Richard Carter Prize

Geospatial engineer of the year 2010

Ian James Mathieson

Darrell Smart, Editor

Ian suffering for his profession, during a break from his passion, in Egypt.

RICHARD CARTER was a young land surveyor who was killed whilst working overseas. He was an active member of the institution who was extremely passionate about the education and training of surveyors, and had bequeathed a percentage of his estate to the institution to fund an award in his name. Every two years, the institution awards the Richard Carter Prize to a geospatial engineer who is judged to have made an significant difference to the civil engineering surveying industry, either individually or through team leadership. The prize, open to all and not restricted just to institution members, consists of a certificate and a cheque for £500.

The winner of the Richard Carter Prize for 2010 was ICES fellow Ian James Mathieson. Ian, a former mining surveyor and geologist, was awarded the prize in recognition of his lifetime's dedication to the profession of civil engineering surveying; specifically for his huge contribution and work on the Saqqara archeological project in Egypt. Sadly, Ian passed away shortly following his nomination. The award, presented by ICES president Ken Hall at this year's institution dinner on the *SS Great Britain*, was accepted on Ian's behalf by his wife Anne and son Malcolm.

On receiving the award, Anne Mathieson spoke affectionately about Ian's passion for the profession:

"Ian was very proud to be called a surveyor. He had gone straight from school into the army just before the end of the Second World War and after training at Heriot Watt in Edinburgh, he worked for a few years for the National Coal Board. But it was joining Hunting Surveys in the 1950s that satisfied his desire for travel and, dare I say it, adventure.

He thought at that time that he would be joining Fuchs' expedition to the Antarctic, but instead found himself mapping the courses of the Tigris and Euphrates rivers in Iraq. It was to be the beginning of a long and eventful association with the Middle East. Only this year, the newspapers reminded me that half a century ago, Ian was in Pakistan (called West Pakistan at that time) mapping more rivers. His projects were the Indus links canals and later the building of the Mangla Dam.

Some years later, while working in the deserts of Saudi Arabia, Ian was asked by the Geodimeter company to endorse its product and to define what was required of a modern surveyor. This is what he said:

> *'Training and intelligence are not enough. I don't know of any other field where the importance of experience is as pronounced as in surveying. A survey team must be able to function completely isolated from the rest of the world. They must be able to foresee problems, make quick decisions and, above all, appreciate the consequences of these decisions. In this part of the world, they also have to be survival experts.'*

From boyhood, Ian had been fascinated by the Roman remains that were accessible in Scotland. He claimed to have walked every Roman road in Scotland and soon realised that aerial photography showed up archaeological remains very clearly. Archaeology was to become one of his hobbies and he soon began to apply his skills to that science.

But it was the ancient civilisation of Egypt that really grabbed Ian's imagination and from 1967 when he visited the monuments for the first time, he was determined to use his knowledge to simplify the discovery of what lay beneath the sand. His methods progressed through resistivity, proton magnetometry, gradiometry and finally to ground penetrating radar and, once Ian retired, he had more opportunity to spend time thinking about various methods of remote sensing. While experimenting with resistivity, Ian found it proved to method for finding the remains of kilns; allowing archaeologists to learn more about ancient pottery making. On a visit to the United States, long before 9/11, Ian purchased a proton magnetometer from its inventor. He sailed through Boston airport without anyone even querying what this strange instrument might be. At Glasgow airport, when he declared it at customs, the officer was fascinated and declared he was the most interesting person he had interviewed in many a day.

Being a surveyor's wife gave me and my children the opportunity to live in countries and learn about other people in a way that most never get the chance to do. So we are all very grateful to the surveying profession. On behalf of myself and the family, I thank you for the honour you have extended to Ian."

In 1990, Ian was granted permission by the Supreme Council of Antiquities in Cairo to launch a large-scale survey of the Saqqara plateau near Giza. The site of a step pyramid; the 4,500-year old monument to King Zoser and his architect Imhotep. It was Egypt's only Scottish-based project and was described as the largest concession run

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by the smallest country. The idea was not to do any extensive excavation, the usual aim of archaeological missions, but simply to make a map of what lay under the ground. Some of the area had been excavated in the past but was now covered by wind-blown sand and many of the records made over the past hundred years had been lost. Ian spent decades developing non-intrusive underground surveying methods to aid archaeology. The aim was, and still is, to create a map of that great expanse of sand which will allow archaeologists of the future to pinpoint areas of interest. The latest maps show wonderful details of the mysteries that lie beneath the sands of Saqqara.

In 2005, Ian established the Scottish Egyptian Archaeological Trust so that the work of the survey of the Saqqara Plateau would continue. His contribution to Egyptian archaeology was held in such high regard that his name is inscribed, along with Howard Carter's, in the recently completed Imhotep Museum at Saqqara. At the request of Anne and her family it is to the trust that the award money will go.

You can support the Saqqara Geophysical Survey Project through The Scottish Egyptian Archaeological Trust. Enquiries and donations may be sent to: David Heggie, Secretary and Treasurer, 36 Hallhead Road, Edinburgh EH16 5QJ www.glasgowlife.org.uk/museums/projects/saqqara

ICES president Ken Hall presenting Anne Mathieson with the proceeds of the prize.

The institution would like to thank all the candidates who participated in the award. The judging panel — the chairs of the Geospatial Engineering Practices Committee and its specialist panels — was extremely impressed by the high quality of the nominations this year. Congratulations to the other shortlisted finalists; Mark Greaves (Ordnance Survey), Jim Kelly (Land and Property Services) and Mike Silvester (Warner Land Surveys).