

## Ian Thain (the 9th of July, 1937 – the 4th of April, 2021)

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### OBITUARY

Ian Alexander Thain was born in Scotland on the 9<sup>th</sup> of July 1937. His mother, Alexandrina, and his father Alexander were Psychiatric nurses at Montrose Hillside Psychiatric Hospital.

Ian's schooling was at Hillside Primary and then Montrose Academy. Ian was a self-made man. He got an apprenticeship as a fitter and turner with Coventry Gauge and Tool Company. Ian attended night school to get a mechanical engineering qualification. He cycled from Hillside to Dubton Station, left his bike there and took the train to Dundee where he studied.

As a young man, Ian enjoyed cycling, scuba diving and hill walking. He loved to travel and went on a bike trip across the channel to Holland and Belgium.



**Ian Thain in his youth (courtesy of Anne Thain and family)**

After graduating as a mechanical engineer in 1961, Ian worked at Chapelcross, the second nuclear power station in the UK. He moved to New Zealand in 1975 to work as a

senior engineer for the New Zealand Electricity Department (NZED) on a planned nuclear power station. Ian soon realised that Nuclear power would not work for New Zealand's seismically active setting. This was when he switched focus to thermal and geothermal power stations from 1977 to 1987. Ian became the manager of Wairakei and Ohaaki geothermal power stations for Electricity New Zealand (ECNZ) from 1987 to 1992, and from 1992 to 1996, Ian was the Geothermal Group, Technical Manager. He then started his own consultancy company, Geothermal & Energy Technical Services Ltd, and worked on several overseas projects, including work aided by the New Zealand Government. Ian was deeply involved in several aspects of geothermal power generation (Thain and DiPippo, 2015; Thain and Dunstall, 2001; Thain and Dunstall, 2000a Thain and Dunstall, 2000b; Thain and Freeston, 1995; Harper et al., 1995; Thain and White, 1993; Harper and Thain, 1992; Thain, 1990; Thain and Lyth, 1987; Thain, 1985; Thain and Stacey, 1984; Stacey and Thain, 1983; Thain et al., 1981; Thain, 1980). He was also a source of knowledge and a strong advocate of the direct use of geothermal energy (Thain et al., 2006). Some of his work includes the geothermal heating system at the Taupo Hospital (Febrianto et al., 2016) and the under-street heating in Rotorua (Thain and McGrath, 2014).

Ian was a New Zealand Registered Professional Engineer, a Fellow of the Institute of Mechanical Engineers, UK, and a Member of the UK IMechE Renewable Power Committee.

Ian was an inaugural board member and the First President of the New Zealand Geothermal Association (NZGA) from 1992 to 1998. In 1995, he was part of the NZGA team that enabled the setting up of the IGA secretariat within GNS, New Zealand.

He was also a Member Board of Studies of the Geothermal Institute, University of Auckland.

Ian was involved since 1985 when the preparations to establish the International Geothermal Association (IGA) started. In May 1989, Ian attended the founding meetings to organise the IGA structure (Board of Directors and Committees). Ian was a member of the IGA Board of Directors from 1993 to 1996, serving as Vice President in 1998 – 2001. For several years in the mid-1990s, he was on the IGA Information Committee, which produced the IGA News. He was also a member of the organising committee of WGC 2020 in Japan.

Ian became a life member of NZGA in November 2005 during the New Zealand Geothermal Workshop in Rotorua.

Her Majesty the Queen, the Governor-General and Prime Minister Jacinda Adern sent Ian and his wife Kathleen congratulations on their 60th Wedding anniversary on the 11<sup>th</sup> of June 2020.

All the people that knew Ian agree that he was a very energetic communicator and a strong advocate of the use of geothermal energy. He has been described by his colleagues as a pioneer, a lovely gentleman, a lovely chap, a giant of the industry, one of the real great geothermal engineers, a superb, jolly, convivial fellow, and a true friend.

