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ENGINEERING INSTITUTE PRESIDENTS: 1887 TO 2008

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Abstract

Since the founding of the Canadian Society of Civil Engineers (CSCE) in 1887, its presidents - and those of the Engineering Institute of Canada (EIC), which it became in 1918 - have usually been prominent members of the profession. This paper analyses the backgrounds of those who held this office in relation to the three major phases in the Institute's development. It concludes that, during the first two, the professional prominence and roles of the presidents were remarkably similar, although the latter became increasingly more onerous in the later years of the second phase. But in the third, the establishment of the constituent/member societies influenced both the prominence of the office holders and, with the passage of time, the nature of their duties.

This paper was presented originally by the author at the XVth Conference of the Canadian Science and Technology Historical Association at Ryerson University, Toronto, on 12 October 2007. The text of this presentation, along with the list of the 114 presidents, has been included in the History & Archives section of the EIC website (www.eic-ici.ca) as Article 13.

Two appendices have been added to this present paper. The first is a list of the presidents, and the second presents the results of the study in tabular form.

About this Series

Principally, the Cedargrove Series is intended to preserve some of the research, writings and oral presentations that the author has completed over the past half-century or so, but has not yet published. It is, therefore, a modern-day variant of the privately-published books and pamphlets written by his forebears, such as his paternal grandfather and grandmother, and his grandfather's brother John.

About the Author

He is a graduate in mechanical engineering and the liberal arts and has held technical, administrative, research and management positions in industry in the United Kingdom and the public service of Canada, from which he retired over 20 years ago.

He became actively interested in the history of engineering on his appointment to chair the first history committee of the Canadian Society for Mechanical Engineering (CSME) in 1975 and served both CSME and EIC in this capacity for varying periods of time until 2003. He has researched, written and edited historical material for both organizations, and is a past president of both.

This paper will discuss in general terms the backgrounds of the 114 presidents of the Engineering Institute of Canada (EIC) since its founding in 1887 - only two of whom have been ladies - against the background of the three principal phases in the Institute's development.

The EIC was founded by an Act of the Canadian Parliament in 1887 as the Canadian Society of Civil Engineers (CSCE) and as a national 'learned' society within the engineering profession. Its main job was to be a storehouse of technical and other information that would be of use to its members, who were elected as individuals on the basis of their training and experience. It also provided, especially in its early days when self-employment was the rule among engineers, opportunities for members to meet prospective employers and to broaden their professional contacts both generally and socially. The Society embraced all aspects of non-military engineering, although most of its original members belonged to the civil discipline.

During this first - or *CSCE* - phase of its development, which lasted until 1918, the principal activities took place in Montreal although, with time, there were branch activities in Quebec City, Ottawa, Toronto, Winnipeg and Vancouver. The principal tasks of the president were to lead or monitor the business of the Council, its committees and its part-time staff in Montreal - including the publication of the semi-annual *Transactions*, to maintain contact with the education sector and with other similar engineering institutions in Canada and abroad, to support and encourage technical and branch activities; to chair the business and some of the technical meetings of the Society; and to preside over its Annual General Meeting and present a report. Normally, presidents served one-year terms in office. The exceptions in the *CSCE* phase were Sir Casimir Gzowski, who was president consecutively in 1889, 1890 and 1891, and Thomas C. Keefer, who served separate terms in 1887 and 1897.

As World War I progressed, it became clear that changes were needed in the way CSCE was organized and operated. For example, the membership had grown from a few hundred to a few thousand since 1887. There had also been recent and significant growth in the number of members who belonged to the non-civil disciplines. Communications with the membership needed improvement, and the business of the Society had become more than part-time staff could handle. A committee was asked to examine the situation. As a result, early in 1918, the original Act was amended. The Society was re-named the Engineering Institute of Canada (EIC), with essentially the same terms of reference and the same conditions for individual membership. Publication of the *Engineering Journal* began on a monthly basis. The publication of *Transactions* was continued on an irregular basis for the more theoretical papers. A general secretary and appropriate staff were appointed. This may be called the second - or *Institute* - phase of EIC's development, and it lasted for over half a century, beyond the end of World War II. Except for two who died in office, the presidents during this phase served one-year terms.

