

PROCEEDINGS OF THE SOCIETY

Minutes of Meeting

Boston Society of Civil Engineers

January 28, 1970 — The regular monthly meeting of the Boston Society of Civil Engineers was held jointly with the Hydraulics Section in the Adams Room, United Community Services Building, 14 Somerset Street, Boston, Massachusetts. This meeting is designated the John R. Freeman Memorial Lecture.

A catered roast beef dinner was served before the meeting and it was enjoyed by fifty (50) members and guests.

After the dinner, Vice President Spencer called the meeting to order at 7:00 P.M.

Vice President Spencer stated that unless there was objection, the reading of the Minutes of the previous meeting held on December 10, 1969 would be omitted as they would be published in a forthcoming issue of the Journal.

The Secretary announced that at the Board of Government meeting held earlier in the day the following had been elected to membership:-

Grade of Member - Joel P. Bilodeau, Milton M. Cameron, Ching Chang Fang, Wayne T. Fisher, Thomas F. X. Flynn, Melvin W. Morgan, Michael E. Rafferty, Richard G. Sherman

Grade of Junior Member - Charyl W. Butterworth, Richard W. Check, Max S. Clark, 3rd., David F. Doyle, Leslie T. Hatch

The Secretary also announced that applications for membership had been received from the following:—

Richard N. Altieri, Watertown, Mass.
Richard J. Prudente, Everett, Mass.
James O. Olson, Essex Jct., Vermont *
Conrad C. Fagone, Arlington, Mass. *
M. Anthony Lally, No. Andover, Mass.*

*Transfer from Junior

The Secretary moved and it was seconded and VOTED "that the Board of

Government be authorized to transfer an amount not to exceed \$8000.00 from the Principal of the Permanent Fund to the Current Fund for Current Expenditures. Vice President Spencer announced that this was the final action on this matter.

Vice President Spencer then turned the meeting over to Ronald T. McLaughlin, Chairman of the Hydraulics Section to conduct any business of that section.

Chairman Ronald T. McLaughlin stated that this meeting was sponsored by the John R. Freeman Fund Committee as "A John R. Freeman Memorial Lecture" and turned the meeting over to Prof. Leslie J. Hooper, Chairman of the John R. Freeman Fund Committee. Prof. Hooper described the John R. Freeman Fund and read to those present some of Mr. Freeman's thoughts as expressed in the Deed of Gift. Prof. Hooper invited suggestions from the Society as to how these funds might be appropriately expended. Prof. Hooper then introduced the guest speaker for the evening as the fifth John R. Freeman Lecturer. The speaker, Mr. Klas Cederwall gave a very interesting and informative illustrated lecture on "Dispersion Phenomena in Coastal Environments". This paper is already in the hands of the editor and will be published in a forthcoming issue of the Journal. Prof. Hooper announced that since the hour was late, there would be no formal discussion period, but that those who wished to could meet with the speaker following the close of business. Prof. Hooper then presented the speaker with a suitably inscribed certificate and an honorarium.

Sixty one (61) members and guest attended the lecture.

The meeting adjourned at 8:35 P.M.

Respectfully submitted,
Paul A. Dunkerley
Secretary

February 18, 1970 — A Joint Meeting of the Massachusetts Section of the American Society of Civil Engineers and the Boston Society of Civil Engineers was held as a luncheon meeting at the Red Coach Grill, on Stanhope Street, Boston, Massachusetts. Luncheon was served at 12:15 P.M.

President Francis T. Sendker of the Massachusetts Section of the ASCE called the meeting to order at 1:00 P.M. After introducing the guests at the head table, President Sendker turned the meeting over to President Robert H. Culver of the BSCE to conduct any business.

President Culver announced the death of Past President and Honorary Member Gordon M. Fair on February 11, 1970. A moment of silence was observed in memory of Prof. Fair.

President Culver then called upon the Secretary for any announcements. The Secretary announced that applications for membership had been received from the following:-

Derek A. DeSouza, Somerville, Mass.
 Alfred M. Corneliuson, Jamaica Plain, Mass.
 Glen E. Mitchell, Medford, Mass.
 Kenneth A. Goff, Acton, Mass. *
 Anthony H. Slocum, Marblehead, Mass.
 Samuel A. Wigon, Brookline, Mass.

*Transfer from Junior

President Culver then returned the chairmanship of the meeting to President Sendker.

At the conclusion of the business affairs of the Massachusetts Section of the ASCE, Mr. Edward Newton introduced the speaker of the afternoon, Mr. T. Richard Guinan, Vice President of the State Street Bank and Trust Company.