Ian Thain passed away on Easter Sunday, the 4th of April 2021, after a short illness. He was surrounded by his family at Hawke's Bay Hospital, New Zealand: Dearly beloved husband of Kathleen; Much loved father and father-in-law of Alison, Anne and Tim, and Alan and Jan; Adored grandfather of Archie, Julia, Meg, and Lucia.

Ian will be dearly missed by his family, New Zealand, and the international geothermal community will remember him fondly. His contribution to the geothermal industry has been invaluable. He leaves a strong legacy within the geothermal community.

#### **Raffaele Cataldi**

In addition to a wide range of professional skills, Ian was endowed with many endearing human qualities (a friendly face with an open smile, a sense of humour, a tendency to make quips in the British style, and such like), and he had plenty of socio-cultural interests (food, tourism, environment, sports, politics, etc.) too; so, the people that he encountered quickly considered him a friend. With sports, in particular, he had a special love for sailing (perhaps he too was a sailor), and America's Cup is likely to have been the height of his passion, especially after the 1988 contests, when the New Zealand boats started to become the leaders. As for myself, though loving sports in general, I barely knew any sailing terms until 30 years ago: the America's Cup was not very popular at the time, IGA had not yet been founded, and I had met Ian only a few times.

In late April 1992, however, when Ian and I were attending a meeting somewhere in the US, the Louis Vuitton Cup (to determine the challenger of *America*, the US defender of America's Cup) had reached its final round in San Diego (California, US). The finalists were *Il Moro di Venezia* (The Moor of Venice) for Italy and *NZ Challenge* for New Zealand. Therefore, the occasion was propitious for me and Ian to exchange teasing quips on the hard-fought races in that round; but finally, *Il Moro* beat *NZ Challenge*, 5-3. Then, I told Ian: "Don't worry Ian, *Il Moro* will win this year's America's Cup, and the next round to determine the challenger will take place in the northern Adriatic near Venice. The NZ boat will be the challenger and win America's Cup 1995 against *Il Moro*. So, I will buy two tickets for the finals, and you will be my guest in Venice during that time." Ian smiled ironically, undecided as to whether to thank me or not; but, regrettably, *Il Moro* lost 4-1 to *America*, and I did not get to invite Ian to be my guest in Venice in 1995.

Another opportunity for Ian and me to make fun of the skippers' talents and the technical abilities of the competing boats (*Luna Rossa* for Italy and *Black Magic* for New Zealand) occurred in early March 2000 during a meeting of the IGA BoD (we were in Antalya, Turkey, if I remember correctly), exactly at the time when the finals of the

America's Cup were under way in Auckland; however, I couldn't offer Ian a ticket on that occasion because *Black Magic* won the contest against *Luna Rossa* 5-0.

The last time I met Ian was in Melbourne, Australia, during WGC2015, but no international sailing contest was underway at that time, and we spoke on that occasion about things other than sailing. Subsequently, I had occasional contacts with him. However, after the New Zealand boat won again (7-3, this time) against *Luna Rossa* in March 2021, I sent Ian my compliments on the new victory of the *Kiwis* and remained in correspondence with him until the first few days of last April.

Shortly after Easter, Anne Thain told me the sad news that her father had died suddenly a few days before.

All of us, co-founders of IGA and geothermalist colleagues of the past generation, miss him deeply.

*Sit tibi terra levis*, Ian: "may the earth be light over you", and may you now rest in the peace of God.

#### **Ladsi Rybach**

I had the chance and pleasure to closely work with Ian for decades through IGA. I knew him already since 1985, when the preparations to establish IGA started. So I met him also at the meetings in May 1989, dedicated to organising the IGA structure (Board of Directors, Committees, etc.). The attached group photograph shows him standing in the top row, fourth from left.

Ian held important positions in IGA: Secretary 1995-1998, Vice President 1998-2001. During the latter period, I worked together with him closely and often for WGC 2000 in Japan: He was Audit Subcommittee Chairman in the Organizing Committee (OC), myself OC Chairman.

We had ten OC meetings 1997-2001, eight in Japan, one in California, one in Hawaii. Ian had to watch over finances, transactions, check all numbers, etc. - what a responsibility!

