. TAC is not, however, the author. The distinction may seem obvious, but it is important. As author, the committee is fully responsible for the material in the document. As reviewer and approver, TAC is acting to provide reasonable assurance that: (1) due process has been used in preparing the document, (2) the technical content is at the state-of-the-art, and (3) the style is consistent with ACI's publication policies.

The manner in which the TAC reviewers express comments is covered in Section 5.1 of the Technical Committee Manual (TCM). Each comment is given a classification — primary, secondary, or editorial. Primary comments are substantive, requiring compliance or a statement of technical reason for noncompliance. Secondary comments are nonsubstantive, disposition of which is left to the committee. Editorial comments are to be followed, provided no change of meaning results.

All 15 members of TAC receive the document. In the TAC review process, many others are given opportunity to read it and express their comments. For instance, the document is sent to at least one outside reviewer and to the chairmen of any of ACI's 107 other committees having an interest in the document or work affected by it.

It is essential that the document be complete, well organized, and in near final form. Otherwise, the reviewers' time is wasted because of difficulty comprehending the document and the need to express seemingly trivial comments. As a TAC member, I found there were too many times that I wondered whether anyone on the committee, including the chairman, had read the entire document before its submission.

A TAC Review Group assembles and considers the comments. If the document is in reasonably good shape, the Review Group will usually eliminate duplications and delete apparently incorrect statements. (Reviewers are not always right.) If the document is in poor shape, the Review Group may leave the comments unedited simply because of their volume. Further, a review of a document in poor shape may also be incomplete because of the difficulty in making the review, with the apparent conclusion that the document must be rejected. TAC subsequently acts on the recommendation of the Review Group as to whether the document should be approved, approved subject to committee response to the comments, or disapproved. The latter action is the so-called 3 R's of the TAC, in which the committee is expected to revise, reballot, and resubmit the document.

Even when a document is approved with comment, it's surprising how long it sometimes takes for a committee to respond and resubmit the document for publication. In my opinion, TAC is partly at fault for this by approving documents with too many comments. It would be better for TAC to reject the document, which then does not require the committee to respond to the comments but rather allows the committee to undertake substantial change without tracking in the review process. Regardless, if the document is approved, the committee must address the primary comments, either accepting the recommendation or giving a technical reason for noncompliance. Remember, the committee is the author, and in matters of judgment its views should prevail.

The process of finishing a technical document is complicated. That process, however, has given ACI the reputation of producing high-quality technical literature. This reputation must be maintained if ACI is to continue to be a world leader in concrete technology.

As I said in my memo last month, I believe ACI should put more staff effort into preparing technical documents. ACI realized $2,454,000 of income from the sale of nonperiodical publications in 1989. This is the largest source of income to ACI, exceeding membership dues by over $400,000, and representing about 38 percent of a total income of $6,502,000. In my view, that's a remarkable achievement for ACI's volunteer committee members. But there often are hitches in volunteer processes. A limited amount of staff assistance in preparing and finishing a document should be good business for ACI.

John M. Hanson

President's Memo

Research for Better Concrete

The American Concrete Institute's literature on concrete technology is the most authoritative, comprehensive, and topical in the world. This is not only my opinion but it is a belief I feel is shared by the vast majority of ACI members in North America and abroad. However, this distinction will be maintained only as long as research continues and is used to support improvements in concrete design and construction.

Within the 30 plus years of my experience, one of the major advances in the concrete industry that stands out in my mind is the development of seven wire strand for prestressing. I asked veteran ACI member Kent Preston how seven wire strand came to be used in North America. It was an interesting story. In the 1950s, single wires were widely used in Europe for prestressing concrete. The Bridge Division of John A. Roebling's Sons Co. wanted to promote the use of prestressing in this hemisphere but recognized that the labor in using single wires was uneconomical. Initially, this firm used galvanized bridge strands. For example, strand up to 1 $^{1}/_{16}$ in. diameter having a tensile strength of 352,000 lb was used in a number of post-tensioned hollow box bridges in Cuba. Kent gives credit to Ben Bascom, a precast concrete producer in Pottstown, Pa., for conceiving the idea of using ¼ in. diameter seven wire strand for pretensioning concrete. Stress relieving techniques were developed shortly thereafter by the Roebling firm to reduce losses and, from that point on, the precast pretensioned concrete industry grew rapidly, supported by extensive research.

