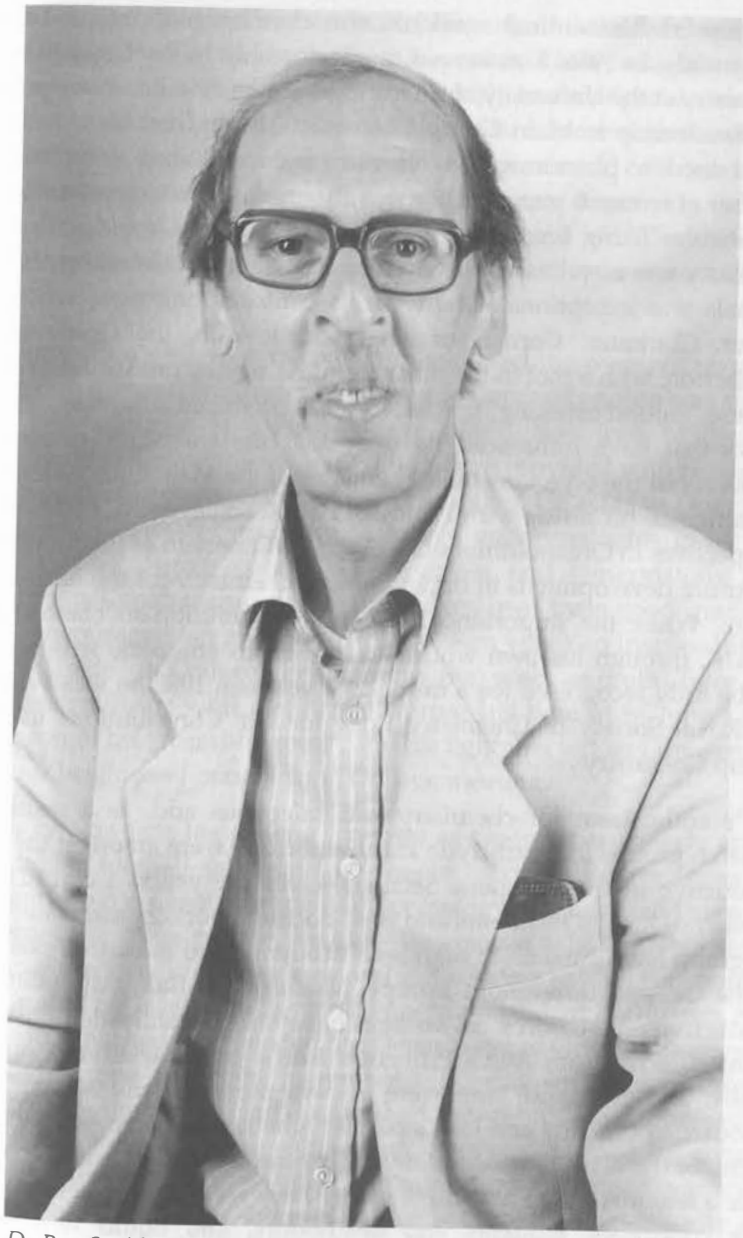
OBITUARIES

Dr Ron Snaith, 1947-2000

The whole of the chemistry community, as well as Ron's many friends and colleagues in his other spheres of life, were deeply shocked and saddened by his sudden death on New Year's Day. Ron had been diagnosed with a serious illness some little while before Christmas, and was fighting it with his normal resolve, humour and true 'Yorkshire grit', when he collapsed at home and died in Addenbrookes Hospital a few hours later. Ron leaves his wife, Jane, and two children, Tom and Katie. Jane works in the Department of Genetics, in Cambridge. Tom is in his final year at the University of Durham, reading Chemistry, and Katie is in her second year at the University of Newcastle, Northumbria. The thoughts of all who knew Ron and his family are with them at this very sad time.

Ron was born in Kingston-upon-Hull in August 1947, and was fiercely proud of his Yorkshire heritage. Ron studied Chemistry at the University of Durham between 1965-1971, graduating with a 1st Class Honours Degree in 1968, and then going on to read for a PhD, in Pure Science, under the supervision of Professor Ken Wade, FRS. His PhD was in the general area of Main Group Co-ordination Chemistry with particular reference to the investigation of the nature of covalent bonding between organo-nitrogen ligands and metals and semi-metals. Once his thesis was completed Ron then embarked on a career in school teaching. He took a PGCE in the Department of Education at Durham, and then taught at the Durham Johnston Comprehensive School between 1972 and 1979, where he soon became Head of Chemistry.

During his teaching career he kept in close touch with Professor Wade and they published a number of research papers together. His interest in chemical research, coupled with encouragement from many of his friends, who had identified his outstanding flair and enthusiasm for the subject at an early stage of his career, was instrumental in his return to university teaching and research. In 1979 he took an appointment as Lecturer in Chemistry, at the University of Strathclyde, where he



Dr Ron Snaith

commenced his seminal work on the chemistry of organo-lithium compounds. In 1986, Ron moved to a lectureship in the Department of Chemistry at the University of Cambridge, and in 1998 he was appointed to a Readership in Main Group Chemistry. Throughout his career Ron maintained a phenomenal work-rate and published a prodigious number of research papers in top quality international journals. He had a particular liking for *Chem. Commun.* and *Angew. Chemie*, and as his chemistry was novel, innovative and exciting his success rate with these journals was exceptional. Many of his contributions were written in 'Chem. Commun. Corner' of his favourite pub, the Grapevine in Comberton, with a pint in the other hand. As well as producing over 100 of these 'ground breaking' articles, Ron has produced a number of major works that have influenced the way that the chemistry community thinks about the organometallic chemistry of the Main Group elements. In particular, his article with Professor P. v. R. Schleyer on 'Patterns and Perspectives in Organolithium Chemistry' will remain as the foundation for future developments in organolithium chemistry for the foreseeable future. While the importance of Ron's contribution to chemistry in the UK, through his own work and that of his students, will perhaps not be fully recognised for a number of years, in 1995 he was awarded the Royal Society of Chemistry Prize for his 'Contributions to Main Group Chemistry'.

Ron's enthusiasm for chemistry was infectious and, as a result, his research groups in Strathclyde and Cambridge were amongst the most productive in the Inorganic Sections. Over the years, a considerable number of his PhD students and post-doctoral workers associated with his group have gone on to high level academic and industrial positions in the UK and throughout Europe. Much of the flair, originality and productivity that Ron's co-workers have subsequently demonstrated stems directly from Ron's influence. Ron's group was very much a family, and Ron and Jane were always there to lend support and encouragement. Ron and Jane's parties, whether it be to celebrate Burns Night, or the New Year, or for any other reason that they could think of, were a feature of the Cambridge scene. They were always very popular with colleagues, students and neighbours, and liquid refreshment flowed unabated until the 'wee small hours'. Ron's pub quizzes were

also a feature of life in Comberton. Ron organised these for charity, and in addition to the locals in the Grapevine, there was always an enthusiastic, although not always particularly knowledgeable, turn-out by Ron's research group and colleagues. On a more serious note, in times of crisis or misfortune for any of their friends and colleagues, Ron and Jane were always among the first to appear, dispensing comfort, support, good humour and, on occasion, financial aid. They are both owed a great debt of gratitude by the many that they have so selflessly supported over the years.

Of course, Ron's interests in chemistry and teaching were not restricted to the Department. Soon after he arrived in Cambridge, Ron was elected to a Fellowship at St John's College (1989). Ron took to the new opportunities that membership of the College provided with relish, and became a very active member of the Fellowship. He acted as Director of Studies in Chemistry, teaching St John's undergraduates in all four years of the degree course. His lectures and supervisions were inspirational, and many of his supervisees owe their good grades to Ron's encouragement and perseverance. Ron was also involved in the pastoral side of College life, holding the posts of both Tutor and Admissions Tutor with distinction during his time at St John's. Ron never forgot his 'Yorkshire roots', and his lightning wit and dry sense of humour brightened many a long College meeting.

In his cv Ron lists his general interests as 'Sports, particularly cricket and rugby football (although no longer 'active'), poetry (from the Romantic to the 'Great War' poets), Egyptology, and wine, and above all (according to other people, he says) he enjoyed talking'. This simple statement reflects Ron's modesty and self-effacing nature. For example, he acquired his interest in Egyptology, while a student in Durham, from Professor Thacker, who headed the Department of Oriental Studies. He quickly became an expert in the subject, being involved in original research in the area. Had he wished he could have pursued an international career in the subject, but contented himself by giving a series of invited lectures on 'Egyptian Mummies' to a variety of audiences. As with his chemistry, Ron lectured with authority and enthusiasm, and did much to popularise the subject. While his

cricketing prowess is less well documented, he generally managed to find time to be in the vicinity of a test ground, during an international match, on one or two days each summer. He usually returned, saddened by the state of English cricket, and muttering 'I could have taught these youngsters a thing or two!' We are all sure that he could. As well as his outstanding intellectual ability, one of Ron's main attributes was that he cared passionately for and about people. He would always support the oppressed, the disadvantaged, the underdog, and would work tirelessly to improve their condition with no thought for himself. He applied these ideals to chemistry, to College, and to life in general. His straight talking and honesty were valued by all and he quickly gained respect in all spheres of life. He was able to put across his views with 'Yorkshire bluntness' but also with a wry grin and a sense of humour. He perhaps thought that he did not 'suffer fools gladly' but he was always ready to give the benefit of the doubt, and never seemed disappointed when others failed to live up to the high standards that he set himself. Many of us are grateful for his tolerance and patience. Ron could display a wicked sense of humour, but he always laughed with you, not at you. His gentle teasing was one of the many features that made being with Ron such a pleasure. He was always happy to take as good as he gave, and fiercely defended his love of Bob Dylan records against all the odds!

Ron will be missed by all his friends and colleagues as a generous, patient, selfless, understanding friend, as well as by the chemistry community as an outstanding scientist and teacher. It should be remembered, however, that Inorganic Chemistry in the UK is stronger because of Ron's presence and contribution. Finally, Ron would wish to be remembered as a family man. When it came to important issues the family always came first. He was intensely proud of the achievements of his wife and children, and their successes were far more often the topic of conversation than anything he had achieved himself. At this very difficult time Jane, Tom and Katie should be comforted by the fact that Ron has enriched many lives, and that through his influence many of us are better people.

Paul Raithby

Tom Hynes adds:

To those who did not see him in action it is hard to convey a true measure of Ron Snaith's contribution to College. A simple list of his major roles – Director of Studies, Supervisor, Tutor, Admissions Tutor, Council Member – impressive though it is, indicates nothing of the style or panache with which these tasks were accomplished. The sheer professionalism, organisation and attention to detail he brought to these jobs was obvious to all and was a source of inspiration to those working with and for him.

If Ron had problems, he hid them well, for the face we saw was invariably one of friendliness and good humour. This, coupled with the consideration he always had for others, meant that most people found working with him extremely easy. Ron was considerate to an uncommon degree. It was typical of this aspect of his character that, after his spell as Admissions Tutor was over, he would still often drop in to the Admissions Office for a chat or to lend a hand. At frantic times of the year, when things were looking grim, quite often there was Ron, unbidden, 'just happened to be passing', an instant raising of the spirits, a useful extra pair of hands. Attending meetings with Ron was something of an education, for he had an uncanny understanding of meeting dynamics. His contributions, direct and sharply focused, would either make telling points or would re-focus discussion when the danger of wandering off the point was looming large. When these were made with his inimitable, sometimes devastatingly humorous delivery, the mood of the meeting would immediately lighten. It seemed to make giving in with good grace, as Ron would always do, an almost attractive proposition.

Ron's tolerance and inexhaustible patience with others was put to good use when he ran Admissions. Whether it was answering letters of complaint from unaccepted applicants or refereeing disputes among Tutors and Directors of Studies about the numbers admitted in their subjects, he gave generously of his time to consider all points raised and to explain in detail the reasoning behind decisions. Balancing the various conflicting interests was a virtuoso performance on his part and

the system of formulae he refined to distribute places across subjects was a classic of its type – apparently simple with hidden subtleties. We all appreciated the simplicity, for we could see that things were fair, while he always managed to exploit the subtleties to nudge us into being sensible. He ran Admissions' Meetings, tapping away on a calculator, performing wonders in helping us to squeeze extra entrants from our all-too-meagre rations dictated by the formulae. We marvelled at his virtuosity. Moira Lyes, the Admissions Tutor's Assistant, told me some time later that she did not think there had ever been batteries in that famous calculator. Whether that is true or not matters not, the outcomes of Ron's Admissions' Meetings were invariably judged to be as fair as these things can ever be.

It was all too easy for us to rely on Ron as the ultimate friend in need. When candidate lists neared exhaustion for soon-to-be vacant jobs, despite the feelings of guilt for asking him to take on something else, there was always the possibility of asking Ron. When considering such requests, his first question was invariably 'How desperate are you ?' and you knew he would do it. A friend indeed.

Working with Ron was great fun.

Sir Hugh Casson, 1910-1999

There was a time, in the 1950s and 1960s, when Hugh Casson was the best known architect in Britain. This was partly due to his hugely successful role as Director of Architecture for the 1951 Festival of Britain, partly to his skill at talking and writing about architecture in a way which was immediately accessible and attractive to lay people, and not least because of the drawings and water colours with which he illustrated his articles.

When he arrived at St John's College in the autumn of 1929, Hugh was following his father Randal, a mathematician who went on to become an Indian Civil Servant. Life at Cambridge opened up for Hugh, as it has for so many people, a rich new seam of activity. Having done well

in Classics at his school, Eastbourne College, he sat for a Classics Scholarship, which he failed. This, one of the few failures in Casson's long life, resulted in his taking a far more rewarding direction. During his oral examination at St John's he was told that despite not being recommended for a scholarship, his written answer to a question on the Acropolis had been outstandingly good. Why not abandon classics "in which you are plainly not remotely interested" and develop his interest in architecture?

He entered the School of Architecture in Scroope Terrace, and from being a lethargic and morose teenager, his keen interest in everything he did was ensured. With the ferocious energy which would drive him through so many fields of play, he embraced the activities of both the School of Architecture and St John's. His father had rowed for the Lady Margaret Boat Club and suggested Hugh joined. Weighing less than eight and a half stone, he became cox of the first eight, and despite his general dislike of sport entered the oarsman's world with gusto, attending dinners and being photographed in rowing gear. On a more aesthetic level, he painted scenery for the Cambridge Festival Theatre every weekend and became Secretary of the University Architectural Society, luring such eminent people as Eric Gill and Robert Byron to speak.

His work suffered not in the slightest from these extra-mural activities, and he successfully juggled hours spent on the Cam with those spent on more cerebral pursuits to the apparent benefit of both, simultaneously developing his talents as a draughtsman to a very high standard. Just after he went down, the School Head, Theodore Fyfe, wrote a reference in which he said "he was one of the best students I have ever had in the School of Architecture at Cambridge, where he obtained the BA Degree in 1932 with a First Class in each of the three examinations of the architecture course." Awarded a grant from the Craven Fund for Travel and Study in Greece, he spent three months studying Byzantine brickwork (as well as sharpening the drawing skills for which he was already becoming known), before returning to England to take his second degree at the Bartlett School of Architecture of London University. Here he met, and later married, fellow architecture student Margaret MacDonald Troup.

Casson's subsequent life of achievement owed almost as much to his warm and charming personality as to his undeniable abilities. Until war intervened in 1939 he taught part-time at the Cambridge School of Architecture, and then worked in London in the office of his Cambridge Tutor Christopher (Kit) Nicholson. He was recruited into the Camouflage Service of the Air Ministry, spending most of the war years at Cheltenham. By now, he was writing and drawing regularly for many architectural publications, including most notably those of the Architectural Press, as well as for the general public. This diversification set the pattern for his life.

Kit Nicholson, by now his partner, was tragically killed in a gliding accident in the summer of 1948. Nevertheless, Casson accepted an almost simultaneous invitation to become Director of Architecture for the forthcoming Festival of Britain. In no small measure due to his total commitment, his persuasive charm, creative abilities and energy, the Festival was a brilliant success. He was awarded a knighthood in the 1952 New Year's Honours.

It was now that Casson became so well-known. But despite all the speaking engagements, the writing, the television work, and, most demandingly, the job he accepted as Professor of the new Interior Design Department at the Royal College of Art, he built up a healthy architectural practice with the young architect Neville Conder, who had held the fort whilst his own time was absorbed by the Festival. Casson Conder's architectural commissions were many and various, including corporate headquarters buildings, the planning and design of university campuses, the Elephant House at London Zoo and a fine new building for the Royal College of Art; but first, and perhaps most important, was the preparation of a master plan for the Arts Faculties on Sidgwick Avenue for the University of Cambridge. They then, over a period of about thirty years, designed many of the faculty buildings on this site, most regarded by the University and architectural commentators as handsome and functional contributions to the Cambridge scene.

Retiring after twenty three years at the Royal College of Art, Hugh Casson became President of the Royal Academy in 1976 where his work

to rescue that institution from a perilous financial situation and to promote it in the public eye earned him a fresh bout of recognition and acclaim. During all these hard-working years, he was a spokesman for architecture, contributing to radio programmes such as *The Critics* and fronting several television series. In addition, he became architect and friend to the Queen and the Duke of Edinburgh (designing the interior of Royal Yacht Britannia amongst other projects), wrote and illustrated several books – including *Hugh Casson's Cambridge* – designed opera sets for the Royal Opera House and Glyndebourne, and sat on innumerable commissions, committees and judging panels. His packed and eventful life was further rewarded when he was made a KCVO in 1978 and a Companion of Honour in 1985. Born on May 23, 1910, Hugh Casson died on August 15, 1999.

José Manser
(author of *Hugh Casson, A Biography*, to be published by Viking Penguin in August 2000)

Sir (Cyril) Humphrey Cripps, 1915-2000

The College was shocked and saddened to learn of the sudden death on 14 April of Sir Humphrey Cripps, the day after he had spent a happy morning in his office. In Cambridge, and in many other places, Humphrey Cripps was for over thirty years the embodiment of the Cripps Foundation. This was a charity established in 1956 by his father Cyril Cripps and himself, together with his mother and sisters, principally to help in building projects for Education, Health and the Church. It is likely that the benefactions of the Foundation to the university, seven colleges and other institutions in Cambridge represented the greatest munificence from a private source since the beginning of the sixteenth century. The huge benefits in cash were immeasurably extended by the vigorous and varied ways in which Humphrey deployed his boundless energy and enthusiasm in the interests of the beneficiaries, by his foresight and attention to detail and his formidable skills and experience as a businessman.

Humphrey Cripps was born in London, and moved with his family to Roade, a village about six miles south of Northampton. From the Primary School in Roade he won a scholarship to Northampton Grammar School, entering St John's in 1934 to read Natural Sciences, taking Part II Chemistry in 1937. Humphrey Cripps spent all his working life principally in the family business, Pianoforte Supplies Limited. The company was founded in 1919 by Cyril Cripps in London for the purpose not of making the complete instrument, but of supplying all the components in metal to the actual piano constructors. At the beginning of 1923, the business was moved from London to Roade. The firm also began supplying components to other trades, and notably to the motor industry, then in its infancy. The old trading title has been retained for sentimental reasons and because the name is not forgotten by friends and customers.

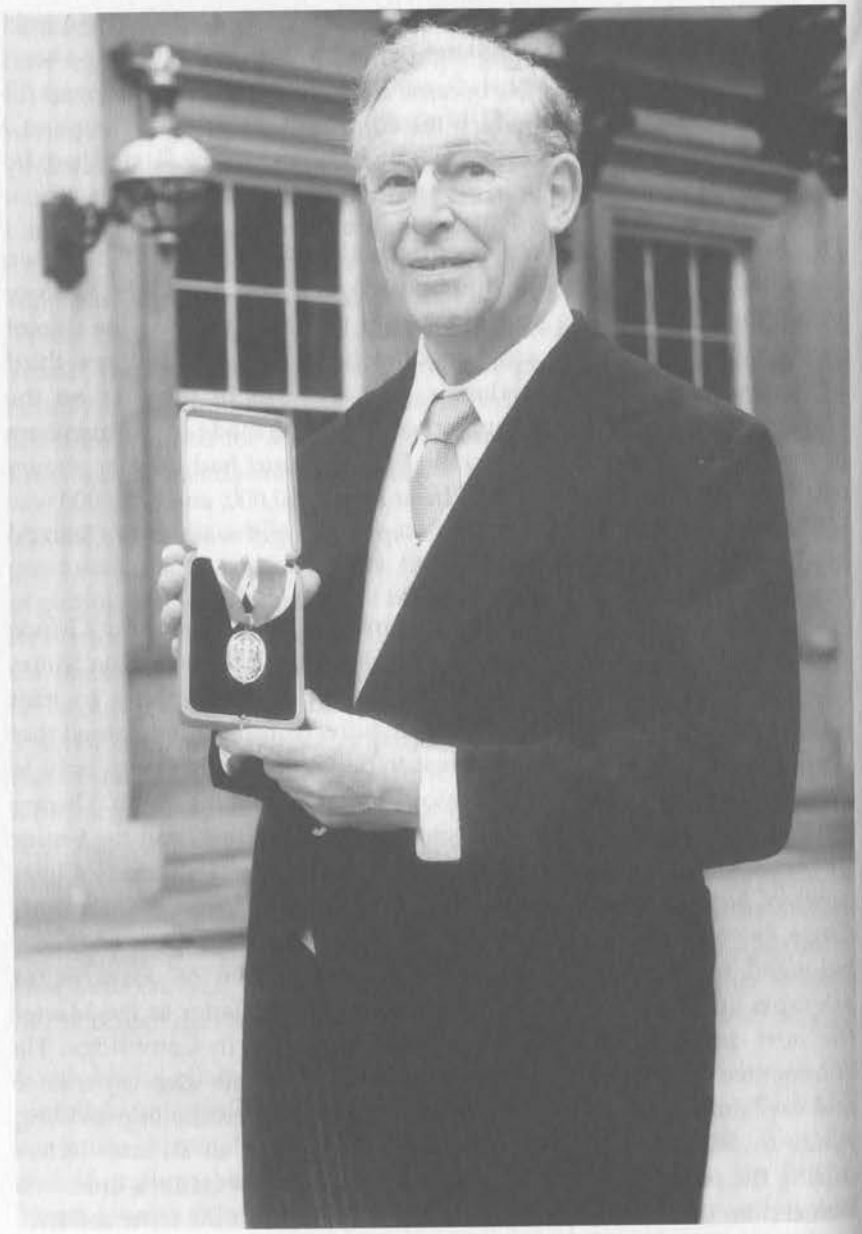
During vacations while he was an undergraduate, Humphrey spent a good deal of time working in the firm's electroplating departments, and in getting to know the nature of the engineering work in the firm. When he started work in earnest in 1937 he acted as Chemist in charge of all the electroplating, heat treatment equipment and process work. Later, he began to acquire the experience to control production and by early 1940 he was taking an active part in the management of the firm, by then extremely busy on war work. He became Assistant Managing Director in 1948, Managing Director in 1960 and Chairman in 1979. He was part of the team which after the war developed the business at Roade with the major construction of a new factory and offices there. Pianoforte Supplies was and remains a private company, the family having gifted their ownership to the Cripps Foundation and other charitable entities, which benefited from the success in the 50s and 60s of the British motor industry.

Humphrey's business interests quickly became international with the establishment of a branch company in Melbourne, Australia, which still continues. A metal tubing business was acquired in Toronto, Canada, and Humphrey also established a major holiday resort in the British Virgin Islands to help provide employment for the local population, and later with others set up an airline to fly tourists there. He was involved

in the early days of a new public company which was later renamed Velcro Industries NV, making light, flexible yet strong fixings with innumerable applications. He became a Director and was Chairman for over twenty years, during which the company grew into a prosperous world-wide organisation. Other enterprises were also established by Humphrey Cripps in London, the Home Counties and the Midlands.

The major work of restoration of Second and Third Court has been described by Alec Crook in his book *Penrose to Cripps*. The College increasingly realised the size and cost of the task, and also the urgent need for new buildings to accommodate the increase by about one-third in the number of undergraduates after the end of the war, so the Governing Body agreed that an appeal should be made to old members of the College. Tenders for work on Second Court had already shown that the cost of restoration would be at least £150,000, and £350,000 was mentioned for new buildings so the appeal target was set at £500,000 (equivalent to about £7 million today).

Soon after receipt of the appeal in January 1958 Humphrey Cripps wrote to the Master, Sir James Wordie, who had been his Tutor, expressing interest in helping with the appeal and asking to visit Cambridge to explain his position more fully. Humphrey explained that the Foundation wished their interest to be known at this stage only to the Master himself and to the Senior Bursar, John Boys Smith. During his visit he asked about possible sites for new building, and the Senior Bursar showed him three possible sites, including Fishponds Close, north of New Court. He asked who owned the land west of Fishponds Close, beyond the Bin Brook, and the Senior Bursar explained that it belonged to Merton College, Oxford and told him of unsuccessful attempts in the past to buy it. Cripps wrote a long letter to the Master the next day, confirming what he had said while in Cambridge. He commented on the tactics of the appeal based on his own experience and explained that the Foundation had the clear intention of providing funds to deal with the new buildings. In this and in all later letters during the project Cripps was careful to raise no expectations unless he was certain that they could be fulfilled; extracts from the letter follow:



Sir Humphrey Cripps

"As I have explained to you we are at present committed to complete a scheme involving the building of a hall of residence at Nottingham University for 200 men students, with all the necessary buildings, including dining hall, kitchens, library, warden's lodge and servants quarters. This will not be completed until the early autumn of 1959. This project naturally prevents us from being able to help the College until towards the end of next year, but from then on there is every hope that it could receive our major support.

"I would also suggest that with the distinct possibility of proceeding with the extension of the College buildings, the College Council should give serious consideration to an approach to Merton College, Oxford, concerning the grounds at the rear of New Court. I have often found direct personal contact is usually the most efficacious way of getting positive results. I do not know if this obtains in the academic world. I am sure the College is not lacking in able, diplomatic and skilful negotiators who could well succeed in such a good cause."

This letter demonstrated at once the firm intention of the Foundation to fund the building in a major way, its cautious and deliberate approach to matters, its aversion to publicity, and Humphrey's foresight in relation to the best site for the new buildings. Though he often gave advice, Humphrey never sought to interfere in matters of College policy and he thoroughly approved of the careful steps taken later by the College to decide on the site.* He was strongly in favour of the Governing Body choosing the architect, and also recommended early appointment of the quantity surveyor who, whilst working with the architect, was at the same time directly responsible to the College. In September 1959 Cripps wrote a further private and confidential letter

**John Boys Smith has described in his* Memories of St John's College Cambridge 1919-1969 *(page 235 et seq.) how he negotiated for the purchase of the Merton land, reaching a successful conclusion in April 1959. Alec Crook in* Penrose to Cripps *has described in detail how the College chose the site and the architects for the new building, and the progress of its construction.*

explaining that, provided the College Council agreed that funds advanced were earmarked for the new buildings, that interest should be earned until enough funds were available to make a start on the building, and that the Foundation be represented on the Buildings Committee that would control the building work in all its aspects, he would be hopeful soon to advance £75,000 and to repeat that gift about twelve months later. The Council accepted the conditions and agreed gratefully to accept the gift.

Planning for the new buildings began, in the hands of a committee which met many times over the next seven years – sometimes three times in a month. Humphrey Cripps attended all but a handful of these meetings, and at the outset he suggested that the Foundation had no wish to make any specific proposals as to the type, style or siting of the buildings, and wished only to stipulate that they should be well suited to the needs of the College in the foreseeable future, and of good design and materials. Within these limits they would retain a veto in case the plans proposed by the College should not be as good as they would wish. He hoped that the College would not at this stage contemplate extensive alterations to the old buildings and suggested that the number to be aimed for in new buildings should be 200 undergraduate places rather than 140, the initial target of the committee. He described to the committee diverse systems of accommodating students which he had personally inspected in Britain, the USA and Canada. Humphrey Cripps kept in close touch throughout not only by attending meetings but also with the Master, John Boys Smith, by telephone and letter.

Powell & Moya (the appointed architects) proposed anodised aluminium windows; Cripps questioned their expected life and suggested the use of bronze. Bronze windows were much more expensive, so Cripps offered to look into manufacturing them in his works. He soon reported that he could do this at about half the price of commercially available aluminium windows. Cripps later made a gift of the bronze windows and of other metalwork such as the long hinges, used in pianos, for wardrobes and cupboard doors. He was also insistent that the heights of the ceilings in the building should be greater than the UGC norm. He even went with members of the committee to

the stone quarries at Portland in Dorset to ensure that the highest quality of stone be chosen.

In April 1963 Cripps explained that he could now so arrange the flow of money that the full scheme could be carried through in one continuous operation without need for phasing. John Laing Construction Ltd had been chosen as contractors at the suggestion of Cripps, and the quantity surveyors (Gleeds) negotiated with them until a fixed price acceptable to the Foundation had been agreed and the order placed. Only at that stage, in July 1964, was the identity of the benefactor revealed in a public announcement in *The Times* and the *Cambridge News*.

Though Cripps's involvement with St John's has been described at length, the same imagination, attention to detail and use of Humphrey's ever-growing fund of experience in designing and constructing buildings were deployed elsewhere. The projects often overlapped in time, indeed friendships made in connection with one project sometimes led to another. Selwyn, Magdalene, Queens' and other colleges, and the Fitzwilliam Museum benefited in varying proportions from Humphrey's sound and far sighted advice, and gifts in kind such as handsome display cabinets made at Roade for the Fitzwilliam Museum. His insistence on quality of design and execution, value for money and careful control was not always easy to satisfy, particularly in periods of high inflation, but major benefactions from the Foundation were put to the best possible use.

It is not appropriate here to attempt a detailed account of works outside Cambridge supported by Humphrey and the Foundation. Reference has already been made to building in the 50s in Nottingham University; two Chairs were also founded there and other important buildings followed. It was fitting that an honorary D.Sc. was conferred on him in 1975; Humphrey remained in close touch with Nottingham University for the rest of his life. The General Hospital and several schools in Northampton and in the county of Northamptonshire benefited similarly, as did Peterborough Cathedral.

Humphrey's enthusiastic participation in the affairs of Cambridge (quite apart from its buildings) ranged from attending admissions of

Vice-Chancellors on 1 October to many attendances with Dorothea at May Concerts in St John's - and of course there were the Feasts. Having become an Honorary Fellow of four colleges, Humphrey was invited to feasts at all of those colleges and he rarely missed them and always enjoyed conversations before, during and after dinner, often until the small hours started becoming larger. The writer received a surprisingly diffident telephone call from Humphrey in 1982, asking whether the four colleges would take it amiss if he offered to endow a feast in each college, either a new one or an existing one at the discretion of the college. The answer was an easy one to give, and characteristically Humphrey was happy to tailor the arrangements to suit the wishes of the several colleges, in most cases by endowing existing occasions.

Not surprisingly, Humphrey Cripps was much in demand for Public Service, and despite his hectic business schedule and the equally time-consuming work associated with the Foundation, he was active, particularly in the county of Northamptonshire, in governing several schools and serving as the leader of the independent group on the Northamptonshire County Council, where he was influential in education, planning and in finance. He was appointed to the Board of Northampton Development Corporation in 1968 and served until the Board was wound up in 1985. He served as High Sheriff of Northamptonshire in 1985-86 and as Deputy Lieutenant from 1986-1996. Many friends remember a wonderful party in Castle Ashby during that period. He was elected Freeman of the City of London in 1957 and a Liveryman of the Worshipful Company of Wheelwrights. He was proud to be one of the few Wheelwrights who actually made wheels! He was appointed Master of that Company in 1981-82 and also became Liveryman of the Tallow Chandlers in 1983. This public service, and Cripps's major charitable activities, were recognised in 1989 by the award of a knighthood.

Though formidable in negotiation and on occasion forceful and stubborn in argument, Humphrey was a caring and compassionate man. Many people have been touched by quiet acts of personal generosity. He sometimes displayed almost childlike enthusiasms, for example in performing tricks with matchsticks. By way of relaxation in early years he studied British butterflies, involving hair-raising trips with his cousin on a motorbike, searching for rarer varieties. When his children were young he hugely enjoyed participating with them in model boat regattas during summers in Southwold, imbuing them with his spirit of competitiveness leavened by good humour. He was for seventeen years organising secretary of these events. Humphrey and Dorothea (who had been married in 1942) suffered the heartbreak of losing John, the second of their three sons, in 1989, and their daughter Eleanor in 1994. Shortly after Eleanor's death, Humphrey had to cope with his own gradually failing short-term memory. His dignity and sense of purpose together with great good humour and his longer term memories enabled him to cope and to keep involved with affairs as far as was possible, until the sudden yet painless end of his life.

It seems fitting to sum up Humphrey's life by quoting from the translation of the words of the Orator who presented him for his honorary LLD in the Senate House in 1976:

"He encourages work once started by his presence, and by his engineering experience and attention to even small details helps in the solution of problems, and that without any appearance of assuming command: his gifts exceed his promises, and he makes friends on all sides. "What is the use," he is reported to have said, "of having money, if not to help your friends?" Enquire of them and you will hear him described as a sincere good man, a man who radiates common sense, whom they delight to have as guest and companion as often as possible".

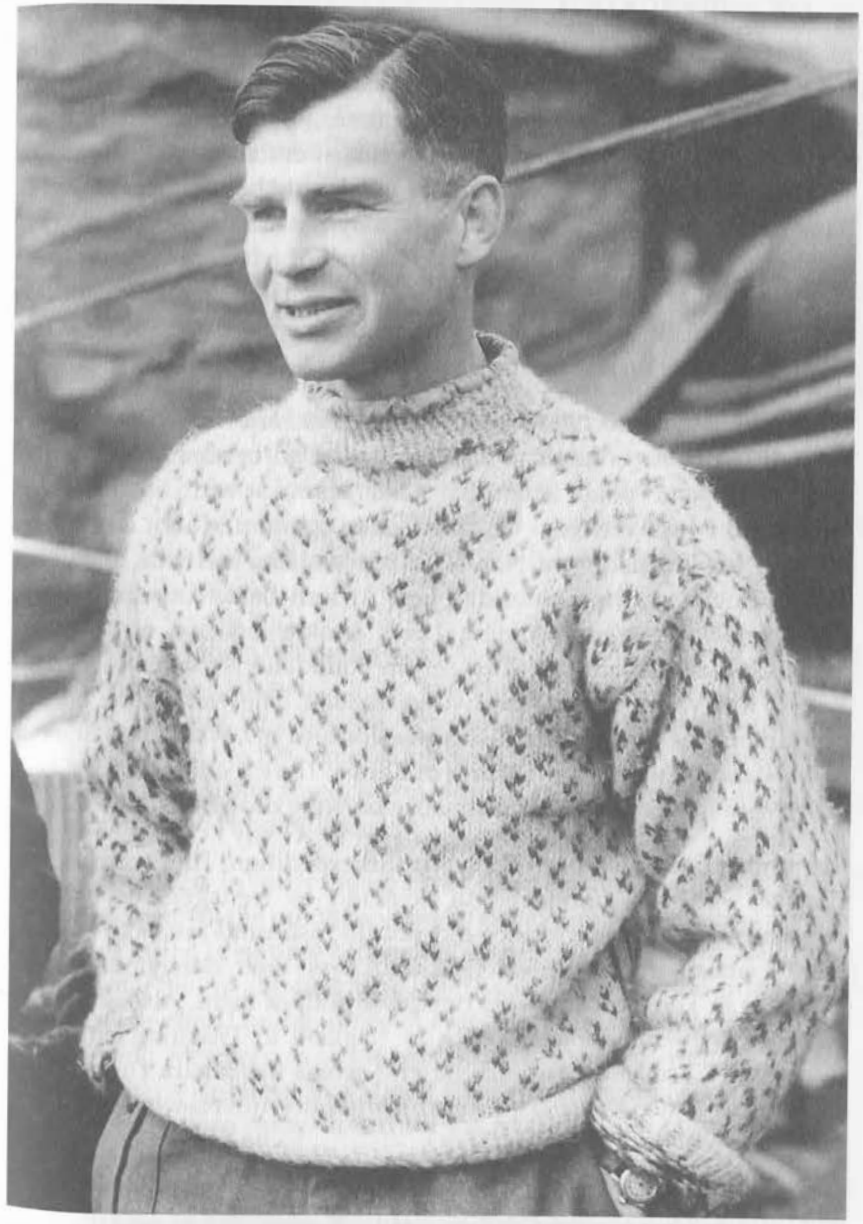
Christopher Johnson

Sir Vivian Fuchs, 1908 – 1999

It has been a strange and interesting experience to write my father's obituary for *The Eagle*. My intention is to show new angles on his life and possibly reveal to many people a different side to my father.

Those of you who have read his autobiography would observe that he was reticent on personal feelings. His obituary in the *Economist* touched on the reason. He might have been a disturbed child, but for two very stoical parents who supported all his activities, encouraging an inquisitive and open mind, especially in natural history. From his mother's diaries I am able to speculate how much he suffered from being the son of a German during the First World War. I doubt if many English people are aware these days how bigoted and cruel the English were to the Germans who had come to settle in England by 1914. My grandfather spent most of the war in an internment camp in the Isle of Man. Dad first went to school there, and saw his father from time to time when he was temporarily released from 'jail' or was visited in the camp. After a few years the family was allowed to return to Kent, with grandfather working for his wife's cousin as a gardener. It was then that Dad, after preparatory school, went to take up his place at Tonbridge School. He was informed that he could only go when all the English boys had taken up their places. As a result he went to a school in the Trent valley where he was bullied so badly that he begged his parents to take him away. From there he was sent to Brighton College – a welcome haven.

This account of his early childhood may answer the question of how Dad got his remarkable characteristics of grit, determination, self-containment, and his apparent lack of emotion. As the *Economist* said in its obituary, 'the bullying he experienced as a boy toughened him against future adversity and may also have taught him to keep tight control on his feelings. Criticised in later life by an interviewer for his reluctance to bare his soul, he retorted: "Why should I do so? I regard the influence of emotion as dangerous. Allow your emotions to control what you do and you are taking risks." . . . Vivian Fuchs was not a touchy-feely sort of person.'



Sir Vivian Fuchs

From Brighton, he came to St John's to read Natural Sciences, climb the roofs of the Colleges and enjoy the first taste of adulthood. During this time he travelled abroad on several occasions with his parents; his mother took up her travels of pre-war times with her financial capital recovered from the Government eight years after the end of the war. She was fluent in French and German, and you would have expected Dad to have taken up one or other, but there may have been a psychological blockage. Dad might have understood much of what was said in these languages, but I never knew him to use them in taking a foreign holiday or when travelling abroad for pleasure, other than the occasional trip with my mother on Antarctic business.

At St John's his Tutor was James Wordie, Shackleton's Senior Scientist from 1914–16. As a result of his influence Dad became interested in exploration and polar activities. After his trip with Sir James to Greenland where the team was the first to conquer Mount Petermann (9,175ft), his friendship with Louis Leakey lead him to Africa, first going as a geologist on the Cambridge East African Lakes Expedition, and immediately afterwards joining Louis Leakey on one of his early archaeological expeditions. This set the foundations for his own Lake Rudolf Rift Valley Expedition two years later. The work done on this expedition was the basis for his treatise for his PhD, which remains one of the standard works for that area of Kenya. The expedition ended very sadly with the loss of two colleagues who were drowned in the lake.

My mother had accompanied Dad on this expedition. They were second cousins who had holidayed in Scotland as teenagers on various occasions, but whose romance did not flourish until much later. They were married in September 1933 and took their honeymoon rock-climbing in The Dolomites. So typical of both of them. Also so typical was that they should travel back to England in 1934 overland from Kenya via Chad, northern Nigeria and across the Sahara Desert. That trip is a tale in itself, as indeed were my mother's travels whilst Dad was on his expedition.

In 1938 he joined the Territorial Army and in June 1939 was gazetted Second Lieutenant in the Cambridgeshire Regiment. I suspect that Dad

and the Army had an uneasy relationship, particularly as he was posted to West Africa where Fulani is the common local language, whereas he had told them that he was fluent in Swahili which is the 'lingua franca' in East Africa. Returning from West Africa he was involved in the Normandy invasion and in the latter part of the war earned his magisterial spurs as part of the Civil Affairs Detachment unit in the town of Plon in Schleswig-Holstein.

Being too young to remember or appreciate the situation after the war, I was unaware of his concern of what to do next, but papers reveal that a posting abroad was a real possibility, either as a geologist or a District Commissioner in the Colonial Service. Sir James Wordie came to his aid, however, and Dad was interviewed for a post in FIDS, Falkland Islands Dependency Survey, the successor to Operation Tabarin which set up bases on the Grahamland Penisular to prevent the use of key harbours as refuges for German raiders. The interview resulted in him being appointed as Field Commander for FIDS, based at Stonington Island, the southernmost base.

He and the ten others were marooned for an extra winter when the relief ship's passage was blocked by ice, and ever since they have been called the 'Lost Eleven'. As children, my sister and I recall the thrill of broadcasting via the BBC our all too brief messages at Christmas time. After the war a further absence was just part of the norm – snow and ice rather than bombs and bullets.

After his return in early summer of 1950, normal family life was instituted, with all the pranks and make-believe excitements that are the memories of the brief time between his return from war and departure to the Antarctic for the first time. Dad worked in London during the week, creating the London office of FIDS, building up the organisation, and fighting for every penny to keep the field teams well equipped. Soon the Trans-Antarctic Expedition (TAE) saga began, and what must be extraordinary to many is that for the family all the goings-on were just a normal part of life, the public exposure and the media confrontations. What was so noticeable was the enormous commitment needed to get the show on the road, and the sheer weight of opposing

views which had to be overcome. The turning point was when Dad was given the opportunity by Churchill to address the Conference of Commonwealth Prime Ministers to seek governmental support for the Commonwealth Trans-Antarctic Expedition. These were thrilling times for a teenager at school and became more so as the expedition progressed from the concern that m.v. Theron would become beset in the Weddell Sea (as had happened to Shackleton and the Endurance in 1915) through to the slow progress of the main party in the early part of the Crossing that created the 'Cause Célèbre', as it is now known. This was when Sir Edmund Hillary had the sheer audacity to suggest that Dad should give up the crossing at the South Pole, over-winter somewhere else, and return next season. The reply was typical, succinct, polite, but absolutely definite, and contained the following words: '. . . in view of your opinion that late season travel is an unjustifiable risk I do not feel able to ask you to join us at D700, in spite of your valuable local knowledge. We will therefore have to wend our way, using the traverse you leave at the Pole . . .'.

The crossing of the Antarctic was 2158 statute miles from Shackleton to Scott Base via the South Pole and it was completed in 99 days averaging 22 miles per day, compared with the estimated plan of 100 days and 20 miles per day. I wish that we all could forecast and complete our tasks with such accuracy and success under such arduous conditions. An example without exception of great leadership and sheer dedication to the task by a team of sixteen men, carrying out continuous scientific work. He was knighted as a result of this success, and received many other honours from around the world.

After TAE he returned to his post as Director of the British Antarctic Survey (BAS), as FIDS was renamed. Many a government minister attempted to haul in the reins on the level of expenditure by BAS, or stand in the way of building a new ice-strengthened ship. All to no avail, as often they found themselves authorising even higher expenditure. It was largely through a single man's determination and diplomatic skills that BAS became the premier scientific organisation in the Antarctic research by the time Dad retired in 1973.

In his retirement several organisations benefited from his experience (the British Association for Advancement of Science, the Royal Geographical Society, the Royal Society), but above all it was the numerous ambitious expedition leaders who were advised, encouraged and guided by a man who believed so wholeheartedly in individuals being motivated to fulfil their own potential. Many will remember him for the effect he had on their lives and careers.

I would like to end this obituary by quoting Dad on leadership:

'I find it difficult to speak about leadership, but I think perhaps some reference to it is necessary in this context [the context being Human Endurance]. I would say that man must have confidence in the leader and it is a good thing if they like him personally. They must have confidence that he will not regard any small mistake, or something minor which goes wrong, as of great importance. They must know that, if trouble comes, he will be resourceful rather than rattled. They must feel that he tries to understand them, and that he will settle their problems impartially – whether these be between themselves, or between an individual and himself. In short, he must be just.'

Peter Fuchs
(BA 1963)

Professor Michael Rex Horne, 1921-2000

I first met Michael Horne in the Engineering Department at Cambridge in 1952 where he was a member of a marvellous team built up by Professor J. F. Baker – later Lord Baker – to study the theory and design of steel structures. Lord Baker said of him "*. . . the width of his intellectual interest was impressive and his industry was almost alarming. All problems attracted him. If one was toying with some new and possibly promising development, it was as well not to mention it if one hoped to pursue it at leisure, otherwise Michael would breeze in next morning with a complete solution or the announcement that the idea was fundamentally unsound*".

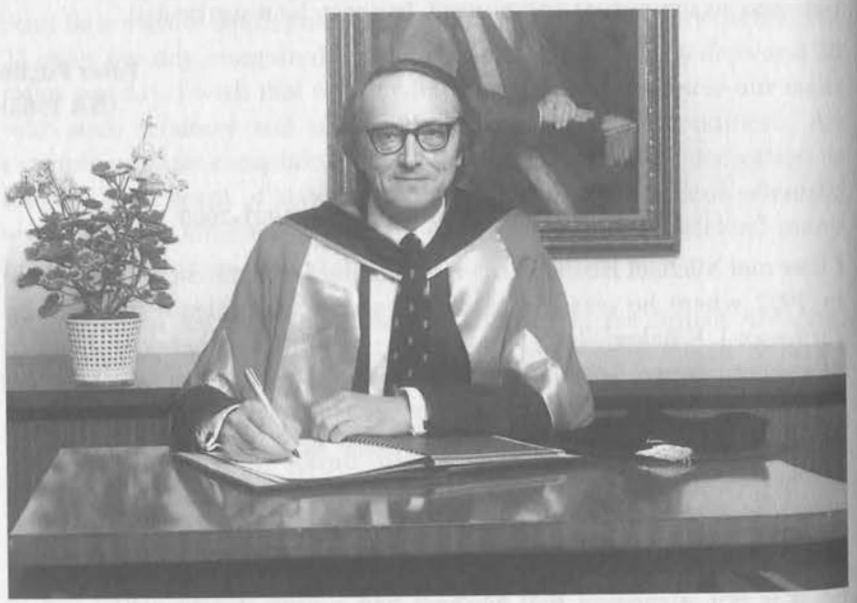
So it is not surprising that Michael had a very distinguished career. After gaining First Class Honours he progressed to Doctor of Science

and was elected a Fellow of St John's. It was his influence which led me, in 1960, to leave industry and join him at the University of Manchester, where he had just been appointed Professor of Engineering.