During this phase the discipline mix continued to change; membership rose from around 3,000 to around 22,000; the number of branches grew to over 60; regional meetings and other activities were introduced; additional standing and special committees were established; international involvement increased; and advice was rendered to the federal government on a variety of subjects. As a result,

the role of the president grew with the size and complexity of the Institute, although he had more help from the permanent staff. But he had to be sufficiently senior in his parent organization so that he could leave part, at least, of his regular job to colleagues during his frequent absences. On the other hand, the office of EIC president had become sufficiently prominent that parent organizations were usually pleased to have the additional public exposure that EIC presidencies afforded.

The Institute weathered the Great Depression, although its membership declined. World War II began a period of growth that lasted for around 20 years. However, as the 1960s progressed, a number of significant problems arose. For example, the total membership of the licencing/regulatory associations in the provinces began to outstrip that of the EIC significantly. Some engineers saw no merit in belonging to two professional engineering organizations. Others saw the technology offerings of EIC to be inappropriate or inadequate for their needs. Yet others chose to join the new, small specialist engineering societies that were growing in number, especially in the United States, or to maintain their membership in the very much larger American (or British) discipline-oriented societies that could provide services beyond the capacity of EIC. Even the *Engineering Journal* was affected. Its advertising revenues fell as membership failed to grow further. All of these problems affected the Institute's financial situation adversely. The presidents during the later years of this second development phase had their hands very full.

Something had to be done. The EIC Council chose to encourage the formation of semi-autonomous 'constituent' societies, based on the major disciplines and on existing technical divisions within the Institute. No changes to the Act were required. The first of these societies - for mechanical engineering - began life in 1970, followed by civil, geotechnical and electrical engineering. Institute members who did not join these societies were assigned, initially, to a General Members' Group. The presidents of the individual societies and the Group's chairmen had seats on EIC's Council. And so began the third - or *Societies* - phase of the Institute's development.

While this arrangement began well enough, problems soon appeared. For example, over the years the new societies developed their own structures and staff, regions, sections, programs, committees, means of communication, and international activities, some of which were in conflict with what the Institute was continuing to do. The EIC's staff was gradually reduced as its budgets continued to falter, its role changed, and as the staffs of the societies increased. But by the mid-1980s, it was clear that something more had to be done. So the decision was made that the constituent societies could incorporate and become autonomous, although maintaining their affiliation with the Institute. Effectively, EIC became a federation of learned societies, with the societies themselves - rather than individuals - as the members.

In retrospect, therefore, the *Societies* phase in EIC's development has had two sub-phases: an *earlier* one, from 1970 until 1986; and a *later* one from 1986, which continues at this time. The duties of the presidents have changed in both of them.

The *earlier* sub-phase was essentially a period of adjustment, when old practices gradually changed with circumstances and experience. Presidents still chaired the EIC Council and the Executive

Committee, both of which met frequently, and oversaw the work of the staff of the administrative service centre. They maintained programs of branch, region and conference visiting. But, as the branches became fewer and the regions less active, so did these programs. They still supported specific EIC initiatives, met formally with the directors of the constituent societies and with representatives of non-EIC technical engineering societies, but attended fewer international meetings. They spent a good deal of time dealing with interface problems between the Institute and the societies and with the problems of finance and internal and external communications. Efforts were also made, unsuccessfully, to increase the number of constituent societies. One-year terms for the presidents were normal during this *earlier* sub-phase, although one served for 18 months to allow the timing of the Annual Meeting to be changed from fall to spring, and another resigned after two months for personal reasons.

The *later* sub-phase brought about significant changes to the role of the Institute itself. The societies having taken over the 'learned' function, its primary focus became the promotion and coordination of continuing education and professional development for engineers, with the recognition of engineering excellence and service to the profession and the preservation of engineering history and heritage as its second and third strings. The *member* societies, as they were now called, participated in these activities, were represented on Council, and contributed financially to the Institute. EIC gave up its international commitments. Its staff was reduced to a minimum following the closing of the administrative service centre at the Montreal headquarters in 1986, and the headquarters itself was moved to Ottawa in 1991 and to Kingston in 1999. However, the number of member societies within the federation increased. The General Members' Group and the EIC Life Members Organization became full members, with new titles, in 1990 and 2003, and several "non-EIC" societies also joined, the first of them in 1999. Also, the Electrical and Computer Engineering Society merged with IEEE to form IEEE/Canada but retained jurisdiction in Canada. There are currently around a dozen member societies.