Other major advances in my mind are high-range water reducers and concrete pumping systems. These advances also were driven by ideas to lower construction costs. More recent advances such as the use of silica fume in concrete and epoxy coatings for reinforcement have made it possible to increase strength or improve durability of concrete members. Research to further improve durability will be a major topic in this new decade.

I sometimes wonder if basic research could lead to increases in tensile strength or reductions in shrinkage and creep of concrete. Improvements in these properties may not change our methods of construction or ways of reinforcing concrete. However, they would decrease cracking which is still a major problem in concrete construction. People who work in ACI's technical committee structure can probably visualize other possibilities for basic research.

Ward Malisch of *Concrete Construction* magazine recently suggested that research was needed to answer questions about recurring problems and he cited examples of accidental arc strikes and careless spraying of form release oil on reinforcing bars. While limited research to provide some insight into these or similar effects may be helpful, we need to be cautious about research that could also serve as a justification for poor workmanship.

Research is also important as an educational tool. Laboratory research provides an opportunity for gaining an appreciation of the behavior and durability of elements and materials. Research on in-service performance provides an opportunity to understand how elements work as systems. This hands-on research experience is more beneficial than reading old technical papers, however valid they may be. It seems to me that fewer people are getting these opportunities today.

ACI should give thought to its own research needs. As I emphasized in the start of this memo, the Institute has the best concrete technical literature in the world. It is a foremost common self-interest of our Institute to maintain its leadership in the quality and production of such technical literature. This literature depends on pertinent and well-planned research on topics in the Institute's fields of interest. Currently, ACI's Concrete Materials Research Council is seeking research topics from the Institute's technical committees. This is an important activity. All topics that contribute to maintaining ACI's leadership in technical literature deserve careful consideration.

John M. Hanson

President's Memo

ACI's New Foundation

No, I'm not talking about the footings under ACI's proposed new headquarters building. Rather, I'd like to express a few remarks about the Institute's new research and education foundation. Originally, the title of this new agency was the Education and Research Foundation. You've probably read about the foundation in news items in *Concrete International* as it was being considered and then approved by ACI's Board of Direction. The September issue of *CI* contained an article on how the foundation will help ACI get prepared for the 21st Century. The Board of Direction at the recent fall convention in Philadelphia, Pa., approved a minor name change to avoid a possible conflict in acronym usage. The new name is the Concrete Research and Education Foundation (CREF).

The foundation has broad objectives. In my view, the foremost objective established by the Board is the identification, support, and conduct of basic and applied research on concrete materials, design, construction, and applications. Another very important objective is to establish fellowship and scholarship programs for graduate and undergraduate students with career interests pertaining to concrete technology. While it would be great if the foundation could play a role in achieving a major advance in concrete technology, it is important that we set our sights closer to home, and be sure we are meeting ACI's research needs. These needs, as I said in last month's memo, are to be certain that the Institute is maintaining its leadership in the quality and production of technical literature.

Also at the Philadelphia convention, the Board and the Executive Committee took several other actions that will help launch the foundation. These include the formal transfer of the Concrete Materials Research Council to the foundation. This move, it is felt, will help CMRC achieve its goals of "advancing the knowledge of concrete materials by soliciting and selecting research proposals, financing them, guiding the research, and publishing the results, all in coordination with ACI technical committees."

Secondly, realizing that the research scope of the new foundation is intended to be broader than concrete materials, consideration was given to expanding the scope of CMRC to cover structural research and construction research. An alternative to expanding CMRC would be to establish additional councils reporting to the foundation. Thirdly, it was agreed that an initial fund raising drive would be inaugurated early in 1991, to solicit financial support for the foundation.

At some point, the Institute may want to consider direct financial support for the foundation. In my view, ACI should not expect its research needs to be met solely by outside funding. This is like saying to someone that we think we know how they should spend their money. I believe it would be in ACI's best interest to use some of its own money in support of research conducted by the foundation. These funds could come either from a surcharge on sale of technical literature, or from an increase in dues. I'm also of the opinion that if the Institute undertakes some meaningful research using its own funds, companies which may perceive that the research will affect their interests will want to participate. It wouldn't surprise me if such outside interest could double or triple the funds the Institute earmarks for research.