He was a wonderful mentor. Despite his workload he always had time to help and encourage his staff. I remember, in particular, one intractable theoretical problem that I had. He took it home to Buxton one weekend (much to Molly's chagrin, I am sure) and came back on the Monday with a complete elegant solution. I still have those papers, which I treasure.

Michael was not just an academic. Whenever possible he developed his analysis into a practical format so that it could be used by consulting engineers and designers. This involved attending many meetings in London of the British Standards Institution where he gave freely of his time and expertise.

Another powerful example of his selflessness occurred after the collapse of several box girder bridges in this country and abroad. Michael was asked by the Government to join the committee in London remaking the



Professor Michael Rex Horne

design procedures for this type of bridge. He worked tirelessly on this project which was urgent because, to reduce the load, such bridges were restricted to one-way working until they could be properly checked by the new design rules. It was said that 15 years' work was accomplished in 15 months.

Later on he was invited by the Government to chair the committee responsible for making proposals for the rational accommodation of services in our streets: gas, electricity, water, telephones and so on. Again, Michael's logical mind resulted in far-reaching recommendations which were then adopted.

His prowess won high awards in the Institution of Civil Engineers, of which he was a Fellow, and in the Institution of Structural Engineers where he was elected President in 1980-81 and where he was later to receive its highest honour, the Gold Medal. He was also elected a Fellow of the Royal Academy of Engineering and a Fellow of the Royal Society, and appointed an Officer of the Order of the British Empire.

One could be forgiven for thinking that such distinction might make a man aloof. Not so, Michael; he always listened sympathetically to others' views and gave them fair weight. He never took himself too seriously and I can hear now his merry laugh as it echoed around the lecture room or laboratory when, to his delight, he discovered something new or absurd. It is one of the precious memories of his common touch.

The conference held in honour of his early retirement from the University of Manchester in 1983 attracted a large number of eminent engineers and scholars from all over the world. It was a practical testimony to the high regard in which he was held by his profession.

In all these activities he was ably supported by Molly who willingly gave and gave again. He would be the first to acknowledge her understanding and selflessness, so that any honours were shared.

We shall miss a distinguished scholar, an eminent engineer, a lovely man and a dear friend.

Eric R Bryan

David George Crighton, 1942-2000

David Crighton, Master of Jesus College and one of the country's most influential applied mathematicians, died on 12 April 2000, after battling against cancer with remarkable courage for over a year. He was born in Llandudno on 15 November 1942 where his mother and his father, a civil servant in the Inland Revenue, had been evacuated from London to escape the blitz. From Abbots Langley Primary School, he progressed in 1953 to Watford Grammar School. Here his course was unusual, beginning on the Modern side, where he excelled in modern languages and history, but switching to mathematics and physics after 'O' Level. He became a dominant character in the school, playing Rugby for the first XV, representing the school at cross country running, organising play reading groups and becoming Head Boy. His Headmaster, H.A. Rée, a Johnian, decided that, in view of Crighton's intellectual and athletic interests, he would be happier in St John's than in King's, for which he had been entered initially.

Crighton came up to St John's in October 1961 and read for the Mathematical Tripos, gaining very good First Class results in both Part I and Part II. Unwell at the time of the examinations in his second year, he still managed to gain honours in the Preliminary Examination for Part II even though he was only able to take two out of the four papers. Although, as an undergraduate, he may not have been the dominant influence in College that he had been at Watford Grammar, or was to become in UK mathematics, many of the qualities that were to mark him out in future years were already evident. When he worked in supermarkets in the vacations, his appreciation of work well done and his ability to take people on their merits, independent of status, manifested itself in his admiration for the skills of his more experienced colleagues, whether supervisors or stackers of shelves. His distinguished undergraduate results did not depend on the legendary capacity for hard work which was a feature of his later career: he worked conscientiously, usually taking a shower at tea time to freshen up for an evening's study interrupted by Hall and ending with a drink before closing time.

One of the great abiding interests of his life developed at this time. In the Long Vacation of 1962 he travelled to the Bayreuth Festival, attending performances of The Ring Cycle and four other Wagner operas. In an extremely busy academic life, opera, especially Wagner, would always be made a place. Crighton eventually became a regular contributor to *Wagner News*. One of his last major public appearances was to conduct the Jesus College Orchestra in an extremely moving performance of the Overture to Tannhäuser on 27 February this year.

For whatever reason, perhaps influenced by his ill health in his second year, Crighton decided not to follow the customary route for a Cambridge mathematician aspiring to an academic career. Rather than stay on after graduation to read for Part III of the Mathematical Tripos, in 1964 he took a position at Woolwich Polytechnic, whilst carrying on with his studies at London University, initially for an MSc. Later he was to say that lecturing on mathematics to students, some of whom had limited interest in the subject, taught him valuable lessons, including techniques of crowd control.

Within a year, Crighton transferred to a PhD under the supervision of John Ffowcs Williams, then Reader in Applied Mathematics at Imperial College (and now Master of Emmanuel College, Cambridge), initially remaining employed at Woolwich Polytechnic. Ffowcs Williams was Chairman of the Concorde Noise Panel and Crighton began working with him on the problem of Concorde's take-off noise and the related challenge of limiting the generation of the underwater sound by submarines by which they might be detected, becoming his research assistant at Imperial in 1967.

Crighton was ambitious and confident of his abilities. He worked with others to understand these noise problems, disentangling the complex results of experiments by analysing them in terms of theoretical models. To this task, Crighton brought not only his mathematical skills but also an eye for relevant new techniques, acquired through meticulous study of the mathematical literature. With Frank Leppington, he used singular perturbation and matched asymptotic expansion techniques to solve new problems involving both acoustic scattering and diffraction. His

judgement on how to get things done was already becoming almost mythical, whether the context was mathematical or how to obtain tickets for Covent Garden.

In 1969 David Crighton married Mary West, a pianist, and they had two children, Benjamin, born in 1970, and Beth, born in 1971. The marriage was dissolved in 1985.

When, in 1972, the Concorde noise research programme moved to Cambridge with Ffowcs Williams, at first Crighton was reluctant to return. Eventually, in 1974, he accepted a research post on the programme in the Cambridge Engineering Department, but before he could really take it up, he was appointed Professor of Applied Mathematics in Leeds at the early age of 31. At Leeds his ability to recognise and encourage the talents of others really came to the fore. Through hard work he was able to combine a vigorous personal programme of research, which he now extended into the theory of nonlinear wave propagation and the study of the vibration and loading of submerged bodies (such as propellers), with increasing involvement in academic administration throughout the university and beyond.

As later at Cambridge, he managed to cope with a punishing workload without losing his sense of humour and still managing to seem relaxed, to have the time to listen to anyone, from whatever level of the organisation, who wanted to talk to him. With his good humour went a firm resolve; he was warm, engaging and approachable, but also a rather private person. In his 12 years at Leeds, the Applied Mathematics Department was transformed into one of the best in the country.

In 1985 David Crighton was elected to the Professorship of Applied Mathematics in Cambridge in succession to the first holder of that Chair, George Batchelor, whose lectures he had attended and admired as an undergraduate. St John's moved quickly to welcome him back to a Professorial Fellowship and he took up office in January 1986. In 1991 he became Head of the University's Department of Applied Mathematics and Theoretical Physics (DAMTP). Crighton's influence in the UK applied mathematical community continued to grow. He chaired many national committees concerned with mathematics for the

national research and funding councils. In 1996 he also took on the editorship of the *Journal of Fluid Mechanics*, the leading journal founded by George Batchelor.

Under his leadership DAMTP grew and prospered. He acquired resources for the Department and provided others with effective help to do the same. He had the ability to encourage others, even in fields far from his own. Perhaps his special talent was summed up by a younger member of the Department who once remarked that "I have just walked along King's Parade with David and he has convinced me that what I am doing is really exceptionally interesting and important. I know he does the same for everyone else in the Department but that doesn't diminish the effect." He played a central rôle in the planning and fund-

Professor David Crighton

raising for the new £55 million Centre for Mathematical Sciences, which will house the University mathematics departments, and in establishing the Mathematics Millennium Project, aimed at promoting the understanding of mathematics amongst young people and others. This extreme work schedule did not tie him down in Cambridge; in fact he travelled widely and frequently, thinking little of going to Japan for a one-day meeting, except that fifty hours travel provided an excellent opportunity for work uninterrupted by telephone calls.

In 1997 David Crighton was elected Master of Jesus College, Cambridge, in succession to another Johnian, Professor Lord Renfrew. Immediately he put his energies into this new challenge and the College responded to the warmth of his personality and his commitment to raising standards wherever possible and encouraging others to make the most of their talents. With his wife Johanna, whom he had married in 1986, he became devoted to his new College.

Cruelly, just fifteen months after taking office in Jesus, he became ill. After some weeks, secondary cancer of the liver was diagnosed. In spite of the bleak prognosis and the debilitating nature of much of the treatment, he returned to his duties, both departmental and college, with unrelenting commitment. He seemed to work even harder than before. It was his way of handling the situation. He still desperately wanted to contribute to the Department, the College, the University. For those working with him it was often difficult to understand how someone so seriously ill could spend time helping sort out the mundane frustrations and nuisances of academic life. He continued discharging the duties of his offices until just about two weeks before his death on 12 April 2000.

David Crighton's distinction was recognised by many awards, including his election in 1993 as a Fellow of the Royal Society, and honorary doctorates from Loughborough University and UMIST. Surely yet more achievement and recognition was to come and his loss is very keenly felt by his colleagues and friends in Cambridge, throughout the international mathematical community and beyond.

Peter Goddard

Ruth Daniel, 1915-2000

It would be wrong to speculate, of course, but not altogether surprising if when the time comes it were to turn out that the last thoughts of Ruth Daniel, who died on 4 April, had concerned the College Choir and lunch in about equal measure. Not any old lunch of course, not one of those working lunches which, when she was not in the Maypole with Frank Thistlethwaite, she would often take in the College Bar ('Glyn's bar', as she always referred to it) with a glass or so of red ('Burgundy if you have it. Thank you. You don't have anything drier?') to keep her company as she lamented the state of the *Times* crossword ('not what it was'), but her next birthday lunch on the 5th of July. She always planned ahead. The oyster outings to Orford which the Linehans enjoyed with her over the years had to be conducted with military precision. With Ruth things had to be just so, or not at all.

The next birthday lunch would have been for her 85th. The fifth child of R. W. B. Langhorne, Priest-Vicar of Exeter Cathedral and Headmaster of the Choristers' School, she had been born into the Anglican tradition. As the young Mrs Daniel in post-war Cambridge, therefore, she was doubly blessed. As well as having Glyn, whom as a WAAF officer she had met in India, and from 1958 the editing of *Antiquity* in common with him, she was within a stone's throw of the College Chapel in which for more than half a century she was a regular in her way and a not always uncritical worshipper. And the College was blessed too, by her dedication to its Choir which, whenever latterly it went on tour, went well supplied with 'Auntie Ruth's beer money'. It was in particular acknowledgement of her generosity in that connexion (albeit on an altogether more substantial scale) that last year the College Council made her a member of our society, an advancement that chuffed her more than she would readily admit. Although it was in her late husband's nicely greened gown that she was enveloped when she did so, now she could dine in College other than in his shadow, and from her eyrie just along from the Master's stall could swoop ensurpliced upon the solecisms of readers of lessons. The loss of Glyn in 1986 was something she had never really come to terms with. As well as their last home – The Flying Stag, surely central Cambridge's most charming

residence – however, now she had *entrée* in her own right in the College in which (in the words of the Prince of Wales at the presentation of his *Festschrift*) even after retirement from his chair the Disney Emeritus had kept 'some rooms'.

As an Oxford undergraduate in the late thirties, apart from reading Geography she had captained the University Cricket XI. Later she played for England, and whenever you met her, right to the end, there was always that sense that even though a crisis was developing on the square, with Ruth padded up something might be managed. There was also the nice wristy follow-through to the swing of her stick as she took her afternoon constitutional across the Backs, stately as a galleon. The spectacle of the Disney Professor bobbing along in the wake of *Antiquity*'s Production Editor and stooping occasionally to inspect some errant martagon lily marked down by her for execution, remains one of the abiding memories of those of us who spent much of the early 1980s looking out of windows. Until the late nineties indeed, alone now on her progresses but still with back ramrod-straight, not only did Mrs Daniel continue to appear more than a shade forbidding. She was. As cyclists going the wrong way along St John's Street after the City Council introduced its insane new system learned to their cost on being whacked with that stick, with Ruth there was no knowing where the next thrust might not be coming from. Indeed, there were times when one felt that Bertie Wooster's Aunt Agatha might with advantage have taken her correspondence course.

The courts of the College were her Long Room. At her funeral in the Cambridge Crematorium, an occasion relieved by the musical contribution of the present generation of choral scholars, I was reminded of that obituary of the lady of about her vintage who, 'a fiery left-arm bowler in her youth, in her later years was beset by a searing sense of sin'. Or something of the sort, the point being that, as to the besetting, Ruth did not conform. Ruth had no serious problem with pleasure.

She took successive generations of junior members as she found them, and rejoiced in their company, as they did in hers. Male ear-rings she took in her formidable stride. Worse things had happened; India had gone. She had a rare capacity for communicating with young people. As

a once young person myself, I recall the filthy February day in 1965 when I watched Churchill's funeral with her and Glyn on their television in The Merry Boys. I don't remember wondering then, as I might have done twenty years later, why they weren't at St Paul's themselves. What I remember now are the steaming draughts of Shovril with which Ruth kept us liberally supplied: Bovril and sherry in such proportions as the occasion required. A typically Danielian concoction, in fact, and just the thing for funerals. She'd have relished it at her own.

Peter Linehan (with the assistance of recollections provided by Frank Collieson, Richard Langhorne and Tommy Williams)

Glasses and a 'little glass': Ruth and Glyn Daniel, September 1986 (Photo by Gwil Owen)

Ion Augustin Nicolae Ratiu, 1917-2000

Ion Augustin Nicolae Ratiu was born on 6 June 1917 at Turda, in Transylvania, then part of the Austro-Hungarian Empire. He died in another century, in another world, some 82 years later on 16 January 2000.

After graduating in Law from Cluj University in 1938, he briefly served in the Romanian army before coming to Britain in the diplomatic service. He applied for political asylum in 1940 after the German invasion of Romania, won a scholarship to St John's and graduated in Economics in 1943. During his years at St John's, when he wasn't either fire-watching or playing tennis, Ion proceeded to make an in-depth study of Marx & Engels, taking in *Mein Kampf* along the way. The world as he had known it was collapsing about him, and he wanted to know why. He also began a diary, which he kept rigorously, on a daily basis, no matter what was going on in his life, until his dying day. He lived to enjoy the satisfaction of seeing the first volume appear in print, in December 1999. The discipline of his diary gave him an unusual power of detachment, as well as a particularly broad perspective on daily events, which time will reveal to us as subsequent volumes of the diaries appear. It was while at Cambridge that Ion was introduced to his future wife Elisabeth Pilkington, and they married in 1945.

Breadth of perspective was a hallmark of Ion's outlook on life. He was irritated by narrow, ill-informed opinions. Ion was, after all, born into a surprisingly cosmopolitan part of the world. Conversation in the family house in Transylvania was trilingual: German and Hungarian besides Romanian, and his father, who was a leading local barrister, practised in all three languages. Pre-war Romanian society was relatively democratic and certainly open to the leading ideological trends of the times, and the dinner table at the family house in Turda was no backwater. One of his father's accomplishments, for example, through his cousin Viorel Tilea's influence at court, was the establishment of a successful system of cheap credit for farm-machinery, funded through a general import duty.

After coming down from St John's, Ion joined the Romanian Service of the BBC and was active in the Free Romania movement. He was bitterly disappointed when the Communists came to power in Romania. His

original plan, after the war years, was to participate in the peace treaty process, which he did, and then return to Romania. But instead he contracted TB, which took him and Elisabeth to Switzerland and then into a long convalescence back in England. Surrounded by his Pilkington in-laws, the temptations to join mainstream English society must have been immense: he very nearly stood as Conservative candidate for the family constituency, St Helens. But instead he took to writing and produced that prophetic distillation of all his wartime and convalescent reading and observation, the book he personally considered his major work: *Moscow Challenges the World.*

During his long convalescence Ion also found time to do other things: besides writing, and his regular broadcasts for the BBC, he tried his hand as a playwright, a Kings Road restaurateur and as a chicken and pig farmer. Eventually he joined Pall Mall Deposit as a shipping and forwarding clerk. It was in shipping and later in property that Ion was to amass the substantial fortune that he needed for his political work. Ion never minced his words about Moscow's long-term political aim, and in the atmosphere of post war denial in Western Europe his views were not published for over 40 years. It is a measure of his prophetic insight in the political sphere that when *Moscow Challenges the World* finally appeared hardly any changes to the text were required.

A tireless advocate of the rights and dignity of all people, he was one of the founders of Amnesty International. He was passionate about freedom – and freedom of speech in particular, and although people will argue about what his most significant contributions to Romania were, his courageous return to Romania in 1990, his readiness to stand as the first opposition candidate to the Presidency since the fall of Ceausescu, and his establishment of an independent and free newspaper – *Cotidianul* (*The Daily*) – must surely rank among the most important. He was clearly seen as a serious threat by those who were behind the "mineriad" – the so-called miners' invasion of Bucharest – which smashed up his home, his printing presses, and threatened his life, to prevent his right to freedom of speech being exercised. Such was his indomitable spirit that *Cotidianul*'s presses were soon rolling and the freedom of the press was being exercised once again.

Another of Ion's great passions was his support for NATO, The European Union, Council of Europe, and other institutions. In the early years of the 1990s many diplomats from Europe and North America listened carefully to Ion's advice and his many and detailed opinions on every subject under the sun. They relied heavily on his insights into the Romanian spirit, and much of the support which Romania found in the countries of the West was due to Ion's benign influence and patient lobbying. One such diplomat has suggested that when Romania is finally granted membership of NATO and the European Union, that will stand as a monument to his commitment and his passion for promoting his homeland.

As a parliamentarian Ion came to be widely respected. Sadly his own party, and President Constantinescu in particular, were to remain deeply threatened by his charisma, his wealth, his contacts, and above all by his persistent refusal to muzzle his own newspaper editors in their exercise of free speech. Although high office therefore eluded him, through his service as Deputy Speaker, his initiation of Prime Minister's Question Time, his critical membership of the Foreign Affairs Committee and his creation of the Parliamentary Club, Ion came to be known amongst his fellow parliamentarians as "Domnul Fair-Play". Appropriately enough, Romania's Parliamentary Club already bears his name, in tribute.

At the age of 72 when he returned to Romania after half a century of exile in the West, where his life's ambition had been to see Romanian communism overthrown, Ion declared: "My aim is simple: freedom and democracy in Romania." He returned with all the enthusiasm and energy of a young man ready to take on the world. And there were indeed times when no one would have blamed him for feeling that the whole world was against him. Of course it was not, for there were many who gave him their unstinting support in his personal crusade to bring a just and lasting freedom to Romania. Ion had enormous energy and creativity; there was almost always some new project brewing whether in business or amongst his wider interests. His *Great Challenge* exhibition of political cartoonists celebrated its 40th anniversary last year – what better way of deflating the deadpan seriousness of communist ideology than to poke fun at it! Or what better way of

protesting against the British government's collusion with the Ceausescu regime in 1978, than to chain himself to the railings outside a state dinner at Claridges and then throw away the keys? The television cameras loved it.

Although in England he may have been perceived as a rather exotic Eastern European, in the Romania to which he returned he had become the quintessential Englishman abroad. To these people he was "Domnul Papion", an unashamed dash of colour in a very grey, only just post-communist Romania. His cultured tones and trademark bow tie made him perhaps Romania's most instantly recognisable citizen. Perhaps Ion was just a smidgen too colourful for some of the Romanian electorate, who never awarded him the accolade he truly sought, the leadership of the land of his birth. He will have to make do with the honorary title of "The Best President Romania never had."

His final days brought him back to London, with Elisabeth and his sons around him, for what was to be his final battle – and with the humility which underpinned his Christian faith, he prepared to meet his Creator in the knowledge that he had done all that had been expected of him as a fighter for the cause of right, a true patriot to the land of his fathers, and a loving husband and father. I have recently been sifting through the remarkable photographs taken at Ion's funeral. An estimated 10,000 turned up to see him on his way, and what has struck me more than anything are the expressions on the faces of ordinary people, the people who believed in him and what he stood for. They are expressions which say, this was somebody who understood, somebody who wasn't afraid to speak out for us, a man of unusual courage and rectitude: as we say in Romanian: "un om de omenie", "a man amongst men".

Indrei Ratiu
(with excerpts from the Memorial address given by the Reverend Christopher Newlands)

Sir Giles Shaw, 1931-2000

Giles Shaw was born just outside York in 1931 and died at York in April 2000. His whole business and political life was spent working with, and serving, the people of Yorkshire. He gave them his unswerving loyalty which was repaid to him in full measure by his constituents in Pudsey where he represented them as a member of Parliament from 1974 – 1997.

He went first to a private school in Cheshire and then on to Sedbergh where he was one of the few people to have twice won the Wilson 10 mile fell race. It was fortuitous that only a few weeks before his death he was able to attend the anniversary dinner of the race.

On leaving school he spent his National Service in the Army, being commissioned into the 16th/5th Lancers – a most unlikely regiment for someone who never rode.

He matriculated at St John's, Cambridge, in 1952 where he soon made his mark as an outstandingly witty speaker in the Cambridge Union. He became Chairman of the University Conservative Club and then in 1954 was elected President of the Cambridge Union. In that capacity he arranged a succession of highly successful debates, in one of which his mother took part.

His life at Cambridge was far wider than his political and union activities. His small stature and lightness made him a natural cox in the Lady Margaret boats. He also took an active part in the Footlights in the period when nearly every member later achieved fame. For his contribution to College life he received a Lamor award in 1955.

On going down from Cambridge he entered Rowntree Mackintosh where he rapidly rose through the marketing ranks, becoming a marketing director, in which capacity he was responsible for the launch of one of the most successful chocolates: 'After Eight'.

After successfully making his industrial career he felt that at last he could do what he really wished to do, which was to enter politics. After one unsuccessful election standing at Hull he entered parliament in 1974 as the Conservative member for Pudsey, which he continued to represent until his retirement in 1997.

Sir Giles Shaw

He was given junior office in the Northern Ireland office in 1979. This was followed as Under Secretary of State for Energy, then Minister of State at the Home Office, finally Minister of State for Industry at the Department of Trade and Industry. He left the government after the general election of June 1987 and was knighted.

His parliamentary career, however, was not finished as he became Treasurer of the 1922 Committee and was approached by John Major to become a personal assistant when he became Prime Minister (which he refused). His name was also seriously canvassed as a possible speaker of the House of Commons. There was a wide spectrum of support for him from all sides of the House. He was as popular on the Labour and Liberal benches as on his own side. This popularity stemmed largely from his fairness to everyone he met, regardless or rank or station.

His presence always added sparkle to any gathering and his wit was legendary. An early example of this was when, as President of the Cambridge Union, he was travelling to Canada to take part in a series of debates. The plane on which he and his Vice President were travelling had to turn back and make an emergency landing at Prestwick: as they got off (just behind a group of Jewish Rabbis) Giles quietly commented to his friend, "Obviously only minor prophets on board today."

When not dealing with his parliamentary duties he found relaxation in fishing and ornithology. If crept up on he could be heard singing quietly to himself snatches from Gilbert & Sullivan.

But perhaps above all he was a family man, devoted to his wife Dione, his son Christopher and his daughters Henrietta and Victoria. The success of Henrietta getting into St John's and becoming the first lady cox of the Cambridge University crew gave him great pleasure.

Peter Wordie

William Rudolph Grass, 1952-2000

William Rudolph Grass, porter at St John's College since 1998, died on 2 February 2000 from a heart attack. Bill, as he was known, was born at Wimpole Hall in the country village of Longstowe on 6 August 1952. He was educated at Comberton Village College before his family moved to Cambridge. After many years working for British Rail in Clacton, where he ran the Railway Club, Bingo Calling, and other community events, Bill came back to Cambridge as a porter at St John's. He 'enjoyed every minute' at the College (in his girlfriend Kay's words), and worked long hours despite recovering from an earlier heart attack. In Cambridge, he was a member of the Royal British Legion at Histon and pursued his love for fishing; he was to go on a sea fishing outing on the day of his death.

Head Porter Colin Shepherd remembers Bill as an 'ideal porter', well-liked and respected by his colleagues. Junior members will miss one of the College's friendliest and most helpful porters. Bill leaves behind three daughters, Carlene, Kerry, and Lisa, from his former marriage, and two brothers, George and Ray.

Ien Cheng

OBITUARIES

Colin Bertram, 1911–2001

An address delivered at his Memorial Service in the Chapel on 5 May 2001, by Professor R N Perham, Fellow.

Sir James Wordie was elected Master in 1952. Renford Bambrough was appointed a Tutor in his stead and many years later told me how Wordie had gone through the tutorial blue book with him, dividing his pupils into two groups: "he's a good man; he's a strange man" and so on. Not quite Renford's own more analytical style, but, as he said, admirably succinct. Wordie was a great and influential Antarctic explorer and other Johnians followed in his footsteps, among them most famously Sir Vivian Fuchs, and Colin Bertram himself.

Most of us will probably remember Colin as something of an avuncular figure, comfortably dressed, often a yellow tie, sensible shoes (probably Veldschoen), a bald head with a fringe of grey hair, a trim moustache, glasses, and certainly not least, a kindly look. The air was unmistakably that of a man comfortable with his role in life, pleased with the achievements of his wife and four sons but never boastful of them, a happy man who felt himself blessed, and obligated to put back what he could into the community he loved. All this is captured very well in the portrait drawing of him, done in 1974 by Robin Tollast, which hangs in the Small Combination Room.

Colin had come up to St John's as an Exhibitioner in 1929, the same year as our Senior Fellow, Frank Hollick. He progressed from a 3rd in Natural Sciences Prelims in his first year, to a 1st in Part II Zoology in his final year (the sort of progress any Tutor likes to see!), and his subsequent academic interests were those of the natural world, of documenting rare species, of conservation, and what has since become the fashionable study of biodiversity. Let me quote briefly from Colin himself: "My teachers were eminent and I owe them much...The

zoologist Brindley stimulated me to great effect. He was a person of erudition on many subjects, utterly fascinating in the continuity and content of his stories. He gave good advice which I have striven to pass on to my own tutorial pupils: 'Each vacation go somewhere or do something that you have never done before and enjoy it, and then concentrate on academic work'."

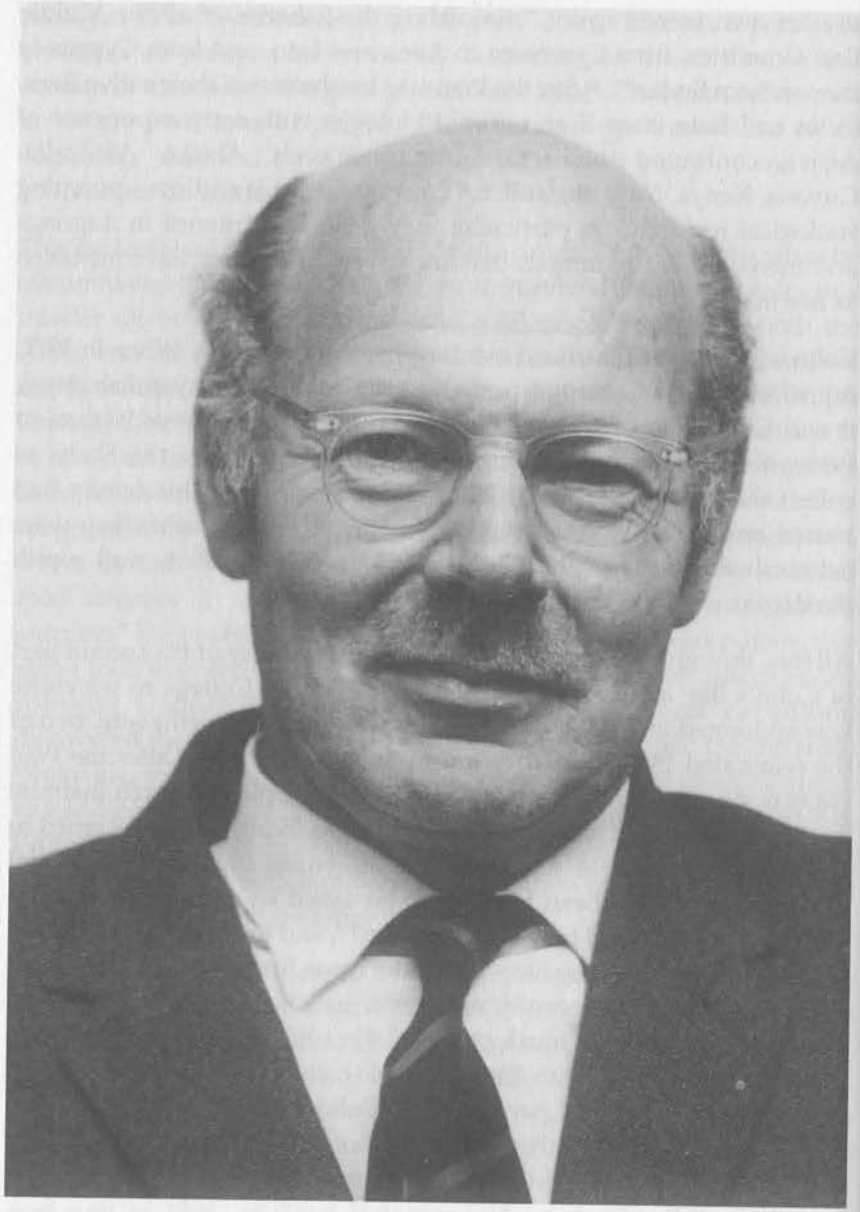
This is clearly advice he followed. In the course of the next 10 years he circumnavigated the Isle of Ely by punt, survived the winter gales in a trawler off St Kilda measuring hake, undertook research in both the Arctic and the Antarctic, worked in Greenland and on the coral reefs of the Red Sea. Most importantly, he was 'the biologist' on the British Graham Land Expedition of 1934-1937, the last great polar expedition to be mounted in the heroic style, under sail. His work on seals formed the basis of his subsequent Cambridge PhD thesis; his life in Antarctica, roughing it for three years with the other members of the Expedition, was a formative experience. Colin again: "...when you have suffered food dreams through semi-starvation on long cold exploratory journeys" (he covered over 600 miles by dog sledge) "your perspective about food may be different from that of some other participants in our splendid College Feasts!". The British Graham Land Expedition discovered the George VI Sound and successfully mapped the Antarctic Peninsula, verifying that it is indeed a peninsula and not an archipelago, as had been supposed. Many years later, in 1984 and well into his 70s, Colin went to Antarctica once more, as a guest of the British Antarctic Survey, part of the 50th anniversary celebration of the Expedition. We remember how much pleasure that gave him.

Having married Kate Ricardo in 1939, Colin spent the early part of the 2nd World War working on nutrition in Cambridge with the remarkable team of James McCance and Elsie Widdowson and he also participated in devising the famous string vest at the Scott Polar Research Institute. When I came to wear one myself in the Royal Navy in 1956, I had no idea that a Tutor at my future College had been responsible for this highly effective garment. But it was to the heat of Palestine that Colin was sent in 1940, as Chief Fisheries Officer at a time of great food shortages, and there and in Cairo he spent four and a half years in, to

use his own words again, "stimulating the fisheries of all the Middle East Countries, from Cyrenaica to Aden and Iran, and from Cyprus to the southern Sudan". After the War, and for the rest of their active lives, Colin and Kate, herself an intrepid biologist with early experience of Africa, continued their extraordinary travels: Alaska, Australia, Guyana, Kenya, New Zealand, Sri Lanka – the list is endless – pursuing zoological research. In particular, they generated interest in dugongs and manatees, sea mammals that ancient mariners may have mistaken as mermaids.

Colin was a fund of the most extraordinary information. When in 1972, my wife and I had an opportunity to visit Iran (in pre-Ayatollah days), it was Colin who drew our attention not to the marvels of Isfahan or Persepolis, but to the amazing pigeon towers used by the Shahs to collect the bird guano as fertilizer and which he and his family had toured and catalogued a few years earlier. He was right; they were extraordinary and, as the Guide Michelin might put it, well worth the detour.

All this, though, was played out against the mainstay of the second part of Colin's life: a Fellowship and Tutorship of the College to which he was appointed in 1945 at the same time as Frank Thistlethwaite, two of the celebrated 1945 Club of Fellows returning or elected after the War. He was also appointed as Director of the Scott Polar Research Institute in 1949 but this post was ultimately not to his liking and he resigned in 1956. Generations of Johnians will remember him in his tutorial capacity and I have been touched to be asked so often of late at Old Johnian Dinners "And how is Dr Bertram?", and to observe the genuine sadness with which they have heard the news first of Kate's illness and death and then, most recently, of Colin's, just short of his 90th birthday. For Kate was also very much part of Colin's life as a Fellow and Tutor; their house in Linton, with its remarkable collection of animals, was the scene of many splendid parties. And Colin repaid Kate by his active support and interest in her activities, not least in the foundation of Lucy Cavendish College of which she was elected second President from 1970-1979.



Dr Colin Bertram

Colin clearly liked being a Tutor, becoming Senior Tutor in 1965. He followed the precepts of his own teachers and the students of the 1950s and 60s responded. Those of us who were Tutors during his tenure of the Senior Tutorship will recall the good humour, fun even, of our Saturday morning meetings, but also the evident concern for individuals, the quiet pride he took in College successes and the puzzlement with which he sometimes reacted to the latest report of bad behaviour on the part of a Junior Member. No doubt too we will recall the papers of applicants arriving from the Senior Tutor's office with, if the applicant was the son of an Old Johnian (it was an all-male College then), a large OJ inscribed on the outside in green felt-tip pen. There might even be an observation 'graduate mother' if the candidate were lucky enough to possess one.

Such comments would not pass unchallenged nowadays; they jarred with some even then. But, given his unwavering support when I had to turn down applications from the offspring of members of the College, I know that Colin intended no favouritism. Rather I think he was concerned that the unlucky sons of Old Johnians should receive a considerate as well as considered rejection. He knew the situation; he himself had four sons pass through the College. All were admitted entirely on their merits, and all went on to successful careers in animal behaviour, architecture, medicine and engineering.

The years of the Bertram Senior Tutorship were generally good ones for the College. Colin's style of tutoring owed little to the management consultancy version. 'Vigour' was his watchword for the key attribute of the potentially successful undergraduate. We may have smiled at this, but we knew what he meant, and it seemed to work too: we were recruiting from an ever-widening range of schools; the College was only once out of the top half-dozen Colleges in the receipt of 1st class marks in Tripos; LMBC won the Ladies Plate and the Visitors IV at Henley – the last time this was achieved by a Cambridge or Oxford College; the Choir was going from strength to strength; the Lady Margaret Players were revived from the doldrums; the College Film Society was founded.

But the winds of change were stirring. Cambridge in 1968 was not the Paris of 'les Événements', nor was it the campuses of Cornell or Kent State or even the Yale of my own experience, torn by race, drugs and the

Vietnam war, though we had our share of problems, our own Garden House Hotel affair. Colin bore this without becoming too ruffled, troubled as he was by the course of events. The tutorial system proved robust when put to this serious test; the traditional relations between Senior and Junior Members were sometimes soured but remained essentially intact. The then Master, Mr Boys Smith, even found time to write an article in *The Eagle* (1968), documenting the strange nocturnal antics of a hedgehog that ran in circles on the lawn in the front garden of the Master's Lodge. Perhaps it was the example set by his Senior Tutor that encouraged this unlikely magisterial essay in the study of animal behaviour, which was then followed in the next issue by an article ostensibly written by the hedgehog, documenting the strange nocturnal behaviour of the Master. A College that could engage in such pursuits alongside the more pressing matters of cohabitation, kitchen charges, and guest hours cannot have been wholly out of sorts.

But change was inevitable; being in *statu pupillari* could not survive the lowering of the age of majority to 18, and there was the gnawing question of the admission of women to the College. Colin was never in favour of this, though no charge of male chauvinism could or should stick. Colin backed his wife Kate and her activities on behalf of women's education at New Hall, and then at Lucy Cavendish, to the full, but he clung to the view that single-sex Colleges were still the proper way. To those of us who felt otherwise – and gradually we became the majority – he was never less than courteous, and when, in 1981, the change was finally enacted, he was typically considerate and supportive of all the new women Johnians. Who would have expected otherwise?

I don't think I ever heard Colin say a spiteful thing; the most damning epithets in his vocabulary were 'strange' or 'misguided' rising perhaps to 'foolish' and even they were infused with forbearance. He was the least arrogant of men, though his work in the Antarctic in particular won him acclaim and the Merchiston Award from the Royal Geographical Society, and the naming of the Bertram Glacier after him; at the same time, he was genuinely pleased by the successes of others. He was clearly fond of us; it was impossible not to be fond of him.

After Colin's retirement from the Senior Tutorship in 1972, he and Kate pursued their zoological work, travelling and writing. She continued to serve as President of Lucy Cavendish until 1979, at which point they retired to the family home in Sussex. Colin had long been concerned about – 'pondering' he would have described it – the growing world population and the rise of religious fundamentalism. He wrote a book along these lines in 1959 – *Adam's Brood – Hopes and Fears of a Biologist* – and was authoring articles well into the 1990s, some of which were included in his book *Memories and Musings of an Octogenarian Biologist* published in 1992. Kate's long illness and her death two years ago hit him hard – it ended 60 years of mutually supportive marriage. Had he reached 90, the College would have held a lunch in his honour, as we did recently for Dr Hollick. Sadly it wasn't to be. If in conclusion I say, on the James Wordie principle, that Colin Bertram eminently qualifies as 'a good man', you will know now a little better what I mean.

Richard Perham
(line drawing by Hugh Brogan reproduced from* The Eagle *of June 1972)

The Right Rev Lord Coggan, 1909-2000

Donald Coggan, 101st Archbishop of Canterbury (1974-1980), died on 17 May 2000. He was somewhat unfairly dubbed the 'caretaker primate' as he succeeded Michael Ramsey at an age when most men begin to draw their old-age pension. His years at Lambeth Palace are not always regarded as successful, perhaps because he was in some ways ahead of his time and in other ways behind it. The liberal establishment of the Church of England was equally at ease with the otherworldly Michael Ramsey and the urbane, worldly-wise Robert Runcie, his predecessor and successor respectively. But Donald Coggan had a single-mindedness and Evangelical conviction which meant that he was never quite 'one of us'.

It was Evangelical Christianity that drew him into the life of faith. Converted at a beach mission in Burnham-on-Sea, he was to play a

major part in the life of the Cambridge Inter-Collegiate Christian Union (CICCU) including two spells as President. He had come from Merchant Taylors' School to St John's as an Exhibitioner in 1928. He read Oriental Languages and gained a double First in Hebrew and Aramaic.

An academic career could have followed. Indeed, for three years it did, when he accepted an Assistant Lectureship in Semitic Languages and Literature at the University of Manchester. But his heart had already been set on ordination and, following a few months at Wycliffe Hall, he was ordained to a curacy at St Mary's, Islington, a flagship Evangelical parish, where he served for three years. It was during this time that he met and went on to marry Jean Braithwaite. It was to be the happiest of marriages. For 65 years they were both best friends and soulmates; there was always a chemistry between them when they were together in company, so attuned were they to one another and contented to be together albeit at opposite ends of a room.

The next eighteen years of his ministry were spent in theological education, first at Wycliffe College, Toronto, where he taught the New Testament and Greek, and then, from 1944, as Principal of the London College of Divinity which had, when he took over, only a handful of students and a bombed-out building. His eleven-year tenure saw the College re-established in new buildings in Northwood, full of students training for ordination, and with considerably higher standards of teaching and levels of attainment. The College later moved again and is now, as St John's College, Nottingham, the largest of the Church of England theological colleges.

Those post-war years were austere ones for many, of course, but for the Coggans were especially so. Not that they minded, as they always travelled light and lived simply: Ramsey and Coggan between them saw off for good the gas-and-gaiters grandness of the Church of England hierarchy. Some felt that the Coggan austerity bordered on severity, but most who were close to him would have refuted the charge, for there was always a balancing pastoral warmth and sensitivity. His face showed it all: those sometimes steely eyes which could make you

feel very poor in spirit would begin to sparkle almost with cheekiness as a smile appeared.

What many of us will remember most about Coggan was his voice – clear, authoritative and somehow beautifully resonant. It made you listen to him whatever he might have said. As it happens, he also knew how to communicate, and his preaching and teaching were always outstanding, often captivating. On one occasion in the early 1950s his audience happened to include the then Archbishop, Geoffrey Fisher. Thus began the sequence of events which led to Coggan's appointment as Bishop of Bradford in 1955.

It is said that Church-inclined lay people very much warmed to him, both in his time at Bradford and when (in 1961) he became Archbishop of York. It is suggested that down-to-earth Yorkshiremen admired the clear and 'simple' leadership that he gave. Feelings were more mixed among the clergy where the prevailing Liberal Catholicism found a more kindred spirit in Coggan's successor at Canterbury, Robert Runcie. At the same time, the Evangelical clergy, then a small and beleaguered minority, wondered whether Coggan was really still 'one of them': after all, he had shown alarming signs of being aware of Biblical criticism, his pastoral sympathy for misbehaving clergy raised questions about his 'soundness' in moral theology, and more than a few eyebrows were raised when, newly enthroned as Archbishop, he walked down the aisle of York Minster dressed in cope and mitre (very High Church). As an Evangelical who eschewed party spirit, he did not really fit in with any of the clergy tribes of the era. To pick up an earlier comment, what made him behind the times was the fact that his own self-discipline left him out of sympathy with the social changes of the post-war years (which meant that his 'Call to the Nation' and similar enterprises were viewed as being somewhat naive). But in his churchmanship he was ahead of his day – now the Bishops' bench is stacked with Evangelicals, most of whom are not afraid of Biblical criticism, who wrestle thoughtfully and openly about Christian ethics and who, to a man, brazenly parade in cope, mitre, and even, on occasion, the dreaded chasuble.

Some may have doubted the purity of his biblical faith, but Coggan certainly never wavered in his love of the Bible. With his knowledge of

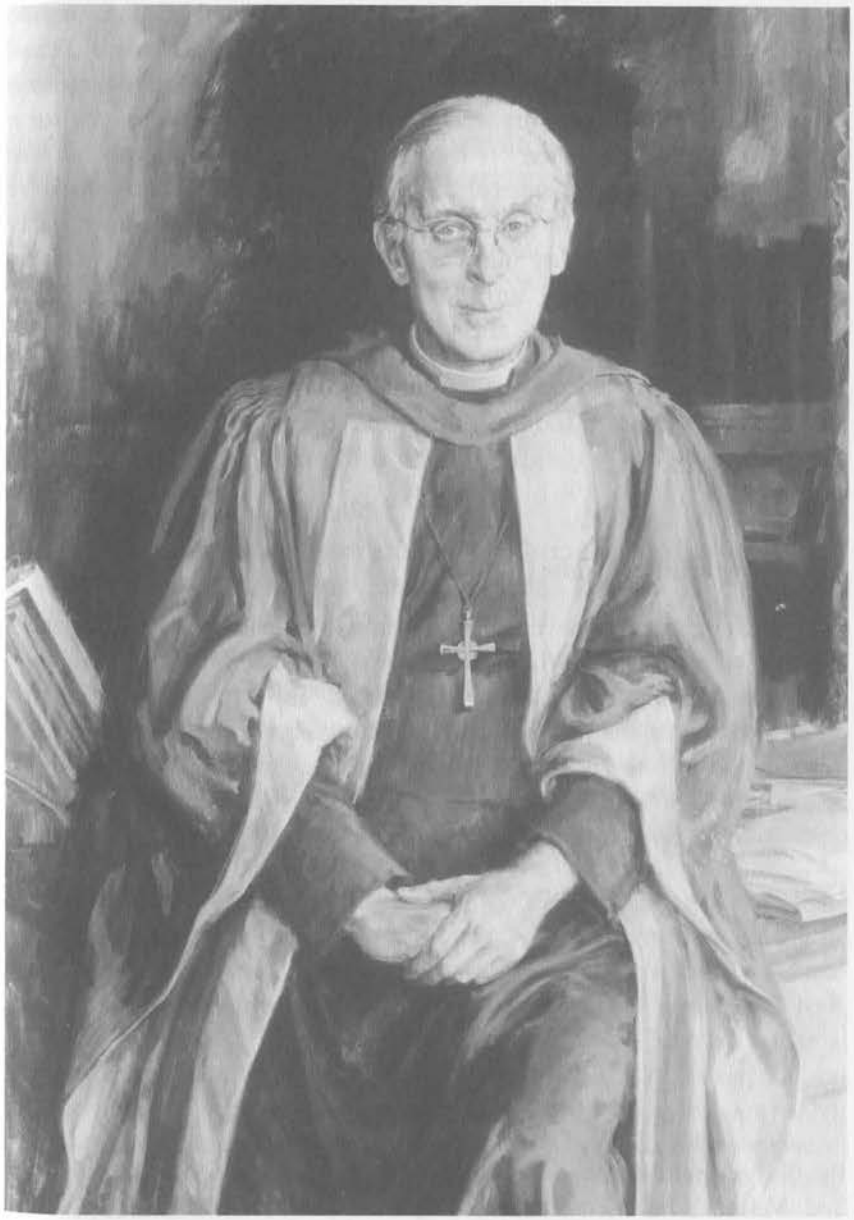
the Scriptural languages, he was a natural choice to be Chairman of the sponsoring joint committee of the New English Bible (1970) and, following his retirement, presided over its thorough revision (the Revised English Bible, 1989). Of its merits he had no doubts (though not everyone agreed), and one of his final gestures was to donate a lectern copy of the translation to the College Chapel.

Donald Coggan's years at Canterbury brought him a number of disappointments. An alliance of Conservative Anglo-Catholics and Evangelicals saw off attempts at reunion with the Methodists; he was judged as undiplomatic by daring to suggest in Rome that Anglicans and Roman Catholics should be allowed to receive communion together, and his 'Call to the Nation' was received with enthusiastic lukewarmness by many of his own clergy. On the other hand, he was the first Archbishop of Canterbury since the Reformation to attend a pope's enthronement (John Paul II's in 1978) and his Call brought a massive correspondence in response (28,000 letters, including those addressed 'Dear Lord' and even 'Your Grace, Chief Godman').