The duties of EIC presidents have evolved during the *later* sub-phase in keeping with these changes. In general terms, the load has been lightened. The presidents continue to take charge of the work of the Council and oversight of its active committees and programs, and of occasional conferences, but travel and liaison work have become very much less onerous. At first, they served one-year terms but, from the mid-1990s, most have served for two years, although one resigned after only a few months to accept an appointment abroad.

Another significant change has taken place during the third phase as a whole. During the first and second phases presidential nominees were both prominent members of the profession and had usually served in a variety of capacities on the Council and its committees. During the third phase, nominees have often been selected from the ranks of the past presidents of the constituent and member societies. Combined with the lowered visibility and extent of presidents' duties, some of those who have been in office during the phase were perhaps adequately experienced but less prominent within the profession as a whole.

The average age of the 114 presidents during their terms of office was around 55.

During the *CSCE* phase, 29 men occupied the presidency (Thomas Keefer has been counted twice). Of, all but two were civils. They were mechanicals, the first holding office in 1896 and the second in 1903. Eighteen were Canadian-born, and 11 were born outside Canada, mostly in Britain. Nineteen trained as pupils or apprentices, and nine through universities, or in Casimir Gzowski's case, at a military engineering school. At the time of their presidencies, 15 were senior executives or chief engineers, six were leading consulting engineers, three were leading academics, three were chief engineers of cities, one was a senior engineer associated with the Welland Canal, and one was retired from practice. Also, at the time of their presidencies, the home bases of a dozen were in Montreal, six in Toronto, four in Ottawa, two in Winnipeg, and one each in Halifax, rural Quebec, Brockville, St. Catharines and Victoria. All 29 could be considered prominent within the profession. This should not be so surprising since new institutions tend to be led by their best-known members in the early years. Some, such as Gzowski, Kennedy and Thomas Keefer, the leading academics and the city chief engineers were also prominent publicly.

Fifty-three presidents were in office during the *Institute* phase of EIC's development. All but six were Canadian-born. All but nine of the 53 entered the profession through a university engineering school. Discipline-wise, 29 were civils. Of the remaining 24, nine were electricals, six mechanicals, and one each in the mining, metallurgical and chemical disciplines. Also, reflecting engineering education at the turn of the 20th century (when many of the 53 were in school), four qualified as mechanical/electrical engineers, one as a civil/mechanical and one as a civil/mining engineer. At the time of their presidencies, 33 were senior executives or chief engineers of companies or of government departments, 12 were leading consulting engineers, five were leading educators, and three were retired. Their home bases during their presidencies were 17 in Montreal, six each in Ottawa and Toronto, four each in Winnipeg and Vancouver, two each in Halifax, London and Calgary, and one each in Sydney (Nova Scotia), Saint John and Sackville (New Brunswick), Quebec City, Knowlton and Sherbrooke (Quebec), and Kingston, Peterborough, Woodstock, and St. Catharines (Ontario). Again, the word 'prominent' could be applied to them on the basis of their positions when president and their EIC service although, in some cases, it would be applied in a limited geographical context.

Of the 32 ladies and gentlemen who were EIC presidents during the *Societies* phase, 15 served in the *earlier* sub-phase and 17 in the *later* one.

Of the 15, four were born abroad - two in England, one in Scotland and one in Australia. Seven were civils, three mechanicals, three electricals, one was a chemical and one was an aeronautical engineer. Only one of them trained as a pupil. At the times of their presidencies, six were leading consulting engineers, three were leading academics, two were senior executives of a company and a government department, two were middle-level academics, one a middle-level manager in government, and one was retired. Their home bases during their presidencies were three from Toronto, two each from Montreal and Vancouver, and one each from Halifax, Fredericton, Ottawa, Kingston, Hamilton, Winnipeg, Edmonton and Victoria. Seven of the 15 had served previously as presidents of their constituent societies.