Let's give CREF a good foundation! It will be good business for all of us involved in concrete.

John M. Hanson

President's Memo

Certification — Where Is it Headed?

I should say at the outset of this memo that I have not been directly involved in ACI's seven certification programs. However, through service on the Board of Direction, I have been aware of the inception in 1982 and subsequent development of certification activities within ACI, and the considerable debate over the support of these programs with Institute resources. My comments, therefore, should be recognized as coming from a person who, as president, is concerned about ACI's activities and future direction, but whose first-hand knowledge of certification activities is limited.

There is a strong push for certification in the concrete construction industry, internationally as well as in the United States, because of the widespread feeling that the quality of concrete construction in general is lower than it should be. Requiring certification of those on the job site and in the testing laboratories is viewed as a major step in improving quality. The growth of ACI's certification program since its creation about eight years ago is an indicator of this desire to produce better concrete. The accompanying drawing shows that, in 1990, the number of people who have been certified by the Institute exceeds its total membership. At the end of 1990, the number of certified individuals was over 25,000. Probably less than 5 percent of these people are ACI members. On the other hand, Institute membership during the year increased by about a 1000 and, at the start of 1991, was just about 20,000.

The numerical increase in certified individuals, however, derives mainly from one program — the Grade I Concrete Field Testing Technician. At the end of 1990, approximately 24,500 individuals had been certified under this program. This is 98 percent of the total number of ACI certifications. Michael A. Clark, the Institute's manager of certification, believes the number of Grade I certifications could easily double in the next five years.

The next two largest programs are those for Level II and In-Training Concrete Construction Inspector, in which approximately 400 and 150 are certified, respectively. Started four and two years ago respectively, these programs have "huge potential" with both private and public agencies, according to Clark. The Concrete Flatwork Finisher and Technician programs, three and one years old, have certifications of about 130 and 20, respectively. This is the first year that the Grades I and II Concrete Laboratory Testing Technician programs have been offered and as yet no one has been certified.

Financially, the 1990 income and expenses of the certification programs were about break-even for the Institute. The Grade I Field Testing Technician had a net gain of about $150,000, offset by losses in the newer programs. Since 1982, the cumulative cost of certification activities to the Institute has been about $144,000 including staff salaries.

While this is but a thumb-nail sketch of ACI's certification programs, perhaps it is sufficient to allow me a couple of observations. As the leading organization pro-

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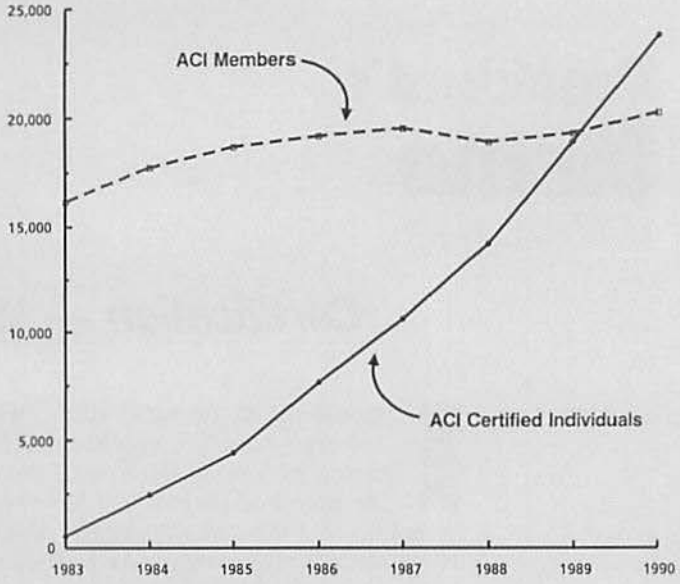
ducing technical literature on concrete, ACI could give certification a big boost through referring to certified individuals in its literature. Without question, the reference to a certified field technician in ASTM C94 has promoted the growth of that program.

Most ACI chapters in the United States have discovered that sponsorship of certification programs has been technically worthwhile as well as financially rewarding. Chapters in Canada and Puerto Rico have also sponsored programs and the Institute's chapter in Singapore has a program modeled after ACI's. The Mexican chapter is also drafting a certification program. Clark estimates that at least 50 percent of those in the concrete industry who are involved in administering the certification programs are not Institute members.