His primacy was also significant in other areas. He re-shaped the Lambeth Conference, the ten-yearly gathering of the bishops of the worldwide Anglican Communion (it became a residential event at the University of Kent); he saw through the *Alternative Service Book*, which gave coherence to decades of liturgical experimentation (and, sometimes, anarchy), and he negotiated the structure of the Crown Appointments Commission which de-Erastianised the appointment of bishops in the Church of England.

Coggan's appointment to Canterbury gave St John's its first Archbishop, the importance of which was recognised by the appearance of his portrait in the Hall. Famously struck by a brussel sprout which had been catapulted by a future Chaplain of the College, the portrait was later moved. This was not so much for its protection but rather because of the doctrine, fortuitously rediscovered, that candidates for hanging in the Hall should be both famous and dead. It now adorns the vestry of the Chapel.

By statute, Donald Coggan had to retire as Archbishop at the age of 70, but he never did retire from active ministry. In his 'retirement' years, he



The Right Rev Lord Coggan (Portrait by June Mendoza, 1977)

was much sought after as a speaker and preacher. He continued to travel extensively and he wrote prodigiously. He would always find time to return to his old College, of which he was, of course, an Honorary Fellow. Before his final illness he was invited to come for a weekend, to preach twice on the Sunday and to meet the current generation of undergraduates and graduates. He was accompanied by his wife, Jean, and those junior members who shared a dinner party with him on the Saturday night will never forget the experience: the couple were on sparkling form, all eyes twinkling, interested to hear new views and experiences, and giving out unspoken benedictions.

He left all the right impressions and memories: here was a warm, humble, inspiring and transparently sincere servant of the Church and of his Lord.

Nick Moir (Chaplain, 1994-98)

Andrew Macintosh adds:

Donald Coggan graciously agreed to come into residence while I was on leave of absence in the Lent Term, 1983, in order to assist the then Chaplain, Peter Templeman. He fitted in excellently and his contributions in the Chapel and at discussion groups were widely appreciated by the young, as was his presence in Hall by the Fellows. The Chapel list for the term had, in respect of titles and seniority of College office, a beautiful symmetry, thus:

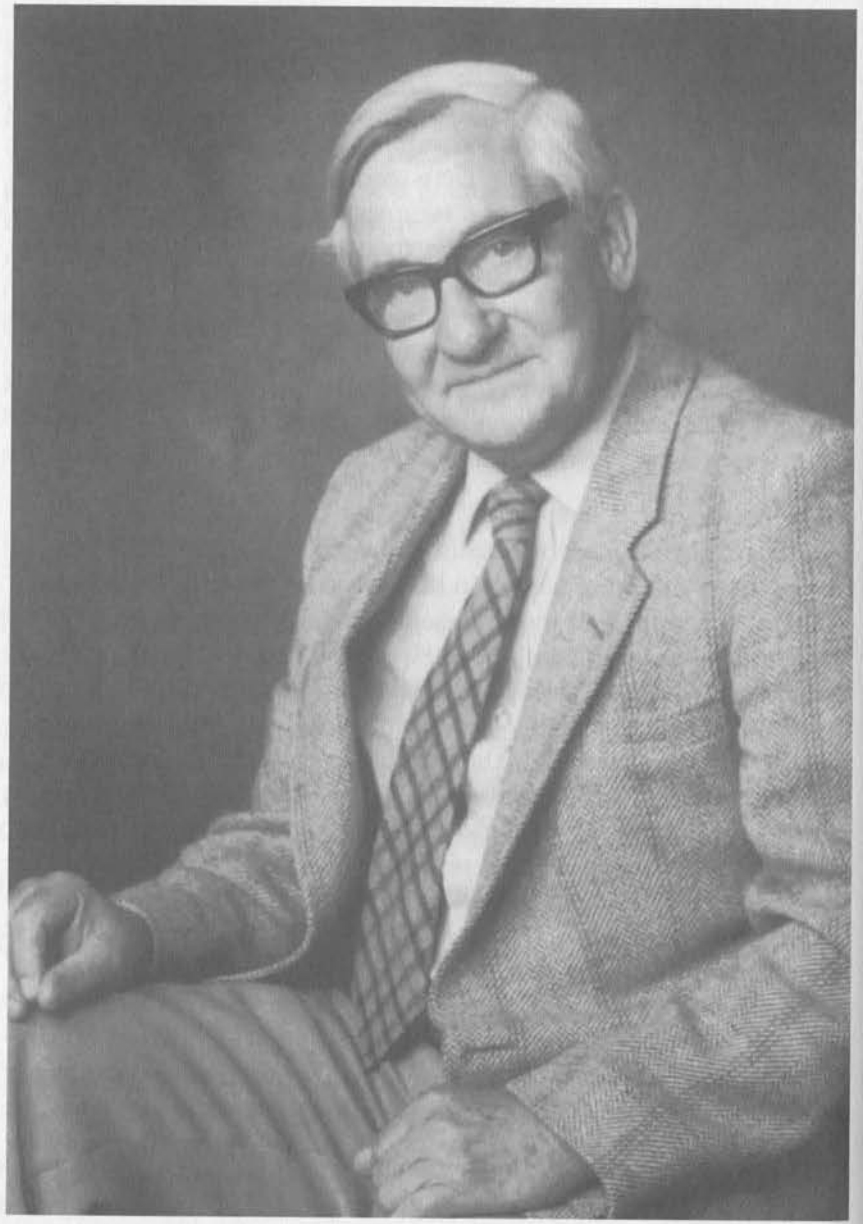
Dean	The Rev A A Macintosh (On leave)
Chaplain	The Rev and Hon P M Templeman
Asst Chaplain	The Rt Rev and Rt Hon the Lord Coggan.

Edward Miller, 1915-2000

By all those who enjoyed the good fortune of having dealings with him, Ted Miller, who died in Cambridge on 21 December 2000, will be recalled not only with deep affection but also as a man of rock-solid integrity allied to irrepressible good humour. He was also a powerful force for good both in the University and beyond, and one of the most distinguished medieval historians of his time.

Born at Acklington, Northumberland, on 16 July 1915, Ted, as he was universally known by the early 1960s (earlier generations had preferred 'Teddie') was the eldest son of a farm steward (also Edward), and, as those of us who were sent to him for supervisions on the agrarian economy of medieval England soon discovered, his rural roots ran deep. Here was a man who knew what he was talking about when the issue was the advantages of ploughing with horses, for example. By contrast with the Professor of Economic History at the time, whose knowledge of such matters had been acquired in the open fields of Bloomsbury, what Miller told us about ploughing with horses did not come just from books.

Like so many of its most distinguished members since 1511 the product of a northern grammar school, in his case King Edward VI's Morpeth, Miller was admitted to the College as an exhibitioner in 1934. With starred Firsts in both Parts of the Historical Tripos to his credit, and, according to Guy Lee, already memorable for his 'infectious laughter', in 1939 he was elected to a Research Fellowship. After war service, initially with the Durham Light Infantry and ultimately in the British Control Commission in Germany, in 1946 Major Miller returned to St John's, his return hither hastened (as Tam Dalyell MP [Kings] recorded in his obituary notice in *The Independent*) by the special release sought at the request of E A Benians by the university MPs 'so that he could come back to Cambridge to teach the young men who were coming out of the Forces', and by officialdom's failure on this occasion to come up with a reason for not acting sensibly. For Miller was a born teacher. In Mr Dalyell's words: 'For a first-year undergraduate . . . Edward Miller's lectures on medieval history were a godsend. Clear, obviously deeply well-prepared, devoid of pomposity, . . . with a twinkle in his eye, he would explain the medieval decrees and laws, why ostensibly they were promulgated, and then give the actual reason that motivated the King and the Barons.'



Edward Miller

And what was true in 1946 remained so when the present writer came up fifteen years later, fifteen years during which the College and the University signally benefited from Miller's contribution to their affairs, as, respectively, Director of Studies in History (1946-1955) and Tutor (1951-1957), and Assistant Lecturer (1946-1950) and Lecturer (1950-1965) in History. It is to those years that two of his sometime tutorial pupils refer in letters from which I quote with their permission.

'He was a fine example of what I believe a tutor should be', writes David Wright (BA 1956). 'Times have changed, but then one was initially in an *in statu pupillari/in loco parentis* relationship. Then, one wrote occasionally but never telephoned home after arriving by train with trunk until returning at the end of term. The tutor filled a real and needed role. Whilst never intruding, Edward Miller was there should a problem arise . . . One could always rely on him. He was good humoured and always welcoming. I give thanks for a life devoted to University education, not just at St John's . . .'

In the same vein, Stuart Barker (BA 1952) remembers 'a man with an instant rapport with the students in his charge, with his enthusiasm for cricket and his enjoyment of the occasional beer in the Blue Boar [in those days not what it is now: PAL]. One incident that stands in my memory occurred on the evening that followed the publication of our Part II results. With several friends I had been drowning my sorrows in the Anchor when on returning to College we met our tutor in the middle of First Court. "My Natural Science students haven't done very well this year, have they?", he said, when we rather shamefacedly had to agree adding: "Never mind, twelve months from now, it won't matter a bugger to any of you!" Not completely true perhaps but at the time very consoling.'

'One could always rely on him'; 'an instant rapport with the students in his charge'. The qualities remarked upon by his tutorial pupils of the fifties were equally evident to the History undergraduates of my generation who caught Ted just in time. In 1961, the year in which I came up, he took on the Wardenship of Madingley Hall and moved there with Fanny (*née* Salingar), whom he had married in 1941 and without whom Ted would not have been the Ted we knew, and their

then young son John (now Professor of Early Modern British History at Queen Mary & Westfield College London). With the move to Madingley Mr Miller acquired responsibilities which inevitably reduced the time at his disposal for forays to the Blue Boar and so on, a 'so on' which for historians (and not only historians) of those years, whether sportingly inclined or not, will stir memories of evenings, afternoons and (who would believe it in these Research Assessment Exercise days?) even *mornings* of room cricket. To Ted's prowess in this activity I have referred elsewhere, in connexion with that other half of the F4 Third Court duo, Robbie Robinson (*Eagle* 1999, p.113).

Small of stature and puckish by nature, earlier on he had been active in the outdoor version of the game, bowling military medium with a tendency to the guileful while Harry Hinsley entertained the Peruvian ambassador on the boundary and Robbie ministered to members of the ambassadorial entourage elsewhere. By the early sixties he had retired from the fray, recording as his recreations in *Who's Who* 'with advancing years watching any form of sport, especially Rugby and cricket' (though not only those, his favourites: I recollect seeing him collapse to the ground in mirth while watching P F Clarke (BA 1963) and the undersigned making a fair old hash of a game of tennis when a heavily chopped back-hand from the undersigned's loosely strung racquet caused the ball to return to his own side of the court and the Master of Trinity Hall (as he then wasn't) to finish up Laocoon-like entoiled in what was left of the net after a vain attempt to return it). By then, moreover, Ted was not entirely well, being troubled by bronchitis as well as heart trouble — though it was not he, it was another who in his sollicitude insisted that it would on that account be an unkindness to bring him down from bracing Sheffield to succeed John Boys Smith as Master in 1969.

He was, as Mr Dalyell has reported, a wonderful teacher: not only all that one might hope for from a lecturer but also, without question, the best supervisor I had. Although with the passage of time my own historical interests diverged from his, on looking back I would like to think that of all my teachers it is to him that I am most indebted. He himself acknowledged Michael Postan and Helen Cam as his

intellectual mentors, and E A Benians, M P Charlesworth and H P W Gatty as decisive influences in his academic development in the wider sense.

The main focus of his published work was the social and economic history of medieval England, a subject which, between the publication of his *The Abbey and Bishopric of Ely* in 1951 and, with John Hatcher, the two-volume *Medieval England* (1978, 1995), the student's bible on the subject, he made very much his own. With M M Postan and E E Rich he edited vol. III of the *Cambridge Economic History of Europe* (1963), with Postan the second edition of vol. II of that work (1987) and, unaided, vol. III of the *Agrarian History of England and Wales* (Cambridge, 1991). Other areas to which he made decisive contributions include the early history of the English parliament and the medieval history of his native north. His study of the medieval city of York in the *Victoria County History of Yorkshire* (1961) remains a classic, as is the case with a series of seminal articles published in the *Economic History Review* and *Past & Present*. (A full bibliography of his published works is to be found in R Britnell and J Hatcher, eds, *Progress and Problems in Medieval England. Essays in honour of Edward Miller* (Cambridge, 1996).)

From 1972 until 1979 he served as chairman of the V C H Committee, and from 1975 until 1989 of the Editorial Board of the History of Parliament Trust. He was elected to an Honorary Fellowship of the College in 1974 and to the Fellowship of the British Academy in 1981.

In all that he wrote, whether as author or reviewer, the style was the man. Judicious and fair-minded as well as deeply learned, he was above all a no-flourishes historian. Though sober and spare, however, his prose was never dull. For not only was his innate cheerfulness always breaking in, he was also possessed of a rare capacity for relating the general to the particular. It is on account of that precious gift, as well as of the deftness of the character sketches that flowed so easily from his pen, that forty years on his *Portrait of a College* retains all the freshness it had when it was published to mark the 450th anniversary of the College's foundation. Those already contemplating the task of producing a quincentenary volume of an altogether different character will have a hard act to beat.

'Like every good medievalist I have known, he was an out and out Conservative', V H Galbraith declared in his obituary of A L Poole, a medievalist of the other St John's (*Proceedings of the British Academy*, 49, p.439). As grotesque a pronouncement as ever has been delivered, Oxford's sometime Regius Professor's dictum reveals more about himself than it does either about Poole in particular or about medievalists in general, and the life and career of Ted Miller show it for what it is worth. The Balliol man's characterization of the head of house round the corner and up the road towards Birmingham was emphatically not applicable to the stalwart supporter of the WEA.

'Ted looked back on his years at St John's as a golden age', Mrs Miller wrote to Guy Lee soon after his death. By those who shared with him any part of that age, Edward Miller will be remembered, and gratefully remembered, as himself one of the principal purveyors of that lustre which meant so much to him.

Peter Linehan (with the assistance of Guy Lee)

The Sheffield years

E J King (BA 1963; Professor of Medieval History, University of Sheffield) writes:

It was a feature of the 1960s that newly-appointed professors had in their gift an assistant lectureship, a custom and a rank since sadly abolished. So it came about that, after Ted's appointment to the Chair of Medieval History at Sheffield in 1965, he was joined in the following year by one of his former pupils, a man less scholarly and less secular than he, though equally devoted to the medieval peasant. I found him well ensconced and with fixed routines. He would be in by 8.30, which seemed very early in those days (one of my Sidney Sussex pupils once objected to a 9am supervision on the grounds that the buses were not running that early). The morning's post was dealt with by 11, and at 12 noon sharp he would be at his stool in the Staff Club bar, thence returning home to the lunch-time version (perhaps scaled down, perhaps not) of Fanny's *cordon bleu* cookery. Afternoons he would teach or write, possibly returning via the Staff Club at 5.30, but never, ever,

being late for 'Dad's Army', whose merits he recognized instantly and expatiated on tirelessly. Ted lectured to the first year, never from more than three sides of notes, and continued his special subject on the reign of Edward I (on which for many years he projected a book). His pupils could see both his quality and his commitment. He spoke in his inaugural lecture of 'the duty of teaching those general audiences which a developing democratic system of education is bringing to our universities'. There was no element of patronage in that remark, nor was the word 'duty' chosen at random. Maitland and Marc Bloch were his mentors, and no historian has been more conscious of professing a craft. In a university that could still, just about, be seen as a single community, Ted's collegial qualities came to the fore. 'It is doubtful if there is anyone in the university held in such wide regard', was the verdict of the student magazine in 1971 when Ted returned to Cambridge. The 'Sheffield years' were no interlude but all of a piece with the rest of his career.

Master of Fitzwilliam

S G Fleet (BA 1958; Master of Downing College) writes:

Ted arrived at Fitzwilliam College in the autumn of 1971 as the second Master of the College and the first elected by the Fellowship. Fitzwilliam had been a non-collegiate institution for almost a century, operating for most of that time from a house in Trumpington Street. By the late 1940s the need for a non-collegiate institution, where students unable to afford College fees lived in lodgings and enjoyed only limited social and cultural facilities, had ceased to exist, since after 1944 College fees were reimbursed by Local Authorities. In 1966 Fitzwilliam had accordingly been re-established as a full College in new buildings on the Huntingdon Road paid for by the University Grants Committee supplemented by a College appeal.

The first Master, Walter Grave, steered the College during the crucial transitional period and established Fitzwilliam on its new site. It fell to Ted, as the second Master, to maintain the initial momentum, to build up academic standards and to consolidate Fitzwilliam's position within the University. His arrival in 1971 coincided with the student troubles

which affected universities world-wide at that time. Ted made an immediate impact. His warm and approachable personality provided encouragement and motivation to Fellows and staff. Undergraduates and postgraduate students responded immediately to the keen interest he showed in all aspects of their activities. Tensions between students and the dons, which had affected Fitzwilliam (as most other Colleges) as students pressed stridently for involvement in College government and the modification of the exam system, were defused. Students became observers on the Governing Body and members of various College committees. Lines of communication were improved. In all this Ted's long experience as Tutor at St John's and his ready empathy with students proved invaluable. Academic standards were improved and the range of extra-curricular activities in which the College excelled were developed. In 1973, the year in which handsome College arms were granted, Fitzwilliam won University Challenge. The Fitzwilliam Quartet was established. There were successes on the river, at the Union, and in cricket, badminton and sailing amongst other activities. Perhaps the major change during Ted's Mastership was the admission of women in 1979. The fact that this transition was achieved seamlessly and without administrative or other operational difficulties owed much to Ted's ability to lead and organize change.

As Master, Miller also coped impressively with a wide range of university commitments, as member of the Council of the Senate, Chairman of the Library Syndicate and Deputy Vice-Chancellor. In all these roles his administrative skills combined happily with a genuine interest in the aspirations and talents of the people with whom he worked. Perhaps most impressively of all, during his years as Master he continued to be centrally and actively involved in historical research, most notably in connexion with the early history of Parliament.

On his retirement from the Mastership in 1981 Ted Miller handed over to his successor a fully united and well-motivated society that had appreciated his infectious friendliness, his genuine warmth and spontaneous good humour.

The passages from Mr Dalyell's obituary in *The Independent* of 6 January 2001 are reproduced by permission.

Sir Mark Oliphant, 1901-2000

Mark Oliphant was born in Adelaide on 8 October 1901 and educated there. He graduated with distinction from the University of Adelaide and in 1927 received an 1851 Exhibition Scholarship which enabled him to come to Trinity College, Cambridge, to work as a research student under Rutherford at the Cavendish Laboratory. He moved to St John's as a Teaching Fellow in October 1934.

Oliphant joined the Cavendish Laboratory at a time when its star was in its ascendant. He got on very well with Rutherford and as time went on they became warm friends. Their respective families became close and they went on holidays together. Oliphant took over from Cockcroft and Walton the development of particle accelerators. His outstanding achievement during this period was the identification, with Rutherford, of tritium as an isotope of hydrogen.

In 1937 Oliphant was engaged on a major project, namely the construction of a 2 million volt accelerator, when he was approached with the offer of the Poynting Chair of Physics at Birmingham University. He had no wish to leave the Cavendish, but the prospect of heading a laboratory of his own proved strong and eventually he decided to accept the offer. Rutherford had been a party to the original approach, but when Oliphant told him of his decision, he was overcome by the prospect of losing his close friend and right hand man. He even forgot himself so far as to accuse Oliphant of disloyalty. However, this was a very temporary lapse, and Rutherford soon became his normal supportive self. At Birmingham Oliphant set about building up a laboratory for nuclear research and obtained funds for the construction of a very large cyclotron. This was a successful project, but unfortunately it was interrupted by the coming of war and the cyclotron did not come into action until 1950.

In 1938, when ominous war clouds were gathering, an imaginative scheme was evolved between the senior staff of the Cavendish and the Air Ministry whereby nearly one hundred physicists, mostly with close Cavendish connections, would be attached to coastal radar stations for a period of indoctrination and training. In this way, it was hoped that

they would be rendered more useful if war should come. Oliphant agreed to take a party of physicists, mainly from his own laboratory, to a radar station at Ventnor, on the Isle of Wight. Similar groups were to go to other radar stations. In the event, war was declared very soon after the groups assembled and, before long many of their members were sent off on various urgent missions around the country.

Oliphant was clear about how he personally could best aid the war effort. It was abundantly apparent to everybody that what was needed in order to achieve the full potential of radar was a means of generating high power on wavelengths very much shorter than those currently in use, namely, on wavelengths of a few centimetres. He believed that his group, with its experience of cyclotron design, would be eminently qualified to attack this problem. He was able to arrange that the group, with some additional members, should return to Birmingham under Admiralty support. The group soon achieved spectacular success, although not with the recently invented type of electron tube that Oliphant had decided to concentrate on, but with the old-fashioned magnetron, then despised for its erratic performance. We have here a good example of the way in which able and well qualified people, who are not too much burdened by knowledge of previous failures, can make a fresh and successful approach to a problem. The resonant cavity magnetron developed by Randall and Boot transformed the outlook for radar.

It was inevitable that Oliphant, with his background in high energy physics, should be drawn into the wartime effort to produce an atomic bomb. He spent a large part of the latter part of the war working at Berkeley on isotope separation. His personality and directness of manner succeeded very well with American scientists and others, and he became very influential in the United States. It has recently come to light that at the end of the war he was nominated, without his knowledge, for the American Medal of Freedom with gold palm – the highest form that that award can take – for conspicuous contributions to the war effort. Unfortunately, the award was blocked by the Australian Government.

Oliphant did not stay long in Birmingham after the end of the war. He was consulted about the foundation of the Australian National

Sir Mark Oliphant

University in Canberra and, when a final decision to establish the University was taken, he was offered the position of Head of the School of Physical Sciences. He accepted and moved to Canberra in 1950. There he initiated a project for the development of what was described as a homopolar generator. This was to be capable of providing very intense pulses of current for use in a particle accelerator. It consisted of a heavy disk of metal some feet in diameter, mounted on a vertical axis in the field of an electro-magnet, and capable of being spun up to a high angular velocity. Electrical contact was then made with the periphery of the disk and the stored energy converted into an electrical pulse. Unfortunately, this project ran into difficulties and had ultimately to be abandoned.

The news that an atomic bomb had actually been dropped, came as a great shock to Oliphant and had a profound and lasting effect on him. Thereafter, he used the full weight of his influence in support of efforts to control the use of nuclear energy for military purposes. He played an influential part in the Pugwash movements, that semi-official oganisation which brought eastern and western scientists together. At the same time, he was enthusiastic about the development of atomic power for peaceful purposes. He found it difficult to see any other way in which it would be possible to satisfy the power requirements of a rapidly growing world population. Many physicists take the same view today.

Oliphant was tall and solidly built, with a shock of hair that became white in middle age. He was friendly and outgoing in his personal relations. He had that directness of manner often shown by Australians and was no respecter of authority. At times, he could be impetuous and indiscreet. He held strong views on many subjects of public concern, but it is impossible to classify him in conventional political terms. In fact he was altogether outside conventional politics. Instinctively, he stood for monarchy and conventional values, but he also held radical views. In 1971 he was, on the nomination of Don Dunstan, Labour Prime Minister of South Australia, appointed Governor of the State. He was the first native born Australian to be holder of that office, and certainly the first scientist. He was by no means a conventional Governor, but I do not think that Dunstan expected that he would be. As Governor, he

continued to speak out on issues that he regarded as important even if that meant crossing swords with the Prime Minister. For example, he was critical of the growth in the State of what he felt was an unduly libertarian attitude to pornography.

Although an improbable choice as Governor, Oliphant is reckoned by his biographers, S Cockburn and D Ellyard, (*Oliphant*, Adelaide, 1981) to have been a success during the five years that he held the office. His eminence as a man of science and a public figure was not to be questioned, and he was popular with the Australian public.

I first met Oliphant in the Air Ministry in London towards the end of July 1939. I had also been invited to be the leader of a group of physicists on one of the coastal radar stations and, in company with Oliphant and leaders of other groups, all of them much senior to me, I found myself in late July sitting round a conference table at the Air Ministry. Watson-Watt was in the Chair and proceeded to make us privy to what were then very closely held secrets, namely the principles of radar and the existence of a chain of stations round the coast. This he did with a due sense of the importance of the occasion. In the discussion which followed, Oliphant made a number of critical comments on the proposed scheme. I cannot now remember what these were, but it was clear to me that here was a man of strong personality who said what he thought.

Oliphant maintained close links with St John's. He was elected an Honorary Fellow in 1951, shortly after he had moved to Canberra. He was not infrequently in England and whenever he could would visit Cambridge and dine at High Table. He was always glad to talk about what he was doing. Once he was in the middle of putting together a Biographical Memoir of Sir John Cockcroft, another Johnian, for the Royal Society. On another occasion, when he was Governor of South Australia, he had just come from waiting on the Queen at Windsor. She had referred to the fact that, in his capacity as Governor, he was her personal representative in South Australia, and this was obviously a source of pride to him. He died on 14 July 2000 at the age of 98.

Maurice Wilkes

Sir Rutherford Ness Robertson, 1913-2001

Rutherford Ness Robertson, known as Bob, was born on 7 October 1936 in Melbourne, Australia. He graduated from the University of Sydney in 1930, having studied Chemistry and Botany, and carried out research in Sydney for three years, before coming to St John's in 1936 to carry out research into the relationship between cellular respiration and salt uptake by cells. He was awarded the PhD degree in 1939 and had begun what would be a lifetime interest in energy cycle and respiration in plants. His research was concerned with problems of salt accumulation and respiration in plant mitochondria and he also carried out work on the development physiology of fruits.

He returned to Sydney in 1939 as an Assistant Lecturer and seven years later he joined the Commonwealth Scientific and Industrial Research Organization (CSIRO) as a Senior Research Officer, later becoming Chief Research Officer. During the War, which restricted the transport of fruit, he worked on ways to provide better storage for apples, pears and wheat.

Robertson persuaded the Botany Department of the University of Sydney to pool resources with CSIRO to set up a joint Plant Physiology Unit. This was founded in 1952.

In 1962, having been elected a Fellow of the Royal Society in 1961, Robertson became Professor of Botany at Adelaide University where he remained until 1969. He then became Master of University House in Canberra and continued his research in collaboration with Australian National University scientists. In 1973 he became Director of the Australian National University's Research School of Biological Sciences.

While President of the Australian Academy of Science, a post he held from 1970 to 1974, he famously lead a research group which criticised the likely effects of French atmospheric testing of nuclear weapons in the Pacific.

Robertson retired in 1978 but continued as Deputy Chairman of the Australian Science and Technology Council and was Pro-Chancellor, Australian National University, from 1984 to 1986. He also continued his research at the University of Sydney and at CSIRO.

In 1969 he was given the Honorary Degree of Doctor of Science by the University of Cambridge and he was elected an Honorary Fellow of the College in 1973. He was knighted in the New Year Honours List in 1972 and became a Companion of the Order of Australia in 1980.

Rutherford Robertson made lasting contributions to Australian science through his research, his leadership of others' research, and his influence within university and government administration.

In 1937, he married Mary Helen Bruce Rogerson and they had one son, Robert James. Robertson died on 5 March 2001. Sadly his wife died two months later, as the result of injuries sustained in a car accident.

Catherine Twilley

Bishop Philip Goodrich, 1929-2001

Philip Goodrich (BA 1952), son of Canon Harold Goodrich of Lincolnshire (BA 1915), was Mr Lee's pupil and read for the Historical Tripos. Following ordination training at Cuddesdon and a curacy at Rugby Parish Church, he returned to the College as Chaplain, 1957-1961, James Bezzant being Dean. His next post was Rector of the South Ormsby Group of parishes in the wolds of Lincolnshire where, with two curates, he was responsible for twelve medieval churches in sixty square miles with a total population of barely one thousand souls. One of his curates was Andrew Macintosh (BA 1959) who, endued with a variety of Johnian, if not apostolic, succession, returned to the College as Chaplain in 1967.

From the depths of rural Lincolnshire, Philip Goodrich migrated in 1968 to Kent as Vicar of Bromley and thereafter, in 1973, was appointed (Suffragan) Bishop of Tonbridge. He was translated, as a diocesan Bishop, to Worcester in 1982, serving there until his retirement in 1996.

PHEG was an affable and cheerful clergymen whose great gifts were pastoral. Indeed he was once described as 'one of the nicest bishops of the Church of England'. He liked people; he was not pompous and he could laugh at himself (a rare gift on the bench of Bishops). His natural enthusiasm was marked by a certain impetuousness and he was inclined at times, but always with charm, to speak before he thought.

Philip Goodrich, even as a Bishop in his enormous Hartlebury Castle (in fact he occupied only a tiny part), was 'hands on' in terms of bell ringing, gardening and even housework. He loved St John's dearly and not least because it was while he was here as Chaplain that he met his beloved wife Margaret. The latter, with their four daughters, survives his untimely death at the age of 72.

The College was represented at his Memorial Service in Worcester Cathedral by Drs Guest and Macintosh. His successor as Chaplain, Bishop Keith Sutton, was present and the music was directed by the Organist of the Cathedral, Adrian Lucas (BA 1983). A solid Johnian presence at the Adieu to a well liked and loyal member of the College.

Andrew Macintosh

Fred Mason, 1913-2000

For much of his life Fred Mason led something of a double existence. He was a Porter in the Cripps Lodge for much of the 1970s and, before coming to Cambridge, he had run corner shops in Waltham Abbey and Borehamwood and been a salesman for Weetabix. Outside of work, however, he devoted himself to his overriding passion in life: music; for like his grandfather, Fred was a more than capable violinist. With wide-ranging tastes in music (he even tolerated pop!), Fred enjoyed playing in dance bands, amateur orchestras, quartets and chamber ensembles as well as giving solo performances accompanied by his wife Mabs (Mable) who was herself no mean pianist.

A few years before coming to Cambridge, Fred was persuaded to join an evening class for violin making in Enfield. There he made his first violin and that was the start of a second career which he continued while at St John's and in his retirement. Working in a shed in his back garden Fred produced a steady stream of violins, violas, and cellos as well as doing repairs and bow rehairing. He did work for the Cambridge Music Shop (which sadly closed down last year), and for Ken Stevens as well as acting as a consultant valuer of instruments.

Needless to say, Fred was only too happy to take an active part in the College's musical life, playing in the College orchestra and various

Fred Mason (Photograph courtesy of Cambridge Newspapers Ltd)

chamber ensembles. In January 1975 he was joined by Graeme Smith (viola) (BA 1976) and Martin Morris (cello) (PhD 1984) for a performance of a Beethoven string trio in which he had made all the instruments. A few years later he was a member of a private string quartet which played at a May Ball.

It was through their love of music that he met Mabs when they were 14. They were married ten years later in 1938 in Waltham Abbey Church, where they returned to restate their marriage vows on the occasion of their Diamond Wedding anniversary in 1998. Except for Fred's wartime military service, which saw him leading a platoon in Holland and Belgium, they remained an inseparable couple, devoted to each other and their daughter Glenys, their relatives, and many friends. Throughout their long and happy married life they were always willing to help those less fortunate than themselves, particularly by playing for charity organisations.

Fred enjoyed life in the Cripps Lodge, especially when he could afford to pass the time of day with anyone who cared to pop in – and if they were interested in music so much the better. At that time the proximity of the Cripps JCR and bar could occasionally create a few problems for the night duty porters but Fred would treat even the most outrageous student behaviour with a disarming courtesy and politeness. Such was Fred's outlook on life for, as all those who knew him will testify, Fred was above all a gentleman – and a gentle man, someone it was a pleasure to know.

Glenys Edwards, Celia Marriage, Richard Holroyd (BA 1968)

Douglas Adams, 1952-2001

Many readers of *The Eagle* will have learned from other sources of the sudden death, on 11 May 2001, of the popular comic writer Douglas Adams (BA 1974). It was not long after he had graduated that Adams conceived a means of combining bizarre comedy, partly in the Monty Python manner, with a parody of the well-established genres of science

fiction and fantasy. The result was the 1978 BBC radio series *The Hitch-Hiker's Guide to the Galaxy*, which in book form soon turned into a multi-million best-seller, and initiated a succession of sequels, including *The Restaurant at the End of the Universe* (1980), *Life, the Universe and Everything* (1982) and *So Long, and Thanks for the Fish* (1984), as well as television and stage versions. Such spectacular success proved hard to sustain, and during the 1990s Adams's interests moved in the direction of environmentalism and ecology, with a combined book and CD-ROM about an endangered species of Madagascan lemur, called *Last Chance to See*, which he described as 'still the thing I am most proud of' in a recent interview.

At St John's Adams had ample opportunity to observe the academically rooted quirks and singularities that often surface in his fiction, reading English under Hugh Sykes Davies and George Watson, the latter remaining a life-long friend. A tall, burly figure with a droll but watchful manner, very keen on the electric guitar, Adams dutifully fulfilled the requirements of the Tripos but made no secret of the fact that his real interest lay in writing scripts and sketches for the Footlights and other revues. Like most good comic writers, he had a way with names; those of several Johnians of his time, together with other Cambridge acquaintances, are recognisable in risible variants in the Hitch-Hiker's series.

Adams's characteristic technique of juxtaposing up-to-date scientific concerns and hi-tech jargon with popular culture and the commonplace has since been widely imitated, but was strikingly original when first conceived. His prescience in imagining a technological dimension to everyday life, where seemingly limitless quantities of largely useless and often inaccurate information are instantly available to all at the flick of a switch, was also remarkable. In such respects his writing must inevitably date; but its comic voice, in which contemporary cadences are shot with older styles of humorous dialogue drawn from Lewis Carroll, P G Wodehouse, A A Milne and Evelyn Waugh, has given the language a number of phrases (and some good jokes). It will surely endure.

Richard Beadle

OBITUARIES

Alexis Michael Panther Brookes, 1913-2002

To the many engineering undergraduates who climbed up F staircase Chapel Court for supervisions with Harry Rhoden and Alexis Brookes, it was appropriate that an engineer with the initials AMP was an expert on electrical engineering and electronics. They were to learn that Alexis was a man of much learning, a polymath might be the appropriate description. He had entered St John's in 1931 from Westminster School with a Scholarship in Classics, but he quickly changed to read for the Mechanical Sciences Tripos. Although he did not study Classics at Cambridge, he maintained his Greek by a daily reading of texts.

The breadth of the Mechanical Sciences course, which covered all aspects of engineering, was well matched to the interests of Alexis and it provided the foundation for his versatility. He was a very practical person who loved the challenge of a technical problem and enjoyed developing a solution. Throughout his life, his family and friends found that when faced with a piece of equipment, Alexis would immediately identify a better solution, a better design or a more economical way of achieving the end result. If it did not perform as expected, then Alexis would suggest improvements; if it had failed, then he would offer to repair it.

The characteristic which we all remember was his willingness to offer help. One of his College friends recalls how Alexis had helped with a barometer. It was an old barometer in a sealed metal case and it could only be repaired after opening up the case. The use of a tin opener appeared to be the only solution! Alexis had a better idea and asked if he could take it away. It was returned a few days later with the case open and the mechanism repaired. How did he do it? He took the instrument home and subjected it to thermal cycling. He placed it in the freezer for a few hours, then in the cooker, back to the freezer, then the cooker, repeating the cycle until the seal on the instrument surrendered and the metal case opened.

Alexis Brookes

Alexis belonged to that band of engineers who believe that engineering should be fun, a career to be enjoyed. He had very broad interests and moved freely across the different aspects of engineering. In supervisions, he would switch from the coursework in electronics to discuss the latest technology. He would enjoy describing the latest developments in electronics, computing, printers, cameras, telescopes, projectors, scanners, hi-fi, or recording equipment, often having obtained a prototype to test. Occasionally, he would discuss major projects with which he had been connected – there was one afternoon when he launched off into a long discussion on the feasibility of building an electro-magnetic gun to fire shells across the Channel. Some years later, this formed the basis for a first year undergraduate design-make-test exercise where a model electro-magnetic gun fired metal rings across the laboratory.

After leaving Cambridge, Alexis completed a graduate apprenticeship with the English Electric Co at Stafford and was then employed in the research laboratories of English Electric. During the Second World War, his work took him to the National Physical Laboratory where he became familiar with the instrumentation for precision measurements. At the National Physical Laboratory he met Laura, leading to their marriage and a long and happy life in Barton Close with their three children.

When Alexis returned to Cambridge in 1946 as a Demonstrator in electronic circuits and instrumentation (Lecturer from 1949 to 1980), he was in great demand for advice on instrumentation for research equipment. No one was turned away – the problems of his colleagues were just another challenge to be overcome. In parallel, he helped to develop new courses in instrumentation and in metrology and these followed naturally from his earlier work at NPL. His interest and enthusiasm in the use of new educational technology to improve the quality of teaching, led to him being invited to act as Director for the University Audio Visual Unit.

Alexis was elected to a Title B Teaching Fellowship at St John's in 1948, the start of a long career as a Supervisor in Engineering. He continued to supervise until long after retirement from his University Lectureship.

In College, he served for 11 years as Junior Bursar, 1952-63, sharing the post with Clifford Evans. This was a partnership which worked very smoothly, with Clifford Evans taking responsibility for buildings and fixtures, while Alexis attended to the contents, heating and other aspects. The late 1950s was an exciting time to be involved in administration at St John's in that planning started for the new Cripps Building. Again, Alexis was deeply involved and he acted as Secretary of the New Buildings Committee. He saw the opportunity to make a photographic record of the building of Cripps. With his characteristic flair for technology, he set up a camera in a room on F staircase, Chapel Court, overlooking the river and the building site. Each day, at a set time, a photograph was taken. These were then used to form a short cine film. When the College marked the completion of the Cripps Building with a celebration for all involved in the planning and construction, the film was shown in the Small Combination Room. It ran as a loop, showing the old bath house disappearing and the new Cripps Building rising up out of the ground.

For many years Alexis had been interested in optics, first with photography and then as an amateur astronomer. He had an astronomical telescope at his home in Barton Close and when the telescope in the Newnham College observatory required refurbishing, Alexis was on hand to offer advice. This led to a second link with Newnham when he was asked to assist with the repair of a sundial. He designed a new gnomon, with patina to match the dial, and helped to align it correctly. This was a new interest and he realised that Cambridge is well endowed with sundials. Alexis produced a photographic record and this led to the publication of *Cambridge Sundials*, by Margaret Stanier and Alexis Brookes. It was typical of Alexis that having helped to solve one problem, he was drawn into another. His career was based on problem solving, always enjoying the new challenge and building up an ever-widening circle of friends.

A significant turning point came in 1970 when Alexis sat down in the staff common room of the Engineering Department and asked Donald Green about his recent work. The reply was to shape much of Alexis' life over the next 15 years. Donald was developing a new course in surveying and Alexis could see that there was an opening for someone

with expertise in astronomy, instrumentation and precision measurement. Without any hesitation, he offered to assist with the new course and as a result, he was for many years a member of the surveying team. He helped to develop new instrumentation for the measurement of time intervals to high precision, based on signals from the transmitter at Rugby, and precise distance measurement.

Many Johnian engineers will remember that pre-1970, the field course in surveying took place on Coe Fen, perhaps the best documented piece of ground in the UK. By the 1970s, the decision had been taken that the course should be held away from Cambridge. The survey course moved to Coniston in the Lake District, making civil engineering at Cambridge much more attractive. The students stayed at Brantwood and Alexis was well known for being the first to bed and the first to rise. At 4.00am he would stride out with his camera to record what he called 'the green flash', a flash of green light across Coniston Water at sunrise. Given the geography of Coniston Water, a green flash at sunset might appear more likely, but Alexis had heard that a similar phenomenon could be seen at sunrise.

Later, the survey course moved to the North York Moors, near Whitby. One afternoon, Alexis, with a group of students, ventured across the moors towards Fylingdales, the massive 'golfballs' which formed part of the Early Warning Radar System. The students were carrying survey equipment and at a distance, their purpose may not have been clear. The security guards were put on alert – who were these people making detailed records of the 'golfballs'? Alexis and the students were arrested – presumably as spies. It was at this point that Alexis played his trump card. For many years, he had maintained his contacts with the Ministry of Defence and he suggested that the security staff should telephone the MoD. Within minutes, his identity had been confirmed and they were all released; prompt action which greatly improved his standing with the students!

A few years later, the surveying course had moved to the Lammermuir Hills, south of Edinburgh. Alexis and a group of students climbed Arthur's Seat in Holyrood Park, an outcrop which overlooks the grounds of Holyrood Palace, the Queen's official residence when in

Edinburgh. There is an Ordnance Survey pillar and grid reference point on Arthur's Seat, so that it is a logical place to set up surveying equipment. The team from Cambridge was spotted by the park police and as they came down, they were arrested. Were they spies, or a school for paparazzi? Although the general public can climb Arthur's Seat, picnic at the top, and climb the pillar, the use of surveying equipment is not allowed. It is necessary to obtain permission from the Queen to use the Ordnance Survey pillar on Arthur's Seat for the purpose of surveying! Again, Alexis had to play his trump card and ask the park police to contact his friends in the MoD. The MoD verified his identity and Alexis and the students were released. For future surveying courses, written permission was obtained for surveying equipment to be used on Arthur's Seat!

No record of Alexis would be complete without reference to the Rolls Royce. It was built in 1934, a magnificent car of great length, with huge headlamps and immaculate bodywork, an elegant and stately mode of transport for two or three people. When Alexis bought it in 1946, he argued he would never need to buy another car. However, the vintage Rolls, with only two seats under cover and dicky seats open to the weather at the rear, was not a practical solution for a family man with a wife and three children, particularly in winter. Alexis had a solution, move the dicky seats forward, under cover.

For many years, Alexis acted as the University Motor Proctor, but ownership of a vintage Rolls Royce was not a pre-requisite for the post. As Motor Proctor, he had to assess the various arguments put forward for keeping a car in Cambridge and this provided him with a large stock of the more amusing and less credible arguments.

Alexis was a person of great integrity, with a wide range of interests and great versatility. He devoted his life to his family, his friends, the College and the University. His willingness to help others and to solve problems, whether technical or administrative, was legendary and it led to a very wide circle of friends. We shall miss his support, his sound common sense, his talents at solving problems and his sense of fun.

Harry Marsh (Fellow 1963–1971)

Dr Frank Samuel Jennings Hollick, 1910-2001

Frank Hollick, Fellow since 1935 and Senior Fellow since 1991, died on 28 May 2001 after a fall. Born in Manchester on 17 November 1910, he was one of many Johnians to have been educated at Manchester Grammar School.

His mother was Mrs Agnes Mary Hollick (née Jennings) and his father, Samuel Mee Hollick, a Minister in the Catholic Apostolic Church. Both Frank's father and his maternal grandfather had also been elected to the episcopate in the same Church. He had one younger sister.

As a schoolboy Frank was a keen natural historian and photographer, and took some wonderful photographs of curlew and nesting whitethroats. These interests remained with him for the rest of his life. But it seems likely that Frank had a somewhat serious childhood. His school testimonial indicated that he did not shine under examination conditions, but he nevertheless came up with a Close Exhibition, matriculating in 1929. In his first two years he just missed the Firsts that were expected of him, his supervisor commenting that 'his mind is of the type that concerns itself less with facts . . . than with ideas and general principles'. He was unfortunate to become ill in his third year, and spent some time in a sanatorium, being awarded an aegrotat degree. However he had already shown such promise that he was able to embark on research in 1933 with a grant from the Strathcona Fund, subsequently being awarded a Strathcona Studentship.

As a research student his extreme manual dexterity and persistence enabled him to pioneer in research on the mechanisms of insect flight, and he was awarded a Research Fellowship in 1935. He gained great satisfaction from devising and making inexpensive equipment, and achieving results that today would be seen as requiring much more sophisticated and expensive equipment.

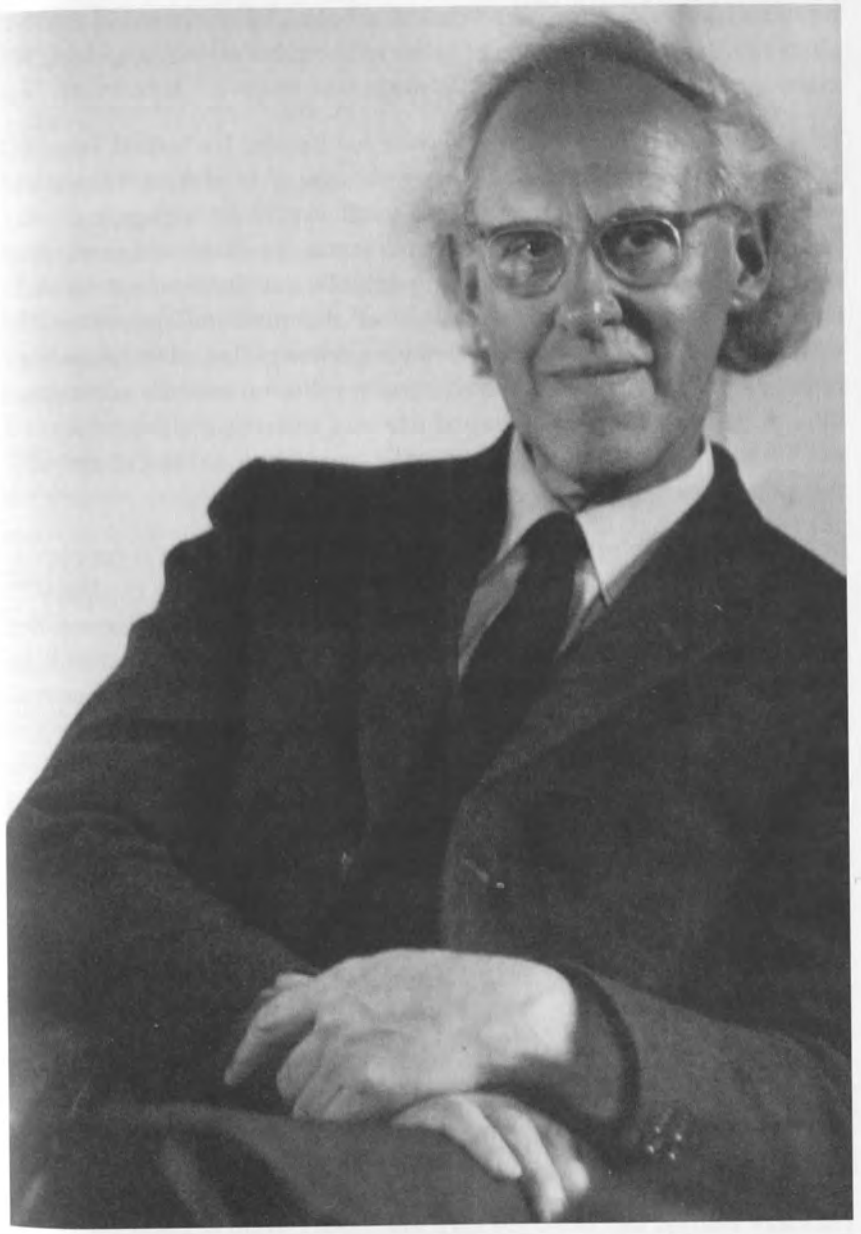
It may surprise those who knew Frank later in his life to know that in 1939 he joined an international expedition to the Himalayas as a scientist, and climbed a peak of 20,800 feet. This expedition can be seen as symbolic of the persistent searching which characterised the rest of

his life. He returned from the Himalayas somewhat hastily on learning of the declaration of war, and was much concerned with helping his Austrian companions on the expedition, who were in danger of internment.

