Robin (Bob) Kingston - Pioneer Engineer

(11 June 1926 – 15 June 2023)

Founding Partner and Chairman, Kingston Reynolds Thom and Allardice (KRTA)

Architects Engineers Scientists Planners

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OBITUARY

Bob Kingston's legacy as an engineer will be one of pioneer and explorer. In the 1950s he founded a private multi-discipline engineering and architecture practice when none existed. In the 1960s he successfully exported consulting services from New Zealand when few had done so, and in the 1970s and 80s he established his firm as an internationally recognised source of geothermal engineering expertise.

Driven by a strong desire to overcome the ups and downs of the New Zealand market Bob Kingston led consulting firm KRTA into the export of its consulting engineering and architectural services. In 1968 he began to search for work abroad, initially in fields like building design, in which the practice had its greatest strengths. There was, however, intense competition from larger consultants in fields like university building and hospital design. It became plain that a special skill was needed. For New Zealand this was represented by geothermal technology, but most of the expertise resided in the Ministry of Works and the Department of Scientific and Industrial Research (DSIR). Bob Kingston approached the Commissioner of Works and proposed that KRTA could act as lead consultants, allowing skilled staff to be seconded on an "as required" basis. Thus began an outstanding phase in the company's and the country's history.

Under Bob Kingston's leadership KRTA became the go-to consultant internationally for geothermal exploration and development. The firm built on the expertise available from the development of the Wairakei Geothermal Power Station to work with governments and other agencies around the world wherever the potential for geothermal energy existed.

He sustained his drive for work offshore for over two decades, involving the firm in developments in Thailand, The Philippines, Indonesia, Japan, Kenya, USA, Jamaica, Canada, and Papua New Guinea.

In the Philippines alone, from 1968 to 1986, KRTA engineers worked on three geothermal steam fields and power plants, totalling some 340 MW of power generation capacity - providing consulting services throughout: identification and initial evaluation of geothermal fields; exploratory drilling and testing to confirm a viable resource; design of steam collection pipeline networks; assessment and management of environmental issues; civil, structural, mechanical and electrical engineering design of power stations; supervision of construction; final commissioning and handover. Later work was to extend the installed power generation capacity in The Philippines beyond 800 MW.

The impact of these developments on local communities was considerable. Not only did the projects provide direct work for locals, but the existence of power generation capacity encouraged industries to locate nearby, boosting the local economies.

Peter Barnett, Manager of KRTA's Philippines Office from 1978 to 1998, notes:

Historically, these developments have led to the availability of geothermal power to some 10 million people throughout the Central Philippines. In the very early days of geothermal exploration and development in the Philippines, at the Tongonan Project on the island of Leyte, the enormity of attempting to develop a significant geothermal power plant was more than evident. Bob often mused that if he could achieve a single 100-Watt geothermal light bulb in the local village then all the effort would have been worth it.

With the passage of time, Bob's wish proved to be a significant understatement with the Tongonan field now developed to a power generation level of seven million times his original desire for 100 watts!

Bob never lost sight of the very great potential of Tongonan – he vigorously promoted the large-scale development of the field and the export of power both northwards to Luzon and westwards to Cebu via submarine DC cables, even before the first commercial power station was constructed. By 1997 all of this had happened, and The Philippines rose to become the second largest user of geothermal power in the world by that time.

None of this would have been achieved without Bob Kingston's vision, initiative, energy, drive, and persistence - or without his ability to develop and manage relationships with major offshore clients and then manage the KRTA human resources needed to deliver on commitments made.

The late Graham Wheeler, who took over as chairman of KRTA when Bob retired in 1986, took increasing responsibility as KRTA's geothermal expanded rapidly, building on Bob's initiatives in this area, and eventually becoming wholly in charge of the company's geothermal work internationally.

An insight into the challenges facing Bob Kingston in managing the geothermal projects is given in a quote by Warwick Tracey, a structural engineer who had worked on

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the Air New Zealand Maintenance base at Mangere and expected to continue with structural work on new jobs in New Zealand.

One afternoon in 1973 Bob Kingston said that he would like me to get involved in geothermal work. In particular, he was aware that UNDP needed an assistant manager in Santiago, Chile, for a year or so. He said he didn't need an immediate response from me, but could I let him know in the morning! At that time Julie and I had three young children and a new home we'd just finished building. To cut a long story short we decided that the answer had to be yes …

A notable non-geothermal project was a 600-bed university teaching hospital strategically located in Khon Kaen, North-East Thailand. The Thai government wished to establish a world-class facility to encourage development in the region. The hospital, known as Srinagarind Hospital, was built between 1976 and 1983. KRTA carried out all services from greenfield site exploration to commissioning and handover of all elements of this complex: architectural planning and design, civil, geotechnical, structural, mechanical, electrical, and cost engineering, construction monitoring and contract administration. The firm's services were funded by NZ Ministry of Foreign Affairs and Trade. At the time it was New Zealand's largest ever overseas aid project, negotiated at the outset by Bob Kingston.

Bob Kingston was born in Auckland on 11 June 1926 and went to St Heliers Primary School. He lived nearly all his life in Auckland. His daughter, Gill, recalls:

He was self-driven to achieve from a young age mainly to rise above living in poverty. He had gone to bed hungry so many times and he mentioned only having one pair of shoes and if they got holes in them, he had to sit at the cobblers in bare feet while they were fixed. His dream as a child was to be able to have enough coins in his pocket that he didn't know how much was there. At one stage he studied so hard to get ahead he used to ride his bike with a study book propped up on the handlebars so he could study at every second of his spare time.

