

*The Institution of Engineers, Australia: Sydney Division
Engineering Heritage Committee*

Oral History Program: Biographical Notes

Tom CROWE (1940 -)

Civil Engineer

Birth & Family: Born in Roseville in 1940. Father was a wool classer then after the war became an accountant. Has one sister. Parents encouraged further education.

Education: Cammeray Primary School (sent too young) and later to Roseville Public School. Then onto North Sydney Boys High School

Qualifications: c1961 Civil Engineering - University of NSW
c1969 Degree in Computer Science - Vancouver, Canada
1979 Masters Degree in Building Science – University of NSW
1984 Building Visiting Committee – University of NSW
1984 Bachelor of Urban Land – University of Western Sydney
1989 Master of Project Management -University of Technology, Sydney

Memberships:

Awards: 1987 Australian Small Business Award – Business Management
1987 BOMA Award – Project Management
1988 Engineering Excellence Award – Information Management on Development Projects
1988 Building Science Forum Award
1994 Engineering Excellence Award – Project Management
1994 Engineering Excellence Award – Project Management Training
1996 Engineering Excellence Award – Best Practice (TQM) on Projects

Work History: First job - in last two years of university worked part-time on Gladesville Bridge. Responsible for casting the 500 concrete blocks that made up the arch – made to within an eighth of an inch - tapered blocks and hollow – one wrong. Met Backie James, Chief Engineer on Spit Bridge and mentor to him for rest of his life. Worked for him from 1958 until 1968 with Reed and Mallack, British Engineering firm.

Site Engineer at Harwood Island, Clarence River in Grafton, responsible for precasting the headstocks and erecting them.

Returned to Sydney and got married. Worked on the Aston Street Bridge at Parramatta – his first project management role. Reed and Mallack decided to withdraw from Australia so decided to go to Vancouver, Canada to work.

Worked for IBM as salesman. Top salesman in first year. Lectured in critical path method (one of the main applications of computers) at the University of British Columbia.

Returned to Australia in 1970 and joined P A Management Consultants. During this time involved in programming of variety of things, including Opera House.

1973 left and formed a company, McLaughlin and Crowe, in partnership with Alex McLaughlin (a colleague from PA) for ten years. First stand alone project management consultancy in Australia.

In early 1980s worked on AMP's Collins Place – believes first consultant project manager on a major project in Australia – a turning point in his career – 38 years old and managing billion dollar building. Then project manager for another AMP building, the National Australia Bank House, George St, Sydney. By this time partnership separated and formed T W Crowe & Associates in 1983.

Introduced micro-computers to assist in project management – won an engineering excellence award for this. He invented a scientific refurbishment technique, which was applied to city buildings as well as scheduling techniques. Tom has worked in various capacities on hotels, resort project developments, hospitals, banks, the University of Technology, Sydney; and Police Headquarters. Other relevant experience includes projects in Malaysia, Hong Kong, Singapore, Indonesia in the 1980s, Collins Place Melbourne, Sydney 2000 Olympic Infrastructure and National Museum of Australia.

In the 1990s he was involved in developing best practice/total quality management and introducing it to organisations such as the construction industry, government departments, architects, engineers, contractors and trade contractors.

At the time of interview he was completing PhD – examining achieving excellence and strategies for project deliveries. Case studies lead to the conclusion that many things were being done wrong in the industry. He hoped that his contribution would effect change in the focus of industry from profit to people and customers.

He lectured extensively at University of NSW, University of Technology Sydney, Sydney University and Deakin University, in project management skills.

In semi-retirement, was involved in teaching, researching and 'trying to get his handicap in golf down'.

Management consulting in Capital Works experience:

AMP Society cost management procedures

1982 – 1983 State Rail Authority contract review

1984 Otis Elevators management development

1985 State Rail Authority records retrieval study

1985 State Rail Authority Capital works strategy

1986 Telecom annual report and corporate planning

1986 State Rail Authority workshops' recommendations

State Rail Authority performance indicators and management control of capital works

Elcom NSW project management development

Peddle Thorp and Walker information technology strategy

Public Works Department asset management policy for public buildings

1989 Public Works Department Schools Branch business plan and program review

1989 Concrete Constructions strategic plan for information management of projects

1989 Financial appraisal of Sydney Eye Hospital

Royal Agricultural Society relocation project initiation

1990 Telecom Property Services business plan

1990 State Rail Authority locomotive maintenance value study

Concrete Constructions information management strategy and implementation

1990 Freehill Hollingsdale & Page review and recommendations on Darwin Hotel complex project development team

Concrete Constructions business plan for asset management and Refurbishment Division