During the Second World War he collaborated with Dr George Salt on wireworm population dynamics, devising a wonderful machine which greatly accelerated the counting of the samples. He spent many nights on the lookout for incendiary bombs, and was Chairman of the Cambridge Committee of the International Student Service. I first met him when I came up in January 1946, and have vivid memories of supervisions with him. He seemed shy, perching on the edge of his chair, and I was very aware of my ignorance and of my years spent away from academia. As a result there were long gaps in our conversations, though perhaps my embarassment at the time has exaggerated these in my memory. Nevertheless he imparted to me his sense of wonder at the diversity of the animal kingdom and the precision of adaptation in the Invertebrata.

Frank spent almost his entire adult life in Cambridge, living since 1947 with his family in Comberton, with occasional retreats to their much loved and remote cottage in Scotland. He became a University Demonstrator in Zoology in 1937, and continued as a University Lecturer and as a College Teaching Fellow until 1972.

He contributed greatly to the organisation and detail of demonstration classes in the Zoology Laboratory, where he would emphasise the beauty as well as the structure that the microscope revealed. But he was particularly concerned that, wherever possible, the organism should be studied in its natural environment. Perhaps his greatest impact was with small groups of dedicated students on field courses on Scolt Head and elsewhere, some of which included both Zoology students from Cambridge and art students from Homerton, the latter 'to extend the range of perception being exercised'. It was in these groups, perhaps, that he communicated most adequately part of himself. He tried to instil in the students a recognition of the relation between the concrete 'reality' of the animals they found and their experience of them, leading



Dr Frank Hollick

to a realisation of a greater wholeness. He also maintained a close affection for Wicken Fen, where he had started his research, serving for many years on the Wicken Fen Committee.

When his father died, Frank inherited his library. He retired from his Lectureship in Zoology and College teaching to devote himself to reading widely in search of an overall synthesis, struggling with problems that most would hesitate to tackle. He was a man of deep Christian convictions and, drawing initially on the writings of A N Whitehead, he was deeply sensible of the need to appreciate the wholeness of life. He sought to bring together philosophy, cosmology, biology, religion and aesthetics, focusing more on matters conceptual than practical. Although he hoped one day to bring it all together in a publication, the complexity of the ever expanding subject meant that this hope was never realised.

In his Zoological work, too, the usual, and sadly necessary, compromise between the pressure of time and the seeking of highest quality was impossible for him. As a result his published output was not great. But he made a lasting impact on the College in other ways, and will be remembered especially for his advice on College matters that involved aesthetic judgements. He was deeply involved in advocating the continuation of the College Choir School when it left Bridge Street. He took a great interest in the installation of sympathetically designed lighting in several parts of the College. He took endless trouble over choosing an appropriate mix of colours for the stones with which Second Court is now paved, and his views on the pointing when the Court was repaired were crucial. His vehement rejection of a proposal for rose trellises in First Court is remembered vividly by many Fellows. He strongly opposed the suggestion that the new Library should be built at the western end of the College, feeling that the whole Library should be placed in the centre of the College and supporting the view that it should adjoin the Old Library in Chapel Court, the choice eventually made by the College. He had strong views about the treatment of the Maufe screen. His speeches to the Governing Body were never off-the-cuff, but made with care and clearly involved much previous consideration. As Senior Fellow he guided the College through

the last Mastership election. But it was the Fellows' loss that many did not find communication with him easy. Small talk was not for Frank, and he needed a feeling of rapport before he would pursue deeper matters.

Frank married Alison Elias, a Newnham graduate, in 1946, having met her at the Committee of the International Student Service. She supported him in all his endeavours for the rest of his life. They had three sons, one daughter, and one fostered daughter who became part of the family. Their home in Comberton adjoined a small field, which they cultivated as a family enterprise with the aim of being self-supporting. He was a keen gardener right up to the end. Frank played a large part in village life. He was responsible for preserving the old Primary School as a Nursery School, and did much to preserve the Allotments and Gardens Committee and the village show. He was the moving spirit in the conservation of the duck-pond in the centre of the village when there was a move to turn it into a car park, and he guided and participated in its refurbishment.

In both village and College he will be remembered with gratitude.

Robert Hinde

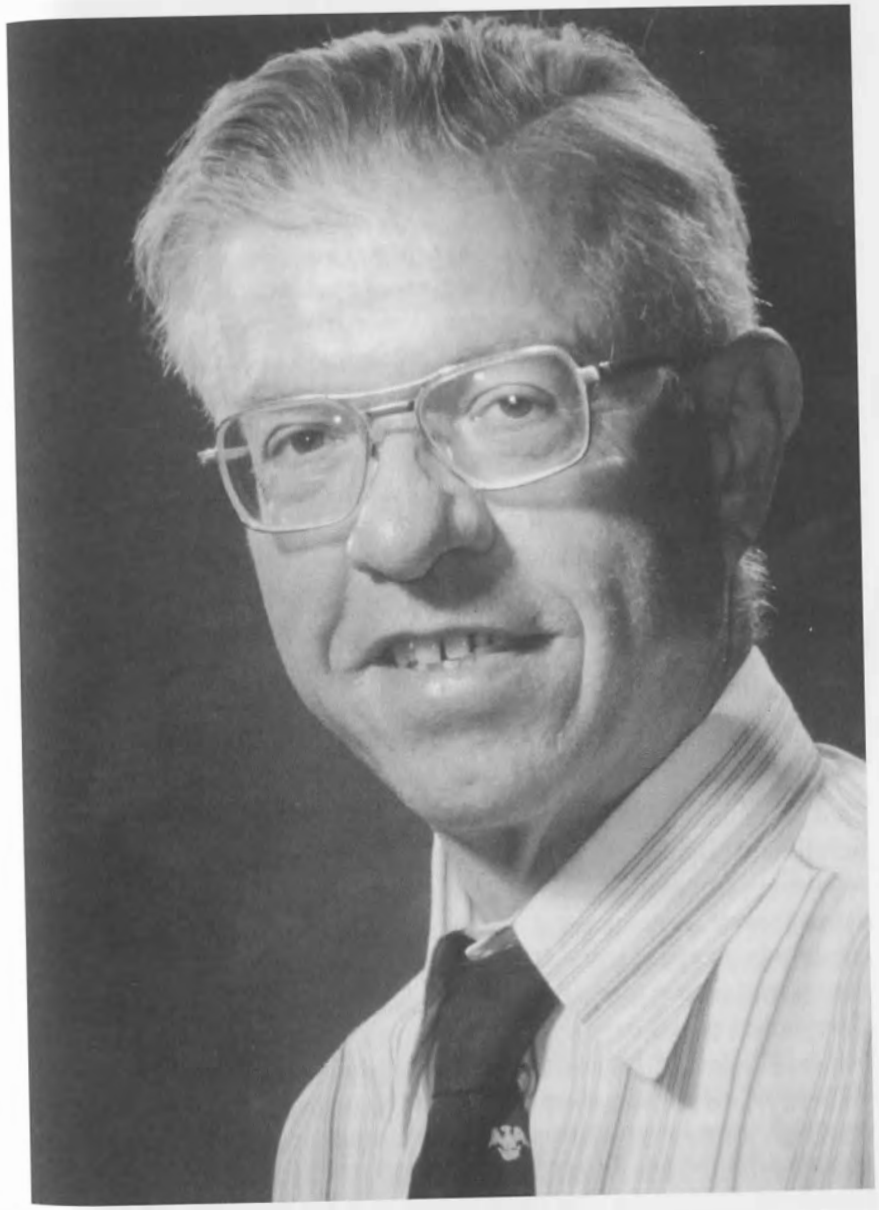
Professor Sir Fred Hoyle, 1915-2001

Fred Hoyle was the astrophysicist *par excellence*, and much else. He wrote technical papers on an astonishingly wide range of astronomical topics, his most important work permanently widening our vistas and influencing strongly the direction of future research. As a populariser of science, he inherited the mantle of James Jeans and Arthur Eddington. His 1950 radio lectures on *The Nature of the Universe*, given long before television became the principal medium, earned him the unofficial title, the 'radio cosmologist'. Their published version and his later volume *Frontiers of Astronomy* were read avidly by old and young, and many who later achieved scientific distinction have acknowledged that his books led them to make astronomy their vocation. His restless mind led

him to write forcefully and often provocatively on important issues in areas a long way from his own expertise. He also wrote some very readable books of science fiction, including *The Black Cloud*, *Ossian's Ride*, *October the First is Too Late*, and *Rockets in Ursa Major*, the last in collaboration with his son Geoffrey; and for relaxation, he produced a farce, a pantomime and an opera libretto. His autobiography *Home is Where the Wind Blows* appeared in 1994.

Fred was born in the Yorkshire dales, the son of a wool merchant descended from Huguenot refugees. From Bingley Grammar School he went up to Emmanuel College, Cambridge, in 1933 to read Mathematics. In 1936 he won the Tripos Part III Mayhew Prize. As Paul Dirac's research student, in 1938 he was awarded the first Smith's Prize for an essay on β-decay, and in 1939 he was elected to a Fellowship of St John's for a thesis on quantum electrodynamics. While always retaining his interest in fundamental physics, his subsequent research was primarily in astronomy and cosmology, stimulated to some extent by interaction with Ray Lyttleton (another Johnian import, from Clare). The War took him away from Cambridge to work for the Admiralty on radar and other technical projects. The after-hours discussions with his fellow workers Hermann Bondi and Thomas Gold bore fruit when all three returned to Cambridge after the War. In 1958, Fred succeeded Sir Harold Jeffreys – another Johnian – as Plumian Professor of Astronomy.

Fred was a controversial figure all his life, but in at least two major astrophysical areas, it is universally agreed that his contributions are outstanding. Already in 1946 he had formulated the original, and still generally accepted, idea that the elements are generated in evolving stars and injected into the interstellar medium by supernova explosions. Probably his most spectacular achievement is an early application of what we now refer to as the 'Anthropic Principle'. The element Carbon is crucial for the origin of life and so for the existence of physicists capable of studying the Universe; hence there must be a way that Carbon will be produced. In the early lifetime of a star, the energy radiated comes from the fusion of Hydrogen into Helium. Ed Salpeter at Cornell had shown that in the hot, dense interior of an evolved star, three Helium nuclei could fuse to form a Carbon nucleus. The difficulty



Professor Sir Fred Hoyle

is that the theory predicts also the immediate conversion of Carbon into Oxygen, through fusion with a fourth Helium nucleus. It was Fred who showed that this disaster would be prevented if there were a previously unknown excited state of the Carbon nucleus, a precise prediction, verified soon after in a CalTech laboratory.

Subsequent collaboration with Willy Fowler and with Margaret and Geoffrey Burbidge yielded an epoch-making paper ('B^2FH') on the synthesis in stars of all nuclei upwards of Carbon. It remains a mystery why Fred's name was not bracketed with Willy Fowler's in the 1983 Nobel Prize award. However, recognition of the outstanding importance of the solution to the Carbon problem came with the award to Fred and Ed jointly by the Royal Swedish Academy of Sciences of the 1997 Crafoord Prize.

Parallel to this, Fred made many permanent contributions to our understanding of the evolution of the stars. Another landmark paper, written with the late Martin Schwarzschild, gave the first complete discussion of the evolution through nuclear processing of a low-mass star, of moderate brightness, initially similar to our Sun, into a much brighter 'red giant' star. This joint work, along with the many other high quality papers by each author, earned them the prestigious 1994 Balzan Prize.

Fred is remembered by many as an advocate (parallel to Hermann Bondi and Tommy Gold) of the Steady-State cosmological theory, requiring 'continuous creation of matter', as an alternative to the evolutionary cosmological models (to which he gave the now commonly accepted name 'The Big Bang'). Implicit in the theory is that the created matter is pure Hydrogen. Of the series of arguments from observation raised over the years against the Steady-State picture, the one which he did regard as potentially serious is the evidence for a content of Helium in even the oldest systems, far higher than that expected from fusion during stellar evolution. In a well-known paper, written with the late Roger Tayler, he conceded that this Helium could have been produced in the early phases of a hot Big-Bang Universe, as had been argued earlier by George Gamow and others. However, over the decades, together with Geoffrey Burbidge and Jayant Narlikar, he

continued the search for a variant of Steady-State cosmology that would nevertheless account for all the observations – the radio source counts, the quasar red-shifts, the microwave background and the abundances of helium and other light nuclei – summarised in their 1999 book *A different approach to cosmology*. To most other workers in cosmology, it may appear as a labour of love. I would myself say that at a time when – to be sure, as a consequence of accumulating observational evidence – standard big-bang theory has acquired the explicit or tacit support of most of the astronomical community, it has been good for the health of the cosmological enterprise that an intellect as powerful as Fred's should ensure that possible alternatives do not go by default.

I recall going along to the ADC theatre in Cambridge in 1950 to see Barbara Hoyle's production of *A Midsummer Night's Dream*, with Fred in the part of Bottom the weaver. A magnificent performance, especially in the scene where Bottom is not content with the assigned role of Pyramus, but wants to be considered for all the other parts in the play within the play. It reminded both me and my late friend Dennis Sciama of how in addition to his major areas of research, outlined above, Fred had a finger in most other pies on the astrophysical menu – star formation, sunspots and solar flares, interstellar dust, and the physics of quasars and radio sources. Recognition came with the award of the Royal Astronomical Society's Gold Medal in 1968 and one of the Royal Society's Royal Medals in 1974. In 1971-73 he served as President of the RAS.

One should remember also his organisational efforts. He finally persuaded Cambridge to set up in 1967 the Institute of (Theoretical) Astronomy, taking a leading part in the detailed planning and costing. He was its first Director, and the main building is now known appropriately as the Hoyle Building. He also did excellent work for the Anglo-Australian Telescope, first as a member of the Science Research Council, and later as Chairman of the AAT board. When by 1972 he felt unable to continue working in Cambridge, he had built up a centre which under a series of eminent Directors has retained its world-class status, while he continued writing, first from the Lake District and latterly from Bournemouth.

For most theoretical astrophysicists, the feeling that we are taking a significant step towards the ultimate resolution of an important astrophysical problem is sufficient motivation to justify the investment of intellectual and emotional energy. But for Fred, I suspect that this was not enough: he needed to feel that, in whatever he was working on at the moment, he was producing at least a close approximation to the definitive answer. He gave such a hostage to fortune when he concluded his 1950 radio lectures – given before the discovery of quasars, pulsars, X-ray sources, putative black holes and the background micro-wave radiation – with the optimistic statement that the picture of the Universe that he had presented was unlikely to change. But equally, he was usually self-critical enough to recognise when observational evidence and further theoretical work required abandonment of a cherished model, replacing it sometimes by one that he had earlier rather too hastily dismissed. One admired both his flexibility of mind and fecundity of ideas; but I would have preferred, both earlier and later, a more cautious presentation of his currently favoured picture, such as on the origin of the Solar System.

It must be admitted that at times his style was unnecessarily polemical and could be embarrassing to his friends and admirers, such as in his interactions with the Cambridge radio astronomers (where indeed there was provocation), and even more so in his forays into other areas, especially when commenting on what he thought was facile theorising. He was particularly critical of the standard Darwinian picture of evolution, which he claimed to violate elementary laws of probability. Though a life-long unbeliever, in this area he seemed latterly to be incorporating a teleological strand into his thought. He did not accept the 'Primordial Soup Theory' for the origin of life on earth, arguing rather for his version of 'Panspermia', in which viable cells were (and are still being) transported earthwards from space on comets. He went further in arguing that epidemics were triggered by the descent of bacteria and viruses through the earth's atmosphere, predictably arousing fierce hostility. Much earlier, a book in which he predicted economic disaster for the UK unless there was a drastic reduction of the population by mass emigration, provoked a review with the title 'A cobbler a long way from his last'. Confronted every day with evidence

that professionally trained economists have so little success in their often mutually contradictory predictions, one can only look on with awed respect at Fred's willingness to stick his neck out. But maybe one should not jib at his willingness to court controversy. One hears it said that academic institutions in which there is no internal rivalry, not to say in-fighting, are also significantly less productive, tending to degenerate into mutual admiration societies. And I recall the worldly-wise rabbinical gloss on a bland, almost tautological verse in Ecclesiasticus: not 'The wisdom of the scribes...' but 'The envy of the scribes increases wisdom'.

He was a towering figure; in Martin Rees' words, in his golden years he 'injected more good ideas into the field of astronomy and cosmology than anyone else'. His intellectual legacy to all working astronomers and indeed to the informed laity is manifest. I certainly count myself fortunate to have begun my research career as a student of the one and only Fred Hoyle.

Leon Mestel (Fellow 1957-1966)

This obituary is an edited version of the original that appeared in the October 2001 issue of *Astronomy & Geophysics*, the Journal of the Royal Astronomical Society.

John Crook adds:

What fun we had on Sunday evenings in the Combination Room, sitting till late and prodding Fred (it took but little) into arguments about the universe and economics and what made a musical tune a memorable one . . . And I remember the opera: the poor composer came over from the USA and slaved away all day, and in the evening in would come Fred, demanding to know how much he had done. And I remember Fred trying to learn to bowl (for Ray Lyttleton was a fine cricketer) by studying the aerodynamics of ball-flight . . . Oh, what fun we had!

Thomas Peter Ruffell Laslett 1915 -2001

In a world where it is often bemoaned that we lack the wide-ranging 'Renaissance man' (and, of course, woman), we often overlook them here in our midst. Peter Laslett was a soldier-scholar, a man of action and ideas, who worked both at the leading edge of the academy and in the mass media, a serious bibliophile and patron of the arts (the modernist house he had built at 3 Clarkson Road is one of Cambridge's most interesting private residences). History in Cambridge is world-famous for two, methodologically very different, new fields of study which have each been pioneered and developed here during the last half-century. Firstly, its distinctive approach to the history of political thought, of which Quentin Skinner is the Faculty's most eminent exponent. Secondly, the demographic history which has been the focus of activities for the Cambridge Group for the History of Population and whose most-decorated practitioner is Sir Tony Wrigley. Both men are ex-pupils of Peter Laslett's. And it is Laslett whom they and all others acknowledge to have been the vital co-founder of each of their innovative fields of Cambridge history. His pre-eminent position of leadership is marked in each case by his authorship of still in-print, seminal international best-sellers, the Laslett edition of Locke's masterpiece, *Two Treatises of Government* (1960), and the well-known *The World We Have Lost*, first published in 1965.

Peter Laslett was born in 1915, son of a Baptist minister, and attended Watford Grammar School before coming up to St John's in 1935. There he obtained Firsts in both parts of the History Tripos. By the outbreak of war he had become a research student and spent the following years in the Navy, including active service on the notorious Murmansk convoys, and then working at Bletchley on breaking the codes of Japanese intelligence, along with a number of other Johnians like Sir Harry Hinsley. After the War he returned to St John's as a Research Fellow, where his attention was mainly given to the history of political thought and of Sir Robert Filmer. But he also worked as a talks producer in the newly established Third Programme of the BBC. During this busy period of work in both London and Cambridge, he also married, in 1947, Janet Crockett Clark, whom he met at Bletchley and who was to

remain his lifelong partner and co-worker in many respects, and mother of his two sons. In 1953 appointment to a History Faculty Lectureship brought the offer of a Fellowship from Trinity, where Laslett spent the remainder of his career. However, he always retained fond memories of his earlier days at St John's and was genuinely touched by his invitation to share some of these with the College History Society as its guest of honour at the Society's annual dinner in 1999, just over six decades after he had served as its President himself!

Some of the BBC talks he subsequently edited as books, notably *The Nature of the Mind* and *The Institutions of Primitive Society*. It was the time of Sir John Reith, of the Army Bureau of Current Affairs, of Allen Lane and Penguin Books; adult education was very much in the air and it was symptomatic that some historians like Edward Thompson and St John's' Edward Miller, as well as others like George Sevrefield and myself (JG), together with Raymond Williams and Thomas Hodgkin, and many others in the colonial territories on their way to independence, saw this as a rewarding activity. Where others eventually followed a more exclusively academic route, Laslett kept these interests in the forefront of his mind. Later on he was to collaborate with Michael Young in establishing the Open University and the University of the Third Age. Even the important research project that he organised with Tony Wrigley and the Cambridge Group on English Demography had a broader educational aspect, namely the recruitment of local volunteers who would collect and analyse material from parish records to feed into the national data. While a model for such analysis had already been established by Louis Henry in Paris, it was Laslett's experience with the BBC that led him to appeal for volunteers to help with the formidable task of collecting and collating all the data of thousands of births, deaths and marriages recorded in hundreds of parish records. As a consequence British historical demography stole a march on the French, who later ruefully referred to this army of volunteers, as the 'secret weapon *anglais*'!

It was his energy, directness and search for knowledge that led to his success. I (JG) well remember meeting him on the train from London on my return from a long field trip to West Africa. 'Well, Jack, what did you

Peter Laslett

discover?' he asked, at a time when I was still wondering where I was and what I had done. He had a strong journalistic streak wanting to convey specialist knowledge to a wider public. But he was also the creator of such knowledge in his work on political philosophy, particularly of John Locke, in his innovative demographic research and in his more general historical studies. He also had a strong interest in expanding the scope of historical studies in ways that were not always appreciated by his colleagues. He wanted a rapprochement with the social sciences, especially sociology and anthropology. When the moment came to establish sociology here and to start the Faculty of Social and Political Sciences, he was a powerful advocate, especially after having spent a year in the Centre for the Study of the Behavioural Sciences. This direction and move, particularly the move to demographic statistics, went down badly with many other historians, with Geoffrey Elton on the right and with Edward Thompson and Moses Finley on the left. But his fame grew throughout the world and the Cambridge Group became a household word in the area of demographic history. The immediate group around him, that included Tony Wrigley, Roger Schofield, Richard Wall, Jim Oeppen, Ros Davies and Richard Smith, continued their very profitable collaboration over many years, not only amongst themselves but with scholars such as John Hajnal of the LSE, E A Hammel of Berkeley and innumerable others in France, Spain, Italy, Japan and Scandinavia.

In the history of political thought, Laslett's high reputation has been maintained since his edition of Locke through the series, *Philosophy, Politics and Society*, of which he was a founder editor, which has continued to publish volumes of essays under his co-editorship, including such gems as John Rawls' classic article on 'Justice as Fairness'. Laslett's second love was the quite different sociological and statistical subject of demographic history. But for Laslett the two were closely linked, or at least he came to the second field during the 1950s as an obvious extension of his earlier enquiries during the 1940s and 1950s into the thought of John Locke and the great theorist of patriarchy, Sir Robert Filmer.

Laslett was led to become one of the co-founders of this second field by his almost chance discovery that seventeenth-century sources of

evidence, showing the residential patterns of the inhabitants of Clayworth, a Nottinghamshire village, clearly indicated patterns of household family residence nothing like the prescriptions in Filmer's great contemporary text, the *Patriarcha* of 1680. The latter gave the impression that English society at that time was full of large multi-generational family households of extended kinship groups, almost the family as a small tribe. This was what everybody in the 1950s expected – that family structures in Europe's pre-industrial past had probably been something like those found in the 'under-developed', 'primitive' cultures of Africa or South-East Asia. But the Clayworth 'census' revealed 'nuclear', private family households, containing only mum and dad and a few young children under age 15. The only other category of person appearing regularly in some households were non-kin servants, aged 15-25 usually.

Laslett immediately appreciated that if Clayworth was typical, this turned upside-down the long-dominant assumption that private, nuclear families were the historical consequence of the epoch-making industrial revolution, urbanisation and 'modernisation' of society. They had been there before the industrial revolution occurred. They might, instead, be an important and previously completely ignored part of the story of how and why the industrial revolution occurred in the first place in this remote island corner of the Eurasian landmass. It has been the pursuit and unravelling of this extraordinarily fruitful insight, which has provided the central research focus of the Cambridge Group for the History of Population and Social Stucture throughout the four decades since. A whole sequence of continuing findings and further questions about the relationship between economy, society, population, households, the sexes and the generations, law and politics, has tumbled out of this insight of Laslett's. He has certainly himself led the way in that journey of intellectual exploration, publishing a series of always-pioneering volumes on household formation, bastardy, illicit love and more recently entering upon yet another new field of considerable policy-relevance, in the study of the demographically novel phenomenon of 'ageing', which all affluent and low-mortality societies are increasingly experiencing.

As if this is not enough, it can truthfully be said that he was a genuinely inspiring teacher and lecturer. In his earlier career he enthused such students as Quentin Skinner and John Dunn with the subject of political thought and I (SS) can certainly personally attest that in his later incarnation he was no less effective in drawing in a large number of vigorous history students taking the specialist paper on population history, which the Cambridge Group taught for many years in Part II of the History Tripos. I well remember my first encounter with his fire and brimstone lecturing style in my second year, when he came in late – even by his standards – to give a one-off lecture on the history of the family. Colourful tie (his trademark) askew, in the half-hour that remained he proceeded to spell-bind an initially disgruntled audience to such effect that half of us present opted for the 'Pop Group's' Part II paper the following year.

While he remained a Reader in the Cambridge History Faculty and received a minimal award from the nation, his influence has been immense and genuinely world-wide, as the many translations of a large number of his works, both in political thought, in demographic and sociological history and in ageing and population policy all attest. The true debt of Cambridge to Laslett, and most particularly its History Faculty, can be gauged by the simple question, what today would be world-famous about the study of history at Cambridge without him?

Jack Goody and Simon Szreter

Dr Arnold Daly Briscoe, 1900-2002

Daly Briscoe, who died on 25 January, aged 101, was a much loved and respected general practitioner who practised in Woodbridge, Suffolk. He was educated at Hereford Cathedral School, where he coxed the first eight for four years, proceeding to St John's College as a Somerset Exhibitioner in 1919 and in the same year he won his oar in the May Races rowing in the second LMBC Boat, and stroked the first LMBC Boat in the Henley Royal Peace Regatta.

Dr Daly Briscoe
(Photograph courtesy of the East Anglian Daily Times)

He completed his medical training at St Thomas's Hospital, London, and after qualification he practised briefly in Cornwall before moving to Woodbridge in 1932. He had reached the rank of Major in the RAMC Territorial Army before the outbreak of the Second World War and so joined the British Expeditionary Force to France in 1939. He was evacuated at Dunkirk, being mentioned in despatches for his work on the beaches, and ended the war as a Lt-Colonel.

After the War he returned to Woodbridge, remaining in practice until his retirement in 1965. He then devoted himself to civic duties, becoming successively Chairman of the Urban District Council, Chairman of the Library Committee of the County Council and Chairman of Suffolk Coastal District Council. Among other achievements he was President of the Ipswich and District Clinical Society, Chairman of the Woodbridge Society and Founder Chairman of the Woodbridge Probus Club.

In addition to this he was a bibliophile and a man of letters, writing three biographies, on his benefactress, Sarah, Duchess of Somerset, Thomas Seckford and Sir Thomas White. He was a gifted speaker on local history, including Edward FitzGerald, in whose house he once lived.

As a longstanding Liveryman of The Society of Apothecaries of London he was pleased and proud at the age of 100 to see his son, John, elected Master for 2000-2001. A final accolade was the granting to him, in December 2001, of the first Freedom of Woodbridge, a fitting tribute to an incomparable figure.

Daly's interest in his College remained throughout his life and he was a regular feature at the summer Johnian Dinners until well into his nineties. Those he met on these occasions will remember his comments about how he nearly stopped coming to the dinners when he was the only one of his generation left, but that he had got to know the next generation, who had then died, and then the next generation . . .

He is survived by his son John, also a Johnian (1951), and forty-two other direct descendants.

Dr P F H Dawnay

Frank Austin, 1916-2002

Frank Austin was a son of E W Austin, Clerk of Works of the College from 1935 to 1952. Both for that reason and because he spent virtually his whole working life as a member of the College maintenance staff, Frank knew every nook and cranny, every cellar and the course of every drain, and often said that 'if only they'd consulted him' some costly error could have been avoided. He was a technically trained plumber: his masterpiece was installing a circulatory hot water system of his own devising in First Court. He loved and was proud of his College and the friendship of the Fellows who were successively his bosses; but he bore one great resentment in that he believed, wrongly, that it had been promised him that he should one day succeed to the post his father had held. Frank bore many a cross: his health was poor and he lost his son tragically. But he was a good shot and a dedicated fisherman; and on the then derelict piece of ground behind New Court he had a hut and kept rabbits – and kept down the pigeons. He belonged to a world we have, to our impoverishment, lost.

John Crook

'Wally' Reynolds, 1920-2002

Walter Alfred Reynolds was born, like his father before him, in the Castle Hill area. Leaving school at fourteen he was apprenticed as a cabinet maker to Eaden Lilley, where his father was groom / driver for the firm. Having served his indenture he eventually moved to G F Roe, whose business was in Christ's Lane (now Bradwells Court).

He joined the Royal Engineers in 1940 and served in North Africa, was in the siege of Tobruk, then moved through Syria and India to join the Chindits in the Burma campaign. He was a very proud member of the Burma Star Association, which was represented at his funeral. On return to England, before demobilisation in 1946, he was engaged in the dangerous task of clearing mines on the east coast. After more years with Roe he joined the College maintenance staff as cabinet maker in March 1955, following the demolition of Roe's premises.

I first encountered Wally in 1963 on my appointment as Junior Bursar. It was clear from the start that he had strong black and white views on most things and called a spade a spade. He had a unique quirky sense of humour which for some was too challenging, but his free spirit endeared him to me and most. His attitudes were based on real experiences of comradeship in war, the highest standards of craft skill and a dismissal of the second-rate. His work and the comradeship of colleagues were very important to him and retirement was difficult.

He was possibly the most accomplished craftsman that the College has ever employed and examples of his wonderful work are distributed throughout the College, amongst them map cabinets and charter boxes for the muniments, coffee tables, restored Chippendale chairs and much more. Most importantly the Combination Room table, based on the design of one at Hardwick Hall, represents his finest achievement. The design and making of this wonderful table was the subject of a special article by Dr G C Evans in *The Eagle* 1996.

Perhaps surprisingly it was through church interests that he first met his wife to be, whose mother, unsurprisingly, was concerned that he might be too much of a 'rough diamond' for the gentle Rhoda. Their minister's view was, however, that 'even diamonds can be polished' and there is no doubt that, for her as for us, he 'sparkled'.

Jim Charles

Wilfred Rossiter, 1913-2002

Wilfred Rossiter, who served the College as Chapel Clerk, 1961-1978, died in Belfast on 28 April 2002, aged 89 years. He came to the College from Ely Cathedral at the instigation of The Reverend Professor E C Ratcliff who, as Ely Professor, was a Canon of Ely and a Fellow of St John's. The latter's loyalties were clear and he knew that, in purloining Rossiter, St John's gain would outweigh Ely's loss.

Rossiter was an admirable Chapel Clerk whose quiet friendliness was appreciated by generations of Johnians. His dry Liverpudlian humour offset well his sacred duties and enabled him to cope with the rigours of the first foreign choir tours on which he served as baggage man. His wife, Sylvia, who predeceased him by a number of years, was a somewhat formidable lady to whom, at times on bended knee, the choral students would sing in a grossly sentimental mode, 'Who is Sylvia?' causing the latter to be nonplussed and Wilf (devoted to her) to smile in wry amusement.

Wilfred Rossiter enjoyed his retirement in Cambridge and continued to cherish his links with the College and more particularly with the Pig Club which he attended well into his eighties, and before leaving Cambridge to live, in advanced old age, near his (only) son in Belfast.

Andrew Macintosh

OBITUARIES

Chris Brasher, 1928-2003

Chris Brasher, who has died aged 74, was an Olympic champion athlete, a mountaineer, a writer, a television executive and an entrepreneur. But his greatest legacy to British life, and particularly to London, was conceived on a trip to the United States in 1979 to run in the fledgling New York marathon.

In those days in Britain, only dedicated athletes ran marathons, and even they were considered slightly barmy. But Fred Lebow, the founder of the New York event, had broken the mould by welcoming all comers – no time, age, weight, dress or fitness restrictions – and thereby created the first of the great city marathons. Brasher was entranced.

"Last Sunday," he wrote in the *Observer*, "in one of the most violent, trouble-stricken cities in the world, 11,532 men, women and children from 40 countries of the world, assisted by 2.5m black, white and yellow people, Protestants and Catholics, Jews and Muslims, Buddhists and Confucians, laughed, cheered and suffered during the greatest folk festival the world has seen."

Brasher convinced himself that London could do what New York had done. Within a year, he had achieved the far more difficult task of convincing the police and the relevant London boroughs. He had hoped for 4,000 runners on the big day in March 1981; in the event, more than 7,000 started from Greenwich Park - and most made it to the finish outside Buckingham Palace. Brasher, then 52, ran the distance in under three hours. A tradition was born.

Within a few years, it was the biggest marathon in the world, and Brasher's drawing power ensured that it drew the cream of the world's athletes to compete at the sharp end. It raised countless millions for charity, spawned lesser events worldwide and became - for aspiring runners, for the people who turned out in droves to support them, and for millions who watched on television - part of the essence of London.

Brasher was born in Georgetown, British Guiana, where his father, a radio engineer, was helping establish the country's post and telegraph service. The children were sent to school in England, Christopher to Rugby, and then to St John's College, Cambridge, where his talent at middle-distance running blossomed; in 1951, he won the World Student Games 5000 metres and was second in the 1500 metres.

Conscious though that his basic speed was not world class, he turned to the punishing discipline of the 3000 metres steeplechase, and won a place in the British team for the Helsinki Olympic Games in 1952. He finished a disappointed 11th in the final, well behind his compatriot and lifelong friend John Disley, who took the bronze medal.

His first impact on the history books came in 1954, at Iffley Road, Oxford, where three athletes, who had returned from Helsinki without medals, lined up at the mile start for an Amateur Athletic Association team against Oxford University. Brasher led for the first half-mile, the 5000-metres specialist Chris Chataway took over for the third quarter, then Roger Bannister took off on his own for the final lap. The plan worked to perfection, and the four-minute mile was achieved.

In 1956, the next Olympic year, Brasher only scraped into the British team as third choice for the steeplechase. But once in Melbourne, his determination paid off: with 300 metres to go, he brushed aside all the leading challengers, and, beating his own personal best by a full six seconds, stormed home to win Britain's first Olympic athletics title for 20 years.

Even that triumph was not without its hiccup. Brasher was initially disqualified for interfering with another runner as he made his burst for home, and he had to wait three agonising hours for the judges' decision to be overturned - so long that his medal ceremony was postponed to the following day. The much relieved Brasher, and a dozen British sportswriters, celebrated through the night, ensuring that he entered the annals as one of the few Olympic champions to have received their gold medal "blind drunk, totally blotto, with an asinine grin on my face".

Between Olympic gold and the birth of the London marathon, Brasher rarely stood still. He wrote copiously for the *Observer* on athletics and his passion for the outdoors, and was, for a period, the paper's sports editor; then he moved to BBC television, where he rose to become head of general features.

In the late 1950s, he wrote with evangelical zeal of his excitement for the Scandinavian sport of "orientation", and vowed that running with maps through forests could become as popular in Britain as it was in Norway and Sweden. He and John Disley founded the Southern Navigators club, and he is still known - with justification - as the father of British orienteering.

Well into middle age, Brasher continued to enjoy the uncomfortable challenge. Unlike his wife - the former Wimbledon tennis player Shirley Bloomer, who hated the cold - he was never happier than when setting out with friends, with a tent on his back, to climb or walk across the bleakest stretches of open country in the land: the Pennines in winter, the Grampians at their most remote.

Almost inevitably, the enthusiasm spilled over into innovation. A lightweight shoe he devised for walking in rough terrain - to replace the heavy, uncompromising climbing boot - was initially known as the Brasher Boot. With the running boom of the 1970s and 1980s came the explosion of the sportswear industry, and the Sweat Shop, the store that Brasher established in Twickenham, geared specifically to the needs of runners of all abilities, became the model for dozens of establishments throughout the country.

As his resources grew (helped, in 1995, by the heavy damages he and Disley were awarded against Channel 4, the *New Statesman* and a journalist who had accused the two men of dishonest financial dealings in running the marathon), Brasher and Shirley spent increasingly more time on the last of his passions, horseracing. By the mid-1990s, they had a string of eight horses in training.

Brasher's era as an athlete was that of the old Corinthian, public-school and Oxbridge amateur. But it was the hardened professional approach,

with the ability to follow an idea without compromise, brooking no argument in pursuit of his goal, which won him his Olympic gold medal, and ensured the establishment of the world's greatest marathon.

He and Shirley, whom he married in 1959, had two daughters and a son.

Nick Mason

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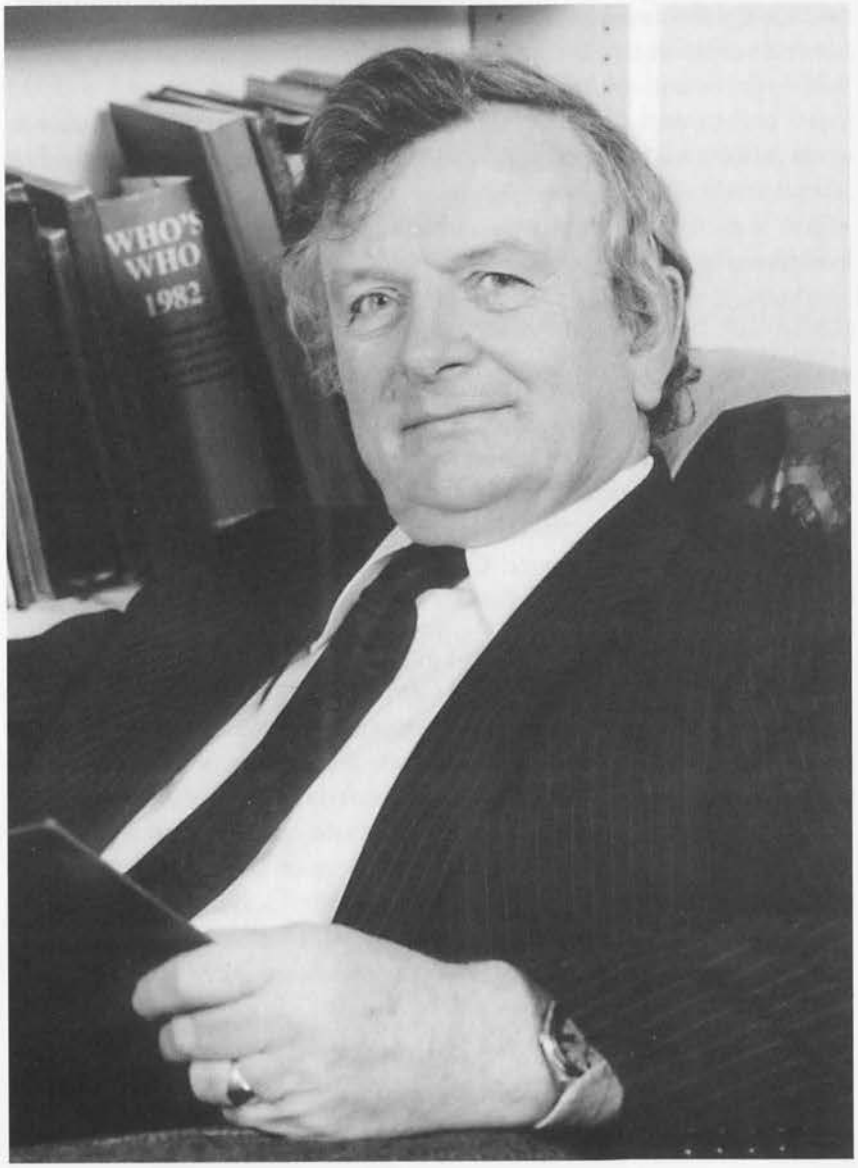
Dr George Howell Guest

Un funud fach cyn elo'r haul i'w orwel,
Un funud fwyn cyn delo'r hwyr i'w hynt,
I gofio am y pethau angofiedig,
Ar goll yn awr yn llwch yr amser gynt.

A short moment before the sun sinks below the horizon,
A gentle moment before the evening takes its course,
To remember those forgotten things, now lost in the dust of former times.

George Guest's choice of these words by Waldo Williams to open his autobiography, and, indeed, its title, *A Guest at Cambridge*, tell us already a good deal about a man whose innate musicianship and unique skill as a choir-trainer and conductor were devotedly and unstintingly given to the College in a long and distinguished professional life. His death is mourned not only by his many friends in the College and in Cambridge, but also by the large number of professional musicians who came directly under his tutelage and by those who were strongly influenced by his work. There are countless others whose lives were enriched by the extraordinary potency of his musical interpretations. He changed the face of choral music in this country.

Although, for many, his name was inextricably linked with the St John's Choir, whose international reputation for excellence was first forged by him, no one who met him would be very long in his company before



Dr George Guest

realising how deep was his love for the culture and language of Wales, the country of his birth. Moreover, alongside his outgoing personality, and his great sense of humour, which was often inspired by a knack of observing the bizarre or the absurd, there was also a melancholy streak, which the words of Waldo Williams aptly reflect. Despite his many years at the heart of Cambridge life, there was a part of him that was ambivalent about the place, hence the title of his book. He cherished its liberal traditions, but was impatient with certain manifestations of its social life. He was quick to ridicule pretentiousness and snobbery whenever he encountered it.

As a boy Chorister in Bangor and Chester Cathedrals, and as Assistant Organist at Chester, he developed at an early age a love for choral music. Even in those days he had a strong critical awareness and could never be totally satisfied with any performance. He would speak with affection and gratitude of his earliest mentors, but his own aspirations were stimulated upon his arrival in Cambridge in 1947 as Organ Student at St John's by the examples of the composer, Robin Orr, then Organist of the College, and Orr's opposite number at King's, Boris Ord. Later, in an address as President of the Royal College of Organists, George recalled that:

> in the late 1940s some of us in Cambridge used to watch Boris Ord rehearsing his choir with little less than awe. We admired his technique but, above all, were electrified by his personality – and it was his *personality*, of course, which inspired his choir. It was partly to do with his choice of words, partly to do with the particularly characteristic sound of his voice, partly to do with the precision and rhythmic vitality of his gestures, but, above all, to do with his eyes – it is in the *eyes* of a conductor that a member of a choir finds inspiration.

George constantly sought to incorporate these qualities into his own work, feeling that Boris Ord had produced a standard of performance 'awesome in its apparent nearness to perfection'.

Of particular importance to George were clarity of enunciation, direct expression of, and emotional response to, the text (words, he said, were

more important than music), the shaping of musical lines, the choice of appropriate *tempi*, and vocal quality and colour. It is in respect of the last of these that he was most influential. He had formed a high opinion of the work of George Malcolm at Westminster Cathedral, who trained his boy choristers to sing in a forthright style more akin to that associated with choirs on the continent. This approach to vocal technique was brought to St John's, and in turn was taken by a succession of his Organ Students, each in his own way, to other choirs. He was very proud of their achievements, and, at a concert at Ely Cathedral to mark his retirement in 1991, the College Choir was joined by those of King's College and St Paul's and Winchester Cathedrals, representing just three of the choral foundations where his former pupils were directing the music. His influence on the singing profession, where many Johnians are presently active, was no less marked.

He had other musical accomplishments. Not only was he a fine organist, but he had a great flair for playing *extempore* at the piano in a variety of styles, and the highlight of his war service in the RAF seems to have been his having been hired 'to play quiet dance music in a local night club which existed largely for the amusement of wealthy Bombay cotton magnates'.

He could be tough on his Choir, but nearly always managed to retrieve difficult situations with a *bon mot*. However irritated he might have become with singers or organists in rehearsal who did not measure up to his expectations, he never took this beyond the confines of the choir practice and in consequence was held in great respect and affection. Much of his social interaction with the choral students took place in the context of a pint or two. Having for many years generously bought drinks for them at one particular pub, he deserted it instantly for another, taking the men with him, when a juke-box was introduced. At least one Organ Student, the present writer, was asked at interview whether he was a tee-totaller. It was probably fortunate that I wasn't. Famed for his love of whisky, George was delighted when choir practice was interrupted on his sixtieth birthday by a character in a gorilla suit bearing a five-litre bottle of Bells.

In College his zeal and commitment to the Choir was such that relations with his tutorial colleagues were sometimes bumpy, and his attitude to clergy could be robust, but everyone understood and respected his motivation. Part of his legacy was his vision for the Choir School and his tireless advocacy of it. Indeed, it owes its continuing existence to him. Furthermore, the fact that William Morgan and Edmund Prys, great pioneers of the Bible and the Psalter in Welsh, were Johnians constantly delighted his soul. For some years Evensong on St David's Day was sung in Welsh. He was a stickler for traditional and dignified services, pouring scorn on recent liturgical developments and what he saw as the crassness of many new hymns and biblical translations.

He was almost single-handedly responsible for the development of the Choir's international touring programme and its schedule of concerts and recordings. This was before the days when choirs had agents and his astute entrepreneurial sense stood him in good stead in promoting the Choir. Although he remained totally committed to its central role in the College's liturgical life, he was one of the first to realise the importance of these other activities. Some sixty recordings will be a lasting testimony to the quality of the Choir and the breadth of its repertoire. From small beginnings he took the Choir on increasingly ambitious tours: to the USA in 1970, a trip for which he organised every single detail himself, and later to Australia and Japan. His business acumen extended to practical advice to the young. He used to take Organ Students aside the moment they had graduated to tell them what they could legitimately claim for on a tax return.

