



*Baron*

**Cecil Augustus Hart, CMG,  
TD, DSc, PhD**

who was born on 4 November, 1902, died on 27 July, 1970.

Educated at the County Grammar School, Dover, he studied engineering at University College, London, taking his BSc(Eng) with first class Honours in 1923. In the same year he gained with distinction a Diploma in Civil and Municipal Engineering, and later received an MSc. In 1939 he was awarded a PhD for his thesis on air surveying.

His practical experience was at Dover Engineering Works and Tilmanston Colliery, Kent, before university and during long vacations. From 1923–24 he was employed by Surrey County Council on various

development schemes and surveys and in 1926 was engaged first as assistant in Municipal Engineering and Surveying at University College, later becoming assistant lecturer, lecturer, senior lecturer, and finally in 1936, Consultant in development schemes and surveys.

Cecil Hart was to initiate the application of radar to surveying and the use of air photography in this field. During World War II he served with the Survey Branch of the Royal Engineers with the rank of Lt Colonel. With Dr E. A. Miskin he pioneered the development and use of radar-controlled air photography: many articles and reports were written jointly by the two men. At that time large areas of enemy-held territory, particularly in the Far East, were practically unmapped, and Hart's use of aircraft equipped with radar to build up tactical maps of great accuracy was the perfect answer. He was chiefly responsible for the accuracy of field maps for the troops (230 million were printed between January 1941 and August 1944), and served first at the War Office in charge of Survey Research, introducing radar navigation to survey and geodesy. Later he was transferred to the Air Ministry before being sent to the Middle East and South East Asia. He was demobilized with the honorary rank of Lt Colonel, RE, and for his work at the War Office was awarded the Murchison Grant of the Royal Geographical Society in 1946.

After the war Dr Hart left the army and became Professor of Surveying and Photogrammetry at University College—the first such university post and department in the UK. While lecturing there before the war he, as a civil engineer, had been quick to realize the potential of photogrammetry in his profession and made a particular study of the subject.

Having consolidated this work, his restless energy turned to fresh fields and in 1950 he accepted Mr Nehru's offer of the Vice-Chancellorship of India's first technical university at Roorkee. Three years later he went to Africa as

Rector of the Nigerian College of Arts, Science and Technology, and in that capacity built up from very small beginnings the three branches of the College—at Zaria, Enugu and Ibadan. In so doing he laid what proved to be the foundations of three flourishing universities, including the first national school of engineering at Zaria.

He was created CMG in 1958.

Returning to England in 1960, he became Director of the London Master Builders' Association—a position he held until 1963. There followed a number of overseas missions in which Dr Hart was able to use his unique experience of engineering education in Asia and Africa. In 1964 he headed a British technical assistance mission appointed under the Colombo Plan to make recommendations for the development of the Singapore Polytechnic, with particular reference to engineering degree courses. For UNESCO, he was co-leader in 1966 of a seminar held in Bombay on Technical Education in Asia: UNESCO also made him available to the Government of Iran in 1968 to assist in the planning of a conference on higher technical education. Also in 1968 he visited Pakistan under Colombo Plan arrangements to advise on equipment supplied by the British Government for engineering universities and colleges in that country.

Perhaps the most important of these missions took place in 1964 when Dr Hart was commissioned by the British Government to report with an American colleague on the development of the SEATO Graduate School of Engineering in Bangkok into a major autonomous institution to serve the region's needs more fully. Its re-establishment as the Asian Institute of Technology in 1967 was based mainly on their recommendations. The Institute soon gained wide support and a reputation for academic excellence, building up its student population from 89 in 1964 to 200 in 1970, when students arrived from 18 countries, ranging from Turkey and Iran in the West to Japan and Korea in the East. A strong advocate of teaching engineers in their own environment, Dr Hart would have been especially pleased that more than 90% of GSE/AIT\* graduates are now working in Asia and that to satisfy expanding demand AIT is building a major new campus outside Bangkok.

He contributed a number of papers on civil engineering and surveying to technical journals, including the first two papers on surveying from air photographs fixed by remote radar control which he delivered in 1946 to the Royal Society Empire Scientific Conference. For another paper, presented to the Institution on 'Photographic surveying in relation to road engineering in highly-developed countries' he and his co-author were awarded the Telford Premium (see under).

During the forties and fifties, Dr Hart served on a number of professional committees in addition to his academic appointments. From 1946–50 he was a member of the Air Photography Research Committee, Ministry of Supply, had a seat on the Joint Advisory Survey Board of the Air Survey Sub-Committee and was a member of the Board of Management Association for Planning and Regional Development. In this same period he was also a member of the Survey Committee, Royal Geographical Society, and a corresponding member of the International Association of Geodesy. From 1947–50 he was on the Council of the Royal Institution of Chartered Surveyors

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\* Graduate School of Engineering/Asian Institute of Technology.

and in 1948 on the Council of the Institute of Navigation. In India in 1950 he was a member of that country's Engineering Research Council, Civil Engineering Research Committee and Building Research Committee. From 1952–53 he was President of the Institution of Surveyors, India, and in 1958 a member of the Scientific Council for Africa. In the same year he became a member of the editorial board of the International Society of Photogrammetry. From 1966–69 he was a member of the Council of the Lord Kitchener National Memorial Fund.

In 1969 he was retained as part-time Consultant to the Open University, at Milton Keynes, Bucks, with particular responsibility for advising on relationships with industry and the professional and scientific institutions. In the course of his duties Dr Hart was in close touch with professional engineering institutions and the CEI. Only a few days before his death he attended a meeting of the CEI Education and Training Committee to discuss the University's proposals for degrees in technology.

He was on the Institution's Roll for 39 years. Elected to corporate membership in 1931, he was transferred to the senior grade in 1949.

He is survived by his widow.

*Author of:*

*Books:*

- with Prof. H. J. Collins, 'Principles of road engineering', † London. Arnold, 1936.
- 'Air photography applied to surveying.' London. Longmans Green, 1939. (Several editions.)

*Papers:*

- 'Modern influences on the university aspect of professional training and surveying.' Lecture at University College, London. Jan. 1948. Tract 8vo. Vol. 724.
- 'Some war-time applications of air survey, including employment of radar for remote control, and their effect on survey and photogrammetry in peace.' CEW 3, 269 (1948).
- with B. F. J. Bradbeer, 'Photographic surveying in relation to road engineering in highly-developed countries', D (Road) No. 26 (1947–48), 3. Discussion: 33. *Awarded Telford Premium.*

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† This was a standard book on road engineering for some time.