1991 Roads and Traffic Authority NSW community consultation approach for project teams

1991 Roads and Traffic Authority NSW conceptual design of project initiation checklists, strategy for information retrieval

1991 Water Board preparation of program and development of information management implementation strategy

Telecom Payphone Services establishment of project management system and culture within a matrix organisation

1991 Telecom capital works procurement strategies

1991 Roads and Traffic Authority project management guide and reporting development

1991 Water Board review of capital works priorities

1991 Property Services group project manager/teams development

1990-1991 Roads and Traffic Authority NSW program and project management, information management and project team skills enhancement

1990 Telecom Payphone Services project cost management review, establishing project control culture in a line management organisation

1990 Water Board project managers' skill enhancement, management reporting, information management brief

Prepared by Freda Garnsey, 22 November 2002 from oral history interview conducted on 28 June 2001.

Tom W Crow

Adjunct Professor, University of New South Wales
BE, Mbuil, FIE Aust, CMC

Tom Crow is the founding director of TW Crow Associates (now TWCA), a management and project consultancy based in Sydney, Australia. He is a graduate civil engineer and has practised as a certified management consultant for over 25 years. In this time, he has been a project consultant/manager on many major projects including Gladesville Bridge Sydney, Collins Place Melbourne, Sydney Opera House, Sydney 2000 Olympic Infrastructure and National Museum of Australia. As a management consultant he has facilitated continuous improvement programmes towards achieving best practice in over 30 construction projects and organisations including government departments, architects, engineers, contractors and trade contractors. He has lectured extensively at Universities and conducted on-the-job training for over 20 corporations and government departments in project management.

Recognition

- | | | |
|--|--------------------------------------|------|
| • Business management | - Australian Small Business Award | 1987 |
| • Project management | - BOMA Award | 1987 |
| • Cost management | - Masters degree in Building Science | 1987 |
| • Information management on development projects | - Engineering Excellence Award | 1988 |
| | - Building Science Forum Award | 1988 |
| • Project management | - Engineering Excellence Award | 1994 |
| • Project management training | - Engineering Excellence Award | 1994 |
| • Best Practice (TQM) on projects | - Engineering Excellence Award | 1996 |

Innovation

- Scheduling Techniques (programme hierarchy, production control, trend graphs) (1975)
- Networked computer linkage to project team members (1983)
- Project Business Plans (1984)
- Scientific approach to Building Refurbishment (1985)
- Information Management of Projects (1986)
- Open learning project management techniques (1990)

Publications

- Information Management in Development Projects (jointly with Reading University) (1990)
- Project Management Guide, Roads & Traffic Authority, NSW (1992)
- Building Best Practice in the Construction Industry (co-author, Dr Mark Rehn) (1994)
- Project Management Skills, APESMA (1998)
- 18 papers to Professional Conferences and Learned Societies. (1975 - 1998)

Training and Skill Enhancement Experience:

Tom started his professional training experience in 1967 when he lectured in the critical path method at the University of British Columbia. Since then, whilst continuing to practice as a project manager and management consultant to the capital works industry, his career has included assisting other project managers and their teams to enhance their skills and improve the performance of their projects. This has involved:

- Developing and conducting post graduate courses within masters degrees at Universities
 - UNSW, Master of Building Science (1973-1979)
 - UNSW, School of Building Visiting Committee (1984-)
 - University of Western Sydney, Bachelor of Urban Land (1985)
 - University of Technology, Sydney, Master of Project Management (1989-)
- Developing and conducting seminars and workshops for institutions and associations
 - Building Industry Specialist Contractors Association, Scheduling and Claims Management (1983-1986)
 - Master Builders Association, Scheduling and Claims Management (1985-1986)
 - BOMA, Property Management Course (1986-)
 - Institute of Administration (UNSW), Construction Management Course (1987-)
 - Australian Society of Accountants, Cost Management of Development Projects (1987-1988)
- Continually participating in research, development and demonstration aimed at developing new techniques to enhance the performance of project managers and their teams including:
 - Project Information Management Systems
 - Asset Management
 - Quality Systems for Project Managers
 - Material Handling on High Rise Buildings
 - Project Initiation for Capital Works
- Regular attendance at and participation in, international conferences conducted by:
 - Project Management Institute - AIPM
 - Internet - CIB
- Preparation of over 20 papers for learned institutions exemplified by:
 - Management of Building Services, IE Aust (1975)
 - Automated Estimating, IE Aust (1976)
 - Value Management of Capital Works, IE Aust (1977)
 - Cost Management of Capital Works, ASA (1987)
 - Attributes of a Successful Project Manager, AIQS, (1988)
 - Refurbishment Management of Hospitals, Hosplan (1989)
 - Australian Generalised Contract - BOMA (1989)
 - Information Management of Construction Projects, CIB (1990)
- Developing and conducting project management workshops and tutoring for project teams within public and private enterprises
 - Otis Elevators (1984)
 - NSW Public Works (1991-93)
 - RTA of NSW (1989-93)
 - Telecom Payphone Services (1990-92)