His musical interests ranged well beyond the confines of the English choral tradition. An early holiday in Spain reinforced the interest that Westminster Cathedral had aroused in him in the European Catholic tradition. The St John's repertoire quickly came to contain Gregorian chant and music by Palestrina, Victoria and Lassus, as well as works from the Viennese classical tradition. George's recordings of the late Haydn Masses have become classics. He was fortunate to have on hand The Academy of St Martin-in-the-Fields, whose members played their hearts out for him, such was their admiration for the vitality of the Choir. By the mid 1950s the St John's organ had been rebuilt to reflect

recent developments on the continent and had acquired a *Trompeta Real*, the Spanish-style horizontal trumpet stop which Michael Tippett famously featured in his setting of the evening canticles which St John's commissioned in 1961. This was just one of a number of excellent works resulting from George's bold support for contemporary composers. He counted a number of them among his friends, most particularly his fellow Welshman, William Mathias.

In his University teaching, he displayed a knowledge of and enthusiasm for other musical genres, but he was also an avid reader of poetry and literature, an enthusiast for visual art, and a lover of the theatre, a fact reflected by his serving as a director of the Cambridge Arts Theatre. An ardent supporter of Chester City Football Club, he kept a hand-written ledger recording every game the team had played since 1930. He was also a linguist, and for a number of years used to leave Evensong after the anthem to attend Welsh language classes. His eventual command of Welsh led to engagements at Eisteddfods as an adjudicator who could deliver his verdicts in the tongue of his native land.

Retirement did not come easily to him. He did not find it easy to let go, though there was more freedom to continue to travel the world conducting, giving master classes and examining, and he was able to play an important part in the activities of the Friends of Cathedral Music, of which he became President in 1992. He had earlier played a vital role in the inception of the Berkshire Boy Choir, USA, and the Choir of the Community of Jesus, Cape Cod. But the majority of his time continued to be spent in his beloved Wales and in College, and, latterly, delighting in the company of his two young grandsons. He often used to say that to have stayed in one job for 44 years showed either lack of ambition or job satisfaction. In his case he knew it was the latter.

Stephen Cleobury

Sir John Habakkuk, 1915-2002

Sir John Habakkuk died aged 87 years on 3 November 2002. He was born Hrothgar Habakkuk on 13 May 1915 in Barry, Glamorgan, and was always uniquely known as 'Hrothgar' to his many friends and acquaintances across the UK, though he took his second name upon obtaining a knighthood in 1976. The alliterative combination of forename and surname remains one of the most misspelt in the academic world. There is an anecdote, probably true, that a policeman who discovered him carrying out research in archives after dark thought his name so improbable that he marched him off to the police station.

From his secondary schooling at Barry Grammar, he won a Strathcona Scholarship to St John's to read History, where he took a starred first in 1936. He became a Fellow of Pembroke in 1938 but studies were then interrupted by the war. He returned to Pembroke in 1946, and was then appointed Chichele Professor of Economic History at All Souls, Oxford, at the dazzlingly young age (for a historian) of 35, largely on the basis of one published article on the somewhat arcane subject of English landownership, 1680-1740. Though seen as leapfrogging over more favoured candidates at the time (1950), he fully justified the confidence of his appointment board, becoming internationally acknowledged as one of the most incisive minds ever in the field of economic history. In 1967 he was appointed Principal of Jesus College, Oxford, a location fully suited to his Welsh roots, and was Vice-Chancellor of Oxford from 1973 to 1977, including a stint as Chairman of the then Committee of Vice-Chancellors and Principals (CVCP). He retired in 1984, still with a long agenda of research to complete, but unfortunately poor health prevented the completion of some of his major studies, though not the magisterial overview of English landownership 1650-1950, which was finally published in 1994.

As an Honorary Fellow of St John's from 1971, an honour which he took very seriously, he was a frequent visitor at College feasts and occasions, and remained proud of his Johnian connections.

The work for which he became best known was his comparatively short monograph, *American and British Technology in the Nineteenth Century*

(1962). The book was drafted during a period acting as Ford Research Professor at the University of Berkeley, California, which followed an earlier period as Visiting Lecturer at Harvard. It put forward what is generally today called the 'Habakkuk hypothesis' – again no doubt because of its poetic ring – which is that American technology developed in a different way to that in Britain after the Industrial Revolution, taking on a more labour-saving nature. The proposition itself was unremarkable, in that most economic historians shared the view that this was what had happened. What was remarkable was his sustained attempt to pull the 'hypothesis' apart and try to give it both rigorous meaning and logical explanation. In effect, he showed that both of these were practically impossible. The 'hypothesis' in the end remained unproven and almost indefinable, despite its being so widely accepted as a working proposition. The book almost defied any critique (not for want of trying by other scholars, though their efforts fell well short), as Habakkuk would persistently set up a convincing sounding argument, only to proceed to dismantle his own proposition, a dismantling which would then be dismembered in turn. In the memorable words of the eminent Harvard economic historian, David Landes, it was "history written in the subjunctive or conditional modes".

Notwithstanding this, it was the piercing clarity of his intellect for which Hrothgar became so well known and often so feared. I well remember an early occasion in my time as a research student in Oxford in 1967. Hrothgar had just resigned as Chichele Professor to become the Principal of Jesus, and a host of celebrated scholars lined up to try to succeed him. Among them was Eric Hobsbawm, who came to give a seminar that would try to re-establish his credentials as a serious economic historian. After he had finished, a few junior participants including myself ventured a few snipes at Hobsbawm's chronology. Habakkuk in the chair remained silent until this flurry died down, then began. There followed an awesome interrogation and demolition, in which Habakkuk appeared to recall every single sentence that Hobsbawm had uttered in his 50-minute talk, and in which the garrulous Hobsbawm was reduced in the end to complete silence. This effectively ended Hobsbawm's bid, even though Habakkuk as the incumbent and a man of intense principle would not have intervened.

Although I myself preferred other candidates for the post of Habakkuk's successor, I had to sympathise with Hobsbawm this time, not least because I was lined up to address Habakkuk's seminar on my own research topic a few weeks later, albeit with much less lofty purpose in mind. Forbidding as all this was, Hrothgar was just as critical of his own thinking as that of others, and I am sure this is why he produced a lot less than he researched.

At a time when the subject of Economic History was dividing into two warring schools, one quantitative and economic, the other qualitative and social, Habakkuk was one of the only figures to command total respect from both camps. It was unfortunate for the subject that his departure from the Chichele chair meant the loss of an adequate pulpit for healing the divide, which has remained until the present day. It has become a divide as well between British scholars and American scholars, again a divide which Hrothgar was one of the few to bestride. His periods of office as Head of House and as Vice-Chancellor were marked by the same breadth of respect as his academic work. Immensely loyal to all his students, Sir John possessed a clarity of vision and a commitment to place reason above emotion and sense ahead of sensibility.

Nick von Tunzelmann (Fellow 1970-1984)
Professor of the Economics of Science and Technology,
Director of Research, SPRU, University of Sussex

Dr Roger Harold Morgan, 1929-2003

Roger Morgan was born in Eltham, south-east London, in 1929. After education locally and at Taunton School, he came up to St John's in 1947, to read Natural Sciences. He continued after graduation to study Medicine, receiving the MB and BChir degrees in 1954. In the same year he married Valerie Flello, the start of a happy marriage that lasted nearly half a century; they had three sons.

After National Service in the RAF Hospital at Ely, Roger's first civilian appointment was as a GP in the Birmingham area. Whilst there he researched and wrote a thesis on the incidence of anaemia in general practice, for which he was awarded the Cambridge MD degree in 1965. Around the same time he returned to Cambridge, where he worked for 24 years at the Hurst Park Avenue practice. He also served as a Justice of the Peace at the Cambridge Magistrates' Court.

Living in Trumpington, he was able to keep in close touch with St John's College: he regularly made use of his entitlement to dine at the Fellows' Table, and was a keen supporter of the Johnian Society. He became friendly with John Hall, who served as Secretary of the Johnian Society from 1984 onwards; and after John's sudden death in 1992 he was one of two Johnians (the other being Colin Greenhalgh) who spontaneously offered to step into the breach. The need for a contested election - unheard of in the Society's history - was averted by resurrecting the office of Chairman, which had been in abeyance since the death of Frank Law (another distinguished medical man) in 1987. As the senior of the two volunteers, Roger became Chairman of the Society in September 1992, and Colin was elected Secretary.

Roger served as Chairman for seven years, until declining health led him to tender his resignation in 1999. His courteous yet firm chairmanship (always with a twinkle in his eye, it seemed) will be well remembered by all who served on the Society's Committee during that time, as will the Stalinist efficiency with which he ran the Annual General Meeting before the Dinner each year. But he was not simply a neutral chairman: he believed strongly in the need to strengthen ties between the Society and the College, and for the Society to diversify its activities in support of the College - both causes that were significantly advanced during his seven years at the helm.

Aside from medicine and the College, Roger's great passion in life was the game of real tennis. As an undergraduate he had rowed with LMBC, but he later took up real tennis, and continued to play for much of his life. Once again, his residence in the Cambridge area fitted happily with the presence of a flourishing Real Tennis Club in the University; he served as its Treasurer, and was its Chairman from 1990 to 1995. Although the sport is often viewed as elitist, Roger recognized

that its origins were genuinely popular; particularly after his retirement, he took up serious research into those origins, and into its connections with other racket-and-ball games played in different parts of Europe. To hear Roger speak of the often complicated relationships between these games, their rules and scoring systems, was to recognize the academic *manqué* in him; his researches bore fruit in the form of three books on the subject published between 1995 and 2001. A small sample of his scholarship can also be found in the article which he wrote for *The Eagle* in 1989 about the College's first tennis court (not the one near the west end of the Kitchen Bridge, which appears in the Loggan prints of the College, but an earlier one built in 1574 on what is now the site of the lawn outside B Second Court).

Roger died on 1 March 2003. He is survived by his wife Valerie and sons Nicholas, Steven and Roland.

Peter Johnstone

Dr Frank Smithies, 1912-2002

Frank Smithies was a Fellow of the College for 65 years; he taught generations of mathematicians for 34 of these. In research, he was described by Paul Halmos as 'the father (or grandfather?) of functional analysis in Great Britain'.

Frank was born in Edinburgh on 10 March 1912. Both his parents were socialists in the Edwardian era; they met as Clarionettes, members of the socialist cycling club associated with Robert Blatchford's newspaper *The Clarion*. His father, also called Frank, was something of a rolling stone: tourist guide, political officer of the Edinburgh Trades and Labour Council, unemployed blacklisted engineer, and newspaper manager. His mother came from domestic service.

Frank was something of a misfit at school: he did not enjoy good health, and he was mentally far ahead of his physical age. His father consulted an acquaintance, Patrick Geddes, the town planner and sociologist, and he suggested that Frank should join a small 'school' (with never more

Dr Frank Smithies

than six pupils), run by W H Roberts, a retired wool merchant with a passionate interest in education. This was much more successful, and Frank entered Edinburgh University at the tender age of fifteen. He graduated MA at the top of his class in 1931, winning both the Napier Medal and the Gangadhar Balwant Gadgil prize.

Throughout most of the twentieth century, the most able Scottish mathematicians (including a future Nobel prizewinner and a future Head of a Cambridge College) took the high road from Edinburgh to Cambridge, coming as affiliated students, and following their Edinburgh Master's degree with a Bachelor's degree in Cambridge. Frank was one of these. He won an entrance Scholarship to the College, and duly graduated as Wrangler, with a distinction in Schedule B (the equivalent of the present day Part III).

At that time, G H Hardy was the leading British mathematician, and Frank asked him to supervise his research. This must have been a fascinating interaction; Hardy was an analyst of the classical school, with a clear prejudice against modern abstract ideas, and it was these ideas that appealed to Frank. To Hardy's credit, he encouraged Frank to follow his own interests, and Frank subsequently became leader of this new school of thought in Britain. Frank completed his PhD in 1936, although the degree was not awarded until the following year; his tutor, James Wordie, was preparing for a polar expedition, and somehow the paperwork was overlooked.

There now followed two of the happiest years of Frank's life. With a Carnegie Fellowship and a College studentship, he was able to spend these years as a member of the Institute for Advanced Studies in Princeton. There was a lively atmosphere: members of the Institute worked with members of Princeton University in Fine Hall. Frank worked with the polymath John von Neumann, and also made a lifelong friendship with Ralph Boas. Boas and he gained some reknown for their (frivolous) mathematical theories of big game hunting.

During his time at Princeton, Frank was elected to a Research Fellowship at St John's; 1937 was a vintage year for mathematicians, as Raymond Lyttleton and Cyril Offord were elected in the same competition.

But then came the war. Frank's Fellowship was suspended, and he worked in the Ministry of Supply. He initially worked on gun design, but looking back he felt greatest satisfaction for the part he played in helping introduce effective methods of statistical quality control. One happy outcome of his time at the Ministry was that he met his wife Nora there. They were married in December 1945, with Maurice Wilkes, a friend since undergraduate days, as best man. Frank and Nora were the most devoted of couples; sadly, they had no children.

Frank came back to Cambridge in 1945, taking up his Research Fellowship again for just two weeks, before becoming a teaching Fellow, and Assistant Lecturer in the Faculty of Mathematics. He continued in office until he retired, as Reader, in 1979.

Frank was a meticulous lecturer – everything was prepared in full detail, and his presentation was a model of clarity. At the advanced level, his lectures were inspiring. There was no purple prose; the mathematics was left to speak for itself. Frank did surprisingly little mathematical research himself; his major work on integral equations was in his PhD and Fellowship dissertation. Instead, he supervised a remarkable number of research students, fifty three in all. I think that my experience of this was typical. We would meet every two or three weeks, and he would mention some recent mathematical papers which contained good results, but where his shrewd instinct suggested that there was more than met the eye. Should it happen that some progress was made, he would then provide gentle guidance along the way.

No doubt inspired by his Princeton days, Frank made sure that his students had a good environment to work in. In those days, mathematical research was a disjointed affair, with no Department of Pure Mathematics, let alone the stately pavilions that have recently arisen on Wilberforce Road. Frank found rooms in Laundress Lane where his students could work together. He also introduced the weekly Wednesday seminar, which was always followed by tea. The seminar was an eclectic affair: one week, a stumbling research student giving an expository talk, the next, a distinguished visitor, such as Gustave Choquet or Laurent Schwartz, giving the hottest of news. Above all, it provided a sense of community and purpose for his students.

During his long career, Frank undertook a good measure of the tasks that come a busy academic's way: Chairman of his Faculty Board (twice), Chairman of the History and Philosophy of Science Syndicate (twice), Syndic of the University Press, Secretary of the London Mathematical Society and President of the British Society for the History of Mathematics. In 1958, the International Congress of Mathematicians held its four-yearly meeting in Edinburgh, and Frank was its Secretary. This was a massive task, but Frank always had fond memories of it. This was partly because it meant a return to his native Edinburgh, but also because it was such a Johnian affair. Sir Edward Appleton was at the time Principal of Edinburgh University, which hosted the Congress; William (later Sir William) Hodge was its President, Robin Schlapp its Executive Secretary and Max Newmann Chairman of the Programme Committee. (Like Frank, both Hodge and Schlapp had taken the high road from Edinburgh to Cambridge.)

When Frank retired from his Readership in 1979, a new life began. He had always had an interest in the history of mathematics; now he had time to work on it seriously. His principal interest was the mathematical work of Augustin Cauchy, the French mathematician who in the first part of the nineteenth century had introduced much needed rigour into calculus - that same rigour that has caused so much pain to generations of undergraduate mathematicians. Frank brought the same level of rigour into his historical investigations. Cauchy had travelled widely, spending much time in what is now Italy, and his work appeared in many obscure periodicals, whose published publication dates bore little relation to when they appeared. Would the task ever be completed? Progress reports were made at seminars; Frank's eightieth birthday came and went, with all due College and mathematical celebration; at last, in 1997, when he was eighty-five, his monograph *Cauchy and the creation of complex function theory* appeared, to universal acclaim. This monograph set new standards in the history of mathematics, concentrating on the mathematical development of one mathematician's ideas, and bringing a mathematician's insight to its significance.

Fellows will remember the speech that Frank made in the Combination Room on the occasion of his ninetieth birthday. As he claimed, it was a

progress report on activities since last he had spoken there, at the feast of St John, following his eightieth birthday. One final achievement was reported: Peter Goddard, the Master, had drawn his attention to a paper by one of his predecessors, James Wood (Master 1815-1839), which claimed to prove the fundamental theorem of algebra, that every non-constant real polynomial has at least one real or complex root. As this paper appeared in 1798, the year before Gauss gave the first generally accepted proof, it merited serious consideration. It was of course incomplete. In a paper in *Notes and Records of the Royal Society,* Frank carefully analysed Wood's paper, and then went on to show that Wood had all the ingredients for a proof, by outlining such a proof, in modern terms.

Nora died in 1987, having been in poor health for many years. In his final years, Frank became increasingly deaf, but his health remained pretty good (in spite of all those Craven A cigarettes) and his wits were as sharp as ever. His end was mercifully brief. He fell ill (with a heart condition) on Friday 15 November 2002, and died in Addenbrooke's Hospital the following day.

Ben Garling

Personal recollections from Maurice Wilkes

I first met Frank Smithies in October 1931 at the Freshers table in St John's. Frank already had an Edinburgh degree under his belt - an MA naturally, since they had no time up there for bachelors' degrees. In consequence, he was an Affiliated student and took his Cambridge degree a year ahead of me; I caught up with him at the BA table in 1934.

It was early apparent to his contemporaries that Frank was very well informed on many topics. We all said that he knew everything, and some of us even claimed that this could be proved by a *reductio ad absurdum* argument. At times, when asked a question, he could go in to superfluous detail. I once asked him, mainly for something to say, whether they had a good library at some institution we had been discussing; in reply, he began to give me a complete list of the books.

In 1936 Frank went to America on a Commonwealth Fellowship. This made a man of him and he matured very greatly during the two years that he was there. He also acquired some minor vices; in particular, he became a significant smoker of cigarettes.

During the war years Frank worked at the Ministry of Supply, with an office at its headquarters in London. I thought that was rather grand; I was out in one of the Establishments myself.

In 1945, he paid me the compliment of asking me to be best man at his wedding with Nora. The marriage was a great success. The Smithies' home, under Nora's influence, became a very hospitable place, with Frank acting as a genial host. They lived near to us on the Huntingdon Road and my wife came to know Nora very well.

Many people have profited by Frank's ready willingness to help when called upon. I once got entangled in a piece of mathematics. Frank looked over what I had done and immediately pounced on an innocent-looking ordinary differential equation. He tore out its entrails, and rapidly demonstrated that its radius of convergence was zero. "So *THAT'S* where the dog is buried" he said, and he looked up with an air of satisfaction and a smile that was characteristic of him when he felt that he had made a good point. On another occasion at a dinner party the conversation turned to wine. Frank seized the attention of the table - something he well knew how to do - and laid it down with authority that there are only two sorts of wine - sipping wine and gulping wine. Again he looked round with that same smile of satisfaction at having, as he felt, neatly summed up the whole matter.

Frank and Nora enjoyed many busy and eventful years together, but sadly Nora's health began to break down early. Frank looked after her with great devotion, but she died in 1987. Frank continued to live in their old home. He regularly lunched in College and frequently dined, until increasing deafness and other disabilities made it difficult for him. Towards the end of his life, he would call me up from time to time and ask me to drive him to Adenbrooke's for an appointment and to support him while he was there. This I would do.

His death has left a gap.

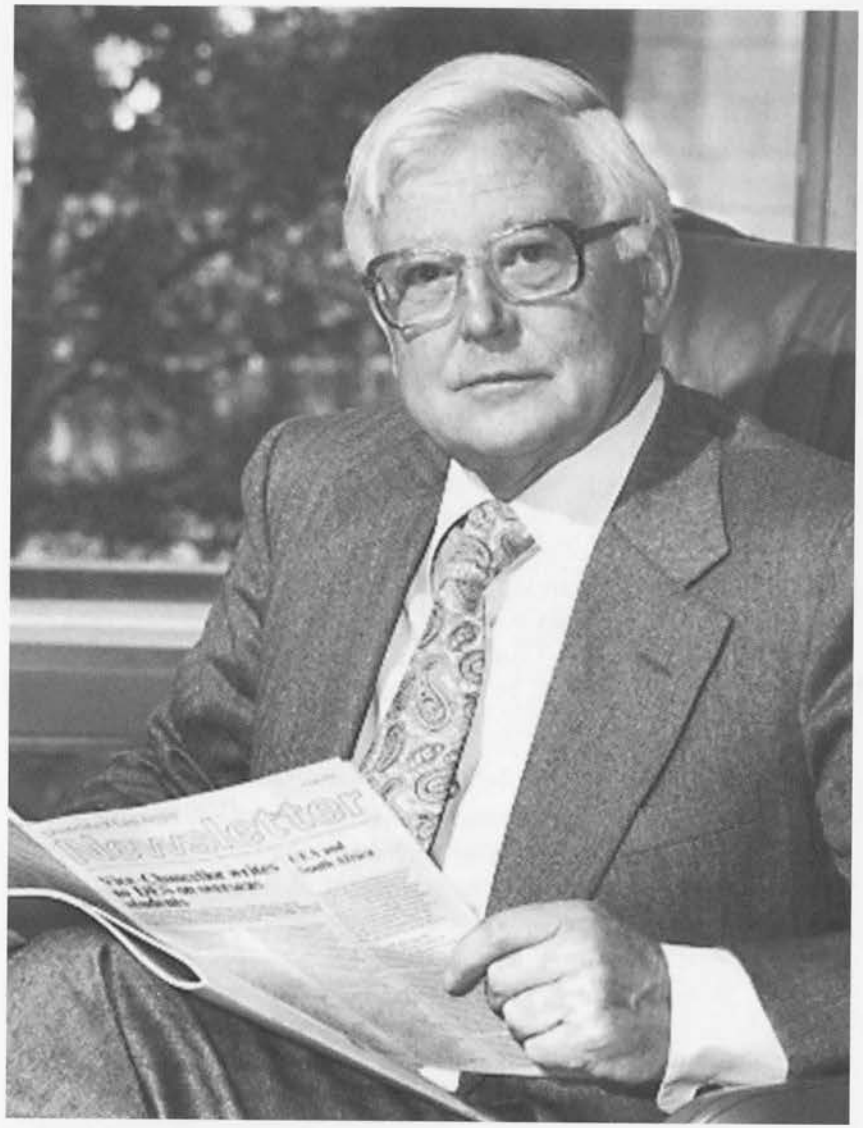
Professor Frank Thistlethwaite, 1915-2003

Frank Thistlethwaite was born in 1915 into a Lancashire family whose history from the eighteenth century onwards he described with the skill of a social historian in his late, but detailed and scholarly, *A Lancashire Family Inheritance*, published in 1996. His father, appropriately for a citizen of Burnley, was an expert on cotton cloth and a successful businessman, but he was also a keen singer and oboeist, from whom Frank inherited his considerable musical talent. From Bootham School at York he won an exhibition to St John's College in 1933.

His undergraduate career, stretching from 1934 to 1938, started with History, taught at first by formidably learned C W Previté-Orton, whom he remembered, as does the author of this obituary, for the alarmingly extended ash on his cigarettes during supervisions. But there were also many other activities for the undergraduate: playing the piano – Frank was a talented pianist of almost concert-performance standard; literary work – he was undergraduate Editor of *The Eagle*, reviewer of records for *Granta*, eventually Editor of the *Cambridge Review*; rowing for Lady Margaret; singing in the Chapel Choir. In 1936 he changed over to English and was taught by Hugh Sykes Davies, so his undergraduate career instilled a broad appreciation of society and the arts, which did not leave him in later life.

After graduating he went for two years as Commonwealth Fund Fellow to the University of Minnesota where he married Jane Hosford in 1940. This was the beginning of the sustained devotion to the Anglo-American connection, which filled his scholastic career and, more than anything else, gave him the academic distinction which he later enjoyed. Returning to England in 1941, after a year with the British Press Service in New York, he was eventually seconded from the RAF to the Joint-American Secretariat of the War Cabinet, which allowed him to use and enlarge his American expertise.

From 1945 to 1961 Frank was a Fellow and Tutor of the College. He was always an enthusiastic College man and a devoted believer in the Cambridge College system. Apart from its liberal style, the College was important for his academic ambitions because the Master was



Professor Frank Thistlethwaite
(Photograph courtesy of the University of East Anglia)

E A Benians, who was then one of the few Cambridge figures with a serious interest in American history, and who encouraged Frank to pursue that line. American history was virtually unknown here. Frank was a Lecturer from 1949, not in the History Faculty but in the Faculty of Economics and Politics. Among the few devotees of the discipline, D W Brogan was encouraging, and he was also helped by visits to the Salzburg Seminar on American Studies, which he organised, and by lectures that he gave at the University of Pennsylvania, and, of course, by his American marriage. Nevertheless the promotion of American history in Cambridge and in Britain generally was uphill work, starting from small beginnings. Frank's most obvious contribution was *The Great Experiment*, published in 1955 by Cambridge University Press and later translated into fourteen foreign languages. It is a well-informed but graceful and readable survey of American history from colonial days to modern times, which makes a very attractive introduction to the subject for either the student or the general reader, and has had a large influence. By the time he left active work at Cambridge in 1961, American history was making more of an impact in teaching and in print.

He remained interested in American history and particularly in relations between America and England for the rest of his life. Two general books on this latter subject - *The Anglo-American Connection in the Early Nineteenth Century* and *America and the Atlantic Community, Anglo-American Aspects, 1790-1850* – were both published in 1955. Later Frank carried out research into a group from Dorset, including William Hosford of Beaminster, the ancestor of his wife Jane, who emigrated to America in 1635 – another surprising linkage of family and social history – published as *Dorset Pilgrims* in 1989.

In 1961 Frank embarked on his greatest adventure, the founding of the new University of East Anglia at Norwich. The Planning Board, with which he was involved from the beginning, led in the sixties to the new University, on whose character he had a decisive influence and of which he was Vice-Chancellor until 1980. His double Tripos in History and English had made him sympathetic to the idea of joint schools in which students would study more than one subject. His experience at

St John's College, where Benians once told him, as he recalled, that it was more difficult to found a college than a university, made him anxious to give the new foundation the cultural and social warmth which would provide a true education for students. Hence the Sainsbury building, with its marvellous collection of visual art; the Chapel; the landscape setting of buildings designed by Lasdun, Foster and other architects; the opportunities for studying creative writing, more successful at Norwich than at any other British university.

He found the student troubles of the 1960s tiresome and inexplicable, as did many other university teachers including the present writer, but he left Norwich on his retirement a great addition to English life, for which society must be grateful. Though he had many other honours and responsibilities, spread over many other educational establishments in Britain and overseas, Frank Thistlethwaite should be remembered for The Great Experiment and the University of Norwich, which were major achievements.

George Holmes (Fellow 1951-1954)

OBITUARIES

Dr Norman George Heatley, 1911-2004

Norman Heatley died on 5 January 2004, five days short of his 93rd birthday. He was the last surviving scientific member of the team that, in the early 1940s, developed penicillin as a 'miracle drug'. Those who knew him will readily understand why he was often described as the unsung hero. He was the most delightful 'old fashioned gentleman'; modest to a fault, courteous, kind, considerate and always looking for ways to help others. He was a team player, rather than a leader of men.

There are many published versions of the penicillin story: that told by Gwyn Macfarlane in his biographies of Florey and Fleming is the nearest to the truth.[1] Most overemphasise the contribution of Fleming and St Mary's and underplay the Oxford work, particularly the contribution of Heatley himself. It is commonly believed that Alexander Fleming not only 'discovered' penicillin (which he did, essentially by accident, in 1928) but that he produced the antibiotic ready to treat a grateful, waiting world. The truth is that Fleming and his colleagues actually found that the culture extract containing penicillin was unstable and the antibiotic was impossible to isolate in a pure state and so they effectively gave up research on it. Only when Florey and Chain decided to work on antibacterial substances in 1938 was serious research on penicillin resumed. When its importance became apparent in 1940, Fleming contacted Florey and visited Oxford to learn more about the 'breakthrough' (at this time Chain is reputed to have said that he thought Fleming was already dead!). But St Mary's Hospital (this was pre-NHS of course) realised the enormous publicity value of their link with penicillin. Charles Wilson, the Dean (soon to be enobled as

1 A new book, accurately recounting the penicillin story and with detailed and sympathetic coverage of Norman Heatley's contribution, has recently appeared: *The Mould in Dr Florey's Coat* by Eric Lax (Little, Brown, 2004).

Lord Moran), who incidentally was Churchill's physician, and Lord Beaverbrook together were prominent in encouraging the press to publicise and exaggerate the contribution of Fleming and to play down the importance of the Oxford work. Florey himself must bear some responsibility for the distorted stories put out by the media because he consistently refused to speak to them and forbade his colleagues to do so. In a Florey Centenary Lecture given in 1998, Professor Sir Henry Harris (Florey's successor as Professor of Pathology at Oxford) succinctly summed up by saying: 'without Fleming, no Florey or Chain, without Chain no Florey, without Florey no Heatley, without Heatley no penicillin'.

The problem that had defeated Fleming and his colleagues was that there was no simple way to extract and purify the penicillin from the culture fluid or to measure its activity. Heatley's genius for improvisation and invention solved both these problems. He found appropriate conditions under which penicillin was stable and applied a multi-stage technique to isolate it from the culture fluid and concentrate it. The procedure was automated, using the now famous 'Heath Robinson' set-up of bath, milk churns, petrol cans and biscuit-tin lids, etc, and yards of glass and rubber tubing. Despite its improvisation, the basic principles of the method are still used today to produce penicillin. Heatley also devised a new assay method that measured the activity of penicillin precisely, in what became known as 'Oxford units'. In addition he played a key role with Florey in the first experiments in May 1940, which demonstrated penicillin's remarkable power in infected animals. From these it was clear that a trial of treatment in human patients was urgently needed. But a human is 3,000 times larger than a mouse and the amount needed to treat humans required large-scale production, which in wartime no commercial firm in Britain was able to undertake. The 'Dunn School' was turned into a production factory utilising several hundred Heatley-designed ceramic 'bed-pans' for the growth of the penicillium cultures and a team of six 'penicillin girls'. After extraction and purification, the dry powder produced was still less than one per cent pure, but it was nevertheless deemed suitable for a clinical trial. In early 1941 the first patients were treated and it was immediately clear that penicillin really was 'a miracle drug'. The results

were published in *The Lancet* in August 1941. By now it was obvious that penicillin could make a very important contribution to the war effort, and to the morale of injured troops. But increasing the yield of the batches of antibiotic was impossible without industrial-scale production. Accordingly, in late June 1941, Florey and Heatley flew to the USA to seek help from firms less restricted by wartime production than those in the UK. The end result of this initiative was that by late 1943 mass production of the drug had begun in America using a deep-tank fermentation process.

It almost beggars belief that while Fleming received more than 180 'honours' (honorary degrees, medals, prizes, decorations, freedom of cities and honorary membership of scientific societies and academies), Heatley received just one honorary degree (1990 Oxford: an Honorary Doctorate in Medicine, the first given in Oxford's 800-year history and, in Heatley's view, 'an enormous privilege, since I am not even medically qualified'), two honorary fellowships (Lincoln College, Oxford and St John's College, Cambridge) and an OBE (1978). One might legitimately ask: 'Did he miss out on the Nobel Prize given to Fleming, Florey and Chain simply because the rules of the Nobel committee restrict the number elected for an award to three?'

Be that as it may, what Norman Heatley did get in large measure was the enormous satisfaction of knowing that he was a key part of the team that gave the world its first practical antibiotic; one that saved the limbs and lives of thousands of allied troops in WW II, and literally millions of patients all round the world since then. As a result of the work Lord Nuffield endowed three Research Fellowships at Lincoln College. Heatley was elected to one of these (Edward Abraham and Gordon Sanders, two other members of the penicillin team, were elected to the others). His close involvement with Lincoln College continued for the rest of his life and gave much pleasure to both parties.

Norman George Heatley was born on 10 January 1911 at Woodbridge in Suffolk. His father was a veterinary surgeon, a prominent member of the local community. In 1927 Sir Archibald Garrod retired as Regius Professor of Medicine at Oxford and went to live in Melton, not far from the Heatley home. It is interesting to speculate whether the young

Norman met and was influenced by Garrod's biochemical approach to medicine. An inspiring science teacher at prep school had already instilled in him a life-long interest in practical science. At St John's, Cambridge his talents were further developed and, after graduating in Natural Sciences in 1933, he stayed on to do research for a PhD in Biochemistry. Soon afterwards he was invited to move to Oxford to work with Chain and Florey.

After the excitement of penicillin, the rest of Heatley's career might well have seemed something of an anticlimax, but his genius for introducing new methods and refining and miniaturising existing ones remained. The results, many of them collaborations with a wide range of scientists, are described in the 60+ scientific papers he wrote or co-authored.

In retirement Heatley loved to spend time in his garden and shed, solving domestic problems and inventing new gadgets. But this picture is incomplete. He was a quintessential family man. In 1944 he married Mercy (Bing), who survives him with two sons, two daughters and six grandchildren. Another son was tragically killed in a road accident in 1956. Norman was a proud and immensely involved husband and father, an accomplished house-husband and an excellent host. His practical brilliance was matched by his down-to-earth, sometimes impish, good humour. He was an excellent raconteur and good company. His home in Old Marston has, for more than 50 years, welcomed generations of students and scientists working in Oxford.

Norman's final journey was particularly fitting; he was carried by his family the short distance from his home to the church in a biodegradable coffin adorned with his scarlet DM robe. A long procession of family, friends, colleagues and local residents walked slowly and quietly behind. In the church there was standing room only. The service began with a recording of Norman reading some of his favourite poetry. His family distributed a short booklet setting out some of their favourite memories of this talented and eccentric figure. My favourites derive from his ingenuity in recycling: a centrifuge becomes a standard lamp, a chromatography cabinet becomes a coffee table, a pram becomes a swing on the upstairs landing – the list is long, the memories make one chuckle.

Few individuals have combined the talent, opportunity and good fortune to make such an impact on the world. His true contribution, at last acknowledged and appreciated, will not easily be forgotten.

Dr Eric Sidebottom
Sir William Dunn School of Pathology
University of Oxford

The Master writes:

I came to know Norman Heatley only when he was elected to an Honorary Fellowship of the College. Before then my ignorance of his extraordinary scientific work in the purification of penicillin I can only describe as shameful. The case made for his election was an eye-opener. But then I was far from alone in this ignorance as the many obituaries have made clear. Dr Sidebottom, in his skilful recounting of the story of Norman's life we include in this issue of *The Eagle*, has described the science and given a flavour of the man. Norman Heatley was a delightful and unassuming character. He appeared to take great pleasure in the recognition offered him by St John's in his later life and I am very glad that the College was able to add something to the public honours that rightfully should have come his way much earlier. We salute a fine scientist and a modest, kindly man.

Dr Norman Heatley

Dr John Stevens (Ioannis) Pesmazoglou, 1918-2003

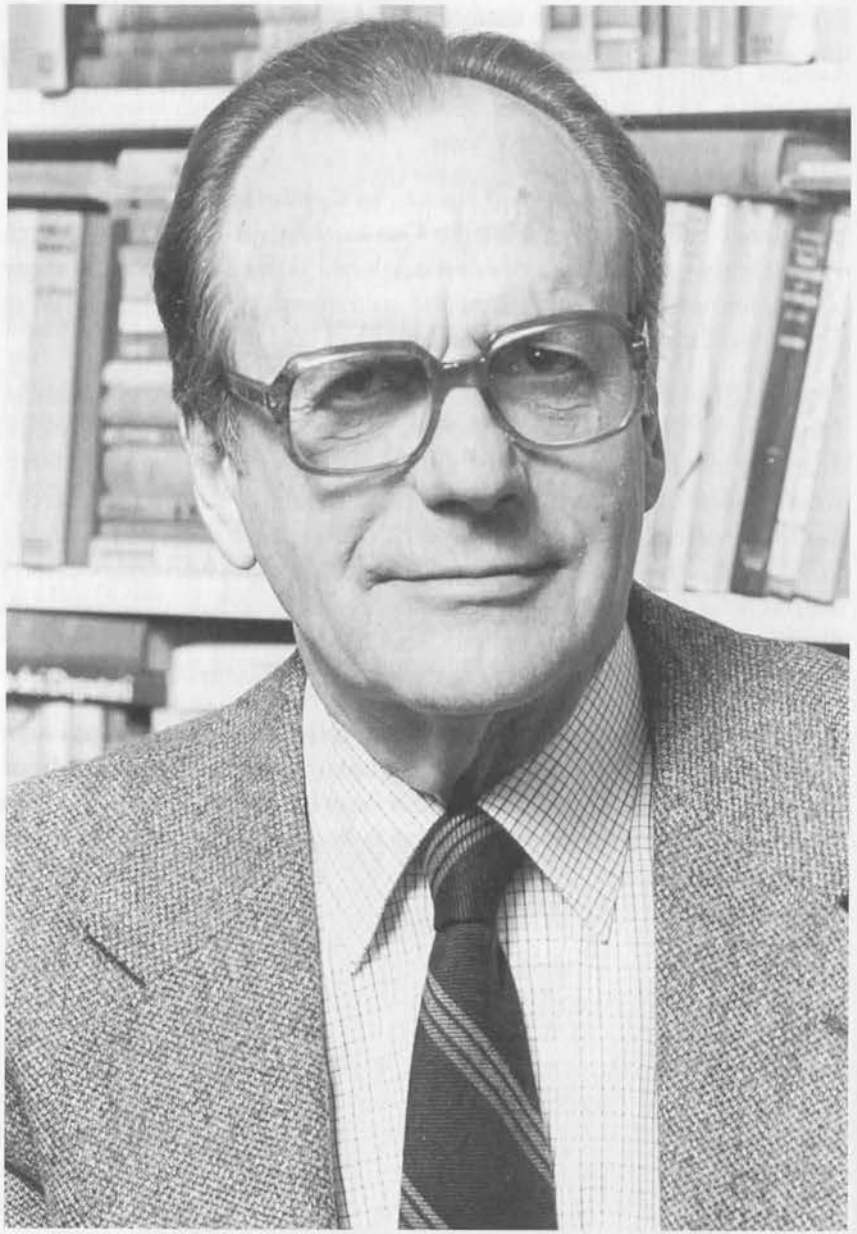
Ioannis Pesmazoglou, Honorary Fellow of the College, died on 27 November 2003, at the age of 85. He is survived by his wife Miranda (née Oikonomou) and his two sons.

John Pesmazoglou, as he was known in Cambridge, was born into a prominent banking family on the Greek island of Chios on 1 March 1918. He rose to distinction as an academic economist, but was more widely known for the important and courageous role that he played in Greek and European economic and political life.

Pesmazoglou was a brilliant student. In 1938 he received First Prize in Penal Law in the University of Athens, and in 1939 First Prize in Political Economy in the University. He completed his military service in 1940-1941, where he served in the Greek-Albanian campaign. He also took part in the liberation of Greece from 1944-1945. During these years he continued to study at the University of Athens. He graduated in 1945 with a doctoral degree in economics and political science. His studies in Greece took place under the dictatorship of General Metaxas, an experience that inspired a lifelong commitment to democratic values in Pesmazoglou.

After his studies in Athens, Pesmazoglou came to St John's to read for a further PhD in economics, which he gained in 1949. His College tutor was the economist C W Guillebaud. His original PhD supervisor was Professor D H Robertson, Professor of Political Economy, and then Mrs M T Holland. His thesis was on a historical treatment of the international transmission of cyclical fluctuations.

On his return to Greece, Pesmazoglou was Lecturer in Political Economy at the University of Athens from 1950 to 1967, and Professor from 1967 to 1969. At the university he gained a reputation among students of being more approachable than professors of the old school. But during this period he also played a prominent role in Greek public life. He was Director General, Greek Ministry of Coordination 1951-1955; Economic Adviser, Bank of Greece 1955-1960; Alternate Governor for Greece at the International Monetary Fund, Washington, 1955-1967; and Deputy Governor, Bank of Greece 1960-1967.



Dr Ioannis Pesmazoglou

Pesmazoglou played a key role in negotiating his country's treaty of association with the then European Economic Community (EEC) in 1961. This followed his appointment in 1958 by the conservative prime minister Konstantinos Karamanlis to lead the team that negotiated this agreement, which paved the way for Greece's eventual accession to the European Community in 1981. After this negotiation he became Chairman, Greek Interministerial Committee for European Cooperation, 1962-1965.

Pesmazoglou resigned as Deputy Governor of the Bank of Greece in 1967, soon after the colonels established their dictatorship. They suspended him from the university during the 1968-69 academic year and then dismissed him from his chair. On being dismissed, he gave an inspiring valedictory address, and from the outset was a fearless critic of the military regime. He wrote articles criticizing its economic policies, gave interviews to foreign journalists, and testified in court on behalf of those who had fallen foul of the junta. His outspoken, but always temperate, critiques of the military rule made it difficult for European governments to conduct business as usual with the colonels. When a group of prominent intellectuals established the Society for the Study of Greek Problems (EMEP) Pesmazoglou was a natural choice to be its president. In 1972, EMEP was closed down by the military authorities, and Pesmazoglou was exiled to the remote villages of Deskati and Thermo. In 1973 he was re-arrested and held in solitary confinement by the military police.

His arrest aroused much international attention. His period in Cambridge had not been forgotten by the leading Cambridge economists, including the formidable Joan Robinson. He had clearly earned her respect, and that of other prominent 'Keynesians', in spite of having been supervised by their arch-critic Dennis Robertson. A petition was organized, which was signed by leading economists in Oxford as well as in Cambridge. This appeared as a letter in *The Times*, and played a part, together with other international protests, in protecting Pesmazoglou from torture by the military police and in leading to his eventual release from prison.

On the collapse of the junta in 1974, Pesmazoglou was appointed economics minister in Karamanlis's government of national unity, which oversaw the return to democracy. In the elections of November 1974 – the first to be held in Greece in 10 years – Pesmazoglou was elected to parliament on the Centre Union-New Forces ticket. This was the largest opposition party, but it could not match the appeal of the newly founded Panhellenic Socialist Movement (Pasok), led by Andreas Papandreou, another economist, who had returned to Greece in the 1960s from a chair at the University of California at Berkeley.

The Centre Union-New Forces group did badly in the 1977 election, and two years later, Pesmazoglou led a breakaway movement to form the Party of Democratic Socialism (KODISO), and presided over it until 1984. But social democracy in the European mould, together with Pesmazoglou's measured style, was no match for the populist leadership of Papandreou. During subsequent terms, Pesmazoglou aligned himself in Greece as an independent deputy with the conservative New Democracy. He also played a prominent part on the European scene. Throughout his career he was a passionate supporter of European integration. He was President, Delegation of the Greek Parliament, in the Joint Parliamentary Commission, Greece-EC 1975-1978, and was made an Honorary Member of the European Parliament in 1994, after having served as a member from 1981 to 1984 and 1989 to 1994.

In 1988 Pesmazoglou was elected an Honorary Fellow of St John's. He had already been followed in the College by his son Stephanos, who read economics there from 1968 to 1972. After leaving the College, Stephanos continued his studies at Balliol College, Oxford. On his return to Athens he was linked with various social science research centres, and since the late 1980s he has been Professor in Political Theory and Analysis of Ideology at the Department of Political Science and History in Panteion University, Athens. Pesmazoglou's younger son Vassilis studied at Yale and Nuffield College, Oxford. He teaches European Integration at The University of Crete, but has published a novel, which has been translated into French and Italian, and a collection of short stories.

There were other honours for Ioannis Pesmazoglou. He was elected to the Academy of Athens in 1992, and was Vice-President in 1995 and President in 1996. He received the Grand Cross, Greek Order of the Phoenix; Commandeur de la Legion d'Honneur; Grand Commander German Order of Merit, and Archon Megas Rhetor, Oecumenical Patriarchate.

Throughout his career he continued to publish studies and articles on the international trade cycle, economic development and monetary policies, and on European integration, with special reference to Greece's membership of the European Community. His economic articles were mainly on macroeconomic questions: an example being his paper on 'Growth, investment and savings ratios: some long and medium term associations by groups of countries', published in the *Oxford Bulletin of Economics and Statistics* in 1972.

Warm tributes were paid to Pesmazoglou after his death. Prime Minister Costas Simitis expressed his sorrow and praised his 'ethical behaviour and his offer to the country for the good function of the democratic institutions', during the critical period after 1974.

The main opposition New Democracy leader Costas Karamanlis said that Pesmazoglou 'struggled all his life for values and ideals. He waged battles for democracy and freedom. He served and promoted the values of balance and moderation.' Karamanlis also praised his academic work and his devotion to the public interest.

The leader of the Coalition of the Left, Movements and Ecology (Synaspismos) Nikos Constantopoulos said that Pesmazoglou was a 'creative scientist and a fighter for democracy, a gentle man and an active citizen', and that he was a credit to the university and the Athens Academy, the Greek Parliament and the European Parliament.

Pesmazoglou was certainly a credit to his Cambridge college, the links with which he greatly valued throughout his life.

Aubrey Silberston (Fellow 1958-1971)

OBITUARIES

Professor Maurice Hugh Frederick Wilkins, 1916-2004

Professor Maurice Wilkins, who shared the Nobel Prize with Francis Crick and James Watson in 1962 for his part in the discovery of the structure of DNA, and was an Honorary Fellow of the College, died on 5 October 2004, aged 87.

In his autobiography *The Third Man of the Double Helix* Maurice Wilkins wrote, 'It was a privilege to be in St John's, which had so many distinguished staff. I was specially fortunate to have one hour every week of the undivided attention of my supervisor, the physicist M I E Oliphant.' He recalled that, 'I felt the atmosphere at St John's to be warm and supportive. For example, although I found physics easy enough to understand, I had some difficulty with pure mathematics and I was very grateful to my fellow student George Barnard for helping me.' Others who were remembered with gratitude included his second year supervisor, the future Nobel Laureate John Cockcroft, his Tutor the polar explorer Sir James Wordie, the psychologist Dr Bannister and Harold Jeffreys the earth scientist. He particularly appreciated the accessibility and informality in relationships between staff and students. It was typical of Wilkins that St John's had been a careful and deliberate choice, informed by the advice of his friend Keith Gilbert, and he was not disappointed.