WGC 2000 went very well at three separate sites: Beppu, Kazuno, Morioka; the OC members were busy and very happy when the highly successful conference finally ended;

Besides all this, Ian was one of the real great geothermal engineers, and we owe to him in this respect a lot. And he was a superb, jolly, convivial fellow and friend.

Just one anecdote: Ian sat next to me at one of the several banquets during the start of IGA in early May 1989 in Castelnuovo, Italy; and when after the numerous dinner courses I should have to get served with the next course and wanted to abstain, he told me: "Ladsi - don't chicken out!". Although I have heard this expression for the first time, I understood it immediately. I will never forget it!

Ian will be dearly missed; the international geothermal community will remember him fondly.

#### **Ronald DiPippo**

Ian Thain was an engineer and a gentleman. I remember him especially for our collaboration on an article we wrote for the 2015 World Geothermal Congress. In 2014, Ian contacted me with some ideas he had about combining geothermal energy with the abundant forest residue from

the New Zealand logging industry. He had three novel schemes for hybrid geothermal-wood waste power plants, complete with hand-drawn sketches of the flow diagrams. He had extensive knowledge of both geothermal plants and the wood resource that we combined with my analysis of his proposed concepts to produce one of my favorite papers. The fact the Ian was my co-author made it all the more special.

But one other little story tells you more about the kind of person Ian was. In 1989 one of my first cousins, Kathy O'Neil and her husband Mike from Rhode Island went on vacation to New Zealand. They carried with them a piece of paper with Ian's name, just in case they were near Wairakei. One Sunday, they arrived at the Wairakei gate, unannounced, and asked for Ian. The person in charge told them he was at home, it being Sunday, but if they were related to a friend of Ian, they were also his friends. Ian was called and drove to the plant from his home and spent the next three hours showing them around the plant, inside and out. When I told Kathy and Mike of Ian's passing, all those memories came flooding back.

We will all miss Ian's ingenuity, his friendliness, and his humanity. May he rest in peace.



**Ian Thain working from home (courtesy of Anne Thain and family).**



**Ian Thain in Izmir, Turkey (October 2001), during the IGA board meeting (courtesy of Mr. Orhan Mertoglu, Turkish Geothermal Association).**

#### **Katherine Luketina**

As a consultant, Ian was for many years Waikato Regional Council's (WRC) go-to consultant engineer for matters associated with the operation of geothermal power stations and how that might affect the environment. His in-depth understanding of the workings of the Wairakei and Ohaaki power stations was of invaluable assistance to WRC's policy development and resource consent decision processes on several occasions. He had a rare ability to explain technical details in a way that got the message across to lay audiences, such as hearing panels. This was in part because he was never showy, always delivering his message in a modest, unassuming manner that nevertheless carried great gravitas and commanded respect.

Ian had a wide range of interests within geothermal and provided WRC with a very useful presentation on Hot Dry Rock when that technology was first mooted as a possibility for New Zealand. He also was active in promoting and consulting on direct uses of geothermal heat in Taupō and Rotorua and was much sought-after by motels and other larger direct users for his specialist skills in that regard, which were second to none. When he finally retired from that role, it left a large gap in the skills base of tailoring geothermal heat exchanger systems to the resource and the demand. It was remarkable that someone who started out in nuclear energy in Britain then ran two large geothermal power stations in New Zealand should also have the zeal and the interest to make much smaller applications one of his areas of special interest.

Ian was nothing if not practical, and as well as being an expert in geothermal engineering, he was a very astute guide to good dining in Taupō. You knew that if Ian recommended a restaurant in Taupō, it had nothing to do



with the prestige of the place and everything to do with the quality of the food and the service. When in Taupō, I still favour the eateries that Ian recommended to me. They are the ones that have lasted.

One thing I will miss most about Ian following his passing, apart from the fact that his awesome expertise is no longer on call, is his beautiful, strong Scottish accent with the rolling 'rrrr's, always delivered with humour and courtesy.

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**May 1989, Pisa, Italy, the IGA founding members meeting, Ian is the fourth from the left in the top row (photo is courtesy of the ENEL group)**