Engineering Heritage Australia

National Engineering Oral History Program

Biographical Notes

Norman Sneath (1926 -)
Structural Engineer

Birth & Family: Born 20 August,1926. Derby, Midlands, England.
Norm grew up in England. He describes his mother and father as a hard-working, working class family. Norm was one of three boys brought up with a "modest standard of living". The Second World War broke out when Norm was 13.

Education: Attended primary and secondary school in England. Started work at 16 as an apprentice in the steel works while studying at technical college. Norm achieved an intermediate Bachelor of Science, then went full-time on a scholarship to Cambridge University where he received his Bachelor of Arts and Masters of Arts. In Australia while in Canberra Department of Works achieved a Bachelor of Commerce from Canberra University College (affiliated with University of Melbourne). As part of his Harkness Fellowship Norm achieved a Masters of Science from Berkeley, California, USA).

Qualifications: B.A.(Cambridge, England), M.A.(Cambridge, England), B.Com. (Melbourne), M.S.(Master of Science, Berkeley, Calif.)

Memberships: M.I.C.E., M.I.E. Aust., M.I.(Struct.E.), M.Am.Soc.C.E.(Resigned)
Listed in Who's Who Australia 2005

Awards: Wright Scholarship to Cambridge 1945; Harkness Fellowship to Berkeley, USA(1961)

Work History: **England:**

Started work at 16 as an apprentice in the steel works. Norm was provided with a variety of tasks in the structural field while studying at the technical college. After completing his degrees at Cambridge University he returned to Butterleys Pty Ltd and worked in their design office for a year on structural steel design. Then worked with FC Construction Company – a reinforced concrete company – to gain basic reinforced concrete design skills. Soon after he applied to

migrate to Australia and was offered positions at the Commonwealth Department of Works office in Canberra, the Snowy Mountains Hydro-Electric Authority or Commonwealth Experimental Building Station at Ryde, Sydney. Norm chose the Works Office in Canberra where he worked from 1950 until he was transferred to the Head Office in Melbourne in 1966.

Canberra:

Apart from his work as a graduate engineer for the Department, Norm undertook several community-based engineering jobs in Canberra, including a design of timber frames for the Catholic Church in Braddon and a structural design for the Congregational Church.

At the Department he worked on a variety of Canberra/ACT infrastructure projects during a busy period of development and construction works in the national capital. He was transferred from the Design Section to Construction for one year and investigated ways to improve concrete quality for Canberra construction work

Continued studies with a commerce degree at Canberra University College to assist with the business side of engineering practice.

Norm became the Professional Development Adviser to Cadets on scholarship with the Department under the Professional Development Scheme. He was given authority to move the Cadets around the Department to ensure they gained a variety of engineering work experience.

Norm worked on a variety of engineering tasks in Canberra and received regular promotions up to Supervising Engineer. Some of his project work included – Mt Stromlo Domes, DAF Satellite Telescope (Tidbinbilla), Olympic Swimming Pool, several reservoirs (Red Hill, Weetangara, Dickson), Steel Frames for Fairbairn Hangar, CSIRO Computer Centre (Black Mountain), Design of Timber Frames for Expo 67 Montreal, Flats at Reid, Barton, Griffith and Braddon, Parliament House extensions, Canberra Hospital, Campbell Park Offices, Canadian Flagpole, numerous schools, bridges, several industrial buildings, a new quarry, new brickworks and a new hot-mix plant.

He worked closely with the Major Development Section on the Lakes Scheme, Bendora, Corin and Googong Dams.

Norm’s involvement with computer programming for the Department began upon his return from his studies at Berkeley, California under the Harkness Fellowship (1961-1963). His work in this field was a feature throughout the remainder of his career including his teaching years at Monash University after retiring from the Public Service in 1979.

Melbourne:

Norm transferred to Head Office and position of Chief Structural Engineer in 1966. First major tasks were Mascot and Tullamarine Airport construction works, Expo 70 Osaka, Japan, Black Mountain Tower design analysis and construction etc. Norm restructured the Department in include six senior specialist positions to cover the increase in workloads. Positions included: welding, foundations, computing, prestressing, masonry and complex analysis.

With others from the Department, Norm went to Darwin after Cyclone Tracy to assess the damage and advise on reconstruction policy and practice.

Norm's responsibility in Head Office included liaising with all Regional Offices and providing staff support and expert advice where required.

He sat on the panel judging the High Court Design Competition, worked with a team investigating the Geehi (Snowy Mountains) Aqueduct failure and was deputy-chair on the committee for the Second Hobart Bridge (until his retirement in 1979). Presented numerous papers at conferences, both national and international. He continued to write innovative and significant engineering computer programs used by the Department and Regional Offices, other Government Departments, private enterprise. These programs were known and used in the profession throughout Australia and internationally.

Promoted to Director of Engineering, First Assistant Secretary in 1976 and by 1978, Norm was responsible for over a hundred major projects with serious problems of staff shortages and issues of Departmental changes (Head Office move to Canberra), private contractors and Government Departments seeking control over their own work projects. Due to ill health Norm retired from the public services on an invalid pension in 1979.

Monash University:

Invited to assist with engineering course lectures on a part-time basis in 1979, by 1985 was promoted to a full-time senior lecturer. While at Monash Norm undertook two sabbaticals: the first in 1986 at Cambridge, USA and Europe; the second in 1990 at Edinburgh (Heriot-Watt University) and several USA universities. Involved in several new courses at Monash, including "Computer Aided Analysis", "Dynamics of Structures" and "Timber and Masonry". In 1991, at the mandatory retirement age of 65, a successful submission was made to extend Norm's work at Monash, but with reduced teaching loads. These extensions continued until full retirement in 1996 at the age of 70. Norm was able to apply his theoretical and practical engineering experience to teaching young engineers for 15 years.

Retirement:

At first, Norm had taken on several consultancies but due to issues of liability he no longer engages in these. Golf and flying were important recreational pursuits, but due to a heart attack in 1988, he no longer flys, except on his computer! He has maintained his comprehensive archive of engineering professional material and an active interest in engineering theory and practice.

Prepared by Dr Margaret Park, May 2005, from the oral history interview conducted on 8 April 2005 for the Institution of Engineers and from Norm Sneath's papers and CV.