All Wilkins' research was in significant areas and the path he followed to the 1962 Nobel Prize for Medicine for the discovery of the DNA double helix, which he shared with Francis Crick and James Watson, can be traced back to the impression he made on Oliphant during his first year in St John's. When, in his final undergraduate year, Wilkins was considering areas for research, Cockcroft suggested reading recent scientific journals. Wilkins chose thermoluminescence as a way of elucidating how the behaviour of electrons was influenced by defects in crystalline solids. Unfortunately, with only a lower second class honours degree, he was unable to obtain a postgraduate place in Cambridge. Looking elsewhere, he turned to Oliphant, now in

Professor Maurice Wilkins

Birmingham, who introduced him to John Randall, a new member of staff who, fortuitously, was also interested in luminescence. By the time Wilkins obtained his PhD in 1940, recruitment of scientists into war research was in full swing. Oliphant, with his confidence in Wilkins' abilities, accepted him for the crucial project of uranium isotope separation that in 1944 moved to the United States to join the Manhattan Project. Wilkins' reaction to dropping the atomic bomb on Hiroshima was similar to that of many physicists involved in its development who had hoped, perhaps naively, that if it worked it would be used in a demonstration. Even before Hiroshima, influenced by Erwin Schrodinger's book *What is Life?*, he had decided that after the war he would move away from pure physics to work on genetics. Randall had also decided that his research would be in the application of physics to biology, and invited Wilkins to rejoin him – briefly at St Andrews and then from 1946 at King's College London.

Randall, with his reputation riding high from his crucial contribution to the war effort through the development with Harry Boot of the cavity magnetron, exploited his occupancy of the prestigious Wheatstone chair at King's (three of his predecessors were Nobel Laureates) to secure major external funding, primarily from the Medical Research Council but also from UK and US charities. In making his decision to rejoin him, Wilkins recognised 'that setting up biophysical research on the very important and fundamental area of genes would need the wide imagination and business-like management skills that I felt Randall possessed'. They remained, however, two very different personalities and tensions that had characterised Wilkins' time as a research student returned to trouble their relationship, not least in the critical period leading to the discovery of the double helical model for DNA.

Wilkins saw working in science as a privilege that brought with it responsibilities for honesty, persistence, a willingness to collaborate and a commitment to sharing results freely. Never arrogant, he nevertheless had great confidence in his own judgement and abilities. This was never more apparent than in his decision to work on the structure of DNA. Oswald Avery's claim in 1944 that DNA was the molecule carrying the genetic information had been received with scepticism. Wilkins,

encouraged by Geoffrey Brown, was persuaded of the validity of Avery's results. However this remained very much a minority view as is well illustrated by a conversation Wilkins had with Crick in the Embankment Gardens outside King's in about 1950. Firm friends from the late 1940s, Crick offered the view that Wilkins was wasting his time working on DNA and couldn't understand why he didn't concentrate on something useful such as proteins. It is a mark of Wilkins' insight and his self-confidence that he resisted this advice and by 1950 was persuaded not only that DNA was the genetic material but that X-ray fibre diffraction offered the most promising way of obtaining clues to how it functioned by determining its three-dimensional structure.

As early as 1950 Wilkins assembled a parallel array of uniform thin fibres drawn from a DNA gel. The diffraction pattern from this specimen, taken with Raymond Gosling, was what so excited Watson when Wilkins showed it at a conference in Naples in the spring of 1951. Watson, in *The Double Helix*, wrote 'Maurice's dry English form did not permit enthusiasm as he stated that the picture showed much more detail than previous pictures and could, in fact, be considered as arising from a crystalline substance. And when the structure of DNA was known, we might be in a better position to understand how genes work.' The regularity in the coding of the genetic information in chemical structure implied by this data is central to the biochemical processes that have evolved for copying the information and translating it into the structure of proteins.

The events of the three years following the recording by Wilkins and Gosling of the pattern seen by Watson in Naples have been extensively rehearsed. The outcome of these events was the simultaneous publication in *Nature* of the paper by Watson and Crick describing the double helical structure of DNA and papers by Wilkins, Alec Stokes and Herbert Wilson and by Rosalind Franklin and Gosling describing the X-ray fibre diffraction evidence on which it was based. Some commentators have suggested that if Wilkins had been less open about the results obtained by his group and by Franklin and Gosling, the double helix might have been discovered in the Wheatstone Laboratory in King's rather than the Cavendish Laboratory in Cambridge. This,

however, would have been totally against Wilkins' passionately held belief that science should be a collaborative activity with results obtained made freely available. Disarray, following Franklin's arrival in 1951, was a major factor in the King's researchers not successfully exploiting the excellent X-ray diffraction data they had obtained. Both Wilkins and Franklin were victims of actions by Randall, acting, in Wilkins' words, 'in Napoleonic style'. These resulted in Franklin, following her move from a Paris laboratory, being misled about the degree of independence she would have in the X-ray work on DNA, and in Wilkins, on returning from holiday, finding himself being sidelined from a project on which he and Gosling had made important contributions. The consequence of this was tension that lasted throughout the two years Franklin worked in the King's laboratory, resulting in two groups working on the same project with essentially no collaboration between them.

Maurice Wilkins (with Don Marvin) assembling a space-filling model of the B form of the DNA double helix, c1960

Wilkins was an outstanding experimentalist who enjoyed making his own apparatus. While a schoolboy in Birmingham, he ground the mirrors for the reflecting telescopes he built. As an undergraduate, he was delighted to find that the Cavendish Laboratory placed great importance on physicists making their own apparatus. These skills were crucial in obtaining the first patterns of DNA. Much of the equipment used to collect X-ray diffraction data from fibres of DNA was designed and fabricated in the workshop of the King's Physics Department. However, Wilkins also emphasised the importance of the gift of a fine-focus X-ray generator built by Werner Ehrenberg and Walter Spear at Birkbeck College - an excellent example of generosity between research groups.

Wilkins had the ability to explain complex phenomena through simple concepts and models. This was something he had particularly admired in Oliphant and was never more apparent than in his accounting for X-ray diffraction patterns from DNA by analogies with physical optics rather than classical crystallographic techniques. His approach focused on the overall variation in diffracted intensity across the pattern rather than on the particular points in the pattern where this variation was sampled. He was aided in this approach by Alex Stokes, a colleague at King's, who at an early stage recognised that the observed overall intensity distribution indicated DNA had a helical shape. Franklin, through the development of improved methods of controlling the relative humidity of the fibre environment, obtained better defined diffraction patterns of the two types previously obtained from a variety of DNAs by Wilkins and colleagues. Crucially Franklin and Gosling induced a transition between the two types, designated 'A' and 'B', by varying the relative humidity. In the division of responsibilities for the DNA programme, it had been agreed that Franklin would work with the DNA originally provided to Wilkins by the Swiss biochemist, Rudolf Signer. None of the other samples available to the King's laboratory gave such well-defined patterns as those obtained from this DNA by Franklin and Gosling.

The tragedy of the DNA work at King's was that the best diffraction data was in the hands of the group who made wrong choices in

deciding how best to analyse it, leading during a crucial period in 1952 to militant dismissal by Franklin that DNA was helical. Franklin opted to work on the A pattern, employing methodologies derived from those used in the study of single crystals rather than an approach based on Stokes' analysis. She also emphatically rejected using molecular model building that had been successful in elucidating the structure of fibrous proteins. The famous B pattern recorded by Franklin and Gosling in May 1952 was not seen by Wilkins until January 1953 when, with Franklin moving to Birkbeck College, it was handed to him by Gosling, without any restrictions on its use. This is the pattern shown by Wilkins to Watson on a visit to King's at the end of January 1953. Watson's memory of the pattern that he took back to Cambridge was limited. However, when taken together with data from patterns recorded by the Wilkins group previously given to Crick, and crucially with Crick's recognition that the symmetry of the A form determined by Franklin and Gosling implied a double helix with DNA strands running in opposite directions, it was sufficient with only a few weeks' model building for Watson and Crick to define the general features of the structure of DNA.

In presentations of their model for DNA, Watson and Crick emphasised the importance of further detailed X-ray diffraction analysis to confirm that their very attractive model was indeed correct. A major part of Wilkins' scientific achievement was his painstaking work with colleagues over the next decade to achieve this. This involved the development of experimental and analytical techniques taking advantage of new technological developments and in particular the increasing availability of high speed digital computers. Once the double helix was on a secure footing, Wilkins and his colleagues applied these techniques with great success in the study of other biological structures including ribonucleic acids, complexes of DNA with proteins and nerve membranes.

From his undergraduate years in the 1930s, when he was much influenced by the Cambridge Scientists Anti-War Group, Wilkins maintained a deep concern about the social impact of science. He was amongst the first to recognise that the work on DNA would generate

ethical problems as challenging as those from atomic weapons research. Building on his involvement with the anti-nuclear war group Pugwash and the Campaign for Nuclear Disarmament, he became a founder member of the British Society for Social Responsibility in Science and its President from 1969 to 1991. He also pioneered undergraduate courses in the Social Impact of Science characterised by rigour and open-mindedness.

Wilkins rarely appeared in the King's laboratory in other than a plain grey suit; the austere and rather formal appearance this gave was hardly relieved by the red tie and brown shoes that typically accompanied it. Closer acquaintance revealed, behind the often shy and always modest exterior, a wry sense of humour and a warm and considerate personality. He was Randall's right hand man, serving as Deputy Director of the MRC Biophysics Research Unit and, following Randall's retirement in 1970, as Director. He carried a major administrative load, earning respect inside and outside the laboratory for integrity and fairness. Held in particular affection by porters and technical staff, he was widely referred to as 'Uncle'. Wilkins had a wide range of interests and sympathies extending beyond science into the performing and visual arts. An interest in exploring interactions between science and art resulted in a steady flow of visitors and longstanding friendships with many artists. These visits, like that of the composer Stockhausen, were often stimulated by an interest in helical structures, an area in which Wilkins secured a Leverhulme grant enabling an art student to produce a book on spirals in science and art.

Early in 2003, soon after completing his autobiography, Wilkins had a minor cerebral haemorrhage. He recovered to play an active role in the 50th anniversary celebrations of the discovery of the DNA double helix at King's College and to continue his work on social responsibility in science. His enthusiasm for making things never left him and he was busy constructing bookshelves when he suffered a major cerebral haemorrhage. He died a few days later with his wife Pat and their four children at his bedside.

Professor Watson Fuller
Emeritus Professor of Physics, Keele University

Professor Ernest Frederick Gale, 1914-2005

Professor Ernest Gale, who died on 7 March, was Professor of Chemical Microbiology in the Department of Biochemistry, University of Cambridge from 1960 to 1981. He was educated at Weston-super-Mare School from which he became the first pupil to gain a scholarship to Cambridge, at St John's College. The University of Cambridge was to become his academic base throughout a distinguished scientific career full of honours. On completing his Degree in Natural Sciences (Biochemistry) in 1936, he was appointed as a Research Assistant to Dr Marjory Stevenson, FRS in the Department. He gained his PhD in 1939 for studies of the metabolism of amino acids by bacteria and continued and extended these studies with prestigious support from first the Royal Commission for the Exhibition of 1851 and then from the Beit Memorial Trust, during which he also held a Title A Research Fellowship at St John's College from 1941 to 1944.

He was appointed to the Scientific Staff of the Medical Research Council in 1943 and, following the death of Marjory Stevenson whom he idolised, he became Head of the MRC Unit for Chemical Microbiology. Ernest Gale's leadership of the 'MBU', as this unit came to be known to generations of PhD students and post-doctoral researchers, rapidly gave it a worldwide reputation, from its beginnings in a temporary hut (affectionately referred to as the 'bug hut') behind the main Biochemistry Department on the Downing Site, to its later more elevated position on the top floor of the Wellcome Wing of the Hopkins Building. The originality of his research and its significance for the development of microbiology was marked by the award of the ScD Degree in 1947 and his election as a Fellow of the Royal Society in 1953. He was appointed to a Readership in the University in 1949 and then to a Personal Chair in 1960. He was elected to a Fellowship at St John's College in 1949, which he held until his retirement to Salcombe in 1981.

He played a major role in developing post Second World War microbiology by promoting the idea that microorganisms were not mysterious black boxes but, with appropriate methodology, could be understood in terms of their chemistry and enzymic content. These

Professor Ernest Gale

ideas developed from his early research with Marjory Stephenson on the metabolism of amino acids, the role they play in regulating the internal cellular environment and how they are incorporated into proteins. Both the detail and the broader themes of this research were presented in the ground-breaking book *Chemical Activities of Bacteria*, published first in 1947, and followed rapidly by further editions in 1948 and 1951, which changed the scientific community's perception of microbes.

The realisation that bacteria could be disrupted by chemical and physical means enabled him to investigate the amounts and biosynthesis of the macromolecules contained within them. This research was conducted before the discovery of ribosomes, knowledge of the structure of the macromolecules and of the complexities of the respective biosynthetic processes. Prompted by his recognition of the fact that more people had died in the Second World War from infection than on the battlefield itself, the main thrust of the MBU research became directed towards elucidation of the mechanism of action of new antibiotics that were becoming available. From his numerous visits to pharmaceutical companies in the USA he would return with samples of potential antibiotics that would be given to a new research student with the encouraging remark 'your PhD is in this bottle'; this, being translated, meant 'determine the mode of action of this compound'. My gift was an impure pink powder named vancocin, later vancomycin: we were naturally unaware at the time that this compound would become the antibiotic of last resort for more than two decades in the treatment of MRSA (methicillin-, or more correctly multiply-, resistant *Staphylococcus aureus*), the so-called super bug. His book *The Molecular Basis of Antibiotic Action*, published with four colleagues in 1972 and followed by a second edition in 1981 remains a classic text and is testimony to how the original principles of 'chemical microbiology' shaped a scientific discipline in the second half of the 20th century.

As the reputation of the MBU grew, Gale received invitations to speak at top flight academic institutions worldwide, which included being the Herter Lecturer at Johns Hopkins University in Baltimore in 1948, the Hannah Lecturer at Case Western Reserve University in 1951, the

Harvey Lecturer in New York in 1955, the Leeuwenhoek Lecturer of the Royal Society in 1956 and the Marjory Stevenson Memorial Lecturer in 1971. From 1964 to 1965 he spent a year as Visiting Fellow at the Australian National University in Canberra. In the UK, he was an active member of the Society for General Microbiology, in which he served as Meetings Secretary (1954-1958), International Representative (1963-1967) and President (1967-1969). He also served on a number of national and international committees, including the International Union of Biochemistry Commission on Enzymes (1957-1961).

However, Ernest Gale was always happiest when doing experiments: he would dispose of all the MBU administration in advance of the arrival of his scientific assistant and would work alongside her throughout the day. He did not leave until he had written up the results that had been obtained that day. Even when acting Head of the Department of Biochemistry he did not allow the burden of administration to dominate his activities and he set aside at least one day a week to spend exclusively in the laboratory. Throughout his career he embraced new ideas and technologies with a mental agility that was enviable. Although money for consumables was always tight he somehow obtained grants to purchase only the second scintillation counter to be imported into the UK and very early models of a gas/liquid chromatograph and an automatic amino acid analyser – machines that were vital to keep up with the increasing speed at which research was progressing. Late in his career he took on the challenge of finding ways to improve antifungal drugs, which in the early 1970s were proving ineffective at stemming the tide of deaths of liver and kidney transplant patients post-operatively.

His scientific honesty was exemplary. As a PhD supervisor his aim was to instil an ability in his students to think for themselves: he had an uncanny ability to guide whilst allowing the student the freedom to explore without undue pressure. He would even support a student who objected to a directive from a supervisor, again believing that the student should determine how the research should progress and be free to follow through their ideas; this policy resulted in one young staff member of the MBU, later to be awarded a Nobel Prize, moving on to

pastures new! Ernest Gale resolutely declined to allow his name to be included as a co-author of papers written by his students: his philosophy, to which he held to the end of his career, was that the scientist who had carried out the experimental work should take the credit, or the criticism, for their publications. In addition to his research he was an excellent lecturer and laboratory teacher conveying his own enthusiasm for the subject of microbiology to generations of undergraduates. He was much involved in the radical reorganisation of Part 1A of the Natural Sciences Tripos in the 1960s that resulted in the replacement of older disciplines with the new subject Biology of Cells.

Ernest Gale was a kindly, thoughtful, but shy man. In retirement he spent his time in Salcombe walking and swimming, reading thrillers rather than scientific papers, and developing his considerable skills as a wood carver, particularly of animals – notably a Noah's ark complete with full menagerie for his first granddaughter. He married his childhood sweetheart Eiry in 1937, a devoted partnership that lasted for 66 years. Their son, David, was also an undergraduate at St John's College. The last years of Ernest's life were unfortunately blighted by an almost complete loss of memory. To the end he remained unassuming and dignified, somewhat ironically succumbing to pneumonia that not even the antibiotics that he had studied for a professional lifetime could cure.

Dr Peter Reynolds
Emeritus Fellow, Magdalene College and formerly
University Lecturer in Biochemistry

The Master writes:

Ernest Gale was an inspiring teacher; he was one of a number of extraordinarily gifted members of the Department of Biochemistry in 1960 when I took the plunge to transfer into this exciting new subject for Part II. His lectures were models of lucidity yet made one feel there were lots of wonderful things yet to be discovered. When in due course I returned to Cambridge from the US, Ernest was a welcoming and supportive figure, who encouraged me in my attempts to set up new lines of research in structural biochemistry. At the same time, he was no softy: he could ask a pointed question with the best of them. He dined

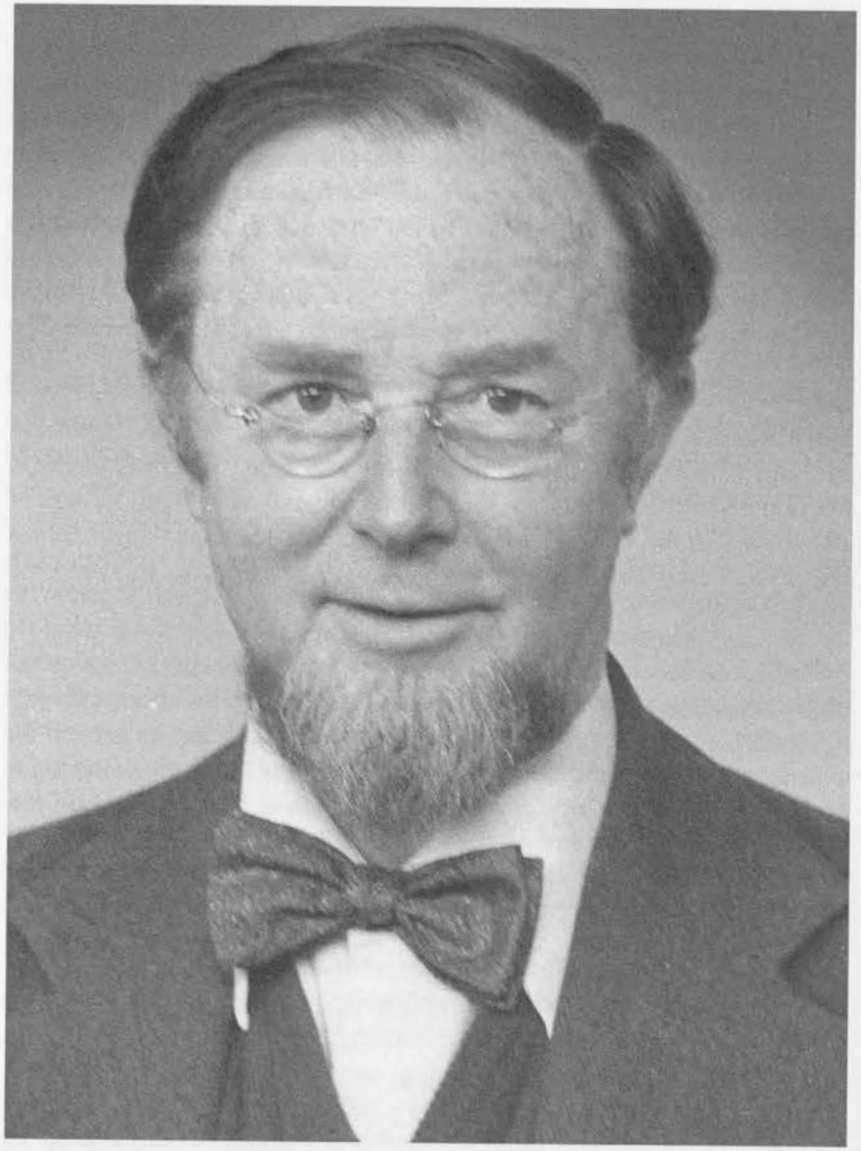
in College regularly, usually on a Wednesday, and often in the company of another biochemist, Guy Greville, who was a College Supervisor in the subject. They were both on the shortish side, with hairlines that had long receded, but Ernest was ever the easy winner of any competition to stimulate the cranial melanocytes, not least because of his early summer sojourn each year in his favoured South Devon, from which he always returned very bronzed and full of beans. Many of us will remember him and Eiry with affection.

Dr Peter Alexander George (Xander) Monro, 1919-2005

Peter Alexander George Monro, always known as Xander, formerly Lecturer in Anatomy at Cambridge and Fellow of St John's College, died on 9 March 2005 aged 86. He was a descendant, seventh in line, of Alexander Monro *Primus*, famed anatomist and important figure in the rise of the Edinburgh Medical School. Xander's father was an Instructor Captain, RN.

At Kelly College, Tavistock, he became a self-taught expert in all aspects of photography, including developing and printing; he became a very good shot with a .22 rifle (discreetly kept at a nearby farmer's); and he also acquired, independently, a working knowledge of some of the more exciting bits of chemistry. Academic standards at Kelly College in the mid-thirties were low; so he left early to spend time on Botany, Zoology and Organic Chemistry at University College in Exeter, where standards were much higher.

In 1937 he entered St John's, 51 years after his father had done. As an undergraduate he excelled at rifle-shooting, and elected to take the slow (three-year) course to Part I of the Natural Sciences Tripos (Medicine). On the outbreak of War he was told, as were nearly all wartime medical students, to continue with his studies – in Cambridge for one more year, and then at The London Hospital Medical College. At The London, as was not uncommon in wartime, he had the responsibilities of a House Officer (at Colchester, in his case), while still a final-year student. He qualified MB, BChir, and also LRCP, MRCS, in 1943. There followed a spell at Hertford County Hospital as House Officer.



Dr Xander Monro

A registered Conscientious Objector, Monro sought employment as Ship's Doctor in the Merchant Navy, 1943-1946: much of his service proved as dangerous and demanding as any that might have been his fate in one of the Armed Services. He became knowledgeable about gunnery and the workings of ships' engines.

In 1946-1948 he worked at the EMS hospital at Harold Wood, Essex; so when, in 1948, he became Demonstrator in Anatomy at The London Hospital Medical College under J D Boyd, he had had nearly a decade of rich clinical experience. His research, at that time, spanned laboratory work and clinical observations on aspects of the sympathetic nervous system. It was of considerable academic interest and also of practical importance. This work, and much more, went into his book (1959) *Sympathectomy, An Anatomical and Physiological Study with Clinical Applications*.

When, in 1951, Boyd moved back to Cambridge to take the Chair of Anatomy, Monro was one of those who moved with him, as Demonstrator and then, from 1955, as Lecturer. Except for one year in the USA, 1954-1955, on an Eli Lilly Travelling Fellowship spent at the NIH and at the University of Pennsylvania, he was to stay at Cambridge until his retirement in 1982. His research interests became more experimental, concerning the flow of blood in small vessels. He proved a notable gadgeteer, ingenious at inventing and making apparatus for special purposes. He was also very active in the affairs of both The British Microcirculation Society and The European Society for Microcirculation.

Monro enjoyed teaching medical students – in an era when, at least in England still, nearly all the anatomists were medically qualified and therefore able from personal experience to deal effectively with the clinical implications and applications of what they taught. Annually, for a number of years, he gave a two-hour demonstration of gross disorders of the nervous system, enthusiastically helped by patients who came back year after year until no longer able. For nearly 30 years he was Supervisor in Anatomy in his own College. Monro also did his share of administrative duties, eg as a Director of Studies in St John's, and in

Selwyn College (1951-1955). On a wider stage, for many years before there was any Board of Scrutiny in Cambridge, he acted as an unofficial (and unpaid!) scrutineer, a scourge of the central administration of the University. He was a thorn in their side, sometimes a tiresome one; but, agree or disagree with the details, his objections were always principled, and always about matters of substance.

In retirement he had hoped to do a lot of sailing, in Essex and then in Cornwall. In fact his spare time and considerable energies were devoted largely to writing. First came a book on *The Early History of the British Microcirculation Society, 1963-1984*. There was also much work on the papers of his great-great-great-great grandfather, Alexander Monro *Primus*, culminating in the fascinating book *The Professor's Daughter: An Essay on Female Conduct* (1995); a review of this appeared in *The Eagle* 1998, pp91-94. Later (2000) came *Reminiscences of a Ship's Surgeon (1943-1951)*, which brought home to us the difficulties of medical diagnosis before the days of high-tech imaging and laboratory tests and so on, particularly for a doctor who was young, inexperienced and isolated. Another strenuous activity in retirement was the pursuit of a near-lifetime passion for the technicalities of navigation. He also learnt to paint, mainly in watercolour, and continued to fish until about 80, as well as to enjoy the company of his two young granddaughters.

At Colchester, 1942-1943, when still an unqualified House Officer, Xander had met Helen Booth, a student nurse. They showed some passing interest in each other, but...went their separate ways. Many years later, by sheer chance, they met on a London Underground train: this was it! They were married in Cambridge at New Year 1952. Helen had suffered severe rheumatic fever as a very small child, nearly dying of it. Most of her adult life was a ceaseless struggle with arthritis. Although wracked by pain, and undergoing a series of joint-replacements, she managed to be a very good mother of their daughter and son, and a supportive wife, and even to continue as Assistant Matron at what was then The Evelyn Nursing Home. Inevitably there were enormous difficulties for all parties. Xander, who for several years was her sole carer, could be 'difficult' as a colleague, sometimes irritable and demanding: after Helen's death in 1994 he was conspicuously more mellow.

Apart from his Eli Lilly Fellowship, and the Raymond Horton Smith Prize for his MD thesis, Xander Monro had little wider recognition of his achievements. Maybe he was unconcerned: he had lived his life as seemed right to him.

Dr Gordon Wright
Fellow, Clare College and formerly Lecturer in Anatomy

Professor Burton writes:

Generations of Johnian medical students past and present have cause to be grateful for the foresight and dedication of Xander Monro. He was a committed teacher, and one who was convinced that most students learn best by being actively engaged in the subject. Hence, he persuaded the College of the educational value of purchasing a number of human skeletons that could be loaned to medical students for their private study of anatomy. St John's was one of the first colleges to do so, but on seeing the obvious benefits several others followed suit. Only real bone specimens would do for Xander, and he revelled in the individual variations in their features, which he recorded in great detail. Such material is no longer obtainable, and so Johnian medics are privileged in having this tremendous resource still available to them. Xander also ensured the College Library was stocked with an array of suitable textbooks, and with neuroanatomical models of the brain.

Xander's prowess in teaching was also much in evidence within the Department of Anatomy. As a University Lecturer he pioneered the use of video technology in the teaching of dissection and gross morphology, assembling a fully equipped studio in which he produced a comprehensive series of tapes. His teaching was always reinforced by reference to clinical application, and interspersed with amusing anecdotes from his varied experiences as a ship's surgeon. Xander was also heavily involved in the teaching of radiology and neuroanatomy. He maintained his clinical connections in neurology, regularly attending clinical sessions, and was instrumental in organising case demonstrations during which preclinical students had the opportunity to meet with patients suffering from neurological disease.

As a researcher Xander was particularly interested in the anatomy and functioning of the autonomic nervous system, the subdivision of the nervous system that regulates blood flow through peripheral vessels and homeostatic functions such as sweating. The work he performed for his MD mapped out the location of the cell bodies of these nerves, which he found to be more varied than previously appreciated. His contribution was recognised by reference to his papers in *Gray's Anatomy*, and had an important influence on surgical procedures for sympathectomy at the time. Later, Xander explored other aspects of the microcirculation, devising innovative ways of visualising blood flow *in vivo* in animal model systems. He became interested in the way that new blood vessels are formed, a field that has become highly topical due to the current importance of anti-angiogenic strategies in the treatment of tumours.

Xander was a colourful character. He spoke his mind, was a rigorous examiner, but was always scrupulously fair and loyal towards his students.

Jim Williams, 1935-2005

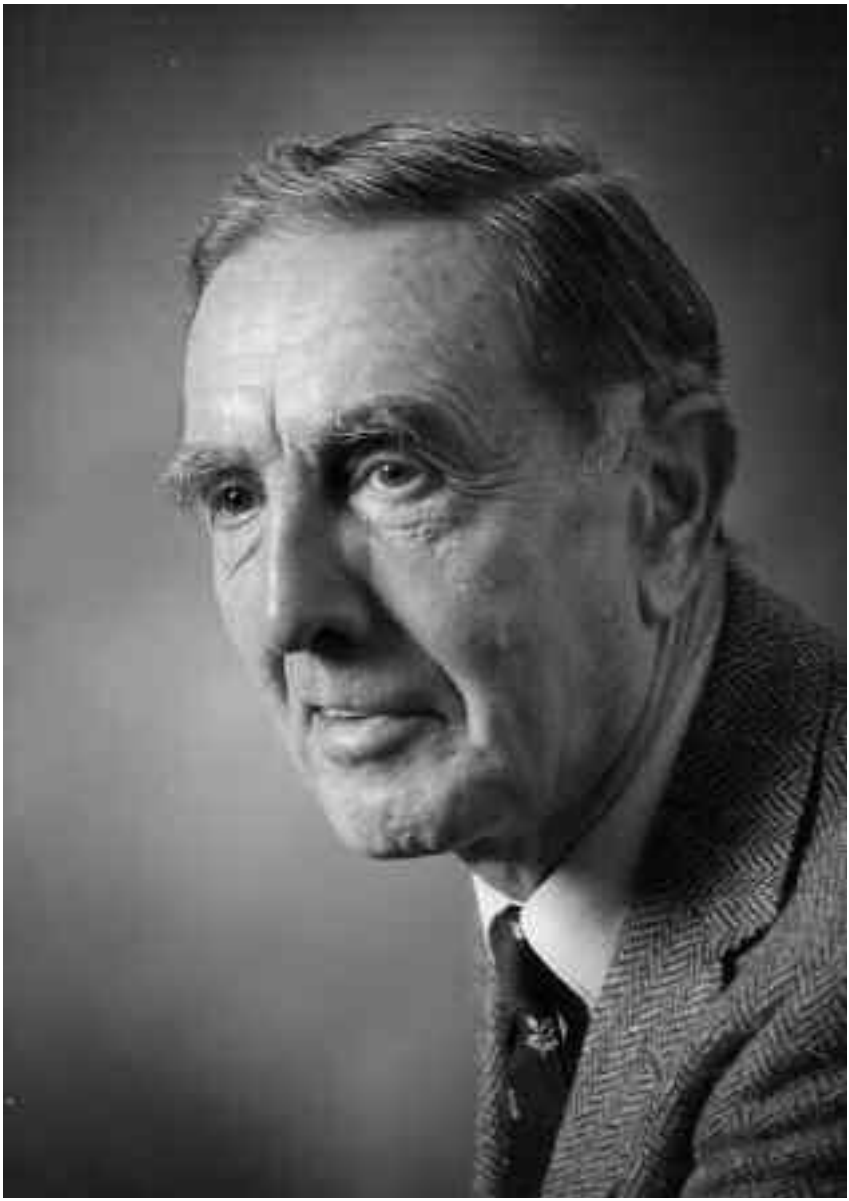
Jim Williams, who worked at the College for 36 years and was the Head Groundsman for many years, until his retirement in August 1999, died on 3 June 2005, aged 70. A full obituary will appear in next year's edition of *The Eagle*.

OBITUARIES

Dr Kenneth George Budden, 1915-2005

Kenneth (known to many as Ken) Budden was a distinguished physicist particularly noted for his work on the propagation of radio waves in the ionosphere, initially as an experimentalist and subsequently as a theoretician. He was born in Portsmouth on 23 June 1915 and, with the exception of three years when his father's job took the family to Barrow-in-Furness, he grew up there. He came up to St John's from Portsmouth Grammar School in 1933 as a Major Scholar and read Natural Sciences, achieving First class results in Prelim, Part I and Part II, in which he chose to specialise in Physics, graduating BA in 1936. In parallel with his studies in Cambridge Kenneth took the examinations for the external London BSc, which he gained in 1935, a not uncommon practice in that period. Following Part II, he joined a group in the Cavendish Laboratory under the supervision of J A Ratcliffe working on the propagation of very-long-wavelength radio waves, a topic on which Maurice Wilkes was also working at the time. He completed his PhD in 1939 and that year was awarded the Hamilton Prize (then set at £20 compared with £1,200 in 2005-2006) for 'a dissertation embodying research carried out in the University on the theory and practice of radio communication'.

In the early years of the Second World War he carried out research and development in radar and telecommunications in several locations around the UK, including the Telecommunications Research Establishment (TRE) at Worth Matravers, where for a time his sister Stella was also working. An early achievement, subsequently recognised by the Royal Commission on Awards to Inventors, was the height-finding system used in 1940 and 1941 to guide night-fighters to intercept enemy aircraft. Bill Penley, a colleague from his time at TRE, recalls that Kenneth was an active member of a small choral group until the need to work seven days a week brought it to an end. In 1941 he was sent to the British Air Commission in Washington DC and remained there until late 1944. At the beginning of 1945 he was transferred to represent the Director of Communications Development in South-East



Dr Kenneth Budden

Asia, based in Kandy in what is now Sri Lanka. In December 1945 Kenneth became Director of Research for Delanium Limited, a company set up to carry out research on the uses of carbon obtained by a novel process for carbonising coal, but the company's emphasis soon moved away from scientific research. It was while they were all based in London that Clifford Evans introduced Kenneth to Nicolette Longsdon.

In 1947, shortly before he and Nicolette were married, Kenneth was appointed a University Demonstrator in Physics, and was elected to a Fellowship in the College and appointed Director of Studies in Physics. He joined the restarted Radio Group (later Radio Astronomy Group) in the Cavendish, and over the ensuing decade his research focussed progressively more on theoretical topics. In addition to over sixty scientific papers, the most recent published in 1994, he produced four textbooks in the area of propagation of radio waves with particular reference to the ionosphere. The first of those, *Radio Waves in the Ionosphere*, published in 1961, remains a classic. One of Kenneth's significant contributions (and the subject of the second book) was the development of the wave-guide-mode theory of propagation for radio waves in which the earth's surface and the ionosphere are treated as the two conductors of a wave-guide. That theory was known to some at the time as the 'Budden theory', although Kenneth dismissed that description with characteristic modesty. Nevertheless he had been the one to see the potential in the earlier ideas of others. Soon after EDSAC 1 was commissioned he recognised and made good use of the opportunities offered by the advent of digital computing. In the University he became a University Lecturer in 1953 and then a Reader in 1965, retiring as Emeritus Reader in 1982. The outstanding quality of his research was recognised by election to a Fellowship of the Royal Society in 1966 and by a number of awards including the Gold Medal of the Royal Astronomical Society in 1999.

Kenneth was also an excellent and conscientious teacher. Those whom he taught, whether in lectures or supervisions or examples classes for the theoretical option in Part II, recall with great affection not only the skill he displayed in illuminating topics across the subject but, above all, the enormous energy demonstrated. In supervisions the phrase 'paper

and pencil exercises' acquired new significance as one watched with fascination as the point broke away from one after another of the row of hand-sharpened pencils that were always neatly aligned in readiness at the start. Would the supply be sufficient? Somehow it always was!

When he gained tenure as a University Lecturer in 1956 Kenneth and Nicolette decided that the time had come to move to a better house and they were able to lease a plot in Adams Road from the College. In due course they had a splendid house built and developed a magnificent garden from what Kenneth describes vividly in his unpublished autobiographical memoir as a 'neglected meadow' where (amongst other things) bees were kept and honey produced. Over the years a host of people ranging from overseas visitors to successive generations of Johnian undergraduates enjoyed generous hospitality there. When they were not entertaining visitors or looking after the garden, Kenneth and Nicolette enjoyed active relaxations that included country walks with the dogs and playing the piano. Although they had no children of their own they maintained close contact with their wider family. His sister Stella has written the following note: 'Our parents were not in good health and as a young man Kenneth became very important to me. We played piano duets together (mostly transcriptions of the Beethoven symphonies) and followed his passion for long country walks. After he went up to John's I turned down a place at Girton because I did not want to depend on a brilliant brother. He took a great interest in my children and became a friend to my husband who (as it turned out) had benefited from his help as a Part II Physics undergraduate at Selwyn.'

Committed Christians, Kenneth and Nicolette regularly attended Sunday Evensong in College. Kenneth delivered at least two sermons in College, including the sermon at the Service of Commemoration of Benefactors in May 1981, which was published in *The Eagle* in 1982. In that sermon, *inter alia*, he drew a distinction between 'laws of nature', specifically the laws of thermodynamics, and other physical laws, and drew attention to a thought-provoking distinction between eternity and time: eternity as a time-like dimension but distinct from, and orthogonal to, time. They were also deeply involved with the church of St Edward, King & Martyr for many years.

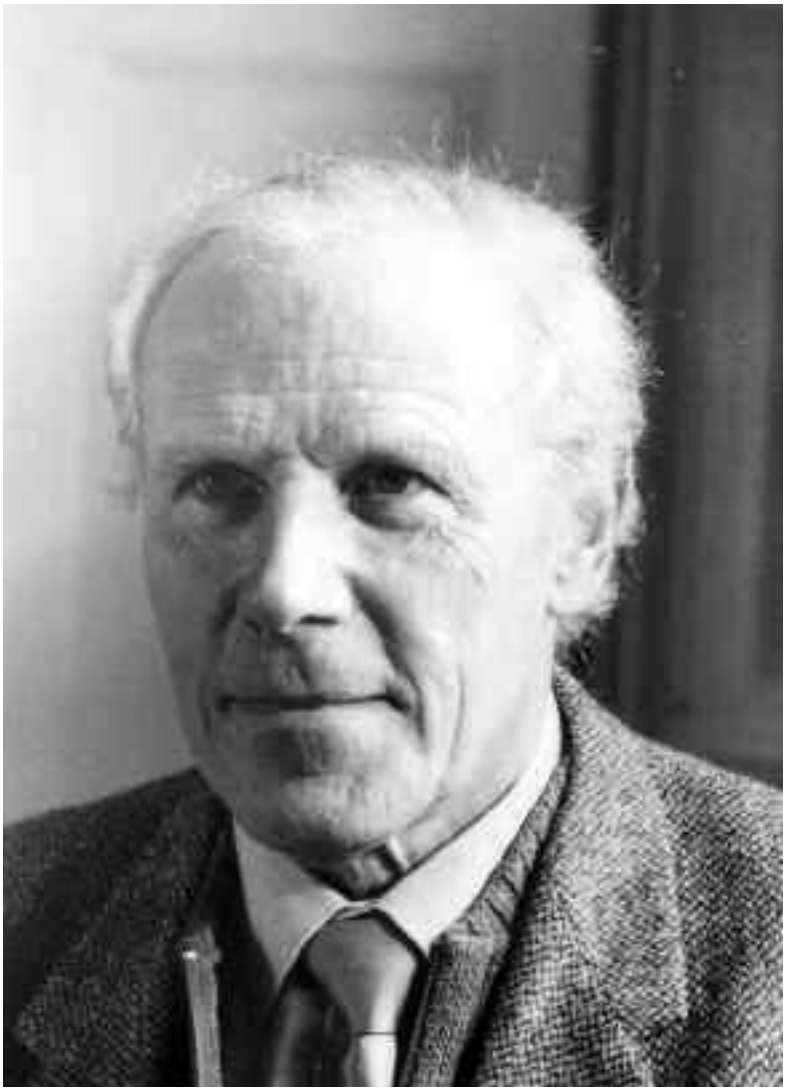
Kenneth's final years were unfortunately clouded by the progressive development of Parkinson's disease throughout which he was looked after by Nicolette with touching devotion. He passed away on 4 September 2005. He will be remembered for many years to come not only as a brilliant physicist and an inspirational teacher but also for his touching modesty.

John Leake
(with help and advice from Roger Griffin, Steve Gull, Peter Harbour, John Kilgour and Stella Oates)

Arthur Guy Lee, 1918–2005

Guy Lee was a leading Latinist of his generation in Britain. Accounts of his scholarly contribution were given in *The Times* of 10 August 2005 and *The Independent* of 8 September 2005. That contribution sprang from his profound love and understanding of poetry, modern as well as ancient, English as well as classical. He was gifted in other things, too: if poetry was one of the poles of his being, another was music. He was an accomplished pianist, who especially loved making chamber music with friends: a favourite image in my head is of him tackling the Kegelstatt Trio with the fierce concentration he gave to what he minded about.

Guy (inevitably, given his date of birth: 5 November, and the fact that his father was working for Guy's Hospital) was schooled at Loretto and came to the College as McAulay Scholar in 1936: he and the late R D Williams were the Great Classical Men when I came up in 1939. Then there was wartime service in Signals, at first in Iceland, where Guy picked up Icelandic. In 1945, to his amazement, he was elected to a Fellowship of the College, and remained a Fellow for sixty years, until his death. He was a University Lecturer in Classics from 1949 to 1982. He was also, for more than twenty years, Librarian of the College, with a rich knowledge of books and manuscripts: there is a lovely portrait drawing of him in the Small Combination Room, standing in the Library with the great Mr Buck (you remember?) hovering behind.



Guy Lee

Guy was loved and admired as a College teacher and as a Tutor, influencing always by gentle suggestion and guidance. There are still plenty of Johnians around who will remember that benignity: ('Well, I expect you *could* have said that, but how about this?'). He was not self-effacing: that suggests fear, and Guy was without fear; but he was supremely non-self-promoting.

So, he was a translator. He translated the Latin poetry of love. Perhaps that sounds like second-order activity, but into serious translation goes all that scholarship has had to teach and all that literary sensitivity has to contribute and all that the deepest concentration can achieve in elucidation. And, be it added, into it goes a whole philosophy, changing with age and maturity and with advancing times and fashions, of what translation must seek to achieve.

Guy had one or two ups-and-downs of health, but was basically of powerful physique and strong constitution. He was fortunate in being loved and cherished by Helen, his wife, and adored and admired by their two adoptive sons. He was a reasonable golfer, proud indeed of having once holed in one, and, with Helen, a doughty walker. But a particularly sad thing happened late in his life: he fell and banged his head and after that couldn't read music.

I think he might have liked us to call him IUSTUM ET TENACEM PROPOSITI VIRUM.

John Crook

Lord Brightman, 1911–2006

John Anson Brightman was the first of four modern Law Lords who prefaced their careers by reading Law at St John's.

Brightman was born on 20 June 1911, the younger son of a country solicitor. After school at Marlborough College he followed his elder brother to St John's; he played an active role in the College and University Association Law Societies.

Lord Brightman

Brightman was called to the Bar by Lincoln's Inn and joined Chancery Chambers. His legal career was interrupted by the War, during which he was first a Seaman and then a Lieutenant on an anti-submarine frigate on convoy duty in the Atlantic and Mediterranean and finally, after Staff College, a Lieutenant Commander and Assistant Naval Attaché at

Ankara, where he met and married Roxane Ambatielo with whom he lived happily ever after.

After the War, Brightman resumed his practice at the Chancery Bar; he was a brilliant draftsman – concise and lucid – of trust and commercial documents and court pleadings. He was an expert in estate duty and other taxation problems; he was highly regarded for his sound advice in family affairs. Margaret Thatcher was one of his pupils before she became immersed in politics and she remained a friend and admirer. In 1970 Brightman was appointed a Judge of the High Court Chancery Division and proved to be sound in his decisions and popular with litigants for his fairness, courtesy and patience. Between 1971 and 1974 Brightman was a Judge of the National Industrial Relations Court where he avoided political controversy and proved to be popular with employers and workers. In 1979 Brightman was appointed to the Court of Appeal and in 1982 he was elevated to the House of Lords. His judgements were distinguished by a thorough grasp of the law and an adherence to principle and precedent without losing sight of common sense. Brightman retired as a Law Lord in 1986; he became an active member of the House and presided over several important select committees and pursued his interest in 'legislative drafting in plain English'.

Brightman was very proud of his election as an Honorary Fellow of the College in 1982, and continued to attend the annual dinner of the Law Society and to dine at High Table on the infrequent occasions when his other duties allowed, and so long as his age and digestion permitted. His son went up to St John's in due course and is now a hospital consultant. Brightman and his wife shared many interests, including an enthusiasm for the Arctic and Franz Josef Land, and Brightman became an Honorary Fellow of the Royal Geographical Society in 2001. In appearance Brightman was tall, upright and handsome; he was reserved but not aloof, a loyal friend and supportive colleague and a kind and entertaining companion. He was well liked by all Johnians who knew him.

Lord Templeman

Professor Richard Ghormley Eberhart, 1904–2005

An inveterate visitor to graveyards, the popular American poet Richard Eberhart, who has died at the age of 101, often wrote about death. 'Cover Me Over', written some 70 years ago, is narrated from the grave, and its short span suggests eternity. 'Cover me over, clover;/ Cover me over, grass./ The mellow day is over/ And there is night to pass./ Green arms about my head,/ Green fingers on my hands./ Earth has no quieter bed/ In all her quiet lands.'

Some of Eberhart's family have had this inscribed on their gravestones, and much of his work is suitable for the purpose. A cheerful, equable man, with a passion for flying kites, sailing a yacht and skiing, his moral sense brought a preoccupation with death.

Eberhart was born in Austin, Minnesota. His father was a self-made man who worked in the meat-packing business; his home at Burr Oaks was later celebrated in his son's poetry. Eberhart himself was a keen footballer and debater, and developed a taste for poetry at the age of 15, when the family had to adjust to more modest circumstances after his father's firm was hit by an embezzler and his mother contracted lung cancer.

Eberhart briefly attended the University of Minnesota before going on to Dartmouth, New Hampshire. On graduation in 1926, he went to work for the Chicago department store of Marshall Field & Co as a floorwalker and advertising copywriter. In 1927, his poems were published in Harriet Monroe's *Poetry* magazine.

Eberhart also decided to go to Cambridge, working his passage aboard a tramp steamer in the Pacific. As he chipped rust, he never revealed his history or aspirations, lest he feel out of place as the crew journeyed to Hong Kong and Manila. Finally, a German captain offered him a free passage to Europe, though, once at sea, he was forced to be an oiler in the hold – or be thrown overboard.