Management Consulting in Capital Works Experience:

- 1991: Water Board project managers' skill enhancement, management reporting, information management brief
- 1991: Telecom Payphone Services project cost management review, establishing project control culture in a line management organisation
- 1990 - 1991: Roads and Traffic Authority NSW programme and project management, information management and project team skills enhancement
- 1991: Property Services Group project manager/teams development
- 1991: Water Board review of capital works priorities
- 1991: Roads and Traffic Authority project management guide and reporting development
- 1991: Telecom capital works procurement strategies
- 1990 - 1991: Telecom Payphone Services establishment of project management system and culture within a matrix organisation
- 1991: Water Board preparation of programme management approach for Pollution Abatement Programme and development of information management implementation strategy
- 1991: Roads and Traffic Authority NSW conceptual design of project initiation checklists, strategy for information retrieval
- 1991: Roads and Traffic Authority NSW community consultation approach for project teams
- 1990 - 1991: Concrete Constructions business plan for asset management and Refurbishment Division
- 1990: Freehill Hollingsdale Page review and recommendations on Darwin Hotel complex project development team
- 1990 - 1991: Concrete Constructions information management strategy and implementation
- 1990: State Rail Authority locomotive maintenance value study
- 1990: Telecom Property Services business plan
- 1989 - 1990: Royal Agricultural Society relocation project initiation
- 1989: Financial appraisal of Sydney Eye Hospital
- 1989: Concrete Constructions strategic plan for information management of projects
- 1989: Public Works Department Sch ls Branch business plan and programme review
- 1989: Public Works Department asset management policy for public buildings
- 1988: Peddle Thorp and Walker information technology strategy
- 1987: Elcom NSW project management development
- 1987: State Rail Authority performance indicators and management control of capital works
- 1986: State Rail Authority workshops' recommendations
- 1986: Telecom annual report and corporate planning
- 1985: State Rail Authority Capital works strategy
- 1985: State Rail Authority records retrieval study
- 1984: Otis Elevator management development
- 1982 - 1983: State Rail Authority contract review
- 1980: AMP Society cost management procedures

Hotel & Resort Project Experience:

Tom has worked in various capacities on hotel and resort project developments.

- 1985 - 1989: Ramada Renaissance Hotel, Sydney where he was initially the project manager and later T.W. Crow Associates' director responsible for the project involving 600 beds and a five star standard
- 1979 - 1981: Regent Hotel Melbourne where he was development manager for the AMP Society involving both the 400 bed hotel, 100,000 sqm offices and 50 small shops
- 1972 - 1973: Coral Gardens Hotel, Fiji where he scheduled overseas deliveries and off site work for the developer, Noahs Hotels
- 1971 - 1972: Boulevard Hotel, Sydney where he undertook project scheduling for this 400 bed four star hotel for the developer Westfields

Other relevant experience includes:

- 1993: Damansara Utama Town Centre mixed development, Kuala Lumpur as project director of this A600M mixed development hotel, offices, retail and car park
- 1989 - 1990: Moran Hospital of Excellence, Gold Coast as project auditor and project management support consultant on this 300 bed hospital, hotel, office complex
- 1983 - 1985: National Australia Bank House, Sydney as project manager on this 40 storey office building
- 1975 - 1978: Northpoint Office/Retail development, North Sydney a project programme on this 35 storey office building with 50 retail shops
- 1971 - 1974: Royal North Shore Hospital, Sydney as project programmer for construction work on this 400 bed hospital addition
- 1970 - 1971: Sydney Opera House as project programmer
- 1971 - 1973: NSW Policy Headquarters as project programme for the developer and builder on this 20 storey building

He has also carried out building construction and project performance audits on the following projects:

- St. George Building Society Head Office, Sydney
- Hilton Hotel, Sydney
- University of Technology, Sydney