Among the 17 who have served so far during the *later* sub-phase were the two ladies, both past presidents of their societies. One served only one year, as it happened. The other served for two. Five were born in Europe. All entered the profession through university or military engineering schools. Five were civils, four electricals, three geotechnicals, two each from mechanical and chemical engineering, and one from metallurgical engineering. At the time of their presidencies, eight were leading consulting engineers, four were leading academics, one was a senior manager in industry and another in government, one was a middle-level academic, one a middle-level government manager, and one was retired. During their presidencies, the home bases of four were in Montreal, three in Kingston, two each in Halifax and Vancouver, and one each in Ottawa, Toronto, Hamilton, Regina, Calgary and rural British Columbia. Twelve of the 17 had already served as presidents of their societies.

Finally, a number of brief conclusions. First, the roles of the presidents of EIC during the *CSCE* and *Institute* phases were similar but, during the latter, grew increasingly more onerous and time-consuming. Second, the *earlier* sub-phase of *Societies* phase began much as its predecessor had ended, but changed as new situations developed, becoming more complex and difficult to handle. Life for the presidents became much easier during the *later* sub-phase. Third, foreign-born presidents were in the minority during the first phase, were few in the second, but were relatively more numerous in the third. Fourth, the presidents who were civil engineers dominated the *CSCE* phase, were in the majority during the *Institute* phase, but were out-numbered by non-civils in the *Societies* phase. (The non-civils were led by electricals and mechanicals.) Fifth, in the *CSCE* phase, a slim majority of presidents were senior executives in industry and government. They were the majority during the *Institute* phase, but had all but disappeared in the *Societies* phase, indicating that these people had lost interest in EIC. They were replaced during this phase by presidents who were senior consultants. The numbers of senior academics remained relatively low in the first two phases, but were higher in the third. While absent from the first and second phases, middle-level academics and managers were still relatively few during the third phase. Sixth, in all three phases, Montreal, where EIC had its headquarters for more than a century, was the most popular home base for the presidents, followed some way behind by Toronto and Ottawa. However, during the *Institute* and *Societies* phases, these bases were spread right across the country although, so far, there has been no president from Newfoundland. Finally, more than half the *Institute* presidents in the third phase had earlier led their constituent or member societies, which also helps to confirm the 'federation of learned societies' claim made by the present-day Engineering Institute of Canada.

APPENDIX 1

EIC Presidents: 1887-2008

1. Thomas C. Keefer (1887)
2. Samuel Keefer (1888)
3. Casimir S. Gzowski (1889, 1890,1891)
4. John Kennedy (1892)
5. Edmund P. Hannaford (1893)
6. P. Alex Peterson (1894)
7. Thomas Munro (1895)
8. Herbert L. Wallis (1896)
9. Thomas C. Keefer (1897)
10. William G. M. Thompson (1898)
11. William T. Jennings (1899)
12. Henry T. Bovey (1900)
13. Edward H. Keating (1901)
14. Martin Murphy (1902)
15. Kennet W. Blackwell (1903)
16. William P. Anderson (1904)
17. Ernest Marceau (1905)
18. Hugh D. Lumsden (1906)
19. W. McLea Wallbank (1907)
20. John Galbraith (1908)
21. George A. Mountain (1909)
22. Henry N. Ruttan (1910)
23. Charles H. Rust (1911)
24. William F. Tye (1912)
25. Phelps Johnson (1913)
26. Matthew J. Butler (1914)
27. Francis C. Gamble (1915)
28. George H. Duggan (1916)
29. John S. Dennis (1917)
- *****
30. Henry H. Vaughan (1918)
31. Reuben W. Leonard (1919)
32. Robert A. Ross (1920)
33. John M.R. Fairbairn (1921)
34. John G. Sullivan (1922)
35. Arthur T. St. Laurent (1923) - died in Office
36. Walter J. Francis (1923-1924) - died in Office
37. Arthur Surveyer (1924-1925)
38. George A. Walkem (1926)