He eventually jumped ship at Port Said, paying his way from there to England, where his mother's small legacy supported his study at St John's College, Cambridge, under F R Leavis, I A Richards and

Professor Richard Eberhart

Sir Arthur Quiller-Couch. Among his friends were William Empson, Kathleen Raine and T H White.

Eberhart's work appeared in an anthology, *New Signatures*, published by Leonard and Virginia Woolf's Hogarth Press, and he wrote a long poem, *A Bravery of Earth* (1930), which was inspired by his journey round the world.

Back in America, the Wall Street crash meant even less money. Eberhart worked in a slaughterhouse, until becoming tutor to the Procter soap family's children in Florida, an experience that equipped him, in September 1930, to take up the post of tutor to the King of Siam's son, who was spending a year in the US. These events were satirised in 'The Rape Of The Cataract', a work less successful than its near-contemporary, 'The Groundhog', which was Eberhart's most famous work.

Eberhart felt more akin to the British nineteenth-century poets Wordsworth, Blake and Hopkins than he did to his American contemporaries, and he made the everyday metaphysical. His earnings from the King of Siam financed a year in Berlin, after which he returned, in 1932, to study at Harvard.

He dropped out in 1933 in the midst of the Depression, and taught at St Mark's Episcopalian school in Southborough, Massachussetts, where Robert Lowell was a pupil and W H Auden a fellow-teacher for a memorable month, on Eberhart's invitation.

Redundancy in 1940 coincided with the Second World War. Now a mild Episcopalian, Eberhart signed up with the US naval reserve, and joined the army in 1942. By then, he had met, and soon married, Helen Butcher.

Teaching young recruits how to fire guns troubled him, and the names of many of those who died soon afterwards are memorialised in Eberhart's poem, 'The Fury Of Aerial Bombardment': 'they are gone to early death, who late in school/ Distinguished the belt feed lever from the belt holding pawl.'

After the war, Eberhart joined his father-in-law's floor-polish firm for a number of years, relishing the business life as much as his friend Wallace Stevens did (he was also friends with William Carlos Williams and an enthusiast for the Beat poets). By 1952, he had enjoyed a period with the Poets' Theater at Harvard, during that era's penchant for verse drama. He then taught in various American universities, returning to Dartmouth in 1956.

Across the Eisenhower/Kennedy eras, Eberhart held the Library of Congress post now denoted as that of Poet Laureate, and won all the usual prizes, including the Pulitzer and the Bollingen.

Though his life had become quieter, his poetry continued to reflect a concern with life and death, or death in life. Prolific, and variable, he often dropped work from one collection to another (there is, as yet, no complete edition of his writing).

His wife died in 1993. Their son and daughter survive him.

Christopher Hawtree

Jim Williams, 1935–2005

James Herbert Williams was born in 1935 in Camberwell, London, where he lived with his parents and sister until the age of five. He then moved to Newmarket with his mother and sister to live with relations as war had broken out. He attended school in Newmarket where he became interested in sport, especially football and cricket.

At the age of 15 he left school and got his first job working for the railways. This was clearly not the job for him and he left shortly afterwards to take up a position at Fenner's cricket ground in Cambridge, serving under a Mr Cyril Coote, which he did until his National Service where he joined the Royal Artillery. At the end of his National Service he returned to Fenner's.

Jim Williams

Shortly after this he got his first position as a Head Groundsman at the Royal Aircraft Establishment, Farnborough, where he stayed until 1963, and then he came to St John's College as Head Groundsman. At that time the College used to play a Staff v Fellows cricket match where Jim was invited to play, along with other members of staff including the Boatman, Roger Silk. The Fellows batted first and this was no problem for Jim and Roger as they dismissed the Fellows all out for a very low score. The following year neither Jim nor Roger were invited to play again.

In 1985 he married his wife of 20 years, Rita. Typical of Jim, who wanted no fuss, they got married at the Register Office with two witnesses: Rita's Mum and Dad, followed by a wedding lunch at Tesco consisting of two cups of tea, two cups of coffee, and four sausage rolls, and then back to work for 12 noon.

In 1999 Jim and Rita retired to King's Lynn, where he enjoyed living until his death in June 2005.

Jim treated all people the same, regardless of their background, and was a pleasure to know and work with.

Keith Ellis

Dick McConnel adds:

I first met Jim when I joined St John's in 1979 and shortly after was elected Senior Treasurer of the Field Clubs. This effectively made me Jim's boss, or as he put it, 'the governor'. I knew very little of what was expected of me, but Jim seemed to know everything, and effectively told me what to tell him to do.

I last saw Jim and Rita in King's Lynn in May 2005 when I was on the way to a school governor's meeting. He was, even then, the same fiercely loyal man of few words and strong opinions who, on a shoestring budget for most of his tenure, produced the best playing fields in Cambridge. He and Rita had six very good years in King's Lynn, with Jim tending his collection of military memorabilia (and the

lawns of the other residents of the small estate where they lived!). It was a privilege to have worked with Jim, and to have known him and Rita for so many years.

Personal recollections from former students:

I'd cross over Queen's Road, push open the iron gate into SJC playing fields, and walk up the slope across the cricket outfield towards the pavilion to change into my boots for training. Every time that I did this, it seemed the same figure would be leaning against one of the pavilion pillars: possibly pre-war beige anorak visible from the road and gradually 'man of all weathers' face coming into view.

'All right, Jim?' 'All right, Mark'. Every time.

Good memory. Permanent picture and picture of permanence.

A lot of time at John's revolved around the sports ground, the pavilion and Jim providing the kind of College glue and part of so many Johnians' memories that is beyond most of us.

A good man, a good College man and sadly missed.

Mark Coombs (1979)

When I first met Jim Williams, he scared me. He seemed old, insular, unfriendly even. I should have known better. He was actually one of the kindest and most honest men I've ever known. His gruffness disguised a deep-seated shyness which remained with him all his life. It also allowed him to cope with the more absurd demands made of him by some of the more high-minded and insular College sports players and captains. Those of us he chose to make friends of were blessed. To witness one of his smiles was one of those pleasures to savour, because it could transform any day, no matter how miserable. To hear him talk of games gone by was to be allowed to delve into the rich traditions of the past, but without rose-tinted spectacles. And with expletives. That was our real-life education.

Jim saved my life, actually. After the first couple of hockey practices, he took me, the still green-behind-the-ears fresher goalkeeper, to one side, and told me he thought it would be a good idea to buy a face mask. 'Game's a lot faster up here', is what he said. I followed his advice that day. The next day in the pre-match warm-up I was hit in the face by a ball that bounced just before our Centre Forward connected with it – without the mask I'd have been dead. So concerned was Jim for my health later that season (probably understanding that skill was sadly lacking) that he offered me a lacrosse body guard when we were due to play Fitzwilliam with Derek Pringle taking the short corners. 'Hits the ball harder than anyone I've seen', was the reason he gave. That was the thing about Jim. He knew everything about every sportsman at the University. Especially those who might threaten his beloved College's supremacy at hockey, rugby, cricket and football.

The playing fields might just as well have been children for Jim, because he cared about them deeply. Not just about the way they looked, not just because he did his work with pride, but because he was connected to them in a way that only a few of us are ever lucky enough to be connected to the earth. They were part of him, and he was part of them. To mistreat his pitches was to mistreat the man himself. He would have a fit if anyone tried to play if conditions were too wet or too frosty, or in any way not perfect for the pitches to remain relatively unscathed.

Many people wondered, and probably still do, why and how Jim decided to get on better with some people than others. I'm not sure he ever made a conscious decision about that, but I do believe that he had a soft spot for those of lesser talents who tried their best. He could be scathing of the attitudes of the more talented players (and talent can bring with it arrogance), because very often they didn't subscribe to the team ethos that Jim believed was at the very centre of playing sports. What Jim wanted to see was people trying for the sake of the College *and* themselves.

When I heard Jim had died, I told my friends that I had just lost the man who had taught me everything about sport and life. About everything to do with dignity, striving and fairness. Because that is what Jim taught me. The man leaning against the pavilion in his shirt sleeves and

waistcoat, smoking a cigar, brown face creased with character, eyes shining. The man I still see there every time I walk across the playing fields he'll always be a part of.

Richard Pierce-Saunderson (1978)

I remember arriving at St John's in the autumn of 1979. I was amazed by the size of the playing fields – Jim's 'estate' – not more than 800 yards from the centre of town: the two rugby pitches, two soccer pitches, two hockey pitches, cricket square, the tennis courts, and all the grounds for the Choir School. It was a huge area, and it was perfect, with the parallel mowing lines that proved what a great groundsman Jim was. In the four years that I was there (and I spent a lot of time on Jim's estate) I don't remember a blade of grass out of place – and woe betide any stray leaf that happened to fall, immediately raked up by hand by Jim and his men.

Meeting Jim for the first time was an intimidating experience. Withdrawn into his anorak, hidden under his cap, shrouded in cigarette smoke, this was a groundsman to be respected, with his beady and critical eye observing every movement over his land. One could have been forgiven in thinking that those pitches were there to be looked at, not played on. And Jim wasn't one to be intimidated by status or reputation. Current or future international rugby star they might have been – and there were lots of those at the time (Marcus Rose, Rob Andrew, Simon Smith, Mark Bailey, Huw Davies, Iain Morrison, Fran Clough, Paul Ackford) – their rugby studs carved up Jim's grounds like any other mortal's. Pity any young Varsity team secretary who thought he could just turn up with the team for training on St John's grounds without checking with Jim, regardless that the following day was the match against Fiji. 'Bugger off' meant what it said.

That was, of course, just to preserve his pitches. It wasn't until you drove 80 miles three times per week to train and play in a mud bath at Richmond Athletic Ground (or Harlequins etc) that it all sank home. Then we all respected the quiet, loyal and dedicated man. Then we

recognised his expertise, his selflessness and his dedication. Then we appreciated the importance of the hours Jim spent seeding, mowing, lining and rolling his pitches. Then we remembered the hours Jim spent umpiring, watching and supporting his boys. Then we heard again the muffled words of encouragement and congratulation, and felt the true warmth of the real Jim.

Jim's boys we were, and we didn't know how lucky we were, or just how much we owed to him.

We do now.

Jeremy Macklin (1979)

OBITUARIES

Dr William Denys Armstrong, 1926–2006

Denys Armstrong, who died on 29 November 2006, was on the teaching staff of the Department of Chemical Engineering, as University Demonstrator 1952–54 and as University Lecturer 1954–86. In his early years he made important contributions to research: for example he supervised W L Wilkinson, FRS, who worked on the unsteady state behaviour of distillation columns. But Denys's major contribution was in teaching and administration. He arranged the lecture schedules, taught many of the courses, and established links with several colleges at which he was Director of Studies. He managed the departmental accounts and, with Professor Terence Fox, designed the new 'Shell' building, which opened in 1959. Denys did much work on committees of the Institution of Chemical Engineers and on committees of the Engineering Council, for example in establishing the MEng degree, now our primary qualification. Several of us remember his work over very many years for The Engineering Council's own examinations; all that continued long after he retired.

He was a founding Fellow of Churchill College, where he was closely involved with the detailed design of all the College buildings. For many years he was Secretary of the College Stewards' Committee and introduced the bulk buying of food by groups of colleges. He was also the University's expert on VAT, very much to the benefit of those of us who ran conferences. Another of Denys's interests was wine – he was Wine Steward at Churchill and later St John's, where his knowledge was encyclopaedic. Given his expertise, he drank surprisingly little. Always active after retirement, he put some of his energies into running private railway lines.

Perhaps Denys's most important, and least recognised, work was with students. He took a personal interest in everyone, particularly those in difficulties, and steered people into appropriate jobs: nowadays it is called counselling; Denys was a highly effective counsellor, respected by all students who passed through the Department. He knew them all on first-name terms.

Professor John Davidson
Department of Chemical Engineering

Dr Denys Armstrong *© Edward Leigh*

From 1956–59, Denys Armstrong was my supervisor and my topic was to extend the work, started with Bill Wilkinson, on the transient responses of distillation columns. This previous work had gone very well, and Denys and Bill had been awarded the Moulton Medal by the Institution of Chemical Engineers, as one of their papers was considered to be the best published by the IChemE in the year 1957. Much to my surprise, I was able to come up with some simplifications for developing theoretical predictions and so my project worked out quite well. The expressions I derived were still not very 'user friendly' and today this work could be done routinely on digital computers. However in Cambridge at that time there was only one digital computer: EDSAC I (~1951–1958) and EDSAC II (1958–1965)!

English had not been a great subject for me previously and I found Denys enormously helpful in correcting and improving my draft thesis. This (long before word processors and photocopiers) was eventually typed with two carbon copies. Thus it was essential that the draft be virtually perfect, as making corrections to the typing, and separately to the copies, was very laborious. Professor Roger Sargent of Imperial College was my external examiner and I remember him complimenting us on the quality of the presentation, which was very much to Denys's credit.

I found Denys to be friendly and helpful, though usually his conversation was very much to the point, as he was so busy. In 1959 the Department left the temporary buildings in Tennis Court Road and moved into the luxury of the new building on Pembroke Street. Prior to this, Denys had been very much involved with meetings with the architects and others involved in the project. I think that his thoroughness in examining the details in this work would have been a very positive factor in the success of this building. In the early 1960s, I believe that the design and construction of the new Churchill College (where he was one of the founding Fellows) would also have taken up a lot of his time and energy.

Once my parents visited Cambridge and wished to meet my supervisor; this was probably towards the end of my first year, during which I had made little progress with my research topic! Thus we all had an excellent lunch at the Garden House outside by the Cam on a

lovely sunny day. My mother had been to college, but my father had a very basic education and left school at the age of thirteen. Nevertheless I was quite surprised at how good Denys was at helping them to be relaxed and keeping the conversation going, as I had never seen him in such a situation before. I think I even remarked about this afterwards to Margaret Sansom, Professor Fox's Secretary.

Compared to Professor Davidson and possibly some of the other staff, Denys perhaps may have been criticised for not doing more research. Thus, probably in 1961, I remember him saying that in that year he had five papers published, which was more than any other member of staff! (Nowadays, five papers would not be considered a large contribution, but the policy then was not to publish preliminary papers before a topic had achieved some definite outcomes, and of course there were very few conferences to attend.) Situations where I also remember Denys's helpfulness are when he invited me to Churchill College and also in 1977 he helped facilitate my request to have a half-year sabbatical back at Cambridge.

On completion of his thesis, Bill Wilkinson moved to Swansea and made a major contribution in founding the new Chemical Engineering Department there. He had also started work on the transient behaviour of distillation columns of an industrial size at the nearby BP oil refinery. However in 1959, he was moving to a post with the Atomic Energy Authority. Thus there was a ready-made opening for me at Swansea and so, thanks to Denys, I was able to start my academic career!

Dr Robert Wood
Formerly Associate Professor of Chemical Engineering,
University of New South Wales

Others have written of Denys Armstrong's major activities in teaching and administration in the University Chemical Engineering Department and elsewhere, so I shall concentrate on his activities in Churchill College and particularly in St John's. He occupied a St John's flat in Bridge Street well before he joined the College and remained there until moving permanently to Minehead not long before his death.

In 1959, Denys was appointed by the Trustees of Churchill College to be one of the six founding Fellows. He became the first Domestic Bursar; while the College buildings were being designed and constructed, Denys scrutinised every drawing, and used his engineering skill in considering every detail of the growing spread of buildings. The same engineering skill later helped him to discover how an undergraduate had reduced his heating bill by modifying the electric metering system, and to calculate an appropriate fine. As the partner of the firm of architects was happy later to acknowledge, Denys saved the buildings from potential future difficulties (such as steam pipes passing through the wine cellar, and inappropriate dimensions for the squash court), and contributed greatly to the successful completion of the first new college of the twentieth century. An active member of the Wine Committee, as soon as the cellar was created, Denys organised its growing contents meticulously, and, in the words of a friend of those days, he devoted 'intense loving care' to the growing collection of silver of the College. On a wider canvas, Denys was much involved in setting up the domestic administration of the new college, and his hard work and devotion in its early days was recognised in 1971 by the award of an OBE.

Denys was elected a Fellow of St John's in 1970, and as Lecturer in Chemical Engineering and Steward. On his retirement as College Lecturer in 1990 he became a Title D Fellow, until his death in 2006 after a long illness. He held the office of Steward until 31 December 1974, after which date the offices of Junior Bursar and Steward were combined. The late sixties and early seventies were difficult times on the catering front in the College, and Denys worked hard to improve standards of meals and service, with the help from July 1973 of Catering by County who provided a Catering Manager and other services to the Department.

During his relatively short tenure of the Stewardship Denys used and extended his contacts with wine merchants to the advantage both of the Fellows' Cellar and the catering wine stocks. His vinous activities continued long after he relinquished the Stewardship; he remained a member of the Wine Committee and of a smaller body, initially known as the Wine Policy Sub-Committee, until 1995. For much of that time he

was Secretary of both bodies, and as late as 2003 a well-known wine merchant had to be asked to send invoices and correspondence to the Wine and Provision Manager rather than to Dr Armstrong! He was a diligent attender of many wine tastings, and was for many years by far the most experienced College wine buyer, and his meticulous eye for detail enabled him gently to correct the often less than perfect paperwork of the merchants. His friends found it rather sad that there was little evidence of his enjoyment of actual drinking of wine.

His love of and care for the College silver also continued for many years; he was Secretary of the Plate Committee from 1981 to 2002 and many of the older Fellows remember the small cards, exquisitely handwritten by Denys, which could be found inside pieces of silver, recording the maker, date and provenance, at exhibitions of the silver and at feasts – just as they remember his handwritten invoices for wine purchases. The catalogue of College silver, compiled originally by Denys, continues to be used to this day.

Denys became expert in the arcane details of Value Added Tax, and wrote a manual on its application to colleges and universities, widely used for many years. Long after holding office, he was an informal consultant to the Bursars' and Stewards' Committees, and in university committees on VAT matters here and elsewhere. It is said that on an occasion when a college asked the local officer of Customs and Excise, who dealt with college VAT matters, for his advice, the response was that nothing could happen until Dr Armstrong returned from holiday!

Increasingly, during his later years in the College, his colleagues in St John's appreciated his qualities and the great contribution Denys made to the affairs of the College, and the University. It is to be regretted that, perhaps because of his reticence and reserve, this did not happen earlier.

Chris Johnson

Dr George Clifford Evans, 1913–2006

Clifford Evans, who died on 12 September 2006, aged ninety-three, had been a Fellow of St John's for two-thirds of a century. He was a physiological plant ecologist. He initiated modern critical studies on the importance of sunflecks for plant growth, and the use of the hemispherical-lens camera for estimating penetration of tree canopies by light. He designed and had made a kind of plant growth cabinet that was cheaper and effected better control of the environment than any commercial rival. He did more than anyone else to introduce plant growth analysis to ecologists, who now take that approach for granted. He had also (though he talked about it only to a few friends long after) played a notable part in the Navy during the Second World War through the use of radar.

George Clifford Evans was born at Golcar, Yorkshire, on 22 June 1913, the son of a Baptist minister and a deaconess. He was educated at Derby and Leicester and at Hulme Grammar School, Manchester. In 1931 he went up to St John's, which was to be his academic home ever after. His brilliant undergraduate career culminated in a First in Botany, the Frank Smart and Hughes Prizes, and a Frank Smart Studentship. On a visit to Germany he developed a great affection for that country and a mortal contempt for its Nazi rulers. His friendship with Professor Eiger, of Giessen, survived World War II and continued lifelong through three generations.

In 1933 Clifford embarked on his career in the physiological ecology of plants. He worked for his PhD under the supervision of G E Briggs, one of the leading plant physiologists of the day and a Fellow of St John's. He was interested in measuring the environment of plants growing in the interior of woodland. Measuring light presents especially difficult sampling problems because of the many variables involved: the amount of light, its directional composition (whether coming from high in the canopy or near the ground), and its spectral composition (the proportions of different wavelengths of light, which have different effects on various plant functions). All of these can vary hugely from moment to moment in the day and from day to day in the year; they differ according to whether the sun is shining and whether the trees are leafy or bare. On them, and on factors such as drought and humidity, depend the success or failure of

Dr Clifford Evans

most woodland plants, including the next generation of trees. Clifford began to devise apparatus for making such measurements, not only in Gilrags Wood (Croydon, Cambridgeshire) and Madingley Wood, but also in a portable form which he used on an expedition to the forests of Nigeria. In 1937 he was appointed a University Demonstrator in Plant Physiology. In 1938 he was elected a Research Fellow of St John's, continuing the tradition of distinguished plant physiologists in the College that went back through Briggs to F F Blackman. That year Clifford helped to organise the meeting in Cambridge of the British Association for the Advancement of Science.

His scientific career took a sudden new direction when war came in September 1939. Clifford joined up immediately, was commissioned in the Royal Naval Volunteer Reserve (in which he rose to the rank of Lieutenant Commander, 1943–45), and was put on to the evolving and decisive technology of coastal radar. He was posted to build a number of coast-watching radar stations at Anstruther (Fife) and then in the Orkney and Shetland Islands. Those on Fair Isle were completed just in time to play a critical part in battle.

On 6 April 1940 there came a huge surprise German air raid on the Fleet Anchorage at Scapa Flow (Orkney). The new radar gave twenty minutes' warning, which was enough: the guns were loaded and ready; the attackers did no damage to the Fleet and were beaten off with very heavy losses. An enraged Hitler ordered another attack two days later, with the same result. History better remembers the similar Japanese attack on Pearl Harbor a year and a half later, with very different effect. Why General Tojo should have succeeded where Hitler failed was a question that fascinated Evans in his later years (the explanation that the Americans had no Clifford Evans eluded him!).

Clifford was particularly fond of Fair Isle, delighting in the problems of construction and supply in this remote and stormy place where there were no draught horses but only oxen; there were no trees on the island, but plenty of timber that had fallen off the deck cargoes of passing ships and washed ashore. His buildings outlasted the war and became the Fair Isle Bird Observatory.

His work involved not only maintaining radar stations but also upgrading them. This was a time of what now seems amazingly rapid technological development. Devices unheard of in 1942 were by 1943 being used to detect small objects far out to sea, making it possible to rescue boatloads of Norwegian refugees or (at long last) to vanquish the menace of German submarines. In 1944 he was transferred to the opposite activity, detecting and analyzing transmissions from enemy coastal radar. The ERF (Evans-Ricketts-Fereday) Committee had the task of comparing reports from the Royal Navy, Royal Air Force, and Secret Intelligence Service. The objective was to destroy all the German radar stations that might be watching the planned Normandy landings, and to anticipate attempts to repair them or to substitute mobile radar stations, but without betraying on which part of the French coast the landings were to occur. The stations were duly bombed out one by one, until on the night of the invasion none was left alive.

Back in Cambridge, Clifford was made a University Lecturer in 1946. He went on a second expedition to Nigeria. He also began to work on the quantification of the growth of plants, a field pioneered in Britain by Briggs. Evans was especially interested in the growth of woodland plants in response to variations in shade – measuring the rate at which they put on dry weight in relation to leaf area, leaf structure, and to the proportion of a plant's dry weight devoted to leaves versus stems and roots. This interest led to a series of practical classes using sunflowers every Long Vacation from 1946 to 1979 (one of the activities for which he is especially remembered as a teacher), and a series of seminal papers with his research student, the late A P Hughes, on the growth of the woodland annual *Impatiens parviflora* under shade screens. In 1948 another research student, destined to be his junior colleague from 1952, David E Coombe, began work on the use of cameras with a 'fish-eye lens' to record woodland canopy structure and forecast penetration of both direct and indirect irradiance.

A problem that much occupied Clifford and his students was that of setting up controlled environments in the laboratory which paralleled the natural environment of field and woodland. He was the first to introduce to Cambridge a controlled-environment cabinet where plants

could be grown and measured in closely-defined conditions of light, temperature, and humidity.

His researches were summed up in 1972 by the publication of *The Quantitative Analysis of Plant Growth,* the first of the Blackwell Studies in Ecology. This book was meant for teachers of biology as well as professional ecologists. It made a great impression at home and abroad, and is still a standard work. Bob Campbell of Blackwell's has recalled that Clifford was an ideal author for a 'gauche young publisher' (himself!) to work with.

In 1948, when Briggs became Professor of Botany and Head of Department, Clifford was persuaded, for an extra £50 a year in stipend, to take on the whole administration of the Botany School below graduate level. Briggs disliked administration, and he knew that Evans both liked it and was good at it. This was a time of great expansion in science and technology. Clifford, himself no mean constructor of apparatus, saw the need, in all sciences, and not just biology, for educated technical assistants well trained in laboratory practice. With the collaboration of Cambridge Technical College (predecessor of Anglia Ruskin University), and the senior technicians in a variety of departments, Clifford set up a Certificate of Proficiency in Laboratory Technique as an internationally-recognised qualification, the first of many to be issued by universities and learned institutions. He was always sensitive to the welfare of technicians, and spent much effort in overturning the University's decision in 1951 not to award them a pay increase. In the 1950s he also played a key role in designing the laboratory and glasshouse buildings at the University Botanic Garden, made possible by a bequest from Reginald Cory.

Clifford was an enthusiastic member of the British Ecological Society (BES) for many years, and loved especially the informal contact with fellow ecologists over a drink. With two others he organized two annual symposia on Light as an Ecological Factor, both held in Cambridge (1965 and 1974), and edited the symposium volumes. When he was President he was particularly concerned to maintain the finances of the Society. He also introduced the Tansley Lectures, now

accepted as a major feature of annual meetings. Through his Presidency the BES continues to be the world's premier ecological society.

As Lecturer, and finally Reader (1977–79), he is remembered for the clarity of his lectures and demonstrations, and his grasp of scientific method and ability to explain how it works. He liked to introduce students to controversial issues where there was as yet no consensus of scientific opinion. He delighted in reminding students about aspects of plant physiology, such as the mysterious movements of leaves and stems, that had last been investigated in the nineteenth century and had remained unfashionable ever since.

In 1940, after the Scapa Flow victory, he had married J M Hadfield (always known as 'J'), also from Yorkshire. Like himself, she had achieved a First in Part II Botany at Cambridge, but her career had been frustrated by an anti-feminist Professor. She and Clifford had a lifelong interest in women's education, and St John's was much involved in setting up two new women's colleges at Cambridge: New Hall and Lucy Cavendish (where J was a Fellow). In 1970, J suffered a terrible stroke, which left her incapacitated. For the second half of their life together (she died in 2001), Clifford had to attend to all the domestic chores and provide the special care needed in addition to his professional workload, but he never once grumbled. They had a son, and two daughters, one of whom predeceased him. Clifford never lost his interest in the tropics: he was especially proud of the achievements of his daughter Ruth (now Ruth Kiew), who has become one of the leading botanists in Malaysia.

In the College context, in 1938 he was made a Fellow of St John's, and was elected to a teaching fellowship in Botany from 1948. It was, however, his subsequent contributions to the restoration of the old buildings and construction of the new that were, perhaps, the most significant. He was a polymath of great and varied learning, not in any dilettante sense, for his interest in a subject was never superficial. His knowledge was encyclopaedic, matched by an extraordinary memory. These attributes he brought to bear on the history of the College and its buildings, making him the ideal holder of the post of Buildings Bursar, created in 1952, to be responsible for the planned major building works,

alongside the other part time post of the Junior Bursar, then held by A M P (Alexis) Brookes and then, from 1963, by J A Charles.

There was much to be done. The restoration of the First Court was completed in 1957, with the move of the College Office from E Staircase to the Penrose building in Chapel Court, and the creation of the Wordsworth Room that this made possible. In 1953 the Combination Room floor had to be strengthened, leading into the complete restoration of Second and Third courts over several years. This work brought into focus his attention to detail, with great care in the reuse of recovered sixteenth-century bricks, including those similar discovered elsewhere (for example Holbeach), and in the negotiations for the manufacture of new bricks at Reading and Newdigate. In comparison to First Court, Second Court had been poorly built, with bulging brick skins holding a rubble core, requiring extensive rebuilding. The final stage was the choice of type and colour of pointing in 1964. Cobbles and carefully selected York stone paving of varying colours were laid in both First and Second Courts. As for New Court, Evans explained and partially dealt with the flooding occurring in the cellars, which eventually led to their better use for undergraduate gatherings and for storage.

Attention to detail was also apparent in 1961 in the sourcing and selection of properly-seasoned Cuban mahogany timber from which the College cabinet maker, W A Reynolds, was to make the wonderful table for the Combination Room, stretching its full length.

There was a clear need for more student accommodation within College and planning for this commenced in 1958 with negotiations to purchase land at the back of New Court from Merton College, Oxford, to enable a major new building for the purpose, with financial support from the Cripps Foundation. Evans played an important part in this development as a key member of the New Buildings Committee. The Cripps Building was completed in 1967.

There had been long-term problems in providing satisfactory lighting in both the Chapel and the Hall. Clifford Evans was able to obtain the best advice and to guide the College to satisfactory solutions. During

his time as Buildings Bursar he faithfully recorded developments, in some cases as articles for *The Eagle*. Wonderful examples are in Vol 56, nos 245–47 where he wrote on the history of K6 Second Court, its panelling and wallpaper, made possible by his control of the refurbishment. This is a remarkably complex and detailed social history, as far as we know unique in Cambridge, in which the material remains are illuminated by the surviving Prizing Books (inventories of Fellows' rooms) in the archives.

Clifford had the common touch, invaluable both as a teacher and in negotiations with contractors and the workforce. His prodigious memory and dry wit enabled a relevant comment or story to be produced effortlessly, all appropriate to a leading role in the College Pig Club, of which he was an enthusiastic member. He has been greatly missed in this and all College activities in recent years as ill health restricted his attendance.

He was a generous and loyal friend. Only in his last few years was he no longer able to enjoy his weekly pint before lunch in St John's with some of his closest colleagues, who had all learnt so much from him: the expert on tropical tree crops, Bill Hadfield (died 2001); the tropical rainforest ecologist, Tim Whitmore (died 2002); and the plant photobiologist, Geoff Holmes. Despite being infirm in recent years, he dined in College from time to time, and much enjoyed reminiscing at the lunch given by the Fellows in honour of his ninetieth birthday. His mind remained sharp, and he lived on in the beautiful house he and J had had built at Coton, just west of Cambridge, until a week before he died.

Oliver Rackham, Peter Grubb and Jim Charles

Professor Robert Kemsley (Robin) Orr, 1909–2006

Orr is not an uncommon name in Scotland but it is not a particularly common one either. For those of us unaware of this Robin would helpfully pronounce his name with a very long vowel and an emphatically conclusive rolling of the 'r's – also to make sure, I suppose, that it could not be mistaken for or, oar, awe or suchlike. At any rate Robin was a Scot – not dour, as Scots were reputed to be, but affable and welcoming, an enthralling *raconteur* and *bonsmotsiste,* and a *bon viveur* of eminence (unsurprisingly, with a taste for French composers), who rose to become the food and drink correspondent of *The Glasgow Herald*. Reading his autobiography *Musical Chairs* you would realize he had been born with a wine list and Michelin guide in his hands. Certainly a silver spoon was nearby for his father was the well-to-do manager of a jute mill, confident enough to retire early and design his own house, leaving provision therein for the installation of a whole organ, which he then proceeded to build himself.

As a boy Robin had already inherited what was described as an 'aristocratic manner'. Accordingly he was sent to Loretto, the fearsome public school near Edinburgh, where, however, he was so sure that his commitment to music should be respected that he was allowed to leave school at only sixteen and enter the Royal College of Music in London (London was not, in fact, so remote from Brechin in the north-east of Scotland where he was born, since his mother was English, her family coming from Essex). By this time Robin had already acquired that charm and self-confidence of a Scottish Tory that later enabled him to mix naturally and fearlessly with great and small, great and good: a singular advantage when needing financial support for whatever enterprise he had got himself involved in. With the unique resource of an organ in his own home, he then won the organ scholarship at Pembroke College and became a Cambridge undergraduate.

At Cambridge the teaching methods were much more congenial for the budding composer than at the RCM, being based on the music of major composers rather than on abstract restrictions. Furthermore the Professor of Music at Cambridge, Edward Dent, a musicologist and administrator of international repute, was an excellent teacher of

Professor Robin Orr

composition. He regarded Robin not only as something of a prodigy but as his protégé as well. After Cambridge, Robin became a schoolmaster and then an Assistant Lecturer at Leeds University. But Dent was anxious that this gifted young man should enter the mainstream and not languish in teaching. One of the few musicians in Britain not possessed of a parochial attitude towards continental music-making, Dent had already encouraged Robin to study briefly with Alfredo Casella in Siena at the Accademia Chigiano summer school (which is still flourishing) and during the summer of 1938 with the wonderful Nadia Boulanger in Fontainebleau, by which time he had also prompted Robin to apply for the post of Organist at St John's. The telegram offering him the job arrived when he was still with Boulanger; so study with her (and Casella) was consigned to a succinct if impressive item on his curriculum vitae and cut short in favour of an association with the College and with Cambridge that was to last, off and on, for the rest of his life.

Obviously this was a marvellous thing. Life in a Cambridge college was extremely pleasant, then as now, with however the caveat that in the late 1930s and 40s the greater benefits were enjoyed by those who were not married. Robin was married – to the beautiful and queenly Margaret Mace, daughter of the renowned Egyptologist – and Choir practices and Chapel services plus the birth of twins in 1940, meant that he was unable to take full advantage of the life of domestic and collegiate leisure enjoyed by most of his colleagues. In any case the threat of invasion obliged the young parents to take their tiny babies out of Cambridge and live in Worcestershire for seven months. Robin Orr's generation was affected by the war not perhaps so savagely as those born a decade later but he was still a young man at that stage in his life when ambitions were beginning to be realized, only to be frustrated by the war. His *Sonatina for Violin and Piano*, completed just before he joined the RAF, later gained the very rare distinction of being recorded; in a later age it would doubtless have been dubbed his breakthrough work, releasing a rapid succession of new ones. Nevertheless Robin didn't see it quite like that. He was honour bound to join the forces and put composition aside. He was also shrewd enough to volunteer, in 1940, for the non-combatant role of interpreter

of reconnaissance photographs in RAF Central Intelligence, following the example of his very good friend Glyn Daniel (Fellow of the College 1938–86 and Steward 1946–55), which resulted in a posting at home (an aerodrome near Henley, his family living near Maidenhead). Four years later and with almost no new music to show for them, but with a new baby girl, the Orrs were back in Cambridge and Robin to his position at St John's, at which point his composition started to flow again and his professional career really began.

In 1947 he was appointed Lecturer in the Faculty of Music, in 1948 elected a Fellow of the College and in 1950 he became a part-time Professor of Composition at the Royal College of Music. He resigned from his Cambridge and London positions in 1956 in order to take up an appointment as Professor of Music at Glasgow University, the first Scot to hold the Chair. In 1962 he was elected the first Chairman of Scottish Opera. In 1965 he was the first Scot to be appointed Professor of Music at Cambridge, where he was re-elected Fellow of the College. He retired from academic life in 1976, also retiring that year from Scottish Opera. There followed a period of *Wanderjahre* in Wales, during which he was a member of the Music Committee of the Welsh Arts Council, and from 1977 to 1983 a Director of Welsh National Opera. By this time his second marriage had taken place, in 1979, to Doris Winny-Meyer, for whom it was also a second marriage. Swiss, and a graduate of New Hall in the History of Art, she had a house in Cambridge as well as a flat in Klosters. So Robin returned to Cambridge for a fourth and final time while spending periods in Switzerland and, in 1995, becoming a Swiss national. He had been elected an Honorary Fellow of the College in 1987. When he died he was ninety-six, a distinction I think he would gladly have relinquished but which all the same remains a fine recommendation for the prophylactic qualities of his lifestyle.

Looking at his career from a distance it seems quite obvious that Robin Orr was an exceptionally gifted administrator. He could make things happen. To do so he needed a good deal more than the Wodehousian charm and good humour so often remarked upon and which runs though his autobiography with such deliberation that you wonder if it wasn't a self-deprecatory, diversionary tactic. What lay behind the

surface was a determined and authoritative intelligence with the vision to assess needs and priorities having little or no advantage to him personally. Robin's legacy was priceless and very serious, not least for the College. He saw the need for a radical, and not particularly popular, regeneration of the Choir: an organ student, choral scholars (rather than boys from the town and a mixture of lay clerks and undergraduates) and a residential Choir school. The first organ student was George Guest. Robin retired as Organist in 1951, his building work poised and ready for his successor Guest triumphantly to vindicate the Orr inheritance by nurturing a Choir that became and remains pre-eminent.

At Scottish Opera Robin saw the overriding need to support Alexander Gibson and his daring idea. Robin stood out within the formidable group of big shots who formed Scottish Opera's initial advisory council, and by the time the company mounted its first productions in 1962 he

Robin Orr conducting on the Chapel Roof on Ascension Day 1949. Reproduced from Robin Orr, Musical Chairs: An Autobiography *(London: Thames Publishing, 1998)*

had become Chairman of the six-man Board of Directors. Having been a Director of Carl Rosa Opera, before it was killed off by the Arts Council, he already had experience of perfidy in operatic politics; and being a professional musician he was uniquely placed to gain the respect of performers and administrators alike. In its earliest years Scottish Opera could easily have imploded. Yet it still managed to survive and hold a balance between financial disaster and unprecedented ambition. Robin's role in this thrilling success story was crucial. He was always there: with ideas; advice; encouragement; fund-raising; propaganda; witty and persuasive speeches; articles; the mending of wounded relationships. His 1972 CBE for his work with Scottish Opera gives some idea of what he meant to the company and indeed to musical life in Britain.

At Cambridge, well over and above the call of duty, Robin quickly saw that his main task would be to replace the petite and rather depressing Music School in Downing Place with a new one. The evidence of his wisdom, far-sightedness and tenacity is there for all to see: the fine Music Faculty building and Concert Hall in West Road. The irony is no less explicit: that the facilities he had fought for, through a ten-year campaign that would have demoralized any other man, were not opened until a year after Robin himself had retired from the Cambridge Chair. Anyway it's there, and many, many people have reason to be grateful to him that almost single-handedly he confronted a small-minded University administration and UGC and enabled this to be so.

His Cambridge years were not fraught and gloomy as the above remarks have perhaps suggested. On the contrary, he relished such activities as rejuvenating the University Opera Society, making good use of his position as a Trustee of the Arts Theatre, and of course of returning to the College and linking up with old friends, not least George Guest and Glyn Daniel. No doubt, the Wine Circle, of which he and Glyn were particularly fervent and loyal advocates, was the ideal relaxation after a testing day with Music School affairs.

As Professor of Music he had no tutorial duties, so some generations of undergraduates knew little of him as a teacher. But this undergraduate of the 1950s at any rate remembers him as generous and humane,

naturally avuncular and encouraging. He gave you the feeling that if you were British you could accomplish anything. In truth I don't think he particularly relished teaching, probably reacting to it with that involuntary recoil of a composer, fearing that too much teaching inhibits freedom of expression. But he was anxious that his charges should be properly equipped technically and in particular that we should be aware of new music. He asked in a lecture whether any of us knew or had scores of Bartók's *Concerto for Orchestra*, written ten years earlier. Silence. 'You're living in the past!' At composition tutorials his favourite expression was 'A bit thin, don't you see'. He was at his best when not constrained by his urbanity, that is, when something annoyed him. On such occasions he could be censorious, correcting faulty workmanship with merciless strokes of his 2B pencil. David Gwilt, a contemporary of mine, told me of a tutorial that had taken place when Robin had just got back after a rehearsal in London of a work of his the performers had obviously not prepared properly. Robin was still seething. David presented him with an inoffensive piece of composition and was immediately put through the wringer. 'What's this note doing here?' 'What's the point of that?' But of course that was precisely what David needed, teaching him to get to and keep to the point, a lesson he never forgot.

Robin showed deep commitment to a number of, as it were, extra-mural activities. But of course his main concern was composing music. It was a compulsion. He claimed that his ten years in the Cambridge Chair deprived him of ten years' composition time, during which, however, he still wrote two operas, a symphony, two important works for voice and string orchestra, a Short Service and various smaller pieces. He was fluent yet fastidious. He worked in all genres apart from the concerto, which perhaps indicates his distaste with ostentation. This didn't stop him writing three operas altogether, four symphonies as well as much chamber music, though, surprisingly, not a string quartet. Every time you hear a work of his it speaks of an individual and assured voice, bearing passing resemblance to other composers yet very difficult to categorize. If he had enjoyed a private income and had written more continuously and prolifically, would he have emerged more vividly out of the dominance in British music of the Brittens, Tippetts and the later

young Turks and found a yet more individual and assured voice? Would Hindemith (the best twentieth-century composer according to his lectures in the 1950s) have been a better composer had the Nazis not seized control? The history of music is littered with rhetorical questions. What is plain is that Robin Orr has left many works that will not die. I would start the list with his *Italian Overture, Rhapsody for Strings* and *Symphony in One Movement*. There is a beautiful set of *Songs of Sion*, recorded by the Chapel Choir. Maybe the Choir could be persuaded to record the remainder of his church music for his centenary in 2009?

Ian Kemp
Fellow 1972–76 and Emeritus Professor of Music,
University of Manchester

Stan Moorhouse, 1940–2007

John Stanley Moorhouse was born on 28 June 1940 in Clithero, Lancashire. When he was eight years old the family moved to Ripley in Derbyshire where his father was a Clerk of Works, a job that would influence the rest of Stan's life.

Another family move in 1952 saw Stan attend Ilkeston Boys' School. It was at this school that a Welsh teacher founded a rugby club and introduced Stan to the game. And so, alongside a keen interest in cricket, began a forty-year rugby playing career which saw him represent both Derbyshire and the Three Counties.

When he left school at sixteen Stan was apprenticed alongside his brother as a bricklayer in his father's building firm. Alongside his day-release training to obtain his HNC, Stan decided to study at night school and obtained five O-levels (English, English Literature, History, Geography and Maths) and an A-level in Scriptural Knowledge, after which he considered becoming a lay preacher.

Deciding to continue his career in the building trade, Stan's involvement with his father's building firm was punctuated by a stint as an army volunteer in the Signals Corp where amongst other duties he was involved in decoding messages. During this time he played rugby for the Regiment, the Army and the Combined Services, but life in the Army wasn't for him.

In October 1967 Stan formed the Amber Valley Rugby Club when he chaired a meeting he had advertised. The meeting was held at the Three Horse Shoes in Ripley and attracted twenty-two prospective players. By the middle of November a practice match, an away game and a home game had been played, and the club – which was used to host a celebration of his life in March – lives on to this day.

Stan set up in business with another bricklayer some time around 1970, and a few years later in 1973 Stan's daughter Nicola was born. One of Stan's first partnership ventures was the renovation of an old co-op, conveniently situated between two pubs!

Stan's second daughter Leonie was born in 1975 and his son Paul in 1980. During this time there had been several house moves, one to an aptly

Stan and Norma Moorhouse

named Rugby Avenue, and a dabble in politics. After introducing himself to Philip Oppenheim, a local political figure, Stan went on to canvas for Philip for three elections, during which time they came up with the idea of forming the House of Lords and the Commons rugby team. Even after Stan's official retirement from the game in the mid 1980s, he went on to captain the House of Lords and House of Commons rugby team for a further five seasons.

However the bad back that had finished Stan's rugby career also led to his meeting Norma, a nurse at Derwent Hospital. After finishing a year's study at Doncaster to qualify as a Clerk of Works, Stan and Norma moved to Newark and Stan began work for Sherwood Community Housing. He was then headhunted to become Manager of a Housing Association in Nottingham, a job which he hated but which financed his wedding to Norma in 1988. While in Newark, Stan completed his MBA at Nottingham Trent.

In 1990 Stan saw an advert for the post of Superintendent of Buildings at St John's, and when Norma asked how it went he is quoted as saying 'There were a lot of very clever people there, far cleverer than me. So I made them laugh'. The rest is history.

The post of Superintendent of Buildings changed rapidly as Colonel Robinson, the then Domestic Bursar, put forward his vision of an 'in-house' team of workmen who could tackle ambitious projects. The first major project they undertook was the re-roofing of First Court. When this went out to tender, quotations came back over budget. Undeterred, Stan asked for a breakdown of each quotation and decided to ask each company to undertake those parts of the work for which they quoted the best price, with the Maintenance Department undertaking all the work they could. As a result the completed project came in under budget, and so began a programme to re-roof Second Court and then Third Court. It was Stan's hope that all the roofing he had overseen would last for a good hundred years. Stan has also been responsible for the refurbishment and en-suiting of many of the rooms in College, a project which continues on a rolling programme.

There are a great many works that have taken place during Stan's time including the refurbishment of the Wordsworth Room, stonework and repointing in Kitchen Lane and the modernisation of the Kitchens to the tune of one million pounds.

When Stan left the College in 2003 he and his wife Norma, who also retired around the same time, began their adventures, travelling throughout Europe and to Thailand, Australia, Singapore and Canada. They moved to their house in Normandy, a converted barn that Stan bought in 1998 to Norma's cry of 'Harry, what have you done?'; it was in a desperate state of repair but, true to style, Stan rallied the troops and this shell of a house was turned into a home which Stan and Norma enjoyed greatly.

Stan's retirement was brief but enjoyed to the full, and the work that he undertook at John's will live on for a great many years, as will his memory to all of those who knew and loved him. He died on 6 February 2007.

Melanie Hale
(with help and advice from Patrick Boyde and Dave Bradley)

Personal recollections from members of staff:

I still remember clearly my interview for the post of Maintenance Department Secretary. Stan Moorhouse sat behind his desk with Jane Jones, and cut a figure almost as imposing as the huge painting of the Slaughter of the Innocents that adorned his wall. He was a big man with a very gruff exterior, and he put me through my paces.

I began working for Stan in January 1997, and arrived on my first day with some nervousness. But it soon became clear that Stan himself was a fine example of one of his own adages: never judge a book by its cover.

Stan and I shared a birthday, and in addition to that we shared a common trait: we neither liked to be disturbed before about 10.00am, and in Stan's case certainly not before he had drunk the coffee pot dry.

And so a distinct pattern of work emerged, and no pleasantries were exchanged until the boys came up for their tea break, at which time the odd civilised grunt could be heard.

In my first week at the College I was typing out a letter for him when he pointed out gently that I should type 'college' with a capital 'C', since the College deserved our respect. Stan held a great reverence for the College, and was pleased to share his extensive knowledge of the history of St John's with newcomers by giving them a guided tour.

Working at St John's also provided another attraction. In Stan's youth he was a keen rugby player, and when the years took their toll he could be seen plodding along the touchline on the College playing fields, egging on the Red Boys.