Mr. Guinan gave an interesting and factual summation of the problems associated with "Financing Municipal Construction Projects". In his talk, Mr. Guinan emphasized the recent spiral of interest charges on municipal bonds, so that late in 1969 these interest charges had reached an all-time high of more than 7%.

Following Mr. Guinan's talk, there was a lively question and answer period.

The meeting was adjourned at 2:00 P.M.

One hundred and five guests were present during the program.

Respectfully submitted,
 Paul A. Dunkerley
 Secretary

March 25, 1970 — President Robert H. Culver convened the 122nd Annual Meeting of the Boston Society of Civil Engineers at 4:10 P.M., in the Morse Auditorium, Museum of Science, Science Park, Boston, Massachusetts.

President Culver stated that the minutes of the November and December 1969, and January and February 1970 meetings would be published in a forthcoming issue of the Journal. He declared that the minutes of the April, May, July, September and October 1969 meetings had been published in the Journal.

President Culver called upon the Secretary for announcements. The Secretary announced that at the Board of Government meeting held on March 23, 1970, the following had been elected to membership:

Grade of Member - Alfred M. Corneliuson, Derek A. DeSouza, Kenneth A. Goff*, Glenn E. Mitchell, Anthony M. Slocum, Samuel E. Wigon

* Transfer from Junior

The Secretary further announced that applications for membership had been received from the following:—

Thomas S. Baron, Worcester, Mass.
 Duncan M. Brown, Waltham, Mass.
 Harold T. Benoit, Jr., East Derry, N.H. *
 Daniel S. King, Arlington, Mass. *
 Paul A. Nason, Manchester, N. H.
 Robert A. Navias, Bridgewater, Mass.
 Walter H. Weidner, Jr., Arlington, Mass.
 Birger Schmidt, Cambridge, Mass.
 Herbert Storch, Boston, Mass.

The Annual Reports of the Board of Government, the Treasurer, the Secretary and the Auditors were presented.

Reports from the following Committees were also presented:— Publication Committee, Hospitality Committee, Library Committee, John R. Freeman Fund Committee, Ralph W. Horne Fund Committee, Subsoils of Boston Committee, Membership Committee, Joint Legislative Affairs Committee, Committee on Professional Conduct, Public Relations Committee, Quarters Committee, B.S.C.E.-A.S.C.E. Relations Committee, and the Organizational Contact Committee. The B.S.C.E. Representative to the Ad Hoc Committee on Massachusetts Registration Laws also reported.

It was moved and VOTED "that these Reports be placed on file and published in a forthcoming issue of the Journal."

The Annual Reports of the Executive Committees of the Sections were presented and the President declared that these reports would be published in a forthcoming issue of the Journal.

The Tellers of Election, Mr. Samuel E. Rice and Michael A. Donnelly made their report on the results of the Election. President Culver declared that the following officers had been elected for the ensuing year:

- President - Ernest L. Spencer
- V-President - James P. Archibald
- Secretary - Paul A. Dunkerley
- Treasurer - Robert T. Colburn
- Directors - Donald T. Goldberg, Peter S. Eagleson

Elected to the Nominating Committee were, Charles A. Parthum, Frank E. Perkins and Albert B. Rich.

President Culver then made a few announcements concerning the dinner meeting.

Following a 5-minute recess, President Culver delivered his Presidential Address entitled "The Time for Reevaluation".

Forty-two members and guests attended the business meeting.

The meeting adjourned at 5:50 P.M., to reconvene following the social hour and dinner.

President Culver called the adjourned meeting to order again at 8:30 P.M. Following general remarks and the introduction of the guests at the head table, President Culver turned the affairs of the meeting to the awarding of prizes.

The Secretary stated that the Ralph W. Horne Fund was established in 1964 by a gift from the Directors of Fay, Spofford & Thorndike, Inc., the income from which would be devoted to a prize or certificate to be awarded annually to a member designated by the Board of Government as having been outstanding in unpaid public service in municipal, state, or federal elective or appointive posts; or in philanthropic activity in the public interest. The Secretary stated that the recipient of the award this year was Wilfred MacGregor Hall, and asked the recipient to step forward. President Culver presented Mr. Hall the Ralph W. Horne Award which was a certificate reading as follows:

**RALPH W. HORNE FUND AWARD
PRESENTED BY THE
BOSTON SOCIETY OF
CIVIL ENGINEERS
TO
WILFRED MacGREGOR HALL**

Recognized a capable engineer and industrious businessman, and who, in addition, has given liberally of himself and his time to numerous philanthropic and educational activities. In recognition of this generosity and public service, the Boston Society of Civil Engineers by unanimous vote of the Board of Government has elected him to be the