39. Albert R. Decary (1927)
40. Julian C. Smith (1928)
41. Charles H. Mitchell (1929)
42. Alexander J. Grant (1930)
43. Sam G. Porter (1931)
44. Charles Camsell (1932)
45. Olivier O. Lefebvre (1933)
46. Frederick P. Shearwood (1934)
47. Frederick A. Gaby (1935)
48. Ernest A. Cleveland (1936)
49. Georges J. Desbarats (1937)
50. John B. Challies (1938)
51. Harold W. McKiel (1939)
52. Thomas H. Hogg (1940)
53. Chalmers J. Mackenzie (1941)
54. Clarence R. Young (1942)
55. Kenneth M. Cameron (1943)
56. de Gaspé Beaubien (1944)
57. Edward P. Featherstonhaugh (1945)
58. John B. Hayes (1946)
59. Leroy F. Grant (1947)
60. John N. Finlayson (1948)
61. John E. Armstrong (1949)
62. James A. Vance (1950)
63. Ira P. Macnab (1951)
64. John B. Stirling (1952)
65. Ross L. Dobbin (1953)
66. Donald M. Stephens (1954)
67. Richard E. Hertz (1955)
68. Vernon A. McKillop (1956)
69. Clement A. Anson (1957)
70. Kenneth F. Tupper (1958)
71. John J. Hanna (1959)
72. George M. Dick (1960)
73. B. Guy Ballard (1961)
74. Frederic L. Lawton (1962)
75. T. Clinton Higginson (1963)
76. George E. Humphries (1964)
77. Gaetan J. Cote (1965)
78. Mervyn Hambley (1966)
79. John H. Swerdfeger (1967)
80. Jean-Paul Carriere (1968)

81. William G. McKay (1969)
82. W. Leslie Hutchison (1970)
- *****
83. John H. Dinsmore (1971)
84. William P. Harland (1972)
85. Ian A. Gray (1973)
86. Donald L. Mordell (1974)
87. Robert F. Shaw (1975)
88. Allison E. Steeves (1976-1978) - served 18 months due to change in EIC's schedule
89. Russell Hood (1978-1979)
90. Colin D. diCenzo (1979-1980)
91. V. Douglas Thierman (1980-1981)
92. Jack Hahn (1981) - resigned after two months for personal reasons
93. Jack Priestman (1981-1982)
94. Andrew H. Wilson (1982-1983)
95. Eric C. Garland (1983-1984)
96. Harold L. Macklin (1984-1985)
97. William B. Rice (1985-1986)
98. Remy G. Dussault (1986-1987)
99. William A.H. Filer (1987-1988)
100. Pieter Van Vliet (1988-1989)
101. Arthur P. Earle (1989-1990)
102. Nelson Ferguson (1990-1991)
103. Stephen A. Revay (1991-1992)
104. Colin H. Campbell (1992-1993)
105. Raymond A. Benson (1993-1994)
106. B. John Plant (1994-1996)
107. Tony R. Eastham (1996) - resigned after two months to accept position overseas
108. John L. Seychuk (1996-1998)
109. Andre Rollin (1998-2000)
110. Linda Weaver (2000-2001)
111. Kenneth W. Putt (2001-2002) - served 18 months
112. Guy C. Gosselin (2002-2004)
113. Maja Veljkovic (2004-2006)
114. R. Kerry Rowe (2006-2008)
- *****

Home Base at Time

of Presidency:	Montreal	12	17	6
	Toronto	6	6	4
	Ottawa	4	6	2
	Vancouver	-	4	4
	Winnipeg	2	4	1
	Halifax	1	2	3
	Kingston	-	1	4
	Calgary	-	2	1
	Hamilton	-	-	2
	London	-	2	-
	St. Catharines	1	1	-
	Victoria	1	-	1
	One each from	Rural Quebec	Sydney, NS	Fredericton, NB
		Brockville, ON	Saint John, NB	Regina, SK
			Sackville, NB	Edmonton, AB
			Quebec City, QC	Rural BC
			Knowlton, QC	
			Sherbrooke, QC	
			Peterborough, ON	
			Woodstock, ON	

**Past Presidents of
Constituent/Member
Societies:**

				19
Number of Presidents		29	53	32