The imminent war would have been an influence on the subjects my father took at Seddon Tech where he was a top student. Aircraft Trigonometry was one of his subjects. He was an accomplished cornet and trumpet player, gifted swimmer and athlete.

Bob studied engineering at Seddon Memorial Technical College in Symonds Street, Auckland. He joined noted civil engineers and bridge designers, Stanley W Jones and Ralph Adams (Jones and Adams) as a cadet civil engineer in the mid-1940s. By the 1980s he was chairman of KRTA, the 200-strong firm of architects, engineers, scientists, and planners, that Jones and Adams had become.

Jones and Adams became Jones Adams and Kingston in 1951, adding ex Ministry of Works architect, Ian Reynolds, as a partner in 1955. With the retirement of founders in 1957, civil engineer David Thom joined as partner, and in 1962, ex Ministry of Works structural engineer, Neil Allardice joined as partner, thus founding the multi-disciplinary practice of Kingston Reynolds Thom, and Allardice (later KRTA). *

The firm incorporated all the skills necessary for any project under one roof - architecture, planning, engineering (geotechnical, civil, structural, electrical, mechanical), and quantity surveying (cost engineering). A testing laboratory was established to support engineering investigations.

Former lead architect, Denys Oldham recently noted that:

KRTA led the field in the '50s '60s, and '70s. We all wanted to work there. The firm did consistently good work and one office wall was entirely covered in awards.

The KRTA New Zealand client list included: Central government agencies, notably the Ministry of Foreign Affairs Aid programme; NZ Co-Operative Dairy Company; Bank of New Zealand; Auckland and Victoria Universities; Fisher & Paykel; NZ Steel; Air New Zealand; Harbour Boards, and Local Authorities.

Notable projects carried out by the firm included: The School of Engineering, School of Architecture and other buildings at University of Auckland, Rankine Brown Librart and several other buildings for Victoria University of Wellington, Air New Zealand Maintenance base at Auckland Airport, factory buildings for Fisher and Paykel, production line buildings for New Zealand Steel.

Not surprisingly, Bob Kingston was made a Distinguished Fellow of IPENZ (now Engineering NZ) and, in retrospect, deserved wider recognition for his contributions to the engineering profession and New Zealand. He was nominated to be a member of The Explorers Club, perhaps in recognition of the time he spent in remote mountainous country assessing geothermal fields. But it could equally reflect his achievements in leading his firm into places where few had been before. All in the days before the internet.

Bob Kingston deserves his place in New Zealand history for establishing the first successful multi-disciplinary practice in Auckland, for initiating efforts to export New Zealand engineering skills, and for establishing KRTA and New Zealand as an internationally recognised and trusted source of advice for geothermal energy development.

His obituary notice in the Herald read:

KINGSTON, Robin (Bob). Peacefully, aged 97 years on June 15th ,2023 Dearly loved husband of Maureen. Loved and respected father of Brent, Ross and Gill. Special Poppa of Dan, Wills and Ben and great grandad of Lily and his unborn great grandson. As per Bob's wishes a private cremation has taken place.

May Bob Kingston rest in peace, having left the world a better place and having had a positive influence on many engineering and architectural careers and having helped improve the lives of many in developing countries through geothermal power and other developments.

* Following Bob's retirement as Chairman the firm merged with noted Wellington firm, Morrison Cooper, to form Kingston Morrison, which later became part of a large Australian-based firm Sinclair Knight Merz, SKM. SKM subsequently became part of Jacobs, a large international consulting engineering firm which continues to offer services in geothermal energy development, with its core expertise in New Zealand.

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Compiled July 2023 by David Hopkins, a former director of KRTA and Head of its Buildings Division, with input from Bob Kingston's daughter, Gill Kingston, and from former KRTA colleagues, Norman Firth, Denys Oldham, and Peter Barnett, KRTA Philippines Manager from 1978 to 1998.

REFERENCES

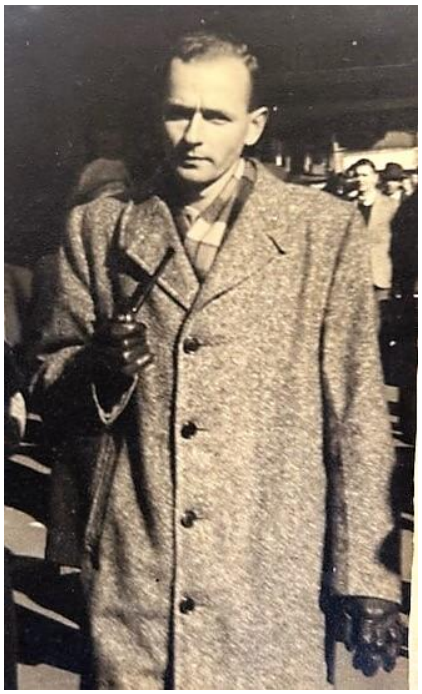
KRTA Geothermal History 1960 – 1985, by Norman Firth and Graham Wheeler.

Notes on KRTA History by David Thom.

Personal communications with Gill Kingston, Bob Kingston's daughter.

Notes by Warwick Tracey of his experiences working for Bob Kingston on geothermal projects at KRTA.

Obituary submitted to NZIA by Denys Oldham, July 2023.



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