**SIXTH RECIPIENT
OF THE
RALPH W. HORNE FUND AWARD
AND THIS CERTIFICATE IS PROUDLY
PRESENTED TO HIM
MARCH 25, 1970**

Robert H. Culver
President

The Secretary announced the endowment conditions for the prizes which would be awarded, and called upon each of the recipients to step forward to receive his prize as follows:

<i>Award</i>	<i>Recipient</i>	<i>Paper</i>
Desmond FitzGerald Medal	Peter A. Larsen	"Head Losses Caused by an Ice Cover on Open Channels"
Clemens Herschel Award	Thomas R. Camp	"Hydraulics of Mixing of Tanks"
Desmond FitzGerald Scholarship	Dennis A. Mahoney	
William P. Morse Scholarship	Winslow Hawkes	

President Culver then introduced the guest speaker of the evening, Reverend Robert F. Drinan, S.J., Vice President of Boston College and Dean of the Law School. Father Drinan gave an interesting and thought-provoking talk on the subject "A New Foreign Policy for America in the 1970's." Following Father Drinan's talk, President Culver turned the gavel over to newly-elected President Ernest L. Spencer.

President Spencer then presented the retiring President Culver with a certificate of appreciation for services rendered. Following this, President Spencer gave a brief talk on his plans for the ensuing year, in which he solicited from the membership suggestions concerning the conduct of the business of the Society.

One hundred and sixty-two members and guests attended the dinner and the meeting following the dinner.

The meeting adjourned at 9:25 P.M.

Respectfully submitted,
Paul A. Dunkerley
Secretary

COMPUTER SECTIONS

April 1, 1970:—The Computer Section of the Boston Society of Civil Engineers met at Patten's Restaurant, 173 Milk Street, Boston. Total attendance was 76, of whom 60 attended the dinner. The following announcements were made:

- The next meeting will be held jointly with the Hydraulics Section at 7:30 p.m., Wednesday, May 6th, at the Corps of Engineers Reservoir Control Center, 424 Trapelo Road, Waltham. The meeting will be preceded by a social hour and dinner at the Cottage Crest Restaurant, 610 Trapelo Road, Waltham.
- The Executive Committee will meet on April 16th to plan next year's program. Program topics will be welcomed.
- Anyone wishing to have his name added to the section mailing list should contact the section clerk.
- The Society has agreed to endorse the semi-annual meeting of the ICES Users Group to be held at MIT on June 18th and 19th. A workshop will be held on June 17th. Those interested should contact Don Cucinotti, program chairman, at Stone and Webster.
- The chairman expressed his appreciation to those who had brought in samples of computer graphic prints for display.

Prof. Saul Namyet introduced the first speaker, Mr. Paul DeNapoli, Chief Engineer, Harding and Buchanan, Boston. Mr. DeNapoli described his experiences with the use of computers and computer graphics using time-sharing and remote terminal hardware. Three major classes of programs were used covering geometric, structural and hydraulic problems. Structure problems, as exemplified by bridge abutments, were executed by batch processing, but all design data were saved on files so that separate programs could be used to list materials for drawing tables and for plotting. Sanitary and hydraulic programs were written in the conversa-

tional mode permitting the engineer to "talk" to the computer while developing a design. Mr. DeNapoli said that sanitary engineers found this mode to be best suited to their needs. Typical of the programs available were those for designing the components of sewage treatment plants, pump selection, and drainage pipelines. Mr. DeNapoli concluded his talk by showing a series of slides illustrating graphical output from a variety of programs.

The second speaker of the evening was Mr. Joseph Fornataro, Northeastern Regional Manager for California Computer Products, Inc. Mr. Fornataro reviewed the evolution of automatic plotters which had their origin in analog devices. Today's plotters are generally driven by digital computers and have speeds up to 1000 inches per second on microfilm and resolutions in the order of a thousandth of

an inch. Remote plotting, however, is constrained by the transmission speed over voice grade lines. Mr. Fornataro described several of the software programs which his company has developed, including packages for plotting contours, subdivision plots, PERT diagrams, perspectives including piping isometrics, financial trend charts, and FORTRAN flow charts. In his conclusion Mr. Fornataro suggested that the Society form a standards committee to evaluate plotting programs.

The meeting was next opened to questions from the floor addressed to either of the speakers. A good discussion ensued which indicated that those present had both experience in the use of computer graphics or were seriously interested in the technique.

Respectfully submitted,
David I. Hellstrom, Clerk