From my perspective, I would certainly not like to see the Institute pull back in its support of certification. Indeed, such support should be increased, but perhaps with a longer range strategy based on opportunity. I also believe that ACI should move to support its certification programs in its technical literature. On the other hand, I doubt that the number of certified people who become ACI members will ever be large; their interests are different. Thus, it would make sense for ACI to establish its second for-profit subsidiary for



certification activities, with assured financial backing of perhaps $500,000 over the next five years. This would allow a strong business-like approach to be developed for promotion of certification. Depending on its success, ACI could then decide whether or not to continue with certification activities.

John M. Hanson

President's Memo

Around ACI's World

At first I thought that I would give this memo the title of "Around the World in 18 Days" because that was the length of time that Bill Tolley of the ACI staff and I took in late November and early December to visit Institute chapters and present seminars in Karachi, Delhi, Bombay, Johar Bahru, and Seoul. Henry Russell, of Construction Technology Laboratories, Inc., was with us on all of these visits except to Seoul. The three of us stopped initially in Copenhagen, Denmark, where consideration is being given to forming the first ACI chapter in Europe. (See article, "Sixth International Seminars," beginning on page 79 of this issue.)

However, I chose the above title because I wanted also to recognize two other international trips that I have made in representing ACI. Last May, I was a guest of the Argentina Portland Cement Institute, presenting seminars for ACI's Argentina chapter in Buenos Aires, Rosario, Cordoba, Mendoza, and Mar Del Plata. Then, in late June, I was a guest of the Japan Concrete Institute, presenting a lecture at that organization's annual meeting in Hokkaido and also touring several construction sites, including the Honshu-Shikoku bridges.

Perhaps the strongest memory that I will retain from these visits is the very sincere welcomes that I, as well as Henry and Bill when we were together, received at every stop. Our hosts treated us to dinners, tours, and events that were representative of their culture. One memory I will always retain is that of the five hour drive from Delhi to Agra in India to see the Taj Mahal. The Taj Mahal was a beautiful shrine, but dodging the overloaded trucks, buses, oxen-driven carts, as well as elephants and camels on this road, was quite an experience.

On the serious side, however, I would like to express the strong feeling I developed that people in international chapters are looking to ACI for leadership in a changing world. At the same time, they are also cognizant that their own technology is advancing.

Some chapters flourish, while others languish, the same as in North America. Often, it is people who have had some prior contact with Americans, through education or personal association, that use chapter activities to maintain and enhance their contact. But I think we may at times be somewhat indifferent. We're happy when a few of them get together and want to organize a chapter. We send them one set of ACI's literature along with a few other things, and two or three people try to visit them every few years. But we do not have a strong program that promotes ACI in the international arena. Having never served on the Institute's International Activities or Chapter Activities committees, I'm aware that my knowledge of what ACI is doing with its international chapters is limited. Still, there are a few suggestions.

In my view, it would be better for one or two people to visit a chapter at least as often as every other year, rather than three people at longer intervals. The ACI visitors should generally not put on the entire seminar, but rather seek to have local speakers along with the Institute's visitors.

If it were practical, I would favor selling ACI literature to designated developing countries at perhaps one-half of the regular price of literature to Institute members. There are many people who would like our literature but have difficulty affording it. Besides helping these people now in their effort to understand current technology, there will be longer term benefits from having more ACI literature in use.

At its last two fall conventions, ACI has held a Roundtable meeting of attendees from concrete organizations in other nations. There is a desire to foster cooperation among organizations, and to avoid duplication in the production and dissemination of technical information. These Roundtables were very worthwhile, and hopefully will continue. It would be in ACI's interests, in my view, to devote some staff effort to maintaining communications with and serving as a point of contact for concrete organizations worldwide. If ACI doesn't provide this leadership, other organizations will.

In my first memo in the May 1990 issue of *Concrete International,* I cited a saying that "Life is like a bridge; you pass over it for a while." As my term as president draws to a close, I indeed feel that I have passed over one span of this bridge representing ACI. Like a good structure with strength and durability, the Institute is a healthy association with many common self-interests that will need its attention and efforts for a long time to come. It has been a pleasure to be your president this past year.

John M. Hanson