This was not the only contact that Stan had with young people. Every summer Stan would combine the Department's need for extra labour with his willingness to help those who needed a break by getting involved with school work-experience placements, often taking on boys with difficult backgrounds and giving them the encouragement and responsibility that often set them on a better path.

Stan was a straightforward man with a no-nonsense attitude and a kind heart. He judged people on their own merits, gave credit where it was due, support where it was needed, all washed down with a good dash of his dry humour. I will never forget asking Stan one day to decipher his own writing, at which he said 'Can't you bloody read, Lawlor?', and to which I replied 'Can't you bloody write, Moorhouse?'.

On the surface Stan was an irritable old fellow. To those who were fortunate enough to know him better he was an irritable old fellow with a cracking sense of humour, a kind heart and, in things he loved, a down-to-business attitude; Stan was one of life's doers.

On my way to a celebration of Stan's life in Derby we drove past a pub called the Old English Gentleman. On that note I would like to tip my hat and say a final 'cheers!'.

Melanie Hale

My first memory of Stan was on his 'official walk' round to meet the various Departments. I think our slot must have been near the end of his tour (and probably his patience!) because, as soon as I had uttered a few words, he gave one of his famous muttered asides out of the corner of his mouth 'Thank God, another Northerner!' and that was the start of a great rapport with a colleague and a friend.

From week one Stan's visits to my office started. If they were before 10.00am you just hoped he had consumed a couple of industrial strength coffees: Stan without caffeine was not a pretty prospect…after 10.00am relax! The 'audience' with Stan followed the same pattern: he would breeze in, chat with whoever happened to be in the outer office, then in he came, closed the door, and suddenly half an hour of your day had vanished!

The conversation was always lively, be it work, family, life in general, the universe and beyond, and (I nearly forgot) his sporting prowess! Stan would also, on a serious note, always give you sound advice or a genuine offer of help if needed.

When Stan was about to depart, back to work…or maybe to his next port of call, he would delve into a pocket and produce a dubious looking Fisherman's Friend cough sweet; they were handed out with the same reverence as gold bars. I never got round to telling Stan I didn't like them…

I occasionally come across a hoard of 'Fossilised Fisherman's Friends' in dark corners of my desk, and they make me smile and think of the sad loss of a great character and friend.

Penny Herbert

Stan started at St John's about a fortnight before I did in 1990 and we always shared a feeling of being 'in this together'. Stan was very fond of 'the young folk', as he described students, and hugely enjoyed their company, except at lunchtime...I can see him now, enjoying an enormous lunch at a table towards the back of the Buttery, *Daily Telegraph* spread wide and scowling at anyone and everyone who might even be considering disturbing his dinner!

Maggie Hartley

Stan and I were good friends during his time at the College. Stan was such a robust fellow, both in personality and in stature, that it has been a shock to hear that he has passed away.

Stan would give me DIY tips that I could make use of at home, and I would give him tips and hints for his garden. We often enjoyed a good banter, and any disagreements or differences of opinion were shared in good humour.

I have been incredibly saddened by Stan's death, and he will be sorely missed.

Vaughan Crook, former Head Gardener

OBITUARIES

ST JOHN'S COLLEGE
UNIVERSITY OF CAMBRIDGE

Professor John Anthony Crook, 1921-2007: Obituary

With the ever-open door of his College rooms providing a warm welcome to generations of current and non-resident members of St John's, for more than fifty years John Crook was as integral a part of that institution as the Bridge of Sighs. The open door was a tutorial habit, part of the Cambridge culture that preceded the age of stolen laptops. (Not that the Crookery would have proved profitable in that respect. It was with a fountain-pen, itself a reluctant concession to modernity, that he wrote his annual Christmas letters to scores of former pupils).

Old pupils (as well as the old pupils of others) and old friends from all over the world, who scaled the precipitous staircase to those rooms, were just two of his constituencies: from his election as a Fellow in 1951 until just last year the College Classical Society regularly met there. Abstemious by nature, he was generosity personified, with seemingly endless time to spare for junior colleagues and graduate students for whom he had no formal responsibility, reading and criticising successive drafts of their dissertations. Beneath a sometimes curmudgeonly exterior, he was expert at doing good by stealth. The College staff had a particular place in his affections, and he in theirs, as was testified by the number of them who visited him in hospital during his final days and attended his packed funeral in the College Chapel.

Crook's early career as a south-London boy and the only child of parents of limited means affords a wonderful case-study of the social mobility then provided by a scholarship system, since sacrificed by the old universities and successive governments on the altar of social something-else. Coming up to St John's in October 1939, he took a First in Part I of the Classical Tripos before being drafted as a private into the 9th Royal Fusiliers and serving in the Middle East and North Africa before being captured on landing in Italy.

His rueful account of that incident, and of the surrender of his platoon after the providential concussion of his gung-ho Colonel sold on death or glory, revealed Crook the anecdotalist at his best, as did that of his time as a prisoner-of-war in Silesia. Here he acquired fluent German, taught languages to other prisoners, and perfected his remarkable skill on the clarinet (the instrument his father, a military bandsman, played). His description of Stalag VIIIB as a prison out of which it was possible to climb and, after spending the night with local girls, knock for re-admission with the milk, made the place sound more like a Cambridge college of the 1950s than Colditz. The end of that stage of his life was less of a joke, however, with liberation by the Russian army and the forced march westward to Berlin resulting in the death of many of his comrades.

Professor John Crook circa 1958

After completion of the Tripos with a starred First and all the highest academic awards and honours, a year in Oxford and a spell at Reading, in 1951 he returned to Cambridge as a Research Fellow of St John's, where the influence of Martin Charlesworth was largely responsible for shifting the focus of his classical interests from philosophy to history.

In the College, he was successively Tutor, Praelector and President, and in the Faculty ascended from an assistant lectureship to the Chair of Ancient History, which he occupied from 1979 to 1984. He was elected Fellow of the British Academy in 1970, resigning in 1980 in protest at the failure of that body to expel the spy and traitor Anthony Blunt.

This is not the place to attempt to describe the special merits of Crook's published work, and above all of his *Law and Life of Rome* (1967), which ought to be familiar enough to those entitled to entertain an opinion of it. Law was no guide to Life, he insisted, taking as a contemporary example the widespread disregard by Cambridge cyclists of the rules laid down by the authorities. He vigorously championed the status and the calling of advocates (and rhetoric) as opposed to jurists (and jurisprudence).

To an unusual degree, the authentic voice, colloquial yet elegant, was audible in the printed word (I suspect that, like F W Maitland, before committing anything to paper he *listened* to it). This would be consistent with the number of tributes the College has received since his death, from students of the 1960s and 1970s, to his excellence as Lecturer. As became the expert on rhetoric, especially forensic rhetoric, who was heard to describe academic life as part of the entertainment industry, use of gesture, movement and facial contortion as well as voice, gown and an impeccable sense of timing, enabled him to capture and hold an audience where, in the big lecture room at Mill Lane (Room 3), he would invariably have a full house at 9am.

He was neither old-fashioned nor fashionable. He had visited Australia and South Africa, and in both countries was lionised, but sometimes wondered whether it was a cause for regret that he had never crossed the Atlantic. For him the greatest change in Cambridge during his lifetime had been not the admission of women (which he strongly championed), but the lowering of the age of majority.

It was reported of another ancient historian of the same vintage and Oxford pedigree, Peter Brunt, sometime Senior Bursar of Caius, that, 'mildly teased on one occasion for his instinctive counter-suggestibility, he firmly rejected this idea too'. Likewise John Crook, who could only be persuaded to agree to a proposition by the promotion of its opposite. Thus, if you wanted him to come to a party with undergraduates (at which he would be wonderful), you had to say: 'John, you don't want to be bothered with a lot of undergraduates, do you?' 'Of course, I'll come', he would respond, bridling. Piece of cake. It is not as widely known amongst classical undergraduates as it should be that the question expecting the answer 'No' was actually invented by John Crook.

As was said of the man at the end of the Hardy novel, John 'was a good man who done good things'. His death, which occurred at Addenbrooke's Hospital on 7 September, leaves a huge void in the College he loved and in the affections of all those, there and much further afield, who loved him. He was 85.

PAL

This obituary was first published in *Varsity*, 28 September 2007.

Dan Burt, who read English at St John's, is an Honorary Fellow of the College. Some of his poems were published in the January 2008 issue of *PN Review*. He came to know John as an undergraduate and remained in touch with him after going down, visiting him from time to time at College until shortly before he died.

Visit *(For John Crook)*
The punts and crowds are gone from the Backs,
Term end sends students home, only swans
And red kneed choir boys leave tracks
Where the winter of his words immures a don

Who restored Roman rhetoric to glory
And whose grace will live in emulation.
Now, all of us altered by his alchemy
Would help him with the final transmutation

But there's no chance: a catheter dangles
From gut to turn-up, draining waste kidneys
Can't pass; his gowned shadow on the cobbles
Has morphed into a wheelchair creeping past;

His first words are 'I am decaying'
When he greets whoever knocks or phones,
As he shuns generations calling
The classicist dying in his rooms alone.

He sits all day still with un-sported oak,
Muscle scythed from mandible to thigh,
A broken animal reading poetry to cope
With wasting that attends us as we die.

One must prepare, nearing his stairwell
For the clarinet stilled, the speech trussed,
The texts unopened and tears that well
While he claws words from thickening rust

Like a wan numismatist past physic
Scrabbling for coins common once as grass:
We must prepare, at last allowed to visit
And feign not to notice what has passed.

D Burt
(BA 1966, MA 1970)

Eric Willcocks studied English and Moral Sciences at St John's, and John Crook was his Tutor. They maintained regular contact after Eric had graduated, and their friendship, which spanned over fifty years, is recounted in this tribute.

John Crook: A Recollection

John Crook was my personal Tutor from 1956 to 1958. He was friendly, helpful and generous. I came to know him better because he was the Senior Member of the P Club, a College society that met two or three times a term, usually in his rooms, to read plays, poetry and prose. He was wonderfully tolerant of our pretensions, and took an active part in our meetings, from making pancakes when we met on Shrove Tuesday to a memorable reading of Big Daddy in *Cat on a Hot Tin Roof*.

There our relationship might have ended, but when my wife and I came back from the United States in 1966, I needed to be in touch with him for my new job. We were living in Lewes, and he replied saying that he always came with his father to stay at the Old Ship Hotel in Brighton in the summer, and asking us to have dinner with them one evening. Those dinners led to a regular correspondence.

Eventually his father, a man of great Edwardian charm, died. We moved back to South East London, where John had grown up and been at school, and we started coming up to Cambridge two or three times a year to see him. We would take one another out to lunch or dinner – and sometimes he would cook for the three of us in his flat in Bridge Street. 'It's Crook's disgusting risotto, this evening. I'm afraid', might precede an ability to cook rather well. He was wonderful company, a fine storyteller and the possessor of one of the world's great giggles.

He enjoyed the company of women, had genuine charm and had women friends who were very dear to him. He welcomed the College's decision to admit women.

His obituary in the *Daily Telegraph* called him a classic bachelor Don, which was true – but only to a point. He enjoyed the company of women, had genuine charm and had women friends who were very dear to him. He welcomed the College's decision to admit women. When a niece of ours came up to Trinity to read Modern Languages, we introduced them and thereafter they would meet for lunch, not least to share their enthusiasm for terrible jokes. John followed her career with interest and was genuinely pleased when she was elected to a Fellowship at Jesus College, Oxford.

A keen traveller for much of his life, he was an enthusiastic prompter of our travels. Without him, we would have certainly missed, for example, the Trophy of Augustus in the South of France or San Giovanni ad Portam Latinam in Rome. Similarly, he loved music, about which he knew a great deal, both as a performer and listener. He enjoyed exhibitions and over the years had bought some interesting pictures. It was always stimulating to be in his company.

While his obituaries praised his distinguished scholarship, he was a modest man. When I wrote to congratulate him on his election to the Chair of Ancient History, he replied that the best to be hoped for from his tenure 'would be a harmless lacuna'. It was typical of John that he should want a simple funeral and no memorial service, for all that he had said about the memorial service for his great friend, Guy Lee, 'We gave him a good send-off'.

We came up to see him the day before he went finally into hospital. He was very frail, but there were flashes of the old John. We were sure when we left him that we would not see him again. His rooms were scarcely changed from more than fifty years ago. When we came back for his funeral, his name was no longer at the foot of his staircase. It was a privilege to have known him, and to have enjoyed his friendship for so long. We miss him.

E A B Willcocks
(BA 1960, MA 1964)

Neville Collinge studied Classics and Philology at St John's, sharing a set with John Crook in their final Tripos year. Here he fondly remembers their sixty-year friendship, which began in 1945 after both had returned from wartime experiences.

John Crook: A Tribute

John Crook has had a number of obituary notices composed about him, his illustrious academic career, his life in, and great contribution to, the College, and his generosity (financial and spiritual) to undergraduates over half a century. It is worthwhile recording some more personal memories.

Our first meeting, in November 1945, occurred in Second Court where Martin Charlesworth happened to find us together, introduced us (as returners from

wartime experiences) and inaugurated a sixty-year friendship. Thereafter John and I spent time together in our respective rooms and, in our final Tripos year, co-habited a set in New Court. We shared the shopping, although he was the more successful fire-lighter; and we exchanged gossip about our respective academic pursuits, he being a historian and I a philologist of the classical world.

Then our ways parted: for him, Balliol College and then Reading, before his return to St John's; for me several other universities. But our connection persisted. He spent holidays with me and my family (including one that involved bathing in icy Northumberland sea-water, which made conversation through shivering lips impossible). He became godfather to my daughter. Above all, he helped me maintain my adherence to the College.

Deservedly he became at last a Professor. He already had many of the conventional markings of that rank.

Deservedly he became at last a Professor. He already had many of the conventional markings of that rank. Once, arriving in London from abroad, he boarded a bus for Reading, quite forgetting that he had recently transferred his work and residence back to Cambridge. When, after some distance he realised his error and asked to be let off the bus, the driver kindly acceded but remarked, 'You're getting old, mate'. John was then thirty.

John was a fine musician (clarinettist) as well as a great scholar and speaker. He was well received in Australia, South Africa, Denmark and Germany. In addition to his command of several languages (including Danish), he provided for many years the French version of High Table menus. As a linguist, I was much struck by his familiarity with the Gallic equivalents of 'spare rib' and 'artichoke', and so forth.

Brilliant, humorous, kindly – and entirely likeable – he will long be missed by very many, not least myself.

Professor N E Collinge
(BA 1947, MA 1952, PhD 1967)

Dr Jonathan Brian Spencer, 1960–2008: Obituary

Jonathan (Joe) Spencer, Fellow, Tutor, Lecturer and Director of Studies in Chemistry, died in a traffic accident on Sunday 6 April 2008.

Dr Joe Spencer

Joe came to Cambridge University in 1994 as a University Research Fellow in the Chemistry Department in Lensfield Road. He was also elected to a Fellowship of the College and appointed a College Lecturer in Chemistry in 1995. Subsequent milestones in his College career included his appointments as Director of Studies in Chemistry in 2000, and to a Tutorship with responsibility for Historians and Modern Linguists in 2001. In the University, he was appointed to a Lectureship in Chemistry in 2001, and was promoted to a Readership in 2004.

Joe started his academic career as an undergraduate in the Biochemistry Department at Southampton University. A severe bout of migraine prevented him from sitting his final examination and so he was awarded an aegrotat degree. One of the younger lecturers, Peter Jordan (now Shoolingin-Jordan), a highly regarded natural products biochemist, recognised his talent and took him on as a research student. This decision put Joe on course for natural products research in his later career.

Natural products are the chemicals produced by living organisms as part of their natural metabolic processes. Familiar examples include important medicines such as morphine, produced by the opium poppy, and penicillin, produced by a mould. Many of these compounds have been known and used by mankind since ancient times. In the last two centuries, the study has been put on a scientific basis by organic chemists and biochemists. Analytical technologies have been developed to determine the chemical structures, and synthetic technologies now allow chemists to synthesise the structures outside the living cell. Joe's interest lay in the pathways by which living cells convert simple chemical building blocks into the highly varied, often extremely complex, natural product structures within their living tissues, much as a child might make a complex model using pieces of Lego.

In his PhD project, Joe focused on a class of natural products known as polyketides, taking a specific molecule, code named 6-MSA, as his subject. The project required the chemical synthesis of molecules tagged with

exceptionally intricate patterns of isotopic labelling. These were then fed to a fungus which produced 6-MSA, so that they were taken into the cells and used for the biosynthesis. The resulting labelled 6-MSA was then isolated and analysed to discover where the isotopic labels ended up. The result was a completely convincing case that the reactions under study were highly controlled by enzymes and that nothing was left to chance. This project was exceptionally challenging both experimentally and in its design. It would have been a worthy challenge to a team of experienced postdoctoral researchers. That Joe completed the task as a single-handed PhD student was an extraordinary achievement. He was clearly a man to watch.

For the next formative stage of his career, Joe moved from Peter's laboratory in Southampton to join Professor Ian Scott in Texas A & M University. He was challenged to tackle an equally ambitious project in a very different field, the biosynthesis of Vitamin B12. It was already known in detail how nature achieved the synthesis naturally, step by step, using enzymes as catalysts. The challenge Ian put to Joe was this: isolate and purify the individual enzymes on the natural biosynthetic pathway and then put them together with a supply of suitable molecular building blocks 'in the test tube' to see how far the synthetic operations would proceed outside the living cells. Most scientists at Joe's stage of career would probably have settled for perhaps half a dozen enzymes corresponding to about one third of the way along the pathway to the vitamin structure, but Joe was much more ambitious. He isolated no fewer than twelve enzymes that, because of some duplication, were capable of carrying out eighteen steps, about two thirds of the complete pathway! Remarkably, the plan succeeded in producing a key intermediate product that contained the complete core of the Vitamin B12 structure. This project remains, fifteen years later, the most spectacular demonstration of the potential of this strategy for synthesising complex natural product molecules, using individual enzymes outside the cell.

With these two major contributions under his belt, it was no surprise that Joe was awarded one of the first University Research Fellowship positions to be held in the Chemistry Department at Cambridge under a new scheme administered by the Royal Society. He opted to remain in the natural product field, but switched his interest to antibiotic biosynthesis. His aims were characteristically ambitious. At the time of his appointment, 'superbugs', such as MRSA and *Clostridium difficile*, were already causing increasing concerns in hospitals. After an extended period of use, many established antibiotics used in medical practice had lost their ability to combat these infections. A determined search of the natural world for new, more effective, types of antibiotic failed to produce results. Scientists were therefore driven to explore alternative strategies. One highly speculative approach is to alter the biosynthetic pathways that produce existing antibiotics, by replacing key enzymes with others drawn from different pathways

so as to produce new chemical compounds with suitably modified structures, so-called 'unnatural' natural products. The hope is that some of these variant structures might be effective against superbugs. Joe decided to enter this field of research.

This goal might be approached by using isolated enzymes and mixing them in the test tube as Joe did in his Vitamin B12 project. A more ambitious strategy is to generate the unnatural combinations of biosynthetic enzymes inside the living cells of the normal producer organism, typically a fungus or a bacterium, using genetic engineering. By replacing selected existing genes in the producing organism with 'foreign' genes from other producer organisms, a new set of enzymes is created with the aim of making a targeted alteration in the structure of the natural product. The concept is simple, but realising it in practice requires close collaboration between chemists and biologists.

As a natural team player, Joe set up many effective collaborations with senior scientists based in Cambridge, St Andrews, and other centres in Europe. He was also an inspiring leader of the young scientists in his research group. They repaid him with exceptional dedication and loyalty. The 'Spencer Group' made many important academic discoveries in various fields of chemistry and biology over the past twelve years. The research on genetic engineering recently led to two important breakthroughs, with the development of strategies for producing structural variants of two different types of antibiotic, butirosin and vancomycin, both with some activity for combating superbugs.

It was not Joe's aim to produce the next 'super-antibiotic' in his own laboratory, however. As an academic scientist, he aimed through basic research to produce new insights into the way antibiotics are made in living cells, and to develop new technologies for producing structural variants. The resulting 'toolbox' of novel technologies is then available for use by scientists working in the pharmaceutical industry to produce new generations of super-antibiotics to control the current generation of superbugs. The tools he has already developed may yet play a vital role in facilitating future successes in this important quest. Over the coming decades, his research may also assist in the search for better treatments for cancer, and for better immunosuppressants for use in transplant surgery.

In both his academic and his private life, Joe had a well-deserved reputation as a good mixer and a congenial companion. His scientific collaborations were greatly assisted by socialising at conferences. He was an active member of the Royal Society of Chemistry and recently organised a highly successful conference. His scientific contributions were recently recognised by the Society with the award of the Bader Prize for 2007. Within the scientific community, he was widely considered ripe for promotion to a personal Chair.

Joe's other major contribution to the academic community was through his work as a College Tutor. As such, Joe always gave his time selflessly, and to very great effect whatever the particular task. With his strong sense of discretion, Joe revealed little about his contributions as a Tutor to outsiders, but it was clear that his tutorial work sometimes demanded all of his time to the exclusion of everything else, including his science. Joe was a calming presence in a crisis, and was unflappably reassuring when faced with a Fresher panic-stricken with the dreaded 'Tripos Terrors'. When a confidence-boosting comment was needed, Joe would instinctively have it on the tip of his tongue. He could communicate gentle words of sympathy and comfort to those experiencing personal sorrow, as well as firm, sensible common-sense advice to the 'less-than-focussed' student. To wayward students, Joe could dispense a chilly rebuke, with a stare of disapproval and a boom in his voice that encouraged them to mend their ways. But it will be Joe's warmth, congeniality and infectious laughter that will stay in the memories of pupils and fellow Tutors.

Surprisingly, given his obvious aptitude for research, science was not Joe's initial choice of career on leaving school. Instead, he joined the Metropolitan Police as a constable, with a beat in central London, which included the seamier parts of Soho. He found the job both stimulating and enjoyable. The bureaucratic side of the job was not to his liking, however, and after two years' service he decided to change career. With the help and support of his parents, he completed an A-level in Chemistry, and then went on to a very demanding double Honours degree course in combined Chemistry and Biochemistry at Southampton University. This choice provided an ideal foundation for his subsequent interdisciplinary research combining chemistry and biology.

The College has lost one of its most amiable and well-liked Fellows. Joe and his wife, Deborah, were regular supporters of College events. Joe supported Deborah in her nursing career at Addenbrooke's Hospital, and was proud of her recent achievement in completing an MSc. He took no less pride in the achievements of his three children, Christopher, Emma and Dominic. As a loving couple, Joe and Deborah shared the responsibilities of parenting on an equal basis. This supportive bond must have played a major part in underpinning Joe's successful career in both science and the College.

Joe died a young man, in mid-career. Many individuals, family, friends, academic colleagues, and students, will continue to feel his loss keenly for years to come. He will be especially missed for his warmth and charm as a companion, his outstanding ability and leadership as a scientist, but most of all for the kindness and care he gave as a family man, as a Tutor and Supervisor of undergraduates, and as a research leader of young graduate scientists.

Professor J Staunton
Fellow of St John's

Professor Norman Montague Bleehen CBE, 1930–2008: Obituary

Professor Norman Bleehen

Norman Bleehen was a clinical and research oncologist and a founder of academic oncology in the United Kingdom; his reputation was acknowledged both nationally and internationally. He was the first Cancer Research Campaign (CRC) Professor of Clinical Oncology in the University of Cambridge and Director of a Medical Research Council (MRC) research unit. The excellence of his department laid the foundations for today's major investment in Cambridge and the establishment of the new Cancer Institute.

Norman came from an orthodox Jewish background, descended from a long line of rabbis. He was proud to be the great-grandson of the Chief Rabbi of the Orthodox Hebrew Congregation of New York, who negotiated with President Calvin Coolidge to gain exemption from prohibition for Kiddush (sacramental) wine. Both his parents were the children of immigrants from Eastern Europe at the end of the nineteenth century, and academic achievement was highly valued as well as service to the community. This goal was a potent force both in Norman and his younger brother Stanley, both becoming Professors of Medicine: Norman in Oncology and Stanley in Dermatology.

Norman was born in Manchester in 1930. He attended Haberdashers' Aske's School, and won a scholarship to Exeter College, Oxford, to read Medicine (1947-52), where he was among the minority in not being an ex-serviceman. After gaining a BA with Honours he remained in Oxford on an MRC studentship studying aspects of insulin action, earning him a BSc and also the Gotch Memorial Prize. During his undergraduate and graduate years in Oxford he was President of the Oxford University Jewish Society and was also influential in the Inter-University Jewish Federation, organising summer schools. He did his clinical training at the Middlesex Hospital Medical School on a further entrance scholarship open to students from Oxford. Qualifying in 1955, he won prizes for forensic medicine, orthopaedic surgery and radiology and radiotherapy en route.

One of his house jobs was in the Radiotherapy Department at the Middlesex, then headed by Professor (later Sir) Brian Windeyer, who was much impressed by him and where the direction of Norman's future career was set. He became a Member of the Royal College of Physicians in 1957.

He fulfilled his National Service in the Royal Army Medical Corps choosing Germany over Nigeria, reputed to be the white man's grave, and after a year at the British Military Hospital in Hanover was sent to its equivalent in Berlin as the UK medical representative in the care of Nazi war criminals held at Spandau Prison (see article on Pages 36-38). However, Berlin was not all disturbing duty, and Norman was able to enjoy the city, especially the very high standard of opera, his favourite musical form.

On demobilisation in 1959, Norman returned to the Middlesex Hospital, at Windeyer's invitation, to specialise in radiotherapy, gaining the Fellowship of the Royal College of Radiologists. In 1966 he went on an MRC Lilly Travelling Fellowship to Stanford University, California, to work in Professor Henry Kaplan's department, which was much acclaimed for its excellence in cancer patient treatment alongside related laboratory research. This experience appealed to Norman's intellectual curiosity and greatly influenced his future professional life. He thoroughly enjoyed Stanford, with tales of never-to-be-forgotten fishing trips, but finally he had to choose between the offer of a faculty post in Stanford, or returning to the Middlesex Hospital, where Windeyer had suggested that he might ultimately succeed him in his Chair. Norman chose the Middlesex, initially as the Duchess of Bedford Research Fellow, and then in 1969 as Professor of Radiotherapy and Head of the Academic Department of Radiotherapy. He began a laboratory-based research programme alongside his clinical work.

The summer of 1969 brought another major milestone in that he met Tirza Loeb, a vivacious attractive Israeli/Australian colleague, and after a whirlwind romance they married.

The summer of 1969 brought another major milestone in that he met Tirza Loeb, a vivacious attractive Israeli/Australian colleague, and after a whirlwind romance they married. They lived in a beautiful modern house in Highgate with two whole walls of glass, which gave them maximum pleasure from their garden, another growing enthusiasm, and from which they dispensed generous hospitality and friendship to Norman's growing circle of colleagues, from all over the world.

In 1975 Norman was invited by the MRC to set up a clinical and research unit in Cambridge, on the Addenbrooke's Hospital site and he became Director of the MRC Clinical Oncology and Radiotherapeutics Unit (CORU). Simultaneously, Cambridge University created the Department of Clinical Oncology endowed by the CRC (now Cancer Research UK) and Norman was elected its first Professor. Under his direction it developed into one of the leading academic oncology units in the country, both clinically and scientifically.

Clinically his particular interests were the treatment of brain tumours, especially gliomas, and lung cancer, both challenging diseases in need of novel treatments to improve their dismal prognoses. All new cancer treatments must be tested for efficacy against the current best practice, and at this time in the mid-seventies, national cancer clinical trials supported by the MRC were proliferating rapidly. The statistical and data-management tasks associated with the good design and successful conduct of clinical trials are substantial and, as Chairman of the MRC Cancer Therapy Committee, Norman recognised the need for a dedicated group to carry out these tasks within the MRC. He proposed a Cancer Trials Office (CTO) be set up within his Unit in Cambridge, and in 1977 it was inaugurated, taking over responsibility for ongoing trials as well as setting up new ones. The creation of the CTO was one of his major achievements, and from its inception it grew steadily in output and stature. Such was its success that eventually the MRC created an independent Cancer Trials Unit.

CORU was involved in fundamental studies of tumour biology and in development of chemotherapeutic agents. Norman's personal research interests were in the development and trial of drugs to increase the efficacy of radiotherapy, and in the use of heat to improve radiotherapy and chemotherapy. He presided over various Phase 1 trials of radiosensitisers and chemosensitisers.

Norman was noted for his ability to discern potential in trainees and was a brilliant mentor. He set very high standards but was modest, gentle and compassionate, and particularly sensitive and empathic towards his patients. He trained a new generation of investigative clinical oncologists and radiotherapists, who are currently highly influential Consultants and Professors in the oncology world. Norman displayed an enviable flair for choosing a group of people who would work together productively and happily. Those who worked in CORU, either as scientists, research students or technicians look back on that time in their career as special and influential on their future. The research students and postdoctoral scientists are now scattered around the world; many are Professors in academia or hold senior positions in the pharmaceutical industry, and almost without exception, look back with pleasure on the atmosphere in Norman's MRC unit. Norman was always supportive of his staff, and he invariably delivered on his promises to them, a rare quality that was greatly valued.

In addition to a substantial body of publications – in excess of 400 papers and six books bear his name – Norman served on numerous boards and committees in the UK and also a range of international cancer organisations. He was Chairman of the British Association for Cancer Research, Founder Member and Vice-President of the International Association for the Study of Lung Cancer, President of the International Society for Radiation Oncology, and Consultant to the Research Co-ordination Group of the International Atomic Energy Agency for the Improvement of Cancer Therapy. He represented the UK government in the Europe Against Cancer Programme and was particularly passionate about smoking prevention campaigns.

He received many honours and awards for his work, but he was most proud of his 1990 Honorary Doctorate from the University of Bologna, the oldest university in the world, and his CBE for Services to Medicine, for which he was recognised, at the height of his career and influence, in 1994. He thoroughly enjoyed the coloured robes and grand ceremonial reception associated with the Bologna Doctorate, but this was surpassed by the CBE, recognition from his own country, and the unexpected opportunity for a Professor of Oncology to chat to Shirley Bassey, also among the 'B's, receiving her own CBE. He was elected a Fellow of St John's College in 1976 and greatly valued and enjoyed this association.

Norman and Tirza were very hospitable, sharing their home and stunning garden with friends and many overseas guests, usually from leading oncology units around the world, thereby cementing lifelong friendships. After his retirement in 1995 Norman was able to indulge his enthusiasm for opera and his garden and to travel more extensively with Tirza, especially to her family in Australia. It was there two years ago that he fell ill with lung cancer, a cruel fate for a man who had never smoked and who had spent so much of his professional career treating the disease. An academic clinician to his toenails, Norman gained new insights into features of the disease and, sharing these with one of his former clinical fellows, now a Professor of Oncology, was gratified to find that consideration of these is now part of current clinical trials.

During his illness he was cared for devotedly by his wife and died on 1 February 2008, at home, as was their wish.

Davina Honess
and Tirza Bleehen

A personal recollection from a St John's postgraduate student, Dr Rama Jayasundar, whose daughter is coming from India to St John's as a PhD student next year.

Professor Norman Montague Bleehen: A Recollection

It was June 1986. The elation of having obtained admission with full scholarship for a PhD in Cambridge University was fast receding. The funding body (through which my application to the Board of Graduate Studies (BGS) was sent) had just informed me that they were withdrawing my scholarship and with it the admission as well. The reason: I was expecting a child at any time and they felt I would not be in a position to do a PhD in Cambridge with a baby. Despite my assurances to them that my parents would take care of the baby while I proceeded to Cambridge and that I was resolved to do my PhD, they were not convinced and had decided to withdraw the scholarship and had already informed the BGS of their decision.

The next thing I heard was from the BGS of their impending decision to cancel my admission. I was literally in tears and inconsolable. My father contacted Professor Bleehen, who was to be my supervisor. Professor Bleehen heard the assurances from my father that he (and my mother) would take care of my baby while I proceeded to Cambridge for the PhD. He asked my father to ask me not to worry but to first have the baby safely. He assured my father that he would inform the BGS and the funding agency that he was convinced of my resolve to do the PhD and that he would ask them not to cancel my admission and scholarship. In addition, he told us that, if I wanted, I could join after six months, when I felt a bit more comfortable to leave the baby. This was my first introduction to Professor Bleehen. If not for his magnanimous gesture, I may not have had a chance to do a PhD at Cambridge University.

My association with him continued even after I returned to India. I fondly remember visiting him in Cambridge along with my family. He was thrilled to see my daughter and was telling her how he had heard about her even before she was born! I have been in constant touch with him. He was a great source of encouragement and guidance at various points in my career. When I took the decision to undertake the five years undergraduate medical course at the age of forty-plus, Professor Bleehen was once again a source of support for me. His encouragement and wishes really helped me to go through this tough and prolonged course successfully. I feel dismayed that he is not there when I am at the verge of finishing the course and becoming a medical doctor as well as being a physicist. I will always remember him with very fond memories.

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OBITUARIES

ST JOHN'S COLLEGE
UNIVERSITY OF CAMBRIDGE

John Hope Franklin, 1915-2009: Obituary

John Hope Franklin received many, many awards during his long career. When I visited him in Durham, North Carolina, shortly after his appointment as Professor of History at Duke University, he had not quite finished unpacking. He took me down to his large basement, where he was trying to arrange his library, and I noticed, piled up in a corner, an amazing heap of bulky manila envelopes – dozens of them. When I asked what they were, John Hope giggled shamefacedly: 'Oh, those are my honorary degrees'. In the end there were more than 130 of them, and also the Holte Literary Prize, the Presidential Medal of Freedom (presented by Bill Clinton) and the presidency of the American Historical Association, among many other distinctions. His masterpiece, *From Slavery to Freedom*, his history of African-Americans, sold 3.5 million copies in his lifetime, and is still selling.

In such a life of recognised achievement his appointment in 1962 as Pitt Professor of American History and Institutions at Cambridge (a one-year post) and election as an Overseas Visiting Scholar at St John's are inconspicuous. However, they meant a lot to him, as I have good cause to know, and as the handsome dining table that he gave to the Wilberforce Room still demonstrates. He felt at home and honoured in the College but the honour was really all ours. It was a tremendous thing for St John's and Cambridge to have such a man among us, even for so short a period.

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In trying to convey his greatness it is easy to focus on his character. Certainly his geniality, energy, sense of humour, limitless kindness and the shrewd straightforwardness of his conversation must all be mentioned. But it is his public record that must be made clear. For not only was he a good man and a fine scholar; he was part of American history both as a witness and as an actor, embodying and helping to shape times, as well as chronicling them.

He was born in Oklahoma in 1915 and witnessed the dreadful race riots in Tulsa in 1921, in which his father's law office was burned down. By the time he was only six he had discovered the evil gulf that divided black and white Americans,

and had begun to experience the cruel humiliations inflicted on people of his colour. He attended segregated schools and eventually an all-black college, Fisk in Tennessee, which had been founded during the reconstruction period following the American Civil War. There, John Hope was lucky enough to encounter an aspiring (white) teacher who lured him away from law, his first choice, to the study of history. He also met his future wife, Aurelia Whittington, whom he married in 1941 after earning his Masters and PhD from Harvard, one of a handful of black students to do so.

Forty years later I was his passenger when he drove from Knoxville to Durham. We stopped at a service station in the mountains for lunch and he told me that when he and Aurelia were driving in the opposite direction after their wedding, stopping would have been inconceivable. John Hope said, 'you took your life into your hands every time you went out on the road.' A flat tyre might expose you to insult, robbery or worse. The date of their marriage was 7 December 1941, yet they heard nothing of the Japanese attack on Pearl Harbour until they reached their destination. John Hope refused to serve in the armed services; he would not fight for a country that had no respect for him.

His course was set. His first book came out in 1943, *The Free Negro in North Carolina, 1790-1860*, and for the rest of his life he produced a steady stream of scholarly and often polemical works. All his works were dedicated to showing America what part her black citizens had played in her life, how appallingly they were treated and how urgent it was to free them; not from slavery (that had been done) but from its consequences. He said, 'I want to be out there on the firing line, helping, directing or doing something to try to make this a better world'; and so he was. His greatest moment, perhaps, came in 1954 when he briefed Thurgood Marshall with historical information and analysis for the great *Brown v Board of Education* school desegregation case. It was gratifying to the son of a lawyer to be of such use: 'It was evident how much the lawyers appreciated what the historians could offer. For me, it was exhilarating', he later said.

Si monumentum requires, circumspice (if you seek his monument, look around you): if the United States is now a more racially just and harmonious country than it was a century ago, (if not it has an African-American President, which Franklin lived long enough to rejoice in) it is in part because of John Hope's labours; and the books he wrote will continue to illuminate and further the process, just as they so intelligently, diligently and eloquently lay bare the historical roots of America's greatest problem.

Professor H Brogan (1959)

Professor Alex Deer, 1910-2009: Obituary

Alex Deer (he was also called Alec) was first and foremost a scientist – a petrologist. He took part in important geological investigative expeditions in Greenland, he headed and developed two university departments (in Manchester and Cambridge), he was head of a Cambridge college and Vice-Chancellor of the University, and he took a leading role in strategic choices about the long-term development of science and technology in Cambridge. He was gruff, modest, friendly, laconic, tolerant, far-sighted and clear-minded – and a pipe smoker.

William Alexander Deer was born in Manchester in 1910. He completed his schooling at what was then the Manchester Central High School and went to the university there in October 1929, becoming Beyer Fellow in 1933. A Strathcona studentship took him to St John's College, Cambridge, and to the Department of Mineralogy and Petrology at the University.

In the summer of 1935 came what was to prove his big chance, and he took this in a sure grasp. L R Wager, then lecturer in geology at the University of Reading, invited him to take part in an expedition to Kangardluaksuak in East Greenland where the existence of a large Tertiary basic intrusion was suspected. In July 1935 a small ship put out from Aberdeen harbour to get through the ice, having on board four married couples (August Courtauld, Jack Longland, Harold Wager, Lawrence Wager and their wives) and three bachelors (P B Chambers, Deer and E C Fountain). The first three couples returned with the boat in the autumn, but the fourth couple and the three bachelors remained there for 14 months. This was the British East Greenland Expedition of 1935-36. Deer told many stories against himself: for example, that of the polar bear cub that chased the intrepid geological investigator, to the eventual vast amusement of the Greenland villagers (one of whom presented Deer with the pelt).

In 1937, on completion of his PhD, Deer was appointed an assistant lecturer at the University of Manchester. In the following year the report of the expedition appeared and was judged by many to be the most significant contribution yet made to the science of igneous petrology.

The award of a Senior 1851 Exhibition brought Deer back to Cambridge where in 1939 he was elected a research Fellow of St John's. On the outbreak of war, although in a reserved occupation, he joined the Chemical Warfare Section of the Royal Engineers, but soon transferred to the Operations Staff, in which he saw service in the Middle East, Burma and North Africa. He rose to the rank of lieutenant-colonel.

At the end of the war Deer was offered a post in the War Office, but preferred to return to civilian life. He was appointed University Demonstrator in Mineralogy

and petrology and elected Fellow and Junior Bursar at St John's in 1946, changing three years later to a tutorship. In 1950, however, election to the chair of geology took him back to Manchester, where he spent seven years of hard work bringing that department up to the best level in a period of rapid development on the subject. He also returned to polar regions. In 1948 he led a small expedition to northeast Baffin Island. In 1953, as joint leader with Wager, he returned to East Greenland, and 13 years later he was sole leader of his last expedition there in 1966.

Deer's scientific reputation rests outstandingly on his collaborative work with Wager on the petrology of the Skaergaard intrusion in East Greenland. This had been located by Wager's intuition and turned out to be a 2,800 metre vertical section of a gabbroic magna chamber. This study must be regarded as the first modern petrological investigation on such a scale, since it utilised chemical analyses of mineral phases, as well as of bulk rocks and model physico-chemical systems studied experimentally to chart the crystallisation history of a gabbroid melt. It conclusively demonstrated convection systems operating in a silicate liquid, and, with its detailed description of the crystallisation process and of liquid and crystal reaction, has been the model for all petrological studies since.

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In 1961 Deer was elected Professor of Mineralogy and Petrology at Cambridge, succeeding C C Tilley. He threw himself into the development of the department. But his style enabled staff meetings to end by 6pm, when that important Cambridge scientific institution, The Bun Shop, opened its doors. He was elected Fellow of the Royal Society in 1962. He gave much time to the School of Physical Sciences and to University affairs more widely, serving on the General Board of the Faculties and chairing the major strategic committee, which set the future of scientific provision in west Cambridge, the report of which (1965) bears his name. This contributed decisively to the development of the present – and future – University, in west Cambridge, and, to come, northwest Cambridge. He was Master of Trinity Hall, Cambridge, from 1966 to 1975, and without neglecting his university department he presided genially but crisply over the College during a time of development. He was an obvious choice to be Vice-Chancellor of the University, and served from 1971 to 1973, a frustrating period of student disturbance.

As Vice-Chancellor, Deer chaired the outstandingly successful appointment of Dr Ian Nicol (who died on February 18) as Secretary-General of the Faculties, one of the three principal permanent administrative officers of the University (with whom he had collaborated in the School, and on west Cambridge). Deer fostered changes to the management structure which placed fuller responsibilities for academic management and long-term planning in the general board's, and Nicol's, hands.

After the days of research studentships his first scientific award was the Murchison Fund of the Geological Society in 1945; this was followed by the Bruce Medal of the Royal Society of Edinburgh in 1948. In 1974 he was awarded the Murchison Medal of the Geological Society. As the fruit of his period as professor in Manchester there appeared the five-volume book (1962-63) with Howie and Zussman – known as DHZ in the trade – on the Rock-forming Minerals, a worldfamous textbook of which a one-volume student edition was published in 1966. The present edition runs to 11 volumes.

In 1938 he was married to Margaret Kidd of Manchester and they had two sons and a daughter. Margaret died in 1971. In 1973 he was married to Rita Tagg. She died in 2006. Deer is survived by one of his sons and his daughter.

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Professor George Holmes, 1927-2009: Obituary

While university historians have increasingly tended to specialise, George Holmes, remarkably, turned his attention from the minutiae of baronial landholdings in England to Renaissance thought in Italian cities.

The son of a watchmaker, Holmes was educated at Ardwyn County School, Aberystwyth, and after attending University College Aberystwyth at 16, he went on to St John's College, Cambridge, where he was a Research Fellow from 1951 to 1954. In 1954 he was appointed Tutor in Medieval History at St Catherine's Society, Oxford (which in 1962 became St Catherine's College). He established the new College's library and was Vice-Master between 1969 and 1971. In 1989 he succeeded Karl Leyser as Chichele Professor of Medieval History, and became a Fellow of All Souls.

His first book was a painstaking and ambitious examination of *The Estates of the Higher Nobility in Fourteenth Century England* (1957). Here he laid bare the management of landholdings and noblemen's relationships with their servants and retainers. In *The Later Middle Ages 1272-1485* (1962) Holmes declared that 'the understanding of a distant society requires an effort of the imagination, exercised as far as possible without nostalgia, sentimentality and contempt'. And noting that a medieval cathedral 'is still, no less than when it was built, the most splendid creation of the medieval world' he urged that 'the easiest way to get a glimpse of the lost world is to stand in a cathedral and try to imagine the aims of its builders'. He would return to the English 14th century with a monograph on *The Good Parliament* (1976), a detailed examination of royal financial demands and the protests they provoked in 1376.

All that would have been a creditable record for any historian, not least in an Oxford history faculty that emphasised the primacy of undergraduate teaching. But Holmes was keen to explore new fields. He learnt Czech and intended to study the reformer Jan Hus but was deterred by the difficulties of gaining access to archives and by the dead hand of communist Czechoslovakia that he had felt in a month's exploratory study in Prague. A magisterial paper in the *English Historical Review* on the crusade that Cardinal Beaufort, Bishop of Winchester, organised against the Hussites, hinted at what might have been.

Holmes's interest in late-medieval English merchants had already led him to study Anglo-Italian trade. And stimulated by a year's sabbatical in Florence, he turned into an historian of the Italian Renaissance. The Florentine Enlightenment (1969) offered a synthesis of art, architecture and ideas. Holmes broadened his European studies by writing a textbook on Europe: *Hierarchy and Revolt 1320-1450* (1975).

Increasingly, Dante, on whom he published a short study in 1980, was the focus of his work. And then he completed his masterpiece, Florence, Rome and the Origins of the Renaissance (1986). Concentrating on the years of Dante's life, 1265-1321, he vividly conveyed a sense of the powerful and continual impingement of Rome on – but not domination of – Tuscany and its cities, especially Florence.

In his inaugural lecture he emphasised yet more the impact of cities as agents of cultural innovation. And in his Renaissance (1996) he offered a vivid survey that stretched as far as Shakespeare and Rembrandt. If it was avowedly a synthesis, Holmes's interpretative framework and forceful observations were very much his own.

Most recently he was completing a study of the impact on the Italian city-states of that turbulent period in the late-15th and early-16th centuries when Italy became the battlefield for international dynastic wars.

Holmes took on his share of administrative responsibilities, serving as chairman of the Faculty Board, chairing the committee of the Victoria County History, and serving as a delegate of the Oxford University Press. From 1974 to 1981 he was a vigorous editor of the *English Historical Review*. Elected a Fellow of the British Academy in 1985, he was awarded the Serena Medal for Italian Studies in 1993.

Cheerful, relaxed, silver-haired from early middle age, approachable, ever-encouraging, Holmes derived great intellectual satisfaction from his studies. But there was fire in his belly too, as an article in the Oxford Magazine revealed. He was fiercely critical of many aspects of the Oxford History School, lamenting that the syllabus did not encourage students 'to enter the world of novel speculation'. For Holmes 'the opening up of the mind by awareness of recent ideas' should be one of the most important functions of a university because it promotes 'an adventurousness and suppleness of thought, a willingness to imagine and experiment'. He called the individual tutorial 'an Oxford shibboleth', criticised the writing of too many ill-prepared essays and urged that research should be more highly valued by dons. He wryly characterised the way Oxford attracted the best scholars by slightly higher salaries and the social advantages of college life but then compelled them to spend more time teaching as 'an upside-down system with a tendency to castrate the intellect'. He warmly endorsed the vast expansion of higher education, drawing from his experiences of Italy the conviction that even 'a smattering of university education spread around is valuable because it alters the general perceptions of a mass of people'.

He is survived by his wife, Anne Klein, a scholar of 19th-century French literature, a son and two daughters (another son predeceased him).

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